Ithaca Falls Overlook

City of Ithaca
Tompkins County, New York

Analysis of Brownfield Cleanup Alternatives (ABCA)

June 2014

Barton & Loguidice

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1.0 Introduction

A Site Investigation was completed for the Ithaca Falls Overlook property located on the north side of Lake Street north and west of the former Ithaca Gun Factory. The site is located at 125 Lake Street in the City of Ithaca, Tompkins County, New York (see Figure 1). The City of Ithaca received funding from New York State to pursue an investigation of subsurface contamination at the site under the Brownfields Environmental Restoration Project (ERP) Program regulated by the New York State Department of Environmental Conservation (NYSDEC). The City has also received funding from the United States Environmental Protection Agency's (USEPA) Brownfield Program for site remediation. This report summarizes the work conducted to date and the analysis of brownfield cleanup alternatives, which concludes with a preferred cleanup alternative.

The property is currently owned by the City of Ithaca. The property has been isolated into two operable units. These units include (see Figure 2):

Unit #1

- A narrow, steeply sloped piece of land called the Western Accessway, which provides access to the northern end of the site.

Unit #2

- A rock gorge promontory, known as the "Island", that allows a view of Ithaca's famous Fall Creek Gorge; and
- A narrow steeply sloped gorge called the former raceway, which also includes the plunge pool area.

Ithaca Falls

The property pertinent to the EPA Brownfield Cleanup Grant consists of Unit #2, which will be referred to as the "site" for the remainder of this report.

The majority of the site has shallow surface soils atop of bedrock with elevated levels of lead well above NYSDEC's 400 ppm soil cleanup objective. Deeper depths of soils may be present within the plunge pool and along the island's western slope as depths to bedrock along this slope are unknown. It is anticipated that soils in these area are at a maximum thickness of 2 feet until bedrock is encountered. Although the site is fenced with appropriate warning signs regarding the dangers of lead exposure, the site is frequently trespassed upon to gain access to the recreational opportunities of Fall Creek and to observe the adjacent dramatic 120-foot Ithaca Falls. It is the City's desire to restore the site to safe levels to afford the public the opportunity to view Ithaca Falls and to support redevelopment of the adjacent property for residential housing.

The City property formerly contained portions of the Ithaca Gun Factory operations, including storage areas and buildings associated with gun finishing. Guns were also tested on the adjacent Ithaca Gun Factory site and fired towards the island and Fall Creek. Site Investigation activities defined the future remedial efforts that would be necessary for the property to receive final indemnification by New York State upon completion of the remediation.

The Site Investigation included a determination of the vertical (within Area #1 only) and horizontal limits of soil contamination at the site, an evaluation of contaminant fate and transport, and identification of remedial alternatives for site cleanup (Remedial Alternatives Report). The Site Investigation was conducted in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 2010 (DER-10); 6 NYCRR Part 375; and 6 NYCRR Part 703. Site activities were conducted in accordance with the approved Site Investigation Work Plan, which also contained a Sampling and Analysis Plan, Health and Safety Plan, and Citizen Participation Plan. The results of the investigation and an analysis of cleanup alternatives are the subject of this report.

1.1 Purpose of Report

This report presents an evaluation of potential Remedial Alternatives based on the data collected during the Site Investigation. This evaluation was based on identifying methods to prevent, minimize, or eliminate the presence and possible release of contaminants from the site. Within this general framework, emphasis was placed on identifying technically feasible, cost-effective, and environmentally sound solutions where necessary.

1.1.1 Report Organization

This report is organized into four major sections (including this introduction section), with appropriate subsections within each division. Tables and figures are located following the text, prior to the appendices in the back of the document.

Section 2.0 presents a summary of the findings of the site characterization phase of the project. Within this section, information is presented regarding the investigative methodologies, the nature and extent of contamination, contaminant fate and transport, and the baseline risk assessment. This section concludes with a discussion of the apparent areas of concern and the relative level of risk associated with the residual contamination.

Section 3.0 presents the Analysis of Brownfield Cleanup Alternatives (ABCA), with detailed discussions regarding the analysis of various technology options and their feasibility with respect to the observed site conditions. The ABCA considers available technologies to address the identified areas of concern and their effectiveness at mitigating identified risks. The remedial alternatives are evaluated against set criteria, including a practical cost-benefit analysis aimed at identifying the alternative presenting the greatest benefit to the environment while maintaining reasonable expenditures of EPA, State and Municipal funds. The analysis of the cost-benefit relationship is presented in Section 4.0.

References used for the Site Investigation and ABCA are presented in Section 5.0.

1.2 Background

1.2.1 City Property Description

The City property is situated on a parcel approximately 0.95 acres in size, currently owned by the City of Ithaca. Unit 1 comprises approximately 0.3 acres and Unit 2 is 0.65 acres. The site was historically a portion of the larger property used for production of firearms by the former Ithaca Gun Company from 1885 until 1986; prior to 1885, the factory was used to manufacture agricultural equipment. The former factory was located east of the ERP site on the adjacent property, which is being progressed as a NYSDEC Voluntary Cleanup Program (VCP) project by a developer. The areas that comprise the site are north of the former factory that was located on the VCP parcel. Unit #1, which slopes steeply to the west, connects the southern end of the City property at Lake Street to the site.

1.2.2 Site History

Research into the history of the site was evaluated through a review of historic environmental reports on the former Ithaca Gun Company, particularly the 2001 Prescott Phase I ESA and the November 2001 Voluntary Cleanup Program Site Investigation Work Plan (VCP SIWP), which included a review of Sanborn Fire Insurance Maps and historic aerial photographs. The texts of these reports are available from the document repository at the Tompkins County Public Library.

The City property and adjacent VCP site were historically used by the Ithaca Gun Company for the production of firearms. A 1919 photograph presented in the October 2001 Prescott Phase I Environmental Site Assessment (ESA) identified early use of the eastern concrete pad of the Island by the Ithaca Gun Company. The original Ithaca Gun Company structure was later known as the Barn. The western concrete pad was identified as the remnants of "the Metal Building", which was reportedly used as the gun finishing building.

No underground or aboveground fuel storage tanks were identified in previous investigations on the site. According to the 2001 Prescott Phase I ESA, various chemicals such as heavy metals, oils, and varnishes were used as part of manufacturing processes on the Island as well as at the historic Ithaca Gun Company factory; these processes include bluing of the gun barrels, case hardening of the steel used in the guns, various types of wood finishing for gun stocks, treatment of boiler water, and test firing of guns. Lead has been widely identified at the site and adjacent lands attributed to the test firing of manufactured guns and other metalworking processes.

Sanborn Maps from 1888, 1893, 1898, 1904, 1910, 1919, 1929, 1961, and 1971 were reviewed as part of both the 2001 Prescott Phase I ESA and the 2001 VCP SIWP. According to the report, the factory appears on the 1888 Map as the Ithaca Manufacturing Company (agricultural equipment).

Aerial photographs from the Ithaca Engineering Department for 1962, 1976, 1991, and 1999 were reviewed as part of both the 2001 Prescott Phase I ESA and the 2001 VCP SIWP. An additional photograph from 1948 was obtained from the Ithaca Gun Historian for the 2001 Prescott Phase I ESA. The results of the aerial photography and Sanborn map review are included in the table below:

Year	Description
1948	The original Ithaca Gun factory is shown just south of the raceway, with the metal building and barn shown on the Island portion of the site. The boiler house to the west of the site has not yet been constructed. The majority of development in the vicinity appears to be residential.
1962	The boiler stack has been relocated to the new boiler house northwest of the Western Accessway. Residential properties adjoining the site to the west are no longer visible and appear to be used for parking or storage.
1976	Several storage trailers are shown just off-site near the boiler house. Electrical transformers are visible north of the boiler house and on the roof of the main factory structure. Test firing shooting tubes are discernable on the top floor of the main factory structure. Approximately 300 55-gallon drums are located along the western edge of the factory, on the portion of the site known as the Western Accessway, and on the adjoining property where parking lots are located. These drums are assumed to have contained waste machine/gun oil, filings/grindings from mill operations, and possibly waste cyanide from the metal finishing operations. A storage building is located on the adjoining property to the west. The Island portion of the site is not visible in this photograph.
1991	The storage building on the adjoining property to the west has been removed, and the parking lots are visible and in use. Renovations to add office space to the southern end of the main factory structure are visible.
1999	The Ithaca Gun Company and adjacent ERP site appear much the same as it did when it closed. The development in the vicinity of the site appears to be primarily residential.

1.2.3 Previous Site Investigations

Various environmental investigations have taken place at the former Ithaca Gun Company property since its closure in 1986. This section summarizes prior work at the property (Unit 1 and Unit 2) and adjacent VCP site prior to the NYSDEC ERP Site Investigation (presented in Section 2.0). The main factory site has been widely assessed and is currently the subject of a VCP investigation; the former factory building was demolished in 2009. Prior to the NYSDEC ERP, limited studies extended to Unit #1 and the site.

In 1995, the NYSDEC observed lead shot on former Cornell University property northwest of the site in the gorge. From 1995 through 1998, Cornell University and NYSDEC sampled this area and found elevated levels of lead and other metals. Background samples indicated that elevated levels of metals were widespread throughout the Ithaca Falls area.

In August 2000, the EPA Region II Response and Prevention Branch and NYSDEC began a Removal Assessment of portions of the Island and Western Accessway, the hillsides east of the VCP site on the Sigma Nu fraternity property, and within the gorge to the west, where lead shot and slag were observed on the surface soils and slope. Erosion of the western slope of the Island area was observed during the assessment. In the fall of 2000, the EPA conducted soil sampling along the raceway and southeastern bank of Fall Creek, as well as from the former Ithaca Gun property. The samples were field-screened for lead and arsenic using X-Ray Fluorescence (XRF) Spectroscopy. The subsurface samples, collected at a depth of 15 inches, contained lead ranging from non-detect to 28,900 parts per million (ppm), and surface soil samples contained lead ranging from non-detect to 136,000 ppm, well above the cleanup standard of 400 ppm. Surface water samples were also taken from the raceway and upgradient in Fall Creek; lead was detected in the samples collected from the raceway at concentrations ranging from 2.8 to 3.1 parts per billion (ppb), while the upgradient sample was non-detect for lead. Additional sampling was conducted by the EPA in 2001 to delineate off-site impacts of lead.

In 2002, Earth Tech conducted demolition of the Metal Building and Barn from the Island and removed contaminated soil from the Island, Raceway, and Western Accessway areas, as well as within the Gorge and other off-site areas, in accordance with the EPA Removal Assessment Integrated Assessment Plan prepared by Weston Solutions, Inc.

Left: EPA remediation of Plunge Pool.

Right: EPA Remediation of Plunge Pool, Island Western Slope and Raceway. A crane was utilized to lower equipment off the island into the lower portions of the site. The crane is positioned on the former Metal Building concrete pad.

Soil in the raceway and on eastern portions of the Island was completely removed, clean topsoil was added in the non-raceway areas, and vegetation was established. In other portions of the Upper Island area, the soil was vacuumed and met the remedial threshold of 400 ppm. No work was conducted on the central portions of the Island where the concrete slabs are located, or on the steep slope proximal to the west side of the island; however, a tarp was placed over this area as a temporary erosion control measure.

Work was conducted in the Fall Creek gorge and on the lower island slopes between the Lake Street parking area and the base of the Western Island Slope. The gorge and plunge pool area west of the raceway were vacuumed to bedrock. No sampling was possible in the areas vacuumed to bedrock. Work was also conducted east of the adjoining VCP site; sampling results indicate that soil vacuuming reduced lead levels to below 400 ppm to the east of the VCP site and on off-site school housing property.

EPA remediation of portions of the Western Accessway, facing the former factory building

Work was also conducted on the Western Accessway portion of the site (Unit 1). Soil was

removed to three feet in depth and the slope was regraded, stabilized with erosion control mats, and vegetated. Test pits were installed in portions of the Western Accessway to approximately 8-10 feet below grade, and evidence of lead contamination was observed in these test pits. Post-remedial sampling indicated that the southern-most portion of the Western Accessway (near the upper portion of the Lake Street parking lot) met the 400 ppm threshold for lead, while the area north of this area and south of the former boiler building exceeded the threshold with levels ranging from 1,000 ppm to 16,000 ppm.

Additional remedial work was conducted as part of the NYSDEC's ERP Program as outlined in Section 2.2 below.

2.0 Site Investigation Summary

2.1 Site Investigation

The following sections summarize the methodologies used during the ERP field activities to collect the data necessary to characterize the physical and environmental conditions at the City Property and to determine the appropriate level of remedial work required to bring the City Property into compliance with the guidelines of the NYSDEC Environmental Restoration Program. A detailed Site Investigation Report will be prepared under separate cover with additional detail.

2.1.1 Project Timeline

The ERP Site Investigation at the Ithaca Falls site took place during 2012 through 2013. The order of events is presented below:

- Western Island slope stabilization (temporary): January 11, 2012
- Site inspection: May 18, 2012
- Surface and shallow subsurface soil investigation: July 17-19, 2012
- Plunge pool sediment investigation: July 17, 2012
- Off-site downslope bench soil investigation: July 25, 2012
- Island subsurface soil investigation: August 22, 2012
- Subsurface soil boring investigation: August 23-29, 2012
- Bedrock monitoring well installation: August 28-September 14, 2012
- Soil vapor survey: September 21, 2012
- Lead partitioning: October 17, 2012
- Monitoring well sampling: October 17, 2012
- Monitoring well sampling: December 19, 2012
- Seep Installation: December 20, 2012
- Supplemental soil investigation: April 25, 2013
- Western Accessway IRM: August 2013 – January 2014

2.2 Unit 1 Site Investigation Summary

A Site Investigation was completed for the entire City Property. Included within this section is a brief summary of the Unit 1 site investigation activities. The main focus of this ABCA is the section of the City Property referred to as the "Site" or "Unit 2". The Unit 1 site investigation and interim remedial measures activities prove to be applicable information in regards to contaminant potential and remedial alternatives pertinent to Unit 2. The site investigation description for the site is included in sections proceeding section 2.2.

2.2.1 Surface and Shallow Subsurface Soil Sampling

Several surface and shallow subsurface soil samples were collected from Unit 1 outside of the Unit 2 footprint. These sample areas have since been remediated and are not pertinent to the ABCA for Unit 2.

2.2.2 Subsurface Soil Boring Investigation

A subsurface soil investigation was conducted August 23-29, 2012 within the Western Accessway and Former Walkway areas that comprise Unit 1. The investigation included the installation of 28 soil borings by Geologic NY, Inc. using direct-push methods. The subsurface soil boring investigation areas within Unit 1 have since been remediated and are not pertinent to the ABCA for Unit 2.

2.2.3 Soil Vapor Survey

Four soil vapor borings were installed by direct push methods by Geologic NY, Inc. from August 23-29, 2012. The borings were installed along the western boundary of Unit 1. The soil vapor survey revealed elevated levels of TCE at two soil vapor boring locations along the Western Accessway, which has since been remediated.

2.2.4 Bedrock Well Installation and Sampling

Three 2-inch bedrock monitoring wells were installed from August 28-September 14, 2012 by Geologic NY, Inc. The wells were installed to depths ranging from 41 to 50 feet below grade. The newly installed (MW-5, MW-6 and MW-7) and historic (MW-1, MW-3 and MW-4) bedrock monitoring well locations are included in Figure 5. The wells were installed to perform a number of functions including:

- To determine the direction, hydraulic gradient, and seasonal variation of groundwater flow;
- To determine potential routes of contaminant migration; and
- To characterize levels of contaminants present in the groundwater.

Following installation, each well was developed using disposable bailers in an attempt to remove sediments and in-place hydraulic conductivity measurements were obtained. Two rounds of groundwater samples were collected from three existing monitoring wells located and the three newly installed monitoring wells on October 17 and December 19, 2012. Based on the results of the groundwater monitoring well sampling, the site groundwater has been impacted by VOCs. The source of this contamination appears to be the adjacent former Ithaca Gun Company VCP site. A plume of VOC contamination appears to extend off-site to the west and northwest. The metals detected in the groundwater are likely attributable to sediment within the samples and dissolved metals in the groundwater.

2.2.5 Lead Partitioning

Three surface and shallow subsurface soil samples were collected from the City of Ithaca property on October 17, 2012, in order to further characterize the presence of lead in the site soils. These samples were analyzed for total lead only.

The samples were collected with dedicated, disposable stainless steel scoops from 0-2" below grade. Overlying vegetation and visible fragments of lead were removed from the samples prior to collection. Each sample was then sieved to separate coarse materials (greater than 2.0 mm), sand (0.5-2.0 mm), and silt/clay (less than 0.5 mm) and a composite sample was taken from each sieve. The elevated levels of metals indicate that a large portion of the lead observed in the other soil samples appears to be sorbed to soil particles at the site.

2.2.6 Supplemental Surface Soil Investigation

Surface soil samples were collected from Unit 1 on April 25, 2013, in order to further characterize on-site contamination along the Western Accessway (eight additional samples. These samples were analyzed for total lead only. Total lead concentrations above SCOs were identified in an area of the southern section of the Western Accessway. These sample areas have since been remediated and are not pertinent to the ABCA for Unit 2.

2.2.7 Bedrock Seep Sampling

Groundwater was observed to emanate from the bedding planes observed along a bedrock scarp west of the former raceway (below the existing 1-story building immediately northwest of the former walkway portion of Unit #1. On December 20, 2012 three seep collectors were installed in an effort to obtain groundwater samples. Holes were drilled approximately 10 inches horizontally into the bedding planes at an approximate vertical depth determined to be representative of the screen depth of bedrock monitoring well MW-5. Perforated tubing was placed into the holes and sealed with moldable clay. The solid tubing that extended from the bedding planes was then crimped so to capture and accumulated groundwater. The seep collectors were checked on several occasions in the spring and summer of 2013 and were observed to have insufficient collection of groundwater for sample collection purposes.

2.2.8 Interim Remedial Measures

Interim Remedial Measures (IRMs) were performed to prevent source materials, in this case lead-contaminated soils, from migrating off-site. IRM-1 began in August of 2013 and was completed in January 2014, and primarily focused on the removal of lead contaminated soils within the area identified as Unit #1. TREC Environmental, Inc. (TREC) was the primary contractor performing remedial activities. B&L provided engineering oversight and also completed CAMP monitoring when necessary.

IRM-1 focused on the several areas determined within Unit #1 to have remaining lead concentrations above the NYSDEC Restricted Residential Use Soil Cleanup Objective (SCO) (400 ppm). An approximately 5,400 square foot contiguous area of the northern portion (Areas 2-5) of Unit #1 including the former walkway to the island bridge, and a 600-square foot area near Lake Street (Area 1) (see Figure 3) were removed to a depth of 2 feet below grade. The

remedial goal was to eliminate public exposure to soils containing lead in excess of the SCO (400 ppm) in the Western Accessway. The IRM included placement of clean backfill, topsoil, erosion control mattes, and seed following excavation activities. The IRM Work Plan dated May 2013, was approved by NYSDEC and the NYS Department of Health (NYSDOH).

A total of 528 cubic yards of contaminated soils were removed from the areas 2-5 of the Western Accessway and a total of 80 cubic yards were removed from area 1. The top 2 feet of soils were removed from areas 1-5. Soils removed from areas 1-5 were staged in separately bermed areas and covered with poly sheeting within the soil staging area. Each area was tested for TCLP metals to confirm if lead concentrations would result in the soils being hazardous materials resulting in potential stabilization/ treatment. Areas 3-5 were confirmed to be hazardous materials. TREC mixed in 29.25 tons of a stabilization agent into the area 3-5 soils and re-tested the soils for confirmation to determine if the soils were stabilized and rendered nonhazardous. The re-testing proved that the stabilization of the soils was successful and the soil could be disposed of as nonhazardous waste. All soils were removed from the site along with the 40ml liner material and disposed of at the Ontario County Landfill located in Stanley, New York.

TREC conducted a pre and post elevation survey in each work area to confirm that the goal of two foot removal was achieved. Subsequent to soil removal a demarcation layer consisting of snow fence was laid upon the slope of all excavated areas. Clean backfill was subsequently placed on the slope to a height of 1' 8" above the demarcation layer. Topsoil (4"), seeding, erosion control matting and fiber logs was then placed to stabilize the slope restoration. The project area had perimeter silt fencing and stacked hay installed to prevent surface water migration from the project.

2.3 Unit 2 Site Soil Investigation

2.3.1 Surface Soil Sampling

Surface soil samples (0-2 inches) were collected from the site in accordance with the NYSDEC approved Work Plan on July 17-19, 2012 and August 22, 2012. Additional surface samples were collected below the plunge pool area on April 25, 2013 to further evaluate the extent of lead concentrations within this area. The island is mostly covered by concrete slab structures and deteriorated asphalt, which made surface soil sampling unfeasible. Core samples were collected 1-3 inches below the concrete/asphalt surfaces on August 22, 2012. The site investigation sample locations are included in Figure 4. Samples were also collected from adjacent areas previously remediated by USEPA, including the upper island and off-site downslope bench area (see Figure 2). Samples collected from these locations demonstrated lead concentrations below SCOs. A listing of samples collected from Unit 2 is included below:

- 2 composite/2 VOC grab surface soil samples (0-2 inches) along the Eastern portion of the Former Raceway,
- 2 composite/2 VOC grab surface soil samples (0-2 inches) along the Western portion of the Former Raceway,
- 4 grab surface soil samples collected for total lead only along the Western portion of the Former Raceway,

- 1 composite/VOC grab surface/ sediment sample (0-2 inches) within the plunge pool area of the Former Raceway,
- 4 grab surface soil samples collected for total lead west of the plunge pool within the Former Raceway,
- 2 composite/2 VOC grab subsurface soil samples (immediately below concrete slab or asphalt) on the island,
- 10 grab samples collected for total lead only collected on the island immediately beneath concrete or asphalt,
- 1 composite/1 VOC grab surface sample (0-2 inches) along the island western slope, and;
- 10 grab samples collected for total lead only collected on the island western slope.

The samples were collected with dedicated, disposable stainless steel scoops. Overlying vegetation, where present, was removed from the samples prior to collection. Composite samples were analyzed for VOCs, SVOCs, metals, pesticides, herbicides, and PCBs. The surface soil sampling results are discussed below in Section 2.5.

2.4 Nature and Extent of Contamination

The following section discusses the results of the Site Characterization identifying the contaminant distribution at the site. Summary tables of the laboratory data are located in Appendix A.

Throughout the course of this report, the identified contaminants of concern are compared to NYSDEC standards. Surface soil data are compared to 6 NYCRR Part 375 Soil Cleanup Objectives for Restricted Residential Use.

2.4.1 Surface Soil Sampling Results

The samples collected were analyzed for total lead and a select few samples were collected for a full list of contaminates including: VOCs, SVOCs, pesticides, herbicides, metals, and PCBs. A summary of the qualified surface soil data is presented in Appendix A.

No VOCs, pesticides, herbicides, or PCBs were detected at concentrations above SCO values. Exceedances of SVOCs and metals are shown on the following tables.

2.5 Contaminant Fate and Transport

Elevated concentrations of lead and other metals (arsenic, copper and mercury) were observed in soil samples taken from portions of the site (see Figure 6). Moderate levels of SVOCs were also observed in the site soils. It is anticipated that soils range in depths of 0-0.5 feet within the island and raceway areas of Unit 2 and to depths of 0-2 feet within the western island slope and plunge pool area. While soil-bound metals do not typically migrate, erosion on the site slopes may provide a mechanism for off-site transport. Further analysis of the extent of the contamination is provided in the following section.

**Surface and Shallow Subsurface Soil NYSDEC Standards Exceedances:
Semi-Volatile Organic Compounds (EPA Method 8270) and
Metals (EPA Method 6010B)**

Parameter	NYSDEC Restricted Residential SCOs (ppm)	Former Raceway Samples (ppm)																	
		Western Raceway 1 (0-2)	Western Raceway 2 (0-2)	Western Raceway 3 (0-2)	Western Raceway 4 (0-2)	Western Raceway 5 (0-2)	Western Raceway 6 (0-2)	Eastern Raceway 1 (0-2)	Eastern Raceway 2 (0-2)	Plunge Pool (0-2)	PP-1A	PP-1B	PP-1C	PP-1D	A-1 (0-2 Beneath Asphalt)	A-2 (0-2 Beneath Asphalt)	A-3 (0-2 Beneath Asphalt)	A-4 (0-2 Beneath Asphalt)	A-5 (0-2 Beneath Asphalt)
Semi-Volatile Organic Compounds (EPA Method 8270)																			
Benzo(a)anthracene	1	Below SCO	Below SCO	-	-	-	-	Below SCO	1.2	Below SCO					-	-	-	-	-
Benzo(a)pyrene	1	Below SCO	Below SCO	-	-	-	-	Below SCO	1.3	Below SCO					-	-	-	-	-
Benzo(b)fluoranthene	1	Below SCO	Below SCO	-	-	-	-	Below SCO	1.7	Below SCO					-	-	-	-	-
Indeno(1,2,3-cd)pyrene	0.5	Below SCO	Below SCO	-	-	-	-	Below SCO	0.68	Below SCO					-	-	-	-	-
Metals (EPA Method 6010B)																			
Arsenic	16	16.7	Below SCO	-	-	-	-	Below SCO	20.7	21.3					-	-	-	-	-
Copper	270	Below SCO	Below SCO	-	-	-	-	Below SCO	Below SCO	Below SCO					-	-	-	-	-
Lead	400	3300	615	8930	5410	1620	10400	Below SCO	1330	2280	732	790	781	267	735	426	896	1210	1810
Mercury	0.81	1.1	1.93	-	-	-	-	Below SCO	Below SCO	3.81					-	-	-	-	-

**Surface and Shallow Subsurface Soil NYSDEC Standards Exceedances:
Semi-Volatile Organic Compounds (EPA Method 8270) and
Metals (EPA Method 6010B) – Continued**

Parameter	NYSDEC Restricted Residential SCOs (ppm)	Former Raceway Samples (ppm)																	
		A-6 (0-2 Beneath Asphalt)	C-1 (0-2 Beneath Concrete)	C-2 (0-2 Beneath Concrete)	C-3 (0-2 Beneath Concrete)	C-4 (0-2 Beneath Concrete)	C-5 (0-2 Beneath Concrete)	C-6 (0-2 Beneath Concrete)	Western Slope 1 (0-2)	Western Slope 2 (0-2)	Western Slope 3 (0-2)	Western Slope 4 (0-2)	Western Slope 5 (0-2)	Western Slope 6 (0-2)	Western Slope 7 (0-2)	Western Slope 8 (0-2)	Western Slope 9 (0-2)	Western Slope 10 (0-2)	Western Slope 11 (0-2)
Semi-Volatile Organic Compounds (EPA Method 8270)																			
Benzo(a)anthracene	1			-	1.5	-	1.2	-	-	-	-	-	-	1.4	-	-	-	-	-
Benzo(a)pyrene	1			-	1.4	-	1.2	-	-	-	-	-	-	1.4	-	-	-	-	-
Benzo(b)fluoranthene	1			-	2	-	1.5	-	-	-	-	-	-	1.9	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	0.5			-	0.91	-	0.71	-	-	-	-	-	-	0.77	-	-	-	-	-
Metals (EPA Method 6010B)																			
Arsenic	16			-	21.4	-	Below SCO	-	-	-	-	-	-	229	-	-	-	-	-
Copper	270			-	Below SCO	-	Below SCO	-	-	-	-	-	-	270	-	-	-	-	-
Lead	400	5310	1000	Below SCO	2150	Below SCO	Below SCO	Below SCO	3520	3040	2140	7440	3460	12200	3530	2340	1600	4220	2790
Mercury	0.81			-	Below SCO	-	Below SCO	-	-	-	-	-	-	-	-	-	-	-	-

2.6 Baseline Risk Assessment

The following assessment evaluates the observed site conditions and the migration potential of these contaminants to determine which exposure pathways represent a level of risk requiring additional site remediation. Additionally, exposure pathways were evaluated for possible future events (e.g., site construction) that could directly expose potential site workers to the residual contaminants.

2.6.1 Evaluation of Possible Exposure Pathways

Typical exposure pathways for site contaminants include direct contact with impacted soil (absorption pathway), inhalation of vapors, or ingestion. These pathways are discussed briefly below with respect to the site conditions encountered during the Site Investigation. TCE was determined to exist at elevated concentrations during the soil vapor investigation; however, soil vapor is not expected to be a concern within Unit 2 due to the shallow nature of soils.

2.6.1.1 Evaluation of Absorption Pathway

Extremely high levels of lead above the SCO have been observed on the site. Elevated SVOC concentrations were also observed within samples collected within the island and the island western slope. The absorption pathway from surface soils exists for the majority of the site, particularly given the tendency of the public to trespass on the site.

2.6.1.2 Evaluation of Inhalation Pathway

No VOCs were identified in the site soils; however lead, other metals and SVOCs were identified in some surface soil samples. Contaminated soil could be exposed during future site construction, and inhalation exposure of particulates would be possible under these conditions. The NYSDEC is conducting an off-site evaluation of soil vapors and indoor air quality. This work is not within the site boundaries.

2.6.1.3 Evaluation of Ingestion Pathway

Under current conditions, the ingestion pathway exists for surface soils, as lead, other metals, and SVOC concentrations above Part 375 standards have been observed widely throughout the site.

The potential exists that future subsurface activity at the site could result in short-term exposure of site workers or wildlife to an accidental ingestion pathway involving contaminated soil.

2.6.1.4 Baseline Risk Assessment Summary

Site surface soils (0-2 feet) are impacted by lead, and other metals (arsenic, copper and mercury) along with SVOCs. Based upon the residual contamination present in the surface soils, it appears that under current conditions the following exposure pathways are complete:

- Ingestion/absorption of impacted surface soils under current conditions;

- Ingestion/absorption of contaminants in subsurface soils under current conditions for wildlife; and
- Short-term inhalation/absorption of contaminants in subsurface soil during future site construction activities.

During future intrusive construction activities, one or more exposure pathways could be complete for potential site workers.

2.7 Site Investigation Summary and Conclusions

2.7.1 Site Characterization Summary

Surface soil sampling indicated widespread elevated lead concentrations at concentrations ranging up to 12,200 ppm at the site. Additional surface soil contamination, including other metals and SVOCs, was also observed at the site. The areas of residual soil contamination at the site above Part 375 Restricted Residential SCOs include:

Approximate Areas of Residual Soil Impacts

Totals	Area (ft^2)	Impacted Depth (fbg)	Soil Volume (cy)	Soil Tonnage	Anticipated Tonnage of Hazardous vs. Non Hazardous soils
Surface Soil					
Eastern Raceway/ Western Raceway	11,735	0.5	217	325	25/ 300
Island/ Plunge Pool	11,535	2.0	854	1280	135/ 1145

Note: Areas are split into two sections based on anticipated soil depths to bedrock. Impacted soils occur at various depths throughout the site. The Impacted Depth represents the potential range of impacted soils. The Soil Volumes reflect the actual extent of soil contamination based on analytical results and visual observations.

2.7.2 Fate and Transport Summary

The distribution of contaminants attributed to historical operations indicates the presence of lead, other metals, and SVOCs in surface soil, and metals, particularly lead, in subsurface soils.

The presence of lead, other metals, and SVOCs in the surface soil is likely the result of historic operations in direct contact with the soil. Erosion of site slopes may contribute to off-site deposition of contaminated soils.

The presence of lead in the site subsurface soil is due to the gun manufacturing and test firing that took place at the site from the late 1800s until 1986. Lead-contaminated soils were observed within surface soils which range in shallow thicknesses of 0-2 feet above bedrock.

3.0 Analysis of Brownfield Cleanup Alternatives (ABCA)

3.1 Introduction

This section of the report reviews the applicable remedial alternatives that address the areas and contaminants of concern identified during the Site Investigation presented above. As concluded from the Site Investigation, surface soils at the Site are impacted with lead, other metals, and SVOCs above Part 375 SCOs. The remedial alternatives evaluated address these soil impacts.

In this section, specific remedial actions are proposed to address the identified areas of concern from the site, and several remedial alternatives have been developed and analyzed for:

- Protection of human health and the environment;
- Compliance with NYSDEC Clean-up Objectives;
- Short and long term effectiveness;
- Reduction of contaminant toxicity, mobility and volume;
- Feasibility;
- Community acceptance; and
- Changing climate concerns.

Remedial alternatives have been evaluated that would further reduce the residual contaminant load at the site thereby limiting (or eradicating) the potential for a complete contaminant pathway. These remedial alternatives are evaluated against the alternative of No Further Remedial Action.

3.2 Areas and Contaminants of Concern

The Site Investigation identified the presence of metals, particularly lead, and low-level SVOCs above Part 375 standards in surface soils. The primary contaminant is lead, related to the historic site usage as part of the Ithaca Gun Factory. The Site Investigation determined that soil impacts above Part 375 standards range from surface soils to depths of approximately 0-2 feet, until bedrock is encountered

3.2.1 Remediation Goals

The goal for remediation at the Ithaca Falls Overlook site is to allow the City of Ithaca to develop the property for a beneficial public use, such as a park.

To achieve this goal, the remediation completed at the site must either meet 6 NYCRR Part 375 Soil Cleanup Objectives for Restricted Residential use, or, if the Cleanup Objectives cannot be economically achieved, be evaluated for No Further Remedial Action Status on the basis of potential exposure risk scenarios related to the future site use. As described above, however, widespread soil impacts exceeding Part 375 criteria are present on-site.

The remedial objectives for the areas of impacted soil include exposure and contaminant concentration reduction, and contaminant containment. The exposure reduction may be achieved

through soil removal or by development of the site with capped areas, thereby preventing contact with soils and infiltration of surface water to minimize contaminant migration. Timely contaminant concentration reduction would likely require source reduction through soil removal.

3.3 General Response Actions

The following section discusses the general response actions that may be utilized in order to achieve the remedial objectives described above.

- Source Removal – The excavation of contaminated soils is an effective method to quickly and permanently remove areas of concern from a site. Source removal requires prior delineation of the boundaries of the area of concern, and clearance sampling following removal to verify that all contaminated soil was removed. Costs associated with source removal include costs for excavation services and disposal costs for the soils.
- Capping – The placement of a "cap" above an area of contaminated soil is a remedial method to contain and limit contact with the soil. A cap can be constructed of soil, asphalt pavement, or a geomembrane synthetic. Depending on the material of construction, the cap may shed or limit water infiltration into the area of concern. For the project site, a cap may be an effective remedial option that can achieve a remedial objective of limiting a contaminant exposure pathway in conjunction with institutional controls. Due to the various materials that can be utilized for a cap, this remedial option can also be combined with a future site use (e.g., a geosynthetic and clay cap below a raised pedestrian walkway).
- Liming – Liming areas of contaminated soil raises the potential of hydrogen (pH), thus immobilizing certain heavy metals. In combination with liming, capping is useful to minimize the influence of surface water and precipitation to help maintain the pH established by the addition of lime, as exposure to neutral or mildly acidic rainwater would lower the pH and potentially remobilize metals. As the cost of lime application is low, it can be combined with capping even if it is only applied to surface soils, as any immobilization of metals would lower the risk of exposure at the site. Liming will be considered as a remedial option in conjunction with the capping option.

3.4 Estimation of Areas of Concern

This section reviews the areas of concern for the site, and presents the areal or volumetric estimates for the contaminants and media requiring further evaluation.

3.4.1 Soil Impacts

Concentrations of lead, other metals, and SVOCs in excess of Part 375 Restricted Residential SCOs were identified at the Site during surface soil sampling. Based on an impacted area of approximately 23,270 square feet, this represents an impacted soil volume of approximately 28,938 cubic feet (1,072 cubic yards) of contaminated soil above Part 375 criteria. We estimate

that 160 tons of soil will be considered a hazardous waste based on elevated lead concentrations. Included as Figure 6 are estimated impacted areas within Unit 2.

3.5 Development of Remedial Alternatives

This section proposes the remedial alternatives for the site, which are subsequently evaluated against the Brownfield program criteria. The site contains soil contaminants above Part 375 standards. In addition to "No Further Remedial Action," three remedial alternatives have been evaluated and include:

3.5.1 Alternative 1 – Soil Excavation to Bedrock (0-2 feet) with Off-Site Disposal

Alternative 1 would include the source removal of contaminated soils to Bedrock (0-2 feet), transport and disposal of soils. It is anticipated that removal techniques will include removal via excavation and vacuuming. It is also anticipated that approximately 160 tons of soil will be characterized as hazardous materials based on toxicity characteristic leaching procedure analysis. Hazardous soils will be treated on site with a soil stabilization agent. Stabilization of metals changes physical and chemical characteristics of the subsurface conditions to immobilize the contaminants. A cost effective stabilization practice includes the application of calcium and magnesium rich materials. Stabilization neutralizes soil acidity which leads to decreased mobility of contaminants. It is also anticipated that 160 tons of concrete will need to be removed from foundation slabs currently present on the island.

3.5.2 Alternative 2 – Soil Liming, and Capping

Alternative 2 would include liming and capping the existing soils present at the site. Soils would be limed to minimize metal availability during lateral groundwater transport. Liming areas of contaminated soil raises the potential of hydrogen (pH), thus immobilizing certain heavy metals. A cap would be placed over the site to limit contact with site soils and prevent infiltration of precipitation into the areas of residual contamination. The cap would consist of a geotextile layer over an impermeable liner. Given the steep slopes on the site, portions of the cap would need to be anchored with concrete armoring. Portions of the liner area may be covered (topsoil or gravel) depending on site slope. Maintenance of the cap and cover would be required to promote long-term integrity of this alternative. A Site Management Plan, Soil Management Plan and deed restriction would likely be required for the site to properly ensure implementation of long-term engineering and institutional controls and determine future site development resulting in subsurface construction.

3.5.3 Alternative 3 – No Further Remedial Action

Alternative 3 would result in No Further Remedial Action. This alternative does not require any additional remedial actions at the site. Residual contaminants were noted in soil above NYSDEC cleanup criteria, and compliance with state standards would not be achieved. The community would not support this alternative.

3.6 Detailed Analysis of Remedial Alternatives

This section evaluates the feasibility and cost-effectiveness of the proposed remedial alternatives developed for the site. A total of four remedial alternatives were evaluated to address soil contamination. Each alternative is evaluated against the NYSDEC brownfield program criteria, including:

- Overall protection of human health and the environment;
- Compliance with standards, criteria, and guidance (SCG);
- Short-term effectiveness;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, and volume;
- Feasibility;
- Cost-benefit and community acceptance; and
- Changing climate concerns.

3.6.1 Alternative 1 – Soil Excavation to Bedrock (0-2 feet) with Off-Site Disposal

Alternative #1 addresses removal of source contamination soils to bedrock which is anticipated to be encountered at a depth of 0-2 feet. The alternative would result in the removal of soil from an area of approximately 23,270 square feet with soil thickness ranging from 0-2 feet until bedrock is encountered. This would result in the removal of an estimated 1,072 cubic yards (1,608 tons) of soil and 160 tons of concrete. Soil removal techniques will include excavation using heavy equipment and vacuuming soils with high powered vacuum trucks. It is estimated that 160 tons of soil will be characterized as hazardous materials and will require stabilization treatment.

3.6.1.1 Overall Protection of Human Health and the Environment

The Site Investigation identified potential impacts to human health or the environment under various current and potential future exposure pathways. This alternative would further reduce exposure risk by removing contaminated surface soils that the public is most exposed to and providing separation through clean backfill materials. This Alternative is protective of human health and the environment.

3.6.1.2 Compliance with Standards, Criteria and Guidance (SCG)

The removal of all residual contamination would immediately result in meeting Part 375 Soil Cleanup Objectives for Restricted Residential Use and Protection of Groundwater.

3.6.1.3 Remedial Alternative and Climate Change

Climate change is not viewed as having any substantial impacts upon the Site. Potential changes would include increasing rainfall amounts and potential for more intense rain storing to eventually contribute to more erosion at the Site. This remedial measure includes removal of all contaminated soils on the site, therefore, future erosion from the Site would not occur.

3.6.1.4 Short-Term Effectiveness

This remedial action is of short duration, and utilizes standard construction techniques. Community Air Monitoring Plan (CAMP) requirements would be in effect, monitoring the ambient air for contaminants of concern.

Since this alternative includes the removal of residual contaminated soil, immediate site improvements are highly likely. The field work for this Alternative could be completed within five months.

3.6.1.5 Long-Term Effectiveness and Permanence

The long-term effectiveness of the Alternative is good. The Alternative could be completed within 5 months of selection. The removal of impacted soils represents a permanent condition for the site.

3.6.1.6 Reduction of Toxicity, Mobility and Volume

This Alternative would result in the removal of approximately 1,608 tons of contaminated soils. Due to the removal of the soils harboring lead, SVOCs, and other metals which rest above bedrock, limited mobilization of contaminants into groundwater is expected. The removal of the contaminants from the site is permanent.

3.6.1.7 Feasibility

The techniques described in this remedial alternative are commonly practiced among remediation contractors, therefore the implementability of this alternative at the site is known. The feasibility for these methods to be employed at this site is moderate, with the terrain at the site providing some difficulty. The potential for a rebound of site contaminants under this alternative is minimal as soils will be removed to bedrock. During IRM-1, sections of area 5 were successfully removed to bedrock utilizing techniques described in this alternative. Also, during IRM-1 soil stabilization was very effective in lowering TCLP results for hazardous soils to non-hazardous levels after one treatment.

3.6.1.8 Community Acceptance

Some community disruption as part of the remedial practice is expected, given the site's location near residential properties and public recreational areas. An increase in truck traffic for the hauling of contaminated soils would also have a temporary impact on traffic patterns within the City, but should not be a limiting factor in consideration of this alternative. The public would have an opportunity to discuss these activities in an open forum prior to the commencement of this work if selected. This alternative would likely be accepted by the community since it includes source removal of contamination to bedrock.

3.6.1.9 Cost-Benefit Analysis

The estimated capital expenditure associated with this alternative is approximately $479,000. With the inclusion of engineering costs and a 20 percent contingency, the estimated total for this remedial alternative is approximately $670,810. The relative cost-benefit associated with this alternative is moderate, which is indicative of the moderate capital costs. A detailed breakdown of the estimated costs to implement this alternative is presented in Appendix B**.** Table 4-1 (included as part of Section 4.1 – Analysis of Cost-Benefit Relationship) summarizes the estimated capital costs associated with each alternative.

3.6.2 Alternative 2 –Liming and Capping of Existing Soils

This remedial alternative provides liming the existing soils and then placing a cap over the site. Shallow tilling would be employed to spread the lime into the upper depths of soil. This area would then be capped to prevent surface water infiltration, which would neutralize the pH of the limed area. Liming would reduce the availability of heavy metals in the soil, and the cap would serve to shed precipitation and minimize percolation into the soil, reducing the potential for mobilization of residual contaminants. The cap would be designed with an impermeable layer with portions covered with topsoil or gravel.

3.6.2.1 Overall Protection of Human Health and the Environment

The Site Investigation identified potential impacts to human health or the environment under various exposure pathways. This alternative would further reduce exposure risk by limiting the availability of metals in the remaining contamination, and providing a physical barrier between the public and environment and the residual compounds in the site soils. This Alternative is protective of human health and the environment; however, it would not remove all of the residual contamination that is above the State cleanup standards at the site. It also would be difficult to implement this strategy based on the terrain of the site and would require long-term maintenance.

3.6.2.2 Compliance with Standards, Criteria and Guidance (SCG)

The addition of a cap above the areas of concern would limit contact with the limed site soils and would contain the soils harboring residual lead, other metals, and SVOCs. The reduction in precipitation recharge through the site soils that would occur as a result of a cap would prevent neutralization of the soil pH. The Alternative, however, would not reduce contaminant loadings at the site. Mobilization of contaminants would be minimized. However, due to the observed contaminant concentrations in soils, Part 375 SCOs would likely not be achieved in the future.

3.6.2.3 Remedial Alternative and Climate Change

Climate change is not viewed as having any substantial impacts upon the Site. Potential changes would include increasing rainfall amounts and intensity. This remedial measure includes capping of existing soils, therefore future elevated erosion potential from the high falls could be detriment to the engineered cap system.

3.6.2.4 Short-Term Effectiveness

This remedial action is of short duration, and utilizes standard construction techniques.

Since this alternative includes liming to reduce the availability of heavy metals, and the placement of a barrier between contaminated soils and the public, immediate site improvements are likely. Contaminant degradation and dispersion would continue, but given the contaminant concentrations, Part 375 SCOs would not be achieved during the short term. The construction-related phase of this Alternative could be completed within three months.

3.6.2.5 Long-Term Effectiveness and Permanence

The liming of impacted surface soils represents a long-term condition of the site when coupled with placement of a cap over the areas of concern. Maintenance of the cap and cover would be required to promote long-term integrity of this alternative.

Given the contaminant concentrations observed at the site, the current residual risks at the site are extreme. The liming, and capping system would decrease these risks, however, based on the site terrain implementing these strategies would be difficult. Prior caps on the western slope have failed, requiring routing maintenance. Runoff management would be critical to ensure that the soils below the cap do not continue to erode with could breach the integrity of the capped system. If the slope were allowed to continue to erode this alternative may not provide a long-term permanent solution without a significant maintenance burden or replacement.

Future site development resulting in subsurface construction would need to address contact with the subsurface soils through implementation of a soil management plan. With maintenance, the liming, excavation, and capping method presents a low-technology method to minimize contamination and prevent public contact with residual contaminated areas at the site.

3.6.2.6 Reduction of Toxicity, Mobility and Volume

Under this alternative, contaminated soils would be limed, followed by separation from public access via a cap. The cap would reduce contact with precipitation. The lime and cap would not directly affect any further reduction in site contaminants following surface soil excavation, but they would minimize exposure to the impacted areas.

3.6.2.7 Feasibility

The liming of existing soils and placement of caps can be accomplished using standard construction techniques, and a specialty remediation contractor would not be required. The feasibility for implementation of this Alternative is low based on the site terrain. Prior cap systems have proven to require frequent maintenance as the caps have torn or blown off given the steep surfaces that are often exposed to high winds. The caps performance could be increased with more permanent anchoring or concrete armoring. Even these enhanced systems, however, may deteriorate over time give the slopes and weather conditions. Capping would likely have recurring maintenance and replacement costs.

3.6.2.8 Community Acceptance

Some community disruption as part of the remedial practice is expected, given the site's location near residential properties and public recreational areas. The public will have an opportunity to discuss these activities in an open forum prior to the commencement of this work if selected. It is anticipated that an alternative that includes leaving source contamination in place would not be accepted by the Community.

3.6.2.9 Cost-Benefit Analysis

The estimated capital expenditure associated with this alternative is approximately $260,000. This cost is based on a liner cap and is not inclusive of concrete armoring. Including engineering costs and a 20% contingency fee, the estimated total of this remedial alternative is approximately $364,000. Costs would increase if concrete armoring was required. As a result, the relative cost-benefit associated with this alternative is moderate, which is indicative of the relatively low capital costs. A detailed breakdown of the estimated costs to implement this alternative is presented in Appendix B. Table 4-1 summarizes the estimated capital costs associated with each alternative.

3.6.3 Alternative 3 –No Further Remedial Action

This alternative assumes the absence of current or future risks to human exposure and impacts to the environment. Given the residual contaminant concentrations above Part 375 Restricted Residential and Protection of Groundwater SCOs, there is a current risk of human exposure. Current risks are limited under existing conditions due to the City's public water supply. Future exposure scenarios include contact with contaminated surface soils, contact with contaminated subsurface soils for wildlife only, or inhalation or ingestion of contaminants in soils during construction activities. The appeal of this alternative is in its obvious cost-effectiveness. In time, the contaminants would undergo further natural attenuation through dispersion via erosion. Compliance with State standards, however, would not be expected.

3.6.3.1 Overall Protection of Human Health and the Environment

The Site Investigation identified potential impacts to human health or the environment under various exposure pathways. Residual contaminants would remain onsite for an unknown amount of time and would migrate off-site via erosion. Future site uses that could create the possibility for contact with impacted subsurface areas would need to incorporate engineering controls such as capping during construction. Since residual contaminants would remain onsite, limitations or restrictions on future site uses may be required if this Alternative is selected. Public access to the site and Fall Creek may be limited if this Alternative is selected.

3.6.3.2 Compliance with Standards, Criteria and Guidance (SCG)

Since there are no actions that would cause an immediate reduction in residual contaminant concentrations, this alternative would not immediately comply with SCGs regarding soil quality.

3.6.3.3 Remedial Alternative and Climate Change

Climate change is not viewed as having any substantial impacts upon the Site. Potential changes would include increasing rainfall amounts contributing to more erosion at the Site. This remedial measure includes no further action, therefore future elevated erosion potential could increase mobility of contaminated soils at the Site.

3.6.3.4 Short-Term Effectiveness

This Alternative does not involve a remedial action; therefore there is no affect on the community related to remedial processes. There would be no short-term change in the concentration of residual contaminants.

3.6.3.5 Long-Term Effectiveness and Permanence

Contaminants at the site will not reach Part 375 Restricted Residential SCOs. There are human and environmental health concerns given the remaining contaminant levels. The remaining site contaminant concentrations, however, would likely preclude this option from being selected.

3.6.3.6 Reduction of Toxicity, Mobility and Volume

Residual contamination will persist and there will be no reduction of toxicity or volume. Dispersion may occur via erosion.

3.6.3.7 Feasibility

A determination of feasibility does not apply to this "No Further Remedial Action" alternative.

3.6.3.8 Community Acceptance

The community acceptance of this alternative is likely to be low. This is based on the level of residual contamination remaining at the site, despite the low cost of this Alternative. It is not anticipated that the community would eagerly accept the site remaining encumbered with surface soil impacts without selection of an alternative that would facilitate public use of the site. The continued presence of contamination at the site would continue to limit access to Fall Creek. The public will be given the opportunity to discuss this action in an open forum prior to the final decision on the preferred alternative chosen for this site.

3.6.3.9 Cost-Benefit Analysis

There would be minimal capital expenditures associated with this alternative. Installation of a site perimeter fence with signage alerting the public of the hazardous site conditions would likely be implemented to deter public from entering the property. A site management plan would also need to be completed and implemented to ensure proper site maintenance over time. Neither active remediation nor monitoring would occur, however, under this alternative. Table 4-1 shows the estimated capital costs associated with each alternative.

4.0 Analysis of Cost-Benefit Relationship

The capital costs associated with each alternative are summarized below in Table 4-1. Detailed cost estimates are presented in Appendix B.

Table 4-1
Summary of Remedial Alternative Costs

Remedial Alternative	Capital Costs	Engineering and Contingency Costs	Total Cost Estimate
Alternative 1 –Soil Excavation & Disposal	$479,150	$191,660	$670,810
Alternative 2 – Surface Soil Liming & Capping	$260,105	$104,042	$364,147
Alternative 3 – No Further Remedial Action	$75,000	$10,000	$85,000

As shown, Alternative 1 is the most costly remedial alternative, however, yields a high benefit due to the completeness of the remedy. Alternative 2 is less costly than alternative 1 but existing contamination remains at the site and due to site terrain implementation of this remedy is difficult. Alternative 3 (No Further Action) does not provide adequate means of protection to human and environmental health at the site, and cleanup goals will not be achieved.

Alternative 1 was selected as the most desirable remedial alternative for the following reasons:

- The baseline risk assessment identified ingestion/absorption of surface soils, ingestion/absorption of subsurface soils for wildlife only, and inhalation/absorption of contaminants within soils during construction activities.
- Residual contamination left at the site may limit public access to Fall Creek and the scenic overlook.
- The existing contaminant concentrations warrant site remediation. There are widespread soil contaminant concentrations in excess of Part 375 Restricted Residential SCOs.
- The above conditions preclude Alternative 3 (No Further Remedial Action) from being selected, as no active remediation would occur and human and environmental health would remain at risk.
- Alternative 2 (Soil Liming and Capping) ranks moderately for the following key decision criterion:
    - Short-term effectiveness – capping would provide immediate site improvements and minimization of exposure pathways, however, SCOs would not be achieved in the short-term;
    - Long-term effectiveness and permanence – capping would provide a long-term method to reduce exposure, however, frequent maintenance or cap replacement may be required;

  - Reduction of toxicity, mobility, and volume – capping would minimize exposure and liming would minimize mobility. The volume of remaining contaminants would not be reduced.
  - Feasibility – capping has already been conducted on the site and has proven to require routine maintenance given the site terrain and high winds.
  - Community acceptance – community support is expected to be low for this alternative since it does not result in source reduction.
  - Cost Benefit – This alternative has low capital costs, however may present a long-term maintenance burden without accomplishing source reduction.

- Alternative 1 (Soil Excavation and Disposal) ranks high for the following key decision criterion:
  - Short-term effectiveness – excavation would result in immediate site improvements and achievement of SCOs;
  - Long-term effectiveness and permanence – excavation is a permanent contaminant source reduction practice;
  - Reduction of toxicity, mobility, and volume – excavation would permanently reduce the volume of lead contaminants on site.
  - Feasibility – similar excavation has already been conducted on the site with successful results.
  - Community acceptance – this alternative has been presented at Citizen Advisory Group meetings and has received support;
  - Cost Benefit – This is the most costly alternative, however it also yields the greatest site improvement benefits.

Therefore, from a risk assessment and cost-benefit perspective, the "Soil Excavation to Bedrock (0-2 feet) with Off-Site Disposal" alternative is selected and recommended as the preferred remedial alternative.

4.1 Summary of Remedial Alternatives Evaluation

Three remedial alternatives were evaluated to address the remedial objectives at the site. Contaminants of concern included lead, other metals, and SVOCs above Part 375 Restricted Residential SCOs in the surface soils. The "action-based" alternative includes removal of source contaminated soils to bedrock resulting in the removal of all contaminants of concern within the site.

Alternative 1 incorporated soil excavation and removal as the major remediation component and was estimated to cost approximately $670,810. All of the known contaminated soils at the site would be removed. A key factor in the analysis of possible remedial alternatives and selection of Alternative 1 was to determine if the resulting benefit to potential human health exposures and impacts to the environment warranted an additional expenditure of City costs, with respect to the other alternatives.

5.0 References

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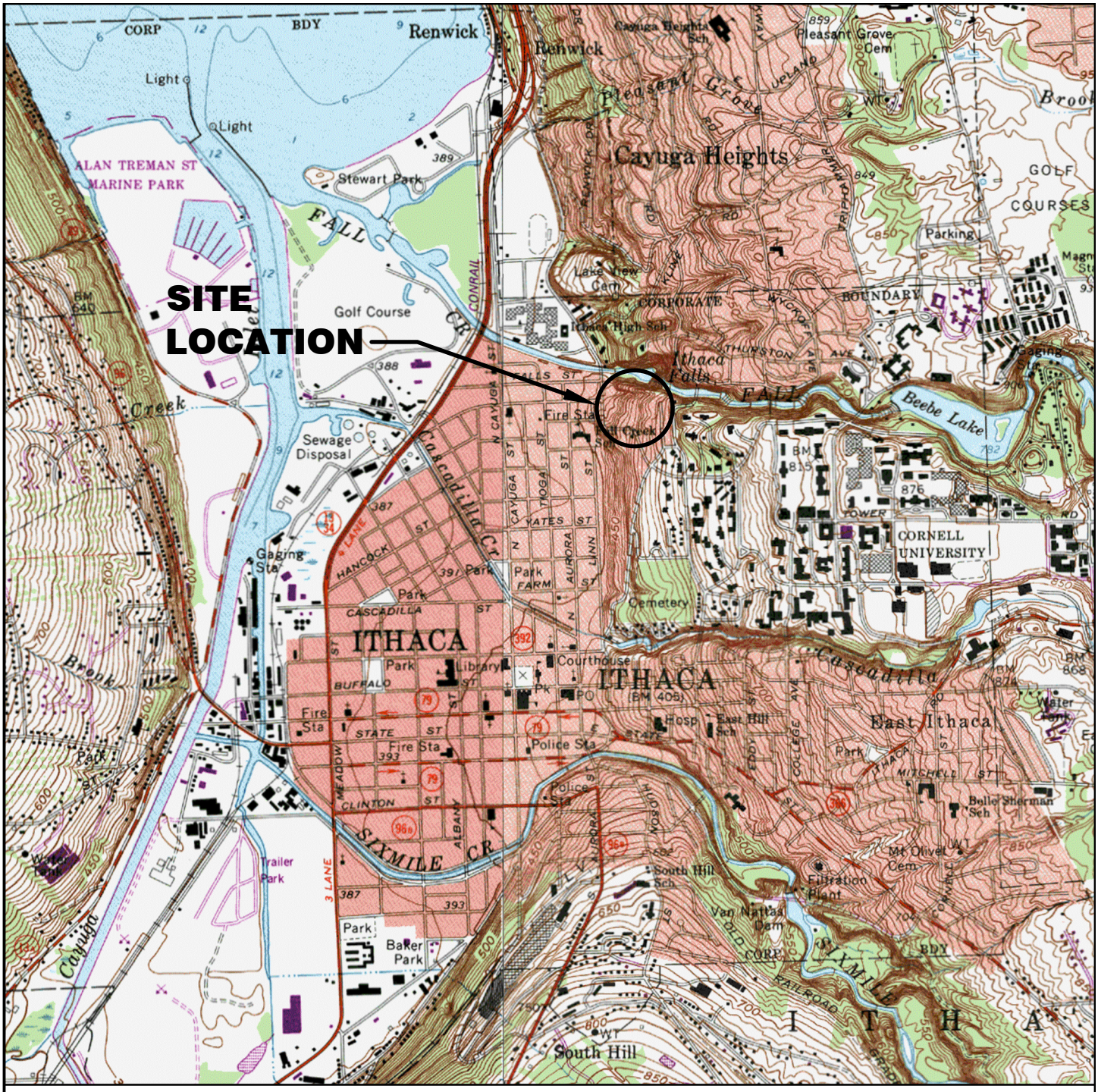
United States Environmental Protection Agency, 1991. Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Supplemental Guidance. "Standard Default Exposure Factors" (Interim Final). OERR, OSWER Directive 9285.6-03, Washington, D.C.

United States Environmental Protection Agency, 1993. "Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons". EPA/600/R-73/089. July 1993.

Figure 1

Site Location



SOURCE: ITHACA EAST & ITHACA WEST, NEW YORK U.S.G.S. QUADRANGLE MAPS, DATE 1979.

QUADRANGLE LOCATION

2000' 0 2000'

1"=2000'

N

Barton & Loguidice, P.C.

ITHACA URBAN RENEWAL AGENCY

ITHACA FALLS OVERLOOK ENVIRONMENTAL RESTORATION PROGRAM

SITE LOCATION PLAN

CITY OF ITHACA TOMPKINS COUNTY, NEW YORK

Date	Scale
APRIL, 2014	1" = 2000'

Figure Number 1

Project Number 1307.002.001

Plotted: Mar 31, 2014 - 2:26PM SYR By: JGS2
I:\Shared\1300\1307002\1307002_ERP_FIG1.dwg

Figure 2

Site Plan

LEGEND

UNIT 1

UNIT 2

ERP SITE LIMITS
(ALL LOCATIONS OUTSIDE OF PARCEL A ARE CONSIDERED "OFF-SITE")

NAD 83

TAX MAP # 11-3-2.1
CITY OF ITHACA (R.O.)
818/150

TAX MAP # 11-3-1.1
CITY OF ITHACA (R.O.)
851/7

NO. 230 WILLARD WAY
TAX MAP PARCEL 11-3-2.2
SIGMA NU LODGE (R.O.)
188/134

NO. 210 WILLARD WAY LOOP
TAX MAP PARCEL 11-3-11
BLOOM & GREENFIELD (R.O.)
2510/10119

TAX MAP # 12-7-2
CITY OF ITHACA (R.O.)
870/41

OLD CHAIN LINK FENCE

CHAIN LINK FENCE

"FALL CREEK" GORGE

APPROX. TOP OF BANK

PARCEL A
"THE ISLAND"

PARCEL B

SHED

OLD RACEWAY

CONCRETE PAD

CONCRETE PAD

CONCRETE PAD

BRIDGE

CONCRETE WALL

FORMER SHOP

ASPHALT DRIVE

RETAINING WALL

LOADING DOCK

FORMER MAIN PLANT

~UNIT 2~

~UNIT 1~

LOADING DOCK

SHED

1 STORY BUILDING

SILO

FORMER BOILER BUILDING

SMOKE STACK

"BOILER BUILDING SUBPARCEL"
THIS PARCEL IS TO BE ATTACHED TO PAR. B
AREA = 0.214 ACRES
(INCLUDES SMOKESTACK AREA)

"SMOKESTACK PARCEL"

CONCRETE WALL

STREET LINE

ASPHALT PARKING

ASPHALT PARKING

NOTE:
BASEMAP TAKEN FROM A SURVEY MAP SHOWING LANDS OF FALL CREEK REDEVELOPMENT, LLC. PERFORMED BY T.G. MILLER P.C. ON 6/27/2008.

40' 0 40'
1"=40'

Plotted: Apr 08, 2014 - 9:21AM SYR By: JGS2
I:\Shared\1300\1307002\1307002_ERP_FIG2.dwg

ITHACA URBAN RENEWAL AGENCY
ITHACA FALLS OVERLOOK
ENVIRONMENTAL RESTORATION PROGRAM

SITE PLAN

TOMPKINS COUNTY, NEW YORK

CITY OF ITHACA

Barton & Loguidice, P.C.

Date
APRIL, 2014

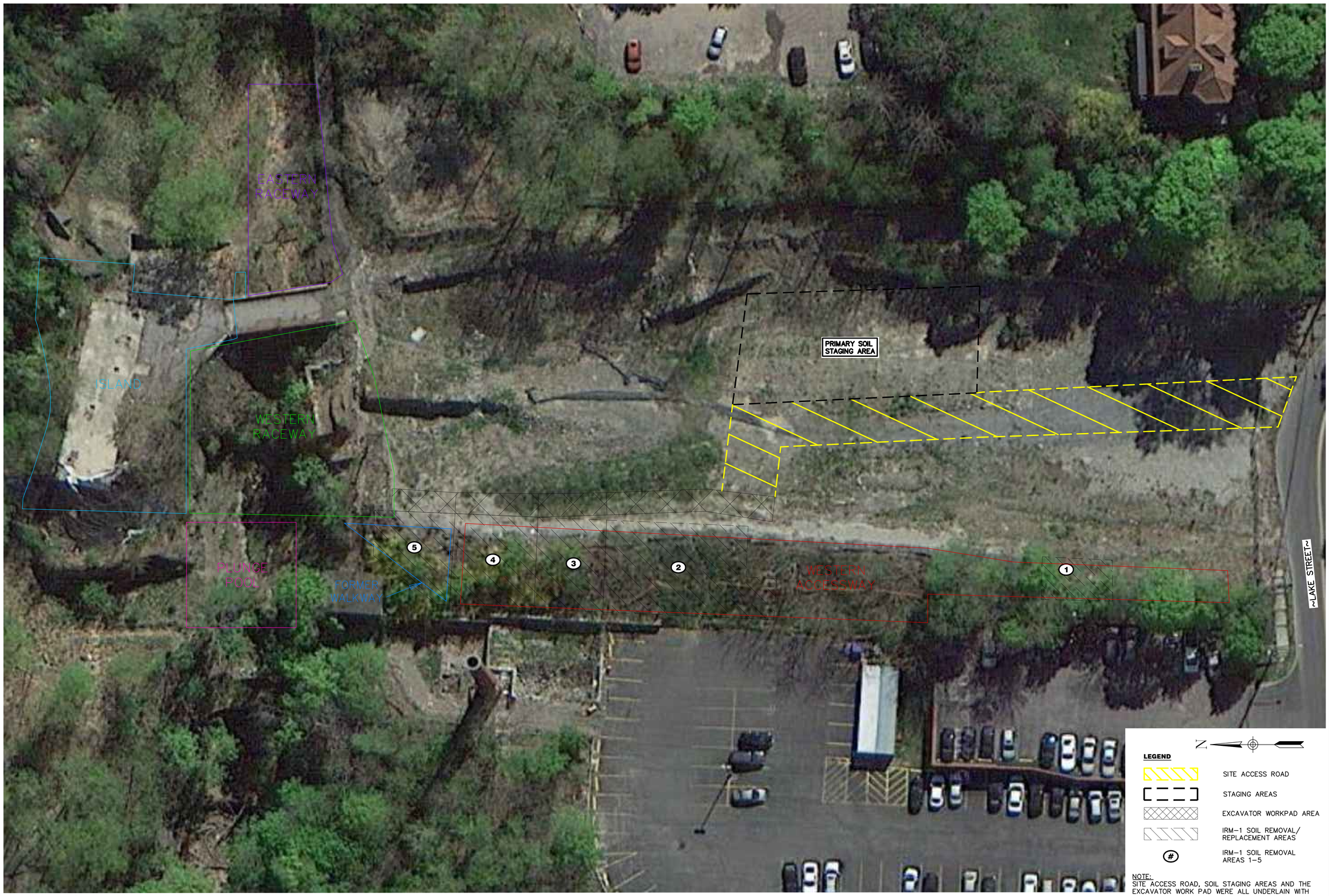
Scale
1" = 40'

Figure Number
2

Project Number
1307.002.001

Figure 3

IRM-1 Site Plan



20' 0 20' 40'
1"=20'

SDN JMB2 JGS/PCR

Plotted: Mar 31, 2014 - 2:07PM By: JGS2
I:\Shared\1300\1307002\ERP CONSTRUCTION\1307002_SAMPLE LOCATION BASELINE 033114 Aerial.dwg

Checked by _____

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By _____ Date _____

Ck'd _____ Date _____

REVISIONS

CITY OF ITHACA

ITHACA FALLS OVERLOOK ENVIRONMENTAL RESTORATION PROJECT
INTERIM REMEDIAL MEASURE - 1

IRM 1 SITE PLAN

TOMPKINS COUNTY, NEW YORK

CITY OF ITHACA

Barton & Loguidice, P.C.

Date
APRIL, 2014

Scale
1" = 20'

Sheet Number
3

File Number
1307.002

Figure 4

Site Investigation Sample Locations

SITE INVESTIGATION SAMPLE LOCATIONS

ITHACA URBAN RENEWAL AGENCY
ITHACA FALLS OVERLOOK
ENVIRONMENTAL RESTORATION PROGRAM
TOMPKINS COUNTY, NEW YORK
CITY OF ITHACA

LEGEND

- EPA REMOVAL ACTION AREA CLEANED TO BELOW 400 ppm LEAD OR TO BEDROCK
- EPA REMOVAL ACTION AREA WITH LEAD LEVELS ABOVE 400 ppm
- SAMPLE LOCATION
- COMPOSITE SAMPLE LOCATION

ERP SITE LIMITS (ALL LOCATIONS OUTSIDE OF PARCEL A ARE CONSIDERED "OFF-SITE")

NAD 83

TAX MAP # 11-3-2.1 CITY OF ITHACA (R.O.) 818/150

TAX MAP # 11-3-1.1 CITY OF ITHACA (R.O.) 851/7

NO. 230 WILLARD WAY TAX MAP PARCEL 11-3-2.2 SIGMA NU LODGE (R.O.) 188/134

NO. 210 WILLARD WAY LOOP TAX MAP PARCEL 11-3-11 BLOOM & GREENFIELD (R.O.) 2510/10119

TAX MAP # 12-7-2 CITY OF ITHACA (R.O.) 870/41

"FALL CREEK" GORGE

OFF SITE 2
OFF SITE 1
OLD CHAIN LINK FENCE
ISLAND BENEATH SLABS
UPPER ISLAND
PARCEL A "THE ISLAND"
SHED
APPROX. TOP OF BANK
EASTERN RACEWAY 1
EASTERN RACEWAY
EASTERN RACEWAY 2
OLD RACEWAY
CONCRETE PAD
PARCEL B
CHAIN LINK FENCE
ASPHALT DRIVE
RETAINING WALL
RETAINING
GATE
C-5
C-6
BRIDGE
WESTERN RACEWAY 1
FORMER SHOP
ISLAND
A-4
C-4
A-5
C-3
A-3
A-6
C-2
A-2
C-1
A-1
CONCRETE WALL
FORMER MAIN PLANT
WESTERN SLOPE 3
WESTERN SLOPE 2
WESTERN SLOPE 1
WESTERN SLOPE 5
WESTERN SLOPE 8
WESTERN SLOPE 7
WESTERN RACEWAY
WESTERN RACEWAY 3
WESTERN RACEWAY 2
WESTERN RACEWAY 4
FORMER WALKWAY 5
WESTERN RACEWAY 5
FORMER WALKWAY 4
LOADING DOCK
WESTERN RACEWAY 6
B-5
B-4
B-3
WESTERN SLOPE 9
WESTERN SLOPE 6
FORMER WALKWAY
B-1
EPA-5
B-2
EPA-4
EPA-3
EPA-2
EPA-1
IRM HOTSPOT
EPA-9
EPA-7
WESTERN ACCESSWAY 2
SHED
WESTERN ACCESSWAY
SV-04
SV-03
CONCRETE WALL
B-9
B-8
B-7
B-6
EPA-8
EPA-6
EPA-13
EPA-11
SV-02
B-14
SV-01
B-11
B-13
B-12
B-10
EPA-14
EPA-12
EPA-10
PLUNGE POOL
OSDB-1
OSDB-2
1 STORY BUILDING
PLUNGE POOL
BORDER POST
PLUNGE POOL 1
OFF-SITE WESTERN ISLAND SLOPE
WESTERN SLOPE 11
WESTERN SLOPE 4
FORMER WALKWAY 3
FORMER WALKWAY 2
FORMER WALKWAY 1
SILO
FORMER BOILER BUILDING
"BOILER BUILDING SUBPARCEL" THIS PARCEL IS TO BE ATTACHED TO PAR. B AREA = 0.214 ACRES (INCLUDES SMOKESTACK AREA)
SMOKE STACK
ASPHALT PARKING
WESTERN ACCESSWAY 1
ASPHALT PARKING
STREET LINE
WESTERN SLOPE 10
OFF-SITE DOWNSLOPE BENCH
"SMOKESTACK PARCEL"

NOTE:
BASEMAP TAKEN FROM A SURVEY MAP SHOWING LANDS OF FALL CREEK REDEVELOPMENT, LLC. PERFORMED BY T.G. MILLER P.C. ON 6/27/2008.

40' 0 40'
1"=40'

Barton & Loguidice, P.C.

Date
APRIL, 2014

Scale
1" = 40'

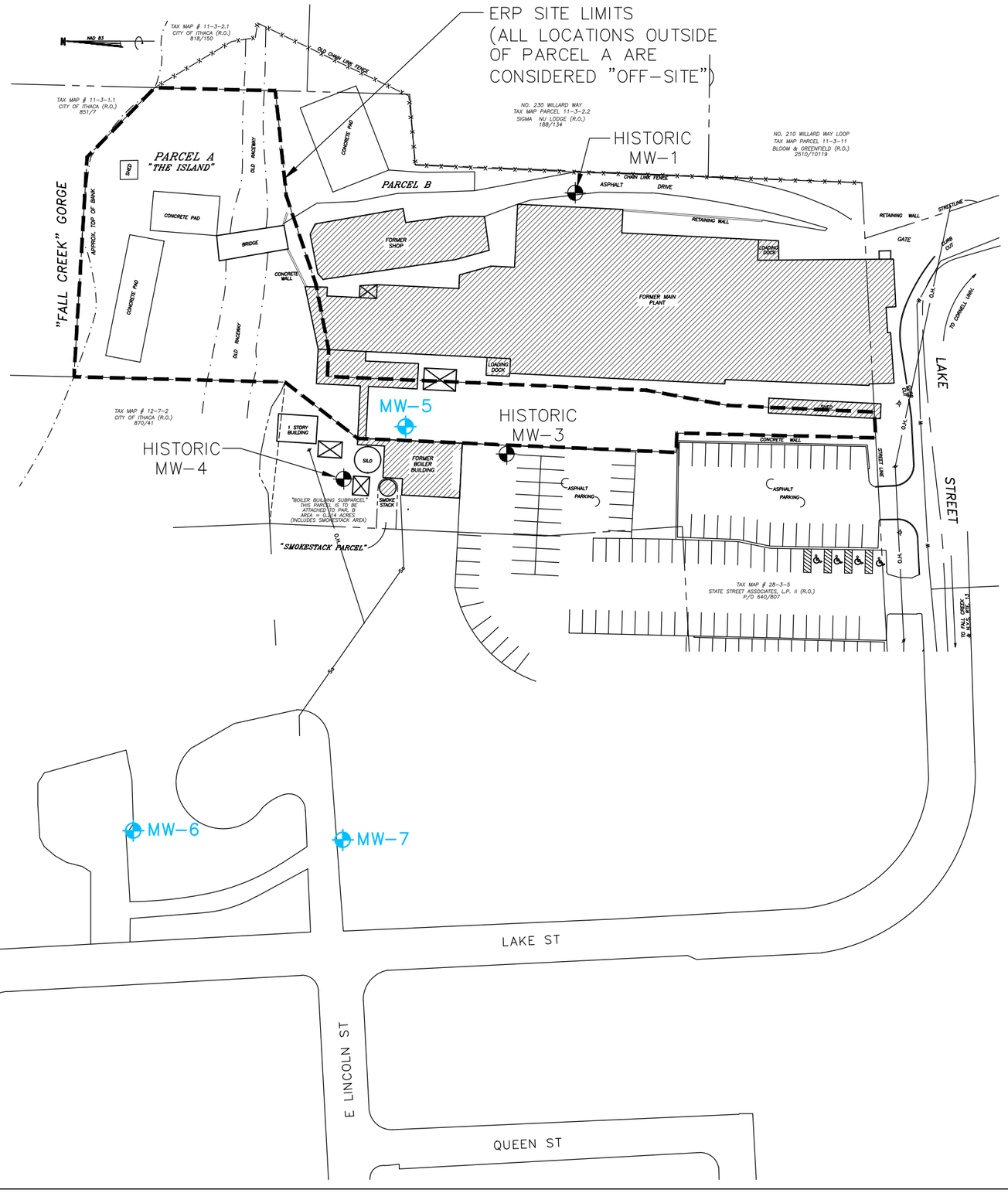
Figure Number
4

Project Number
1307.002.001

Plotted: Jun 03, 2014 - 8:14AM SYR By: jgs
I:\Shared\1300\1307002\1307002_ERP_FIG4 Apr 2014.dwg

Figure 5

Bedrock Monitoring Well Locations



LEGEND

- MW-# HISTORIC MONITORING WELL
- MW-# NEWLY INSTALLED MONITORING WELL

NOTE:
BASEMAP TAKEN FROM A SURVEY MAP SHOWING LANDS OF FALL CREEK REDEVELOPMENT, LLC. PERFORMED BY T.G. MILLER P.C. ON 6/27/2008.

80' 0 80'
1"=80'

BEDROCK MONITORING WELL LOCATIONS

ITHACA URBAN RENEWAL AGENCY
ITHACA FALLS OVERLOOK
ENVIRONMENTAL RESTORATION PROGRAM

TOMPKINS COUNTY, NEW YORK
CITY OF ITHACA

Barton & Loguidice, P.C.

Date
MARCH, 2012

Scale
1" = 80'

Figure Number
5

Project Number
1307.002.002

Plotted: Apr 28, 2014 - 1:59PM SYR By: JGS2
I:\Shared\1300\1307002\1307.002.002_ERP_FIG5_Apr 2014.dwg

Figure 6

Unit 2 Existing Lead Concentrations (0-2”)

N

TRUE OR CALLED NORTH

LEAD CONCENTRATIONS

- 0 – 400 ppm
- 400 – 1,000 ppm
- 1,000 – 5,000 ppm
- 5,000 – 10,000 ppm
- > 10,000 ppm

LEGEND

- PROPERTY LINE
- FENCE LINE
- EXISTING STRUCTURE
- EPA REMOVAL ACTION AREA CLEANED TO BELOW 400 ppm LEAD OR TO BEDROCK
- EPA REMOVAL ACTION AREA WITH LEAD LEVELS ABOVE 400 ppm
- AREAS TO STEEP TO REMOVE SOIL
- WESTERN SLOPE 7 (3530) — SAMPLE LOCATION WITH LEAD CONCENTRATION

OFF SITE 2 (26.8)

OFF SITE 1 (31.4)

EASTERN RACEWAY 1 (196)

EASTERN RACEWAY 2 (1330)

EASTERN RACEWAY

UPPER ISLAND

CONCRETE PAD

SHED

ISLAND (ESTIMATED 380 YD³ OF SOIL TO BE REMOVED)

FORMER RACEWAY AREA (ESTIMATED 390 YD³ OF SOIL TO BE REMOVED)

"FALL CREEK" GORGE

APPROX. TOP OF BANK

ISLAND BENEATH SLABS

CONCRETE PAD

WESTERN RACEWAY 1 (3300)

ISLAND

CONCRETE PAD

WESTERN SLOPE 1 (3520)

WESTERN SLOPE 2 (3040)

WESTERN SLOPE 3 (2140)

WESTERN SLOPE 7 (3530)

WESTERN SLOPE 5 (3460)

WESTERN SLOPE 8 (2340)

WESTERN SLOPE 9 (1600)

WESTERN SLOPE 6 (12200)

WESTERN SLOPE 4 (7440)

WESTERN SLOPE 11 (2790)

PLUNGE POOL

OSDB-1 (20.9)

OFF-SITE WESTERN ISLAND SLOPE

WESTERN SLOPE 10 (4220)

OSDB-2 (66.4)

PP-1A (732)

PP-1B (790)

PP-1C (78.1)

PP-1D (363)

PLUNGE POOL (PP) (2280)

WESTERN RACEWAY 3 (8930)

WESTERN RACEWAY 2 (615)

WESTERN RACEWAY

WESTERN RACEWAY 4 (5410)

WESTERN RACEWAY 5 (1620)

WESTERN RACEWAY 6 (10400)

FORMER WALKWAY

FORMER WALKWAY (131000)

IRM HOTSPOT

WESTERN ACCESSWAY

SILO

OFF-SITE DOWNSLOPE BENCH

NOTE:
BASEMAP TAKEN FROM A SURVEY MAP SHOWING LANDS OF FALL CREEK REDEVELOPMENT, LLC. PERFORMED BY T.G. MILLER P.C. ON 6/27/2008.

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By _____ Date _____

Ck'd _____ Date _____

REVISIONS

ITHACA URBAN RENEWAL AGENCY
ITHACA FALLS OVERLOOK
ENVIRONMENTAL RESTORATION PROGRAM

UNIT 2 EXISTING LEAD CONCENTRATIONS 0–2"

TOMPKINS COUNTY, NEW YORK

CITY OF ITHACA

Barton & Loguidice, P.C.

Date
APRIL, 2014

Scale
1" = 20'

Sheet Number
6

File Number
1307.002.002

Checked by ____ Drawn by JGS Designed by LRH In charge of SDN

Plotted: Apr 30, 2014 - 1:19PM By: JGS2
I:\Shared\1300\1307002\1307.002.002_FIGURE 6_0-2 INCHES.dwg

Appendix A

Data Summary Tables

Soil Criteria
Summary for Project D3483

SamplingDate	Sample	NY375Res	NY375RestrictedRES	Comment
7/17/2012	DUPE-X	✓	✓	
7/17/2012	DUPE-Y	☒	☒	, METALs
7/17/2012	ERACEWAY1(0-2)	✓	✓	
7/17/2012	ERACEWAY1(0-2)B	✓	✓	
7/17/2012	ERACEWAY2(0-2)	☒	☒	, METALs, SVOC-TCL BNA -20
7/17/2012	ERACEWAY2(0-2)B	✓	✓	
7/17/2012	ERACEWAY2(0-2)BRE	✓	✓	
7/17/2012	OFFSITE-1(0-2)	✓	✓	
7/17/2012	OFFSITE-1(2-10)	✓	✓	
7/17/2012	OFFSITE-1A(0-2)	✓	✓	
7/17/2012	OFFSITE-1A(2-10)	✓	✓	
7/17/2012	OFFSITE-2(0-2)	✓	✓	
7/17/2012	OFFSITE-2(2-10)	✓	✓	
7/17/2012	WESTENSLOPE10	☒	☒	, METALs
7/17/2012	WESTENSLOPE11	☒	☒	, METALs
7/17/2012	WESTENSLOPE8	☒	☒	, METALs
7/17/2012	WESTENSLOPE9	☒	☒	, METALs
7/17/2012	WRACEWAY1(0-2)	☒	☒	, METALs
7/17/2012	WRACEWAY1(0-2)A	✓	✓	
7/17/2012	WRACEWAY1(0-2)RE	✓	✓	
7/17/2012	WRACEWAY2(0-2)	☒	☒	, METALs
7/17/2012	WRACEWAY2(0-2)A	✓	✓	

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The comparison of the regulatory limits in this report reflect the current Chemtech Consulting Group Inc. knowledge of the standards and are intended as generalguidance for the user. Please consult appropriate regulations and cleanup standards for your specific application.

Sample ID		EQUIPMENTBLANK2	TRIPBLANK
Lab Sample Number		D3483-07	D3483-26
Sampling Date		7/17/2012	7/19/2012
Matrix		WATER	WATER
Dilution Factor		1	1
Units		ug/L	ug/L
COMPOUND	CAS #		
1,1,1-Trichloroethane	71-55-6	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	2.5 U	2.5 U
1,1,2-Trichloroethane	79-00-5	2.5 U	2.5 U
1,1,2-Trichlorotrifluoroethane	76-13-1	2.5 U	2.5 U
1,1-Dichloroethane	75-34-3	2.5 U	2.5 U
1,1-Dichloroethene	75-35-4	2.5 U	2.5 U
1,2,3-Trichlorobenzene	87-61-6	2.5 U	2.5 U
1,2,4-Trichlorobenzene	120-82-1	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	2.5 U	2.5 U
1,2-Dibromoethane	106-93-4	2.5 U	2.5 U
1,2-Dichlorobenzene	95-50-1	2.5 U	2.5 U
1,2-Dichloroethane	107-06-2	2.5 U	2.5 U
1,2-Dichloropropane	78-87-5	2.5 U	2.5 U
1,3-Dichlorobenzene	541-73-1	2.5 U	2.5 U
1,4-Dichlorobenzene	106-46-7	2.5 U	2.5 U
1,4-Dioxane	123-91-1	50 U	50 U
2-Butanone	78-93-3	12.5 U	12.5 U
2-Hexanone	591-78-6	12.5 U	12.5 U
4-Methyl-2-Pentanone	108-10-1	12.5 U	12.5 U
Acetone	67-64-1	12.5 U	12.5 U
Benzene	71-43-2	2.5 U	2.5 U
Bromochloromethane	74-97-5	2.5 U	2.5 U
Bromodichloromethane	75-27-4	2.5 U	2.5 U
Bromoform	75-25-2	2.5 U	2.5 U
Bromomethane	74-83-9	2.5 U	2.5 U
Carbon Disulfide	75-15-0	2.5 U	2.5 U
Carbon Tetrachloride	56-23-5	2.5 U	2.5 U
Chlorobenzene	108-90-7	2.5 U	2.5 U
Chloroethane	75-00-3	2.5 U	2.5 U
Chloroform	67-66-3	2.5 U	2.5 U
Chloromethane	74-87-3	2.5 U	2.5 U
cis-1,2-Dichloroethene	156-59-2	2.5 U	2.5 U
cis-1,3-Dichloropropene	10061-01-5	2.5 U	2.5 U
Cyclohexane	110-82-7	2.5 U	2.5 U
Dibromochloromethane	124-48-1	2.5 U	2.5 U
Dichlorodifluoromethane	75-71-8	2.5 U	2.5 U
Ethyl Benzene	100-41-4	2.5 U	2.5 U
Isopropylbenzene	98-82-8	2.5 U	2.5 U
m/p-Xylenes	179601-23-1	5 U	5 U
Methyl Acetate	79-20-9	2.5 U	2.5 U
Methyl tert-butyl Ether	1634-04-4	2.5 U	2.5 U
Methylcyclohexane	108-87-2	2.5 U	2.5 U

Sample ID		EQUIPMENTBLANK2	TRIPBLANK
Lab Sample Number		**D3483-07**	**D3483-26**
Sampling Date		**7/17/2012**	**7/19/2012**
Matrix		**WATER**	**WATER**
Dilution Factor		**1**	**1**
Units		**ug/L**	**ug/L**
COMPOUND	CAS #		
Methylene Chloride	75-09-2	2.5 U	2.5 U
o-Xylene	95-47-6	2.5 U	2.5 U
Styrene	100-42-5	2.5 U	2.5 U
t-1,3-Dichloropropene	10061-02-6	2.5 U	2.5 U
Tetrachloroethene	127-18-4	2.5 U	2.5 U
Toluene	108-88-3	2.5 U	2.5 U
trans-1,2-Dichloroethene	156-60-5	2.5 U	2.5 U
Trichloroethene	79-01-6	2.5 U	2.5 U
Trichlorofluoromethane	75-69-4	2.5 U	2.5 U
Vinyl Chloride	75-01-4	2.5 U	2.5 U
Total Concentration.		0	0

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		**EQUIPMENTBLANK2**
Lab Sample Number		**D3483-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
1,1-Biphenyl	92-52-4	5 U
1,2,4,5-Tetrachlorobenzene	95-94-3	5 U
2,2-oxybis(1-Chloropropane)	108-60-1	5 U
2,3,4,6-Tetrachlorophenol	58-90-2	5 U
2,4,5-Trichlorophenol	95-95-4	5 U
2,4,6-Trichlorophenol	88-06-2	5 U
2,4-Dichlorophenol	120-83-2	5 U
2,4-Dimethylphenol	105-67-9	5 U
2,4-Dinitrophenol	51-28-5	5 U
2,4-Dinitrotoluene	121-14-2	5 U
2,6-Dinitrotoluene	606-20-2	5 U
2-Chloronaphthalene	91-58-7	5 U
2-Chlorophenol	95-57-8	5 U
2-Methylnaphthalene	91-57-6	5 U
2-Methylphenol	95-48-7	5 U
2-Nitroaniline	88-74-4	5 U
2-Nitrophenol	88-75-5	5 U
3,3-Dichlorobenzidine	91-94-1	5 U
3+4-Methylphenols	65794-96-9	5 U
3-Nitroaniline	99-09-2	5 U
4,6-Dinitro-2-methylphenol	534-52-1	5 U
4-Bromophenyl-phenylether	101-55-3	5 U
4-Chloro-3-methylphenol	59-50-7	5 U
4-Chloroaniline	106-47-8	5 U
4-Chlorophenyl-phenylether	7005-72-3	5 U
4-Nitroaniline	100-01-6	5 U
4-Nitrophenol	100-02-7	5 U
Acenaphthene	83-32-9	5 U
Acenaphthylene	208-96-8	5 U
Acetophenone	98-86-2	5 U
Anthracene	120-12-7	5 U
Atrazine	1912-24-9	5 U
Benzaldehyde	100-52-7	5 U
Benzo(a)anthracene	56-55-3	5 U
Benzo(a)pyrene	50-32-8	5 U
Benzo(b)fluoranthene	205-99-2	5 U
Benzo(g,h,i)perylene	191-24-2	5 U
Benzo(k)fluoranthene	207-08-9	5 U
bis(2-Chloroethoxy)methane	111-91-1	5 U
bis(2-Chloroethyl)ether	111-44-4	5 U
bis(2-Ethylhexyl)phthalate	117-81-7	5 U

Sample ID		**EQUIPMENTBLANK2**
Lab Sample Number		**D3483-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
Butylbenzylphthalate	85-68-7	5 U
Caprolactam	105-60-2	5 U
Carbazole	86-74-8	5 U
Chrysene	218-01-9	5 U
Dibenz(a,h)anthracene	53-70-3	5 U
Dibenzofuran	132-64-9	5 U
Diethylphthalate	84-66-2	5 U
Dimethylphthalate	131-11-3	5 U
Di-n-butylphthalate	84-74-2	5 U
Di-n-octyl phthalate	117-84-0	5 U
Fluoranthene	206-44-0	5 U
Fluorene	86-73-7	5 U
Hexachlorobenzene	118-74-1	5 U
Hexachlorobutadiene	87-68-3	5 U
Hexachlorocyclopentadiene	77-47-4	5 U
Hexachloroethane	67-72-1	5 U
Indeno(1,2,3-cd)pyrene	193-39-5	5 U
Isophorone	78-59-1	5 U
Naphthalene	91-20-3	5 U
Nitrobenzene	98-95-3	5 U
N-Nitroso-di-n-propylamine	621-64-7	5 U
N-Nitrosodiphenylamine	86-30-6	5 U
Pentachlorophenol	87-86-5	5 U
Phenanthrene	85-01-8	5 U
Phenol	108-95-2	5 U
Pyrene	129-00-0	5 U

Total Concentration. 0

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

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Sample ID		**EQUIPMENTBLANK2**
Lab Sample Number		**D3483-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
4,4-DDD	72-54-8	0.026 U
4,4-DDE	72-55-9	0.026 U
4,4-DDT	50-29-3	0.026 U
Aldrin	309-00-2	0.026 U
alpha-BHC	319-84-6	0.026 U
alpha-Chlordane	5103-71-9	0.026 U
beta-BHC	319-85-7	0.026 U
delta-BHC	319-86-8	0.026 U
Dieldrin	60-57-1	0.026 U
Endosulfan I	959-98-8	0.026 U
Endosulfan II	33213-65-9	0.026 U
Endosulfan Sulfate	1031-07-8	0.026 U
Endrin	72-20-8	0.026 U
Endrin aldehyde	7421-93-4	0.026 U
Endrin ketone	53494-70-5	0.026 U
gamma-BHC	58-89-9	0.026 U
gamma-Chlordane	5103-74-2	0.026 U
Heptachlor	76-44-8	0.026 U
Heptachlor epoxide	1024-57-3	0.026 U
Methoxychlor	72-43-5	0.026 U
Toxaphene	8001-35-2	0.26 U

Total Concentration. 0

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sampl

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		**EQUIPMENTBLANK2**
Lab Sample Number		**D3483-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
Aroclor-1016	12674-11-2	0.255 U
Aroclor-1221	11104-28-2	0.255 U
Aroclor-1232	11141-16-5	0.255 U
Aroclor-1242	53469-21-9	0.255 U
Aroclor-1248	12672-29-6	0.255 U
Aroclor-1254	11097-69-1	0.255 U
Aroclor-1260	11096-82-5	0.255 U

Total Concentration. 0

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sampl

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

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D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

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Sample ID		EQUIPMENTBLANK2	EQUIPMENTBLANK2
Lab Sample Number		D3483-07	D3483-07
Sampling Date		7/17/2012	7/19/2012
Matrix		WATER	WATER
Dilution Factor		1	1
Units		ug/L	ug/L
COMPOUND	CAS #		
Aluminum	7429-90-5	25 U	25 U
Antimony	7440-36-0	12.5 U	12.5 U
Arsenic	7440-38-2	5 U	5 U
Barium	7440-39-3	25 U	25 U
Beryllium	7440-41-7	1.5 U	1.5 U
Cadmium	7440-43-9	1.5 U	1.5 U
Calcium	7440-70-2	200 J	200 J
Chromium	7440-47-3	2.5 U	2.5 U
Cobalt	7440-48-4	7.5 U	7.5 U
Copper	7440-50-8	5 U	5 U
Iron	7439-89-6	50 U	50 U
Lead	7439-92-1	4.56 J	4.56 J
Magnesium	7439-95-4	500 U	500 U
Manganese	7439-96-5	5 U	5 U
Mercury	7439-97-6	0.1 U	0.1 U
Nickel	7440-02-0	10 U	10 U
Potassium	9/7/7440	500 U	500 U
Selenium	7782-49-2	5.5 J	5.5 J
Silver	7440-22-4	2.5 U	2.5 U
Sodium	7440-23-5	1390	1390
Thallium	7440-28-0	10 U	10 U
Vanadium	7440-62-2	10 U	10 U
Zinc	7440-66-6	8.13 J	8.13 J
Total Concentration.		1608.19	1608.19

Qualifiers

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B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

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Sample ID		**EQUIPMENTBLANK2**
Lab Sample Number		**D3483-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
2,4,5-T	93-76-5	1.05 U
2,4,5-TP (SILVEX)	93-72-1	1.05 U
2,4-D	94-75-7	1.05 U
2,4-DB	94-82-6	1.05 U
DICAMBA	1918-00-9	1.05 U
DICHLORPROP	120-36-5	1.05 U
DINOSEB	88-85-7	1.05 U

Total Concentration. 0

Qualifiers

U - The compound was not detected at the indicated concentration.

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Sample ID		NY375	NY375	DUPE-Y	OFFSITE-1A(0-2)	OFFSITE-1A(2-10)	OFFSITE-2(0-2)	OFFSITE-2(2-10)	DUPE-X	ERACEWAY1(0-2)B	ERACEWAY2(0-2)B	ERACEWAY2(0-2)BRE	WRACEWAY1(0-2)A	WRACEWAY2(0-2)A
Lab Sample Number		Residential	Restricted	D3483-02	D3483-08	D3483-09	D3483-10	D3483-11	D3483-12	D3483-19	D3483-21	D3483-21RE	D3483-23	D3483-25
Sampling Date			Residential	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #													
1,1,1-Trichloroethane	71-55-6	100	100	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,1,2,2-Tetrachloroethane	79-34-5	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,1,2-Trichloroethane	79-00-5	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,1,2-Trichlorotrifluoroethane	76-13-1	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,1-Dichloroethane	75-34-3	19	26	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,1-Dichloroethene	75-35-4	100	100	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,2,3-Trichlorobenzene	87-61-6	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,2,4-Trichlorobenzene	120-82-1	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,2-Dibromo-3-Chloropropane	96-12-8	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,2-Dibromoethane	106-93-4	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,2-Dichlorobenzene	95-50-1	100	100	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,2-Dichloroethane	107-06-2	2.3	3.1	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,2-Dichloropropane	78-87-5	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,3-Dichlorobenzene	541-73-1	17	49	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,4-Dichlorobenzene	106-46-7	9.8	13	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
1,4-Dioxane	123-91-1	NA	NA	0.05 U	0.06 U	0.055 U	0.055 U	0.055 U	0.055 U	0.105 U	0.14 U	0.14 U	0.07 U	0.06 U
2-Butanone	78-93-3	100	100	0.0125 U	0.015 U	0.014 U	0.014 U	0.0135 U	0.014 U	0.0265 U	0.0345 U	0.0345 U	0.017 U	0.0145 U
2-Hexanone	591-78-6	NA	NA	0.0125 U	0.015 U	0.014 U	0.014 U	0.0135 U	0.014 U	0.0265 U	0.0345 U	0.0345 U	0.017 U	0.0145 U
4-Methyl-2-Pentanone	108-10-1	NA	NA	0.0125 U	0.015 U	0.014 U	0.014 U	0.0135 U	0.014 U	0.0265 U	0.0345 U	0.0345 U	0.017 U	0.0145 U
Acetone	67-64-1	100	100	0.0125 U	0.015 U	0.014 U	0.014 U	0.0135 U	0.014 U	0.0265 U	0.0345 U	0.0345 U	0.017 U	0.0145 U
Benzene	71-43-2	2.9	4.8	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Bromochloromethane	74-97-5	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Bromodichloromethane	75-27-4	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Bromoform	75-25-2	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Bromomethane	74-83-9	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Carbon Disulfide	75-15-0	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Carbon Tetrachloride	56-23-5	1.4	2.4	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Chlorobenzene	108-90-7	100	100	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Chloroethane	75-00-3	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Chloroform	67-66-3	10	49	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Chloromethane	74-87-3	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
cis-1,2-Dichloroethene	156-59-2	59	100	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
cis-1,3-Dichloropropene	10061-01-5	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Cyclohexane	110-82-7	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Dibromochloromethane	124-48-1	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Dichlorodifluoromethane	75-71-8	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Ethyl Benzene	100-41-4	30	41	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Isopropylbenzene	98-82-8	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
m/p-Xylenes	179601-23-1	NA	NA	0.005 U	0.006 U	0.0055 U	0.0055 U	0.0055 U	0.0055 U	0.0105 U	0.014 U	0.014 U	0.007 U	0.006 U
Methyl Acetate	79-20-9	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Methyl tert-butyl Ether	1634-04-4	62	100	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Methylcyclohexane	108-87-2	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U

Sample ID		NY375	NY375	DUPE-Y	OFFSITE-1A(0-2)	OFFSITE-1A(2-10)	OFFSITE-2(0-2)	OFFSITE-2(2-10)	DUPE-X	ERACEWAY1(0-2)B	ERACEWAY2(0-2)B	ERACEWAY2(0-2)BRE	WRACEWAY1(0-2)A	WRACEWAY2(0-2)A
Lab Sample Number		Residential	Restricted	D3483-02	D3483-08	D3483-09	D3483-10	D3483-11	D3483-12	D3483-19	D3483-21	D3483-21RE	D3483-23	D3483-25
Sampling Date			Residential	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #													
Methylene Chloride	75-09-2	51	100	0.0036 J	0.003 U	0.0016 J	0.0019 J	0.0016 J	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
o-Xylene	95-47-6	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Styrene	100-42-5	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
t-1,3-Dichloropropene	10061-02-6	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Tetrachloroethene	127-18-4	5.5	19	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Toluene	108-88-3	100	100	0.0025 U	0.003 U	0.012	0.0028 U	0.014	0.0055 J	0.0055 U	0.15	0.13	0.012	0.0029 U
trans-1,2-Dichloroethene	156-60-5	100	100	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Trichloroethene	79-01-6	10	21	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Trichlorofluoromethane	75-69-4	NA	NA	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Vinyl Chloride	75-01-4	0.21	0.9	0.0025 U	0.003 U	0.0028 U	0.0028 U	0.00265 U	0.0028 U	0.0055 U	0.007 U	0.007 U	0.00345 U	0.0029 U
Total Concentration.				0.0036	0	0.0136	0.0019	0.0156	0.0055	0	0.15	0.13	0.012	0

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	NY375	DUPE-Y	OFFSITE-1(0-2)	OFFSITE-1(2-10)	OFFSITE-2(0-2)	OFFSITE-2(2-10)	DUPE-X	ERACEWAY1(0-2)	ERACEWAY2(0-2)	WRACEWAY1(0-2)	WRACEWAY2(0-2)
Lab Sample Number		Residential	Restricted	D3483-01	D3483-13	D3483-14	D3483-15	D3483-16	D3483-17	D3483-18	D3483-20	D3483-22	D3483-24
Sampling Date			Residential	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	5	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #												
1,1-Biphenyl	92-52-4	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
1,2,4,5-Tetrachlorobenzene	95-94-3			0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,2-oxybis(1-Chloropropane)	108-60-1	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,3,4,6-Tetrachlorophenol	58-90-2			0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,4,5-Trichlorophenol	95-95-4	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,4,6-Trichlorophenol	88-06-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,4-Dichlorophenol	120-83-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,4-Dimethylphenol	105-67-9	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,4-Dinitrophenol	51-28-5	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,4-Dinitrotoluene	121-14-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2,6-Dinitrotoluene	606-20-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2-Chloronaphthalene	91-58-7	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2-Chlorophenol	95-57-8	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2-Methylnaphthalene	91-57-6	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2-Methylphenol	95-48-7	100	100	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2-Nitroaniline	88-74-4	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
2-Nitrophenol	88-75-5	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
3,3-Dichlorobenzidine	91-94-1	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
3+4-Methylphenols	65794-96-9	34	100	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
3-Nitroaniline	99-09-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
4,6-Dinitro-2-methylphenol	534-52-1	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
4-Bromophenyl-phenylether	101-55-3	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
4-Chloro-3-methylphenol	59-50-7	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
4-Chloroaniline	106-47-8	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
4-Chlorophenyl-phenylether	7005-72-3	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
4-Nitroaniline	100-01-6	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
4-Nitrophenol	100-02-7	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Acenaphthene	83-32-9	100	100	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Acenaphthylene	208-96-8	100	100	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Acetophenone	98-86-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Anthracene	120-12-7	100	100	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.23 J	1.55 U	0.2 U
Atrazine	1912-24-9	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Benzaldehyde	100-52-7	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Benzo(a)anthracene	56-55-3	1	1	0.44	0.21 U	0.185 U	0.23 U	0.18 U	0.22 J	0.21 U	**1.2**	1.55 U	0.37 J
Benzo(a)pyrene	50-32-8	1	1	0.48	0.21 U	0.185 U	0.23 U	0.18 U	0.19 J	0.21 U	**1.3**	1.55 U	0.37 J
Benzo(b)fluoranthene	205-99-2	1	1	0.7	0.21 U	0.185 U	0.23 U	0.18 U	0.24 J	0.21 U	**1.7**	1.55 U	0.54
Benzo(g,h,i)perylene	191-24-2	100	100	0.35	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.74	1.55 U	0.27 J
Benzo(k)fluoranthene	207-08-9	1	3.9	0.2 J	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.59	1.55 U	0.18 J
bis(2-Chloroethoxy)methane	111-91-1	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
bis(2-Chloroethyl)ether	111-44-4	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
bis(2-Ethylhexyl)phthalate	117-81-7	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Butylbenzylphthalate	85-68-7	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Caprolactam	105-60-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U

Sample ID		NY375	NY375	DUPE-Y	OFFSITE-1(0-2)	OFFSITE-1(2-10)	OFFSITE-2(0-2)	OFFSITE-2(2-10)	DUPE-X	ERACEWAY1(0-2)	ERACEWAY2(0-2)	WRACEWAY1(0-2)	WRACEWAY2(0-2)
Lab Sample Number		Residential	Restricted	D3483-01	D3483-13	D3483-14	D3483-15	D3483-16	D3483-17	D3483-18	D3483-20	D3483-22	D3483-24
Sampling Date			Residential	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	5	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #												
Carbazole	86-74-8	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Chrysene	218-01-9	1	3.9	0.46	0.21 U	0.185 U	0.23 U	0.18 U	0.2 J	0.21 U	**1.3**	1.55 U	0.41
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.18 J	1.55 U	0.2 U
Dibenzofuran	132-64-9	14	59	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Diethylphthalate	84-66-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Dimethylphthalate	131-11-3	NA	NA	0.34	0.65	0.38	0.43 J	0.47	0.42	0.47	0.71	1.55 U	0.58
Di-n-butylphthalate	84-74-2	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Di-n-octyl phthalate	117-84-0	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Fluoranthene	206-44-0	100	100	0.65	0.21 U	0.185 U	0.23 U	0.18 U	0.55	0.21 U	2.5	2 J	0.8
Fluorene	86-73-7	100	100	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Hexachlorobenzene	118-74-1	0.33	1.2	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Hexachlorobutadiene	87-68-3	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Hexachlorocyclopentadiene	77-47-4	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Hexachloroethane	67-72-1	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.5	0.35	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	**0.68**	1.55 U	0.25 J
Isophorone	78-59-1	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Naphthalene	91-20-3	100	100	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Nitrobenzene	98-95-3	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
N-Nitroso-di-n-propylamine	621-64-7	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
N-Nitrosodiphenylamine	86-30-6	NA	NA	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Pentachlorophenol	87-86-5	2.4	6.7	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Phenanthrene	85-01-8	100	100	0.41	0.21 U	0.185 U	0.23 U	0.18 U	0.53	0.21 U	1.4	1.5 J	0.54
Phenol	108-95-2	100	100	0.17 U	0.21 U	0.185 U	0.23 U	0.18 U	0.19 U	0.21 U	0.22 U	1.55 U	0.2 U
Pyrene	129-00-0	100	100	0.61	0.21 U	0.185 U	0.23 U	0.18 U	0.46	0.21 U	2.3	1.7 J	0.67
Total Concentration.				4.99	0.65	0.38	0.43	0.47	2.81	0.47	14.83	5.2	4.98

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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The comparison of the regulatory limits in this report reflect the current Chemtech Consulting Group Inc. knowledge of the standards and are intended as generalguidance for the user. Please consult appropriate regulations and cleanup standards for your specific application.

Sample ID		NY375	NY375	DUPE-Y	OFFSITE-1(0-2)	OFFSITE-1(2-10)	OFFSITE-2(0-2)	OFFSITE-2(2-10)	DUPE-X	ERACEWAY1(0-2)	ERACEWAY2(0-2)	WRACEWAY1(0-2)	WRACEWAY2(0-2)
Lab Sample Number		Residential	Restricted	D3483-01	D3483-13	D3483-14	D3483-15	D3483-16	D3483-17	D3483-18	D3483-20	D3483-22	D3483-24
Sampling Date			Residential	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #												
4,4-DDD	72-54-8	2.6	13	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
4,4-DDE	72-55-9	1.8	8.9	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
4,4-DDT	50-29-3	1.7	7.9	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Aldrin	309-00-2	0.019	0.097	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
alpha-BHC	319-84-6	0.097	0.48	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
alpha-Chlordane	5103-71-9	0.91	4.2	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
beta-BHC	319-85-7	0.072	0.36	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
delta-BHC	319-86-8	100	100	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Dieldrin	60-57-1	0.039	0.2	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Endosulfan I	959-98-8	4.8	24	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Endosulfan II	33213-65-9	4.8	24	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Endosulfan Sulfate	1031-07-8	4.8	24	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Endrin	72-20-8	2.2	11	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Endrin aldehyde	7421-93-4	NA	NA	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Endrin ketone	53494-70-5	NA	NA	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
gamma-BHC	58-89-9	0.28	1.3	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
gamma-Chlordane	5103-74-2	NA	NA	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Heptachlor	76-44-8	0.42	2.1	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Heptachlor epoxide	1024-57-3	NA	NA	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Methoxychlor	72-43-5	NA	NA	0.0009 U	0.0011 U	0.00095 U	0.0012 U	0.00095 U	0.001 U	0.0011 U	0.00115 U	0.0016 U	0.00105 U
Toxaphene	8001-35-2	NA	NA	0.009 U	0.011 U	0.0095 U	0.012 U	0.0095 U	0.01 U	0.011 U	0.0115 U	0.016 U	0.0105 U
Total Concentration.				0	0	0	0	0	0	0	0	0	0

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	NY375	DUPE-Y	OFFSITE-1(0-2)	OFFSITE-1(2-10)	OFFSITE-2(0-2)	OFFSITE-2(2-10)	DUPE-X	ERACEWAY1(0-2)	ERACEWAY2(0-2)	WRACEWAY1(0-2)	WRACEWAY1(0-2)RE	WRACEWAY2(0-2)
Lab Sample Number		Residential	Restricted	D3483-01	D3483-13	D3483-14	D3483-15	D3483-16	D3483-17	D3483-18	D3483-20	D3483-22	D3483-22RE	D3483-24
Sampling Date			Residential	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #													
Aroclor-1016	12674-11-2	NA	NA	0.009 U	0.011 U	0.0095 U	0.012 U	0.0095 U	0.01 U	0.011 U	0.0115 U	0.016 U	0.016 U	0.01 U
Aroclor-1221	11104-28-2	NA	NA	0.009 U	0.011 U	0.0095 U	0.012 U	0.0095 U	0.01 U	0.011 U	0.0115 U	0.016 U	0.016 U	0.01 U
Aroclor-1232	11141-16-5	NA	NA	0.009 U	0.011 U	0.0095 U	0.012 U	0.0095 U	0.01 U	0.011 U	0.0115 U	0.016 U	0.016 U	0.01 U
Aroclor-1242	53469-21-9	NA	NA	0.009 U	0.011 U	0.0095 U	0.012 U	0.0095 U	0.01 U	0.011 U	0.0115 U	0.016 U	0.016 U	0.01 U
Aroclor-1248	12672-29-6	NA	NA	0.009 U	0.011 U	0.0095 U	0.012 U	0.0095 U	0.01 U	0.011 U	0.0115 U	0.016 U	0.016 U	0.01 U
Aroclor-1254	11097-69-1	NA	NA	0.009 U	0.011 U	0.0095 U	0.012 U	0.0095 U	0.01 U	0.011 U	0.0115 U	0.016 U	0.016 U	0.01 U
Aroclor-1260	11096-82-5	NA	NA	0.009 U	0.011 U	0.0095 U	0.012 U	0.0095 U	0.01 U	0.011 U	0.0115 U	0.016 U	0.016 U	0.01 U
Total Concentration.				0	0	0	0	0	0	0	0	0	0	0

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	NY375	DUPE-Y		WESTENSLOPE8		WESTENSLOPE9		WESTENSLOPE10		WESTENSLOPE11		OFFSITE-1(0-2)		OFFSITE-1(2-10)		OFFSITE-2(0-2)	
Lab Sample Number		Residential	Restricted	D3483-01		D3483-03		D3483-04		D3483-05		D3483-06		D3483-13		D3483-14		D3483-15	
Sampling Date			Residential	7/17/2012		7/17/2012		7/17/2012		7/17/2012		7/17/2012		7/17/2012		7/17/2012		7/17/2012	
Matrix		Soil	Soil	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Dilution Factor				1		1		1		1		1		1		1		1	
Units		mg/kg	mg/kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
COMPOUND	CAS #																		
Aluminum	7429-90-5	NA	NA	6960										8210		8240		7510	
Antimony	7440-36-0	NA	NA	52.8	N*									0.659	JN*	1.05	UN*	1.44	UN*
Arsenic	7440-38-2	16	16	**77.8**	N*									7.73	N*	7.58	N*	7.59	N*
Barium	7440-39-3	350	400	328										79.9		80.1		73	
Beryllium	7440-41-7	14	72	0.842										0.339		0.348		0.318	J
Cadmium	7440-43-9	2.5	4.3	1.57										0.745		0.742		0.629	
Calcium	7440-70-2	NA	NA	14000										9030		9320		5760	
Chromium	7440-47-3	NA	NA	29.1										13.3		13.2		11.6	
Cobalt	7440-48-4	NA	NA	12.7										8.92		9.11		8.72	
Copper	7440-50-8	270	270	**280**										19.8		19.9		17.9	
Iron	7439-89-6	NA	NA	47600										18200		18000		17200	
Lead	7439-92-1	400	400	**6750**		**2340**		**1600**		**4220**		**2790**		31.4		28.5		26.8	
Magnesium	7439-95-4	NA	NA	2270										4480		4530		3530	
Manganese	7439-96-5	2000	2000	573										646		631		625	
Mercury	7439-97-6	0.81	0.81	0.206										0.109		0.096		0.081	
Nickel	7440-02-0	140	310	50.9										21.9		22.3		20.1	
Potassium	9/7/7440	NA	NA	1770	N*									842	N*	690	N*	651	N*
Selenium	7782-49-2	36	180	5.47										2.34		2.31		2.57	
Silver	7440-22-4	36	180	8.75	N*									1.09	N*	1.1	N*	0.77	N*
Sodium	7440-23-5	NA	NA	45.8	UN*									51.5	UN*	42	UN*	58	UN*
Thallium	7440-28-0	NA	NA	0.915	U									1.02	U	0.84	U	1.16	U
Vanadium	7440-62-2	NA	NA	31.4	N*									17	N*	16.9	N*	15.5	N*
Zinc	7440-66-6	2200	10000	675										88.2		73		109	
Total Concentration.				81523.3		2340		1600		4220		2790		41752.932		41729.236		35630.018	

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The comparison of the regulatory limits in this report refle
of the standards and are intended as generalguidance fo
cleanup standards for your specific application.

Sample ID		NY375	NY375	OFFSITE-2(2-10)	DUPE-X	ERACEWAY1(0-2)	ERACEWAY2(0-2)	WRACEWAY1(0-2)	WRACEWAY1(0-2)	WRACEWAY2(0-2)	WRACEWAY2(0-2)
Lab Sample Number		Residential	Restricted	D3483-16	D3483-17	D3483-18	D3483-20	D3483-22	D3483-22	D3483-24	D3483-24
Sampling Date			Residential	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	10	1	10
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #										
Aluminum	7429-90-5	NA	NA	8030	7730	11000	10400	8960	8960	4780	4780
Antimony	7440-36-0	NA	NA	0.564 JN*	1.06 UN*	1.87 JN*	12 N*	18 N*	18 N*	4.36 N*	4.36 N*
Arsenic	7440-38-2	16	16	8.45 N*	7.24 N*	12.7 N*	**20.7** N*	**16.7** N*	**16.7** N*	13 N*	13 N*
Barium	7440-39-3	350	400	71.4	75.2	62.1	78.5	118	118	119	119
Beryllium	7440-41-7	14	72	0.288	0.309	0.399	0.267 J	0.163 J	0.163 J	0.198 J	0.198 J
Cadmium	7440-43-9	2.5	4.3	0.6	0.701	0.572	0.735	1.12	1.12	0.827	0.827
Calcium	7440-70-2	NA	NA	9150	8520	5830	11300	76500	76500	137000	137000
Chromium	7440-47-3	NA	NA	11.3	12.3	17.5	20.5	24.2	24.2	11.7	11.7
Cobalt	7440-48-4	NA	NA	8.02	8.51	14.3	17.2	14.1	14.1	10.2	10.2
Copper	7440-50-8	270	270	17	18	24	36	57.1	57.1	50.4	50.4
Iron	7439-89-6	NA	NA	16100	17500	28300	31700	34700	34700	17100	17100
Lead	7439-92-1	400	400	22	30.1	196	**1330**	**3300**	**3300**	**615**	**615**
Magnesium	7439-95-4	NA	NA	4490	3840	3790	4160	7150	7150	4890	4890
Manganese	7439-96-5	2000	2000	625	645	495	867	693	693	756	756
Mercury	7439-97-6	0.81	0.81	0.092	0.098	0.173	0.494	**1.1** D	**1.1** D	**1.93** D	**1.93** D
Nickel	7440-02-0	140	310	19	20.7	30.5	30.5	45.3	45.3	25.6	25.6
Potassium	9/7/7440	NA	NA	425 N*	734 N*	628 N*	772 N*	834 N*	834 N*	486 N*	486 N*
Selenium	7782-49-2	36	180	2.21	2.26	3.56	4.84	3.67	3.67	2.4	2.4
Silver	7440-22-4	36	180	0.754 N*	0.998 N*	1.34 N*	1.94 N*	1.31 N*	1.31 N*	1.62 N*	1.62 N*
Sodium	7440-23-5	NA	NA	45.4 UN*	42.4 UN*	52 UN*	59 UN*	70 UN*	70 UN*	42.1 JN*	42.1 JN*
Thallium	7440-28-0	NA	NA	0.91 U	0.845 U	1.04 U	0.359 J	0.397 J	0.397 J	0.72 J	0.72 J
Vanadium	7440-62-2	NA	NA	15.3 N*	15.5 N*	16.1 N*	17 N*	22.7 N*	22.7 N*	9.34 N*	9.34 N*
Zinc	7440-66-6	2200	10000	57.7	82.4	89.9	111	267	267	174	174
Total Concentration.				39100.078	39286.8	50566.014	60940.035	132797.86	132797.86	166094.395	166094.395

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	NY375	DUPE-Y	OFFSITE-1(0-2)	OFFSITE-1(2-10)	OFFSITE-2(0-2)	OFFSITE-2(2-10)	DUPE-X	ERACEWAY1(0-2)	ERACEWAY2(0-2)	WRACEWAY1(0-2)	WRACEWAY2(0-2)
Lab Sample Number		Residential	Restricted	D3483-01	D3483-13	D3483-14	D3483-15	D3483-16	D3483-17	D3483-18	D3483-20	D3483-22	D3483-24
Sampling Date			Residential	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #												
2,4,5-T	93-76-5	NA	NA	0.0345 U	0.043 U	0.0375 U	0.0475 U	0.0365 U	0.0385 U	0.043 U	0.045 U	0.065 U	0.0405 U
2,4,5-TP (SILVEX)	93-72-1	NA	NA	0.0345 U	0.043 U	0.0375 U	0.0475 U	0.0365 U	0.0385 U	0.043 U	0.045 U	0.065 U	0.0405 U
2,4-D	94-75-7	NA	NA	0.0345 U	0.043 U	0.0375 U	0.0475 U	0.0365 U	0.0385 U	0.043 U	0.045 U	0.065 U	0.0405 U
2,4-DB	94-82-6	NA	NA	0.0345 U	0.043 U	0.0375 U	0.0475 U	0.0365 U	0.0385 U	0.043 U	0.045 U	0.065 U	0.0405 U
DICAMBA	1918-00-9	NA	NA	0.0345 U	0.043 U	0.0375 U	0.0475 U	0.0365 U	0.0385 U	0.043 U	0.045 U	0.065 U	0.0405 U
DICHLORPROP	120-36-5	NA	NA	0.0345 U	0.043 U	0.0375 U	0.0475 U	0.0365 U	0.0385 U	0.043 U	0.045 U	0.065 U	0.0405 U
DINOSEB	88-85-7	NA	NA	0.0345 U	0.043 U	0.0375 U	0.0475 U	0.0365 U	0.0385 U	0.043 U	0.045 U	0.065 U	0.0405 U
Total Concentration.				0	0	0	0	0	0	0	0	0	0

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	Protection of Groundwater	WESTERNSLOPE-6A	
Lab Sample Number		Restricted	(NY375)	D3477-22	
Sampling Date		Residential		7/19/2012	
Matrix		Soil	Soil	SOIL	
Dilution Factor				1	
Units		mg/kg	mg/kg	mg/Kg	
COMPOUND	CAS #				
1,1,1-Trichloroethane	71-55-6	100	0.68	0.0025	U
1,1,2,2-Tetrachloroethane	79-34-5	NA		0.0025	U
1,1,2-Trichloroethane	79-00-5	NA		0.0025	U
1,1,2-Trichlorotrifluoroethane	76-13-1	NA		0.0025	U
1,1-Dichloroethane	75-34-3	26	0.27	0.0025	U
1,1-Dichloroethene	75-35-4	100	0.33	0.0025	U
1,2,3-Trichlorobenzene	87-61-6	NA		0.0025	U
1,2,4-Trichlorobenzene	120-82-1	NA		0.0025	U
1,2-Dibromo-3-Chloropropane	96-12-8	NA		0.0025	U
1,2-Dibromoethane	106-93-4	NA		0.0025	U
1,2-Dichlorobenzene	95-50-1	100	1.1	0.0025	U
1,2-Dichloroethane	107-06-2	3.1	0.02	0.0025	U
1,2-Dichloropropane	78-87-5	NA		0.0025	U
1,3-Dichlorobenzene	541-73-1	49	2.4	0.0025	U
1,4-Dichlorobenzene	106-46-7	13	1.8	0.0025	U
1,4-Dioxane	123-91-1	NA	0.1	0.05	U
2-Butanone	78-93-3	100		0.0125	U
2-Hexanone	591-78-6	NA		0.0125	U
4-Methyl-2-Pentanone	108-10-1	NA		0.0125	U
Acetone	67-64-1	100	0.05	0.0125	U
Benzene	71-43-2	4.8	0.06	0.0025	U
Bromochloromethane	74-97-5	NA		0.0025	U
Bromodichloromethane	75-27-4	NA		0.0025	U
Bromoform	75-25-2	NA		0.0025	U
Bromomethane	74-83-9	NA		0.0025	U
Carbon Disulfide	75-15-0	NA		0.0025	U
Carbon Tetrachloride	56-23-5	2.4	0.76	0.0025	U
Chlorobenzene	108-90-7	100	1.1	0.0025	U
Chloroethane	75-00-3	NA		0.0025	U
Chloroform	67-66-3	49	0.37	0.0025	U
Chloromethane	74-87-3	NA		0.0025	U
cis-1,2-Dichloroethene	156-59-2	100	0.25	0.0025	U
cis-1,3-Dichloropropene	10061-01-5	NA		0.0025	U
Cyclohexane	110-82-7	NA		0.0025	U
Dibromochloromethane	124-48-1	NA		0.0025	U
Dichlorodifluoromethane	75-71-8	NA		0.0025	U
Ethyl Benzene	100-41-4	41		0.0025	U
Isopropylbenzene	98-82-8	NA		0.0025	U
m/p-Xylenes	179601-23-1	NA		0.005	U
Methyl Acetate	79-20-9	NA		0.0025	U
Methyl tert-butyl Ether	1634-04-4	100	0.93	0.0025	U

Sample ID		NY375	Protection of Groundwater	WESTERNSLOPE-6A	
Lab Sample Number		Restricted	(NY375)	D3477-22	
Sampling Date		Residential		7/19/2012	
Matrix		Soil	Soil	SOIL	
Dilution Factor				1	
Units		mg/kg	mg/kg	mg/Kg	
COMPOUND	CAS #				
Methylcyclohexane	108-87-2	NA		0.0025	U
Methylene Chloride	75-09-2	100	0.05	0.0034	J
o-Xylene	95-47-6	NA		0.0025	U
Styrene	100-42-5	NA		0.0025	U
t-1,3-Dichloropropene	10061-02-6	NA		0.0025	U
Tetrachloroethene	127-18-4	19	1.3	0.0025	U
Toluene	108-88-3	100	0.7	0.0025	U
trans-1,2-Dichloroethene	156-60-5	100	0.19	0.0025	U
Trichloroethene	79-01-6	21	0.47	0.0025	U
Trichlorofluoromethane	75-69-4	NA		0.0025	U
Vinyl Chloride	75-01-4	0.9	0.02	0.0025	U

Total Concentration. 0.0034

Qualifiers

U - The compound was not detected at the indicated concentration.

N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

NR - Not analyzed

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Sample ID		NY375	Protection of Groundwater	WESTENSLOPE-6
Lab Sample Number		Restricted	(NY375)	D3477-21
Sampling Date		Residential		7/19/2012
Matrix		Soil	Soil	SOIL
Dilution Factor				1
Units		mg/kg	mg/kg	mg/Kg
COMPOUND	CAS #			
1,1-Biphenyl	92-52-4	NA		0.17 U
1,2,4,5-Tetrachlorobenzene	95-94-3			0.17 U
2,2-oxybis(1-Chloropropane)	108-60-1	NA		0.17 U
2,3,4,6-Tetrachlorophenol	58-90-2			0.17 U
2,4,5-Trichlorophenol	95-95-4	NA		0.17 U
2,4,6-Trichlorophenol	88-06-2	NA		0.17 U
2,4-Dichlorophenol	120-83-2	NA		0.17 U
2,4-Dimethylphenol	105-67-9	NA		0.17 U
2,4-Dinitrophenol	51-28-5	NA		0.17 U
2,4-Dinitrotoluene	121-14-2	NA		0.17 U
2,6-Dinitrotoluene	606-20-2	NA		0.17 U
2-Chloronaphthalene	91-58-7	NA		0.17 U
2-Chlorophenol	95-57-8	NA		0.17 U
2-Methylnaphthalene	91-57-6	NA		0.17 U
2-Methylphenol	95-48-7	100		0.17 U
2-Nitroaniline	88-74-4	NA		0.17 U
2-Nitrophenol	88-75-5	NA		0.17 U
3,3-Dichlorobenzidine	91-94-1	NA		0.17 U
3+4-Methylphenols	65794-96-9	100		0.17 U
3-Nitroaniline	99-09-2	NA		0.17 U
4,6-Dinitro-2-methylphenol	534-52-1	NA		0.17 U
4-Bromophenyl-phenylether	101-55-3	NA		0.17 U
4-Chloro-3-methylphenol	59-50-7	NA		0.17 U
4-Chloroaniline	106-47-8	NA		0.17 U
4-Chlorophenyl-phenylether	7005-72-3	NA		0.17 U
4-Nitroaniline	100-01-6	NA		0.17 U
4-Nitrophenol	100-02-7	NA		0.17 U
Acenaphthene	83-32-9	100	98	0.17 U
Acenaphthylene	208-96-8	100		0.17 U
Acetophenone	98-86-2	NA		0.17 U
Anthracene	120-12-7	100	1000	0.32 J
Atrazine	1912-24-9	NA		0.17 U
Benzaldehyde	100-52-7	NA		0.17 U
Benzo(a)anthracene	56-55-3	1		**1.4**
Benzo(a)pyrene	50-32-8	1	22	**1.4**
Benzo(b)fluoranthene	205-99-2	1	1.7	**1.9**
Benzo(g,h,i)perylene	191-24-2	100	1000	0.75
Benzo(k)fluoranthene	207-08-9	3.9	1.7	0.56
bis(2-Chloroethoxy)methane	111-91-1	NA		0.17 U

Sample ID		NY375	Protection of Groundwater	WESTENSLOPE-6
Lab Sample Number		Restricted	(NY375)	D3477-21
Sampling Date		Residential		7/19/2012
Matrix		Soil	Soil	SOIL
Dilution Factor				1
Units		mg/kg	mg/kg	mg/Kg
COMPOUND	CAS #			
bis(2-Chloroethyl)ether	111-44-4	NA		0.17 U
bis(2-Ethylhexyl)phthalate	117-81-7	NA		0.17 U
Butylbenzylphthalate	85-68-7	NA		0.17 U
Caprolactam	105-60-2	NA		0.17 U
Carbazole	86-74-8	NA		0.17 U
Chrysene	218-01-9	3.9	1	**1.3**
Dibenz(a,h)anthracene	53-70-3	0.33	1000	0.19 J
Dibenzofuran	132-64-9	59	210	0.17 U
Diethylphthalate	84-66-2	NA		0.17 U
Dimethylphthalate	131-11-3	NA		0.34 J
Di-n-butylphthalate	84-74-2	NA		0.17 U
Di-n-octyl phthalate	117-84-0	NA		0.17 U
Fluoranthene	206-44-0	100	1000	2.4
Fluorene	86-73-7	100	386	0.17 U
Hexachlorobenzene	118-74-1	1.2	3.2	0.17 U
Hexachlorobutadiene	87-68-3	NA		0.17 U
Hexachlorocyclopentadiene	77-47-4	NA		0.17 U
Hexachloroethane	67-72-1	NA		0.17 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	8.2	**0.77**
Isophorone	78-59-1	NA		0.17 U
Naphthalene	91-20-3	100	12	0.17 U
Nitrobenzene	98-95-3	NA		0.17 U
N-Nitroso-di-n-propylamine	621-64-7	NA		0.17 U
N-Nitrosodiphenylamine	86-30-6	NA		0.17 U
Pentachlorophenol	87-86-5	6.7	0.8	0.17 U
Phenanthrene	85-01-8	100	1000	1.3
Phenol	108-95-2	100	0.33	0.17 U
Pyrene	129-00-0	100	1000	2.1

Total Concentration. 14.73

Qualifiers

U - The compound was not detected at the indicated concentration.

N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

NR - Not analyzed

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Sample ID		NY375	Protection of Groundwater	WESTERNSLOPE-6	WESTERNSLOPE-6RE
Lab Sample Number		Restricted	(NY375)	D3477-21	D3477-21RE
Sampling Date		Residential		7/19/2012	7/19/2012
Matrix		Soil	Soil	SOIL	SOIL
Dilution Factor				1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg
COMPOUND	CAS #				
4,4-DDD	72-54-8	13		0.0009 U	0.0009 U
4,4-DDE	72-55-9	8.9	17	0.0009 U	0.0009 U
4,4-DDT	50-29-3	7.9	136	0.0009 U	0.0009 U
Aldrin	309-00-2	0.097	0.19	0.0009 U	0.0009 U
alpha-BHC	319-84-6	0.48	0.02	0.0009 U	0.0009 U
alpha-Chlordane	5103-71-9	4.2	2.9	0.0009 U	0.0009 U
beta-BHC	319-85-7	0.36	0.09	0.0009 U	0.0009 U
delta-BHC	319-86-8	100	0.25	0.0009 U	0.0009 U
Dieldrin	60-57-1	0.2	0.1	0.0009 U	0.0009 U
Endosulfan I	959-98-8	24	0	0.0009 U	0.0009 U
Endosulfan II	33213-65-9	24	102	0.0009 U	0.0009 U
Endosulfan Sulfate	1031-07-8	24	1000	0.0009 U	0.0009 U
Endrin	72-20-8	11	0.06	0.0009 U	0.0009 U
Endrin aldehyde	7421-93-4	NA		0.0009 U	0.0009 U
Endrin ketone	53494-70-5	NA		0.0009 U	0.0009 U
gamma-BHC	58-89-9	1.3	0.1	0.0009 U	0.0009 U
gamma-Chlordane	5103-74-2	NA		0.0009 U	0.0009 U
Heptachlor	76-44-8	2.1	0.38	0.0009 U	0.0009 U
Heptachlor epoxide	1024-57-3	NA		0.0009 U	0.0009 U
Methoxychlor	72-43-5	NA		0.0009 U	0.0009 U
Toxaphene	8001-35-2	NA		0.009 U	0.009 U
Total Concentration.				0	0

Qualifiers

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N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

NR - Not analyzed

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Sample ID		NY375	Protection of Groundwater	WESTERNSLOPE-6	
Lab Sample Number		Restricted	(NY375)	D3477-21	
Sampling Date		Residential		7/19/2012	
Matrix		Soil	Soil	SOIL	
Dilution Factor				1	
Units		mg/kg	mg/kg	mg/Kg	
COMPOUND	CAS #				
Aroclor-1016	12674-11-2	NA		0.009	U
Aroclor-1221	11104-28-2	NA		0.009	U
Aroclor-1232	11141-16-5	NA		0.009	U
Aroclor-1242	53469-21-9	NA		0.009	U
Aroclor-1248	12672-29-6	NA		0.009	U
Aroclor-1254	11097-69-1	NA		0.009	U
Aroclor-1260	11096-82-5	NA		0.009	U

Total Concentration. 0

Qualifiers

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N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

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Sample ID		NY375	Protection of Groundwater	WESTENSLOPE-6	WESTERNSLOPE-6	WESTERNSLOPE-1	WESTERNSLOPE-2	WESTERNSLOPE-3	WESTERNSLOPE-4	WESTERNSLOPE-5	WESTERNSLOPE-7	WESTENSLOPE8
Lab Sample Number		Restricted	(NY375)	D3477-21	D3477-21	D3477-23	D3477-24	D3477-25	D3477-26	D3477-27	D3477-28	D3483-03
Sampling Date		Residential		7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/17/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #											
Aluminum	7429-90-5	NA		4670	4670							
Antimony	7440-36-0	NA		324	324							
Arsenic	7440-38-2	16	16	**229**	**229**							
Barium	7440-39-3	400	820	280	280							
Beryllium	7440-41-7	72	47	0.207 J	0.207 J							
Cadmium	7440-43-9	4.3	7.5	1.44	1.44							
Calcium	7440-70-2	NA		10500	10500							
Chromium	7440-47-3	NA		14.9 N*	14.9 N*							
Cobalt	7440-48-4	NA		12.6 N	12.6 N							
Copper	7440-50-8	270	1720	**660**	**660**							
Iron	7439-89-6	NA		47000	47000							
Lead	7439-92-1	400	450	**12200**	**12200**	**3520**	**3040**	**2140**	**7440**	**3460**	**3530**	**2340**
Magnesium	7439-95-4	NA		1920	1920							
Manganese	7439-96-5	2000	2000	544	544							
Mercury	7439-97-6	0.81		0.233	0.233							
Nickel	7440-02-0	310	130	48.8 N*	48.8 N*							
Potassium	9/7/7440	NA		732	732							
Selenium	7782-49-2	180	4	**5.77**	**5.77**							
Silver	7440-22-4	180	8.3	4.18 N*	4.18 N*							
Sodium	7440-23-5	NA		37.3 UN*	37.3 UN*							
Thallium	7440-28-0	NA		0.745 U	0.745 U							
Vanadium	7440-62-2	NA		18.2	18.2							
Zinc	7440-66-6	10000	2480	294	294							
Total Concentration.				79496.63	79496.63	3520	3040	2140	7440	3460	3530	2340

Qualifiers

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B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

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E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.

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D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

NR - Not analyzed

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Sample ID		NY375	Protection of Groundwater	WESTERNSLOPE-6	
Lab Sample Number		Restricted	(NY375)	D3477-21	
Sampling Date		Residential		7/19/2012	
Matrix		Soil	Soil	SOIL	
Dilution Factor				1	
Units		mg/kg	mg/kg	mg/Kg	
COMPOUND	CAS #				
2,4,5-T	93-76-5	NA		0.0345	U
2,4,5-TP (SILVEX)	93-72-1	NA	3.8	0.0345	U
2,4-D	94-75-7	NA		0.0345	U
2,4-DB	94-82-6	NA		0.0345	U
DICAMBA	1918-00-9	NA		0.0345	U
DICHLORPROP	120-36-5	NA		0.0345	U
DINOSEB	88-85-7	NA		0.0345	U

Total Concentration. 0

Qualifiers

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N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

NR - Not analyzed

Soil Criteria
Summary for Project D3484

SamplingDate	Sample	NY375Res	NY375RestrictedRES	Comment
7/17/2012	PLUNGEPOOL	☒	☒	, METALs
7/17/2012	PLUNGEPOOLA	✓	✓	
7/17/2012	WESTENRACEWAY3	☒	☒	, METALs
7/17/2012	WESTENRACEWAY4	☒	☒	, METALs
7/17/2012	WESTENRACEWAY5	☒	☒	, METALs
7/17/2012	WESTENRACEWAY6	☒	☒	, METALs

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3484-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
1,1,1-Trichloroethane	71-55-6	2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	2.5 U
1,1,2-Trichloroethane	79-00-5	2.5 U
1,1,2-Trichlorotrifluoroethane	76-13-1	2.5 U
1,1-Dichloroethane	75-34-3	2.5 U
1,1-Dichloroethene	75-35-4	2.5 U
1,2,3-Trichlorobenzene	87-61-6	2.5 U
1,2,4-Trichlorobenzene	120-82-1	2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	2.5 U
1,2-Dibromoethane	106-93-4	2.5 U
1,2-Dichlorobenzene	95-50-1	2.5 U
1,2-Dichloroethane	107-06-2	2.5 U
1,2-Dichloropropane	78-87-5	2.5 U
1,3-Dichlorobenzene	541-73-1	2.5 U
1,4-Dichlorobenzene	106-46-7	2.5 U
1,4-Dioxane	123-91-1	50 U
2-Butanone	78-93-3	12.5 U
2-Hexanone	591-78-6	12.5 U
4-Methyl-2-Pentanone	108-10-1	12.5 U
Acetone	67-64-1	12.5 U
Benzene	71-43-2	2.5 U
Bromochloromethane	74-97-5	2.5 U
Bromodichloromethane	75-27-4	2.5 U
Bromoform	75-25-2	2.5 U
Bromomethane	74-83-9	2.5 U
Carbon Disulfide	75-15-0	2.5 U
Carbon Tetrachloride	56-23-5	2.5 U
Chlorobenzene	108-90-7	2.5 U
Chloroethane	75-00-3	2.5 U
Chloroform	67-66-3	2.5 U
Chloromethane	74-87-3	2.5 U
cis-1,2-Dichloroethene	156-59-2	2.5 U
cis-1,3-Dichloropropene	10061-01-5	2.5 U
Cyclohexane	110-82-7	2.5 U
Dibromochloromethane	124-48-1	2.5 U
Dichlorodifluoromethane	75-71-8	2.5 U
Ethyl Benzene	100-41-4	2.5 U
Isopropylbenzene	98-82-8	2.5 U
m/p-Xylenes	179601-23-1	5 U
Methyl Acetate	79-20-9	2.5 U
Methyl tert-butyl Ether	1634-04-4	2.5 U

Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3484-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
Methylcyclohexane	108-87-2	2.5 U
Methylene Chloride	75-09-2	2.5 U
o-Xylene	95-47-6	2.5 U
Styrene	100-42-5	2.5 U
t-1,3-Dichloropropene	10061-02-6	2.5 U
Tetrachloroethene	127-18-4	2.5 U
Toluene	108-88-3	2.5 U
trans-1,2-Dichloroethene	156-60-5	2.5 U
Trichloroethene	79-01-6	2.5 U
Trichlorofluoromethane	75-69-4	2.5 U
Vinyl Chloride	75-01-4	2.5 U
Total Concentration.		0
Total TICs		1.2

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3484-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
1,1-Biphenyl	92-52-4	5 U
1,2,4,5-Tetrachlorobenzene	95-94-3	5 U
2,2-oxybis(1-Chloropropane)	108-60-1	5 U
2,3,4,6-Tetrachlorophenol	58-90-2	5 U
2,4,5-Trichlorophenol	95-95-4	5 U
2,4,6-Trichlorophenol	88-06-2	5 U
2,4-Dichlorophenol	120-83-2	5 U
2,4-Dimethylphenol	105-67-9	5 U
2,4-Dinitrophenol	51-28-5	5 U
2,4-Dinitrotoluene	121-14-2	5 U
2,6-Dinitrotoluene	606-20-2	5 U
2-Chloronaphthalene	91-58-7	5 U
2-Chlorophenol	95-57-8	5 U
2-Methylnaphthalene	91-57-6	5 U
2-Methylphenol	95-48-7	5 U
2-Nitroaniline	88-74-4	5 U
2-Nitrophenol	88-75-5	5 U
3,3-Dichlorobenzidine	91-94-1	5 U
3+4-Methylphenols	65794-96-9	5 U
3-Nitroaniline	99-09-2	5 U
4,6-Dinitro-2-methylphenol	534-52-1	5 U
4-Bromophenyl-phenylether	101-55-3	5 U
4-Chloro-3-methylphenol	59-50-7	5 U
4-Chloroaniline	106-47-8	5 U
4-Chlorophenyl-phenylether	7005-72-3	5 U
4-Nitroaniline	100-01-6	5 U
4-Nitrophenol	100-02-7	5 U
Acenaphthene	83-32-9	5 U
Acenaphthylene	208-96-8	5 U
Acetophenone	98-86-2	5 U
Anthracene	120-12-7	5 U
Atrazine	1912-24-9	5 U
Benzaldehyde	100-52-7	5 U
Benzo(a)anthracene	56-55-3	5 U
Benzo(a)pyrene	50-32-8	5 U
Benzo(b)fluoranthene	205-99-2	5 U
Benzo(g,h,i)perylene	191-24-2	5 U
Benzo(k)fluoranthene	207-08-9	5 U
bis(2-Chloroethoxy)methane	111-91-1	5 U

Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3484-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
bis(2-Chloroethyl)ether	111-44-4	5 U
bis(2-Ethylhexyl)phthalate	117-81-7	5 U
Butylbenzylphthalate	85-68-7	5 U
Caprolactam	105-60-2	5 U
Carbazole	86-74-8	5 U
Chrysene	218-01-9	5 U
Dibenz(a,h)anthracene	53-70-3	5 U
Dibenzofuran	132-64-9	5 U
Diethylphthalate	84-66-2	5 U
Dimethylphthalate	131-11-3	5 U
Di-n-butylphthalate	84-74-2	5 U
Di-n-octyl phthalate	117-84-0	5 U
Fluoranthene	206-44-0	5 U
Fluorene	86-73-7	5 U
Hexachlorobenzene	118-74-1	5 U
Hexachlorobutadiene	87-68-3	5 U
Hexachlorocyclopentadiene	77-47-4	5 U
Hexachloroethane	67-72-1	5 U
Indeno(1,2,3-cd)pyrene	193-39-5	5 U
Isophorone	78-59-1	5 U
Naphthalene	91-20-3	5 U
Nitrobenzene	98-95-3	5 U
N-Nitroso-di-n-propylamine	621-64-7	5 U
N-Nitrosodiphenylamine	86-30-6	5 U
Pentachlorophenol	87-86-5	5 U
Phenanthrene	85-01-8	5 U
Phenol	108-95-2	5 U
Pyrene	129-00-0	5 U
Total Concentration.		0
Total TICs		172.3

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax: (908) 789-8922 www.chemtech.net

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3484-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
4,4-DDD	72-54-8	0.0255 U
4,4-DDE	72-55-9	0.0255 U
4,4-DDT	50-29-3	0.0255 U
Aldrin	309-00-2	0.0255 U
alpha-BHC	319-84-6	0.0255 U
alpha-Chlordane	5103-71-9	0.0255 U
beta-BHC	319-85-7	0.0255 U
delta-BHC	319-86-8	0.0255 U
Dieldrin	60-57-1	0.0255 U
Endosulfan I	959-98-8	0.0255 U
Endosulfan II	33213-65-9	0.0255 U
Endosulfan Sulfate	1031-07-8	0.0255 U
Endrin	72-20-8	0.0255 U
Endrin aldehyde	7421-93-4	0.0255 U
Endrin ketone	53494-70-5	0.0255 U
gamma-BHC	58-89-9	0.0255 U
gamma-Chlordane	5103-74-2	0.0255 U
Heptachlor	76-44-8	0.0255 U
Heptachlor epoxide	1024-57-3	0.0255 U
Methoxychlor	72-43-5	0.0255 U
Toxaphene	8001-35-2	0.255 U

Total Concentration. 0

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

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J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

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E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3484-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
Aroclor-1016	12674-11-2	0.26 U
Aroclor-1221	11104-28-2	0.26 U
Aroclor-1232	11141-16-5	0.26 U
Aroclor-1242	53469-21-9	0.26 U
Aroclor-1248	12672-29-6	0.26 U
Aroclor-1254	11097-69-1	0.26 U
Aroclor-1260	11096-82-5	0.26 U

Total Concentration. 0

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

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E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

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NR - Not analyzed

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3484-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
Aluminum	7429-90-5	8.14 J
Antimony	7440-36-0	12.5 U
Arsenic	7440-38-2	5 U
Barium	7440-39-3	25 UN
Beryllium	7440-41-7	1.5 U
Cadmium	7440-43-9	1.5 U
Calcium	7440-70-2	134 J
Chromium	7440-47-3	2.5 U
Cobalt	7440-48-4	7.5 U
Copper	7440-50-8	5 U
Iron	7439-89-6	20.6 J
Lead	7439-92-1	3 U
Magnesium	7439-95-4	500 U
Manganese	7439-96-5	5 U
Mercury	7439-97-6	0.1 U
Nickel	7440-02-0	10 U
Potassium	7440-09-7	131 J
Selenium	7782-49-2	5 U
Silver	7440-22-4	2.5 U
Sodium	7440-23-5	1500
Thallium	7440-28-0	10 U
Vanadium	7440-62-2	10 U
Zinc	7440-66-6	10 U

Total Concentration. 1818.74

Total TICs

Qualifiers

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N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3484-07**
Sampling Date		**7/17/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
2,4,5-T	93-76-5	1 U
2,4,5-TP (SILVEX)	93-72-1	1 U
2,4-D	94-75-7	1 U
2,4-DB	94-82-6	1 U
DICAMBA	1918-00-9	1 U
DICHLORPROP	120-36-5	1 U
DINOSEB	88-85-7	1 U

Total Concentration. 0

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

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NR - Not analyzed

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Sample ID		NY375	NY375	PLUNGEPOOLA	
Lab Sample Number		Residential	Restricted	D3484-02	
Sampling Date			Residential	7/17/2012	
Matrix		Soil	Soil	SOIL	
Dilution Factor				1	
Units		mg/kg	mg/kg	mg/Kg	
COMPOUND	CAS #				
1,1,1-Trichloroethane	71-55-6	100	100	0.0105	U
1,1,2,2-Tetrachloroethane	79-34-5	NA	NA	0.0105	U
1,1,2-Trichloroethane	79-00-5	NA	NA	0.0105	U
1,1,2-Trichlorotrifluoroethane	76-13-1	NA	NA	0.0105	U
1,1-Dichloroethane	75-34-3	19	26	0.0105	U
1,1-Dichloroethene	75-35-4	100	100	0.0105	U
1,2,3-Trichlorobenzene	87-61-6	NA	NA	0.0105	U
1,2,4-Trichlorobenzene	120-82-1	NA	NA	0.0105	U
1,2-Dibromo-3-Chloropropane	96-12-8	NA	NA	0.0105	U
1,2-Dibromoethane	106-93-4	NA	NA	0.0105	U
1,2-Dichlorobenzene	95-50-1	100	100	0.0105	U
1,2-Dichloroethane	107-06-2	2.3	3.1	0.0105	U
1,2-Dichloropropane	78-87-5	NA	NA	0.0105	U
1,3-Dichlorobenzene	541-73-1	17	49	0.0105	U
1,4-Dichlorobenzene	106-46-7	9.8	13	0.0105	U
1,4-Dioxane	123-91-1	NA	NA	0.205	U
2-Butanone	78-93-3	100	100	0.05	U
2-Hexanone	591-78-6	NA	NA	0.05	U
4-Methyl-2-Pentanone	108-10-1	NA	NA	0.05	U
Acetone	67-64-1	100	100	0.05	U
Benzene	71-43-2	2.9	4.8	0.0105	U
Bromochloromethane	74-97-5	NA	NA	0.0105	U
Bromodichloromethane	75-27-4	NA	NA	0.0105	U
Bromoform	75-25-2	NA	NA	0.0105	U
Bromomethane	74-83-9	NA	NA	0.0105	U
Carbon Disulfide	75-15-0	NA	NA	0.0105	U
Carbon Tetrachloride	56-23-5	1.4	2.4	0.0105	U
Chlorobenzene	108-90-7	100	100	0.0105	U
Chloroethane	75-00-3	NA	NA	0.0105	U
Chloroform	67-66-3	10	49	0.0105	U
Chloromethane	74-87-3	NA	NA	0.0105	U
cis-1,2-Dichloroethene	156-59-2	59	100	0.0105	U
cis-1,3-Dichloropropene	10061-01-5	NA	NA	0.0105	U
Cyclohexane	110-82-7	NA	NA	0.0105	U
Dibromochloromethane	124-48-1	NA	NA	0.0105	U
Dichlorodifluoromethane	75-71-8	NA	NA	0.0105	U
Ethyl Benzene	100-41-4	30	41	0.0105	U
Isopropylbenzene	98-82-8	NA	NA	0.0105	U
m/p-Xylenes	179601-23-1	NA	NA	0.0205	U
Methyl Acetate	79-20-9	NA	NA	0.0105	U
Methyl tert-butyl Ether	1634-04-4	62	100	0.0105	U
Methylcyclohexane	108-87-2	NA	NA	0.0105	U

Sample ID		NY375	NY375	PLUNGEPOOLA	
Lab Sample Number		Residential	Restricted	D3484-02	
Sampling Date			Residential	7/17/2012	
Matrix		Soil	Soil	SOIL	
Dilution Factor				1	
Units		mg/kg	mg/kg	mg/Kg	
COMPOUND	CAS #				
Methylene Chloride	75-09-2	51	100	0.0105	U
o-Xylene	95-47-6	NA	NA	0.0105	U
Styrene	100-42-5	NA	NA	0.0105	U
t-1,3-Dichloropropene	10061-02-6	NA	NA	0.0105	U
Tetrachloroethene	127-18-4	5.5	19	0.0105	U
Toluene	108-88-3	100	100	0.0105	U
trans-1,2-Dichloroethene	156-60-5	100	100	0.0105	U
Trichloroethene	79-01-6	10	21	0.0105	U
Trichlorofluoromethane	75-69-4	NA	NA	0.0105	U
Vinyl Chloride	75-01-4	0.21	0.9	0.0105	U

Total Concentration. 0

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	NY375	PLUNGEPOOL
Lab Sample Number		Residential	Restricted	D3484-01
Sampling Date			Residential	7/17/2012
Matrix		Soil	Soil	SOIL
Dilution Factor				1
Units		mg/kg	mg/kg	mg/Kg
COMPOUND	CAS #			
1,1-Biphenyl	92-52-4	NA	NA	0.6 U
1,2,4,5-Tetrachlorobenzene	95-94-3			0.6 U
2,2-oxybis(1-Chloropropane)	108-60-1	NA	NA	0.6 U
2,3,4,6-Tetrachlorophenol	58-90-2			0.6 U
2,4,5-Trichlorophenol	95-95-4	NA	NA	0.6 U
2,4,6-Trichlorophenol	88-06-2	NA	NA	0.6 U
2,4-Dichlorophenol	120-83-2	NA	NA	0.6 U
2,4-Dimethylphenol	105-67-9	NA	NA	0.6 U
2,4-Dinitrophenol	51-28-5	NA	NA	0.6 U
2,4-Dinitrotoluene	121-14-2	NA	NA	0.6 U
2,6-Dinitrotoluene	606-20-2	NA	NA	0.6 U
2-Chloronaphthalene	91-58-7	NA	NA	0.6 U
2-Chlorophenol	95-57-8	NA	NA	0.6 U
2-Methylnaphthalene	91-57-6	NA	NA	0.6 U
2-Methylphenol	95-48-7	100	100	0.6 U
2-Nitroaniline	88-74-4	NA	NA	0.6 U
2-Nitrophenol	88-75-5	NA	NA	0.6 U
3,3-Dichlorobenzidine	91-94-1	NA	NA	0.6 U
3+4-Methylphenols	65794-96-9	34	100	0.6 U
3-Nitroaniline	99-09-2	NA	NA	0.6 U
4,6-Dinitro-2-methylphenol	534-52-1	NA	NA	0.6 U
4-Bromophenyl-phenylether	101-55-3	NA	NA	0.6 U
4-Chloro-3-methylphenol	59-50-7	NA	NA	0.6 U
4-Chloroaniline	106-47-8	NA	NA	0.6 U
4-Chlorophenyl-phenylether	7005-72-3	NA	NA	0.6 U
4-Nitroaniline	100-01-6	NA	NA	0.6 U
4-Nitrophenol	100-02-7	NA	NA	0.6 U
Acenaphthene	83-32-9	100	100	0.6 U
Acenaphthylene	208-96-8	100	100	0.6 U
Acetophenone	98-86-2	NA	NA	0.6 U
Anthracene	120-12-7	100	100	0.6 U
Atrazine	1912-24-9	NA	NA	0.6 U
Benzaldehyde	100-52-7	NA	NA	0.6 U
Benzo(a)anthracene	56-55-3	1	1	0.6 U
Benzo(a)pyrene	50-32-8	1	1	0.6 U
Benzo(b)fluoranthene	205-99-2	1	1	0.6 U
Benzo(g,h,i)perylene	191-24-2	100	100	0.6 U
Benzo(k)fluoranthene	207-08-9	1	3.9	0.6 U
bis(2-Chloroethoxy)methane	111-91-1	NA	NA	0.6 U
bis(2-Chloroethyl)ether	111-44-4	NA	NA	0.6 U
bis(2-Ethylhexyl)phthalate	117-81-7	NA	NA	0.6 U
Butylbenzylphthalate	85-68-7	NA	NA	0.6 U

Sample ID		NY375	NY375	PLUNGEPOOL
Lab Sample Number		Residential	Restricted	D3484-01
Sampling Date			Residential	7/17/2012
Matrix		Soil	Soil	SOIL
Dilution Factor				1
Units		mg/kg	mg/kg	mg/Kg
COMPOUND	CAS #			
Caprolactam	105-60-2	NA	NA	0.6 U
Carbazole	86-74-8	NA	NA	0.6 U
Chrysene	218-01-9	1	3.9	0.6 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.6 U
Dibenzofuran	132-64-9	14	59	0.6 U
Diethylphthalate	84-66-2	NA	NA	0.6 U
Dimethylphthalate	131-11-3	NA	NA	1.4
Di-n-butylphthalate	84-74-2	NA	NA	0.6 U
Di-n-octyl phthalate	117-84-0	NA	NA	0.6 U
Fluoranthene	206-44-0	100	100	0.6 U
Fluorene	86-73-7	100	100	0.6 U
Hexachlorobenzene	118-74-1	0.33	1.2	0.6 U
Hexachlorobutadiene	87-68-3	NA	NA	0.6 U
Hexachlorocyclopentadiene	77-47-4	NA	NA	0.6 U
Hexachloroethane	67-72-1	NA	NA	0.6 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.5	0.6 U
Isophorone	78-59-1	NA	NA	0.6 U
Naphthalene	91-20-3	100	100	0.6 U
Nitrobenzene	98-95-3	NA	NA	0.6 U
N-Nitroso-di-n-propylamine	621-64-7	NA	NA	0.6 U
N-Nitrosodiphenylamine	86-30-6	NA	NA	0.6 U
Pentachlorophenol	87-86-5	2.4	6.7	0.6 U
Phenanthrene	85-01-8	100	100	0.6 U
Phenol	108-95-2	100	100	0.6 U
Pyrene	129-00-0	100	100	0.6 U

Total Concentration. 1.4

Total TICs 9.71

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	NY375	PLUNGEPOOL
Lab Sample Number		Residential	Restricted	D3484-01
Sampling Date			Residential	7/17/2012
Matrix		Soil	Soil	SOIL
Dilution Factor				1
Units		mg/kg	mg/kg	mg/Kg
COMPOUND	CAS #			
4,4-DDD	72-54-8	2.6	13	0.0032 U
4,4-DDE	72-55-9	1.8	8.9	0.0032 U
4,4-DDT	50-29-3	1.7	7.9	0.0032 U
Aldrin	309-00-2	0.019	0.097	0.0032 U
alpha-BHC	319-84-6	0.097	0.48	0.0032 U
alpha-Chlordane	5103-71-9	0.91	4.2	0.0032 U
beta-BHC	319-85-7	0.072	0.36	0.0032 U
delta-BHC	319-86-8	100	100	0.0032 U
Dieldrin	60-57-1	0.039	0.2	0.0032 U
Endosulfan I	959-98-8	4.8	24	0.0032 U
Endosulfan II	33213-65-9	4.8	24	0.0032 U
Endosulfan Sulfate	1031-07-8	4.8	24	0.0032 U
Endrin	72-20-8	2.2	11	0.0032 U
Endrin aldehyde	7421-93-4	NA	NA	0.0032 U
Endrin ketone	53494-70-5	NA	NA	0.0032 U
gamma-BHC	58-89-9	0.28	1.3	0.0032 U
gamma-Chlordane	5103-74-2	NA	NA	0.0032 U
Heptachlor	76-44-8	0.42	2.1	0.0032 U
Heptachlor epoxide	1024-57-3	NA	NA	0.0032 U
Methoxychlor	72-43-5	NA	NA	0.0032 U
Toxaphene	8001-35-2	NA	NA	0.032 U

Total Concentration. 0

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

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NR - Not analyzed

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Sample ID		NY375	NY375	PLUNGEPOOL
Lab Sample Number		Residential	Restricted	D3484-01
Sampling Date			Residential	7/17/2012
Matrix		Soil	Soil	SOIL
Dilution Factor				1
Units		mg/kg	mg/kg	mg/Kg
COMPOUND	CAS #			
Aroclor-1016	12674-11-2	NA	NA	0.0315 U
Aroclor-1221	11104-28-2	NA	NA	0.0315 U
Aroclor-1232	11141-16-5	NA	NA	0.0315 U
Aroclor-1242	53469-21-9	NA	NA	0.0315 U
Aroclor-1248	12672-29-6	NA	NA	0.0315 U
Aroclor-1254	11097-69-1	NA	NA	0.0315 U
Aroclor-1260	11096-82-5	NA	NA	0.0315 U

Total Concentration. 0

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

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Sample ID		NY375	NY375	PLUNGEPOOL		PLUNGEPOOL		WESTENRACEWAY4		WESTENRACEWAY5		WESTENRACEWAY6		WESTENRACEWAY3	
Lab Sample Number		Residential	Restricted	D3484-01		D3484-01		D3484-03		D3484-04		D3484-05		D3484-06	
Sampling Date			Residential	7/17/2012		7/17/2012		7/17/2012		7/17/2012		7/17/2012		7/17/2012	
Matrix		Soil	Soil	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Dilution Factor				1		10		1		1		1		1	
Units		mg/kg	mg/kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
COMPOUND	CAS #														
Aluminum	7429-90-5	NA	NA	12300											
Antimony	7440-36-0	NA	NA	49.3	N*										
Arsenic	7440-38-2	16	16	**21.3**	N*										
Barium	7440-39-3	350	400	141	N*										
Beryllium	7440-41-7	14	72	0.271	J										
Cadmium	7440-43-9	2.5	4.3	1.96											
Calcium	7440-70-2	NA	NA	117000											
Chromium	7440-47-3	NA	NA	33.8											
Cobalt	7440-48-4	NA	NA	17.9											
Copper	7440-50-8	270	270	170											
Iron	7439-89-6	NA	NA	38500											
Lead	7439-92-1	400	400	**2280**				**5410**		**1620**		**10400**		**8930**	
Magnesium	7439-95-4	NA	NA	8120											
Manganese	7439-96-5	2000	2000	473											
Mercury	7439-97-6	0.81	0.81			**3.81**	D								
Nickel	7440-02-0	140	310	47.4											
Potassium	7440-09-7	NA	NA	1390	N*										
Selenium	7782-49-2	36	180	10.8											
Silver	7440-22-4	36	180	2.25	N*										
Sodium	7440-23-5	NA	NA	1640	N										
Thallium	7440-28-0	NA	NA	3.76	U										
Vanadium	7440-62-2	NA	NA	20.7	N*										
Zinc	7440-66-6	2200	10000	620											
Total Concentration.				182839.681		3.81		5410		1620		10400		8930	

Total TICs

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Sample ID		NY375	NY375	PLUNGEPOOL
Lab Sample Number		Residential	Restricted	D3484-01
Sampling Date			Residential	7/17/2012
Matrix		Soil	Soil	SOIL
Dilution Factor				1
Units		mg/kg	mg/kg	mg/Kg
COMPOUND	CAS #			
2,4,5-T	93-76-5	NA	NA	0.125 U
2,4,5-TP (SILVEX)	93-72-1	NA	NA	0.125 U
2,4-D	94-75-7	NA	NA	0.125 U
2,4-DB	94-82-6	NA	NA	0.125 U
DICAMBA	1918-00-9	NA	NA	0.125 U
DICHLORPROP	120-36-5	NA	NA	0.125 U
DINOSEB	88-85-7	NA	NA	0.125 U

Total Concentration. 0

Total TICs

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Soil Criteria
Summary for Project D3923

SamplingDate	Sample	NY375Res	NY375RestrictedRES	Comment
8/22/2012	A-1	☒	☒	, METALs
8/22/2012	A-2	☒	☒	, METALs
8/22/2012	A-3	☒	☒	, METALs
8/22/2012	A-4	☒	☒	, METALs
8/22/2012	A-5	☒	☒	, METALs
8/22/2012	A-6	☒	☒	, METALs
8/22/2012	C-1	☒	☒	, METALs
8/22/2012	C-2	✓	✓	
8/22/2012	C-3	☒	☒	, METALs, SVOC-TCL BNA -20
8/22/2012	C-3DL	☒	☒	, SVOC-TCL BNA -20
8/22/2012	C-4	✓	✓	
8/22/2012	C-5	☒	☒	, SVOC-TCL BNA -20
8/22/2012	C-6	✓	✓	
8/22/2012	DUPE-X	☒	☒	, SVOC-TCL BNA -20

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Sample ID		**EQUIPMENTBLANK**	**TRIPBLANK**
Lab Sample Number		**D3923-16**	**D3923-17**
Sampling Date		**8/22/2012**	**8/22/2012**
Matrix		**WATER**	**WATER**
Dilution Factor		**1**	**1**
Units		**ug/L**	**ug/L**
COMPOUND	CAS #		
1,1,1-Trichloroethane	71-55-6	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	2.5 U	2.5 U
1,1,2-Trichloroethane	79-00-5	2.5 U	2.5 U
1,1,2-Trichlorotrifluoroethane	76-13-1	2.5 U	2.5 U
1,1-Dichloroethane	75-34-3	2.5 U	2.5 U
1,1-Dichloroethene	75-35-4	2.5 U	2.5 U
1,2,3-Trichlorobenzene	87-61-6	2.5 U	2.5 U
1,2,4-Trichlorobenzene	120-82-1	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	96-12-8	2.5 U	2.5 U
1,2-Dibromoethane	106-93-4	2.5 U	2.5 U
1,2-Dichlorobenzene	95-50-1	2.5 U	2.5 U
1,2-Dichloroethane	107-06-2	2.5 U	2.5 U
1,2-Dichloropropane	78-87-5	2.5 U	2.5 U
1,3-Dichlorobenzene	541-73-1	2.5 U	2.5 U
1,4-Dichlorobenzene	106-46-7	2.5 U	2.5 U
1,4-Dioxane	123-91-1	50 U	50 U
2-Butanone	78-93-3	12.5 U	12.5 U
2-Hexanone	591-78-6	12.5 U	12.5 U
4-Methyl-2-Pentanone	108-10-1	12.5 U	12.5 U
Acetone	67-64-1	12.5 U	12.5 U
Benzene	71-43-2	2.5 U	2.5 U
Bromochloromethane	74-97-5	2.5 U	2.5 U
Bromodichloromethane	75-27-4	2.5 U	2.5 U
Bromoform	75-25-2	2.5 U	2.5 U
Bromomethane	74-83-9	2.5 U	2.5 U
Carbon Disulfide	75-15-0	2.5 U	2.5 U
Carbon Tetrachloride	56-23-5	2.5 U	2.5 U
Chlorobenzene	108-90-7	2.5 U	2.5 U
Chloroethane	75-00-3	2.5 U	2.5 U
Chloroform	67-66-3	2.5 U	2.5 U
Chloromethane	74-87-3	2.5 U	2.5 U
cis-1,2-Dichloroethene	156-59-2	2.5 U	2.5 U
cis-1,3-Dichloropropene	10061-01-5	2.5 U	2.5 U
Cyclohexane	110-82-7	2.5 U	2.5 U
Dibromochloromethane	124-48-1	2.5 U	2.5 U
Dichlorodifluoromethane	75-71-8	2.5 U	2.5 U
Ethyl Benzene	100-41-4	2.5 U	2.5 U
Isopropylbenzene	98-82-8	2.5 U	2.5 U
m/p-Xylenes	179601-23-1	5 U	5 U
Methyl Acetate	79-20-9	2.5 U	2.5 U
Methyl tert-butyl Ether	1634-04-4	2.5 U	2.5 U
Methylcyclohexane	108-87-2	2.5 U	2.5 U
Methylene Chloride	75-09-2	12	2.5 U
o-Xylene	95-47-6	2.5 U	2.5 U
Styrene	100-42-5	2.5 U	2.5 U
t-1,3-Dichloropropene	10061-02-6	2.5 U	2.5 U

Sample ID		EQUIPMENTBLANK	TRIPBLANK
Lab Sample Number		**D3923-16**	**D3923-17**
Sampling Date		**8/22/2012**	**8/22/2012**
Matrix		**WATER**	**WATER**
Dilution Factor		**1**	**1**
Units		**ug/L**	**ug/L**
COMPOUND	CAS #		
Tetrachloroethene	127-18-4	2.5 U	2.5 U
Toluene	108-88-3	2.5 U	2.5 U
trans-1,2-Dichloroethene	156-60-5	2.5 U	2.5 U
Trichloroethene	79-01-6	2.5 U	2.5 U
Trichlorofluoromethane	75-69-4	2.5 U	2.5 U
Vinyl Chloride	75-01-4	2.5 U	2.5 U
Total Concentration.		12	0

Total TICs

Qualifiers

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3923-16**
Sampling Date		**8/22/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
1,1-Biphenyl	92-52-4	5 U
1,2,4,5-Tetrachlorobenzene	95-94-3	5 U
2,2-oxybis(1-Chloropropane)	108-60-1	5 U
2,3,4,6-Tetrachlorophenol	58-90-2	5 UQ
2,4,5-Trichlorophenol	95-95-4	5 U
2,4,6-Trichlorophenol	88-06-2	5 UQ
2,4-Dichlorophenol	120-83-2	5 U
2,4-Dimethylphenol	105-67-9	5 U
2,4-Dinitrophenol	51-28-5	5 U
2,4-Dinitrotoluene	121-14-2	5 U
2,6-Dinitrotoluene	606-20-2	5 U
2-Chloronaphthalene	91-58-7	5 U
2-Chlorophenol	95-57-8	5 U
2-Methylnaphthalene	91-57-6	5 U
2-Methylphenol	95-48-7	5 U
2-Nitroaniline	88-74-4	5 U
2-Nitrophenol	88-75-5	5 U
3,3-Dichlorobenzidine	91-94-1	5 U
3+4-Methylphenols	65794-96-9	5 U
3-Nitroaniline	99-09-2	5 U
4,6-Dinitro-2-methylphenol	534-52-1	5 U
4-Bromophenyl-phenylether	101-55-3	5 U
4-Chloro-3-methylphenol	59-50-7	5 U
4-Chloroaniline	106-47-8	5 U
4-Chlorophenyl-phenylether	7005-72-3	5 U
4-Nitroaniline	100-01-6	5 U
4-Nitrophenol	100-02-7	5 U
Acenaphthene	83-32-9	5 U
Acenaphthylene	208-96-8	5 U
Acetophenone	98-86-2	5 U
Anthracene	120-12-7	5 U
Atrazine	1912-24-9	5 U
Benzaldehyde	100-52-7	5 U
Benzo(a)anthracene	56-55-3	5 U
Benzo(a)pyrene	50-32-8	5 U
Benzo(b)fluoranthene	205-99-2	5 U
Benzo(g,h,i)perylene	191-24-2	5 U
Benzo(k)fluoranthene	207-08-9	5 U
bis(2-Chloroethoxy)methane	111-91-1	5 U
bis(2-Chloroethyl)ether	111-44-4	5 U
bis(2-Ethylhexyl)phthalate	117-81-7	5 UQ
Butylbenzylphthalate	85-68-7	5 UQ
Caprolactam	105-60-2	5 U
Carbazole	86-74-8	5 UQ
Chrysene	218-01-9	5 U
Dibenz(a,h)anthracene	53-70-3	5 U

Sample ID		**EQUIPMENTBLANK**	
Lab Sample Number		**D3923-16**	
Sampling Date		**8/22/2012**	
Matrix		**WATER**	
Dilution Factor		**1**	
Units		**ug/L**	
COMPOUND	CAS #		
Dibenzofuran	132-64-9	5	UQ
Diethylphthalate	84-66-2	5	UQ
Dimethylphthalate	131-11-3	5	UQ
Di-n-butylphthalate	84-74-2	5	UQ
Di-n-octyl phthalate	117-84-0	5	UQ
Fluoranthene	206-44-0	5	U
Fluorene	86-73-7	5	U
Hexachlorobenzene	118-74-1	5	U
Hexachlorobutadiene	87-68-3	5	U
Hexachlorocyclopentadiene	77-47-4	5	U
Hexachloroethane	67-72-1	5	U
Indeno(1,2,3-cd)pyrene	193-39-5	5	U
Isophorone	78-59-1	5	UQ
Naphthalene	91-20-3	5	U
Nitrobenzene	98-95-3	5	U
N-Nitroso-di-n-propylamine	621-64-7	5	U
N-Nitrosodiphenylamine	86-30-6	5	UQ
Pentachlorophenol	87-86-5	5	U
Phenanthrene	85-01-8	5	U
Phenol	108-95-2	5	U
Pyrene	129-00-0	5	UQ

Total Concentration.	0
Total TICs	12.5

Qualifiers

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3923-16**
Sampling Date		**8/22/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
4,4-DDD	72-54-8	0.0255 U
4,4-DDE	72-55-9	0.0255 U
4,4-DDT	50-29-3	0.0255 U
Aldrin	309-00-2	0.0255 U
alpha-BHC	319-84-6	0.0255 U
alpha-Chlordane	5103-71-9	0.0255 U
beta-BHC	319-85-7	0.0255 U
delta-BHC	319-86-8	0.0255 U
Dieldrin	60-57-1	0.0255 U
Endosulfan I	959-98-8	0.0255 U
Endosulfan II	33213-65-9	0.0255 U
Endosulfan Sulfate	1031-07-8	0.0255 U
Endrin	72-20-8	0.0255 U
Endrin aldehyde	7421-93-4	0.0255 U
Endrin ketone	53494-70-5	0.0255 U
gamma-BHC	58-89-9	0.0255 U
gamma-Chlordane	5103-74-2	0.0255 U
Heptachlor	76-44-8	0.0255 U
Heptachlor epoxide	1024-57-3	0.0255 U
Methoxychlor	72-43-5	0.0255 U
Toxaphene	8001-35-2	0.255 U

Total Concentration. 0

Total TICs

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3923-16**
Sampling Date		**8/22/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
Aroclor-1016	12674-11-2	0.26 U
Aroclor-1221	11104-28-2	0.26 U
Aroclor-1232	11141-16-5	0.26 U
Aroclor-1242	53469-21-9	0.26 U
Aroclor-1248	12672-29-6	0.26 U
Aroclor-1254	11097-69-1	0.26 U
Aroclor-1260	11096-82-5	0.26 U

Total Concentration. 0

Total TICs

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3923-16**
Sampling Date		**8/22/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
Aluminum	7429-90-5	81.5
Antimony	7440-36-0	12.5 U
Arsenic	7440-38-2	5 U
Barium	7440-39-3	25 U
Beryllium	7440-41-7	1.5 U
Cadmium	7440-43-9	1.5 U
Calcium	7440-70-2	1030
Chromium	7440-47-3	2.25 J
Cobalt	7440-48-4	7.5 U
Copper	7440-50-8	2.23 J
Iron	7439-89-6	406
Lead	7439-92-1	73.1
Magnesium	7439-95-4	126 J
Manganese	7439-96-5	7.02 J
Mercury	7439-97-6	0.1 U
Nickel	7440-02-0	10 U
Potassium	7440-09-7	165 J
Selenium	7782-49-2	5 U
Silver	7440-22-4	2.5 U
Sodium	7440-23-5	1430
Thallium	7440-28-0	10 U
Vanadium	7440-62-2	10 U
Zinc	7440-66-6	46.3

Total Concentration. 3369.4

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		**EQUIPMENTBLANK**
Lab Sample Number		**D3923-16**
Sampling Date		**8/22/2012**
Matrix		**WATER**
Dilution Factor		**1**
Units		**ug/L**
COMPOUND	CAS #	
2,4,5-T	93-76-5	1 U
2,4,5-TP (SILVEX)	93-72-1	1 U
2,4-D	94-75-7	1 U
2,4-DB	94-82-6	1 U
DICAMBA	1918-00-9	1 U
DICHLORPROP	120-36-5	1 U
DINOSEB	88-85-7	1 U

Total Concentration. 0

Total TICs

Qualifiers

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J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	NY375	C-3	C-5	DUPE-X
Lab Sample Number		Residential	Restricted	D3923-09	D3923-13	D3923-15
Sampling Date			Residential	8/22/2012	8/22/2012	8/22/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL
Dilution Factor				1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #					
1,1,1-Trichloroethane	71-55-6	100	100	0.0026 U	0.0026 U	0.0026 U
1,1,2,2-Tetrachloroethane	79-34-5	NA	NA	0.0026 U	0.0026 U	0.0026 U
1,1,2-Trichloroethane	79-00-5	NA	NA	0.0026 U	0.0026 U	0.0026 U
1,1,2-Trichlorotrifluoroethane	76-13-1	NA	NA	0.0026 U	0.0026 U	0.0026 U
1,1-Dichloroethane	75-34-3	19	26	0.0026 U	0.0026 U	0.0026 U
1,1-Dichloroethene	75-35-4	100	100	0.0026 U	0.0026 U	0.0026 U
1,2,3-Trichlorobenzene	87-61-6	NA	NA	0.0026 U	0.0026 U	0.0026 U
1,2,4-Trichlorobenzene	120-82-1	NA	NA	0.0026 U	0.0026 U	0.0026 U
1,2-Dibromo-3-Chloropropane	96-12-8	NA	NA	0.0026 U	0.0026 U	0.0026 U
1,2-Dibromoethane	106-93-4	NA	NA	0.0026 U	0.0026 U	0.0026 U
1,2-Dichlorobenzene	95-50-1	100	100	0.0026 U	0.0026 U	0.0026 U
1,2-Dichloroethane	107-06-2	2.3	3.1	0.0026 U	0.0026 U	0.0026 U
1,2-Dichloropropane	78-87-5	NA	NA	0.0026 U	0.0026 U	0.0026 U
1,3-Dichlorobenzene	541-73-1	17	49	0.0026 U	0.0026 U	0.0026 U
1,4-Dichlorobenzene	106-46-7	9.8	13	0.0026 U	0.0026 U	0.0026 U
1,4-Dioxane	123-91-1	NA	NA	0.05 U	0.05 U	0.05 U
2-Butanone	78-93-3	100	100	0.013 U	0.013 U	0.013 U
2-Hexanone	591-78-6	NA	NA	0.013 U	0.013 U	0.013 U
4-Methyl-2-Pentanone	108-10-1	NA	NA	0.013 U	0.013 U	0.013 U
Acetone	67-64-1	100	100	0.013 U	0.013 U	0.013 U
Benzene	71-43-2	2.9	4.8	0.0026 U	0.0026 U	0.0026 U
Bromochloromethane	74-97-5	NA	NA	0.0026 U	0.0026 U	0.0026 U
Bromodichloromethane	75-27-4	NA	NA	0.0026 U	0.0026 U	0.0026 U
Bromoform	75-25-2	NA	NA	0.0026 U	0.0026 U	0.0026 U
Bromomethane	74-83-9	NA	NA	0.0026 U	0.0026 U	0.0026 U
Carbon Disulfide	75-15-0	NA	NA	0.0026 U	0.0026 U	0.0026 U
Carbon Tetrachloride	56-23-5	1.4	2.4	0.0026 U	0.0026 U	0.0026 U
Chlorobenzene	108-90-7	100	100	0.0026 U	0.0026 U	0.0026 U
Chloroethane	75-00-3	NA	NA	0.0026 U	0.0026 U	0.0026 U
Chloroform	67-66-3	10	49	0.0026 U	0.0026 U	0.0026 U
Chloromethane	74-87-3	NA	NA	0.0026 U	0.0026 U	0.0026 U
cis-1,2-Dichloroethene	156-59-2	59	100	0.0026 U	0.0026 U	0.0026 U
cis-1,3-Dichloropropene	10061-01-5	NA	NA	0.0026 U	0.0026 U	0.0026 U
Cyclohexane	110-82-7	NA	NA	0.0026 U	0.0026 U	0.0026 U
Dibromochloromethane	124-48-1	NA	NA	0.0026 U	0.0026 U	0.0026 U
Dichlorodifluoromethane	75-71-8	NA	NA	0.0026 U	0.0026 U	0.0026 U
Ethyl Benzene	100-41-4	30	41	0.0026 U	0.0026 U	0.0026 U
Isopropylbenzene	98-82-8	NA	NA	0.0026 U	0.0026 U	0.0026 U
m/p-Xylenes	179601-23-1	NA	NA	0.005 U	0.005 U	0.005 U
Methyl Acetate	79-20-9	NA	NA	0.0026 U	0.0026 U	0.0026 U
Methyl tert-butyl Ether	1634-04-4	62	100	0.0026 U	0.0026 U	0.0026 U
Methylcyclohexane	108-87-2	NA	NA	0.0026 U	0.0026 U	0.0026 U

Sample ID		NY375	NY375	C-3	C-5	DUPE-X
Lab Sample Number		**Residential**	**Restricted**	**D3923-09**	**D3923-13**	**D3923-15**
Sampling Date			**Residential**	**8/22/2012**	**8/22/2012**	**8/22/2012**
Matrix		**Soil**	**Soil**	**SOIL**	**SOIL**	**SOIL**
Dilution Factor				**1**	**1**	**1**
Units		**mg/kg**	**mg/kg**	**mg/Kg**	**mg/Kg**	**mg/Kg**
COMPOUND	CAS #					
Methylene Chloride	75-09-2	51	100	0.0026 U	0.0026 U	0.0026 U
o-Xylene	95-47-6	NA	NA	0.0026 U	0.0026 U	0.0026 U
Styrene	100-42-5	NA	NA	0.0026 U	0.0026 U	0.0026 U
t-1,3-Dichloropropene	10061-02-6	NA	NA	0.0026 U	0.0026 U	0.0026 U
Tetrachloroethene	127-18-4	5.5	19	0.0026 U	0.0026 U	0.0026 U
Toluene	108-88-3	100	100	0.017	0.0026 U	0.0057
trans-1,2-Dichloroethene	156-60-5	100	100	0.0026 U	0.0026 U	0.0026 U
Trichloroethene	79-01-6	10	21	0.0026 U	0.0026 U	0.0026 U
Trichlorofluoromethane	75-69-4	NA	NA	0.0026 U	0.0026 U	0.0026 U
Vinyl Chloride	75-01-4	0.21	0.9	0.0026 U	0.0026 U	0.0026 U

Total Concentration.		0.017	0	0.0057
Total TICs				0.01

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

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P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

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NR - Not analyzed

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Sample ID		NY375	NY375	C-3	C-3DL	C-5	DUPE-X
Lab Sample Number		Residential	Restricted	D3923-09	D3923-09DL	D3923-13	D3923-15
Sampling Date			Residential	8/22/2012	8/22/2012	8/22/2012	8/22/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	2	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #						
1,1-Biphenyl	92-52-4	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
1,2,4,5-Tetrachlorobenzene	95-94-3	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,2-oxybis(1-Chloropropane)	108-60-1	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,3,4,6-Tetrachlorophenol	58-90-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,4,5-Trichlorophenol	95-95-4	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,4,6-Trichlorophenol	88-06-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,4-Dichlorophenol	120-83-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,4-Dimethylphenol	105-67-9	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,4-Dinitrophenol	51-28-5	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,4-Dinitrotoluene	121-14-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2,6-Dinitrotoluene	606-20-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2-Chloronaphthalene	91-58-7	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2-Chlorophenol	95-57-8	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2-Methylnaphthalene	91-57-6	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2-Methylphenol	95-48-7	100	100	0.17 U	0.345 UD	0.17 U	0.17 U
2-Nitroaniline	88-74-4	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
2-Nitrophenol	88-75-5	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
3,3-Dichlorobenzidine	91-94-1	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
3+4-Methylphenols	65794-96-9	34	100	0.17 U	0.345 UD	0.17 U	0.17 U
3-Nitroaniline	99-09-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
4,6-Dinitro-2-methylphenol	534-52-1	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
4-Bromophenyl-phenylether	101-55-3	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
4-Chloro-3-methylphenol	59-50-7	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
4-Chloroaniline	106-47-8	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
4-Chlorophenyl-phenylether	7005-72-3	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
4-Nitroaniline	100-01-6	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
4-Nitrophenol	100-02-7	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Acenaphthene	83-32-9	100	100	0.17 J	0.345 UD	0.17 U	0.17 U
Acenaphthylene	208-96-8	100	100	0.17 U	0.345 UD	0.17 U	0.17 U
Acetophenone	98-86-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Anthracene	120-12-7	100	100	0.47	0.47 JD	0.34 J	0.2 J
Atrazine	1912-24-9	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Benzaldehyde	100-52-7	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Benzo(a)anthracene	56-55-3	1	1	**1.5**	**1.4** D	**1.2**	0.85
Benzo(a)pyrene	50-32-8	1	1	**1.4**	**1.6** D	**1.2**	0.9
Benzo(b)fluoranthene	205-99-2	1	1	**2**	**2** D	**1.5**	**1.2**
Benzo(g,h,i)perylene	191-24-2	100	100	0.93	1 D	0.67	0.54
Benzo(k)fluoranthene	207-08-9	1	3.9	0.62	0.66 JD	0.53	0.35
bis(2-Chloroethoxy)methane	111-91-1	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
bis(2-Chloroethyl)ether	111-44-4	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
bis(2-Ethylhexyl)phthalate	117-81-7	NA	NA	0.35	0.31 JD	0.17 U	0.17 U
Butylbenzylphthalate	85-68-7	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Caprolactam	105-60-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U

Sample ID		NY375	NY375	C-3	C-3DL	C-5	DUPE-X
Lab Sample Number		Residential	Restricted	D3923-09	D3923-09DL	D3923-13	D3923-15
Sampling Date			Residential	8/22/2012	8/22/2012	8/22/2012	8/22/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	2	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #						
Carbazole	86-74-8	NA	NA	0.24 J	0.345 UD	0.21 J	0.17 U
Chrysene	218-01-9	1	3.9	**1.5**	**1.6** D	**1.3**	0.89
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.16 J	**0.345** UD	0.15 J	0.17 U
Dibenzofuran	132-64-9	14	59	0.14 J	0.345 UD	0.17 U	0.17 U
Diethylphthalate	84-66-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Dimethylphthalate	131-11-3	NA	NA	0.32 J	0.33 JD	0.36	0.33 J
Di-n-butylphthalate	84-74-2	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Di-n-octyl phthalate	117-84-0	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Fluoranthene	206-44-0	100	100	2.8 E	3.1 D	2.2	1.4
Fluorene	86-73-7	100	100	0.19 J	0.345 UD	0.17 U	0.17 U
Hexachlorobenzene	118-74-1	0.33	1.2	0.17 U	**0.345** UD	0.17 U	0.17 U
Hexachlorobutadiene	87-68-3	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Hexachlorocyclopentadiene	77-47-4	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Hexachloroethane	67-72-1	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.5	**0.91**	**0.88** D	**0.71**	**0.51**
Isophorone	78-59-1	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Naphthalene	91-20-3	100	100	0.16 J	0.345 UD	0.17 U	0.17 U
Nitrobenzene	98-95-3	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
N-Nitroso-di-n-propylamine	621-64-7	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
N-Nitrosodiphenylamine	86-30-6	NA	NA	0.17 U	0.345 UD	0.17 U	0.17 U
Pentachlorophenol	87-86-5	2.4	6.7	0.17 U	0.345 UD	0.17 U	0.17 U
Phenanthrene	85-01-8	100	100	2.2	2.3 D	1.5	0.92
Phenol	108-95-2	100	100	0.17 U	0.345 UD	0.17 U	0.17 U
Pyrene	129-00-0	100	100	2.6	2.6 D	1.9	1.2
Total Concentration.				18.66	18.25	13.77	9.29
Total TICs				4.68		6.48	5

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

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Sample ID		NY375	NY375	C-3	C-5	DUPE-X
Lab Sample Number		Residential	Restricted	D3923-09	D3923-13	D3923-15
Sampling Date			Residential	8/22/2012	8/22/2012	8/22/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL
Dilution Factor				1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #					
4,4-DDD	72-54-8	2.6	13	0.0009 U	0.0009 U	0.0009 U
4,4-DDE	72-55-9	1.8	8.9	0.0009 U	0.0009 U	0.0009 U
4,4-DDT	50-29-3	1.7	7.9	0.0009 U	0.0009 U	0.0009 U
Aldrin	309-00-2	0.019	0.097	0.0009 U	0.0009 U	0.0009 U
alpha-BHC	319-84-6	0.097	0.48	0.0009 U	0.0009 U	0.0009 U
alpha-Chlordane	5103-71-9	0.91	4.2	0.0009 U	0.0009 U	0.0009 U
beta-BHC	319-85-7	0.072	0.36	0.0009 U	0.0009 U	0.0009 U
delta-BHC	319-86-8	100	100	0.0009 U	0.0009 U	0.0009 U
Dieldrin	60-57-1	0.039	0.2	0.0009 U	0.0009 U	0.0009 U
Endosulfan I	959-98-8	4.8	24	0.0009 U	0.0009 U	0.0009 U
Endosulfan II	33213-65-9	4.8	24	0.0009 U	0.0009 U	0.0009 U
Endosulfan Sulfate	1031-07-8	4.8	24	0.0009 U	0.0009 U	0.0009 U
Endrin	72-20-8	2.2	11	0.0009 U	0.0009 U	0.0009 U
Endrin aldehyde	7421-93-4	NA	NA	0.0009 U	0.0009 U	0.0009 U
Endrin ketone	53494-70-5	NA	NA	0.0009 U	0.0009 U	0.0009 U
gamma-BHC	58-89-9	0.28	1.3	0.0009 U	0.0009 U	0.0009 U
gamma-Chlordane	5103-74-2	NA	NA	0.0009 U	0.0009 U	0.0009 U
Heptachlor	76-44-8	0.42	2.1	0.0009 U	0.0009 U	0.0009 U
Heptachlor epoxide	1024-57-3	NA	NA	0.0009 U	0.0009 U	0.0009 U
Methoxychlor	72-43-5	NA	NA	0.0009 U	0.0009 U	0.0009 U
Toxaphene	8001-35-2	NA	NA	0.009 U	0.009 U	0.009 U
Total Concentration.				0	0	0

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

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NR - Not analyzed

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Sample ID		NY375	NY375	C-3	C-5	DUPE-X
Lab Sample Number		Residential	Restricted	D3923-09	D3923-13	D3923-15
Sampling Date			Residential	8/22/2012	8/22/2012	8/22/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL
Dilution Factor				1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #					
Aroclor-1016	12674-11-2	NA	NA	0.009 U	0.009 U	0.009 U
Aroclor-1221	11104-28-2	NA	NA	0.009 U	0.009 U	0.009 U
Aroclor-1232	11141-16-5	NA	NA	0.009 U	0.009 U	0.009 U
Aroclor-1242	53469-21-9	NA	NA	0.009 U	0.009 U	0.009 U
Aroclor-1248	12672-29-6	NA	NA	0.009 U	0.009 U	0.009 U
Aroclor-1254	11097-69-1	NA	NA	0.009 U	0.009 U	0.009 U
Aroclor-1260	11096-82-5	NA	NA	0.009 U	0.009 U	0.009 U
Total Concentration.				0	0	0

Total TICs

Qualifiers

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Sample ID		NY375	NY375	A-1	A-2	A-3	A-4	A-5	A-6	C-1	C-2	C-3	C-3	C-4	C-5	C-6	DUPE-X
Lab Sample Number		Residential	Restricted	D3923-01	D3923-02	D3923-03	D3923-04	D3923-05	D3923-06	D3923-07	D3923-08	D3923-09	D3923-09	D3923-12	D3923-13	D3923-14	D3923-15
Sampling Date			Residential	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012	8/22/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1	1	1	1	1	1	10	1	1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #																
Aluminum	7429-90-5	NA	NA									14500			15600		15900
Antimony	7440-36-0	NA	NA									20.2 N			0.95 UN		0.965 UN
Arsenic	7440-38-2	16	16									**21.4** N			10.5 N		12.1 N
Barium	7440-39-3	350	400									86.2			55.5		78.3
Beryllium	7440-41-7	14	72									0.41			0.39		0.39
Cadmium	7440-43-9	2.5	4.3									0.11 U			0.115 U		0.115 U
Calcium	7440-70-2	NA	NA									15300			11900		16200
Chromium	7440-47-3	NA	NA									21.8			21.4		21.5
Cobalt	7440-48-4	NA	NA									10.7			13.3		14.6
Copper	7440-50-8	270	270									73 N			20.5 N		22.3 N
Iron	7439-89-6	NA	NA									32700			34500		36900
Lead	7439-92-1	400	400	**735**	**426**	**896**	**1210**	**1810**	**5310**	**1000**	164	**2150**	2150	209	88.7	161	93.4
Magnesium	7439-95-4	NA	NA									4970			6630		7410
Manganese	7439-96-5	2000	2000									300			335		340
Mercury	7439-97-6	0.81	0.81									0.657 D			0.098		0.078
Nickel	7440-02-0	140	310									28.8			33.2		35
Potassium	7440-09-7	NA	NA									831			1130		1280
Selenium	7782-49-2	36	180									3.04			1.87		1.76
Silver	7440-22-4	36	180									2.11			0.97		1.12
Sodium	7440-23-5	NA	NA									252			45.1 J		48.4 J
Thallium	7440-28-0	NA	NA									2.3			2.57		2.75
Vanadium	7440-62-2	NA	NA									20.5			18.1		18.4
Zinc	7440-66-6	2200	10000									148			64.5		61
Total Concentration.				735	426	896	1210	1810	5310	1000	164	69292.117	2150	209	70472.6	161	78442.1

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

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E (Inorganics) - The reported value is estimated because of the presence of interference.

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Lab Sample Number		Residential	Restricted	D3923-09	D3923-13	D3923-15
Sampling Date			Residential	8/22/2012	8/22/2012	8/22/2012
Matrix		Soil	Soil	SOIL	SOIL	SOIL
Dilution Factor				1	1	1
Units		mg/kg	mg/kg	mg/Kg	mg/Kg	mg/Kg
COMPOUND	CAS #					
2,4,5-T	93-76-5	NA	NA	0.035 U	0.035 U	0.035 U
2,4,5-TP (SILVEX)	93-72-1	NA	NA	0.035 U	0.035 U	0.035 U
2,4-D	94-75-7	NA	NA	0.039 U	0.039 U	0.039 U
2,4-DB	94-82-6	NA	NA	0.035 U	0.035 U	0.035 U
DICAMBA	1918-00-9	NA	NA	0.039 U	0.039 U	0.039 U
DICHLORPROP	120-36-5	NA	NA	0.035 U	0.035 U	0.035 U
DINOSEB	88-85-7	NA	NA	0.035 U	0.035 U	0.035 U
Total Concentration.				0	0	0
Total TICs						

Qualifiers

U - The compound was not detected at the indicated concentration.

N - Presumptive Evidence of a Compound

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

NR - Not analyzed

Soil Criteria
Summary for Project E2037

SamplingDate	Sample	NY375RestrictedRES	Protection_of_Groundv	Comment
4/25/2013	DUPE-X	✓	✓	
4/25/2013	PP-1A	☒	☒	, METALs
4/25/2013	PP-1B	☒	☒	, METALs
4/25/2013	PP-1C	✓	✓	
4/25/2013	PP-1D	✓	✓	

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Sample ID		NY375	Protection of Groundwater	PP-1A	PP-1B	PP-1C	PP-1D
Lab Sample Number		Restricted	(NY375)	E2037-01	E2037-04	E2037-05	E2037-06
Sampling Date		Residential		4/25/2013	4/25/2013	4/25/2013	4/25/2013
Matrix		Soil	Soil	SOIL	SOIL	SOIL	SOIL
Dilution Factor				1	1	1	1
Units		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
COMPOUND	CAS #						
Lead	7439-92-1	400	450	**732**	**790**	78.1	267

Qualifiers

U - The compound was not detected at the indicated concentration.

N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

NR - Not analyzed

Appendix B

Remedial Alternative Cost Estimates

ALTERNATIVE 1 COST ESTIMATE

"Soil Excavation to Bedrock (0-2 feet) with Off-Site Disposal"

Ithaca Falls Overlook

Analysis of Brownfield Cleanup Alternatives

Item	Unit cost	Unit	Quantity	Cost
General and Site Preparation				
Mobilization	$5,000.00	ls	1	$5,000
Site Work	$300,000.00	ls	1	$300,000
Excavation				
Soil excavation, transport & disposal of Non-Hazardous Soils	$65.00	ton	1,450	$94,250
Soil excavation, treatment, transport & disposal of stabilized Soils	$220.00	ton	160	$35,200
Concrete Removal	$65.00	ton	160	$10,400
CAMP monitoring (4 Stations for Dust Only)	$1,700.00	week	20	$34,000
Silt fence	$1.50	lf	200	$300
Subtotal:				$479,150
			Engineering Design (8%)	$38,332
			Engineering Oversight (10%)	$47,915
			Contingency (20%)	$105,413
			Total Estimated Costs	**$670,810**

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ALTERNATIVE 2 COST ESTIMATE

"Surface Soil Liming, and Capping"
Ithaca Falls Overlook
Analysis of Brownfield Cleanup Alternatives

Item	Unit cost	Unit	Quantity	Cost
General and Site Preparation				
Mobilization	$10,000.00	ls	1	$10,000
Site Work	$150,000.00	ls	1	$150,000
Capping				
Liming	$0.30	sf	23,270	$6,981
Fine grading and soil preparation	$0.25	sf	23,270	$5,818
40 mil LLDPE liner	$1.00	sf	23,270	$23,270
16 oz geotextile	$0.75	sf	23,270	$17,453
Clay cap (18")	$8.00	cy	1,293	$10,344
Restoration				
6" gravel brought in from off-site (includes transport)	$25.00	cy	430	$7,000
6" topsoil brought in from off-site (includes transport)	$30.00	cy	430	$5,750
Rolled Erosion Control Product	$0.50	sf	23,270	$11,635
Hydroseed disturbed area	$3,500.00	acre	0.53	$1,855
Subtotal:				$250,105
			Engineering Design (8%)	$20,008
			Engineering Oversight (10%)	$25,011
			Contingency (20%)	$55,023
			Total Estimated Costs	**$350,147**

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ALTERNATIVE 3 COST ESTIMATE

"No Further Action"
Ithaca Falls Overlook
Analysis of Brownfield Cleanup Alternatives

Item	Unit cost	Unit	Quantity	Cost
General and Site Protection				
Perimeter Fence Installation and Signage	$75,000.00	ls	1	$75,000
Engineering				
Site Management Plan	$10,000.00	ls	1	$10,000
Subtotal:				$85,000
			Total Estimated Costs	**$85,000**

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