The Webster Block,

75 Main Street

ERIE COUNTY, NEW YORK

Final Engineering Report

NYSDEC Site Number: C915270

Prepared for:

HARBORCENTER DEVELOPMENT, LLC

1 SEYMOUR H. KNOX III PLAZA

FIRST NIAGARA CENTER

BUFFALO, NEW YORK 14203

Prepared by:

C&S ENGINEERS, INC.

141 ELM STREET

BUFFALO, NEW YORK 14203

OCTOBER 2014

CERTIFICATIONS

I, Lowell Dewey, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Interim Remedial Measure Work Plan/Alternative Analysis Report was implemented and that all construction activities were completed in substantial conformance with the Department-approved Interim Remedial Measure Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Interim Remedial Measure Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in for the remedy.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Lowell Dewey, of 141 Elm Street, am certifying as Owner's Designated Site Representative for the site.

056555	10/31/14	
NYS Professional Engineer #	Date	Signature

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LIST OF ACRONYMS

Acronym	Definition
AAR	Alternative Analysis Report
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
DUSR	Data Usability Summary Report
FER	Final Engineering Report
HASP	Health and Safety Plan
IRM	Interim Remedial Measure
NYSDEC	New York State Department of Environmental Conservation
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objectives
RI	Remedial Investigation
SEQRA	State Environmental Quality Review Act
SVOC	Semi-Volatile Organic Chemicals
SWPPP	Stormwater Pollution Prevention Plan
VOC	Volatile Organic Chemical

FINAL ENGINEERING REPORT

1.0 BACKGROUND AND SITE DESCRIPTION

HARBORCenter Development, LLC entered into a Brownfield Cleanup Agreement (BCA), with the New York State Department of Environmental Conservation (NYSDEC) in March 2013, to investigate and remediate a 2.00 acre property located in Buffalo, New York. The property was remediated to restricted residential use, and will be used for HARBORCenter, a mixed use facility featuring several hundred parking spaces, two ice rinks, restaurant and retail space, and a hotel.

The site is located in the County of Erie, New York and is identified as Block 13and Lot 2 on the Buffalo Tax Map # 111.17. The site is situated on an approximately 2.00 acre area bounded by Scott Street to the north, Perry Street to the south, Washington Street to the east, and Main Street to the west (see Figure 1 and Figure 2). The boundaries of the site are fully described in Appendix A: Survey Map, Metes and Bounds.

The BCP boundary and BCA were modified twice after the original BCA was signed. The BCA was amended on April 24, 2013 as the BCP boundary was amended on the northeast side of the site due to the presence of a large buried fiber optic telecommunication duct and relay equipment. A second amendment to the BCA and boundary was completed on September 9, 2014 to reflect the excavation offset required due to the presence of a City of Buffalo water main.

The parcel and final BCP boundary varies in two locations due to utility constraints. Along the northeast corner of the site the BCP line does not match the parcel boundaries because of a fiber optic vault and cables and along the western edge of the site the boundary was offset to avoid a City of Buffalo water main.

An electronic copy of this FER with all supporting documentation is included as Appendix B.

2.0 SUMMARY OF SITE REMEDY

2.1 REMEDIAL ACTION OBJECTIVES

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) were identified for this site.

2.1.1 Groundwater RAOs

RAOs for Public Health Protection

- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

RAOs for Environmental Protection

- Prevent the discharge of contaminants to surface water.
- Remove the source of ground water contamination.

2.1.2 Soil RAOs

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota due to ingestion/direct contact with contaminated soil that would cause toxicity or bioaccumulation through the terrestrial food chain.

2.2 DESCRIPTION OF SELECTED REMEDY

The site was remediated in accordance with the remedy selected by the NYSDEC in the Decision Document dated October 28, 2014.

The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

1. Construction of a shoring system to 24 feet below grade; and
2. Excavation of soil/fill exceeding residential SCOs listed in Table 1, to native material, which varied in depth from 10 to 11 feet, with 14 as the maximum depth in discrete areas.

3.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

The information and certifications made in the June 2014 Remedial Investigation, Interim Remedial Measure, Alternatives Analysis Report and the March 2013 Remedial Investigation / Interim Remedial Measure Work Plan were relied upon to prepare this report and certify that the remediation requirements for the site have been met.

3.1 INTERIM REMEDIAL MEASURES

As described in the NYSDEC approved Remedial Investigation (RI) / Interim Remedial Measure (IRM) Work Plan, the Site remedy was completed as an IRM and consisted of:

- Installation of a shoring system to 24 feet below grade, to allow for the excavation to approximately 12 feet across the Site;
- excavation of impacted soil/fill to an approximate depth of 10 to 12 feet across the Site;
- disposal of impacted soils at licensed disposal facilities;
- confirmatory sampling;
- backfilling and grading the Site to provide a base for the construction of HARBORCenter; and
- removal of the shoring system.

Additional details are provided in Section 4.0 of this report.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved RI/IRM Work Plan for the Webster Block site (March 2013). Following completion of the IRM an Alternatives Analysis Report (AAR) was prepared to establish the final site remedy. The mass excavation was successful in remediating the site, therefore, no additional remedial work was required, and no engineering or institution controls were required.

The RI/IRM Work Plan was the controlling document and was in essence a Remedial Action Work Plan. All deviations from the IRM Work Plan are noted below.

4.1 GOVERNING DOCUMENTS

4.1.1 Site Specific Health & Safety Plan (HASP)

All remedial work performed under this Remedial Action was in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA.

The Health and Safety Plan (HASP) was complied with for all remedial and invasive work performed at the Site. The HASP was included as Appendix F of the NYSDEC approved Remedial Investigation/Interim Remedial Measures Work Plan.

4.1.2 Quality Assurance Project Plan (QAPP)

The QAPP was included as Appendix G of the RI/IRM Work Plan approved by the NYSDEC. The QAPP describes the specific policies, objectives, organization, functional activities and quality assurance/ quality control activities designed to achieve the project data quality objectives.

4.1.3 Storm-Water Pollution Prevention Plan (SWPPP)

The site drains to a Buffalo Sewer Authority combined sewer and, as such, a site specific Stormwater Pollution Prevention Plan was not required, however, erosion and sediment control measures were implemented.

The erosion and sediment controls for all remedial construction were performed in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control.

4.1.4 Community Air Monitoring Plan (CAMP)

Air monitoring was performed at all times when mass excavation was being conducted. Previous sampling results indicated that VOCs were not an air quality contaminant of concern for the Site. Dust containing metals and SVOCs from urban fill was a concern during mass excavation.

A Community Air Monitoring Plan (provided as Appendix E to the RI/IRM Work Plan) was developed and implemented for this Site. Two particulate monitors were used at an upwind and downwind location. Measurements of particulate (dust) concentrations were continuously monitored and logged every 15 minutes. Air monitors were moved throughout the day, (as needed) as winds shifted direction. Due to the wind conditions on site the monitors were moved multiple times, including more than once on some days; there were no permanent locations of the monitors.

During excavation, the greatest concern for the production of fugitive dust was from trucks driving across the Site and onto Scott Street. If downwind concentrations exceeded 0.15 mg/m^3 over 15 minutes, or if excessive visible dust on the roads and air were visually observed, dust suppression measures were to be implemented. These measures included using a water truck to wet the surface of any area that was producing dust and wetting/sweeping sediment from public roadways around the Site.

The action level for VOC concentrations was set at 5 parts per million above background for the 15-minute average. If this was exceeded work would be temporarily halted and monitoring continue, however, this was not required during the remediation.

4.1.5 Community Participation Plan

A Citizen Participation Plan (CPP) was included as Appendix D of the approved RI/IRM Work Plan. The plan met the technical guidance promulgated by the NYSDEC for Brownfield Cleanup Program (BCP) sites.

After the NYSDEC received a complete application a public notice was placed in the Buffalo News, which was followed by a 30-day public comment period. A fact sheet was also prepared for the publication of the IRM Work Plan, which also included a 30-day comment period.

Copies of BCP application and RI/IRM Work Plan for the Site were made available at the NYSDEC Region 9 office and the Buffalo and Erie County Public Central Library at 1 Lafayette Square, Buffalo, NY.

4.2 REMEDIAL PROGRAM ELEMENTS

4.2.1 Contractors and Consultants

C&S Engineers served as the Engineer of Record. The following contractors also completed various tasks as noted:

- TestAmerica Laboratories, Inc. performed analytical analysis related to the RI and IRM activities;
- Data Validation Services reviewed and validated analytical data packages from Test America Laboratories;
- Paradigm Environmental Services performed analytical analysis related to waste characterization;
- Mortenson Construction preformed excavation and loading of soil/fill;
- Mark Cerrone Inc performed excavation
- Darling Construction installed the shoring for the excavation
- Pinto Construction Services assisted with excavation and backfilling
- Ferguson Electric relocated the catenary poles for the MetroRail System
- Pariso Logistics Inc coordinated the trucking of soil/fill from the Site for disposal at either Waste Management – Chafee Landfill in Chaffee, NY or Modern Landfill in Model City NY. Contracted trucking companies were
    - Anastasi Trucking;
    - BTS;
    - B Pariso Transport Inc;
    - C Bell Trucking;
    - Carmen M Pariso, Inc;
    - Dig It of New York;
    - Doran Trucking Co;

- GAM Trucking Corp;
- Geiter Done of WNY Inc;
- Gernatt Asphalt;
- GJ Lloyd Enterprises Inc;
- Hojnowski Transport;
- Ingalls Site Development;
- J&J Trucking;
- KWH Trucking;
- Lewiston;
- Marran Co Inc;
- Pariso Logistics, Inc including the following doing business as (dba):
    - Antonicelli Construction;
    - John A Buscaglia;
    - Design Excavation;
    - Earth Co
    - Visone Construction Inc;
    - LJ Quigliano II Inc;
- Paul T. Founier Enterprises, Inc;
- RED Inc;
- Russo Development;
- Michael J Serafini Inc;
- Walck Trucking;
- Zoladz Construction Co.

4.2.2 Site Preparation

In March 2013, prior to any on Site activities, Iroquois Fence, Inc installed chain-link fencing and jersey barriers around the entire perimeter of the Site; access was permitted on Scott and Perry Streets. The previous use was as a parking lot, therefore, no grubbing was required Site.

Erosion and sediment controls consisted of stabilized construction entrance on Scott Street and drainage structure inlet protection using either a 12” high wall of gravel bags or placing filter socks at inlets.

A licensed surveyor from Foit-Albert Associates completed all utility layouts. Major utilities that ran through the Site, Main Street, Perry Street and Washington Street were relocated by Pinto Construction and Ferguson Electric prior to mass excavation. All utilities within the area of mass excavation were dead and removed from the Site.

RI work began in April 2013. Prior to mass excavation for the IRM, an earth retention system was installed using sheet piles placed around the entire perimeter of excavation. Sheet piles were installed using a vibrating hammer mounted on a crane. Sheet piles were installed to 24 feet below ground surface.

On the northwest corner of the Site excavations extended past the designed earth holding capacity of the sheet pile, additional bracing on the northwest corner of the earth retention system was utilized.

A meeting was held on-site with NYSDEC, Mortenson and C&S personnel prior to the commencement of the IRM. NYSDEC personnel periodically inspected the Site during IRM and remained in contact with C&S throughout all remedial activities. Mass excavation activities concluded in May 2013.

NYSDEC personnel were called to the Site to inspect the only deviation from the IRM work plan, the change in the BCP boundary. During the field work it was discovered that a City of Buffalo water main was located significantly closer to the shoring wall than indicated on City Engineering drawings. In order to maintain service to a large portion of downtown, the shoring and associated excavation area was offset a minimum of 1 to a maximum of 5 feet the east. Prior to construction this main was thought to be located outside of the BCP boundary. The NYSDEC was on-site to confirm the location of the pipe and document leaving the soils in place at this location.

The BCP boundary and BCA were modified twice after the original BCA was signed. The BCA was amended on April 24, 2013 as the BCP boundary was amended on the northeast side of the site due to the presence of a large buried fiber optic telecommunication duct and relay equipment. A second amendment to the BCA and boundary was completed on September 9, 2014 to reflect the excavation offset required due to the presence of a City of Buffalo water main.

Non-agency permits relating to the remediation project are provided in Appendix C.

All SEQRA requirements and all substantive compliance requirements for attainment of applicable natural resource or other permits were achieved during this Remedial Action.

A NYSDEC-approved project sign was erected at the project entrance and remained in place during all phases of the Remedial Action.

4.2.3 General Site Controls

The entire Site was secured using chain-link fencing and pad-locked gates. All visitors were required to sign in at Mortenson's field office prior to access and sign out when leaving.

C&S completed daily work reports to track daily activities, deviations from the work plan, progress of remedial activities, and meetings with NYSDEC personnel. These daily work reports are included in Appendix D.

Although a SWPPP was not required, erosions and sediment controls were utilized on-site. Erosion and sediment controls consisted of a stabilized construction entrance on Scott Street and drainage structure inlet protection using either a 12" high wall of gravel bags or placing filter socks at inlets. Trucks exited the Site onto Scott Street. Scott Street was swept using a water truck and a brush mounted onto a skid steer. Scott Street was cleaned of all sediment as needed throughout the day and at the end of the work day.

Mass excavation began on the south end of the BCP Area and proceeded north. Soils/fill were direct loaded onto trucks and transported directly to the landfill for disposal.

Prior to the beginning of the mass excavation, soil/fill removed for utility relocation was stockpiled on the center of the Site (See Figure 3). Soil/fill was placed on one layer of overlapping 6 millimeter poly sheets. The stockpile was bounded using

overlapping filter socks. This stockpile was disposed of at an off-site landfill like all soil/fill removed from the site. No material was reused on-site.

Equipment decontamination occurred at the completion of IRM activities. Decontamination procedures consisted of brushing clean loose debris and soil from equipment. All removed soil was disposed in the same manner as all impacted soil/fill.

4.2.4 Nuisance controls

Trucks exited the Site onto Scott Street. Scott Street was swept using a water truck and a brush mounted onto a skid steer. Scott Street was cleaned of all sediment as needed throughout the day and at the end of the work day. No truck wash was located on-site.

C&S conducted air monitoring during all mass excavation activities. Dust was generated from temporary truck access roads and from sediment on the construction entrance. If the particulate monitors recorded elevated dust levels or if visible offsite migration of dust was observed, water was sprayed on the surface and sediment cleaned with a brush mounted on a skid steer.

No odor control was required during the implementation of the IRM Work Plan.

4.2.5 CAMP results

Two particulate monitors were used, an upwind and downwind location. Measurements of particulate (dust) concentrations were continuously monitored and logged every 15 minutes. Air monitors were moved throughout the day, (as needed) as winds shifted direction. Due to the wind conditions on site the monitors were moved multiple times, including more than once on some days; there were no permanent locations of the monitors.

During excavation, the greatest concern for the production of fugitive dust was from trucks driving across the Site and onto Scott Street. When downwind concentrations exceeded 0.15 mg/m^3 over 15 minutes, or if excessive visible dust on the roads and air were visually observed, dust suppression measures were to be implemented.

Exceedances for dust occurred on the following dates:

- April 18
- April 30
- May 3
- May 6
- May 7
- May 14
- May 15
- May 16
- May 29
- May 30
- May 31
- June 1
- June 3
- June 4
- June 5

Dust suppression methods were undertaken included using a water truck to wet the surface of any area that was producing dust and wetting/sweeping sediment from public roadways around the Site.

No exceedances of VOC concentrations occurred during the mass excavation.

Copies of all field data sheets relating to the CAMP are provided in electronic format in Appendix E

4.2.6 Reporting

During all remedial activities, C&S personnel was on-site and recorded notable activities; these notes were then formalized in a daily report. The daily reports were then summarized into a monthly report that was submitted to the NYSDEC.

All daily and monthly reports are included in electronic format in Appendix D.

The digital photo log required by the RI/IRM Work Plan is included in electronic format in Appendix F.

4.3 CONTAMINATED MATERIALS REMOVAL

Cleanup Objectives for the Site included the implementation of remedial measures to protect human health and the environment to below Part 375 Restricted Residential SCOs. On-site contamination was related to the historic unconfined deposition of fill, the remedy was mass excavation of the fill and any impacted soil.

A list of the soil cleanup objectives (SCOs) for the contaminants of concern for this project is provided in Table 1.

A figure of the location of original sources and areas where excavations were performed is shown in Figure 4.

4.3.1 Soil/Fill

On-site contamination was related to the historic unconfined deposition of fill. The IRM was mass excavation of the fill and any impacted soil. The excavation occurred over the entire horizontal extent of the Site and the depth was generally to a depth of 10 feet. Impacted soil/fill was excavated and loaded into dump trucks for off-site disposal.

Contour maps of estimated cut and fill thicknesses for remedial activities at the site are included in Figures 5 and 6.

4.3.1 Disposal Details

Excavation of impacted soil/fill started on April 17, 2013 and continued until June 11, 2013. In total 58,704.56 tons of contaminated material was removed from the site and disposed of offsite; 23,688.62 tons were sent to Waste Management Landfill in Chafee, NY Permit ID 9-1462-00001/00006 and 35,015.95 tons were sent to Modern Landfill in Lewiston, NY Permit ID 9-2924-00016/00043.

Waste Characterization sampling was completed by Mark Cerrone and analyzed by Paradigm Environmental Services, Inc.

Transport to the landfills was completed by a number of companies, due to the construction timeline and the volume of material. Those firms and their transport numbers are:

- Anastasi Trucking (Permit #9A-836);
- B.T. S Services, Inc (Permit # 9A-763);
- B Pariso Transport Inc (Permit # 9A-591);
- C Bell Trucking (Permit # 9A-857);
- Carmen M Pariso, Inc (Permit # 9A-035);
- Dig It of New York (Permit # 9A-786);
- Doran Trucking Co;
- GAM Trucking Corp (Permit # 9A-745);
- Geiter Done of WNY Inc (Permit # 9A-750);
- Gernatt Asphalt (Permit # 9A-537);
- GJ Lloyd Enterprises Inc (Permit # 9A-717);

- Hojnowski Transport (Permit # 9A-790);
- Ingalls Site Development Inc (Permit # 9A-825);
- J&J Trucking (Permit # 9A-864);
- KWH Trucking (Permit #9A-852);
- Lewiston;
- Marran Co Inc (Permit # 9A-683);
- Pariso Logistics, Inc (Permit # 9A-826) including the following doing business as (dba):
    - Antonicelli Construction;
    - John A Buscaglia;
    - Design Excavation;
    - Earth Co
    - Visone Construction Inc;
    - LJ Quigliano II Inc;
- Paul T. Founier Enterprises, Inc (Permit # 9A-749);
- Regional Environmental Demolition Inc (Permit # 9A-856);
- Russo Development (Permit #9A-776);
- Michael J Serafini Inc (Permit # 9A-737);
- Walck Trucking;
- Zoladz Construction Company, Inc (Permit # 9A-499).

Table 2 shows the total quantities of fill/soil removed from the site and the disposal locations. A summary of the samples collected to characterize the waste, and associated analytical results are summarized on Table 3. Five samples were collected for waste characterization, four were grab samples and one was a composite sample. Samples were taken from the four quadrants of the site and the composite was from across the site. All were analyzed for TCLP Metals and the composite was for TCLP VOCs, SVOCs, Metals, PCB, ph and flash.

Table 2 – Quantities of Material Removed and Disposal Site

Material	Disposal Site	Volume in tons
Hardscape/Concrete Ruble	Bataglia	2160*
	Swift River	100*
	Peabody	180*
	Modern Landfill	35,015.95

Contaminated Soil/Fill	Waste Management	23,688.62

*Volume for Hardscape and soil disposal is estimated at 20 tons per truckload.

Letters from Applicants to disposal facility owners and acceptance letters from disposal facility owners are attached in Appendix G.

Manifests and bills of lading are included in electronic format in Appendix G.

4.4 REMEDIAL PERFORMANCE/DOCUMENTATION SAMPLING

In total 43 end-point samples were collected. All were taken from the bottom depth of excavation, organized along an interior grid measuring 50 ft by 50 ft. Approximate locations of these samples are shown on Figure 7. Samples of the BCP Boundary were collected during excavation for the shoring. These samples were collected from approximately 3 to 10 feet BGS every 50 feet along the BCP Boundary.

The excavation of source materials and impacted soils remediated the area to Restricted Residential SCO or better, excluding one (1) anomalous detection of Mercury (See Table 4).

A table and figure summarizing all end-point sampling is included in Table 4 and Figure 7, respectively, and all exceedances of SCOs are highlighted.

Appendix H contains copies of all the laboratory analytical data.

Quality control samples were collected from the samples to characterize the contamination and document the IRM activities. The IRM Work Plan stated that 20% of the samples would be collected in accordance with the QAPP.

100 soil samples were collected during the IRM activities; 20 QAPP samples were taken, ten blind duplicates and ten Matrix Spike/Matrix Spike Duplicates; eight groundwater samples were collected as well as one blind duplicate and one Matrix Spike. This meets the 20% criteria.

Data Usability Summary Reports (DUSRs) were prepared for all data generated in this remedial performance evaluation program. These DUSRs are included in Appendix I, and associated raw is provided electronically in Appendix H.

4.5 IMPORTED BACKFILL

Once finished depth was reached, and conditions were documented and surveyed, clean fill (crushed stone) was brought on-site and placed in two to three foot lifts. Backfilling occurred concurrent with excavation activities; as excavation of the Site moved north, backfilling was conducted south to north.

The crushed rock backfill was obtained from Buffalo Crushed Stone's Como Park facility in Cheektowaga, New York, and was approved for use by the NYSDEC on May 8, 2013 (see Appendix J).

A table of all sources of imported backfill with quantities for each source is shown in Table 5. Tables summarizing chemical analytical results for backfill, in comparison to allowable levels, are provided in Appendix J. A figure showing the site locations where backfill was used at the site is shown in Figure 6.

Table 5 – Backfill Source and Volume

Backfill Source	Backfill Volume
Buffalo Crushed Stone	13,028 cubic yards

4.6 CONTAMINATION REMAINING AT THE SITE

Table 4 and Figure 7 summarize the results of all soil samples remaining at the site after completion of Remedial Action that exceed the Track 1 (unrestricted) SCOs.

Figure 7 summarizes the results of all soil samples remaining at the site after completion of the remedial action that meet the SCOs for unrestricted use of the site.

The soil remaining on-site is below Restricted Residential, excluding one anomalous mercury detection and is covered by a minimum of 8 feet of clean crushed stone fill. The entire BCP Site was then capped with a concrete floor and a buildings ranging from 7 to 14 stories in height, and therefore, does not require Institutional or Engineering Controls.

The RI sampling identified groundwater with exceedances of metals and one well with exceedances of SVOCs, however groundwater is deeper than 12 feet and the source of the contamination, urban fill, was removed. Additionally, in the City of Buffalo groundwater is prohibited from being used as drinking water.

4.7 DEVIATIONS FROM THE REMEDIAL ACTION WORK PLAN

NYSDEC personnel was called to the Site to inspect the one deviation to the IRM work plan, the change in the BCP boundary. During the fields work it was discovered that a large water main was located immediately adjacent to the shoring. Prior to construction this main was thought to be located outside of the BCP boundary. The NYSDEC was on-site to confirm the location of the pipe and approve leaving the soils in place at this location. This resulted in a slight change in the BCP boundary but had no other substantive affect on the project.

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FIGURES

Location Map

Legend

- Parcel Boundary
- BCP Boundary

Notes

1) Erie County parcel data from NYS GIS Clearinghouse, 2005.

2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

0 200 400 Feet

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N

WEBSTER BLOCK - BROWNFIELD CLEANUP PROGRAM

CITY OF BUFFALO, NY

No.	DATE	REVISIONS

PROJECT NO:	M86.001.001
DATE:	June 2, 2014
SCALE:	1" = 200'
DRAWN BY:	CAM
DESIGNED BY:	CAM
CHECKED BY:	MJC

PROJECT SITE MAP

FIGURE 1

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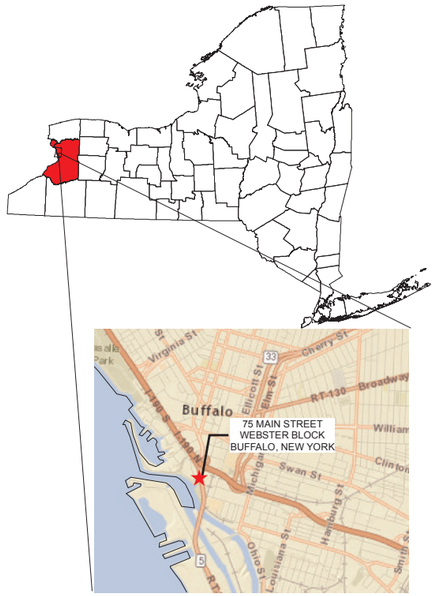
Location Map



Legend

- Parcel Boundary
- BCP Boundary

Notes

1) Erie County parcel data from NYS GIS Clearinghouse, 2005.

2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

0 60 120 Feet

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1 Seymour H. Knox III Plaza
Buffalo, NY 14203

WEBSTER BLOCK - BROWNFIELD CLEANUP PROGRAM
CITY OF BUFFALO, NY

No.	DATE	REVISIONS

PROJECT NO:	M86.001.001
DATE:	June 2, 2014
SCALE:	1" = 60'
DRAWN BY:	CAM
DESIGNED BY:	CAM
CHECKED BY:	MJC

FINER SCALE SITE MAP

FIGURE 2

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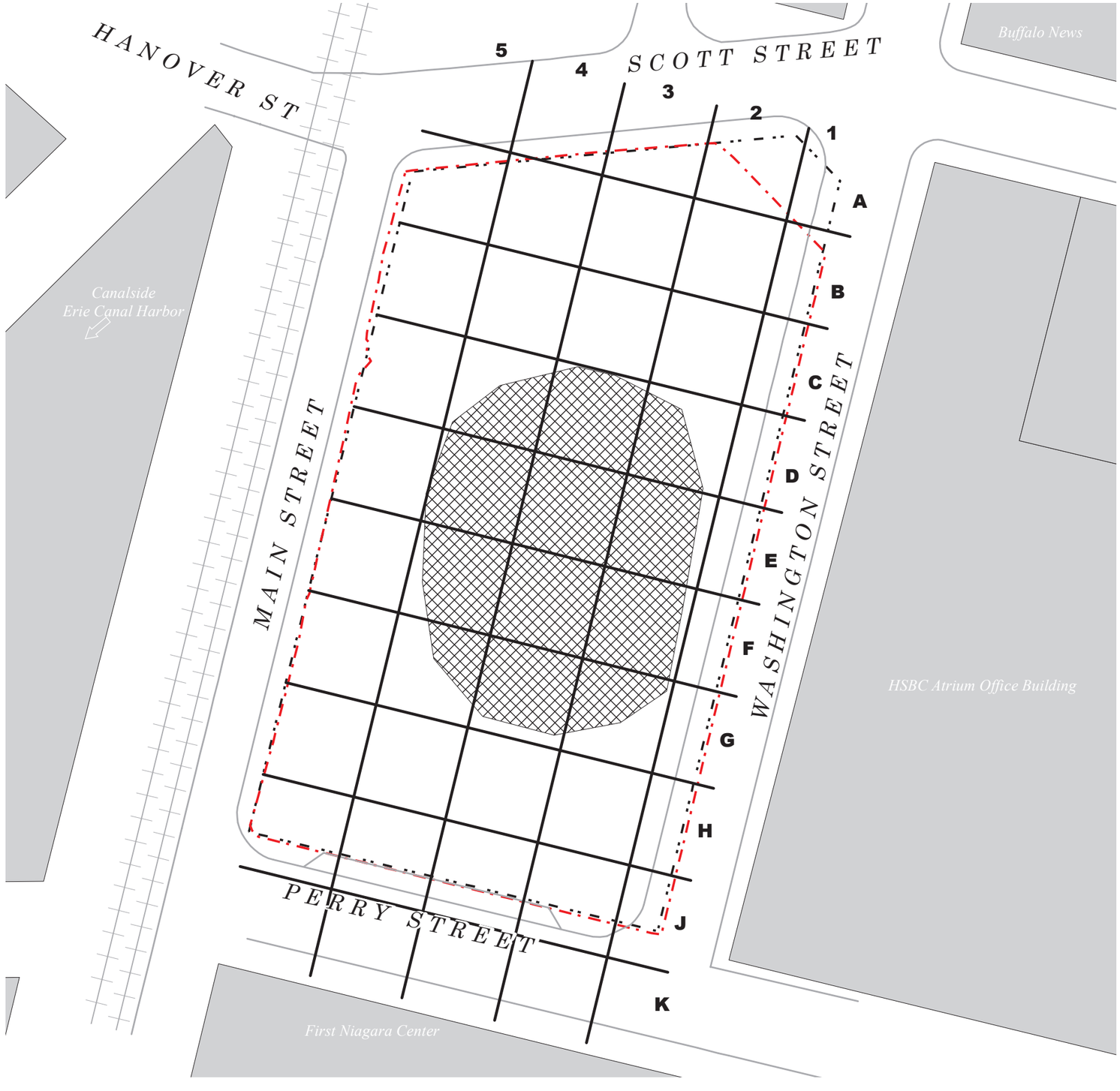

Location Map

Legend

- Parcel Boundary
- BCP Boundary
- Approximate Location of Stockpile

Notes

1) Erie County parcel data from NYS GIS Clearinghouse, 2005.

2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

0 60 120 Feet

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N

WEBSTER BLOCK - BROWNFIELD CLEANUP PROGRAM

CITY OF BUFFALO, NY

No.	DATE	REVISIONS

PROJECT NO:	M86.001.001
DATE:	June 2, 2014
SCALE:	1" = 60'
DRAWN BY:	CAM
DESIGNED BY:	CAM
CHECKED BY:	MJC

STOCKPILE

FIGURE 3

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Location Map

Legend

- Parcel Boundary
- BCP Boundary

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1) Erie County parcel data from NYS GIS Clearinghouse, 2005.

2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

0 60 120 Feet

N

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1 Seymour H. Knox III Plaza
Buffalo, NY 14203

WEBSTER BLOCK - BROWNFIELD CLEANUP PROGRAM

CITY OF BUFFALO, NY

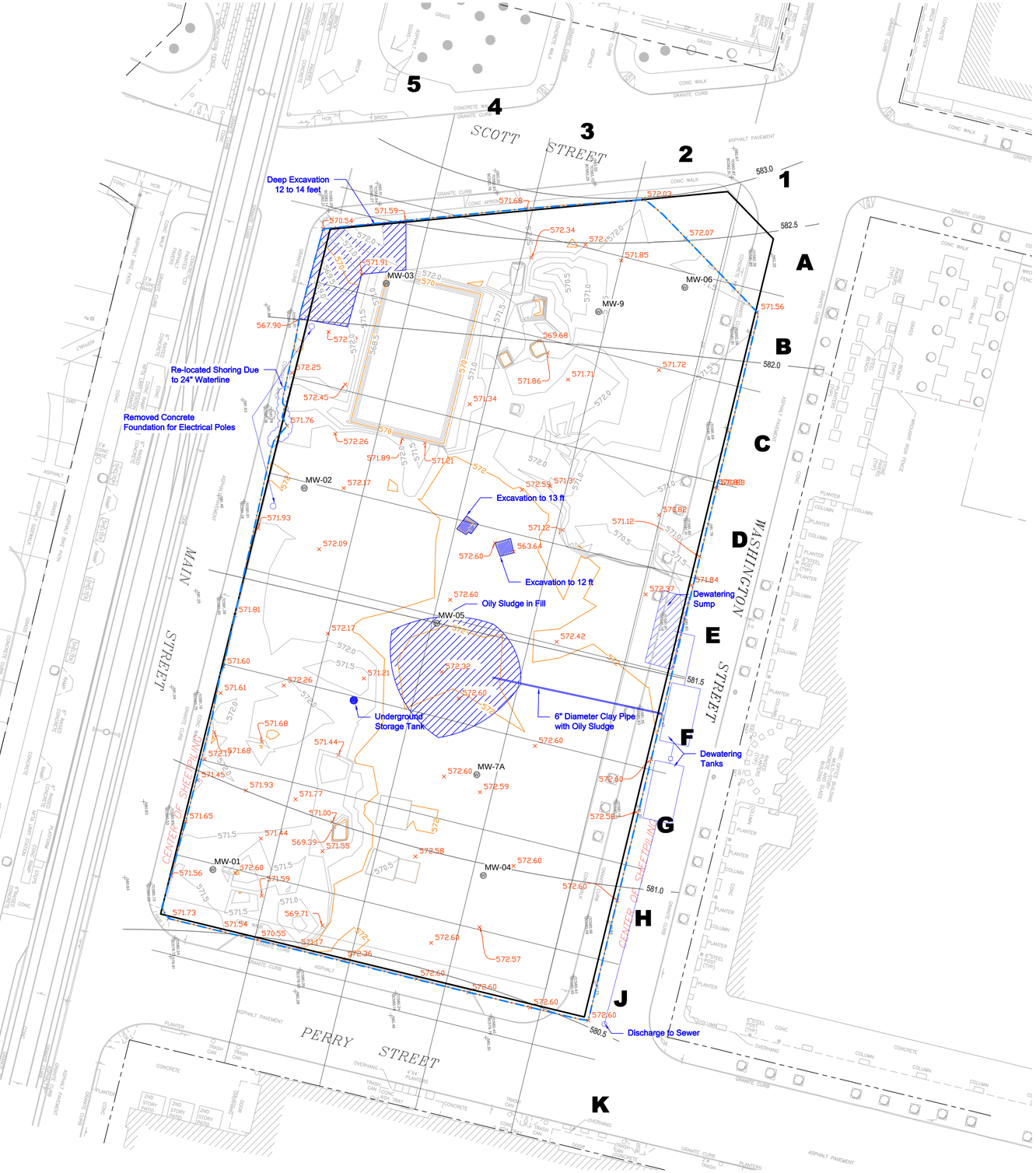
No.	DATE	REVISIONS

PROJECT NO:	M86.001.001
DATE:	June 2, 2014
SCALE:	1" = 60'
DRAWN BY:	CAM
DESIGNED BY:	CAM
CHECKED BY:	MJC

MASS EXCAVATION

FIGURE 4

Path: F:\Project\M86- HARBORcenter Development LLC\M86001001 - HARBORcenter\Environmental\CADD-GIS\GIS\Projects\FER\FIGURE_X_EXCAVATION.mxd



Legend

- BCP Boundary
- Parcel Boundary
- Adjacent Parcel Boundary
- (W) Removed Groundwater Monitoring Locations
- — 580.0 — Averaged Ground Elevation Prior to IRM and Mass Excavation (feet)
- — 572 — Construction grade elevations (feet) (approximately 10 ft below ground surface)
- — 571 — Elevations (feet) below construction grade (additional material removed for BCP cleanup)

Notes

1) Topographic survey from FoitAlbert, "ALTA/ACSM LAND TITLE SURVEY: HARBORCENTER," October 15, 2012.

2) Excavation depth from Wendel, "HARBOR CENTER BOTTOM OF MASS EXCAVATION OVER DIG," June 21, 2013.

3) Contours shown on this map represent bottom of excavation. Areas where material was removed past the construction grade elevation of 572.6 is shown in gray.

4) Volume of the material removed below elevation 572.6 (90.0 Site Datum) = 2709 cubic yards of cut.

5)Limits of excavation survey was limited to the center of the sheet piling as depicted on map from Wendel.

6) Area of excavation around "MF60D" adjacent pile caps was inaccessible at the time of survey. A size of 40 ft x 50 ft area and a depth of 3.5 ft was provided by Mark Cerrone, Inc. The volume of this area is 259 cubic yards and is included in the total volume above.

Table 1: Average Excavation Depths By Grid

Grid ID	Avg. Depth (ft)
A2	10.5
A3	11.0
B1	10.5
B2	10.5
B3	11.0
B4	11.0
B5	12.0
C1	10.0
C2	10.5
C3	10.0
C4	15.0
C5	10.0
D1	11.0
D2	11.5
D3	10.0
D4	10.0
D5	10.0
E1	9.5
E2	10.0
E3	10.0
E4	10.0
E5	10.0

Grid ID	Avg. Depth (ft)
F1	9.5
F2	9.5
F3	9.0
F4	9.5
F5	9.5
G1	8.5
G2	8.5
G3	8.5
G4	9.0
G5	9.0
H1	8.5
H2	8.5
H3	8.5
H4	9.5
H5	9.5
J1	8.5
J2	8.5
J3	8.5
J4	10.0
J5	9.5

0 15 30 60 Feet

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WEBSTER BLOCK - BROWNFIELD CLEANUP PROGRAM

CITY OF BUFFALO, NY

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	M86.001.001
DATE:	SEPTEMBER 18, 2013
DRAWN BY:	C. MARTIN
DESIGNED BY:	C. MARTIN
CHECKED BY:	M. COLMERAUER

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CUT AND FILL THICKNESS

FIGURE 5

F:\Projects\M86 - HARBORcenter Development, LLC\M86001001 - HARBORcenter\Environmental\CAD\C-GIS\CAD\Sheet Files\RIM_BOTTOM_EX_DEPTHS.dwg

Legend

- BCP Boundary
- Parcel Boundary
- Adjacent Parcel Boundary
- (W) Removed Groundwater Monitoring Locations
- — 580.0 — Averaged Ground Elevation Prior to IRM and Mass Excavation (feet)
- 3.0 Thickness of Backfill Material (feet)

Notes

1) Topographic survey from FoitAlbert, "ALTA/ACSM LAND TITLE SURVEY: HARBORCENTER," October 15, 2012.

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WEBSTER BLOCK - BROWNFIELD CLEANUP PROGRAM

CITY OF BUFFALO, NY

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	M86.001.001
DATE:	JUNE 2, 2014
DRAWN BY:	C. MARTIN
DESIGNED BY:	C. MARTIN
CHECKED BY:	M. COLMERAUER

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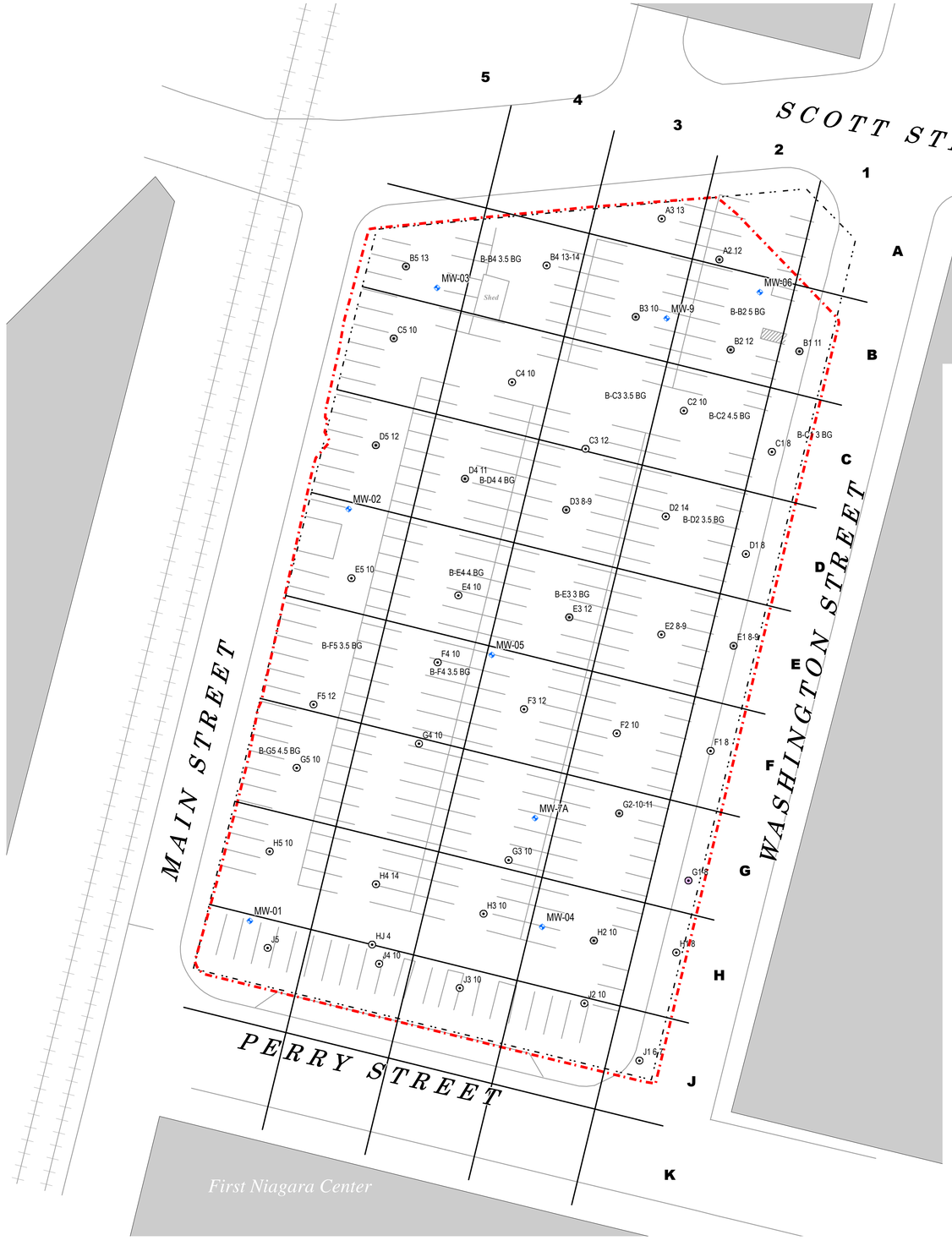
BACKFILL PLACEMENT

FIGURE 6

F:\Project\M86 - HARBORcenter Development LLC\M86001001 - HARBORcenter\Environmental\CAD\~2GIS\QA01\Sheet Files\RAP_BACKFILL.dwg



INTERIM REMEDIAL MEASURE

Table 1
Confirmatory Soil Sample Results

Sample ID	Sample Depth[1]	Detected Compounds[2]	SCO Exceeded[3]					
			Total	UR	RS	RR	CM	IN
A2	12'	VOC	3	1				
		SVOC	1	Below UR				
		Metals	19	Below UR				
A3	13'	VOC	2	Below UR				
		SVOC	0	No Detections				
		Metals	19	Below UR				
B1	11'	VOC	2	1				
		SVOC	1	Below UR				
		Metals	20	Below UR				
B2	12'	VOC	2	1				
		SVOC	1	Below UR				
		Metals	19	1				
B3	10'	VOC	2	1				
		SVOC	0	No Detections				
		Metals	18	Below UR				
B4	13-14'	VOC	2	1				
		SVOC	1	Below UR				
		Metals	22	Below UR				
B5	13'	VOC	2	Below UR				
		SVOC	4	Below UR				
		Metals	19	1				
C1	8'	VOC	2	1				
		SVOC	2	Below UR				
		Metals	19	Below UR				
C2	10'	VOC	4	Below UR				
		SVOC	11	Below UR				
		Metals	20	Below UR				
C3	12'	VOC	3	1				
		SVOC	0	No Detections				
		Metals	19	Below UR				
C4	10'	VOC	3	1				
		SVOC	0	No Detections				
		Metals	20	Below UR				
C5	10'	VOC	2	Below UR				
		SVOC	1	Below UR				
		Metals	20	1				
D1	8'	VOC	2	1				
		SVOC	1	Below UR				
		Metals	19	Below UR				
D2	14'	VOC	2	Below UR				
		SVOC	2	Below UR				
		Metals	23	Below UR				
D3	8-9'	VOC	2	1				
		SVOC	1	Below UR				
		Metals	19	1				
D4	11'	VOC	2	Below UR				
		SVOC	3	Below UR				
		Metals	20	1				
D5	12'	VOC	3	1				
		SVOC	1	Below UR				
		Metals	21	1				
E1	8-9'	VOC	2	1				
		SVOC	2	Below UR				
		Metals	19	1				
E2	8-9'	VOC	2	Below UR				
		SVOC	1	Below UR				
		Metals	20	Below UR				
E3	12'	VOC	2	Below UR				
		SVOC	8	Below UR				
		Metals	20	1				
E4	10'	VOC	2	Below UR				
		SVOC	0	No Detections				
		Metals	20	1				
E5	10'	VOC	2	Below UR				
		SVOC	3	Below UR				
		Metals	20	1				

Table 1
Confirmatory Soil Sample Results (continued)

Sample ID	Sample Depth[1]	Detected Compounds[2]	SCO Exceeded[3]					
			Total	UR	RS	RR	CM	IN
F1	8'	VOC	1	Below UR				
		SVOC	1	Below UR				
		Metals	19	Below UR				
F2	10"	VOC	4	Below UR				
		SVOC	0	No Detections				
		Metals	20	Below UR				
F3	12"	VOC	3	1				
		SVOC	2	Below UR				
		Metals	19	Below UR				
F4	10"	VOC	3	1				
		SVOC	0	No Detections				
		Metals	20	Below UR				
F5	12"	VOC	3	Below UR				
		SVOC	2	Below UR				
		Metals	20	Below UR				
G1	8"	VOC	1	Below UR				
		SVOC	4	Below UR				
		Metals	20	1		1		
G2	10-11"	VOC	3	1				
		SVOC	2	Below UR				
		Metals	20	1				
G3	10"	VOC	3	1				
		SVOC	2	Below UR				
		Metals	20	Below UR				
G4	10"	VOC	2	Below UR				
		SVOC	0	No Detections				
		Metals	20	Below UR				
G5	10"	VOC	3	1				
		SVOC	0	No Detections				
		Metals	20	Below UR				
H1	8"	VOC	2	Below UR				
		SVOC	1	Below UR				
		Metals	19	Below UR				
H2	10"	VOC	3	Below UR				
		SVOC	4	Below UR				
		Metals	20	Below UR				
H3	10"	VOC	3	1				
		SVOC	0	No Detections				
		Metals	20	Below UR				
H4	14"	VOC	3	Below UR				
		SVOC	7	Below UR				
		Metals	20	Below UR				
H5	10"	VOC	2	Below UR				
		SVOC	4	Below UR				
		Metals	21	Below UR				
H/J	10"	VOC	2	Below UR				
		SVOC	1	Below UR				
		Metals	19	Below UR				
J1	6-7"	VOC	4	Below UR				
		SVOC	1	Below UR				
		Metals	19	Below UR				
J2	10"	VOC	5	Below UR				
		SVOC	1	Below UR				
		Metals	19	Below UR				
J3	10"	VOC	3	Below UR				
		SVOC	0	No Detections				
		Metals	20	Below UR				
J4	10"	VOC	4	Below UR				
		SVOC	7	Below UR				
		Metals	20	Below UR				
J5	10"	VOC	4	Below UR				
		SVOC	7	Below UR				
		Metals	18	Below UR				

1) See Figure 2-3 for VOC concentrations of resampled grid locations.

2) See Figure 2-5 for Chromium concentrations of resampled grid locations.

LOCATION MAP

LEGEND

- BCP Boundary
- Parcel Boundary
- Erie County Tax Map Parcel Boundaries

Exceedance of NYSDEC Soil Cleanup Objectives

- Below Unrestricted Use
- Sample Exceeded Unrestricted Residential Use Criteria for at Least One Compound
- Sample Exceeded Restricted Residential Use Criteria for at Least One Compound
- Monitoring Well (Removed During Excavation)

TABLE NOTES

1) Sample depths in feet below ground surface.

2) "VOC" Volatile Organic Compounds
"SVOC" Semi-volatile Organic Compounds

3) Soil Cleanup Objectives ("SCO"):
"UR" Unrestricted Use Criteria
"RS" Residential Use Criteria
"RR" Restricted Residential Use Criteria
"CM" Commercial Use Criteria
"IN" Industrial Use Criteria

NOTES

1) Erie County parcel data from NYS GIS Clearinghouse, 2005 .

2) Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Ft
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

0 15 30 60 Feet

N

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WEBSTER BLOCK - BROWNFIELD CLEANUP PROGRAM
CITY OF BUFFALO, NY

PROJECT NO:	M86.001.001
DATE:	OCT. 1, 2013
SCALE:	1 IN = 30 FT
DRAWN BY:	CAM
DESIGNED BY:	CAM
CHECKED BY:	MJC

EXCEEDANCES OF UNRESTRICTED SCOS (AFTER REMEDY)

FIGURE 7

Tables

NYSDEC Soil Cleanup Objectives	
Contaminate	**Restricted Residential**
Volatile Organic Compounds	
1,1,1-TRICHLOROETHANE	100
1,1-DICHLOROETHANE	26
1,1-DICHLOROETHENE	100
1,2-DICHLOROBENZENE	100
1,2-DICHLOROETHANE	3.1
1,3-DICHLOROBENZENE	49
1,4-DICHLOROBENZENE	13
ACETONE	100
BENZENE	4.8
CARBON TETRACHLORIDE	2.4
CHLOROBENZENE	100
CHLOROFORM	49
CIS-1,2-DICHLOROETHYLENE	100
ETHYLBENZENE	41
METHYL ETHYL KETONE (2-BUTANONE)	100
METHYLENE CHLORIDE	100
TERT-BUTYL METHYL ETHER	100
TETRACHLOROETHYLENE(PCE)	19
TOLUENE	100
TRANS-1,2-DICHLOROETHENE	100
TRICHLOROETHYLENE (TCE)	21
VINYL CHLORIDE	0.9
XYLENES, TOTAL	100
Semi-Volatile Organic Compounds	
2-METHYLPHENOL (O-CRESOL)	100
4-METHYLPHENOL (P-CRESOL)	100
ACENAPHTHENE	100
ACENAPHTHYLENE	100
ANTHRACENE	100
BENZO(A)ANTHRACENE	1
BENZO(A)PYRENE	1
BENZO(B)FLUORANTHENE	1
BENZO(G,H,I)PERYLENE	100
BENZO(K)FLUORANTHENE	3.9
CHRYSENE	3.9
DIBENZ(A,H)ANTHRACENE	0.33
DIBENZOFURAN	59
FLUORANTHENE	100
FLUORENE	100
HEXACHLOROBENZENE	1.2
INDENO(1,2,3-C,D)PYRENE	0.5
NAPHTHALENE	100
PENTACHLOROPHENOL	6.7

Contaminate	Restricted Residential
PHENANTHRENE	100
PHENOL	100
PYRENE	100
Metals	
ARSENIC	16
BARIUM	400
BERYLLIUM	72
CADMIUM	4.3
CHROMIUM, HEXAVALENT	110
CHROMIUM, TRIVALENT	180
COPPER	270
TOTAL CYANIDE	27
LEAD	400
MANGANESE	2000
MERCURY	0.81
NICKEL	310
SELENIUM	180
SILVER	180
ZINC	10000
PCBs/Pesticides	
2,4,5-TP Acid (Silvex)	100[a]
4,4'-DDE	8.9
4,4'-DDT	7.9
4,4'-DDD	13
Aldrin	0.097
alpha-BHC	0.48
beta-BHC	0.36
Chlordane (alpha)	4.2
delta-BHC	100[a]
Dibenzofuran	59
Dieldrin	0.2
Endosulfan I	24[i]
Endosulfan II	24[i]
Endosulfan sulfate	24[i]
Endrin	11
Heptachlor	2.1
Lindane	1.3
Polychlorinated biphenyls	1

Table 3 - Waste Characterization

Sample Location	Regulatory Limit	South	East	North	West	Composite
Sample Date		3-Apr-13	3-Apr-13	3-Apr-13	3-Apr-13	3-Apr-13
Matrix		Soil	Soil	Soil	Soil	
Units	mg/l					
Contaminate	Commercial					
TCLP Metals						
ARSENIC	5	<0.1	<0.1	<0.1	<0.1	<0.1
BARIUM	100	1.2	0.806	0.794	0.919	0.87
CADMIUM	1	<0.025	<0.025	<0.025	<0.025	<0.025
CHROMIUM, TOTAL	4	<0.05	<0.05	<0.05	<0.05	<0.05
LEAD	5	<1.0	<0.1	<0.1	<0.1	<0.1
MERCURY	0.2	<0.002	<.002	<.002	<.002	<.002
SELENIUM	1	<0.1	<0.1	<0.1	<0.1	<0.1
SILVER	5	<0.05	<0.05	<0.05	<0.05	<0.05
TCLP Volatile Organic Compounds						
1,1-DICHLOROETHENE	700					<20
1,2-DICHLOROETHANE	500					<20
METHYL ETHYL KETONE (2-BUTANONE)	200000					<100
BENZENE	500					<20
CARBON TETRACHLORIDE	500					<20
CHLOROBENZENE	100000					<20
CHLOROFORM	6000					<20
TETRACHLOROETHENE	700					<20
TRICHLOROETHENE	500					<20
VINYL CHLORIDE	200					<20
TCLP Semi-Volatile Organic Compounds						
1,4-DICHLOROBENZENE	7500					<40
2,4,5 TRICHLOROPHENOL	400000					<80
2,4,6 TRICHLOROPHENOL	200					<40
2,4 DINITROTOLUENE	130					<40
CRESOLS (as M,P,O-CRESOL)	200000					<40
HEXACHLOROBENZENE	130					<40
HEXACHLOROBUTADIENE	500					<40
HEXACHLOROETHANE	3000					<40
NITROBENZENE	2000					<40
PENTACHLOROPHENOL	100000					<80
PYRIDINE	5000					<40
PCBs						
PCB-1016						<0.436
PCB-1221						<0.436
PCB-1232						<0.436
PCB-1242						<0.436
PCB-1248						<0.436
PCB-1254						<0.436
PCB-1260						<0.436
PCB-1262						<0.436
PCB-1268						<0.436
OTHER						
pH						8.49 @20 C
Flash Point						>70

Sample Location	NYSDEC Soil Cleanup Objectives					A2	A3	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3
Sample Depth						12'	13'	11'	12'	10'	13'-14''	13'	8'	10'	12'	10'	10'	8'	14'	8'-9'
Sample Date						3-May-13	16-May-13	30-Apr-13	3-May-13	23-Apr-13	3-May-13	3-May-13	30-Apr-13	19-Apr-13	24-Apr-13	22-Apr-13	3-May-13	30-Apr-13	23-Apr-13	21-May-13
Matrix						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
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
Contaminate	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**															
Volatile Organic Compounds																				
ACETONE	0.05	100	100	500	1000	**0.28**	0.03	**0.098**	**0.071**	**0.054J**	**0.075**	0.04	**0.073**	0.02J	**0.12**	**0.12**	0.05	**0.3**	0.042J	**0.056**
ETHYLBENZENE	1	30	41	390	780	ND<0.00055U	ND<0.0003U	ND<0.00048U	ND<0.00032U	ND<0.00041U	ND<0.00037U	ND<0.00035U	ND<0.00042U	0.00036J	ND<0.00037U	ND<0.00045U	ND<0.00035U	ND<0.00041U	ND<0.00036U	ND<0.00037U
METHYL ETHYL KETONE (2-BUTANONE)	0.12	100	100	500	1000	0.089	0.0046J	0.023J	0.012J	0.011J	0.014J	0.0063J	0.019J	ND<0.0018UJ	0.027	0.021J	0.0078J	0.082	0.0073J	0.011J
METHYLENE CHLORIDE	0.05	51	100	500	1000	ND<0.0037U	ND<0.002U	ND<0.0032U	ND<0.0021U	ND<0.0027U	ND<0.0025U	ND<0.0024U	ND<0.0028U	ND<0.0022U	ND<0.0025U	ND<0.003U	ND<0.0023U	ND<0.0028U	ND<0.0024U	ND<0.0025U
TOLUENE	0.7	100	100	500	1000	ND<0.00066U	ND<0.00033U	ND<0.00052U	ND<0.00035U	ND<0.00045U	ND<0.0004U	ND<0.00039U	ND<0.00046U	ND<0.00037U	0.00047J	0.0012J	ND<0.00038U	ND<0.00045U	ND<0.00039U	ND<0.0004U
TRICHLOROETHYLENE (TCE)	0.47	10	21	200	400	ND<0.0018U	ND<0.00097U	ND<0.0015U	ND<0.001U	ND<0.0013U	ND<0.0012U	ND<0.0011U	ND<0.0013U	ND<0.0011U	ND<0.0012U	ND<0.0014U	ND<0.0011U	ND<0.0013U	ND<0.0011U	ND<0.0012U
No Standard																				
4-BROMOFLUOROBENZENE	0	0	0	0	0	0.083	0.049	0.071	0.048	0.06	0.057	0.053	0.061	0.051	0.057	0.066	0.052	0.059	0.051	0.054
CARBON DISULFIDE	0	0	0	0	0	0.01	ND<0.0022U	ND<0.0035UJ	ND<0.0023U	ND<0.003U	ND<0.0027U	ND<0.0026U	ND<0.003UJ	ND<0.0024U	ND<0.0027U	ND<0.0033U	ND<0.0025UJ	ND<0.003UJ	ND<0.0026U	ND<0.0027U
CYCLOHEXANE	0	0	0	0	0	ND<0.0011U	ND<0.00062U	ND<0.00097U	ND<0.00065U	ND<0.00084U	ND<0.00075U	ND<0.00072U	ND<0.00084U	ND<0.00068U	ND<0.00075U	ND<0.00091U	ND<0.00071U	ND<0.00084U	ND<0.00073U	ND<0.00075U
METHYL ACETATE	0	0	0	0	0	ND<0.0015U	ND<0.00082U	ND<0.0013U	ND<0.00086U	ND<0.0011U	ND<0.00099U	ND<0.00096U	ND<0.0011U	ND<0.00091UJ	ND<0.001U	ND<0.0012U	ND<0.00094U	ND<0.0011U	ND<0.00097U	ND<0.00099U
METHYLCYCLOHEXANE	0	0	0	0	0	ND<0.0012U	ND<0.00067U	ND<0.0011U	ND<0.00071U	ND<0.00091U	ND<0.00081U	ND<0.00078U	ND<0.00092U	ND<0.00074U	ND<0.00082U	ND<0.00099U	ND<0.00077U	ND<0.00091U	ND<0.00079U	ND<0.00081U
Semi-Volatile Organic Compounds																				
4-METHYLPHENOL (P-CRESOL)	0.33	34	100	500	1000	ND<0.011U	ND<0.011U	ND<0.013U	ND<0.011U	ND<0.013U	ND<0.011U	ND<0.011U	ND<0.012U	0.014J	ND<0.012U	ND<0.062U	ND<0.011U	ND<0.013U	ND<0.012U	ND<0.012U
ACENAPHTHENE	20	100	100	500	1000	ND<0.0024U	ND<0.0024U	ND<0.0028U	ND<0.0023U	ND<0.0027U	ND<0.0024U	ND<0.0024U	ND<0.0026U	ND<0.0024U	ND<0.0026U	ND<0.013U	ND<0.0024U	ND<0.0027U	ND<0.0025U	ND<0.0025U
ANTHRACENE	100	100	100	500	1000	ND<0.0052U	ND<0.0052U	ND<0.0061U	ND<0.005U	ND<0.006U	ND<0.0052U	ND<0.0053U	ND<0.0056U	0.0063NJ	ND<0.0057U	ND<0.029U	ND<0.0051U	ND<0.0059U	ND<0.0056U	ND<0.0053U
BENZO(A)PYRENE	1	1	1	1	1.1	ND<0.0049U	ND<0.0049U	ND<0.0057U	ND<0.0047U	ND<0.0056U	ND<0.0049U	ND<0.0053U	0.4	0.014J	ND<0.0054U	ND<0.027U	ND<0.0048U	ND<0.0056U	ND<0.0052U	ND<0.005U
BENZO(B)FLUORANTHENE	1	1	1	5.6	11	ND<0.0039U	ND<0.0039U	ND<0.0046U	ND<0.0038U	ND<0.0045U	ND<0.004U	ND<0.004U	ND<0.0042U	0.018J	ND<0.0043U	ND<0.022U	ND<0.0039U	ND<0.0045U	ND<0.0042U	ND<0.004U
BENZO(G,H,I)PERYLENE	100	100	100	500	1000	ND<0.0024U	ND<0.0024U	ND<0.0029U	ND<0.0024U	ND<0.0028U	ND<0.0024U	ND<0.0025U	ND<0.0026U	0.0089NJ	ND<0.0027U	ND<0.013U	ND<0.0024U	ND<0.0028U	ND<0.0026U	ND<0.0025U
BENZO(K)FLUORANTHENE	0.8	1	3.9	56	110	ND<0.0022U	ND<0.0022U	ND<0.0026U	ND<0.0022U	ND<0.0026U	ND<0.0022U	ND<0.0023U	ND<0.0024U	0.0072J	ND<0.0025U	ND<0.012U	ND<0.0022U	ND<0.0025U	ND<0.0024U	ND<0.0023U
CHRYSENE	1	1	3.9	56	110	ND<0.002U	ND<0.002U	ND<0.0024U	ND<0.002U	ND<0.0023U	ND<0.002U	ND<0.0021U	ND<0.0022U	0.017NJ	ND<0.0022U	ND<0.011U	ND<0.002U	ND<0.0023U	ND<0.0022U	ND<0.0021U
FLUORANTHENE	100	100	100	500	1000	ND<0.0029U	ND<0.0029U	ND<0.0034U	ND<0.0028U	ND<0.0034U	ND<0.003U	0.018J	ND<0.0031U	0.026J	ND<0.0032U	ND<0.016U	ND<0.0029U	ND<0.0033U	0.011J	ND<0.003U
FLUORENE	30	100	100	500	1000	ND<0.0047U	ND<0.0047U	ND<0.0055U	ND<0.0045U	ND<0.0054U	ND<0.0047U	ND<0.0047U	ND<0.005U	ND<0.0046U	ND<0.0051U	ND<0.026U	ND<0.0046U	ND<0.0053U	ND<0.005U	ND<0.0048U

Sample Location	NYSDEC Soil Cleanup Objectives					A2	A3	B1	B2	B3	B4	B5	C1	C2	C3	C4	C5	D1	D2	D3
Sample Depth						12'	13'	11'	12'	10'	13'-14''	13'	8'	10'	12'	10'	10'	8'	14'	8'-9'
Sample Date						3-May-13	16-May-13	30-Apr-13	3-May-13	23-Apr-13	3-May-13	3-May-13	30-Apr-13	19-Apr-13	24-Apr-13	22-Apr-13	3-May-13	30-Apr-13	23-Apr-13	21-May-13
Matrix						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
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
Contaminate	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**															
Volatile Organic Compounds																				
INDENO(1,2,3-C,D)PYRENE	0.5	0.5	0.5	5.6	11	ND<0.0056 U	ND<0.0056 U	ND<0.0066 U	ND<0.0054U	ND<0.0065 U	ND<0.0056U	ND<0.0057U	ND<0.006U	0.0074NJ	ND<0.0062 U	ND<0.031U	ND<0.0055U	ND<0.0064 U	ND<0.006U	ND<0.0058 U
NAPHTHALENE	12	100	100	500	1000	ND<0.0034 U	ND<0.0034 U	ND<0.004U	ND<0.0033U	ND<0.0039 U	ND<0.0034U	ND<0.0034U	ND<0.0036 U	ND<0.0033 U	ND<0.0037 U	ND<0.019U	ND<0.0033U	ND<0.0038 U	ND<0.0036 U	ND<0.0035 U
PHENANTHRENE	100	100	100	500	1000	ND<0.0043 U	ND<0.0043 U	ND<0.005U	ND<0.0041U	ND<0.0049 U	ND<0.0043U	ND<0.0043U	ND<0.0046 U	0.028J	ND<0.0047 U	ND<0.023U	ND<0.0042U	ND<0.0048 U	ND<0.0046 U	0.0098BJ
PYRENE	100	100	100	500	1000	ND<0.0013 U	ND<0.0013 U	ND<0.0015 U	ND<0.0013U	ND<0.0015 U	ND<0.0013U	0.015J	ND<0.0014 U	0.028J	ND<0.0014 U	ND<0.0072 U	ND<0.0013U	ND<0.0015 U	0.0094J	ND<0.0014 U
No Standard																				
2,4,6-TRIBROMOPHENOL	0	0	0	0	0	1.2	1.7	1.8	1.4	1.8	1.4	1.4	1.6	2.1	1.7	1.4	1.4	1.7	1.7	2
2-FLUOROBIPHENYL	0	0	0	0	0	1.2	1.6	1.7	1.3	1.8	1.4	1.3	1.5	1.8	1.6	1.7	1.2	1.7	1.7	1.6
2-FLUOROPHENOL	0	0	0	0	0	1.2	1.6	1.6	1.4	1.3	1.4	1.3	1.4	1.7	1.6	1.3	1.2	1.5	1.4	1.7
2-METHYLNAPHTHALENE	0	0	0	0	0	ND<0.0025 U	ND<0.0025 U	ND<0.0029 U	ND<0.0024U	ND<0.0028 U	ND<0.0025U	ND<0.0025U	ND<0.0026 U	ND<0.0024 U	ND<0.0027 U	ND<0.014U	ND<0.0024U	ND<0.0028 U	ND<0.0026 U	ND<0.0025 U
BIS(2-ETHYLHEXYL) PHTHALATE	0	0	0	0	0	ND<0.065U	ND<0.065U	ND<0.077U	ND<0.063 U	ND<0.075U	ND<0.066 U	ND<0.066 U	ND<0.07U	ND<0.065U	ND<0.072U	ND<0.36U	ND<0.065 U	ND<0.074U	ND<0.07U	ND<0.067U
Metals																				
ARSENIC	13	16	16	16	16	4.2	3.2	8.4	3.7	4.8	6.1	3.3	5.0	4.4	2.9	2.9	6.7	4.3	3.2	5.2
BARIUM	350	350	400	400	10000	90.9	102	101	76.7	93.8	94.6	87.7	81.7	47.9	85.2	102	84.3	91.1	92.3	105
BERYLLIUM	7.2	14	72	590	2700	0.66	0.65	0.69	0.72	0.73	0.79	0.82	0.62	0.36	0.63	0.69	0.74	0.59	0.67	0.88
CADMIUM	2.5	2.5	4.3	9.3	60	0.33	0.21J	0.49	0.25	0.32	0.20J	0.40	0.35	0.14J	0.43	0.36	0.28	0.44	0.58	0.60
CHROMIUM, TOTAL	1	22	110	400	800	15.3	17.9	16.2J	17.7	17.2	17.7	19.7	14.8J	9.2	14.9	15.2	16.1	12.6J	15.4	18.6
COPPER	50	270	270	270	10000	22.1	14.4	27.0	19.2	23.6	18.3	31.2	19.9	11.2	20.0	21.8B	24.8	13.9	21.9	26.6
LEAD	63	400	400	1000	3900	22.2	11.1	23.4	15.2	16.8	17.2	17.9	15.8	59.9	13.2	25.4	16.4	10.7	20.4	17.3
MANGANESE	1600	2000	2000	10000	10000	274B	273B	802J	309B	334J	516B	171B	354J	604B	316B	182J	679B	371J	145J	460B
MERCURY	0.18	0.81	0.81	2.8	5.7	0.16	0.028	0.058	0.034	0.033	0.034	0.035	0.041	0.076	0.039J	0.12	0.040	0.067	0.042	0.063
NICKEL	30	140	310	310	10000	23.4	29.9	28.2	**31.4**	27.9	28.3	**39.8**	26.4	10.2	26.0	28.0	**30.2**	17.8	25.7	**35.2**
SELENIUM	3.9	36	180	1500	6800	ND<0.51U	ND<0.52U	1.0J	ND<0.43U	ND<0.60U	ND<0.46U	ND<0.53U	ND<0.48U	0.53J	ND<0.59U	1.2J	ND<0.45U	ND<0.56U	0.58J	ND<0.55U
ZINC	109	2200	10000	10000	10000	75.0B	76.9B	103J	75.3B	79.3B	74.2B	89.4B	71.6J	47.8B	75.5B	67.8	70.4B	60.5J	68.5B	83.3B
No Standard																				
ALUMINUM	0	0	0		0	11300	13600	11200J	12400	12200	12600	13500	10800J	8960	11600	11700	11900	9920J	10700	14300
CALCIUM	0	0	0	0	0	5490B	2980B	9690J	2260B	3010B	2590B	1500B	2680J	4750B	3220B	3720J	1990B	3490J	3510B	2440B
COBALT	0	0	0	0	0	7.5	9.7	17.9	13.0	9.4	11.8	15.1	10.7	6.4	10.1	9.8	11.3	7.7	8.7	14.4
IRON	0	0	0	0	0	18800B	23900B	27600J	23700B	22400B	27300B	25600B	19700J	13500B	21200B	18200B	25800B	17000J	16900B	24000B
MAGNESIUM	0	0	0	0	0	3530B	4040	5930	3850B	3820	3670B	4470B	3280	2290	3630J	3790B	3590B	2570	3380	4200
POTASSIUM	0	0	0	0	0	1690J	1310	1080	1420J	1810	1060J	1200J	962	1010	1450	1420J	794J	981	973	1570
SODIUM	0	0	0	0	0	474	188	819	1340	447	1390	620	1810	1060B	235	401B	421	983	710	480
THALLIUM	0	0	0	0	0	ND<0.39U	ND<0.39U	ND<0.43U	ND<0.32U	ND<0.45U	ND<0.34U	ND<0.40U	ND<0.36U	ND<0.37U	ND<0.44U	ND<0.38U	0.38J	ND<0.42U	ND<0.41U	ND<0.41U
VANADIUM	0	0	0	0	0	18.8	19.0	22.9	20.7	22.5	22.1	23.5	18.9	17.1	19.0	19.3	20.1	17.0	20.3	23.1

Table 4 End Point Samples Analytical Results

Sample Location	NYSDEC Soil Cleanup Objectives					D4	D5	E1	E2	E3	E4	E5	F1	F2	F3	F4	F5	G1	G2
Sample Depth						11'	12'	8'-9'	8'-9'	12'	10'	10'	8'	10'	12'	10'	12'	8'	10-11'
Sample Date						22-Apr-13	22-Apr-13	2-May-13	20-May-13	22-Apr-13	22-Apr-13	22-Apr-13	2-May-13	22-Apr-13	22-Apr-13	24-Apr-13	24-Apr-13	2-May-13	2-May-13
Matrix						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
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
Contaminate	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**														
Volatile Organic Compounds																			
ACETONE	0.05	100	100	500	1000	0.042	**0.065**	**0.063**	0.036	**0.063**	0.029	0.035	ND<0.33U	0.049	**0.075**	**0.091**	0.036	0.012J	**0.15**
ETHYLBENZENE	1	30	41	390	780	ND<0.00032U	ND<0.00038U	ND<0.00043U	ND<0.00039U	ND<0.0004U	ND<0.00035U	ND<0.00034U	ND<0.024U	ND<0.0004U	ND<0.00036U	ND<0.00036U	ND<0.00033U	ND<0.00033U	ND<0.00048U
METHYL ETHYL KETONE (2-BUTANONE)	0.12	100	100	500	1000	0.0054J	0.011J	0.014J	0.0062J	0.0093J	0.0041J	0.0048J	ND<0.24U	0.0074J	0.013J	0.024J	0.0071J	ND<0.0017U	0.04
METHYLENE CHLORIDE	0.05	51	100	500	1000	ND<0.0021U	ND<0.0025U	ND<0.0029U	ND<0.0026U	ND<0.0027U	ND<0.0024U	ND<0.0023U	ND<0.016U	ND<0.0027U	ND<0.0024U	ND<0.0024U	ND<0.0022U	ND<0.0022U	ND<0.0032U
TOLUENE	0.7	100	100	500	1000	ND<0.00035U	0.0005J	ND<0.00048U	ND<0.00043U	ND<0.00044U	ND<0.00039U	ND<0.00037U	ND<0.022U	ND<0.00044U	0.00078J	0.00081J	0.00079J	ND<0.00036U	ND<0.00053U
TRICHLOROETHYLENE (TCE)	0.47	10	21	200	400	ND<0.001U	ND<0.0012U	ND<0.0014U	ND<0.0013U	ND<0.0013U	ND<0.0011U	ND<0.0011U	ND<0.023U	ND<0.0013U	ND<0.0011U	ND<0.0011U	ND<0.0011U	ND<0.0011U	ND<0.0015U
No Standard																			
4-BROMOFLUOROBENZENE	0	0	0	0	0	0.047	0.056	0.065	0.055	0.058	0.052	0.049	1.8	0.059	0.054	0.053	0.05	0.048	0.07
CARBON DISULFIDE	0	0	0	0	0	ND<0.0023U	ND<0.0027U	ND<0.0031U	ND<0.0029U	ND<0.0029U	ND<0.0026U	ND<0.0025U	ND<0.037U	ND<0.0029U	ND<0.0026U	ND<0.0026U	ND<0.0024U	ND<0.0024U	ND<0.0035U
CYCLOHEXANE	0	0	0	0	0	ND<0.00064U	ND<0.00077U	ND<0.00088U	ND<0.0008U	ND<0.00081U	ND<0.00072U	ND<0.00069U	ND<0.018U	0.0025J	ND<0.00073U	ND<0.00073U	ND<0.00067U	ND<0.00067U	ND<0.00098U
METHYL ACETATE	0	0	0	0	0	ND<0.00085U	ND<0.001U	ND<0.0012U	ND<0.0011U	ND<0.0011U	ND<0.00095U	ND<0.00091U	0.2	ND<0.0011U	ND<0.00097U	ND<0.00097U	ND<0.00089U	ND<0.00089U	ND<0.0013U
METHYLCYCLOHEXANE	0	0	0	0	0	ND<0.0007U	ND<0.00083U	ND<0.00096U	ND<0.00087U	ND<0.00088U	ND<0.00078U	ND<0.00074U	ND<0.038U	ND<0.00088U	ND<0.00079U	ND<0.00079U	ND<0.00073U	ND<0.00073U	0.0021J
Semi-Volatile Organic Compounds																			
4-METHYLPHENOL (P-CRESOL)	0.33	34	100	500	1000	ND<0.012U	ND<0.012U	ND<0.013U	ND<0.012U	ND<0.012U	ND<0.012U	ND<0.012U	ND<0.014U	ND<0.012U	ND<0.012U	ND<0.011U	ND<0.011U	ND<0.056U	ND<0.014U
ACENAPHTHENE	20	100	100	500	1000	ND<0.0025U	ND<0.0025U	ND<0.0028U	ND<0.0026U	ND<0.0025U	ND<0.0025U	ND<0.0026U	ND<0.0029U	ND<0.0026U	ND<0.0026U	ND<0.0024U	ND<0.0022U	ND<0.012U	ND<0.003U
ANTHRACENE	100	100	100	500	1000	ND<0.0054U	ND<0.0055U	ND<0.006U	ND<0.0056U	0.036J	ND<0.0055U	ND<0.0056U	ND<0.0063U	ND<0.0057U	ND<0.0057U	ND<0.0052U	ND<0.0049U	0.046NJ	ND<0.0065U
BENZO(A)PYRENE	1	1	1	1	1.1	0.078J	0.3	ND<0.0056U	ND<0.0052U	0.12J	ND<0.0052U	ND<0.0053U	ND<0.0059U	ND<0.0053U	ND<0.0054U	ND<0.0049U	ND<0.0046U	ND<0.024U	0.17J
BENZO(B)FLUORANTHENE	1	1	1	5.6	11	ND<0.0041U	ND<0.0042U	ND<0.0045U	ND<0.0042U	ND<0.0041U	ND<0.0042U	ND<0.0042U	ND<0.0047U	ND<0.0043U	ND<0.0043U	ND<0.004U	ND<0.0037U	ND<0.019U	ND<0.005U
BENZO(G,H,I)PERYLENE	100	100	100	500	1000	ND<0.0025U	ND<0.0026U	ND<0.0028U	ND<0.0026U	ND<0.0026U	ND<0.0026U	ND<0.0026U	ND<0.0029U	ND<0.0027U	ND<0.0027U	ND<0.0024U	ND<0.0023U	ND<0.012U	ND<0.0031U
BENZO(K)FLUORANTHENE	0.8	1	3.9	56	110	ND<0.0023U	ND<0.0024U	ND<0.0026U	ND<0.0024U	ND<0.0023U	ND<0.0024U	ND<0.0024U	ND<0.0027U	ND<0.0024U	ND<0.0025U	ND<0.0022U	ND<0.0021U	ND<0.011U	ND<0.0028U
CHRYSENE	1	1	3.9	56	110	ND<0.0021U	ND<0.0022U	ND<0.0023U	ND<0.0022U	ND<0.0021U	ND<0.0022U	ND<0.0022U	ND<0.0024U	ND<0.0022U	ND<0.0022U	ND<0.002U	ND<0.0019U	ND<0.01U	ND<0.0026U
FLUORANTHENE	100	100	100	500	1000	ND<0.003U	ND<0.0031U	0.017J	ND<0.0031U	ND<0.0031U	ND<0.0031U	0.022J	ND<0.0035U	ND<0.0032U	ND<0.0032U	ND<0.003U	ND<0.0028U	0.11J	ND<0.0037U
FLUORENE	30	100	100	500	1000	ND<0.0048U	ND<0.005U	ND<0.0054U	ND<0.005U	0.019J	ND<0.005U	ND<0.005U	ND<0.0056U	ND<0.0051U	ND<0.0051U	ND<0.0047U	ND<0.0044U	ND<0.023U	ND<0.0059U

Table 4 End Point Samples Analytical Results

Sample Location	NYSDEC Soil Cleanup Objectives					D4	D5	E1	E2	E3	E4	E5	F1	F2	F3	F4	F5	G1	G2
Sample Depth						11'	12'	8'-9'	8'-9'	12'	10'	10'	8'	10'	12'	10'	12'	8'	10-11'
Sample Date						22-Apr-13	22-Apr-13	2-May-13	20-May-13	22-Apr-13	22-Apr-13	22-Apr-13	2-May-13	22-Apr-13	22-Apr-13	24-Apr-13	24-Apr-13	2-May-13	2-May-13
Matrix						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
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
Contaminate	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**														
Volatile Organic Compounds																			
INDENO(1,2,3-C,D)PYRENE	0.5	0.5	0.5	5.6	11	ND<0.0058 U	ND<0.006U	ND<0.0065U	ND<0.006U	ND<0.0059 U	ND<0.0059 U	ND<0.006U	ND<0.0068U	ND<0.0061 U	ND<0.0062 U	ND<0.0056 U	ND<0.0053 U	ND<0.028 U	ND<0.0071U
NAPHTHALENE	12	100	100	500	1000	ND<0.0035 U	ND<0.0036 U	ND<0.0039U	ND<0.0036 U	ND<0.0035 U	ND<0.0036 U	ND<0.0036 U	ND<0.0041U	ND<0.0037 U	0.0047J	ND<0.0034 U	ND<0.0032 U	ND<0.017 U	ND<0.0043U
PHENANTHRENE	100	100	100	500	1000	0.0095J	ND<0.0045 U	ND<0.0049U	0.009J	0.086J	ND<0.0045 U	0.019J	ND<0.0051U	ND<0.0047 U	0.01J	ND<0.0043 U	0.0068J	0.14J	0.019J
PYRENE	100	100	100	500	1000	0.0093J	ND<0.0014 U	ND<0.0015U	ND<0.0014 U	0.043J	ND<0.0014 U	0.018J	ND<0.0016U	ND<0.0014 U	ND<0.0014 U	ND<0.0013 U	ND<0.0012 U	ND<0.0065U	ND<0.0017U
No Standard																			
2,4,6-TRIBROMOPHENOL	0	0	0	0	0	1.5	1.5	1.9	1.5	1.6	1.6	1.5	1.8	1.6	1.6	1.5	1.3	0.71	1.7
2-FLUOROBIPHENYL	0	0	0	0	0	1.5	1.5	1.6	1.4	1.6	1.5	1.5	1.5	1.6	1.6	1.3	1.2	1.4	1.8
2-FLUOROPHENOL	0	0	0	0	0	1.1	1.1	1.4	1.5	1.2	1.1	1.2	1.4	1.2	1.1	1.4	1.3	1.2	1.7
2-METHYLNAPHTHALENE	0	0	0	0	0	ND<0.0025 U	ND<0.0026 U	ND<0.0028U	ND<0.0026 U	0.014J	ND<0.0026 U	ND<0.0026 U	ND<0.0031U	ND<0.0027 U	ND<0.0027 U	ND<0.0025 U	ND<0.0023 U	ND<0.012 U	ND<0.0031U
BIS(2-ETHYLHEXYL) PHTHALATE	0	0	0	0	0	ND<0.068U	ND<0.07U	ND<0.075 U	ND<0.07U	ND<0.069U	ND<0.069U	ND<0.07U	ND<0.079 U	ND<0.071U	ND<0.072U	ND<0.066U	0.22	ND<0.32U	ND<0.082 U
Metals																			
ARSENIC	13	16	16	16	16	7.2	2.1J	4.9	4.9	8.2	4.7	7.8	6.6	3.1	4.6	2.7	4.7	2.5J	4.8
BARIUM	350	350	400	400	10000	94.3	86.7	103	85.9	91.6	94.9	110	105	92.9	101	61.1	86.1	38.8	87.4
BERYLLIUM	7.2	14	72	590	2700	0.62	0.62	0.85	0.81	0.71	0.66	0.78	0.66	0.71	0.67	0.43	0.56	0.29	0.64
CADMIUM	2.5	2.5	4.3	9.3	60	0.63	0.35	0.30	1.1	0.36	0.34	0.38	0.56	0.26J	0.28	0.32	0.29	0.21J	0.52
CHROMIUM, TOTAL	1	22	110	400	800	16.9	17.2	19.2	17.6	16.6	18.0	18.7	15.3	19.0	18.8	10.5	14.0	8.3	15.1
COPPER	50	270	270	270	10000	27.9B	21.2B	27.5	27.8	42.2B	24.9B	24.8B	26.6	13.3B	16.8B	13.0	16.3	**80.7**	34.1
LEAD	63	400	400	1000	3900	18.4	12.5	16.7J	16	46.3	14.7	22.6	34.6J	18.3	20.8	14.6	24.1	35.0	40.1
MANGANESE	1600	2000	2000	10000	10000	673J	233J	246J	537B	827J	185J	445J	181J	201J	230J	195B	275B	86.3B	184B
MERCURY	0.18	0.81	0.81	2.8	5.7	0.033	0.030	0.073J	0.044	0.039	0.025	0.025	0.20J	0.031	0.051	0.082J	0.056J	0.93	**0.27**
NICKEL	30	140	310	310	10000	**33.0**	**31.8**	**32.1**	**36.4**	**32.2**	**32.7**	**33.0**	25.9	27.9	28.6	15.2	22.1	13.9	22.6
SELENIUM	3.9	36	180	1500	6800	ND<0.48U	0.91J	0.66J	0.68J	0.67J	ND<0.54U	ND<0.54U	ND<0.55U	0.79J	ND<0.52U	1.1J	1.0J	ND<0.51U	1.0J
ZINC	109	2200	10000	10000	10000	72.3	75.9	79.1	88.0B	83.8	78.9	88.4	78.6	85.3	89.0	50.2B	71.0B	51.4	72.9
No Standard																			
ALUMINUM	0	0	0		0	12400	12900	14200	12600	11500	13000	13400	11300	13900	13400	8650	10900	5440J	11300J
CALCIUM	0	0	0	0	0	2340J	1870J	2540J	3230B	4670J	1660J	3760J	6170J	1910J	2310J	32900B	10700B	2590B	9370B
COBALT	0	0	0	0	0	13.1	8.9	12.6	12.9	19.1	10.2	15.0	6.6	9.0	12.7	4.9	11.4	4.4	6.5
IRON	0	0	0	0	0	27200B	20200B	25200J	26400B	34400B	23100B	30800B	16400J	22600B	25400B	12900B	22000B	9830B	15600B
MAGNESIUM	0	0	0	0	0	3880B	4160B	4050J	3930B	3800B	4100B	4280B	3720J	3900B	3830B	20400J	5620J	1840	4410
POTASSIUM	0	0	0	0	0	966J	1200J	1280	1360	1480J	968J	1080J	1170	1410J	1350J	1000	923	540	1310
SODIUM	0	0	0	0	0	592B	545B	2140	1150	202B	164BJ	549B	2560	355B	1010B	538	673	541	1890
THALLIUM	0	0	0	0	0	0.38J	0.76J	ND<0.40U	ND<0.35	ND<0.38U	0.43J	0.61J	ND<0.41U	0.43J	ND<0.39U	ND<0.38U	ND<0.34U	ND<0.39U	ND<0.47U
VANADIUM	0	0	0	0	0	19.9	18.6	24.3	19.9	20.7	21.1	23.7	18.0	22.3	23.1	13.6	18.3	13.2	18.4

Table 4 End Point Samples Analytical Results

Sample Location	NYSDEC Soil Cleanup Objectives					G3	G4	G5	H1	H2	H3	H4	H5	HJ	J1	J2	J3	J4	J5
Sample Depth						10'	10'	10'	8'	10'	10'	14'	10'	10'	6'-7'	10'	10'	10'	10'
Sample Date						24-Apr-13	17-Apr-13	24-Apr-13	2-May-13	24-Apr-13	24-Apr-13	24-Apr-13	24-Apr-13	14-May-13	1-May-13	1-May-13	24-Apr-13	24-Apr-13	19-Apr-13
Matrix						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
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
Contaminate	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**														
Volatile Organic Compounds																			
ACETONE	0.05	100	100	500	1000	**0.051**	0.007J	**0.056**	0.033	0.037	**0.055**	0.028	0.036	0.025J	0.019J	0.029	**0.079**	**0.13**	**0.023J**
ETHYLBENZENE	1	30	41	390	780	ND<0.00034U	ND<0.0003U	ND<0.00031U	ND<0.00033U	ND<0.00036U	ND<0.00038U	ND<0.00029U	ND<0.00037U	ND<0.00036U	ND<0.0003U	ND<0.00035U	ND<0.00035U	ND<0.00044U	ND<0.00034U
METHYL ETHYL KETONE (2-BUTANONE)	0.12	100	100	500	1000	0.0091J	ND<0.0016U	0.013J	0.0052J	0.0077J	ND<0.002U	0.0064J	ND<0.002U	0.0045J	0.0028J	0.0037J	0.018J	0.027J	0.0045J
METHYLENE CHLORIDE	0.05	51	100	500	1000	ND<0.0022U	ND<0.002U	ND<0.002U	ND<0.0022U	ND<0.0024U	ND<0.0025U	ND<0.002U	ND<0.0025U	ND<0.0024U	ND<0.002U	ND<0.0023U	ND<0.0023U	0.0034J	ND<0.0023U
TOLUENE	0.7	100	100	500	1000	0.0011J	0.001J	0.00052J	ND<0.00036U	0.00043J	0.0011J	0.00054J	0.0015J	ND<0.00039U	ND<0.00033U	ND<0.00038U	0.0019J	0.0013J	ND<0.00037U
TRICHLOROETHYLENE (TCE)	0.47	10	21	200	400	ND<0.0011U	ND<0.00095U	ND<0.00097U	ND<0.0011U	ND<0.0011U	ND<0.0012U	ND<0.00094U	ND<0.0012U	ND<0.0011U	ND<0.00095U	0.0011J	ND<0.0011U	ND<0.0014U	ND<0.0011U
No Standard																			
4-BROMOFLUOROBENZENE	0	0	0	0	0	0.05	0.042	0.046	0.048	0.056	0.059	0.044	0.057	0.053	0.045	0.052	0.054	0.073	0.05
CARBON DISULFIDE	0	0	0	0	0	ND<0.0024U	ND<0.0022U	ND<0.0022U	ND<0.0024U	ND<0.0026U	ND<0.0027U	ND<0.0021U	ND<0.0027U	ND<0.0026U	ND<0.0022U	ND<0.0025U	ND<0.0025U	ND<0.0032U	ND<0.0025U
CYCLOHEXANE	0	0	0	0	0	ND<0.00068U	ND<0.00061U	ND<0.00062U	ND<0.00067U	ND<0.00073U	0.002J	ND<0.0006U	ND<0.00076U	ND<0.00073U	ND<0.0006U	ND<0.0007U	ND<0.00071U	ND<0.00089U	ND<0.00069U
METHYL ACETATE	0	0	0	0	0	ND<0.00091U	ND<0.0008U	ND<0.00082U	ND<0.00089U	ND<0.00097U	ND<0.001U	ND<0.00079U	ND<0.001U	ND<0.00097U	ND<0.0008U	ND<0.00094U	ND<0.00095U	ND<0.0012U	ND<0.00092UJ
METHYLCYCLOHEXANE	0	0	0	0	0	ND<0.00074U	ND<0.00066U	ND<0.00067U	ND<0.00073U	ND<0.00079U	ND<0.00084U	ND<0.00065U	ND<0.00082U	ND<0.00079U	ND<0.00066U	ND<0.00076U	ND<0.00077U	ND<0.00096U	ND<0.00075U
Semi-Volatile Organic Compounds																			
4-METHYLPHENOL (P-CRESOL)	0.33	34	100	500	1000	ND<0.011U	ND<0.011U	ND<0.01U	ND<0.012U	ND<0.012U	ND<0.012U	ND<0.011U	ND<0.01U	ND<0.012U	ND<0.011U	ND<0.011U	ND<0.011U	ND<0.012U	ND<0.012UJ
ACENAPHTHENE	20	100	100	500	1000	ND<0.0024U	ND<0.0023U	ND<0.0022U	ND<0.0025U	ND<0.0025U	ND<0.0025U	0.0081J	ND<0.0022U	0.012J	ND<0.0023U	ND<0.0023U	ND<0.0024U	0.23	ND<0.0026UJ
ANTHRACENE	100	100	100	500	1000	ND<0.0052U	ND<0.0051U	ND<0.0048U	ND<0.0054U	ND<0.0055U	ND<0.0054U	0.0053J	ND<0.0048U	ND<0.0054U	ND<0.0049U	ND<0.005U	ND<0.0052U	0.15J	0.0081NJ
BENZO(A)PYRENE	1	1	1	1	1.1	ND<0.0049U	ND<0.0048U	ND<0.0045U	0.13J	ND<0.0052U	ND<0.005U	ND<0.0045U	ND<0.0045U	ND<0.005U	ND<0.0046U	ND<0.0047U	ND<0.0049U	ND<0.0054U	0.015J
BENZO(B)FLUORANTHENE	1	1	1	5.6	11	ND<0.0039U	ND<0.0038U	ND<0.0037U	ND<0.0041U	ND<0.0042U	ND<0.0041U	0.01J	ND<0.0036U	ND<0.0041U	ND<0.0037U	ND<0.0038U	ND<0.0039U	ND<0.0044U	0.015J
BENZO(G,H,I)PERYLENE	100	100	100	500	1000	ND<0.0024U	ND<0.0024U	ND<0.0023U	ND<0.0025U	ND<0.0026U	ND<0.0025U	ND<0.0023U	ND<0.0023U	ND<0.0025U	ND<0.0023U	ND<0.0023U	ND<0.0024U	ND<0.0027U	ND<0.0026UJ
BENZO(K)FLUORANTHENE	0.8	1	3.9	56	110	ND<0.0022U	ND<0.0022U	ND<0.0021U	ND<0.0023U	ND<0.0024U	ND<0.0023U	ND<0.0021U	ND<0.0021U	ND<0.0023U	ND<0.0021U	ND<0.0021U	ND<0.0022U	ND<0.0025U	0.0077J
CHRYSENE	1	1	3.9	56	110	ND<0.002U	ND<0.002U	ND<0.0019U	ND<0.0021U	0.014J	ND<0.0021U	0.01J	0.0072J	ND<0.0021U	ND<0.0019U	ND<0.0019U	ND<0.002U	ND<0.0022U	ND<0.0022UJ
FLUORANTHENE	100	100	100	500	1000	ND<0.0029U	ND<0.0029U	ND<0.0027U	ND<0.0031U	0.026J	ND<0.003U	0.023J	0.018J	ND<0.003U	ND<0.0028U	ND<0.0028U	ND<0.0029U	ND<0.0032U	0.024J
FLUORENE	30	100	100	500	1000	ND<0.0047U	ND<0.0046U	ND<0.0043U	ND<0.0049U	ND<0.005U	ND<0.0048U	ND<0.0043U	ND<0.0043U	ND<0.0048U	ND<0.0044U	ND<0.0045U	ND<0.0047U	ND<0.0052U	ND<0.005UJ

Table 4 End Point Samples Analytical Results

Sample Location	NYSDEC Soil Cleanup Objectives					G3	G4	G5	H1	H2	H3	H4	H5	HJ	J1	J2	J3	J4	J5
Sample Depth						10'	10'	10'	8'	10'	10'	14'	10'	10'	6'-7'	10'	10'	10'	10'
Sample Date						24-Apr-13	17-Apr-13	24-Apr-13	2-May-13	24-Apr-13	24-Apr-13	24-Apr-13	24-Apr-13	14-May-13	1-May-13	1-May-13	24-Apr-13	24-Apr-13	19-Apr-13
Matrix						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
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
Contaminate	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**														
Volatile Organic Compounds																			
INDENO(1,2,3-C,D)PYRENE	0.5	0.5	0.5	5.6	11	ND<0.0056 U	ND<0.0055 U	ND<0.0052 U	ND<0.0058 U	ND<0.006U	ND<0.0058U	ND<0.0052U	ND<0.0052U	ND<0.0058U	ND<0.0053 U	ND<0.0054U	ND<0.0056U	ND<0.0062U	ND<0.006UJ
NAPHTHALENE	12	100	100	500	1000	ND<0.0034 U	ND<0.0033 U	ND<0.0031 U	ND<0.0035 U	ND<0.0036U	ND<0.0035U	ND<0.0031U	ND<0.0031U	ND<0.0035U	ND<0.0032 U	ND<0.0032U	ND<0.0034U	ND<0.0037U	ND<0.0036U J
PHENANTHRENE	100	100	100	500	1000	ND<0.0043 U	ND<0.0042 U	ND<0.004U	ND<0.0044 U	0.027J	ND<0.0044U	0.017J	0.017J	ND<0.0044U	ND<0.004U	ND<0.0041U	ND<0.0043U	0.47	0.021J
PYRENE	100	100	100	500	1000	ND<0.0013 U	ND<0.0013 U	ND<0.0012 U	ND<0.0014 U	0.021J	ND<0.0014U	0.021J	0.016J	ND<0.0014U	ND<0.0012 U	ND<0.0013U	ND<0.0013U	0.047J	0.026J
No Standard																			
2,4,6-TRIBROMOPHENOL	0	0	0	0	0	1.5	2	1.4	1.3	1.5	1.6	1.4	1.4	1.9	1.4	1.2	1.7	1.9	2.2
2-FLUOROBIPHENYL	0	0	0	0	0	1.3	1.7	1.2	1.3	1.4	1.4	1.2	1.2	1.7	1.4	1.3	1.5	1.6	1.8
2-FLUOROPHENOL	0	0	0	0	0	1.4	1.6	1.2	1.3	1.4	1.4	1.2	1.3	1.7	1.3	1.3	1.4	1.6	1.7
2-METHYLNAPHTHALENE	0	0	0	0	0	ND<0.0025 U	ND<0.0024 U	ND<0.0023 U	ND<0.0026 U	ND<0.0026U	ND<0.0025U	ND<0.0023U	ND<0.0023U	ND<0.0025U	ND<0.0023 U	ND<0.0024U	ND<0.0025U	0.14NJ	ND<0.0026U J
BIS(2-ETHYLHEXYL) PHTHALATE	0	0	0	0	0	ND<0.065U	ND<0.064U	ND<0.061U	ND<0.068U	ND<0.07U	ND<0.067U	ND<0.061U	ND<0.06U	ND<0.067U	ND<0.062U	0.16J	ND<0.065U	ND<0.072U	ND<0.07UJ
Metals																			
ARSENIC	13	16	16	16	16	2.0J	1.6J	4.2	7.3	4.4	2.8	2.6	7.0	4.0	4.2	1.9J	5.6	5.8	6.4
BARIUM	350	350	400	400	10000	89.7	7.4	83.9	98.2	106	72.6	66.0	53.5	22.5	48.3	14.2	94.8	115	24.4
BERYLLIUM	7.2	14	72	590	2700	0.75	0.11J	0.61	0.99	0.92	0.65	0.35	0.50	0.34	0.47	0.16J	0.77	0.72	0.41
CADMIUM	2.5	2.5	4.3	9.3	60	0.23J	0.14J	0.30	0.27	0.18J	0.29	0.22	0.17J	0.13J	0.16J	0.064J	0.30	0.46	0.16J
CHROMIUM, TOTAL	1	22	110	400	800	17.6	3.0	14.1	20.0	17.9	15.7	8.0	13.3	6.6	11.8	4.7	17.1	16.3	6.6
COPPER	50	270	270	270	10000	10.4	5.0	15.0	23.6	21.9	20.4	14.5	20.2	15.0	12.3	5.1	18.6	25.3	12.2
LEAD	63	400	400	1000	3900	12.2	4.7	15.3	15.5	19.8	15.6	15.2	13.9	7.4	8.9	3.3	16.3	26.1	9.4
MANGANESE	1600	2000	2000	10000	10000	111B	249J	281B	469B	593B	270B	249B	209B	107J	256B	44.7B	497B	349B	132J
MERCURY	0.18	0.81	0.81	2.8	5.7	0.020J	0.0091J	0.040	0.030	0.040J	0.042J	0.097J	0.030J	0.091J	0.015J	ND<0.0092U	0.026J	0.093J	ND<0.011U
NICKEL	30	140	310	310	10000	24.3	8.5	22.8	**30.4**	24.6	26.3	14.3	22.5	14.2	15.2	7.0	29.4	28.6	11.1
SELENIUM	3.9	36	180	1500	6800	0.58J	ND<0.47U	1.3J	ND<0.50U	0.96J	1.1J	0.93J	0.51J	ND<0.51U	ND<0.47U	ND<0.46U	1.7J	1.3J	ND<0.53U
ZINC	109	2200	10000	10000	10000	65.1B	31.1	64.9B	71.9	71.6B	76.5B	40.7B	57.7B	33.7	37.5B	17.0B	85.6B	78.9B	25.4B
No Standard																			
ALUMINUM	0	0	0		0	15000	2180	11100	15800J	14400	12500	6360	9750	5540J	9250J	3830J	13500	12800	5790
CALCIUM	0	0	0	0	0	1730B	36000J	7580B	2280B	3340B	4550B	19200B	2790B	3100J	1060B	816B	2620B	5700B	7730B
COBALT	0	0	0	0	0	7.5	2.9	11.0	17.1	14.2	9.4	5.0	8.2	6.3	7.9	2.2	13.2	10.6	5.4
IRON	0	0	0	0	0	18900B	5900B	22800B	28600B	32700B	20200B	11200B	24500B	12500B	17400B	6020B	29600B	23000B	13900B
MAGNESIUM	0	0	0	0	0	3450J	3450	4070	3580	3480	3900J	4760J	3790J	1450J	2070B	888B	3590J	4470J	2110
POTASSIUM	0	0	0	0	0	1750	419J	978	1200	1020	1670	778	919	816J	670B	457B	1300	1470	582J
SODIUM	0	0	0	0	0	523	497	1080	1730	1170	1160	721	704	1020	1280B	484B	979	1350	720B
THALLIUM	0	0	0	0	0	ND<0.36U	ND<0.35U	ND<0.32U	ND<0.38U	ND<0.35U	ND<0.38U	ND<0.33U	ND<0.37U	ND<0.38U	ND<0.35U	ND<0.34U	ND<0.39U	ND<0.40U	ND<0.40U
VANADIUM	0	0	0	0	0	20.8	4.6	19.1	27.1	25.4	19.0	12.2	17.8	9.8	16.9	8.4	22.4	22.0	15.5