Basis of Design Report
Perfection Plating Site (401037)
Watervliet, Albany County, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C. and Its Affiliate
EA Science and Technology
269 West Jefferson Street
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October 2020
Version: REVISED FINAL
EA Project No. 16025.08

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Asbestos-containing material
ARAR	Applicable or relevant and appropriate requirements
AWQS	Ambient Water Quality Standard
bgs	Below ground surface
BOD	Basis of Design
CFR	Code of Federal Rules and Regulations
Cr(VI)	Hexavalent chromium
DER	Division of Environmental Remediation
EA	EA Engineering, P.C. and Its Affiliate EA Science and Technology
EEE	Ecology and Environment Engineering, P.C.
FS	Feasibility study
ft	Feet or foot
mg/kg	Milligram(s) per kilogram
mg/L	Milligram(s) per liter
No.	Number
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
PCB	Polychlorinated biphenyl
PDI	Preliminary design investigation
RI	Remedial investigation
ROD	Record of Decision
SCO	Soil Cleanup Objective
TCLP	Toxicity Characteristic Leaching Procedure
UU	Unrestricted Use
WA	Work assignment

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1. INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC) tasked EA Engineering, P.C. and its affiliate EA Science and Technology (EA) to perform a pre-design investigation (PDI), remedial design, and groundwater pilot study work plan at the Perfection Plating site (NYSDEC Site Number [No.] 401037) in the City of Watervliet, Albany County, New York (**Figure 1**). EA's work began under NYSDEC Work Assignment (WA) No. D007624 and continued to NYSDEC WA No. D009806-08. The PDI was performed to evaluate the distribution of contaminants within the former plating building and delineate the extent of impacted soil in the vicinity of the building. Additionally, an asbestos-containing material (ACM) survey, site survey, and subsurface utility evaluation were completed in July and August 2019.

The Record of Decision (ROD) (NYSDEC 1995)[1] required the reduction/elimination of contamination within onsite soils, and elimination of the potential for direct contact with contaminated materials associated with the Perfection Plating Building. Current soil and former plating building materials are continuing sources of site contamination, and EA recommended demolition and offsite disposal of the existing building along with excavation and offsite disposal of soil impacted with site contaminants. An Amended ROD (NYSDEC 2018)[2] was issued by NYSDEC in response to EA's recommendation amending the selected remedy as described in Section 2.6.

This Basis of Design (BOD) Report provides the foundation used to develop a contractor scope of work and specifications to execute the building demolition, soil excavation and offsite disposal of building/excavated materials. Planning documents for the remaining portions of the amended remedy are being prepared separately.

Additionally, the results of the PDI and ACM survey, as well as an overview of the planned full building demolition and soil removal activities are summarized in this BOD Report. Design assumptions that were used to prepare the Contractor scope of work, specifications, and design plans, as well as regulatory requirements for building demolition and soil removal activities (i.e., Applicable or Relevant and Appropriate Requirements [ARARs], Codes and Standards, and Plans/Permits) are included.

This BOD Report is organized as follows:

- ***Section 1***—Introduction.

- ***Section 2***—Site Description and History. This section provides a brief description of the site, its operational history, and the remedial action selected for the site as presented in the ROD (NYSDEC 1995).[1]

[1] NYSDEC. 1995. *Record of Decision, Perfection Plating, City of Watervliet, Albany County Site Number 401037*. December.
[2] NYSDEC. 2018. *Amended Record of Decision. Perfection Plating, City of Watervliet, Albany County, Site Number 401037*. May.

- ***Section 3***—PDI. This section presents the results of the PDI activities conducted by EA during 2014 and 2019.

- ***Section 4***—Design Assumptions. This section presents the nature and extent of impacted soils and building materials, and the design assumptions to be used for preparation of design specifications (i.e., quantity take-offs and volume calculations for building demolition), design drawings, Site Management Plan, and the Environmental Easement. Regulatory requirements for the remedial action and a focused comparison to remedial alternatives are also included.

2. SITE DESCRIPTION AND HISTORY

The following section includes a brief description of the site, its operational history, and the remedial action selected for the site as presented in the ROD (NYSDEC 1995)[1].

2.1 SITE DESCRIPTION

The Perfection Plating site (Site) is an inactive plating facility located at 911 11th Street in the City of Watervliet, New York approximately 5 miles north of the City of Albany (**Figure 1**). The site covers 1.7 acres and is located in an urban area. The Site is bordered to the north and east by a residential area, to the south by commercial and residential properties, and to the west by the "Siberia Area" of the Watervliet Arsenal (**Figure 2**). The Perfection Plating site is currently classified as a "Class 4" site, defined as "Site properly closed – requires continued management."

2.2 SITE HISTORY

From 1965 to 1990, the site was used as a plating facility by three different owners as follows:

- Watervliet Plating, operating from 1965 to 1973, with the facility conducting chrome and nickel bumper plating.

- Perfection Plating, operating from 1974 to 1989, with the primary operation consisting of zinc and cadmium plating, and later changing to chrome and copper plating of brake parts.

- Pinnacle Plating, operating from 1989 to 1990, with the facility conducting copper and chromium plating with some zinc and cadmium plating. The facility was abandoned on 1 September 1990.

On 24 October 1989, a Consent Order was issued to the owners of Perfection Plating requiring submittal and implementation of a remedial investigation (RI)/feasibility study (FS). During operation of the facility, a significant leak in the chromic acid tank was noted. The tank was removed, and a new tank was installed adjacent to the former location. Chromic acid had apparently dissolved the concrete foundation beneath the tank. During Pinnacle Plating's operation, a second Consent Order was issued on 12 December 1989. The second Consent Order required a submittal of an application for an air contamination source permit, submittal of an industrial hazardous waste management plan, and construction of a fence to isolate the area on the west side of the former plating building. An industrial hazardous waste management plan was submitted by Pinnacle Plating later that month and the required fence was constructed. On 4 May 1990, in compliance with the Consent Order (File No. R4-0641-89-03), Perfection Plating submitted an RI/FS Work Plan prepared by Clough, Harbour, and Associates (1990)[3]. NYSDEC approved the Work Plan on 9 October 1990; however, the Work Plan was never implemented.
The Bureau of Construction Services of NYSDEC's Division of Hazardous Waste Remediation requested an emergency removal action on 24 June 1991, which included emptying and disposal

[3] Clough, Harbour, and Associates. 1990. *Remedial Investigation/Feasibility Study Work Plan*. May.

of the plating and rinse tanks, as well as removing and disposing of at least six drums of plating waste stored in the warehouse. On 26 June 1991, NYSDEC sent a certified letter to Perfection Plating's consultant requesting the removal of the above-mentioned waste. Due to lack of response, an emergency removal action was performed by Clean Harbors under contract to NYSDEC in late 1991 and early 1992.

Ecology and Environment Engineering, P.C. (EEE) completed an RI of the site and prepared an FS in 1992 (EEE 1994)[4]. In August 1994, the final RI was completed; the final FS was completed in August 1995. Based on the FS, the ROD was issued in December 1995 (NYSDEC 1995)[1].

2.3 1995 RECORD OF DECISION

The ROD issued in December 1995[1] identified the following specific remedial goals for the remedial action at the Perfection Plating site:

- Reduce, control, or eliminate the contamination present within the onsite soils to levels that are protective of groundwater resources
- Eliminate the potential for direct contact with impacted soils onsite and miscellaneous contaminated materials within the former plating building
- Prevent, to the extent possible, migration of contaminants from the site to groundwater
- Mitigate the impacts of contaminated groundwater to the environment
- Provide for attainment of standards, criteria, and guidance for groundwater quality at the limits of the area of concern.

The selected remedy in the ROD (NYSDEC 1995)[1] called for the following:

- Excavation of contaminated soils and offsite disposal
- Construction of a groundwater cutoff trench to intercept and collect the plume-contaminated groundwater
- Operation and maintenance of a groundwater treatment system onsite
- Discharge of treated wastewater to a local storm drain.

[4] EEE. 1994. *Final Phase I Remedial Investigation Report. Perfection Plating Site, Watervliet, New York. Volumes I and II*. August.

A limited soil remediation was conducted in 1995, with localized excavation of soil from beneath the former plating building slab. Philip Service Corporation initiated construction of the groundwater treatment system in December 1997 and completed construction in June 1998. The treatment system included installation of a downgradient collection trench and collection system to remediate site groundwater (**Figure 2**). EEE submitted a Post-Remediation Operation and Maintenance Manual to NYSDEC in October 1998[5]. After the conclusion of the demonstration period, the groundwater treatment system was turned over to NYSDEC for operation. In March 2000, the site was reclassified from Class 2 to Class 4 in the Registry as a result of completion of remediation in accordance with the ROD.[1]

A remediation program was implemented to include weekly maintenance of the treatment system including monitoring the mass of contaminants recovered in groundwater from the interceptor trench and determining the removal efficiency of the treatment system (i.e., by collecting monthly system influent and effluent samples).

2.4 GROUNDWATER MONITORING

A component of the ROD[1] called for the institution of a long-term monitoring program. One groundwater sampling event was completed by NYSDEC in December 2002 and the subsequent long-term monitoring program was implemented in May 2003, with monitoring conducted at 12 monitoring wells (8 overburden and 4 bedrock wells) to monitor plume migration and demonstrate the effectiveness of the groundwater remediation system (**Figure 2**). Groundwater monitoring was performed on a five-quarter basis (every 15 months) to capture seasonal changes in groundwater elevation, with 17 groundwater sampling events completed from May 2003 to June 2013 (**Tables 1 and 2**). During the June 2013 sampling event, hexavalent chromium (Cr[VI]) was detected downgradient of the collection trench, with the concentration in overburden monitoring well MW-EA-8 (0.15 milligrams per liter [mg/L]) exceeding the NYSDEC Class GA Ambient Water Quality Standards and Guidance Value (AWQS) of 0.05 mg/L. Confirmatory sampling was conducted in August 2013, with Cr(VI) detected above the AWQS at MW-EA-8 (3.2 mg/L).

A quarterly overburden groundwater sampling program was initiated in October 2013 to assist in monitoring the effectiveness of the collection trench and to monitor the rate of advancement and migration direction of the plume. In April 2014, 3 additional overburden groundwater monitoring wells were installed and incorporated into the quarterly groundwater sampling events. To date, samples are collected from 10 overburden groundwater monitoring wells under the ongoing quarterly sampling program, and from 3 bedrock monitoring wells on an annual basis.

Historic analytical data from quarterly sampling events show Cr(VI) concentrations frequently exceeding the AWQS in groundwater monitoring well MW-EA-11, located downgradient of the collection trench, which indicates that a portion of the groundwater flow was bypassing the trench. The size of the Cr(VI) groundwater plume where concentrations exceeded the AWQS was approximately 312 feet (ft) long × 90 ft wide in July 2019 (**Figure 3**). Based on a comparison to

[5] EEE. 1998. *Post-Remediation Operation and Maintenance Manual*. October.

the historical data, the size of the plume has not decreased over time and the Cr(VI) concentration at MW-EE-5S has remained relatively consistent since 2008.

2.5 SOURCE AREA INVESTIGATION

The groundwater treatment system is designed to contain the migration of water impacted with Cr(VI). As such, the groundwater treatment system does not have an effect on concentrations of Cr(VI) within the source area. The concentrations of Cr(VI) in the source area have remained the same order of magnitude from May 2003 to present.

Impacted soil from beneath the former plating building slab had been previously removed along with the underground storage tank in 1995. A visual inspection of the former tank excavation area showed evidence that contamination had leached upward through the backfill material. As a result, soil sampling was conducted in April 2009 to delineate the extent of the remaining impacted soil.

Cr(VI) concentrations in surface and subsurface soil collected from the former tank excavation area exceeded the NYSDEC Part 375 Unrestricted Use (UU) Soil Cleanup Objective (SCO) of 1 milligram per kilogram (mg/kg), with concentrations of 4,600 and 4.2 mg/kg, respectively (**Figure 4**). Subslab soil samples collected approximately 40 ft north and 70 ft south of the tank excavation area did not reveal concentrations above the laboratory detection limit. Subsurface soil samples were also collected from outside the building footprint, with Cr(VI) exceeding the UU SCO in two locations: SB-02 at 10.8 mg/kg and SB-07 at 1.8 mg/kg.

During the soil sampling event in 2009, evidence of Cr(VI) on the building paint was noted. As a result, paint chip samples were collected and the presence of Cr(VI) was confirmed. Follow-up sampling events in November and December 2009 were completed to evaluate conditions of the former plating building. A total of 12 suspected impacted paint chip samples and 2 background samples were collected throughout the sampling events, with suspected impacted paint chip samples collected from the west-facing outside wall of the building near where the exhaust fans are located. Cr(VI) concentrations were detected in 9 samples, with concentrations ranging from 15.9 mg/kg (PS-5 collected in November 2009) to 656 mg/kg (SS-3 collected in November 2009) (**Table 3**). Analytical results identified a 260-square ft area of Cr(VI)-impacted paint on the west-facing outer wall of the building (330 square ft including window area) (**Figure 5**).

2.6 AMENDED RECORD OF DECISION

Based on elevated analytical results of soil and paint chip samples from 2009, elevated chromium Toxicity Characteristic Leaching Procedure (TCLP) results in the building materials samples from 2014, and long-term groundwater samples, it is believed that deterioration of the building envelope coupled with the presence of significant contamination of building materials and underlying soil are resulting in a continued source of groundwater contamination; therefore, the remedial action objectives presented in the ROD (NYSDEC 1995)[1] are not being achieved. Demolition of the building has been proposed to remove contaminated building material and facilitate removal of impacted soil from under the building.

An Amended ROD issued in May 2018 maintained the same remedial goals as the original ROD and identified an amended remedy to achieve those goals. The amended remedy called for the following:

1. Continued operation, maintenance, and monitoring of the collection trench and treatment system

2. The former metal-plating building will be demolished, characterized, and appropriately disposed.

3. The underlying source of contamination, and any contamination in soils adjacent to the building, will be excavated, characterized, and appropriately disposed.

4. A sodium lactate solution or other geochemical fixation agent will be injected to treat the hexavalent chromium in situ.

5. Implementation of institutional controls in form of restricting groundwater use and restricting land use to commercial/industrial use

6. A long-term monitoring program including the development of a Site Management Plan to continue appropriate site monitoring and institutional controls/engineering controls at the site.

Plans, specifications, and scope of work for Items No. 2 and 3 (building demolition and soil removal) will be prepared separately by EA based upon this BOD report.

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3. PRE-DESIGN INVESTIGATION

A PDI was implemented in August 2014 to further evaluate the condition of the former plating building, and further characterize the extent of soil contamination in the former tank excavation area and beneath the remainder of the building in order to refine the cost estimate for building demolition. These data will be incorporated into the Contract Documents and will be used to construct bid items and estimated quantities. Activities conducted as part of the 2014 PDI included:

- Sampling of building floor slab and interior/exterior walls
- Sampling of building interior soil
- Collection of representative polychlorinated biphenyl (PCB) samples from adhesives
- Inventory of building equipment
- Wipe sampling of building equipment (to determine presence of Cr[VI]).

Characterization was focused on identifying the extent of Cr(VI)-impacted material in onsite soils and within the building. TCLP analyses were also performed to determine if building materials will need to be managed as characteristically hazardous waste. A summary of samples collected during the PDI is provided in **Table 4**. Sampling locations are depicted in **Figure 6**. A copy of the field book is included in **Appendix A**.

All samples were analyzed by Hampton-Clarke Laboratories of Fairfield, New Jersey, a National Environmental Laboratory Accreditation Conference-Certified Analytical laboratory. Results are provided in **Appendix B**.

In July and August 2019, additional work was completed in support of the PDI and included an ACM survey, site survey, and geophysical survey.

3.1 BUILDING FLOOR SLAB AND INTERIOR/EXTERIOR WALL SAMPLING

A total of 15 bulk concrete samples were collected from the former plating building floor slab (4 samples), interior walls (10 samples), and exterior walls (1 sample) for analysis of Cr(VI), TCLP metals, and total cyanide (**Figure 6**). The building was demarcated using a grid pattern and sample locations were selected based on visible staining and/or operational knowledge of the facility (i.e., visible yellow staining on block walls and probable Cr[VI] impacts to concrete slab adjacent to tank area).

A summary of the analytical results is presented **Table 5**, and detected analytes are depicted on **Figure 7**. Cr(VI) was detected in 13 of the 15 samples (from 1.4 to 940 mg/kg), with concentrations in all 13 samples detected above the UU SCO (1 mg/kg) and concentrations in 4 samples detected above the NYSDEC Residential SCO (22 mg/kg). TCLP chromium concentrations from four locations were detected at concentrations greater than the 40 Code of Federal Regulations (CFR) 261.21 regulations for toxicity (50 mg/kg).

Cyanide was detected in 1 sample collected from the concrete floor in grid location A8 at a concentration (67 mg/kg) greater than the NYSDEC UU and residential SCO (27 mg/kg). Low concentrations of cyanide ranging from 0.67 to 20 mg/kg, which are less than the UU SCO, were detected in the remaining 13 samples.

3.2 BUILDING INTERIOR SOIL SAMPLING

Soil sampling was conducted within the former plating building to estimate/refine the quantity of impacted soil. Samples were collected from two borings (PDI-SB-01 at 0–1 and 4–5 ft below ground surface [bgs], and PDI-SB-02 at 0–1 and 3–4 ft bgs), beneath two sump locations (PDI-north sump and PDI-south sump), and the tank excavation area (**Figure 6**). Soil boring logs are included in **Appendix A**. All samples were submitted for Cr(VI) analysis. A sample from the tank excavation area was also submitted for TCLP analysis.

A summary of the analytical results is presented in **Table 6**, and detected analytes are depicted on **Figure 8**. Cr(VI) was detected above the NYSDEC UU (1 mg/kg) in 6 of 7 samples, with concentrations ranging from 2.7 mg/kg in shallow soil immediately beneath the slab at location PDI-SB-02 to 370 mg/kg in tank excavation soil. The concentrations in 3 samples were also above NYSDEC Residential Use SCO (22 mg/kg), including deep soil at PDI-SB-1 (4–5 ft bgs, 19 mg/kg), the north sump (32 mg/kg), and the tank excavation area (370 mg/kg).

Chromium was the only TCLP metal detected in tank excavation soil, with a concentration of 13 mg/L exceeding the 40 CFR 261.21 regulations for toxicity (1.0 mg/L).

3.3 SELECT POLYCHLORINATED BIPHENYL SAMPLING

During sampling activities, EA identified building materials that could potentially contain PCBs. Samples were collected from five locations, including 2 paint samples from a structural steel frame used to support a gantry crane system, 2 samples from concrete slab expansion joints, and 1 sample from window caulk.

Analytical results were compared to the NYSDEC SCOs and are presented in **Table 7**. The expansion joint samples had detections of Aroclor-1242 and Aroclor-1260 at concentrations greater than the NYSDEC Residential, Restricted-Residential, and Commercial SCOs for PCBs (1 mg/kg each). Sample results from the paint steel and window caulk did not exceed the SCOs for PCBs. Concentrations for all PCB samples collected were less than 50 mg/kg.

3.4 EQUIPMENT AND MATERIALS INVENTORY AND CHARACTERIZATION

An equipment inventory (including photo documentation) was completed on 21 pieces of equipment inside the former plating building that were believed to be associated with the former plating activities. A photo documentation log is provided in **Appendix C**. Wipe samples were collected from equipment/materials included in the inventory and analyzed for Cr(VI) to evaluate recycle/disposal options. Analytical results are included in **Table 8**. Cr(VI) was detected on 14 of 21 pieces of equipment/material, with concentrations ranging from 0.0014 to 0.74 mg/L.

3.5 ASBESTOS-CONTAINING MATERIAL SURVEY

In August 2019, an ACM survey was completed by Hanson VanVleet, PLLC as a subcontractor to NYSDEC call-out contactor Aztech Environmental Technologies, Inc. to evaluate building materials for the presence of asbestos. The complete ACM Survey Report is provided as **Appendix D**.

Eighteen samples of six types of suspected ACM were collected for analysis for possible asbestos content. Based on the size of each area, type of construction, and observations, at least 3 samples of each type of suspect material were collected. Materials are identified as ACM if they are found to contain more than 1 percent asbestos fibers by volume. The results of the asbestos survey identified the following materials as ACM:

- Approximately 300 square ft of vinyl floor tile in the office
- Approximately 300 square ft of vinyl floor tile mastic in the office
- Approximately 1,500 square ft of roofing tar at membrane edges and overlaps
- Approximately 6,400 square ft of silver paint on the membrane roofing.

All ACM identified will require abatement by a licensed asbestos abatement contractor in accordance with 12 New York Codes, Rules, and Regulations (NYCRR) Part 56 (Code Rule 56) prior to any disturbance of the materials or demolition of the structure.

3.6 GEOPHYSICAL SUBSURFACE SURVEY

On 15 July 2019, a subsurface geophysical survey was completed by New York Leak Detection of Jamesville, New York. The complete geophysical survey report is included as **Appendix E.** The survey was completed to identify potential subsurface utilities, structures, or other anomalies in the area that would present hazards during a building demolition and site excavation. A visual inspection was performed in the area of concern to assess for utility structures. Following the visual inspection, geophysical equipment, including an RD8000 cable locator, a sonde locatable rodder, and a Noggin ground penetrating radar were used to evaluate subsurface conditions. The equipment was used in combination with various other geophysical tools for the most accurate verification of known/unknown utilities and/or structures. High voltage and communication lines ran overhead from the existing utility pole. Utilities observed were painted in appropriate color and marked with flags and paint.

3.7 SITE SURVEY

A complete site survey, including topography, vegetation, site structures, utilities, and property boundaries, was completed on 28 August 2019 by MJ Engineering and Land Surveying, P.C., of Clifton Park, New York. The site survey is provided in **Appendix F**.

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4. DESIGN ASSUMPTIONS

The PDI was performed to evaluate the condition of the former plating building and further characterize the extent of contamination in order to develop Contract Documents for building demolition.

4.1 NATURE AND EXTENT OF CONTAMINATION SUMMARY

The results of the PDI indicate elevated Cr(VI) concentrations within the former plating building, including the surface of the interior and exterior block wall and concrete floor, in subsurface soil, and on former plating equipment contained within the building. In addition, elevated TCLP chromium concentrations were detected within soil from the former tank excavation area, in concrete on the wall and floor adjacent to the tank excavation area, and on the exterior west-facing block wall in the area near to where previous paint chip samples were collected. The approximate area of Cr(VI) impacts to building materials is depicted on **Figure 9**. The approximate area of impacted soil beneath the building is depicted on **Figure 10**.

4.2 BUILDING AND SOIL TAKE OFF QUANTITIES

Full building demolition is recommended to remove the chromium-contaminated building and to access contaminated sub slab soil requiring removal. Building materials were identified in the PDI as both non-hazardous and hazardous waste. Final waste characterization will be required under the future Contract Documents and will be used to determine final destination and quantities for building materials. Equipment within the building contaminated with Cr(VI) may require additional characterization to determine final disposition. The estimated building quantities are summarized in the following table.

Building Materials and Estimated Quantities

Material	Width (ft)	Height (ft)	Length (ft)	Cubic Yards	Tons	Specific Weight (tons/cubic yards)
Cinder Block Wall	1	12.5	456	211	**253**	1.2
Concrete Slab	28	0.66	200	137	**274**	2
Building footer	2	4	456	135	**270**	2
Concrete loading dock	31	0.5	21	12	**24**	2
Pre-Cast Roof	35	0.5	200	130	**156**	1.2
			TOTAL	**625**	**977**	

The four sample locations where TCLP chromium concentrations were detected at concentrations greater than the 40 CFR 261.21 regulatory level for toxicity (5 mg/kg) are located in the plating process room. The plating process room amounts to approximately 60 percent of the building materials. Thus, EA estimates that up to 572 of the 977 tons of the building material would be required to be disposed of as hazardous waste. It is assumed the remaining 405 tons would be disposed of as non-hazardous waste.

Following completion of building demolition, impacted soil beneath the slab would be excavated. Further waste classification would need to be conducted on excavated soil to refine the volumes

of hazardous versus non-hazardous soil for disposal. Certified clean fill material would be utilized to backfill the limits of the excavation after removal of impacted soils. All backfill materials would be sufficiently compacted within the limits of the excavation. Calculations for estimated soil removal are summarized in the following table.

Estimated Quantities of Soil

Material	Area (square ft)	Depth (ft)	Volume (cubic yards)	Weight (tons)
Soil (Non-Hazardous)	3,318	7	860	1,376
Soil (Hazardous)	400	7	104	166

NOTES: Weight in tons assumes density of 1.6 tons per cubic yard
Non-hazardous soil is defined as soil with TCLP results with concentrations of chromium less than 5 mg/kg.
Hazardous soil is defined as TCLP results with concentrations of chromium greater than 5 mg/kg.

The PCB presence onsite is specific to the expansion joint caulk and is classified as a bulk product waste. As a result of being a bulk product waste, it can be disposed of with building material identified as hazardous waste. Additionally, the approximate 300 square ft of vinyl floor tile and mastic identified as ACM will be segregated and disposed of as ACM waste. The remaining building materials, such as roofing materials, will be disposed of with the building material identified as hazardous waste.

The equipment identified as being associated with the former plating activities has been inventoried and Contract Documents will have provisions for characterization and disposal. The analytical results will be included in the limited site data documents, and the contractor will be required to develop a work plan proposing methodology for characterization and disposal or recycling.

4.3 SPECIFICATIONS

A contractor scope of work will be developed for the full demolition of the former plating building and remediation of impacted soil to be implemented by a NYSDEC Call-out Contractor. Specifications in the Scope of Work will address, but are not limited to, the following components of the project:

- ***Access Roads***—Access roads would be required to be adequately maintained throughout the course of remedial activities. Additional access roads may need to be installed, or existing roads widened to allow heavy machinery to enter and exit the site. Access roads would be designed to handle expected load during the remedial action.

- ***Characterization/Confirmation Sampling—***Sampling will be conducted prior to soil excavation to satisfy disposal requirements and confirm the limits of excavation. Contaminated building materials, as delineated during prior sampling efforts, would be handled as hazardous waste and sent to a Resource Conservation and Recovery Act-

regulated facility for disposal. Non-contaminated building materials (i.e., cinder block and foundation concrete rubble) would be handled as non-hazardous waste.

- ***Soil Removal and Earthwork***—Contaminated soil would be removed using an excavator or other equipment. Excavation of the impacted materials would be completed in accordance with design documents including amount of material removed, staging location, and other requirements to be identified in the Scope of Work.

- ***Erosion and Sedimentation Control***—Erosion control would be required around the perimeter of the work area and soil stockpile areas to prevent contaminant migration. At the completion of the remedial work, ditches would be backfilled, and the ground surface restored to original conditions.

- ***Underground Storage Tank Removal***—Two underground storage tanks embedded in a loading dock located on the northeast side of the plating building would be removed. Any additional underground storage tanks that may be encountered during excavation of contaminated soils would also need to be removed. All liquids and residue, if any, would be removed from the tanks and lines before closing or removing the tanks. All piping and conduit that are accessible and uncovered would be removed, except the vent line. Once the tanks are removed from the ground, they would be loaded onto a trailer and hauled to a certified salvage dump for disposal. The tank excavation would be backfilled with certified clean fill material.

- ***Dewatering***—The anticipated depth of soil excavation would range from 8 to 10 ft bgs. Groundwater is located from approximately 5 to 10 ft bgs and is anticipated to be encountered during soil excavation. As presented in previous groundwater sampling events, groundwater at the site contains Cr(VI) in excess of the NYSDEC AWQS. A plan for managing construction water would be necessary, with water being conveyed and stored in an onsite frac tank for offsite disposal.

- ***Ambient Air Monitoring***—During building demolition and soil excavation, an ambient air monitoring program would be implemented to measure the concentration of particulates and volatile organic compounds in ambient air in the work zone and at the perimeter of the site. Real time volatile organic compound concentrations in ambient air would be measured using a photoionization detector equipped instrument. Real time metals concentrations in ambient air would be estimated using particulate concentrations correlated to metals concentrations. A Community Air Monitoring Plan that specifies the components of this program would be developed in accordance with the New York State Department of Health Generic Community Air Monitoring Plan contained in Appendix 1A of the NYSDEC Final Division of Environmental Remediation (DER)-10 Technical Guidance for Remediation (NYSDEC 2010)[6].

6 NYSDEC. 2010. *Division of Environmental Remediation-10. Technical Guidance for Site Investigation and Remediation*. May.

- ***Waste Disposal***—All hazardous and non-hazardous waste items, including building materials (concrete, steel, etc.), equipment and materials contained within the building, and excavated soil would be disposed of properly at appropriate disposal facilities. Disposal of hazardous waste materials at regulated landfills would be determined by TCLP limits and facility-specific waste characterization requirements. Larger pieces of equipment within the building (i.e., electric motors, fork lift, larger tanks, and drums) would need to be managed individually due to contamination. Non-contaminated building materials (i.e., cinder block and foundation concrete rubble) and soil would be disposed of as non-hazardous waste. Materials left onsite are required to meet TCLP chromium criteria and NYSDEC AWQS for chromium (50 micrograms per liter). Smaller hand tools and equipment within the building may be able to be recycled/disposed of with building materials.

- ***Site Restoration***—Certified clean fill material would be utilized to fill the excavated soil areas. All fill materials would be sufficiently compacted within the limits of the excavation.

4.4 DRAWINGS

Drawings included in the design are likely to include, but are not limited to, the following:

- Cover sheet
- Existing conditions, legend, general notes, and abbreviations
- Building elevation and plan views
- Presentation of analytical data
- Soil excavation plan
- Grading and restoration plans
- Site restoration details.

4.5 SITE MANAGEMENT PLAN UPDATE

As part of the remedial action, EA will update the Site Management Plan under WA No. D009806-13 to include the following activities:

- Management of the site to restrict excavation; excavated soil would be tested, properly handled to protect the health and safety of workers and the nearby community, and properly managed in a manner acceptable to NYSDEC

- Identification of any use restrictions onsite

- Evaluation of the existing groundwater treatment system and possible remedial system optimization

- Continued groundwater monitoring

- Provisions for the continued proper operation and maintenance of the components of the groundwater treatment system.

This plan would be updated following completion of the remedial construction.

4.6 ENVIRONMENTAL EASEMENT

Additionally, EA would assist NYSDEC in preparing an Environmental Easement for the Perfection Plating site. The easement would have five exhibits:

- **Schedule A**—An adequate legal description of the property subject to the environmental easement.

- **Schedule B**—The American Land Title Association/American Congress on Surveying and Mapping survey.

- **Schedule C**—A narrative description of the impacted areas and institutional and/or engineering controls; and the monitoring/inspection, maintenance, and reporting requirements.

- **Schedule D**—Maps/diagrams of as-built controls.

- **Schedule E**—A clean, legible copy of the U.S. Geological Survey Quadrangle map.

The Environmental Easement would be prepared in conjunction with the remedial action and amended as needed following completion of the remedial construction and initiation of the Site Management Plan.

4.7 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS, PERMITS, CODES, AND STANDARDS

4.7.1 Applicable or Relevant and Appropriate Requirements

ARARs were developed and evaluated with regard to the remedy selected in the ROD (NYSDEC 1995)[1]. Design of the remedy will incorporate the appropriate engineering and monitoring controls to ensure compliance with ARARs.

Below is a list of ARARs that would potentially be required during the Perfection Plating site remedial design.

Potentially Applicable Requirements

Requirement	Rationale
FEDERAL	
Clean Water Act **National Pollutant Discharge Elimination System (40 CFR Part 122)** Establishes permitting requirements, technology-based limitations and standards, control of toxic pollutants, and monitoring of effluents to assure discharge permit conditions and limits are not exceeded.	Applicable if groundwater will be extracted from the ground and discharged.
Safe Drinking Water Act (National Primary and Secondary Drinking Water Regulations) (42 U.S. Code 300f, 40 CFR Part 141, 40 CFR Part 143) Provides a national framework to ensure the quality and safety of drinking water. The primary standards establish maximum contaminant levels and maximum contaminant level goals for chemical constituents in drinking water. Secondary standards pertain primarily to the aesthetic qualities of drinking water.	The removal action is being conducted to reduce chemical concentrations in soil and groundwater, with a goal of meeting cleanup levels at the property boundary.
Clean Air Act, as Amended (42 U.S. Code 7401) Is a comprehensive law that is designed to regulate any activities that affect air quality and provides the national framework for controlling air pollution. The National Primary and Secondary Ambient Air Quality Standards (40 CFR Part 50) set standards for ambient pollutants that are regulated within a region. The National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 61) establishes numerical standards for hazardous air pollutants.	The Clean Air Act will be required if any remediation alternatives produce air emissions.
Comprehensive Environmental Response, Compensation, and Liability Act Provides regulations for government intervention in cleanup actions at abandoned waste sites for the protection of public health.	This Act establishes basis for government sponsored cleanup of abandoned hazardous waste sites.
Superfund Amendments and Reauthorization Act Establishes standards that govern the degree of cleanup required at a site. Superfund Amendments and Reauthorization Act mandates that remedies must meet federal and/or state ARARs. State ARARs can take precedent over federal ARARs providing that the state requirements are promulgates and are more stringent than the federal requirements.	All site criteria for cleanup will be applied to New York State guidelines as promulgated by Superfund Amendments and Reauthorization Act.
Resource Conservation and Recovery Act Provides the governing regulations for owners and operators of hazardous waste treatment, storage, and disposal facilities; and for the generators and transporters of hazardous waste.	All waste generated during the removal action will be characterized and handled per Resource Conservation and Recovery Act regulations.
Occupational Safety and Health Administration (29 CFR 1910) Establishes the worker health and safety requirements for operations at hazardous waste sites.	Site activities will be conducted under appropriate Occupational Safety and Health Administration standards.
Rules for Transport of Hazardous Waste (49 CFR 107, 171) Establishes requirements for packaging, handling, and manifesting hazardous waste.	Any hazardous waste generated during site activities will be characterized as needed to determine packaging, handling, and transport requirements.

Potentially Applicable Requirements

Requirement	Rationale
STATE	
Water Quality Regulations for Surface Waters and Groundwater (6 NYCRR Part 700-705) Provides standards, regulations, and guidelines for the protection of waters within the state.	Site cleanup will be conducted in accordance with 6 NYCRR Part 700-705
Waste Transporter Permits (NYCRR Part 364) Provides standards and regulations for waste transporters.	These regulations will be followed for offsite disposal of hazardous waste.
New York State Department of Transportation Rules for Hazardous Materials Transport (49 CFR, Parts 107, 171.1-500) Addresses requirements for marking, manifesting, handling, and transport of hazardous materials; applicable if offsite treatment or disposal of wastes is required.	
Air Quality Standards (6 NYCRR Part 257) Air quality standards are designed to provide protection from the adverse health effects of air contamination; and they are intended further to protect and conserve the natural resources and environment.	All substantive requirements of the State air pollution control regulations will be followed during implementation of the remedial action.

4.7.2 Codes and Standards

Codes and standards would be followed. Based on the type of work performed, codes and standards that would apply consist of:

- National Fire Protection Association standards (storing flammable materials)
- National Electrical Code
- ASTM International (compaction testing, sieve testing, soil moisture content determinations, and other construction-related test methods)
- U.S. Environmental Protection Agency Standards (analytical methods)
- U.S. Environmental Protection Agency Asbestos Demolition and Renovation Compliance Monitoring Standards for compliance with National Emissions Standards for Hazardous Air Pollutants – 40 CFR 61.140 through 61.157
- Comprehensive Environmental Response, Compensation, and Liability Act (hazardous waste remediation)
- Resource Conservation and Recovery Act (post-closure)
- 40 CFR (hazardous material storage, transportation, and disposal)
- 40 CFR 761 – PCBs Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions

- Occupational Safety and Health Administration standards, 29 CFR Part 1910
- Hazardous Waste Operations and Emergency Response, 29 CFR Part 1910.120
- Safety and Health Regulations for Construction, 29 CFR Part 1926
- NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 2010
- New York State Industrial Safety and Health Act standards.

4.7.3 Permitting Plan/Permits

The remedial action contractors would acquire any work permits needed, including building or electric permits at the municipal level. In addition, a grading permit may be required due to the quantity of soil disturbed. However, since this is a State Superfund site, permits are not required. The substantive requirements of all permits typically required would be met; however, a permit issued by the governing agency would not be necessary to begin or complete the work. Substantive requirements of the following permits are anticipated to be met during design and construction of the remedy:

- Asbestos abatement permit from New York State Department of Labor
- State Pollutant Discharge Elimination System for stormwater management and discharge
- General construction and electric permits
- Demolition/building permits from the City of Watervliet
- Solid and hazardous waste management and transport permits
- Air pollution control permits.

Figures

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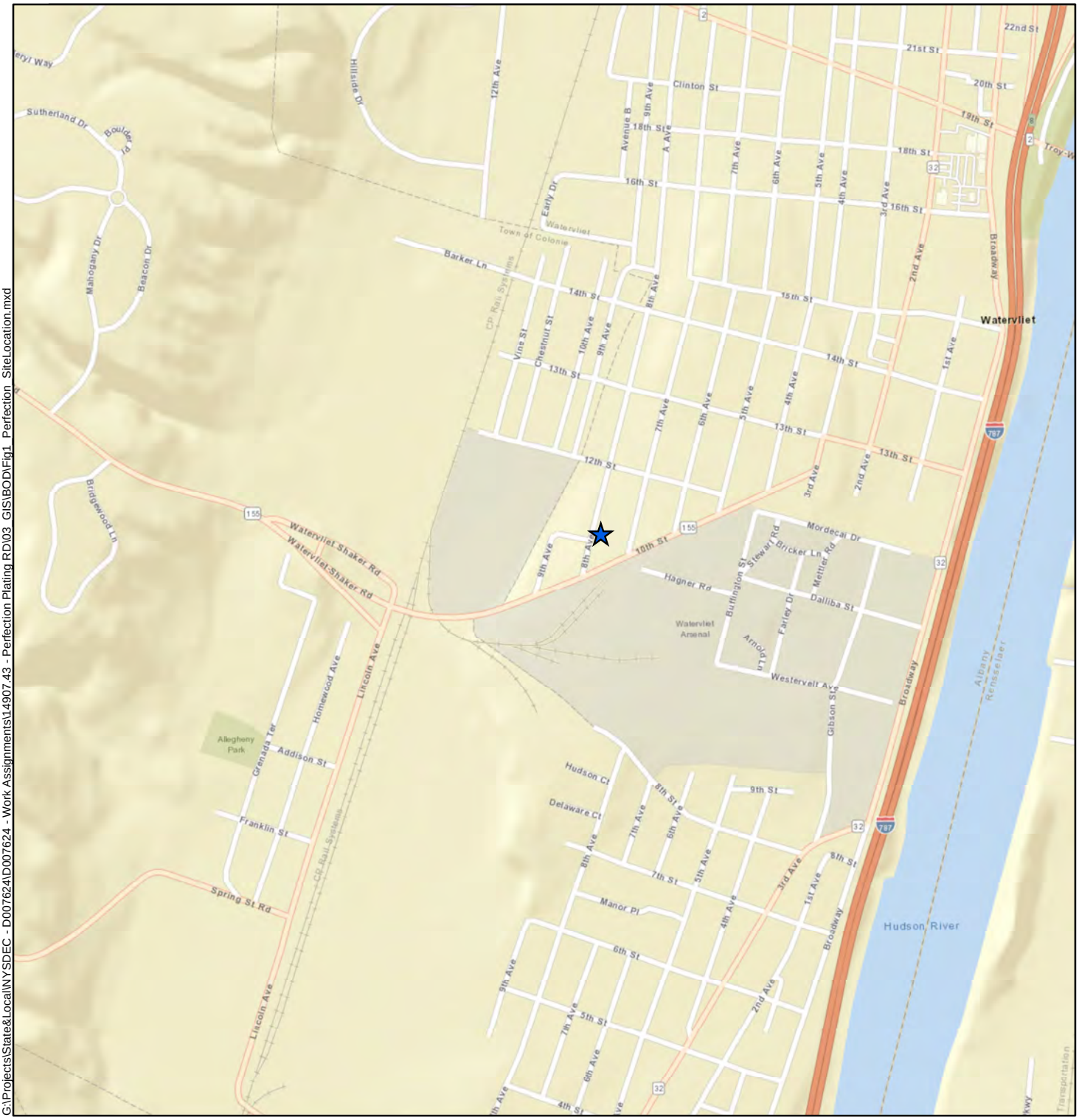

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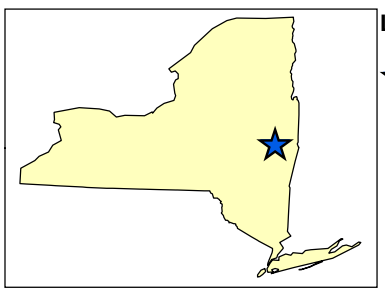

Legend

★ Site Location

0 250 500 1,000 Feet

1 inch = 1,006 feet

N

Figure 1
Site Location Map
Basis of Design Report
Perfection Plating (401037)
Watervliet, New York

Map Date: 9/27/2019
Projection: NAD 1983 StatePlane New York East

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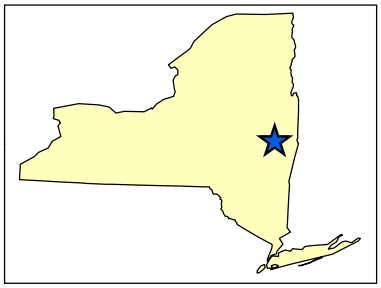

0 25 50 100
Feet

1 inch = 86.841 feet

N

Legend

- Abandoned Monitoring Well
- Bedrock Monitoring Well
- Overburden Monitoring Well
- Replacement Monitoring Well
- Collection Trench
- Site Location
- Sump Location
- Former Excavation Area
- Buildings

Figure 2
Site Map
Basis of Design Report
Perfection Plating (401037)
Watervliet, New York

Map Date: 9/27/2019
Projection: NAD 1983 StatePlane New York East

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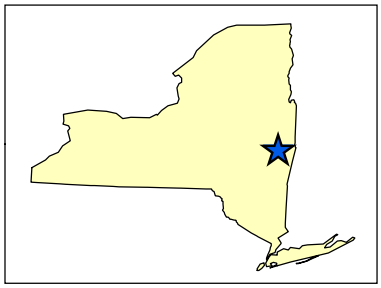

0 25 50 100
Feet

1 inch = 100 feet

Legend

- Overburden Monitoring Well
- Bedrock Monitoring Well
- Replacement Monitoring Well
- Abandoned Well, No Need To Replace
- Buildings
- Collection Trench
- Sump Location
- Former Excavation Area
- Site Location

Hexavalent Chromium Concentrations

June 2019

- 1-50 ug/L
- 50-100 ug/L
- 100-500 ug/L
- 500-1,000 ug/L
- 1,000-5,000 ug/L
- 5,000-10,000 ug/L

Figure 3
Hexavalent Chromium June 2019
Overburden Isopleth Map
Basis of Design Report
Perfection Plating Site (4-01-037)
Watervliet, New York

Map Date: 9/27/2019
Projection: State Plane NAD83 New York East (feet)

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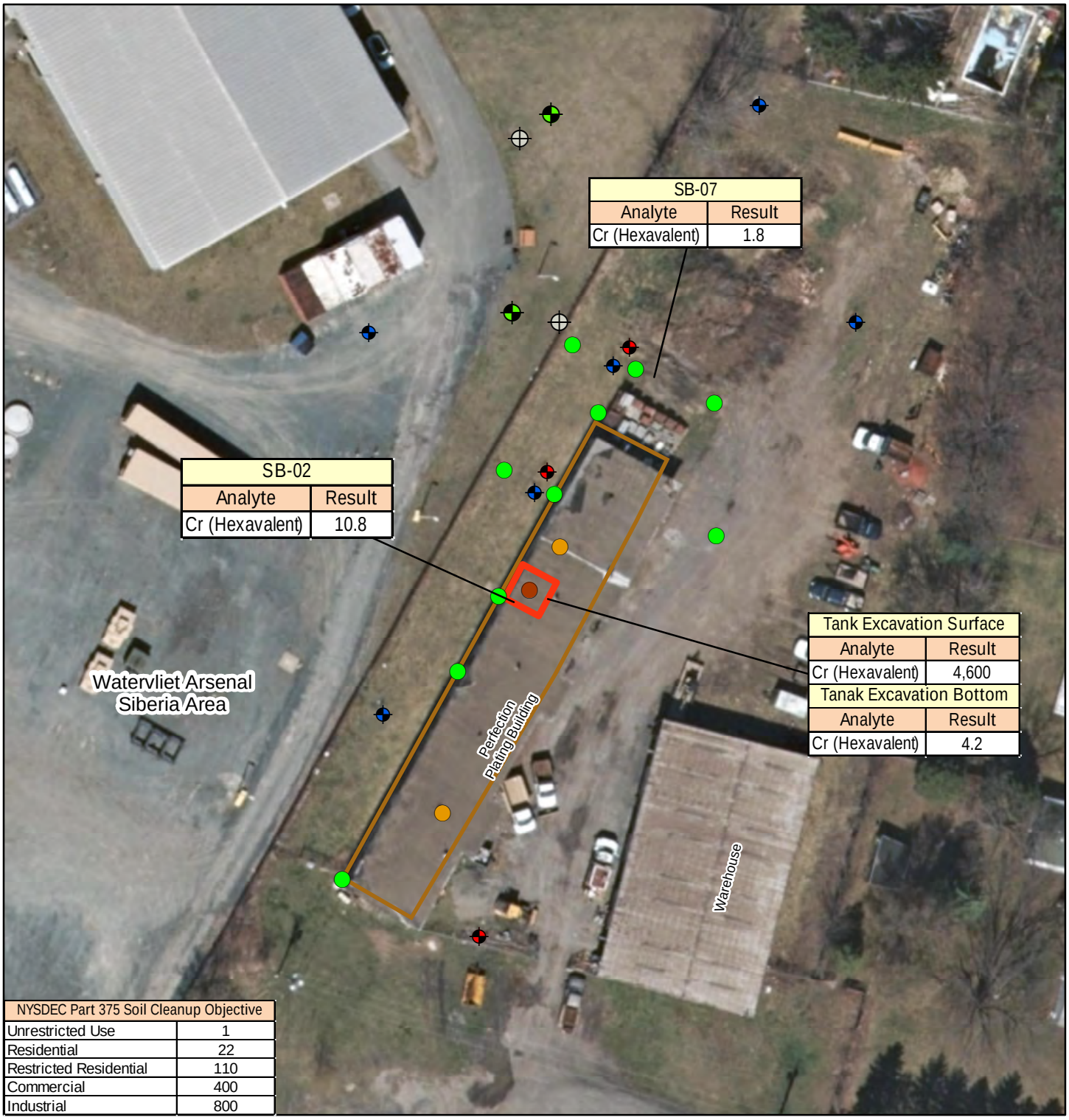
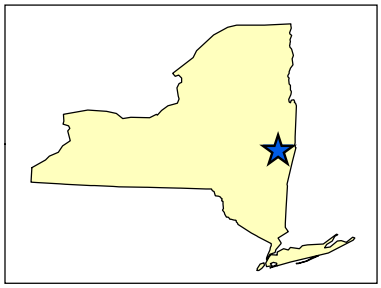


NYSDEC Part 375 Soil Cleanup Objective	
Unrestricted Use	1
Residential	22
Restricted Residential	110
Commercial	400
Industrial	800



0 12.5 25 50
Feet

1 inch = 53.704 feet

N

Legend

- Overburden Monitoring Well
- Bedrock Monitoring Well
- Replacement Monitoring Well
- Abandoned Well, No Need To Replace
- Buildings
- Former Excavation Area
- Site Location
- Soil Boring Location
- Sub-Slab Sample Location
- Excavated Tank Location

Figure 4
Soil Boring and Sample Locations
April 2009
Basis of Design Report
Perfection Plating Site (4-01-037)
Watervliet, New York

Map Date: 9/27/2019
Projection: State Plane NAD83 New York East (feet)

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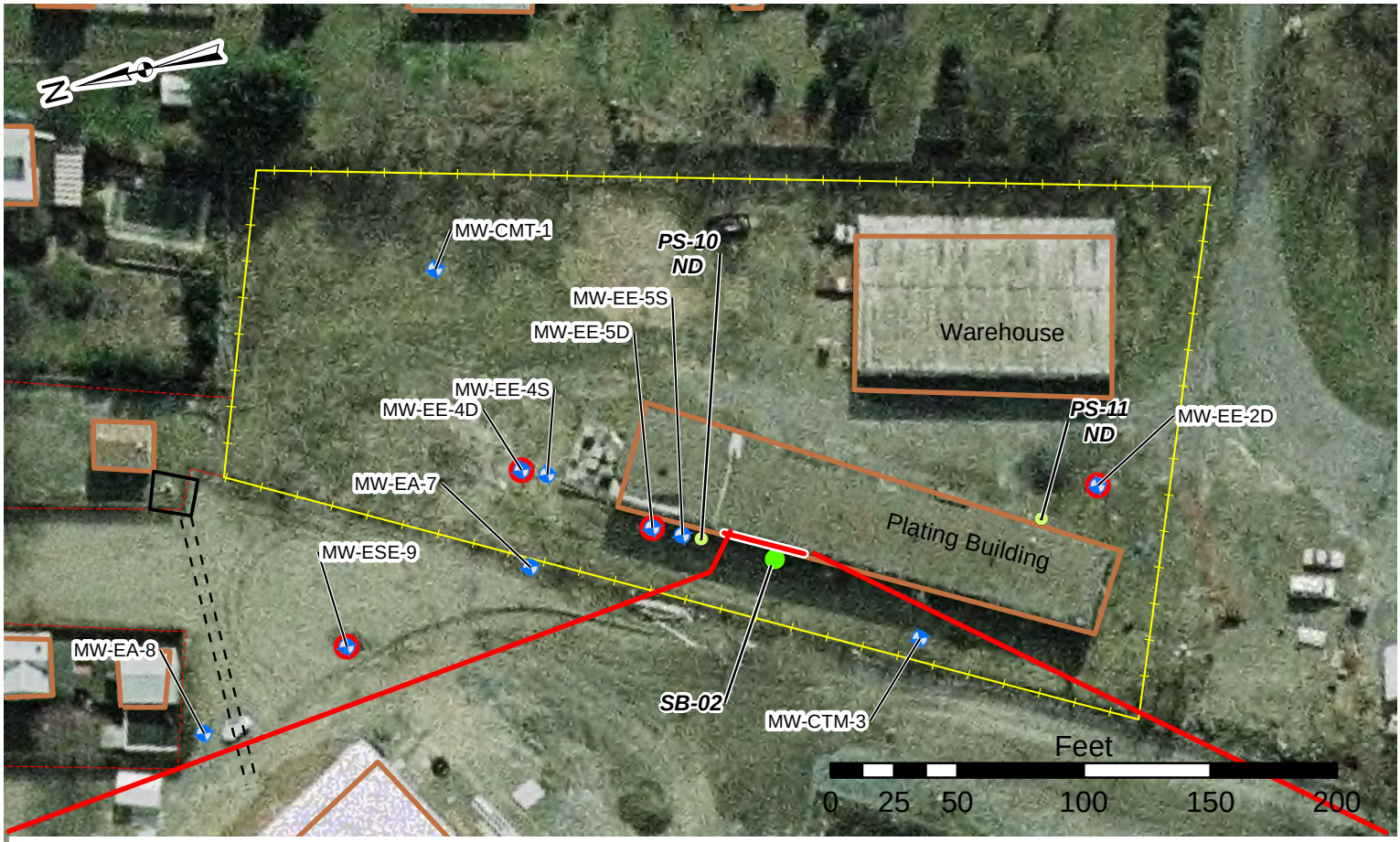

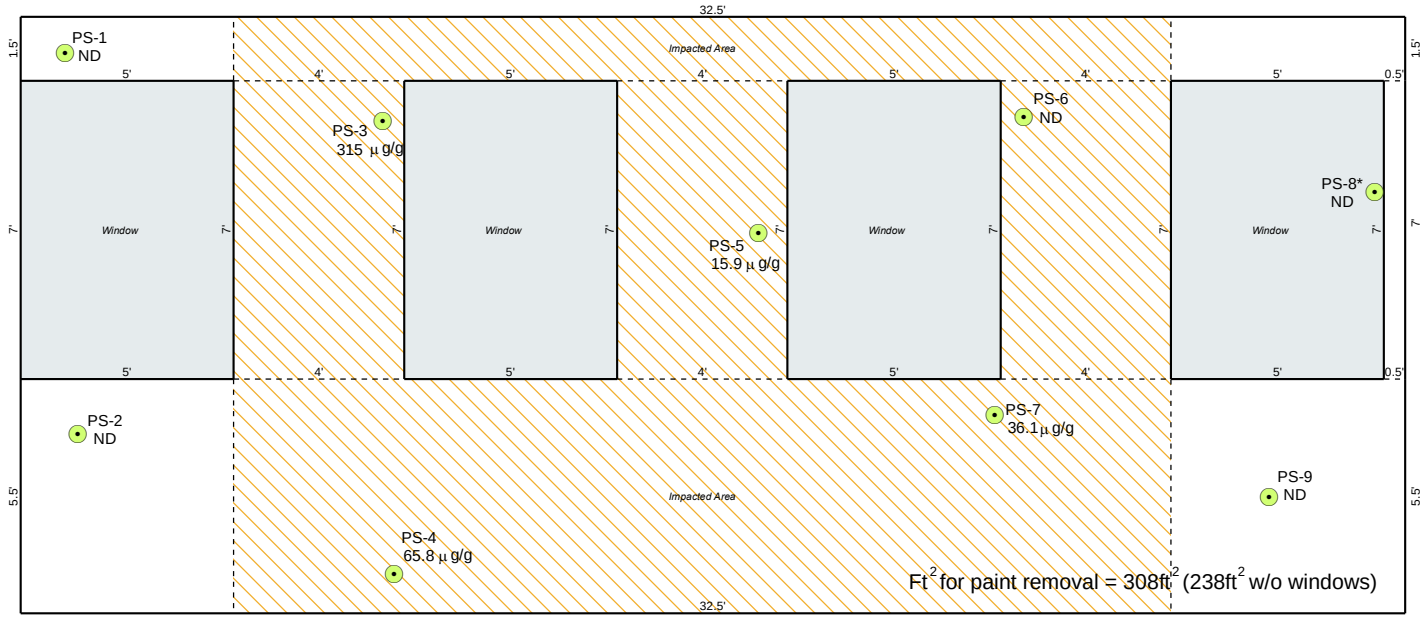

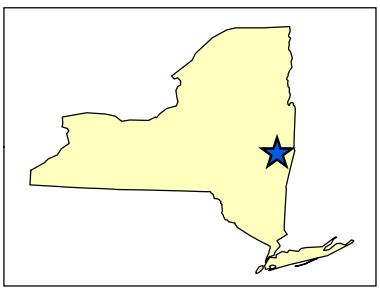

Legend

- SB02_Location
- PS-# Hexavalent Chromium Concentration
- Monitoring Wells
- Bedrock Monitoring Wells
- Buildings
- Former Excavation Area
- Site Location

0 12.5 25 50
Feet

1 inch = 69.335 feet

Figure 5
2009 Paint Chip Sampling
Analytical Results and Remediation Area
Basis of Design Report
Perfection Plating Site (4-01-037)
Watervliet, New York

Map Date: 9/27/2019
Projection: State Plane NAD83 New York East (feet)

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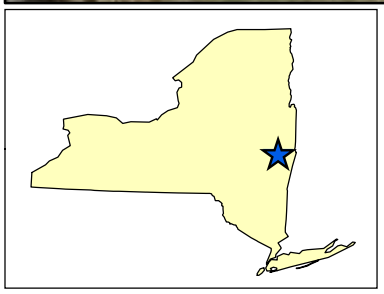

0 15 30 Feet

1 inch = 30 feet

N

Legend

2009 Soil Investigation

- Soil Boring Location
- Sub-Slab Sample Location

2014 PDI Sample

- Biased Wall Sample
- Biased Floor Sample
- Soil Sampling Location

- Former Excavation Area
- Overburden Monitoring Well
- Bedrock Monitoring Well

Figure 6
Pre-Design Investigation
Sampling Locations
Basis of Design Report
Perfection Plating Site (4-01-037)
Watervliet, New York

Map Date: 9/27/2019
Projection: State Plane NAD83 New York East (feet)

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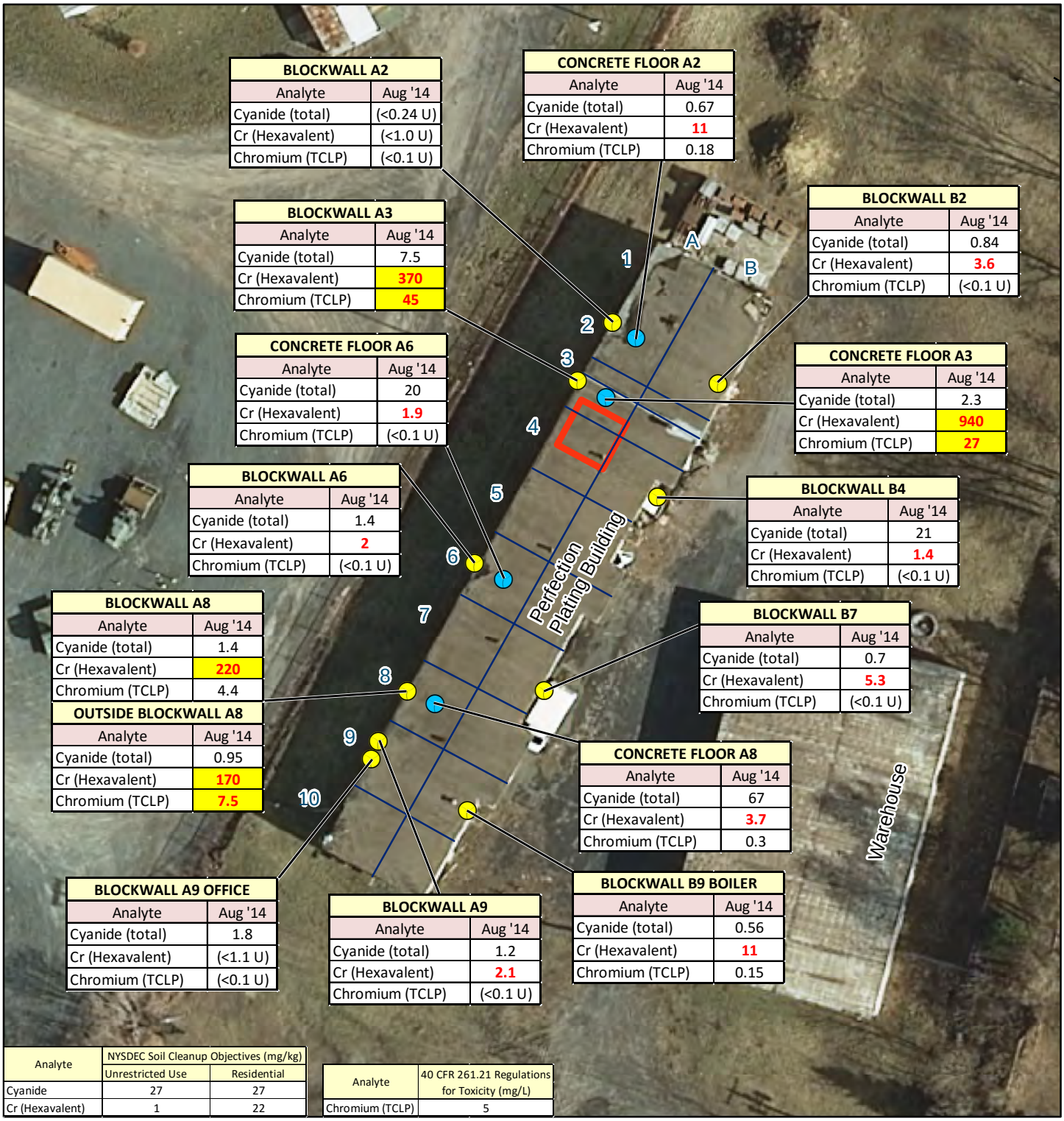
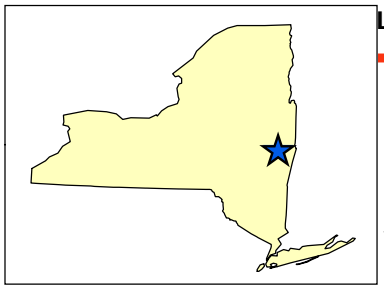


Analyte	NYSDEC Soil Cleanup Objectives (mg/kg)	
	Unrestricted Use	Residential
Cyanide	27	27
Cr (Hexavalent)	1	22

Analyte	40 CFR 261.21 Regulations for Toxicity (mg/L)
Chromium (TCLP)	5



0 12.5 25 50
Feet

1 inch = 40 feet

N

Legend

- Former Excavation Area
- Biased Wall Sample
- Biased Floor Sample
- Site Location

Values in Red exceed NYSDEC Unrestricted Use Soil Cleanup Objective
Highlighted Red Values Exceed NYSDEC
Residential Soil Cleanup Objective or TCLP Standards
U = Not detected above associated reporting limit
Total metals concentrations reported in milligram per kilogram (mg/kg)
Chromium TCLP concentrations reported in milligram per liter (mg/L)

Figure 7
Floor, Slab, and Interior/Exterior Wall
Sampling Analytical Results
Basis of Design Report
Perfection Plating Site (4-01-037)
Watervliet, New York

Map Date: 9/27/2019
Projection: State Plane NAD83 New York East (feet)

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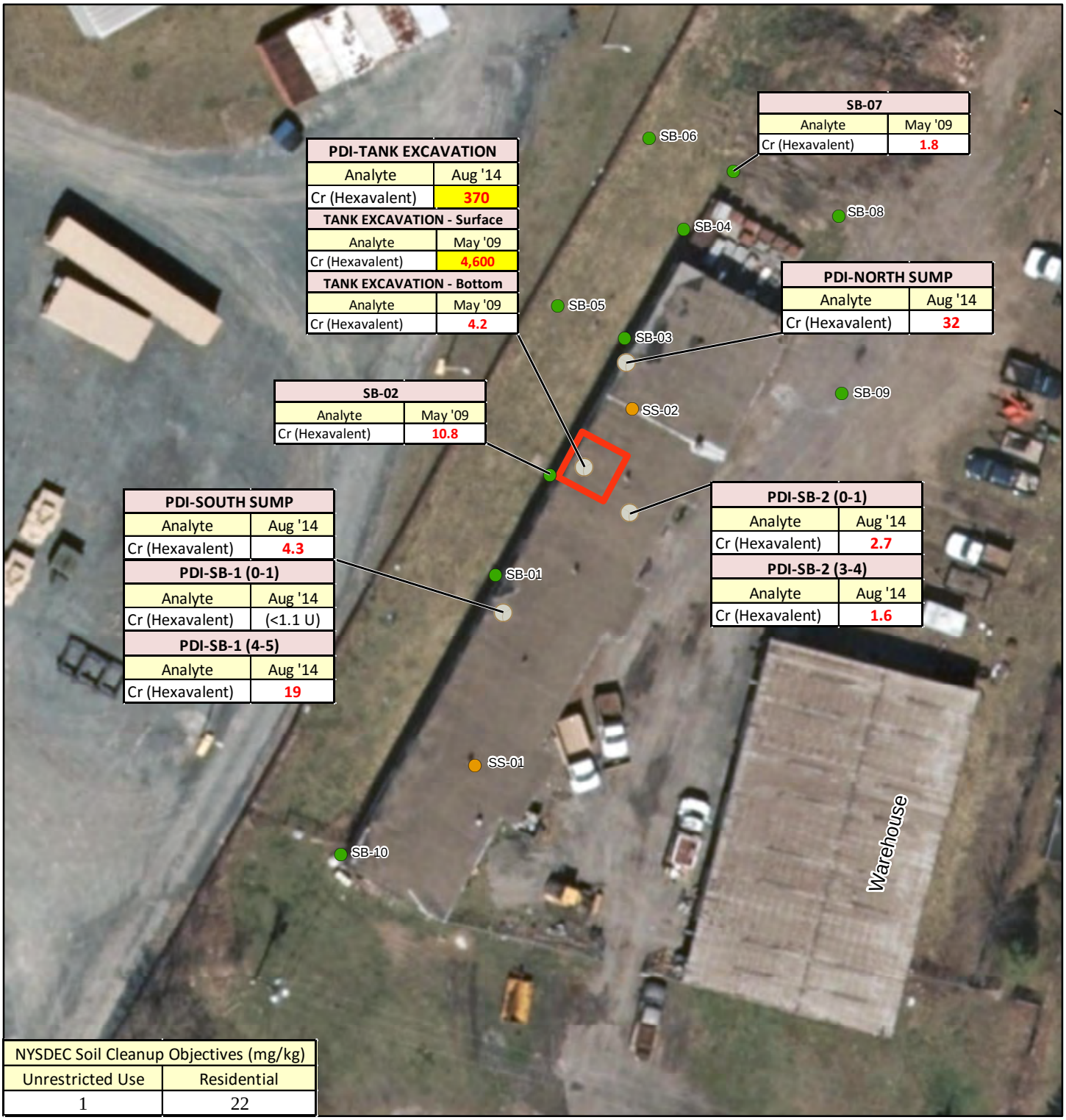

Figure 8
Soil Sample Analytical Results
Basis of Design Report
Perfection Plating Site (4-01-037)
Watervliet, New York

Map Date: 9/27/2019
Projection: State Plane NAD83 New York East (feet)

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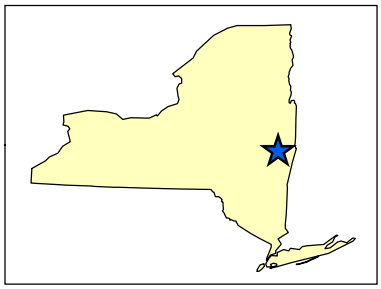

Legend

- Former Excavation Area
- Area of Non-Hazardous Waste
- Approximate Area of Characteristic Hazardous Waste
- Site Location

0 15 30 Feet

1 inch = 30 feet

N

Figure 9
Approximate Extent of Hexavalent Chromium Impacted Building Material
Basis of Design Report
Perfection Plating Site (4-01-037)
Watervliet, New York

Map Date: 9/27/2019
Projection: State Plane NAD83 New York East (feet)

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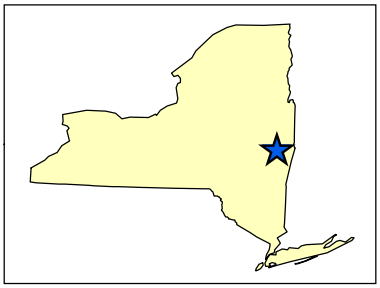

0 15 30 Feet

1 inch = 30 feet

N

Legend

- Former Excavation Area
- Soil Sample Hazardous TCLP Results
- Soil Sample Hexavalent Chromium Above UU SCO (1 mg/kg)
- Soil Sample Hexavalent Chromium Non-Detect
- Approximate Extent of Hexavalent Chromium Over UU SCO (1 mg/kg)
- TCLP Results Indicate Hazardous Material
- Site Location

Figure 10
Approximate Extent of
Hexavalent Chromium Impacted Soil
Basis of Design Report
Perfection Plating Site (4-01-037)
Watervliet, New York

Map Date: 9/27/2019
Projection: State Plane NAD83 New York East (feet)

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Tables

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Table 1 Historical Hexavalent Chromium Overburden Groundwater Analytical Results

Date	MW-EE-4S	MW-EE-5S	MW-EE-6S	MW-EA-7	MW-EA-8	MW-CMT-1	MW-ESE-9	MW-CMT-3	MW-EA-10S	MW-EA-11S	MW-EA-12S	MW-EA-13S	NYSDEC Class GA Criteria (mg/L)[a]
21-May-03	ND	**40.8**	ND	**0.975**	0.099	- -	- -	- -	- -	- -	- -	- -	0.05
21-Aug-03	**0.06**	**33.7**	0.046	**1.08**	**ND**	- -	- -	- -	- -	- -	- -	- -	0.05
4-Dec-03	0.041	**48.9**	0.018	**0.744**	0.041	- -	- -	- -	- -	- -	- -	- -	0.05
24-Feb-04	0.018	**33.4**	ND	**0.857**	ND	- -	- -	- -	- -	- -	- -	- -	0.05
12-May-04	0.049	**37.4**	ND	**0.881**	0.049	- -	- -	- -	- -	- -	- -	- -	0.05
2-Sep-04	**0.735**	**32.2**	ND	**1.04**	ND	- -	- -	- -	- -	- -	- -	- -	0.05
2-Dec-04	**0.06**	**11.8**	ND	**0.348**	ND	- -	- -	- -	- -	- -	- -	- -	0.05
3-Feb-05	**0.083**	**61.2**	ND	**0.83**	ND	- -	- -	- -	- -	- -	- -	- -	0.05
18-May-05	0.029	**35**	ND	**0.63**	ND	- -	- -	- -	- -	- -	- -	- -	0.05
3-Aug-05	0.041	**28.7**	ND	**0.62**	ND	- -	- -	- -	- -	- -	- -	- -	0.05
29-Nov-05	**0.052**	**33.6**	ND	**0.24**	ND	- -	- -	- -	- -	- -	- -	- -	0.05
9-Feb-06	**0.11**	**24.9**	ND	**0.35**	ND	- -	- -	- -	- -	- -	- -	- -	0.05
8-Apr-08	**0.086**	**15**	ND	**0.34**	0.049	ND	- -	ND	- -	- -	- -	- -	0.05
1-Jan-09	- -	- -	- -	- -	- -	- -	**0.51**[b]	- -	- -	- -	- -	- -	0.05
21-Jul-09	0.049	**19**	ND	**0.52**	ND	ND	**1.3**	ND	- -	- -	- -	- -	0.05
12-Oct-10	**0.062**	**17**	ND	**1**	ND	ND	**0.4**	ND	- -	- -	- -	- -	0.05
1-Mar-12	0.039	**17**	ND	**0.29**	ND	ND	**3.2**	ND	- -	- -	- -	- -	0.05
11/12-Jun-13	0.042	**13**	ND	**0.34**	**0.15**	ND	**3.7**	ND	- -	- -	- -	- -	0.05
30-Aug-13	- -	- -	- -	- -	**3.2**[c]	- -	- -	- -	- -	- -	- -	- -	0.05
28-Oct-13	0.029	**16**	ND	**0.37**	ND	ND	- -	- -	- -	- -	- -	- -	0.05
15-Jan-14	0.045	**13**	ND	**0.14**	ND	ND	**2.7**	ND	- -	- -	- -	- -	0.05
29-Apr-14	**0.061**	**24**	ND	**0.45**	ND	ND	**2.8**	ND	ND	0.043	ND	ND	0.05
29-Jul-14	0.045	**15**	ND	**0.43**	ND	ND	**0.48**	ND	ND	**0.098**	ND	ND	0.05
2-Dec-14	0.045	**16**	ND	**0.44**	ND	ND	**0.48**	ND	ND	**0.31**	ND	ND	0.05

(a) 6 NYCRR Part 703.5 Class GA Groundwater Quality Regulations, as presented in the Division of Water Technical and Operational Guidance Series 1.1.1, 1998, as amended.
(b) Sample was collected on 14 January 2009.
(c) Grab sample collected to confirm June 2013 results. Five gallons of water was removed from the monitoring well prior to collecting the sample. Sample was analyzed by TestAmerica Laboratories.
NOTES: NYSDEC = New York State Department of Environmental Conservation.
ND = Non-detect.
- - = Not available.
All samples reported in milligrams per liter (mg/L).
Bold values indicate exceedance of Class GA groundwater standards or guidance values.

Table 2 Historical Hexavalent Chromium Bedrock Groundwater Analytical Results

Date	MW-EE-4D	MW-EE-5D	MW-EE-6D	MW-EE-2D	NYSDEC Class GA Criteria (mg/L)[(a)]
21-May-03	0.008	ND	ND	- -	0.05
21-Aug-03	**0.129**	ND	0.023	- -	0.05
4-Dec-03	ND	0.004	ND	- -	0.05
24-Feb-03	ND	ND	ND	- -	0.05
12-May-04	0.013	ND	ND	- -	0.05
2-Sep-04	0.016	ND	**0.075**	- -	0.05
2-Dec-04	0.007	0.034	ND	- -	0.05
3-Feb-05	ND	0.021	ND	- -	0.05
18-May-05	ND	0.031	ND	- -	0.05
3-Aug-05	ND	0.037	ND	- -	0.05
29-Nov-05	ND	ND	ND	- -	0.05
9-Feb-06	ND	ND	ND	- -	0.05
8-Apr-08	ND	ND	ND	ND	0.05
21-Jul-09	ND	ND	ND	ND	0.05
12-Oct-10	ND	ND	ND	ND	0.05
1-Mar-12	ND	ND	ND	ND	0.05
11/12-Jun-13	ND	ND	ND	ND	0.05

(a) 6 NYCRR Part 703.5 Class GA Groundwater Quality Regulations, as presented in the Division of Water Technical and Operational Guidance Series 1.1.1, 1998, as amended.

NOTES: NYSDEC = New York State Department of Environmental Conservation.
ND = Non-detect.
- - = Not available.
All samples reported in milligrams per liter (mg/L).
Bold values indicate exceedance of Class GA groundwater standards or guidance values.

Table 3 Paint Analytical Results

Sample ID	Chromium (mg/kg)		Cr (Hexavalent) (mg/kg)	
	Result	Reporting Limit	Result	Reporting Limit
Initial Paint Sample	7,450	25	**328.0**	0.40
PS-1	--	--	ND	0.40
PS-2	--	--	ND	0.40
PS-3	--	--	**315**	0.40
PS-4	--	--	**65.8**	0.40
PS-5	--	--	**15.9**	0.40
PS-6	--	--	ND	0.40
PS-7	--	--	**36.1**	0.40
PS-8	--	--	ND	0.40
PS-9	--	--	ND	0.40
PS-10	--	--	ND	0.40
PS-11	--	--	ND	0.40
Block Wall Under Window	--	--	**112**	40
SS-1	3,910	2.5	**112**	40
SS-2	1,340	2.5	**656**	0.40
SS-3	614	2.5	**111**	0.40
SS-4	35.8	0.25	ND	0.40
NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives (mg/kg)				
	NA		1.0	

NOTES: -- = The analyte was not analyzed for.
ND = Non-detect.
NYSDEC = New York State Department of Environmental Conservation.
NA = Not applicable.
Bold values indicate that the analyte was detected above the NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives
Analytical results reported in milligrams per kilogram (mg/kg).
All analytical data results provided by Adirondack Environmental Services, Inc.
"Initial Paint Sample" was collected during the 16 April 2009 sampling event.
Paint samples PS-1 through PS-11 were collected by EA on 19 November 2009.
Paint sample "Block Wall Under Window" was collected by Aztech Environmental on 11 December 2009.
Paint Samples SS-1 through SS-4 were collected by the NYSDEC on 12 December 2009.

Table 4 Preliminary Design Investigation 2014 Sample Collection Summary

Sampling Activity	Sample ID	Sampling Location/Type	Sample Medium	Analysis
Building Floor Slab and Interior/Exterior Wall Sampling	Blockwall A2	Interior Wall	Bulk Concrete	Hexavalent Chromium, Cyanide, Toxicity Characteristic Leaching Procedure (TCLP) Metals
	Blockwall A3			
	Blockwall A6			
	Blockwall A8			
	Outside Blockwall A8	Exterior Wall		
	Blockwall A9	Interior Wall		
	Blockwall A9 Office			
	Blockwall B2			
	Blockwall B4			
	Blockwall B7			
	Block wall B9 Boiler			
	Concrete Floor A2	Floor Slab		
	Concrete Floor A3			
	Concrete Floor A6			
	Concrete Floor A8			
Building Interior Soil Sampling	SB-1 (0-1 ft)	Immediately Below Slab	Soil	Hexavalent Chromium
	SB-1 (4-5 ft)	4-5 ft below Slab		
	SB-2 (0-1 ft)	Immediately Below Slab		
	SB-2 (3-4 ft)	3-4 ft below Slab		
	North Sump	North Sump		
	South Sump	South Sump		
	Tank Excavation	Tank Excavation Area		Hexavalent Chromium, TCLP Metals
Adhesive Sampling	Paint Steel-B5	Structural Steel	Adhesive	Polychlorinated Biphenyls (PCBs)
	Paint Steel-B8			
	Expansion Joint B6	Concrete Slab Expansion Joint		
	Expansion Joint A7			
	Window Glue B7	Window Caulk		
	Window Caulk B7			
Equipment and Materials Inventory and Characterization	1 Landis	Equipment/Material Inside Building	Wipe Sample	Hexavalent Chromium
	2 Admiral Buffer			
	3 Hydro Finisher			
	4 Buhalo Drill Press			
	5 Yellow Forklift			
	6 Orange Forklift			
	7 Roots Blaum			
	8 Dust Collector			
	9 Welder			
	10 Mag Floor Sweeps			
	11 Work Bench			
	12 Compressor 1			
	13 Compressor 2			
	14 Flag			
	15 Cut Off Saw			
	16 Toledo Scale			
	17 Fair Bank Scale			
	18 Brake			
	19 Shear			
	20 Boston Blower			
	21 125HP Motor			

Table 5 Building Floor Slab and Interior/Exterior Wall Sampling Analytical Results

CLIENT ID:	CONCRETE FLOOR A6	CONCRETE FLOOR A8	CONCRETE FLOOR A2	CONCRETE FLOOR A4	BLOCKWALL A6	BLOCKWALL A8	OUTSIDE BLACKWALL A8	BLOCKWALL A9	Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives	Table 375-6.8(b): Restricted Use Soil Cleanup Objectives-Residential
LAB ID:	AC80234-011	AC80234-012	AC80234-013	AC80234-014	AC80234-015	AC80234-016	AC80234-017	AC80234-018		
COLLECTION DATE:	8/5/2014	8/5/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014		
Metals (mg/kg)										
Cyanide	**20**	**67**	**0.67**	**2.3**	**1.4**	**1.4**	**0.95**	**1.2**	27	27
Cr (Hexavalent)	**1.9**	**3.7**	**11**	**940**	**2**	**220**	**170**	**2.1**	1	20
Metals TCLP (mg/L)									NYS AWQS Class GA Standards (mg/L)	40 CFR 261.21 Regulations for Toxicity (mg/L)
Mercury	(<0.0007 U)	(<0.0007 U)	(<0.0007 U)	(<0.0007 U)	**0.018**	**0.0011**	(<0.0007 U)	**0.0028**	0.0007	0.2
Arsenic	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	0.0250	5.0
Barium	**0.41**	**0.31**	**0.51**	**0.47**	**0.26**	**0.31**	(<0.25 U)	**0.28**	1.0	100.0
Cadmium	**0.83**	(<0.05 U)	(<0.05 U)	**0.072**	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	0.0050	1.0
Chromium	(<0.1 U)	**0.3**	**0.18**	**27**	(<0.1 U)	**4.4**	**7.5**	(<0.1 U)	0.0500	5.0
Lead	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	0.0250	5.0
Nickel	(<0.1 U)	**0.11**	**0.1**	(<0.1 U)	**2.4**	**0.5**	**0.18**	**0.19**	0.1000	NA
Selenium	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	0.0100	1.0
Silver	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	0.0500	5.0

CLIENT ID:	BLOCKWALL A2	BLOCKWALL A3	BLOCKWALL B2	BLOCKWALL B4	BLOCKWALL B7	BLOCKWALL A9 OFFICE	BLOCKWALL B9 BOILER		Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives	Table 375-6.8(b): Restricted Use Soil Cleanup Objectives-Residential
LAB ID:	AC80234-019	AC80234-020	AC80234-022	AC80234-023	AC80234-024	AC80234-025	AC80234-026			
COLLECTION DATE:	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014			
Metals (mg/kg)										
Cyanide	(<0.24 U)	**7.5**	**0.84**	**21**	**0.7**	**1.8**	**0.56**		27	27
Cr (Hexavalent)	(<1.0 U)	**370**	**3.6**	**1.4**	**5.3**	(<1.1 U)	**11**		1	20
Metals TCLP (mg/L)									NYS AWQS Class GA Standards (mg/L)	40 CFR 261.21 Regulations for Toxicity (mg/L)
Mercury	(<0.0007 U)	0.0047	(<0.0007 U)	0.021	**0.002**	**0.00089**	**0.0023**		0.0007	0.2
Arsenic	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)		0.0250	5.0
Barium	**0.27**	**0.27**	**0.29**	**0.28**	**0.37**	(<0.25 U)	**0.32**		1.0	100.0
Cadmium	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)		0.0050	1.0
Chromium	(<0.1 U)	**45**	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	**0.15**		0.0500	5.0
Lead	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)		0.0250	5.0
Nickel	**0.6**	**3.3**	**0.22**	**6.9**	**0.34**	**0.83**	**0.23**		0.1000	NA
Selenium	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)	(<0.1 U)		0.0100	1.0
Silver	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)	(<0.05 U)		0.0500	5.0

NOTES:

ID	= Identification.
mg/kg	= Milligrams per kilogram.
U	= Not detected; value presented is reporting limit.
TCLP	= Toxicity Characteristic Leaching Procedure.
mg/L	= Milligrams per liter.
NYS AWQS	= New York State Ambient Water Quality Standard.
CFR	= Code of Federal Regulations.
NA	= Not available.

Values in **bold** show detected concentrations.

Above NYSDEC Part 375 Unrestricted Use Cleanup Standards.

Results NYSDEC Residential SCO or 40 CFR 261.21 Regulations for Toxicity.

Table 6 Building Interior Soil Sampling Analytical Results

CLIENT ID:	PDI-SB-1 (0-1)	PDI-SB-1 (4-5)	PDI-SB-2 (0-1)	PDI-SB-2 (3-4)	PDI-NORTH SUMP	PDI-SOUTH SUMP	TANK EXCAVATION SOIL	Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives	Table 375-6.8(b): Restricted Use Soil Cleanup Objectives-Residential	Universal Treatment Standards Nonwastewater Standard
LAB ID:	AC80234-001	AC80234-002	AC80234-003	AC80234-004	AC80234-005	AC80234-006	AC80234-021			
COLLECTION DATE:	8/5/2014	8/5/2014	8/5/2014	8/5/2014	8/5/2014	8/5/2014	8/6/2014			
Metals by CR6-SOIL (mg/kg)										
Cr (Hexavalent)	(<1.1 U)	**19**	**2.7**	**1.6**	**32**	**4.3**	**370**	1	20	NA
Metals TCLP (mg/L)								NYS AWQS Class GA Standards (mg/L)	40 CFR 261.21 Regulations for Toxicity (mg/L)	Universal Treatment Standards Nonwastewater Standard
Mercury	NA	NA	NA	NA	NA	NA	(<0.0007 U)	0.0007	0.2	0.025
Arsenic	NA	NA	NA	NA	NA	NA	(<0.1 U)	0.0250	5.0	5
Barium	NA	NA	NA	NA	NA	NA	(<0.25 U)	1.0	100.0	21.0
Cadmium	NA	NA	NA	NA	NA	NA	(<0.05 U)	0.0050	1.0	0.11
Chromium	NA	NA	NA	NA	NA	NA	**13**	0.0500	5.0	0.60
Lead	NA	NA	NA	NA	NA	NA	(<0.05 U)	0.0250	5.0	0.75
Nickel	NA	NA	NA	NA	NA	NA	(<0.1 U)	0.1000	NA	11.0
Selenium	NA	NA	NA	NA	NA	NA	(<0.1 U)	0.0100	1.0	5.7
Silver	NA	NA	NA	NA	NA	NA	(<0.05 U)	0.0500	5.0	0.14

NOTES:
ID = Identification
mg/kg = Milligrams per kilogram
U = Not detected; value presented is reporting limit.
NA = Not analyzed.
Values in **bold** show detected concentrations.
Above NYSDEC Part 375 Cleanup Standards
Results above NYSDEC Residential SCOs and 40 CFR 261.21 Regulations for Toxicity

Table 7 Adhesive Sampling Analytical Results

CLIENT ID:	PAINT STEEL-B5	PAINT STEEL-B8	EXPANSION JOINT B6	EXPANSION JOINT A7	WINDOW CAULK B7	Table 375-6.8(b):Restricted Use Soil Cleanup Objectives - Commercial (mg/kg)*
LAB ID:	AC80234-007	AC80234-008	AC80234-009	AC80234-010	AC80234-028	
COLLECTION DATE:	8/5/2014	8/5/2014	8/5/2014	8/5/2014	8/6/2014	
PCBs by 8082 (mg/kg)						
Aroclor (Total)	**0.81**	**0.77**	**7.1**	**11.4**	**0.78**	1
Aroclor-1016	(<0.26 U)	(<0.026 U)	(<0.26 U)	(<0.27 U)	(<0.025 U)	1
Aroclor-1221	(<0.26 U)	(<0.026 U)	(<0.26 U)	(<0.27 U)	(<0.025 U)	1
Aroclor-1232	(<0.26 U)	(<0.026 U)	(<0.26 U)	(<0.27 U)	(<0.025 U)	1
Aroclor-1242	**0.81**	**0.56**	**1.4**	**1.4**	**0.78**	1
Aroclor-1248	(<0.26 U)	(<0.026 U)	(<0.26 U)	(<0.27 U)	(<0.025 U)	1
Aroclor-1254	(<0.26 U)	(<0.026 U)	(<0.26 U)	(<0.27 U)	(<0.025 U)	1
Aroclor-1260	(<0.26 U)	(<0.026 U)	**5.7**	**10**	(<0.025 U)	1
Aroclor-1262	(<0.26 U)	**0.21**	(<0.26 U)	(<0.27 U)	(<0.025 U)	1
Aroclor-1268	(<0.26 U)	(<0.026 U)	(<0.26 U)	(<0.27 U)	(<0.025 U)	1
General Chemistry						
% Solids (in Percent)	97	95	97	94	NA	NA

NOTES:

ID = Identification.
mg/kg = Milligrams per kilogram.
PCB = Polychlorinated biphenyl.
U = Not detected; value presented is reporting limit.
NA = Not analyzed.
Values in bold show detected concentrations.
*Table 375-6.8 (b): Restricted Use Soil Cleanup Objectives for Commercial properties.
Clean up objectives for PCBs on commercial and residential properties are the same.

Table 8 Equipment and Materials Analytical Results

CLIENT ID:	1 LANDIS	2 ADMIRAL BUFFER	3 HYDRO FINISHER	4 BUFFALO DRILL PRESS	5 YELLOW FORKLIFT	6 ORANGE FORKLIFT	7 ROOTS BLOWER
LAB ID:	AC80234-029	AC80234-030	AC80234-031	AC80234-032	AC80234-033	AC80234-034	AC80234-035
COLLECTION DATE:	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014
Metals by CR6-WATER (mg/L)							
Cr (Hexavalent)	**0.018**	(<0.0012 U)	(<0.0012 U)	(<0.0012 U)	**0.0014**	**0.074**	(<0.0012 U)

CLIENT ID:	8 DUST COLLECTOR	9 WELDER	10 MAG FLOOR SWEEPS	11 WORK BENCH	12 COMPRESSOR 1	13 COMPRESSOR 2	14 FLAGER
LAB ID:	AC80234-036	AC80234-037	AC80234-038	AC80234-039	AC80234-040	AC80234-041	AC80234-042
COLLECTION DATE:	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014
Metals by CR6-WATER (mg/L)			5				
Cr (Hexavalent)	(<0.0012 U)	**0.015**	**0.0016**	**0.0023**	**0.0064**	**0.062**	(<0.0012 U)

CLIENT ID:	15 CUTT OFF SAW	16 TOLEDO SCALE	17 FAIR BANK SCALE	18 BRAKE	19 SHEAR	20 BOSTON BLOWER	21 125 HP MOTOR
LAB ID:	AC80234-043	AC80234-044	AC80234-045	AC80234-046	AC80234-047	AC80234-048	AC80234-049
COLLECTION DATE:	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014	8/6/2014
Metals by CR6-WATER (mg/L)							
Cr (Hexavalent)	**0.004**	**0.0084**	**0.01**	**0.0029**	(<0.0012 U)	**0.047**	**0.022**

NOTES:
ID = Identification.
mg/L = Milligrams per kilogram.
U = Not detected; value presented is reporting limit.
Values in **bold** show detected concentrations.

Appendix A

Field Book and Daily Field Reports

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CONTENTS

PAGE	REFERENCE	DATE

5 August 2014

720 - JAV/LJJ onsite. Bob Conten Already onsite

730 - Charles Epstein property owner onsite to let us in the property

- Southern Portion of the BLD is almost cleared out.

- Green staining is more prevalent on walls/Floors/ceiling than originally believed to be

- Jim H. called Sue Edwards to express concern of property owner being in the building and moving equipment off site

- 1205 JAV has ~~his~~ a ~~call~~ call with Sue Edwards from the DEC. Clarified building appears to be more grossly impacted than previously believed. Sue said she would reach out to the property owner to ask him to stop work inside the building until we have analytical data back.

5 August 2014

- map out floor sumps of the building for base map

- Core 2 holes in the concrete for soil borings. Broke 2 teeth on core barrel during the 3rd hole.

- PDI SB-1 was installed in the sump of the southern BCD. no visual staining of the soil

- PDI - SB-2 was installed adjacent to the former tank area.

- Collected 2 concrete floor samples

- Performed walk through of BCD and identified potential areas of concern for PCB-ballast lights, asbestos, etc.

5 August 2014

- There is still a large amount of supporting process equipment in the BCD. will complete inventory and wipe samples tomorrow. Due to age of equipment, there is a potential for PCB oil and parts

Rite in the Rain.

6 August 2014

- 715 SAV BC onsite
- 730 Sue Edwards (MyState) and Charles (owner) onsite

- Gave Sue a tour of the BLD and Pointed out AOC's
- Sue Agreed with the visual Assessment of the BLD
- Sue Asked us to concentrate our wipe samples in the North room where plating equipment appears to be present
- Finished Collecting on Blank wall Samples
- Collected window Glue Sample from BJ. Glue holds window to wall
- Collected window Caulk that holds window pane in place.

06 August 2014

Collected 21 wipe samples for CR+6 for

1 Lathe
2 Admiral Buffer
3 Hydrofinishing
4 Buhalo drill press
5 Yellow Forklift
6 Orange forklift
7 Roots Blower
8 Dust collector
9 welder
10 MIG Floor Sweeper
11 Work Bench
12 Compressor 1
13 Compressor 2
14 Flagger
15 Cutt off Saw
16 Toledo Scale
17 Fair Banks scale
18 Brake
19 Shear
20 Boston Blower
21 125 HP motor

Rite in the Rain

06 August 2014

- BLD inventory of CR76 equipment
  - additions to wire samples

old Chrom drums - empty
old Potassium Cyanide drums
=5 salt drums contents unknown

Rite in the Rain.

EA Engineering, P.C.
EA Science and Technology

LOG OF SOIL BORING

Coordinates:
Ground Surface Elevation:
Casing Elevation:
PVC Casing Elevation:
Reference Description:

Job. No.	Client:	NYSDEC	Location:
14907.15	Project	Perfection Plating	Watervliet, NY

Drilling Method:	Well ID:
Hand driven macro-core	PDI - SB-1
Sampling Method:	**Sheet 1 of 1**
2' Split Spoon	

Water Level:				
Time:				
Date:				

Drilling	
Start	Finish
1215	1315

Surface Conditions:	
Weather:	
Temperature:	

Blow Counts (140-lb)	Feet Recvrd/Ft. Driven	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log
				0	
				1	
				2	
				3	
				4	
				5	
				6	
				7	
				8	
				9	
				10	
				11	
				12	
				13	
				14	
				15	
				16	
				17	
				18	
				19	
				20	
				21	
				22	
				23	
				24	
				25	
				26	
				27	
				28	
				29	
				30	
				31	

0-5": Concrete

5"-2': Brown coarse SAND, loose

2'-3': Grey coarse angular GRAVEL trace clay, loose

3-4': Grey very coarse subangular GRAVEL and COBBLES trace bedrock.

4'-5': Reddish grey silty CLAY and weathered shale

Water first encountered @

Refusal @ 5' bgs

Sample IDs

PDI-SB-1(0-1)(1-2)(2-3)(3-4)(4-5)

1330

Logged by: Charles Yarrington Date: 8-5-14

Drilling Contractor: NA Driller: NA

EA Engineering, P.C.
EA Science and Technology

LOG OF SOIL BORING

Coordinates:
Ground Surface Elevation:
Casing Elevation:
PVC Casing Elevation:
Reference Description:

Job. No.	Client:	NYSDEC	Location:
14907.15	Project	Perfection Plating	Watervliet, NY

Drilling Method: Hand driven macro-core
Sampling Method: 2' Split Spoon
Well ID: PDI-SB-2
Sheet 1 of 1

Water Level:				
Time:				
Date:				

Drilling Start	Drilling Finish
1315	1430

Surface Conditions:
Weather:
Temperature:

Blow Counts (140-lb)	Feet Recvrd/Ft. Driven	Boring Diagram	PID (ppm)	Depth in Feet	USCS Log
				0	
				1	
				2	
				3	
				4	
				5	
				6	
				7	
				8	
				9	
				10	
				11	
				12	
				13	
				14	
				15	
				16	
				17	
				18	
				19	
				20	
				21	
				22	
				23	
				24	
				25	
				26	
				27	
				28	
				29	
				30	
				31	

0-4" = Concrete

4"-2' = Brown coarse SAND trace coarse subangular gravel, loose non-cohesive

2'-4' = Brownish grey CLAY trace subangular gravel and weathered shale

Water first encountered @ —

Refusal @ 4'

Sample IDs PDI-SB-2(0-1)(1-2)(2-3)(3-4)

1455

Logged by: Charles Yarrington
Date: 8-5-14
Drilling Contractor: NA
Driller: NA

Appendix B

Analytical Results

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HC Report Of Analysis

Client: EA Engineering, Science & Technology **HC Project #:** 4080808

Project: Perfection Plating

Sample ID: PDI-SB-1 (0-1) **Collection Date: 8/5/2014**
Lab#: AC80234-001 **Receipt Date: 8/8/2014**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		95

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/kg	1.1	ND

Eh

Analyte	DF	Units	RL	Result
Eh	1	mv		330

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	1	ph		8.6

Sample ID: PDI-SB-1 (4-5) **Collection Date: 8/5/2014**
Lab#: AC80234-002 **Receipt Date: 8/8/2014**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		88

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/kg	1.1	19

Eh

Analyte	DF	Units	RL	Result
Eh	1	mv		340

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	1	ph		8.1

Sample ID: PDI-SB-2 (0-1) **Collection Date: 8/5/2014**
Lab#: AC80234-003 **Receipt Date: 8/8/2014**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		93

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/kg	1.1	2.7

Eh

Analyte	DF	Units	RL	Result
Eh	1	mv		280

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	1	ph		9.0

Sample ID: PDI-SB-2 (3-4) **Collection Date: 8/5/2014**
Lab#: AC80234-004 **Receipt Date: 8/8/2014**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		88

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/kg	1.1	1.6

Eh

Analyte	DF	Units	RL	Result
Eh	1	mv		180

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	1	ph		9.1

Sample ID: PDI-NORTH SUMP **Collection Date: 8/5/2014**
Lab#: AC80234-005 **Receipt Date: 8/8/2014**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		74

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/kg	1.4	32

Eh

Analyte	DF	Units	RL	Result
Eh	1	mv		200

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	1	ph		8.8

Sample ID: PDI-SOUTH SUMP **Collection Date: 8/5/2014**
Lab#: AC80234-006 **Receipt Date: 8/8/2014**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		67

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/kg	1.5	4.3

Eh

Analyte	DF	Units	RL	Result
Eh	1	mv		200

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	1	ph		8.3

Sample ID: PAINT STEEL-B5 **Collection Date: 8/5/2014**
Lab#: AC80234-007 **Receipt Date: 8/8/2014**
Matrix: Concrete

Sample ID: PAINT STEEL-B5 **Collection Date: 8/5/2014**
Lab#: AC80234-007 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**97**

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	**1**	**mg/kg**	**0.26**	**0.81**
Aroclor-1016	1	mg/kg	0.26	ND
Aroclor-1221	1	mg/kg	0.26	ND
Aroclor-1232	1	mg/kg	0.26	ND
Aroclor-1242	**1**	**mg/kg**	**0.26**	**0.81**
Aroclor-1248	1	mg/kg	0.26	ND
Aroclor-1254	1	mg/kg	0.26	ND
Aroclor-1260	1	mg/kg	0.26	ND
Aroclor-1262	1	mg/kg	0.26	ND
Aroclor-1268	1	mg/kg	0.26	ND

Sample ID: PAINT STEEL-B8 **Collection Date: 8/5/2014**
Lab#: AC80234-008 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**95**

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	**1**	**mg/kg**	**0.026**	**0.77**
Aroclor-1016	1	mg/kg	0.026	ND
Aroclor-1221	1	mg/kg	0.026	ND
Aroclor-1232	1	mg/kg	0.026	ND
Aroclor-1242	**1**	**mg/kg**	**0.026**	**0.56**
Aroclor-1248	1	mg/kg	0.026	ND
Aroclor-1254	1	mg/kg	0.026	ND
Aroclor-1260	1	mg/kg	0.026	ND
Aroclor-1262	**1**	**mg/kg**	**0.026**	**0.21**
Aroclor-1268	1	mg/kg	0.026	ND

Sample ID: EXPANSION JOINT B6 **Collection Date: 8/5/2014**
Lab#: AC80234-009 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**97**

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	**1**	**mg/kg**	**0.26**	**7.1**
Aroclor-1016	1	mg/kg	0.26	ND
Aroclor-1221	1	mg/kg	0.26	ND
Aroclor-1232	1	mg/kg	0.26	ND
Aroclor-1242	**1**	**mg/kg**	**0.26**	**1.4**
Aroclor-1248	1	mg/kg	0.26	ND
Aroclor-1254	1	mg/kg	0.26	ND
Aroclor-1260	**1**	**mg/kg**	**0.26**	**5.7**
Aroclor-1262	1	mg/kg	0.26	ND
Aroclor-1268	1	mg/kg	0.26	ND

Sample ID: EXPANSION JOINT A7 **Collection Date: 8/5/2014**
Lab#: AC80234-010 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**94**

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	**1**	**mg/kg**	**0.27**	**11.4**
Aroclor-1016	1	mg/kg	0.27	ND
Aroclor-1221	1	mg/kg	0.27	ND
Aroclor-1232	1	mg/kg	0.27	ND
Aroclor-1242	**1**	**mg/kg**	**0.27**	**1.4**
Aroclor-1248	1	mg/kg	0.27	ND
Aroclor-1254	1	mg/kg	0.27	ND
Aroclor-1260	**1**	**mg/kg**	**0.27**	**10**
Aroclor-1262	1	mg/kg	0.27	ND
Aroclor-1268	1	mg/kg	0.27	ND

Sample ID: CONCRETE FLOOR A6 **Collection Date: 8/5/2014**
Lab#: AC80234-011 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**86**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/kg**	**1.2**	**1.9**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**4**	**mg/kg**	**1.1**	**20**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**200**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.8**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.41**
Cadmium	**1**	**mg/l**	**0.050**	**0.83**
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	1	mg/l	0.10	ND
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: CONCRETE FLOOR A8 **Collection Date: 8/5/2014**
Lab#: AC80234-012 **Receipt Date: 8/8/2014**
Matrix: Concrete

Sample ID: CONCRETE FLOOR A8 **Collection Date: 8/5/2014**
Lab#: AC80234-012 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**95**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/kg**	**1.1**	**3.7**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**15.385**	**mg/kg**	**3.9**	**67**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**-19**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**12**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.31**
Cadmium	1	mg/l	0.050	ND
Chromium	**1**	**mg/l**	**0.10**	**0.30**
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.11**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: CONCRETE FLOOR A2 **Collection Date: 8/6/2014**
Lab#: AC80234-013 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**92**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/kg**	**1.1**	**11**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.26**	**0.67**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**72**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result

Sample ID: CONCRETE FLOOR A2 **Collection Date: 8/6/2014**
Lab#: AC80234-013 **Receipt Date: 8/8/2014**
Matrix: Concrete

pH	**1**	**ph**	**11**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.51**
Cadmium	1	mg/l	0.050	ND
Chromium	**1**	**mg/l**	**0.10**	**0.18**
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.10**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: CONCRETE FLOOR A **Collection Date: 8/6/2014**
Lab#: AC80234-014 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**91**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**50**	**mg/kg**	**55**	**940**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.26**	**2.3**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**58**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**12**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.47**
Cadmium	**1**	**mg/l**	**0.050**	**0.072**
Chromium	**1**	**mg/l**	**0.10**	**27**
Lead	1	mg/l	0.050	ND
Nickel	1	mg/l	0.10	ND
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL A6 **Collection Date: 8/6/2014**
Lab#: AC80234-015 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**93**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result

Sample ID: BLOCKWALL A6 **Collection Date: 8/6/2014**
Lab#: AC80234-015 **Receipt Date: 8/8/2014**
Matrix: Concrete

Cr (Hexavalent)	**1**	**mg/kg**	**1.1**	**2.0**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.26**	**1.4**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**190**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/l**	**0.00070**	**0.018**

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.3**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.26**
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**2.4**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL A8 **Collection Date: 8/6/2014**
Lab#: AC80234-016 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**94**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**50**	**mg/kg**	**53**	**220**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.26**	**1.4**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**180**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/l**	**0.00070**	**0.0011**

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.7**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.31**
Cadmium	1	mg/l	0.050	ND

Sample ID: BLOCKWALL A8 **Collection Date: 8/6/2014**
Lab#: AC80234-016 **Receipt Date: 8/8/2014**
Matrix: Concrete

Chromium	**1**	**mg/l**	**0.10**	**4.4**
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.50**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: OUTSIDE BLACKWALL A8 **Collection Date: 8/6/2014**
Lab#: AC80234-017 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**94**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**50**	**mg/kg**	**53**	**170**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.26**	**0.95**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**170**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.8**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	1	mg/l	0.25	ND
Cadmium	1	mg/l	0.050	ND
Chromium	**1**	**mg/l**	**0.10**	**7.5**
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.18**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL A9 **Collection Date: 8/6/2014**
Lab#: AC80234-018 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**96**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/kg**	**1.0**	**2.1**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.25**	**1.2**

Sample ID: BLOCKWALL A9 **Collection Date: 8/6/2014**
Lab#: AC80234-018 **Receipt Date: 8/8/2014**
Matrix: Concrete

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**270**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/l**	**0.00070**	**0.0028**

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.7**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.28**
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.19**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL A2 **Collection Date: 8/6/2014**
Lab#: AC80234-019 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**99**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/kg	1.0	ND

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	1	mg/kg	0.24	ND

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**270**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.4**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.27**
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.60**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL A3 **Collection Date: 8/6/2014**
Lab#: AC80234-020 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**96**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**50**	**mg/kg**	**52**	**370**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.25**	**7.5**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**260**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/l**	**0.00070**	**0.0047**

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.5**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.27**
Cadmium	1	mg/l	0.050	ND
Chromium	**1**	**mg/l**	**0.10**	**45**
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**3.3**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: TANK EXCUVATION SOIL **Collection Date: 8/6/2014**
Lab#: AC80234-021 **Receipt Date: 8/8/2014**
Matrix: Soil

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**97**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**50**	**mg/kg**	**52**	**370**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**270**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**7.6**

TCLP Metals 6010

Analyte	DF	Units	RL	Result

Sample ID: TANK EXCUVATION SOIL **Collection Date: 8/6/2014**
Lab#: AC80234-021 **Receipt Date: 8/8/2014**
Matrix: Soil

Arsenic	1	mg/l	0.10	ND
Barium	1	mg/l	0.25	ND
Cadmium	1	mg/l	0.050	ND
Chromium	**1**	**mg/l**	**0.10**	**13**
Lead	1	mg/l	0.050	ND
Nickel	1	mg/l	0.10	ND
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL B2 **Collection Date: 8/6/2014**
Lab#: AC80234-022 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**99**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/kg**	**1.0**	**3.6**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.24**	**0.84**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**230**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	mg/l	0.00070	ND

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.2**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.29**
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.22**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL B4 **Collection Date: 8/6/2014**
Lab#: AC80234-023 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**99**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/kg**	**1.0**	**1.4**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result

Sample ID: BLOCKWALL B4 **Collection Date: 8/6/2014**
Lab#: AC80234-023 **Receipt Date: 8/8/2014**
Matrix: Concrete

Cyanide	**4**	**mg/kg**	**0.97**	**21**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**230**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/l**	**0.00070**	**0.021**

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**9.0**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.28**
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**6.9**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL B7 **Collection Date: 8/6/2014**
Lab#: AC80234-024 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**99**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/kg**	**1.0**	**5.3**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.24**	**0.70**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**240**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/l**	**0.00070**	**0.0020**

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.4**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.37**
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.34**
Selenium	1	mg/l	0.10	ND

Sample ID: BLOCKWALL B7 **Collection Date: 8/6/2014**
Lab#: AC80234-024 **Receipt Date: 8/8/2014**
Matrix: Concrete

Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL A9 OFFICE **Collection Date: 8/6/2014**
Lab#: AC80234-025 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**89**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/kg	1.1	ND

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.27**	**1.8**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**210**

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/l**	**0.00070**	**0.00089**

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**8.6**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	1	mg/l	0.25	ND
Cadmium	1	mg/l	0.050	ND
Chromium	1	mg/l	0.10	ND
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.83**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: BLOCKWALL B9 BOILER **Collection Date: 8/6/2014**
Lab#: AC80234-026 **Receipt Date: 8/8/2014**
Matrix: Concrete

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	**1**	**percent**		**99**

Cr (Hexavalent) 7196A

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/kg**	**1.0**	**11**

Cyanide (Soil/Waste) 9012B

Analyte	DF	Units	RL	Result
Cyanide	**1**	**mg/kg**	**0.24**	**0.56**

Eh

Analyte	DF	Units	RL	Result
Eh	**1**	**mv**		**180**

Sample ID: BLOCKWALL B9 BOILER **Collection Date: 8/6/2014**
Lab#: AC80234-026 **Receipt Date: 8/8/2014**
Matrix: Concrete

Mercury (TCLP) 7470A

Analyte	DF	Units	RL	Result
Mercury	**1**	**mg/l**	**0.00070**	**0.0023**

pH 9040C/9045D

Analyte	DF	Units	RL	Result
pH	**1**	**ph**		**9.2**

TCLP Metals 6010

Analyte	DF	Units	RL	Result
Arsenic	1	mg/l	0.10	ND
Barium	**1**	**mg/l**	**0.25**	**0.32**
Cadmium	1	mg/l	0.050	ND
Chromium	**1**	**mg/l**	**0.10**	**0.15**
Lead	1	mg/l	0.050	ND
Nickel	**1**	**mg/l**	**0.10**	**0.23**
Selenium	1	mg/l	0.10	ND
Silver	1	mg/l	0.050	ND

Sample ID: WINDOW CAULK B7 **Collection Date: 8/6/2014**
Lab#: AC80234-028 **Receipt Date: 8/8/2014**
Matrix: Caulk

PCB 8082

Analyte	DF	Units	RL	Result
Aroclor (Total)	**1**	**mg/kg**	**0.025**	**0.78**
Aroclor-1016	1	mg/kg	0.025	ND
Aroclor-1221	1	mg/kg	0.025	ND
Aroclor-1232	1	mg/kg	0.025	ND
Aroclor-1242	**1**	**mg/kg**	**0.025**	**0.78**
Aroclor-1248	1	mg/kg	0.025	ND
Aroclor-1254	1	mg/kg	0.025	ND
Aroclor-1260	1	mg/kg	0.025	ND
Aroclor-1262	1	mg/kg	0.025	ND
Aroclor-1268	1	mg/kg	0.025	ND

Sample ID: 1 LANDIS **Collection Date: 8/6/2014**
Lab#: AC80234-029 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.018**

Sample ID: 2 ADMIRAL BUFFER **Collection Date: 8/6/2014**
Lab#: AC80234-030 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/wipe	0.0012	ND

Sample ID: 3 HYDRO FINISHER **Collection Date: 8/6/2014**
Lab#: AC80234-031 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/wipe	0.0012	ND

Sample ID: 4 BUHALO DRILL PRESS **Collection Date: 8/6/2014**
Lab#: AC80234-032 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/wipe	0.0012	ND

Sample ID: 5 YELLOW FORKLIFT **Collection Date: 8/6/2014**
Lab#: AC80234-033 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.0014**

Sample ID: 6 ORANGE FORKLIFT **Collection Date: 8/6/2014**
Lab#: AC80234-034 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**10**	**mg/wipe**	**0.012**	**0.074**

Sample ID: 7 ROOTS BLOWER **Collection Date: 8/6/2014**
Lab#: AC80234-035 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/wipe	0.0012	ND

Sample ID: 8 DUST COLLECTOR **Collection Date: 8/6/2014**
Lab#: AC80234-036 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/wipe	0.0012	ND

Sample ID: 9 WELDER **Collection Date: 8/6/2014**
Lab#: AC80234-037 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.015**

Sample ID: 10 MAG FLOOR SWEEPS **Collection Date: 8/6/2014**
Lab#: AC80234-038 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.0016**

Sample ID: 11 WORK BENCH **Collection Date: 8/6/2014**
Lab#: AC80234-039 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.0023**

Sample ID: 12 COMPRESSOR 1 **Collection Date: 8/6/2014**
Lab#: AC80234-040 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.0064**

Sample ID: 13 COMPRESSOR 2 **Collection Date: 8/6/2014**
Lab#: AC80234-041 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**10**	**mg/wipe**	**0.012**	**0.062**

Sample ID: 14 FLAG **Collection Date: 8/6/2014**
Lab#: AC80234-042 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/wipe	0.0012	ND

Sample ID: 15 CUT OFF SAW **Collection Date: 8/6/2014**
Lab#: AC80234-043 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.0040**

Sample ID: 16 TOLEDO SCALE **Collection Date: 8/6/2014**
Lab#: AC80234-044 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.0084**

Sample ID: 17 FAIR BANK SCALE **Collection Date: 8/6/2014**
Lab#: AC80234-045 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.010**

Sample ID: 18 BRAKE **Collection Date: 8/6/2014**
Lab#: AC80234-046 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	**1**	**mg/wipe**	**0.0012**	**0.0029**

Sample ID: 19 SHEAR **Collection Date: 8/6/2014**
Lab#: AC80234-047 **Receipt Date: 8/8/2014**
Matrix: Wipes

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/wipe	0.0012	ND

Sample ID: 20 BOSTON BLOWER
Lab#: AC80234-048
Matrix: Wipes
Collection Date: 8/6/2014
Receipt Date: 8/8/2014

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	5	mg/wipe	0.0062	0.047

Sample ID: 21 125 HP MOTOR
Lab#: AC80234-049
Matrix: Wipes
Collection Date: 8/6/2014
Receipt Date: 8/8/2014

Cr (Hexavalent) 3500-Cr D

Analyte	DF	Units	RL	Result
Cr (Hexavalent)	1	mg/wipe	0.0012	0.022

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175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
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Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

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CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 4080808

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

Customer Information

1a) Customer: EA
Address: 6712 Brooklawn Parkway
Syracuse NY 13211
1b) Email/Cell/Fax/Ph: JVonUderitz@EAEST.com
1c) Send Invoice to: EAaccountingwe@eaest.com
1d) Send Report to: Joe VonUderitz

Project Information

2a) Project: Perfection Plating
2b) Project Mgr: Jim Hayward
2c) Project Location (City/State): Watervliet, NY
2d) Quote/PO # (If Applicable):

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
1 Business Day (100%)	Data Summary	Hazsite/CSV
2 Business Days (75%)	Results + QC (Waste)	EnviroData
3 Business Days (50%)	NJ Reduced	Excel - NJ Regulatory
4 Business Days (35%)	NY Reduced	(Excel - NY Regulatory) (circled)
1 Week (25%)	PA Reduced	Excel - PA Regulatory
10 Calendar Days (10%)	(Full / Category B) (circled)	EQuIS (*specify below*):
(2 Weeks) (circled)	Category A	4-File/EZ/NYS/Reg. 2 or 5
Other:		Other:

Expedited TAT Not Always Available. Please Check with Lab.

FOR LAB USE ONLY
Batch #: AC80234

Matrix Codes
DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (please specify under item 9, Comments)

Check If Contingent ===> 7) Analysis Request <=== Check If Contingent

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	Cr+6	PCB's	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
-001	POI-SB-1 (0-1)	S	8/5/14	1330		X	X		1								
-002	POI-SB-1 (4-5)	S	↓	1330		X	X		↓								
-003	POI-SB-2 (0-1)	S	↓	1445		X	X		↓								
-004	POI-SB-2 (3-4)	S	↓	1445		X	X		↓								
-005	POI-North Sump	S	↓	1527		X	X		↓								
-006	POI-South Sump	S	↓	1520		X	X		↓								
-007	Paint Steel-B5	OT	↓	1400	X			X	↓								
-008	Paint Steel-B8	OT	↓	1331	X			X	↓			KJ 8/8/14					
-009	Expansion Joint B6	OT	↓	1425	X			X	↓								
-010	Expansion Joint 47	OT	↓	1415	X			X	↓								

10) Relinquished by:	Accepted by:	Date	Time
J. VonUderitz (signature)	(signature)	8/8/14	1000

Comments, Notes, Special Requirements, HAZARDS
Note: Check if low-level groundwater methods required to meet current standards:
☐ BN or BNA (8270C SIM)
☐ VOC (8260B SIM or 8011)

Note: Check if applicable:
☐ Project-Specific Reporting Limits
☐ High Contaminant Concentrations
☐ NJ LSRP Project

Cooler Temperature: 3.9°C

Additional Notes

11) Sampler (print name): Date:

Please note NUMBERED items. If not completed your analytical work may be delayed.
A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

HamptonClarke-Veritech Laboratories
175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

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CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 4080808

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
1 Business Day (100%)	Data Summary	Hazsite/CSV
2 Business Days (75%)	Results + QC (Waste)	EnviroData
3 Business Days (50%)	NJ Reduced	Excel - NJ Regulatory
4 Business Days (35%)	NY Reduced	Excel - NY Regulatory
1 Week (25%)	PA Reduced	Excel - PA Regulatory
10 Calendar Days (10%)	Full / Category B	EQuIS *(specify below)*:
2 Weeks	Category A	4-File/EZ/NYS/Reg. 2 or 5
Other:		Other:

Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: EA
Address:
1b) Email/Cell/Fax/Ph:
1c) Send Invoice to:
1d) Send Report to:

Project Information

2a) Project: Perfection Plating
2b) Project Mgr:
2c) Project Location (City/State):
2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY ↓

Batch # AC80234

Check If Contingent ===>

Matrix Codes
DW - Drinking Water | S - Soil | A - Air
GW - Ground Water | SL - Sludge
WW - Waste Water | OL - Oil
OT - Other (please specify under item 9, Comments)

7) Analysis Request

<=== Check If Contingent

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	CRT+6	Cyanide (Total Amenable)	TCLP-metals	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
-011	Concrete Floor A6		8/5/14	1700	X		X	X	X	3								
-012	Concrete Floor A8		8/5/14	1615	X		X	X	X									
-013	Concrete Floor A2		8/6/14	810	X		X	X	X									
-014	Concrete Floor A		8/6/14	820	X		X	X	X									
-015	Blockwall A6		8/6/14	900	X		X	X	X									
-016	Blockwall A8		8/6/14	930	X		X	X	X									
-017	Outside Blockwall A4		8/6/14	940	X		X	X	X				TCS 8/8/14					
-018	Blockwall A9		8/6/14	945	X		X	X	X									
-019	Blockwall A2		8/6/14	1000	X		X	X	X									
-020	Blockwall A3		8/6/14	1030	X		X	X	X									

10) Relinquished by:	Accepted by:	Date	Time
FedEx	FedEx	8/8/14	1000

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards:
- ☐ BN or BNA (8270C SIM)
- ☐ VOC (8260B SIM or 8011)

Note: Check if applicable:
- ☐ Project-Specific Reporting Limits
- ☐ High Contaminant Concentrations
- ☐ NJ LSRP Project

Cooler Temperature:

11) Sampler (print name): Date:

Please note NUMBERED items. If not completed your analytical work may be delayed.
A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

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CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 4080808

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
1 Business Day (100%)	Data Summary	Hazsite/CSV
2 Business Days (75%)	Results + QC (Waste)	EnviroData
3 Business Days (50%)	NJ Reduced	Excel - NJ Regulatory
4 Business Days (35%)	NY Reduced	Excel - NY Regulatory
1 Week (25%)	PA Reduced	Excel - PA Regulatory
10 Calendar Days (10%)	Full / Category B	EQuIS *(specify below)*:
2 Weeks	Category A	4-File/EZ/NYS/Reg. 2 or 5
Other:		Other:

Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: EA
Address:
1b) Email/Cell/Fax/Ph:
1c) Send Invoice to:
1d) Send Report to:

Project Information

2a) Project: Perfection Plating
2b) Project Mgr:
2c) Project Location (City/State):
2d) Quote/PO # (If Applicable):

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Batch # AC80234

Check If Contingent ===>

Matrix Codes
DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (please specify under item 9, Comments)

7) Analysis Request

<=== Check If Contingent

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	CR+6	Cyanide (Total) + Amenable	TCLP metals	PCB	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
-021	Tank excavation Soil	So	8/6/14	1100		X	X		X		3 jars								
-022	Blackwall B2	ST		1130	X		X	X	X		3								
-023	Blackwall B4	OT		1135	X		X	X	X		3		ES 8/6/14						
-024	Blackwall B7	OT		1140	X		X	X	X										
-025	Blackwall A9 office	OT		1145	X		X	X	X										
-026	Blackwall B9 Bldg	OT		1150	X		X	X	X		V								
-027	Window Glue B7	GT		1200	X					X	1								
-028	Window Caulk B7	OT		1215	X					X									
-029	1 Landis	wipe		1300	X		X												
-030	2 Admiral Bldg	wipe		1305	X		X												

10) Relinquished by:	Accepted by:	Date	Time
FedEx	FedEx	8/8/14	1000

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards:
- ☐ BN or BNA (8270C SIM)
- ☐ VOC (8260B SIM or 8011)

Note: Check if applicable:
- ☐ Project-Specific Reporting Limits
- ☐ High Contaminant Concentrations
- ☐ NJ LSRP Project

Cooler Temperature

11) Sampler (print name): Date:

Please note NUMBERED items. If not completed your analytical work may be delayed.
A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

HamptonClarke-Veritech Laboratories

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CHAIN OF CUSTODY RECORD

Project # (Lab Use Only): 40808808

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
1 Business Day (100%)	Data Summary	Hazsite/CSV
2 Business Days (75%)	Results + QC (Waste)	EnviroData
3 Business Days (50%)	NJ Reduced	Excel - NJ Regulatory
4 Business Days (35%)	NY Reduced	Excel - NY Regulatory
1 Week (25%)	PA Reduced	Excel - PA Regulatory
10 Calendar Days (10%)	Full / Category B	EQuIS *(specify below)*:
2 Weeks	Category A	4-File/EZ/NYS/Reg. 2 or 5
Other:		Other:

Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: GA
Address:
1b) Email/Cell/Fax/Ph:
1c) Send Invoice to:
1d) Send Report to:

Project Information

2a) Project: Parker Plating
2b) Project Mgr:
2c) Project Location (City/State):
2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY ↓
Batch # AC80234

Check If Contingent ===>

Matrix Codes
DW - Drinking Water | S - Soil | A - Air
GW - Ground Water | SL - Sludge
WW - Waste Water | OL - Oil
OT - Other (please specify under item 9, Comments)

7) Analysis Request

<=== Check If Contingent

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	Cr+6	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
-031	3 Hydro Finisher	wipe	8/6/14	1316	X		X	1								
-032	4 Buhalo drill press			1315	X		X									
-033	5 Yellow Forklift			1320	X		X									
-034	6 Orange Forklift			1325	X		X			RS 8/8/14						
-035	7 Booth Blower			1330	X		X									
-036	8 Dust collector			1435	X		X									
-037	9 welder			1335	X		X									
-038	10 MAG flow Sweep			1340	X		X									
-039	11 work Bench			1345	X		X									
-040	12 Compressor 1	↓	↓	1350	X		X									

10) Relinquished by:	Accepted by:	Date	Time
Fed Ex	Fed Ex	8/8/14	1600

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards:
- ☐ BN or BNA (8270C SIM)
- ☐ VOC (8260B SIM or 8011)

Note: Check if applicable:
- ☐ Project-Specific Reporting Limits
- ☑ High Contaminant Concentrations
- ☐ NJ LSRP Project

Cooler Temperature:

11) Sampler (print name): Date:

Please note NUMBERED items. If not completed your analytical work may be delayed.
A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

HamptonClarke-Veritech Laboratories
175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
Ph (Service Center): 856-780-6057 Fax: 856-780-6056

HC·V HAMPTONCLARKE VERITECH WBE/DBE/SBE 800.426.9992
A Women-Owned, Disadvantaged, Small Business Enterprise

CHAIN OF CUSTODY RECORD

NELAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

Project # (Lab Use Only): 4080808

3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Deliv.
1 Business Day (100%)	Data Summary	Hazsite/CSV
2 Business Days (75%)	Results + QC (Waste)	EnviroData
3 Business Days (50%)	NJ Reduced	Excel - NJ Regulatory
4 Business Days (35%)	NY Reduced	~~Excel - NY Regulatory~~
1 Week (25%)	PA Reduced	Excel - PA Regulatory
10 Calendar Days (10%)	~~Full / Category B~~	EQuIS *(specify below)*:
2 Weeks	Category A	4-File/EZ/NYS/Reg. 2 or 5
Other:		Other:

Expedited TAT Not Always Available. Please Check with Lab.

Customer Information

1a) Customer: EA
Address:
1b) Email/Cell/Fax/Ph:
1c) Send Invoice to:
1d) Send Report to:

Project Information

2a) Project: Perforation Plating
2b) Project Mgr:
2c) Project Location (City/State):
2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY ↓

Batch # AC80234

Check If Contingent ===>

Matrix Codes
DW - Drinking Water S - Soil A - Air
GW - Ground Water SL - Sludge
WW - Waste Water OL - Oil
OT - Other (please specify under item 9, Comments)

7) Analysis Request

<=== Check If Contingent

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample Date	6) Sample Time	Sample Type: Composite (C)	Sample Type: Grab (G)	7) Analysis Request: RHg	8) # of Bottles: None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:	9) Comments
-041	13 Compress 2	wipe	8/6/14	1355	X		X	X								
-042	14 Flagon			1400	X		X									
-043	15 Cutt off Saw			1405	X		X									
-044	16 Toledo Scale			1410	X		X									
-045	17 Fair-Bank Scale			1415	X		X									
-046	18 Bunks			1420	X		X									
-047	19 Shear			1425	X		X									
-048	20 Boston Blower			1430	X		X									
-049	21 125 HP motor	↓	↓	1430	X		X	↓								

VS 8/8/14

10) Relinquished by:	Accepted by:	Date	Time
Fed Ex	Fed Ex	8/8/14	1000

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Note: Check if low-level groundwater methods required to meet current standards:
- ☐ BN or BNA (8270C SIM)
- ☐ VOC (8260B SIM or 8011)

Note: Check if applicable:
- ☐ Project-Specific Reporting Limits
- ☐ High Contaminant Concentrations
- ☐ NJ LSRP Project

Cooler Temperature

11) Sampler (print name): Date:

Please note NUMBERED items. If not completed your analytical work may be delayed.
A fee of $5/sample will be assessed for storage should sample not be activated for any analysis.

Appendix C

Photographic Log

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Perfection Plating Preliminary Design Investigation Photo Log
Building Condition

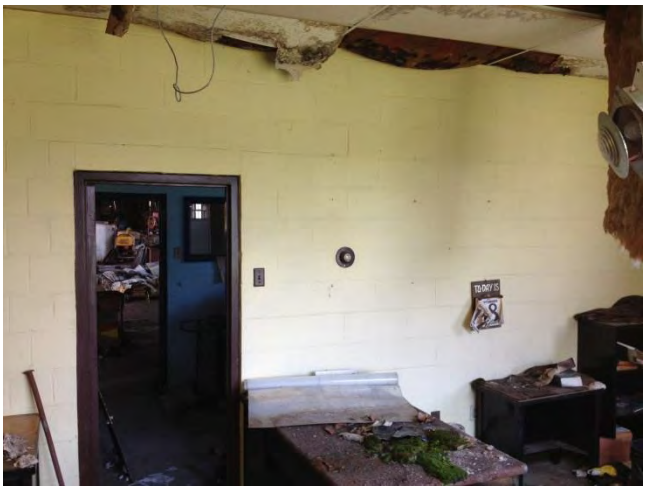
PHOTOGRAPH	DESCRIPTION	
	Photo: Date:	1 5 April 2010 Former plating building west side exterior wall looking south
	Photo: Date:	2 5 April 2010 Former plating building east side exterior wall looking south
	Photo: Date:	3 6 August 2014 Office at southern end of former plating building (grid location A/B10)

	Photo: Date:	4 6 August 2014 Boiler room at southern end of former plating building (Grid location A/B9
	Photo: Date:	5 6 August 2014 Plating process room looking north (grid locations A/B 8 to 3)
	Photo: Date:	6 6 August 2014 Plating process room southern wall (grid location A8)

	Photo: Date:	7 6 August 2014 Plating process room interior west wall looking north (grids A8 to A5)
	Photo: Date:	8 6 August 2014 Plating process room interior west wall looking south (grids A5 to A8)
	Photo: Date:	9 6 August 2014 Plating process room interior looking north (grid location A6 to A2)

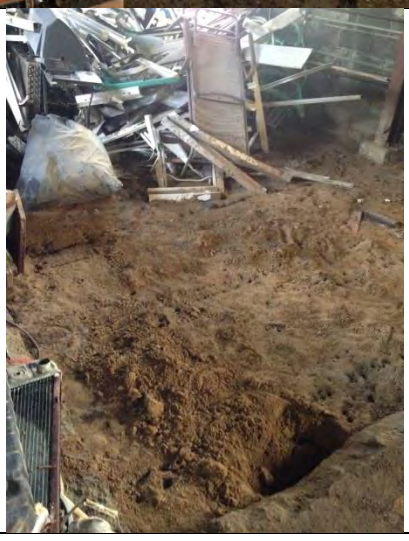
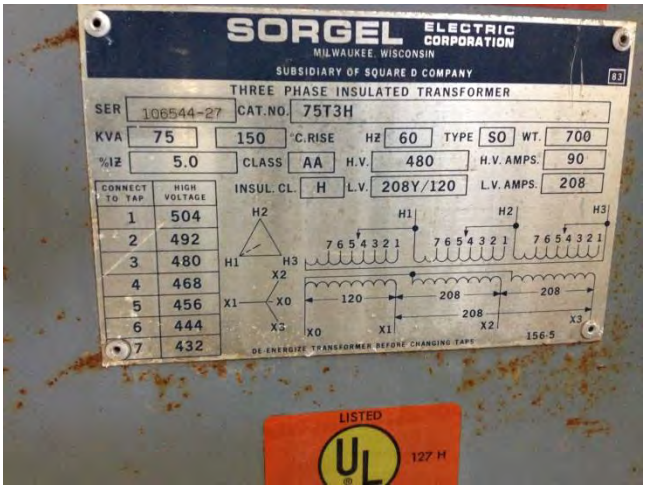
	Photo: Date:	10 6 August 2014 Plating process room interior looking north (grid location A/B5 to A/B 2)
	Photo: Date:	11 6 August 2014 Plating process room excavation area looking south (grid location A4/A3)
	Photo: Date:	12 6 August 2014 Plating process room excavation area (grid location A4/A3)

	Photo: Date:	13 6 August 2014 Plating process room excavation area looking north toward front office (grid location A4 to A2)
	Photo: Date:	14 6 August 2014 Plating process room excavation area looking north toward front office (Grid location A/B4 to A/2)
	Photo: Date:	15 6 August 2014 Front office west side (Grid location A2/A1)

	Photo: Date:	16 6 August 2014 Front office east side (Grid location B2/B1)
	Photo: Date:	17 6 August 2014 Front office equipment along east side wall (Grid location B2)
	Photo: Date:	18 6 August 2014 Electric panel, front office (Grid location B2)

	Photo: Date:	19 6 August 2014 Electric panel, front office (Grid location B2)
	Photo: Date:	20 6 August 2014 Front office empty chromium drums (Grid location B2)
	Photo: Date:	21 6 August 2014 Front office empty potassium cyanide drums (Grid location B2)

Perfection Plating Preliminary Design Investigation Photo Log
Equipment and Materials Inventory and Sampling

PHOTOGRAPH	DESCRIPTION	
	Photo: Date:	1 6 August 2014 Landis
	Photo: Date:	2 6 August 2014 Admiral Buffer
	Photo: Date:	3 6 August 2014 Hydro finisher

	Photo: Date:	4 6 August 2014 Buffalo Drill Press
	Photo: Date:	5 6 August 2014 Yellow Forklift
	Photo: Date:	6 6 August 2014 Orange Forklift

	Photo: Date:	7 6 August 2014 Roots Blower
	Photo: Date:	8 6 August 2014 Dust Collector
	Photo: Date:	9 6 August 2014 Welder

	Photo: Date:	10 6 August 2014 Mag Floor Sweeper
	Photo: Date:	11 6 August 2014 Work Bench
	Photo: Date:	12 6 August 2014 Compressor 1

	Photo: Date:	13 6 August 2014 Compressor 2
	Photo: Date:	14 6 August 2014 Flagger
	Photo: Date:	15 6 August 2014 Cut Off Saw

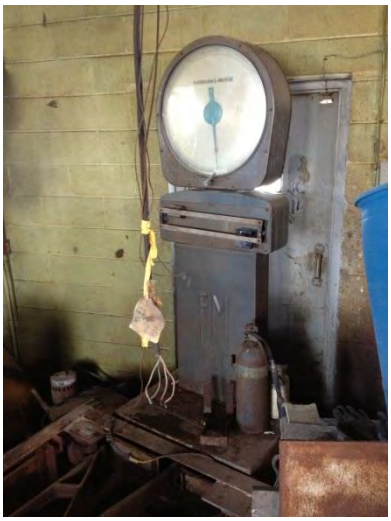
	Photo: Date:	16 6 August 2014 Toledo Scale
	Photo: Date:	17 6 August 2014 Fairbanks Scale
	Photo: Date:	18 6 August 2014 Brake

	Photo: Date:	19 6 August 2014 Shear
	Photo: Date:	20 6 August 2014 Boston Blower
	Photo: Date:	21 6 August 2014 125-hp Motor

Appendix D

Asbestos-Containing Material Survey

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HANSON

VAN VLEET, PLLC

GEOLOGIC & ENVIRONMENTAL CONSULTANTS

September 4, 2019

Mr. Tommy Giamichael
Aztech Environmental Technologies
5 McCrea Hill Road
Ballston Spa, NY 12020

RE: Pre-Demolition Asbestos Survey
911 11th Street
Watervliet, New York

Dear Mr. Giamichael:

Hanson Van Vleet, PLLC conducted a pre-demolition asbestos containing material (ACM) survey of the former Perfection Plating building at 911 11th Street in the City of Watervliet, Albany County, New York (See Figure 1). HVV is authorized by the New York State Department of Labor under license # 05-0220 to perform asbestos inspections, sample collection and surveys. Samples of each type of suspected asbestos containing material (SACM) were collected. All samples were collected by a NYSDOL licensed Class D Inspector, in accordance with 12 NYCRR Part 56. The sampling was conducted on August 1, 2019. A copy of the NYSDOL Asbestos license is attached to this letter.

Methods

Prior to initiating sampling, an on-site walk through inspection of the building was performed in accordance with Subpart 56-5(e) of 12 NYCRR Part 56. Building plans were not available for review. Based on the site inspection, sampling of materials was performed to evaluate for suspect asbestos containing materials (SACM). Bulk samples were collected following standard sampling procedures throughout the entire structure. The samples were placed in double sealed sample bags and delivered by Federal Express to EMSL Analytical for analysis under formal chain of custody procedures. Friable type materials were analyzed by Polarized Light Microscopy (PLM) via the NY State ELAP 198.1 method. Non-organically bound (NOB) materials were analyzed by PLM via NYS method 198.6 NOB. If the NYS method 198.6 NOB was inconclusive, the NOB materials were then analyzed by transient electron microscopy (TEM) via NYS method 198.4 NOB.

Inspection Results

The subject structure is an approximately 6,400 square-foot, single-story building of concrete block construction reported to have been constructed in the early 1960's.

Exterior construction consists of concrete block walls, metal framed windows with glazing, metal doors, aluminum soffits and a membrane roof with tar at edges and overlaps.

902 Route 146
Clifton Park, New York 12065

(518) 371-7940
Fax (518) 371-5885

The interior of the structure contains one office area with adjoining bathroom, and the former plating area and storage areas. Interior construction consists of concrete block walls, floors, and ceilings throughout, with vinyl floor tiles and drop ceilings in the office area.

Bulk samples were collected of the following suspect ACM (SACM) materials identified at the subject structure during the inspection conducted on August 1, 2019.

- Vinyl Floor Tile in Office
- Vinyl Floor Tile Mastic in Office
- Floor Leveling Compound in Office
- Drop Ceiling Tiles in Office
- Window Glazing
- Roofing Tar on Membrane Edges and Overlaps
- Silver Paint on Membrane Roof
- Tar Paper Roofing Underlayment

Asbestos Containing Material Sampling Results

Eighteen samples of six types of suspected ACM were collected for analysis for possible asbestos content. Based on the size of each area, type of construction, and observations, at least three samples of each type of suspect material were collected. The sample locations and results are summarized in Table 1 below. The Analytical results and chain of custody are attached to this letter.

Table 1

Asbestos Sampling Locations and Analytical Results

Sample No.	Type of Material	Location	Result	Approximate Quantity of ACM
1A	**Vinyl Floor Tile**	**Office Floor**	**6.8%**	**300 sq ft**
1A	**Vinyl Floor Tile Mastic**	**Office Floor**	**4.9%**	**300 sq ft**
1B	**Vinyl Floor Tile**	**Office Floor**	**5.6%**	**300 sq ft**
1B	**Vinyl Floor Tile Mastic**	**Office Floor**	**4.9%**	**300 sq ft**
1C	**Vinyl Floor Tile**	**Office Floor**	**6.0%**	**300 sq ft**
1C	**Vinyl Floor Tile Mastic**	**Office Floor**	**6.0%**	**300 sq ft**
2A	**Vinyl Floor Tile**	**Office Floor**	**5.5%**	**300 sq ft.**
2A	**Vinyl Floor Tile Mastic**	**Office Floor**	**6.2%**	**300 sq ft.**
2A	Floor Leveler	Office Floor	None Detected	300 sq ft.
2B	**Vinyl Floor Tile**	**Office Floor**	**4.8%**	**300 sq ft.**
2B	**Vinyl Floor Tile Mastic**	**Office Floor**	**7.0%**	**300 sq ft.**
2C	**Vinyl Floor Tile**	**Office Floor**	**5.0%**	**300 sq ft.**
2C	**Vinyl Floor Tile Mastic**	**Office Floor**	**3.9%**	**300 sq ft.**
3A	Drop Ceiling Tile	Office Ceiling	None Detected	NA
3B	Drop Ceiling Tile	Office Ceiling	None Detected	NA
3C	Drop Ceiling Tile	Office Ceiling	None Detected	NA
4A	Window Glazing	Exterior Windows	None Detected	NA
4B	Window Glazing	Exterior Windows	None Detected	NA
4C	Window Glazing	Exterior Windows	None Detected	NA

5A	**Roofing Tar**	**Edges and Overlaps**	**6.2%**	**1,500 sq ft**
5A	**Silver Paint**	**Roof Membrane**	**Insufficient Material**	**6,400 sq ft**
5B	**Roofing Tar**	**Edges and Overlaps**	**0.039%**	**1,500 sq ft**
5C	**Silver Paint**	**Roof Membrane**	**Insufficient Material**	**6,400 sq ft**
5C	**Roofing Tar**	**Edges and Overlaps**	**1.8%**	**1,500 sq ft**
5D	**Silver Paint**	**Roof Membrane**	**Insufficient Material**	**6,400 sq ft**
5D	**Roofing Tar**	**Edges and Overlaps**	**2.8%**	**1,500 sq ft**
5E	**Silver Paint**	**Roof Membrane**	**6.0%**	**6,400 sq ft**
5E	**Roofing Tar**	**Edges and Overlaps**	**14%**	**1,500 sq ft**
6A	**Roof Tar**	**Roofing Underlayment**	**None Detected**	**NA**
6A	**Tar Paper**	**Roofing Underlayment**	**None Detected**	**NA**
6A	**Paper**	**Roofing Underlayment**	**None Detected**	**NA**
6B	**Roof Tar**	**Roofing Underlayment**	**None Detected**	**NA**
6B	**Tar Paper**	**Roofing Underlayment**	**0.021%**	**NA**
6C	**Roof Tar**	**Roofing Underlayment**	**0.012%**	**NA**
6C	**Tar Paper**	**Roofing Underlayment**	**0.02%**	**NA**
6C	**Paper**	**Roofing Underlayment**	**None Detected**	**NA**

Testing of the suspect asbestos containing materials was performed pursuant to 12 NYCRR Part 56, (Code Rule 56). Materials are identified as ACM if they are found to contain more than 1% asbestos fibers by volume. The results of the asbestos survey identified the following materials as ACM.

- Approximately 300 Square Feet of Vinyl Floor Tile in the Office is Identified as ACM.

- Approximately 300 Square Feet of Vinyl Floor Tile Mastic in the Office is Identified as ACM.

- Approximately 1,500 Square Feet of Roofing Tar at Membrane Edges and Overlaps is Identified as ACM.

- Approximately 6,400 Square Feet of Silver Paint on the Membrane Roofing is Identified as ACM.

Conclusions

The asbestos survey conducted of the subject property identified asbestos containing building materials as summarized above. All ACM identified herein will require abatement by a licensed asbestos abatement contractor in accordance with 12 NYCRR Part 56, (Code Rule 56) prior to any disturbance of the materials or demolition of the structure.

If you have any questions regarding this survey, please contact us at (518) 371-7940.

Very truly yours,
Hanson Van Vleet, PLLC

James Gironda
NYSDOL Class D Inspector Certificate # 07-05263

CC: NYSDOL

HANSON

VAN VLEET, PLLC

HYDROGEOLOGIC CONSULTANTS

Figure 1
Site Location
911 11th Street
Watervliet, New York

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-157170-1
Client Project/Site: Perfection Plating #401037

For:
New York State D.E.C.
625 Broadway 9th Floor
Albany, New York 12233-7258

Attn: George Momberger

Authorized for release by:
8/9/2019 5:47:14 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Judy Stone
Senior Project Manager
8/9/2019 5:47:14 PM

Table of Contents

Case Narrative

Client: New York State D.E.C.
Project/Site: Perfection Plating #401037

Job ID: 480-157170-1

Job ID: 480-157170-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-157170-1

Comments
These samples were shipped directly by the sampler to Eurofins CEI for asbestos analysis. Their report is included here.s

Receipt
The samples were received on 8/6/2019 10:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: New York State D.E.C.
Project/Site: Perfection Plating #401037

Job ID: 480-157170-1

Method	Method Description	Protocol	Laboratory
PLM	Asbestos in Soils	EPA-01	Eurofins

Protocol References:

EPA-01 = "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992.

Laboratory References:

Eurofins = Eurofins CEI Inc, Accounts Payable, 343 W Main St, Leola, PA 17540

Sample Summary

Client: New York State D.E.C.
Project/Site: Perfection Plating #401037

Job ID: 480-157170-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-157170-1	1A - 6C	Solid	08/01/19 00:00	08/02/19 10:00	

eurofins | CEI

August 9, 2019

CLIENT PROJECT: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037
LAB CODE: N190036

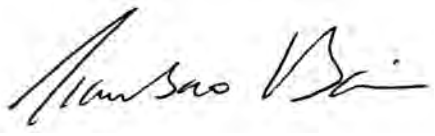
Dear Customer:

Enclosed are asbestos analysis results for Asbestos Bulk samples received at our laboratory on August 6, 2019. The samples were analyzed for asbestos using polarizing light microscopy (PLM) and / or transmission electron microscopy (TEM) by New York State ELAP approved methods.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit varies with the method chosen for the analysis. Eurofins CEI is accredited by the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP), certificate #12048.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director

NVLAP TESTING
NVLAP LAB CODE 101768-0

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ASBESTOS ANALYTICAL REPORT
By: New York State ELAP Method

Prepared for

CLIENT PROJECT:	NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037
LAB CODE:	N190036
TEST METHOD:	NYS ELAP METHODS 198.1, 198.6, 198.4, 198.8 as applicable
REPORT DATE:	08/09/19
TOTAL LAYERS ANALYZED:	36
# LAYERS >1% ASBESTOS:	17

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Asbestos Report Summary

By: NEW YORK STATE METHOD

PROJECT: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

LAB CODE: N190036

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID	Lab ID	Color	Sample Description	Total Asbestos %
1A	N002178A	Brown	Floor Tile	6.8%
	N002178B	Black	Mastic	4.9%
1B	N002179A	Brown	Floor Tile	5.6%
	N002179B	Black	Mastic	4.9%
1C	N002180A	Brown	Floor Tile	6.0%
	N002180B	Black	Mastic	6.0%
2A	N002181A	Tan	Floor Tile	5.5%
	N002181B	Black	Mastic	6.2%
	N002181C	Gray	Leveling Compound	None Detected
2B	N002182A	Tan	Floor Tile	4.8%
	N002182B	Black	Mastic	7.0%
2C	N002183A	Tan	Floor Tile	5.0%
	N002183B	Black	Mastic	3.9%
3A	N002184	Gray	Ceiling Tile	None Detected
3B	N002185	Gray	Ceiling Tile	None Detected
3C	N002186	Gray	Ceiling Tile	None Detected
4A	N002187	White, Tan	Window Glazing	None Detected
4B	N002188	White, Tan	Window Glazing	None Detected
4C	N002189	White, Tan	Window Glazing	None Detected
5A	N002190A	Silver	Paint	Insufficient Material
	N002190B	Black	Roof Tar	6.2%
5B	N002191	Black	Roof Tar	0.039%
5C	N002192A	Silver	Paint	Insufficient Material
	N002192B	Black	Roof Tar	1.8%
5D	N002193A	Silver	Paint	Insufficient Material
	N002193B	Black	Roof Tar	2.8%
5E	N002194A	Silver	Paint	6.0%
	N002194B	Black	Roof Tar	14%
6A	N002195A	Black	Roof Tar	None Detected
	N002195B	Black	Tarpaper	None Detected
	N002195C	Brown	Paper	None Detected
6B	N002196A	Black	Roof Tar	None Detected
	N002196B	Black	Tarpaper	0.021%

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Asbestos Report Summary

By: NEW YORK STATE METHOD

PROJECT: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

LAB CODE: N190036

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID	Lab ID	Color	Sample Description	Total Asbestos %
6C	N002197A	Black	Roof Tar	**0.012%**
	N002197B	Black	Tarpaper	**0.02%**
	N002197C	Brown	Paper	None Detected

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color		
1A N002178A	1 Floor Tile	NOB	Brown	Initial Observations: Matrix	93%
				Method: Final Results: **Total Asbestos:**	**6.8%**
				198.6 Chrysotile	6.8%
N002178B	2 Mastic	NOB	Black	Initial Observations: Matrix	95%
				Method: Final Results: **Total Asbestos:**	**4.9%**
				198.6 Chrysotile	4.9%
1B N002179A	1 Floor Tile	NOB	Brown	Initial Observations: Matrix	94%
				Method: Final Results: **Total Asbestos:**	**5.6%**
				198.6 Chrysotile	5.6%
N002179B	2 Mastic	NOB	Black	Initial Observations: Matrix	95%
				Method: Final Results: **Total Asbestos:**	**4.9%**
				198.6 Chrysotile	4.9%

eurofins | CEI

ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color		
1C N002180A	1 Floor Tile	NOB	Brown	Initial Observations: Matrix	94 %
				Method: Final Results: **Total Asbestos:**	**6.0%**
				198.6 Chrysotile	6.0%
N002180B	2 Mastic	NOB	Black	Initial Observations: Matrix	94 %
				Method: Final Results: **Total Asbestos:**	**6.0%**
				198.6 Chrysotile	6.0%
2A N002181A	1 Floor Tile	NOB	Tan	Initial Observations: Matrix	94 %
				Method: Final Results: **Total Asbestos:**	**5.5%**
				198.6 Chrysotile	5.5%
N002181B	2 Mastic	NOB	Black	Initial Observations: Matrix	94 %
				Method: Final Results: **Total Asbestos:**	**6.2%**
				198.6 Chrysotile	6.2%

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color			
N002181C	3 Leveling Compound	Friable	Gray		Initial Observations:	
					Binder	40%
					Silicates	60%
				Method:	Final Results:	
				198.1 None Detected	**Total Asbestos:**	**None Detected**
2B N002182A	1 Floor Tile	NOB	Tan		Initial Observations:	
					Matrix	95%
				Method:	Final Results:	
					Total Asbestos:	**4.8%**
				198.6		
				Chrysotile	4.8%	
N002182B	2 Mastic	NOB	Black		Initial Observations:	
					Matrix	93%
				Method:	Final Results:	
					Total Asbestos:	**7.0%**
				198.6		
				Chrysotile	7.0%	
2C N002183A	1 Floor Tile	NOB	Tan		Initial Observations:	
					Matrix	95%
				Method:	Final Results:	
					Total Asbestos:	**5.0%**
				198.6		
				Chrysotile	5.0%	

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color			
N002183B	2 Mastic	NOB	Black		Initial Observations: Matrix	96 %
				Method:	Final Results: **Total Asbestos:**	**3.9%**
				198.6 Chrysotile	3.9%	
3A N002184	Ceiling Tile	Friable	Gray		Initial Observations: Fiberglass 75 % Binder	25 %
				Method: **198.1** None Detected	Final Results: **Total Asbestos:**	**None Detected**
3B N002185	Ceiling Tile	Friable	Gray		Initial Observations: Fiberglass 75 % Binder	25 %
				Method: **198.1** None Detected	Final Results: **Total Asbestos:**	**None Detected**
3C N002186	Ceiling Tile	Friable	Gray		Initial Observations: Fiberglass 75 % Binder	25 %
				Method: **198.1** None Detected	Final Results: **Total Asbestos:**	**None Detected**

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color			
4A N002187	Window Glazing	NOB	White, Tan	**Method:** **198.6** Inconclusive - ND **198.4** None Detected	Initial Observations: Matrix Final Results: **Total Asbestos:**	100% **None Detected**
4B N002188	Window Glazing	NOB	White, Tan	**Method:** **198.6** Inconclusive - ND **198.4** None Detected	Initial Observations: Matrix Final Results: **Total Asbestos:**	100% **None Detected**
4C N002189	Window Glazing	NOB	White, Tan	**Method:** **198.6** Inconclusive - ND **198.4** None Detected	Initial Observations: Matrix Final Results: **Total Asbestos:**	100% **None Detected**
5A N002190A Lab Notes: INSUFFICIENT	1 Paint	NOB	Silver	**Method:**	Initial Observations: Final Results: **Total Asbestos:**	 **Insufficient Material**

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color		
N002190B	2 Roof Tar	NOB	Black	Initial Observations: Cellulose 10% Matrix 84%	
				Method:	Final Results: **Total Asbestos: 6.2%**
				198.6 Chrysotile	6.2%
5B N002191	Roof Tar	NOB	Black	Initial Observations: Matrix	100%
				Method:	Final Results: **Total Asbestos: 0.039%**
				198.6 Inconclusive - ND	
				198.4 Chrysotile	0.039%
5C N002192A Lab Notes: INSUFFICIENT	1 Paint	NOB	Silver	Initial Observations: **Method:**	Final Results: **Total Asbestos: Insufficient Material**
N002192B	2 Roof Tar	NOB	Black	Initial Observations: Cellulose 10% Matrix 98%	
				Method:	Final Results: **Total Asbestos: 1.8%**
				198.6 Chrysotile	1.8%

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color		
5D N002193A	1 Paint	NOB	Silver	**Method:**	Initial Observations: Final Results: **Total Asbestos:** **Insufficient Material**
Lab Notes: INSUFFICIENT					
N002193B	2 Roof Tar	NOB	Black	Cellulose 10%	Initial Observations: Matrix 87%
				Method:	Final Results: **Total Asbestos: 2.8%**
				198.6 Chrysotile	2.8%
5E N002194A	1 Paint	NOB	Silver		Initial Observations: Matrix 94%
				Method:	Final Results: **Total Asbestos: 6.0%**
				198.6 Chrysotile	6.0%
N002194B	2 Roof Tar	NOB	Black	Cellulose 10%	Initial Observations: Matrix 76%
				Method:	Final Results: **Total Asbestos: 14%**
				198.6 Chrysotile	14%

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color			
6A N002195A	1 Roof Tar	NOB	Black		Initial Observations: Matrix	100%
				Method:	Final Results:	
					Total Asbestos:	**None Detected**
				198.6 Inconclusive - ND		
				198.4 None Detected		
N002195B	2 Tarpaper	NOB	Black	Cellulose	Initial Observations: 70% Matrix	30%
				Method:	Final Results:	
					Total Asbestos:	**None Detected**
				198.6 Inconclusive - ND		
				198.4 None Detected		
N002195C	3 Paper	Friable	Brown	Cellulose	Initial Observations: 100%	
				Method:	Final Results:	
				198.1 None Detected	**Total Asbestos:**	**None Detected**

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color			
6B N002196A	1 Roof Tar	NOB	Black		Initial Observations: Matrix	100%
				Method:	Final Results: **Total Asbestos:**	**None Detected**
				198.6 Inconclusive - ND		
				198.4 None Detected		
N002196B	2 Tarpaper	NOB	Black		Initial Observations:	
				Cellulose	70% Matrix	30%
				Method:	Final Results: **Total Asbestos:**	**0.021%**
				198.6 Inconclusive - ND		
				198.4 Chrysotile	0.021%	
6C N002197A	1 Roof Tar	NOB	Black		Initial Observations: Matrix	100%
				Method:	Final Results: **Total Asbestos:**	**0.012%**
				198.6 Inconclusive - ND		
				198.4 Chrysotile	0.012%	

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ASBESTOS BULK ANALYSIS

By: NEW YORK STATE METHOD

Client:

Lab Code: N190036
Date Received: 08-06-19
Date Analyzed: 08-09-19
Date Reported: 08-09-19

Project: NYSDEC - Perfection Planting 402037, 48019790 DEC Site 401037

ASBESTOS BULK, NEW YORK STATE METHODS

Client ID / Lab ID	Layer Number / Lab Description	Category	Color			
N002197B	2 Tarpaper	NOB	Black	Cellulose	Initial Observations: 70% Matrix	30%
				Method:	Final Results:	
					Total Asbestos:	**0.02%**
				198.6 Inconclusive - ND		
				198.4 Chrysotile	0.02%	
N002197C	3 Paper	Friable	Brown	Cellulose	Initial Observations: 100%	
				Method:	Final Results:	
				198.1 None Detected	**Total Asbestos:**	**None Detected**

LEGEND

Non-Anth	= Non-Asbestiform Anthophyllite
Non-Trem	= Non-Asbestiform Tremolite
Calc Carb	= Calcium Carbonate
NOB	= Non-Friable Organically Bound
SM-V	= Surfacing Material Containing Vermiculite

GLOSSARY OF TERMS

Inconclusive - ND	=	PLM is not consistently reliable in detecting asbestos in floor coverings and other NOB materials. Currently, quantitative TEM must be used to determine if this material can be considered or treated as non-asbestos containing.
Inconclusive - CR	=	Conflicting Results: Sample yielded 1% or less asbestos as determined by gravimetric reduction and TEM analysis but had protruding fibers identified as asbestos during preliminary examination - further sampling and analysis needed.
Inconclusive - Trace	=	Asbestos identified at 1% or less by the 198.6 method, and 0 asbestos points out of 400 (or more) nonempty points were counted. Further testing by TEM using NYS 198.4 method is required.
Trace	=	For methods 198.1 and 198.8, NYSDOH defines trace as samples where 0 asbestos points out of 400 (or more) nonempty points were counted, but did contain asbestos positively identified by PLM.
Trace	=	For method 198.4 NYSDOH defines trace as asbestos detected at 1% or less.

METHODS / REPORTING LIMITS

New York State Department of Health (NYS DOH) Environmental Laboratory Approval Program (ELAP)

NYELAP 198.1	0.25% by Volume
NYELAP 198.6	Varies with the weight and constituents of sample (≤ 0.25% by Volume)
NYELAP 198.4	*Varies with the weight and constituents of sample (≤ 1% by Volume)*
NYELAP 198.8	*Varies with the weight and constituents of sample (≤ 0.25% by Volume)*

REGULATORY LIMIT: *> 1% by weight*

DISCLAIMERS:

Reported asbestos content verifiable only as the percentage of asbestos in residue submitted to laboratory. Samples with inconclusive results must not be interpreted as being non-ACM.

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the customer. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP, NYSDOH or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

ANALYST(S):

Greg Ruff - 198.1/.6

Amanda Rucinski - 198.4

NVLAP TESTING
NVLAP LAB CODE 101768-0

APPROVED BY

Tianbao Bai, Ph.D., CI
Laboratory Director

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CHAIN OF CUSTODY

730 SE Maynard Road, Cary, NC 27511
Tel: 866-481-1412; Fax: 919-481-1442

LAB USE ONLY:	
ECEI Lab Code:	N190036 ~~N002176~~
ECEI Lab I.D. Range:	N002178-N002197

COMPANY INFORMATION	PROJECT INFORMATION
ECEI CLIENT #:	Job Contact: Tom Giamichael (Aztech/NYSDEC)
Company: Hansen Van Vleet, LLC	Email / Tel: tgiamichael@aztechenv.com (518-337-7635)
Address: 902 NY-146, Clifton Park, NY 12065	Project Name: NYSDEC - Perfection Plating#401037
	Project ID#: 48019790 DEC Site#401037
Email: jgironda@hansonvanvleet.com	PO #: Callout ID: 136401
Tel: 518-605-8676 Fax:	STATE SAMPLES COLLECTED IN: New York

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK (FRIABLE)	NYSDOH ELAP 198.1	☐	☐	☐	☐	☒	☐
PLM BULK (NOB)	NYSDOH ELAP 198.6		☐	☐	☐	☒	☐
TEM BULK (NOB)	NYSDOH ELAP 198.4		☐	☐	☐	☒	☐
PLM SOF-VERMICULITE	NYSDOH ELAP 198.8				☐	☐	☐
PLM/TEM BULK (NOB)	NY ELAP 198.6/198.4		☐	☐	☐	☒	☐
PCM AIR	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM AIR	ISO 10312	☐	☐	☐	☐	☐	☐
TEM AIR	ASTM 6281-15	☐	☐	☐	☐	☐	☐
TEM AIR (PCME)	ISO 10312		☐	☐	☐	☐	☐
TEM DUST WIPE	ASTM D6480-05 (2010)	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09 (2014)	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-16			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
TEM QUALITATIVE	IN-HOUSE METHOD		☐	☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

REMARKS / SPECIAL INSTRUCTIONS: **Bill Direct to NYSDEC, Judy Stone (judy.stone@testamericainc.com) is the lab PM for DEC and should handle billing. Call Tom Giamichael at 518-337-7635 with any questions. Please email results to both tgiamichael@aztechenv.com and jgironda@hansonvanvleet.com**

☒ Accept Samples
☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
	08/01/19 / 1200	FG	8/6/19 9:20

1) Samples will be disposed of 60 days after analysis; A minimum of 10 grams of sample is required for SOF-V analysis.

2) By submitting samples, you are agreeing to ECEI's Terms and Conditions.

N190036

3) ECEI will reject any NY PCM projects that do not have at least 2 field blanks or 10% of the total number of samples in the batch, whichever is greater.

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SAMPLING FORM

~~N00~~ N190036

COMPANY CONTACT INFORMATION	
Company: Hansen Van Vleet, LLC	Job Contact: Tom Giamichael / Jamie Gironda
Project Name: NYSDEC - Perfection Plating# 401037	
Project ID #: 48019790 DEC Site#401037	Tel: 518-337-7635 / 518-605-8676

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
1A	Vinyl Tile / Office	175 sq ft	PLM ☐	TEM ☒
1B	Vinyl Tile / Office	175 sq ft	PLM ☐	TEM ☒
1C	Vinyl Tile / Office	175 sq ft	PLM ☐	TEM ☒
2A	Vinyl Tile Mastic / Office	175 sq ft	PLM ☐	TEM ☒
2B	Vinyl Tile Mastic / Office	175 sq ft	PLM ☐	TEM ☒
2C	Vinyl Tile Mastic / Office	175 sq ft	PLM ☐	TEM ☒
3A	Drop Ceiling Tile / Office	175 sq ft	PLM ☒	TEM ☐
3B	Drop Ceiling Tile / Office	175 sq ft	PLM ☒	TEM ☐
3C	Drop Ceiling Tile / Office	175 sq ft	PLM ☒	TEM ☐
4A	Window Glazing / Windows Throughout	250 lin ft	PLM ☐	TEM ☒
4B	Window Glazing / Windows Throughout	250 lin ft	PLM ☐	TEM ☒
4C	Window Glazing / Windows Throughout	250 lin ft	PLM ☐	TEM ☒
5A	Roofing Tar / Roof	450 sq ft	PLM ☐	TEM ☒
5B	Roofing Tar / Roof	450 sq ft	PLM ☐	TEM ☒
5C	Roofing Tar / Roof	450 sq ft	PLM ☐	TEM ☒
5D	Roofing Tar / Roof	450 sq ft	PLM ☐	TEM ☒
5E	Roofing Tar / Roof	450 sq ft	PLM ☐	TEM ☒
6A	Roofing Tar Paper / Roof	450 sq ft	PLM ☐	TEM ☒
6B	Roofing Tar Paper / Roof	450 sq ft	PLM ☐	TEM ☒
6C	Roofing Tar Paper / Roof	450 sq ft	PLM ☐	TEM ☒
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐
			PLM ☐	TEM ☐

Page 1 of 1

N190036

Nickolas Rouse

From: Courtney Dabill
Sent: Monday, August 5, 2019 4:29 PM
To: Nickolas Rouse
Subject: FW: COC - Perfection Plating samples for asbestos
Attachments: Chain-of-Custody - Perfection Plating.pdf

From: Carly Johnson
Sent: Monday, August 05, 2019 4:28 PM
To: Courtney Dabill
Subject: FW: COC - Perfection Plating samples for asbestos

Hey there,

FYI for when this project is received. It's supposed to be logged in under TA. I let her know that she should check when her client to see when they need the results because it sounds like the TAT might change?

Thanks!

Carly Johnson
Senior Director, Business Development

Eurofins CEI
730 SE Maynard Road
Cary, NC 27511

Office: 919-481-1413
Cell: 919-522-0745

CarlyJohnson@EurofinsUS.com
www.eurofinsus.com/cei

From: Stone, Judy [Judy.Stone@testamericainc.com]
Sent: Monday, August 05, 2019 4:13 PM
To: Carly Johnson
Subject: FW: COC - Perfection Plating samples for asbestos

EXTERNAL EMAIL*

Carly – I thought that they were sending this to your lab earlier last week, but it appears that they may have just shipped them on 8/1/19 based on the signature on the chain of custody form – attached.

Can you check to see if you received these yet? Then when they are logged in, please send me the receipt confirmation. The final report and invoice should also come to my attention.

I noticed that they marked a 3 day TAT. If this is a rush TAT and carries a surcharge, let me know ASAP so I can confirm that they are OK with the additional charges. Gotta love clients who sit on samples and then want the lab to rush to cover their butts. ☺

Company: Hansen Van Vleet, LLC	Email / Tel: tgiamichael@aztechenv.com (518-337-
Address: 902 NY-146, Clifton Park, NY 12065	Project Name: NYSDEC - Perfection Plating#40103
	Project ID#: 48019790 DEC Site#401037
Email: jgironda@hansonvanvleet.com	PO #: Callout ID: 136401
Tel: 518-605-8676 Fax:	STATE SAMPLES COLLECTED IN: New Yo

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	
PLM BULK (FRIABLE)	NYSDOH ELAP 198.1	☐	☐	☐	☐	☒	☐
PLM BULK (NOB)	NYSDOH ELAP 198.6		☐	☐	☐	☒	☐
TEM BULK (NOB)	NYSDOH ELAP 198.4		☐	☐	☐	☒	☐
PLM SOF-VERMICULITE	NYSDOH ELAP 198.8				☐	☐	☐
PLM/TEM BULK (NOB)	NY ELAP 198.6/198.4		☐	☐	☐	☒	☐
PCM AIR	NIOSH 7400	☐	☐	☐	☐	☐	☐
TEM AIR	EPA AHERA	☐	☐	☐	☐	☐	☐
TEM AIR	NIOSH 7402	☐	☐	☐	☐	☐	☐
TEM AIR	ISO 10312	☐	☐	☐	☐	☐	☐
TEM AIR	ASTM 6281-15	☐	☐	☐	☐	☐	☐
TEM AIR (PCME)	ISO 10312		☐	☐	☐	☐	☐
TEM DUST WIPE	ASTM D6480-05 (2010)	☐	☐	☐	☐	☐	☐
TEM DUST MICROVAC	ASTM D5755-09 (2014)	☐	☐	☐	☐	☐	☐
TEM SOIL	ASTM D7521-16			☐	☐	☐	☐
TEM VERMICULITE	CINCINNATI METHOD			☐	☐	☐	☐
TEM QUALITATIVE	IN-HOUSE METHOD		☐	☐	☐	☐	☐
OTHER:		☐	☐	☐	☐	☐	☐

REMARKS / SPECIAL INSTRUCTIONS: **Bill Direct to NYSDEC, Judy Stone (judy.stone@testamericainc.com) is the lab PM for DEC and should handle billing. Call Tom Giamichael at 518-337-7635 with any questions. Please email results to both tgiamichael@aztechenv.com and jgironda@hansonvanvleet.com**

☐ Accept Samples

☐ Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
Steven Stokes	08/01/19 / 1100		

1) Samples will be disposed of 60 days after analysis; A minimum of 10 grams of sample is required for SOF-V analysis.

2) By submitting samples, you are agreeing to ECEI's Terms and Conditions.

VERSION NYCOC.07.18
Customer COC

Project ID #: 48019790 DEC Site#401037 | Tel: 518-337-7635 / 518-605-8676

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
1A	Vinyl Tile / Office	175 sq ft	PLM [X]	TEM [ ]
1B	Vinyl Tile / Office	175 sq ft	PLM [X]	TEM [ ]
1C	Vinyl Tile / Office	175 sq ft	PLM [X]	TEM [ ]
2A	Vinyl Tile Mastic / Office	175 sq ft	PLM [X]	TEM [ ]
2B	Vinyl Tile Mastic / Office	175 sq ft	PLM [X]	TEM [ ]
2C	Vinyl Tile Mastic / Office	175 sq ft	PLM [X]	TEM [ ]
3A	Drop Ceiling Tile / Office	175 sq ft	PLM [ ]	TEM [X]
3B	Drop Ceiling Tile / Office	175 sq ft	PLM [ ]	TEM [X]
3C	Drop Ceiling Tile / Office	175 sq ft	PLM [ ]	TEM [X]
4A	Window Glazing / Windows Throughout	250 lin ft	PLM [X]	TEM [ ]
4B	Window Glazing / Windows Throughout	250 lin ft	PLM [X]	TEM [ ]
4C	Window Glazing / Windows Throughout	250 lin ft	PLM [X]	TEM [ ]
5A	Roofing Tar / Roof	450 sq ft	PLM [X]	TEM [ ]
5B	Roofing Tar / Roof	450 sq ft	PLM [X]	TEM [ ]
5C	Roofing Tar / Roof	450 sq ft	PLM [X]	TEM [ ]
5D	Roofing Tar / Roof	450 sq ft	PLM [X]	TEM [ ]
5E	Roofing Tar / Roof	450 sq ft	PLM [X]	TEM [ ]
6A	Roofing Tar Paper / Roof	450 sq ft	PLM [X]	TEM [ ]
6B	Roofing Tar Paper / Roof	450 sq ft	PLM [X]	TEM [ ]
6C	Roofing Tar Paper / Roof	450 sq ft	PLM [X]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]
			PLM [ ]	TEM [ ]

Page 1 of

VERSION NYCOC.07.18
Customer COC

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-157170-1

Login Number: 157170
List Number: 1
Creator: Stone, Judy L

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background		
The cooler's custody seal, if present, is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the sample IDs on the containers and the COC.		
Samples are received within Holding Time (Excluding tests with immediate HTs)..		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.		
If necessary, staff have been informed of any short hold time or quick TAT needs		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Sampling Company provided.		
Samples received within 48 hours of sampling.		
Samples requiring field filtration have been filtered in the field.		
Chlorine Residual checked.		

New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

ASBESTOS HANDLING LICENSE

Hanson Van Vleet, LLC

902 Route 146

Clifton Park, NY 12065

FILE NUMBER: 05-0220
LICENSE NUMBER: 28463
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 03/14/2019
EXPIRATION DATE: 03/31/2020

Duly Authorized Representative – James Gironda:

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Eileen M. Franko, Director
For the Commissioner of Labor

SH 432 (8/12)

STATE OF NEW YORK - DEPARTMENT OF LABOR
ASBESTOS CERTIFICATE

N.Y.S

JAMES J GIRONDA
CLASS(EXPIRES)
D INSP(11/19)

CERT# 07-05263
DMV# 476148045

MUST BE CARRIED ON ASBESTOS PROJECTS

Appendix E

Geophysical Survey

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NYLD **Infrastructure**

NEW YORK LEAK DETECTION, INC.
PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

Date(s) on site: 7-15-19

Technician: Steve Carney **Other Technicians on site:**

Customer: EA Engineering Science & Technology

Site Address: Intersection of: 12th Street & 8th Avenue, Watervliet, NY

Contact Person: Mike Wright **Phone:** 315-694-2436

Scope of Work: Utility Location Services -- UL needed prior to building demolition.

Type of Service: *mark all that apply*

☐ *Leak Detection*	☐ *Comprehensive Leak Survey*	☐ *Pressurized Pipe Inspection*
☐ *Infrastructure Assessment*	☒ *Utility Location/GPR*	☐ *Utility Mapping/AutoCAD*
☐ *EM Survey*	☐ *Video Inspection*	☐ *Valve Exercising*

Type of Equipment Used: *mark all that apply*

☐ *Profiler EMP 400*	☒ *RD8000 Pipe & Cable Locator*	☐ *MetroTech vLocPro2*
☐ *LC2500 Leak Correlator*	☒ *Noggin 250 MHz*	☐ *PosiTector UTG G3*
☐ *S-30 Surveyor*	☐ *Noggin 500 MHz*	☐ *Video Inspection Camera*
☒ *Sonde / Locatable Rodder*	☐ *Conquest 1000 MHz*	☐ *Helium # Bottles*
☐ *Leica Robotic Total Station*	☐ *Leica RTK GPS*	☐ *JD7 Investigator*
☐ *Valve Maintenance Trailer*	☐ *Thermal Imaging Camera*	☐ *ZCorr Data Loggers*

Marking Used: *mark all that apply*

☒ *Paint*	☒ *Flags*	☐ *Chalk/Marker*
☐ *Tape*	☐ *Updated Onsite Mapping*	☐ *Other* _____

NYLD **Infrastructure**

NEW YORK LEAK DETECTION, INC.
PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

Site Access/Safety Training: N/A **Expiration Date:** N/A

Ground Cover/Weather Conditions: Clear / 80's

Instructions from Onsite Contact: Utility Location Services -- UL needed prior to building demolition.

Information Transfer:

In addition to this field report, mark all that apply:

☒ *Information relayed on site to:*

Joe

☐ *Hand drawn sketch*

☐ *Maps updated onsite*

☐ *Photographs*

☐ *Surveyed by others*

☐ *Surveyed and AutoCAD Mapping by NYLD*

Notes/Testing Results:

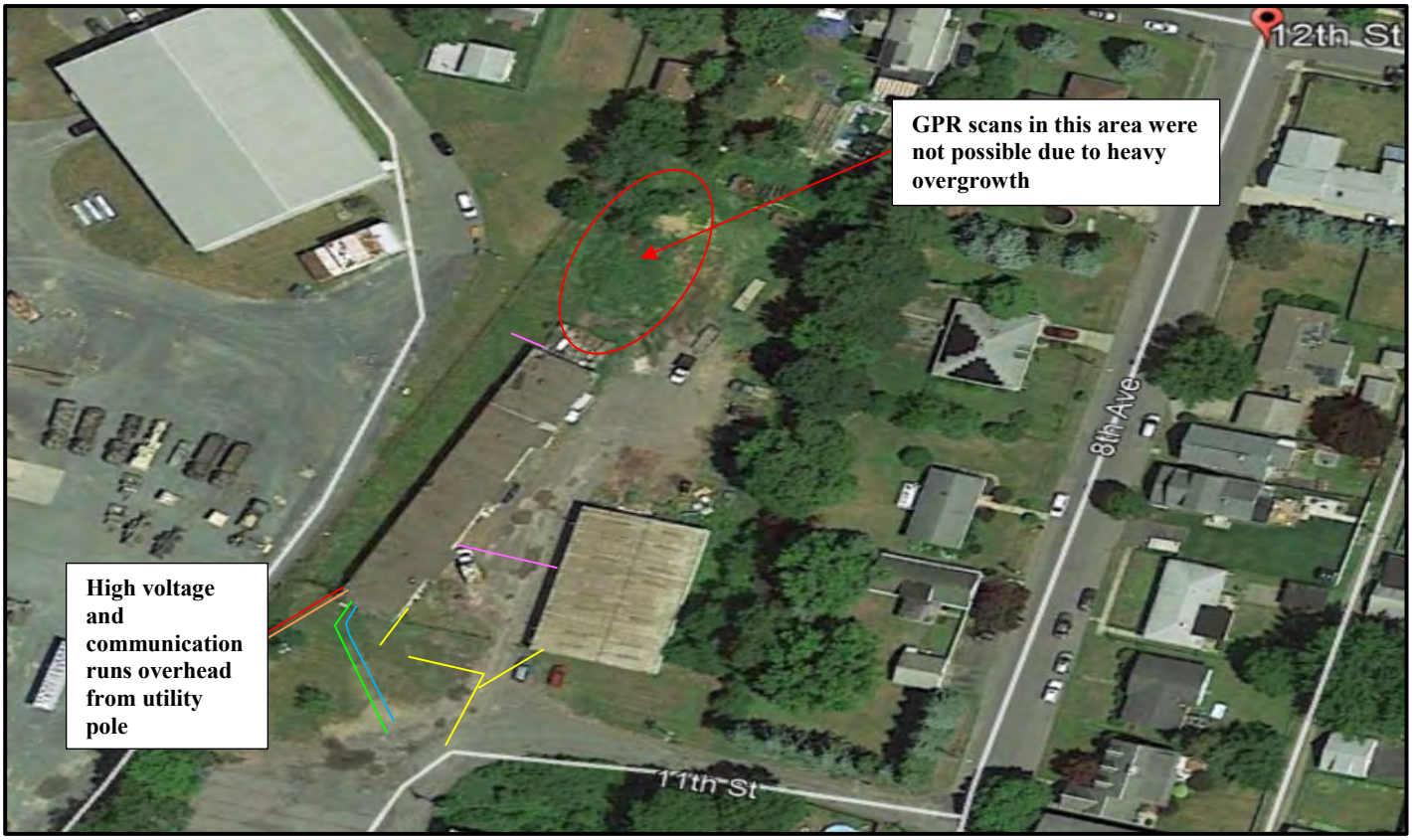
A visual inspection was performed in the area of concern to assess for utility structures. Utilizing the RD8000 in conductive, inductive, and power/radio modes, located and marked out utilities as shown in the area below. Sonde/Locatable Rodder was used within applicable utilities. Additional confirmation performed with the Noggin using the 250 and/or 500 MHz antenna. GPR signal reception varies depending upon soil conditions. Therefore, it is utilized in combination with various other geophysical tools for the most accurate verification of known/unknown utilities and/or structures. High voltage and communication ran overhead from utility pole Utilities were painted in appropriate color, marked with flags and paint.

This report is back up to information relayed and marked on site at time of service. It is for informational purposes only.

NYLD Infrastructure

NEW YORK LEAK DETECTION, INC.
PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location



NYLD Infrastructure

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PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

NYLD **Infrastructure**

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PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

Key

Blue	Water
Red	Power
Orange	Communications
Yellow	Gas/Flammable Fuel
Pink	Unknown
Green	Storm/Sanitary

NYLD Infrastructure

NEW YORK LEAK DETECTION, INC.
PO Box 269, Jamesville, NY 13078
315-469-4601 info@nyld.com

Field Report – Utility Location

Subsurface Limitations

Utility locating is the art and science of using non-intrusive methods to search for, find and mark out buried, unseen conduits or other objects. There are innumerable variables involved in locating underground utilities, such as topography, size and complexity of job site, depth and proximity of buried utilities, above ground obstructions, short turnaround schedules, changes in the scope of work, lack of (or outdated) blueprints and adverse weather conditions.

New York Leak Detection, Inc. (NYLD) has made a substantial financial investment in crossover technologies and training to meet our clients' needs when locating and mapping utilities. However, due to unpredictable factors that may affect the results, NYLD makes no guarantee, expressed or implied, with respect to the completeness or accuracy of the information provided. Any use or reliance on the information or opinion is at the risk of the user and NYLD shall not be liable for any damage or injury arising out of the use or misuse of the information provided.

NYLD strives to provide the highest quality utility location services possible with the technical expertise of our field specialists and state-of-the-art equipment used. Every effort is made to provide our clients with the most accurate information possible without adverse consequences.

NYLD makes no guarantee that all subsurface utilities and obstructions will be detected. GPR signal penetration might not be sufficient to detect all utilities. NYLD is not responsible for detecting subsurface utilities and obstructions that normally cannot be detected by the methods employed or that cannot be detected because of site conditions. NYLD is not responsible for maintaining mark-outs after leaving the work area. Mark-outs made in inclement weather and in high traffic areas may not last. Surveyor assumes responsibility of picking up data on site.

Appendix F

Site Survey

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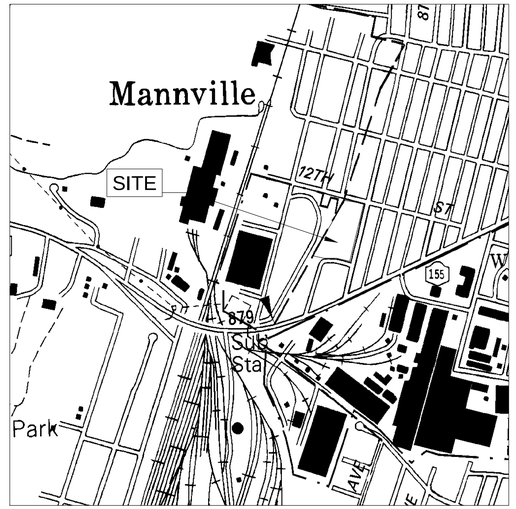
TRUE NORTH AT THE 74°30'
MERIDIAN OF WEST LONGITUDE



LOCATION MAP
NOT TO SCALE

LEGEND

- BENCHMARK
- CONTROL BASELINE
- GATE VALVE
- ELECTRIC METER
- UTILITY POLE
- DECIDUOUS TREE
- SINGLE POST SIGN
- BOLLARD
- GUY WIRE
- CLEANOUT
- MAILBOX
- GAS MARKER
- LIGHT POST
- BUILDING LINE
- SPOT ELEVATION (+48.0)
- MINOR CONTOUR (49)
- MAJOR CONTOUR (50)
- WOODS LINE
- SANITARY LINE (SS)
- OVERHEAD POWER LINE (OP)
- OVERHEAD COMM. LINE (OCM)
- GAS LINE (G)
- WATER LINE (W)
- CHAIN LINK FENCE
- WOOD FENCE
- APPROX. PROPERTY LINE

30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

DEED REFERENCE:

1. CHARLES H. ESSEPIAN TO 911-11TH ST. CAT CORP, DATED FEBRUARY 11, 2016, AND FILED IN THE ALBANY COUNTY CLERK'S OFFICE ON FEBRUARY 19, 2016 IN INST. # R2016-3801.

MAP REFERENCE

1. SURVEY MAP TITLED "MONITOR WELL SURVEY OF NYSDEC – PERFECTION PLATING SITE", PREPARED BY MJ ENGINEERING AND LAND SURVEYING, DATED AUGUST 6, 2014, MJ JOB NUMBER 632.06

GENERAL NOTES

1. BOUNDARY INFORMATION DERIVED FROM TAX LOT LINES USING DEED REFERENCES AND DIGITAL TAX MAP.
2. HORIZONTAL DATUM REFERS TO THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE) NAD 83 (CORS 2011) IN U.S. SURVEY FEET
3. VERTICAL DATUM REFERS TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). ELEVATIONS ESTABLISHED ON SITE BY GPS METHODS.
4. INFORMATION SHOWN HEREON IS SHOWN FROM A FIELD SURVEY COMPLETED BY M.J. ENGINEERING AND LAND SURVEYING, P.C. ON AUGUST 6, 2019.
5. UNDERGROUND UTILITIES SHOWN HERON ARE BASED ON SURFACE EVIDENCE AND INFORMATION RECORDED DURING CONVENTIONAL SURVEY METHODS. THIS MAPPING DOES NOT PURPORT TO SHOW ALL UNDERGROUND UTILITIES ON SITE AND IS SUBJECT TO FIELD VERIFICATION.
6. UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS MAP IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYORS SEAL AND SIGNED WITH INK SHALL NOT BE CONSIDERED TO BE VALID COPIES.
7. SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE. SURVEY IS SUBJECT TO ANY INFORMATION THAT AN UP TO DATE TITLE REPORT MAY DISCLOSE

SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE

PROJ. MANAGER:	JM
CHIEF DESIGNER:	
DESIGNED BY:	
DRAWN BY:	JDK
CHECKED BY:	MJF

DATE

DATE

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

TOPOGRAPHIC SURVEY OF
NY DEC - PERFECTION PLATING SITE
911 11TH STREET
THE CITY OF WATERVLIET
PREPARED FOR: EA SCIENCE AND TECHNOLOGY
ALBANY COUNTY NEW YORK

SCALE: 1" = 30'
CONTRACT No.:
MJ PROJ. No.: 632.06
DATE: 08/28/2019

1 OF 1

File Name: G:\MJ632 NYSDEC D007624 DEC 7 year contract - EA\632.06- Perfection Plating\Cad\080619_Topo\MJ632.06_080619.dwg (Layout: Layout1)
Date: Wed, Aug 28, 2019 - 10:58 AM (Name: jkayser)

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