

**SPECTRUM FINISHING CORP. SITE
SUFFOLK COUNTY
WEST BABYLON, NEW YORK**

SITE MANAGEMENT PLAN

ADDENDUM NO. 1

**NYSDEC Site No. 152029
Work Assignment No. D009812-04.1**

Prepared for:
New York State
Department of Environmental Conservation

Prepared by:
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Revisions to Final August 2010 Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date
1	March 2024	Inclusion of Deed Restriction. Reclassification to Class 4 IHWDS. Reduction in frequency of groundwater sampling to every 15 months, site inspection to annually, and periodic review reporting to every five years. Elimination of VOC analysis for groundwater. Removal of six monitoring wells from sampling network.	

March 2024

**ADDENDUM NO. 1 TO SITE MANAGEMENT PLAN
SPECTRUM FINISHING CORP. SITE
NYSDEC SITE NO. 152029
SUFFOLK COUNTY
WEST BABYLON, NEW YORK**

1.0 CERTIFICATION STATEMENT

I, Anthony Raposo, affirm that I am a Qualified Environmental Professional as described in 6 NYCRR Part 375 and that this Site Management Plan Addendum was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

105387

NYS Professional Engineer
License No.

3/19/2024

Date



2.0 SITE MANAGEMENT SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by the Site Management Plan.

Site Identification: Site No. 152029 Spectrum Finishing Corp. Site

Institutional Controls:	1. All Engineering Controls (ECs) must be inspected, operated, maintained, and certified at a frequency and in a manner defined in the SMP.
	2. Groundwater, soil vapor and other environmental or public health monitoring must be performed as defined in the SMP.
	3. Data and information pertinent to the site management for the Controlled Property must be reported at the frequency and in manner defined in the SMP.
	4. On-site environmental monitoring devices, including but not limited to groundwater monitoring wells must be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP.
	5. Compliance with the SMP is required by the Declaration of Covenants and Restrictions Deed Restriction (2011) and the Declarant's successors and assigns.
	6. A composite cover system, consisting of concrete building foundation, concrete sidewalks, topsoil cover and recycled concrete aggregate surfaces in areas not covered with the building, and asphalt parking surfaces must be inspected, certified, operated, and maintained as required by the SMP.
	7. ECs may not be discontinued without an amendment or extinguishment of the Declaration of Covenants and Restriction Deed Restriction (2011) and without obtaining approval from the NYSDEC.
	8. Vegetable gardens, residence (single and multi-family homes), and farming on the Controlled Property are prohibited.
	9. Use of groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for the intended use. Approval by New York State Department of Health (NYSDOH) must be obtained prior to sch intended use.



Institutional Controls:	10. All future activities on the Controlled Property that will disturb residual contaminated material (any soil/fill material below the cover systems) are prohibited unless they are conducted in accordance with the soil management provisions in the SMP.
	11. The Controlled Property may be used for commercial and industrial use only, provided the long-term ECs/ICs included in the SMP remain in use.
	12. The topsoil and RCA cover, asphalt-paved surfaces, concrete surfaces and any buildings themselves, act as a cover system at the Controlled Property. Disturbances and incidental damage to these cover systems shall be repaired upon discovery in a manner that complies with the SMP. If the type of cover system changes from that which existed prior to disturbances or incidental damage, the cover system must be implemented as required in the SMP.
	13. Any new buildings constructed on the Controlled Property must be constructed with a vapor barrier or vapor mitigation system prior to occupancy. The vapor mitigation system shall be operated and maintained until such time as the NYSDEC and the NYSDOH deems it is no longer needed.
	14. The property is classified as a Class 4 inactive hazardous waste disposal site.
	15. A Deed Restriction for the site was recorded with the Suffolk County Clerk's Office on March 1, 2011.
Engineering Controls	1. Perimeter Fencing
	2. Cover System
Site Management Activities	
Frequency	
<i>Inspections</i>	
Site Inspection	Annually
<i>Monitoring</i>	
Groundwater	Every 15 Months
<i>Reporting</i>	
Groundwater	Annually
Site Inspection	Bi-Annually
Periodic Review Report	Every Five years

3.0 SMP REVISIONS

This Addendum has been prepared in accordance with the provisions in Section 1.1.3 of the August



2010 Site Management Plan (SMP) for the Spectrum Finishing Corp. site. The SMP revisions specified herein were proposed by TRC in the March 2023 Periodic Review Report (PRR) and approved by the NYSDEC's project manager on March 23, 2023. The approved SMP revisions are presented below. New and/or modified tables, figures, and/or appendices, as applicable, are attached to this Addendum. This Addendum is hereby made a part of the August 2010 SMP for the Spectrum Finishing Corp. site and is effective as of March 19, 2024. The August 2010 SMP and any previously issued addenda remain in full force and effect, except as modified by this Addendum.

1. 1.1.2 Purpose

The Site contains contamination left after completion of the remedial action. Engineering Controls have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of the public health and the environmental. **A Deed Restriction requiring compliance with this SMP and ALL ECs and ICs placed on the Site was recorded with the Suffolk County Clerk on March 1, 2011 and is included as Appendix E.** The ICs place restrictions on Site use, and mandate maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies that methods necessary to ensure compliance with all ECs and ICs required by the Deed Restriction for contamination that remains at the Site. This plan has been approved by the NYSDEC and compliance with this plan is required by the Declarant of the Deed Restriction and the Declarant's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all ECs and ICs; (2) media monitoring; and (3) performance of periodic inspections, certifications of results, and submittal of Periodic Review Reports.

To address these needs, this SMP includes two plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; and (2) a Monitoring Plan for implementation of Site Monitoring.



This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC. It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Deed Restriction. Failure to properly implement the SMP is a violation of the Deed Restriction, which is grounds for revocation of the Release and Covenant Not to Sue;
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the ROD for the Site, and thereby subject to applicable penalties.

2. 3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria;
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Annual monitoring of the performance of the remedy and overall reduction in contamination on-site and off-site will be conducted for the first 5 years. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in groundwater in the affected areas will be evaluated



to determine if the remedy continues to be effective in achieving remedial goals. Monitoring program is as follows and outlined in detail in Sections 3.2 and inspection program in Section 3.3 below.

Monitoring Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Groundwater	Every 15 Months	Water	VOCs – EPA 8260B Metals – EPA SOW OLM4.2 PFAS – EPA 1633

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

3. 3.3.1 Groundwater Monitoring

Groundwater monitoring will be performed on an every 15 months basis to assess the performance of the remedy. The existing network of monitoring wells will be used to monitor both up-gradient and down-gradient groundwater conditions at the Site. The network of on-site and off-site wells is shown on Figure 2 in the shallow and intermediate aquifers. The groundwater flow direction is to south/southeast as shown on Figure 2. The following monitoring wells will be sampled every 15 months and analyzed for the parameters outlined above; Shallow Wells MW-1S, MW-2S, ~~MW-3S~~, MW-4S, MW-6S, MW-7S, ~~MW-9S~~, ~~MW-11S~~, MW-12S and MW-14S; Intermediate wells MW-1D1, MW-2D, ~~MW-3D~~, ~~MW-4D~~, ~~MW-5D1~~, MW-6D1, MW-7D1, MW-12D1, and MW-14D1 and the two sentinel wells.

The sampling frequency may be modified with the approval NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC. Deliverables for the groundwater monitoring program are specified below.



4. 3.4 Site-wide Inspection

A site-wide inspection will be performed annually ~~during the groundwater monitoring program~~ and documented in the field book. The inspection will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Confirm that site records are up to date.

5. 3.6 Monitoring Reporting Requirements

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-site. Any forms or other relevant reporting formats used during the monitoring/inspection events will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. The report will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and



- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. The monitoring and inspection program Periodic Review Report schedule is as follows.

Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Groundwater Sampling	Every 15 Months
Site-wide Inspection	Bi -Annual

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC

6. 4.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan of this SMP. At a minimum, a site-wide inspection will be conducted ~~bi~~ annually.

7. 4.3 Periodic Review Report

A Periodic Review Report will be submitted to the NYSDEC **once every five years**, beginning 18 months after the Final Engineering Report was issued. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in Appendix A (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 90 days of the end of each certification period. Media sampling results will also **be** incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site;
- Results of the required annual site inspections;
- All applicable inspection notes and other records generated for the Site during the reporting period in electronic format;



- Data summary tables and graphical representations of contaminants of concern by media (groundwater), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A site evaluation, which includes the following:
 - The compliance of the remedy with the requirements of the site-specific ROD;
 - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
 - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
 - Comments, conclusions, and recommendations based on data evaluation.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Central Office, and in electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.



END OF ADDENDUM



Spectrum Finishing Site
SUFFOLK COUNTY, NEW YORK

Site Management Plan

NYSDEC Site Number: 1-52-029

Prepared for:
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Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

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Appendix A Metes and Bound Survey

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Section 1

Introduction and Description of Remedial Program

1.1 Introduction

This document is required as an element of the remedial program at Spectrum Finishing Site (hereinafter referred to as the "Site") under the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program administered by New York State Department of Environmental Conservation (NYSDEC). The Site (#152029) was remediated in accordance with the March 2003 Record of Decision (ROD) and March 2008 Explanation of Significant Difference.

1.1.1 General

The Site is a 0.67 acre property located in Town of Babylon, Suffolk County, New York. The ROD required the investigation and remediation of contaminated media at the Site. A figure showing the Site location is provided in Figure 1 and the Metes and Bound survey is provided in Appendix A. The boundaries of the Site are more fully described below and in the Metes and Bounds Site description that is part of the Deed Restriction.

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface soil at this Site, which is hereafter referred to as 'remaining contamination.' This Site Management Plan (SMP) was prepared to manage remaining contamination at the Site until the Deed Restriction is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Camp Dresser & McKee (CDM), on behalf of NYSDEC, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated November 4, 2009, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Deed Restriction for the Site.

1.1.2 Purpose

The Site contains contamination left after completion of the remedial action. Engineering Controls have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of the public health and the environment. A Declaration of Covenants and Restrictions for the benefit of the NYSDEC shall be recorded with the Suffolk County Clerk and will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on Site use, and mandate maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure

compliance with all ECs and ICs required by the Deed Restriction for contamination that remains at the Site. This plan has been approved by the NYSDEC and compliance with this plan is required by the Declarant of the Deed Restriction and the Declarant's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all ECs and ICs; (2) media monitoring; and (3) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports.

To address these needs, this SMP includes two plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; and (2) a Monitoring Plan for implementation of Site Monitoring.

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC. It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the Deed Restriction. Failure to properly implement the SMP is a violation of the Deed Restriction, which is grounds for revocation of the Release and Covenant Not to Sue;
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the ROD for the Site, and thereby subject to applicable penalties.

1.1.3 SMP Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Deed Restriction for the Site, the NYSDEC will provide a notice of any approved changes to the SMP and append these notices to the SMP that is retained in its files.

1.2 Site Background

1.2.1 Site Location and Description

The Site is located in the Town of Babylon County of Suffolk, New York and is identified as Block 100 and the following Lots:

- 74-2-6; 61 Cabot Street
- 74-2-7; 51 Cabot Street
- 74-2-11; 50 Dale Street

- 74-2-12; 60 Dale Street

All are recorded on the Suffolk County Tax Map. The Site is located in the Pinelawn Industrial Area which is a high density industrial area bounded by cemeteries and open land on the north, south, and west side, and a residential area lies to the east. The Site as defined by the lots above is approximately 2.3-acres and bounded by Dale and Cabot Streets on the east and west sides, respectively, and commercial/industrial properties to the north and south. The boundaries of the Site are more fully described in Appendix A – Metes and Bounds.

1.2.2 Site History

The Site history was developed from information contained in the previous reports prepared by United States Environmental Protection Agency (USEPA), NYSDEC, New York State Department of Health (NYSDOH), Suffolk County, and Town of Babylon. The Site began operations around 1968 as Town records indicate that the building (50 Dale Street) was constructed in the late 1960s.

Metal finishing operations at the Site included electroplating (in particular copper, cadmium, chromium and nickel) of high strength alloys (for the aerospace industry); chromium conversion coating (aluminum parts); and chemical cleaning. The Site was known to have specialized in descaling and chemical cleaning of titanium alloys. Painting was also reportedly conducted at the Site.

From 1970 to 1975, the SCDHS revealed discharges of industrial waste into storm drains. High concentrations of heavy metals were noted from samples collected from the leaching tank, storm drain, and Site runoff. During the 1970s, SCDHS inspections revealed discharges of liquid plating wastes to the soil. In 1983, an accidental spillage of wastewater drained into on-site storm drains. In 1983, Spectrum discontinued discharge of wastewater into the on-site drainage structures and disposed the wastewater off-site. In June 1994, Spectrum filed Chapter 7 bankruptcy and ceased operations. Some documents indicated the facility stopped operations in April 1993.

A Phase II Investigation was completed in March 1988. The Phase II was completed to determine the nature and extent of waste, identify past and/or current episodes of chemical spills, and evaluate on-site and off-Site impacts from any chemical spillage. Eight groundwater monitoring wells were installed at four locations. A groundwater sample was collected and analyzed from each well. Additionally, ten soil samples were collected for analysis. The samples were analyzed for cadmium, chromium, copper, iron, lead, nickel, zinc, chloride, cyanide, 1,1-dichloroethane, 1,2-dichloroethane, 2-butanone, 1,1,1-trichloroethane, trichloroethylene and toluene. These compounds were selected based on Site chemical use.

Several metals were found in the background samples including copper (30 mg/kg), iron (6951 mg/kg), lead (27.4 mg/kg) and zinc (36.1 mg/kg). Additionally, chromium was found at a concentration of 29.8 mg/kg, which was identified as being three times greater than the background sample. Cadmium was found in four of the ten

samples ranging from 0.9 to 2.0 mg/kg and nickel was found in three of the ten samples ranging in concentration from 3.9 to 5.2 mg/kg. No volatile organic compounds were detected in the soil samples.

One round of groundwater samples was collected and analyzed. The following compounds and related maximum concentrations were identified in the groundwater samples; Cadmium (99 µg/L); Chromium (36 µg/L); Copper (926 µg/L); Iron (95 µg/L); Lead (40 µg/L); Nickel (28 µg/L); Zinc (339 µg/L); 1,1,1-trichloroethane (28 µg/L).

Trichloroethene (73 µg/L) and Toluene (5 µg/L); In May 1997, Mr. Joseph Vazzana, Jr., a potentially responsible party (PRP) for the Site, reportedly pumped liquid waste from several on-site vats into approximately three hundred (300) 55-gallon drums. The USEPA witnessed this process being performed "haphazardly" with many spills. The drums were unlabeled and mislabeled, and wastes were mixed.

The NYSDEC and NYSDOH conducted a visit to the Site on October 7, 1997. Mr. Vazzana, Jr. was observed pumping wastes from one vat to another and hosing down several drums.

The USEPA completed a removal action in August 1997 through March 1998 to address the on-site wastes located in the building. The removal action included the removal and disposal of a total of 25,767 gallons and 77 cubic feet of various hazardous wastes. Two concrete-lined sumps, various exterior sumps/drywells, various USTs, paint booths and several vats were observed inside the building during the USEPA removal action. The removal action included scraping and sweeping to remove waste from the interior floors and pressure washing of the boiler room, wastewater treatment room, garage area, storage room, process rooms and paint booths. Wipe samples were collected in the areas that were cleaned.

Following the USEPA removal action, environmental samples were collected in April 1998 on behalf of USEPA. Twenty-two (22) on-site surficial soil samples, sediment samples from the bottoms of storm drains, soil samples from beneath the concrete floor, stormwater/runoff samples collected from the water pooled in storm drains, and nine groundwater samples from the monitoring wells. The samples were analyzed for TCL volatile organic compounds (VOCs) and TAL inorganic (metals). Analytical results identified that several media were impacted with elevated levels of metals (including cadmium, chromium, copper, nickel, silver and cyanide) and VOCs (including 1,2-dichloroethene, trichloroethene and tetrachloroethene). The results were summarized in the RI.

The former NTU Site at 60 Dale Street is a delisted NYSDEC Class 2a inactive hazardous waste disposal Site (#1-52-086). This facility adjoins the Spectrum Site to the north. The NTU Site was added to the NYSDEC registry in December 1984 and removed March 1993. NTU produced high-resolution printed circuit boards and its operations included drilling, cleaning and electroplating. Chemicals used at the NTU

facility included ammonium persulfate, sulfuric acid, hydrochloric acid, copper plating solution, and etching solution (containing copper, lead and nickel). The NTU Site was vacant until 1968 when the current Site building was constructed. Gray Electric occupied and owned the Site from 1968 until 1981, when Spectrum purchased it. NTU Circuits leased the eastern portion of the building from 1978 until 1983. The NTU Site was delisted in March 1993.

The remedial construction was conducted between October 2008 and June 2009 by the NYSDEC using State Superfund monies. As part of the remedial construction, the Spectrum building was demolished and removed from the Site.

1.2.3 Geologic Conditions

The subsurface geology for the western portion of Suffolk County generally consists of unconsolidated sediments underlain by crystalline Precambrian metamorphic and igneous bedrock. The bedrock consists of schist, gneiss and, in some areas, granite. The bedrock, which is as deep as 800 feet bgs, is reported as having an upper layer that has been substantially weathered into clay.

Above the bedrock are sediments from the Raritan and Magothy-Matawan Group from the late Cretaceous age. The Raritan Formation consists of two units: the Lloyd sand member group below and the Raritan clay member above. The Lloyd member is of continental origin having been deposited in a large freshwater lake. The material consists of fine to coarse-grained sands, gravel and inter-bedded clay and silty sand. The Raritan clay is also of continental origin and consists of clay, silty clay and clayey silt and fine silty sand. This member acts as a confining layer over the Lloyd member. The Magothy Formation - Matawan Group sedimentary deposits are similar to the underlying sediments, with sand and gravel deposit in the lower portion of the formation and a clay unit in the upper portion of the formation.

Above the Magothy - Matawan Group is the Jameco Gravel that was deposited during the Pleistocene age. Streams from glacial melting may have deposited this material. These sediments are mainly coarse sand and gravel with some cobbles and boulders. The Gardiners Clay overlays the Jameco Gravel and is identified as an interglacial deposit of marine origin. This gray to bluish-gray clay layer acts as an effective confining layer over the Jameco Gravel and Magothy Formation - Matawan Group. Sediments consisting of fine to coarse sand with traces of silt, clay and/or fine gravel are located above the Gardiners Clay, herein referred to as the Upper Glacial Aquifer. These sediments are considered glacial outwash from Wisconsin aged glacial activity. These soils are the main focus of this RI.

1.2.4 Site Geology

The overburden deposits at the Site generally consist of fill materials, glacial outwash, and clay soil. The fill deposit was generally encountered from the ground surface and ranged in thickness from approximately 0.2 to 1.6 feet bgs. The composition of the fill material varies depending on location at the Site and is also found at greater depths adjacent to underground structures (i.e., cesspools and USTs).

Glacial outwash deposits consisting primarily of gravelly sand underlie the fill at the Site. This material is the prevalent overburden at the Site. This glacial sediment was observed up to depths of approximately 90 feet bgs. The Upper Glacial soils consist of fine to coarse sands and gravel. Occasional layers or seams of finer grained soils (fine sands and silts) were observed in the soil samples. The Upper Glacial sand is continuous across the study area and is the predominant water-bearing unit studied at this Site. During this study, the groundwater table was observed at approximately 18 feet bgs.

The Gardiners Clay was observed underneath the Upper Glacial sands at the Site during monitoring well installation. The clay was encountered at a depth of approximately 90-feet bgs and was encountered in the deep monitoring well borings. This clay layer was penetrated approximately one foot during this study. This clay layer is reported to be approximately 30 feet thick, and acts as a lower confining layer for the Upper Glacial Aquifer.

1.2.5 Hydrogeologic Conditions

Only the Upper Glacial Aquifer at the Site was studied and the general flow of groundwater in the Upper Glacial Aquifer is southeasterly. The primary hydraulic properties used to describe the groundwater conditions at the Site include hydraulic conductivity, porosity and hydraulic gradient. These properties are used to estimate groundwater flow directions and velocities. Hydraulic conductivity is a measure of the ability of a soil to transmit water throughout the deposit.

Estimated horizontal hydraulic conductivity values were calculated from short-term pumping tests and rising head tests conducted by as part of RI. The hydraulic conductivity ranges between approximately 10 and 900 feet per day (fpd), with an average of 300 fpd. NYSDEC provided aquifer pump test results calculated by IT Corporation at the National Heatset Printing Site in Babylon, New York, located approximately 1.5 miles southwest of the Site. The pump tests were conducted on four monitoring wells reportedly installed in the Upper Glacial Aquifer, using an estimated aquifer thickness of 70 feet. These estimated hydraulic conductivity results ranged from 11 to 147 fpd, with an average of 137 fpd. The wide range of hydraulic conductivity values indicates that the Upper Glacial Aquifer is heterogeneous. It is probable that areas or zones of higher (or lower) hydraulic conductivity exist throughout the Site. The Upper Glacial Aquifer reportedly has an average hydraulic conductivity across Long Island of approximately 270 feet per day.

The Upper Glacial Aquifer is reported to be anisotropic with a horizontal hydraulic conductivity between 10 to 24 times greater than the vertical hydraulic conductivity. The aquifer thickness is anticipated to vary at different locations of the study area, however, was observed over the Site with an average thickness of approximately 70 feet. The transmissivity of the Upper Glacial Aquifer to this depth ranges from 770 to 35,000 ft²/day with an estimated average of 17,000 ft²/day. The effective porosity for the Upper Glacial Aquifer is reported to be about 0.20 to 0.30.

The groundwater flow direction in the study area is southeasterly based on the groundwater contour map, Figure 2. The southeasterly flow direction is generally consistent with the apparent regional groundwater flow and previous studies.

The horizontal gradient across the study area is generally low with an estimated average of 0.002, but there are areas where the gradient is higher. The gradient is relatively low in the center of the study area. Groundwater flow velocities were calculated using Darcy's Law (Reference 13), utilizing the average horizontal hydraulic gradient (0.002) and porosity (0.20 to 0.30). Based on the range of calculated hydraulic conductivity values (presented in Section 3.7.1 above), the groundwater velocity at the Site study area was calculated to range from about 0.05 to 6 feet per day (fpd), with an average of approximately 2 fpd or 700 feet per year. Average groundwater flow velocities reportedly range from approximately 1 fpd to 2 fpd in the Upper Glacial Aquifer. Vertical groundwater flow appears to be negligible between the shallow and deep Upper Glacial Aquifer zones. The anisotropy of the hydraulic conductivity (i.e., the horizontal conductivity is 10 to 24 times greater than the vertical conductivity), suggests that very little vertical flow will occur from the top to the bottom of the aquifer.

1.3 Summary of Remedial Investigation Findings

The RI was performed to characterize the nature and extent of contamination at the Site. The following provides a brief summary of the remedial history at the Site:

- In November 1997 the Environmental Protection Agency (EPA) performed a Time Critical Removal Action to address drums, vats sumps and other waste containers left on-site. The wastes were all removed and disposed of at permitted facilities by April 1998, floors were scraped, and walls and floors were pressure washed. Post removal sampling revealed no residual contamination in the building.
- NYSDEC conducted a remedial investigation/feasibility study (RI/FS) between June 1999 and May 2001.
- NYSDEC conducted interim remedial measures in 2000 to remove sediments from 11 cesspools and drainage structures contaminated with volatile organics (VOCs), semi-VOCs, polychlorinated biphenyls (PCBs), metals and pesticides. Residual metals concentrations still exceeded the cleanup objectives.
- A ROD was issued in March 2003 with the selected remedy of soil excavation and off-site disposal.

The RI was conducted in three Phases between June 1999 and July 2001. During this time, various field explorations were completed at the Site. The RI was completed to evaluate surface and subsurface environmental conditions and to provide data pertaining to the extent of nature and extent of on-site contamination. The field explorations included: a geophysical survey; Geoprobe soil borings, test boring and monitoring well installations; test pit explorations; water level survey; hydraulic

conductivity testing; water supply well inventory; existing monitoring well assessment; health and safety monitoring; and environmental sampling.

Based on historical information and previous studies conducted at and near to the Site, several potential source areas were identified. Source areas included cesspools, drainage structures, interior sumps, surficial spills, and upgradient groundwater. Site specific contaminants of concern include VOCs and inorganic compounds (metals). Other chemical classes, including SVOCs, PCBs, and pesticides were analyzed for and detected at the Site, but are less significant.

1.3.1 IRM Summary

The IRM was undertaken to remove heavily contaminated sediments located in selected cesspools and drainage structures. Eleven underground structures, cesspools and storm drains were selected by NYSDEC for remediation. The IRM included the removal of 11,500 gallons of non-hazardous water; 3,950 gallons of impacted water; and 43 tons of soil/sediment identified as hazardous waste.

The source areas included cesspools and drainage structures, surficial soils in the alleyway and the sump near the former rinse water and treat hold area. Other potential sources include the pipelines within the building and those interconnecting the cesspools and drainage structures. Upgradient groundwater also appears to be adding contamination (VOCs and certain metals) to the Site groundwater. The most significant contamination was found in the cesspools and drainage structures. For example, the results from CP-3 (pre-IRM) contained cadmium at 19,500 mg/kg (~2%), and chromium at 120,000 mg/kg (~12%). In general, the pre-IRM results from the cesspools and drainage structures indicated that VOCs, metals, SVOCs and PCBs exceeded Soil Cleanup Objectives (SCOs) for unrestricted use in one or more of the structures. Post-IRM results indicate that the VOCs, PCBs, and SVOCs have been removed to levels below the SCOs. Metal concentrations were greatly reduced, but residual concentrations were above the RSCOs in many of the cesspools and drainage structures. Figure 3 shows the location of all former cesspools and drainage structures that were remediated.

1.3.2 Remedial Investigation

The Site property (50 Dale Street) consists of approximately 0.67 acres of land in Babylon, New York. The Site study area was extended to the north to include the parking lot up to the south edge of the buildings located at 60 Dale Street (approximately 1.3 acres). Spectrum owned the Site since 1968 and specialized in electroplating high strength alloys, and descaling titanium alloys for the aerospace industry. Metal finishing operations at the Site ceased in about 1994.

The Site included the original building, approximately 60 feet by 320 feet (19,400 square feet). Areas not occupied by the building consisted of paved parking to the north, an unpaved alleyway to the south, and grassy areas to the east and west of the building. Tenants in the building during the RI included a machine shop, door manufacturer, and an automobile storage operation.

Eleven cesspools, 12 drainage structures and two former well structures existed at the Site at the time of the RI. In general, the cesspools and drainage structures were similar and approximately eight-foot diameter, round concrete vaults with perforated sides, and apparently no bottom. The cesspools include those structures with solid steel or concrete covers, whereas drainage structures generally have open grate steel covers. Natural surface water bodies (e.g., streams or ponds) do not exist near the Site. Asphalt and gravel areas surrounding the Site buildings direct surface water runoff. The stormwater from the parking areas, which also includes some run-off from the building roof, generally collects in several stormwater drainage structures located south of the former NTU building and north of the Spectrum building.

1.3.3 Soil Contamination

There were VOC detections and exceedances of SCOs in surface soils at three locations in the alleyway. However, the VOC results from subsurface soils did not show exceedances of SCOs.

The levels of the four “indicator” metals (i.e., cadmium, chromium, copper, nickel) in soils were highest in the alleyway south of the Spectrum building and from samples inside the building. In general, cadmium is the primary metal with concentration levels 100 times the SCOs. There were SVOCs reported in surface and subsurface soils but the concentrations reported were generally below their respective SCOs. Appendix B contains the subsurface soil analytical summaries tables collected during the RI and the SCOs.

1.3.4 Site-Related Groundwater

1.3.4.1 Groundwater Analytical Results

Twenty-four VOCs were detected in the groundwater samples collected as part of the remedial investigation (RI) in April 2001. The groundwater analytical summary tables are provided in Appendix B. Twelve of the VOCs were detected in excess of Ambient Water Quality Standards (AWQS). PCE was detected the most frequently in the groundwater and at the highest concentration (610 µg/L). In general, PCE was not detected on the west side of the Site with the exception of and MW-1D2 (21 µg/L). The PCE plume indicates that upgradient groundwater is contaminated (e.g., MW-9S, (140 µg/L). Thus, a potential source area exists north and/or west of both the Spectrum and NTU Site. Other additional sources of PCE appear on-site. For example, CP-6 contained 12,000 µg/kg of PCE in the sediment sample. The analytical test results indicate a trend of decreasing PCE concentrations in the central west part of and increasing PCE concentration downgradient of the Site.

The inorganic from the filtered and low-flow sampling show that eleven inorganics exceed groundwater standards. They are antimony, cadmium, chromium, copper, iron, lead, manganese, nickel, sodium, thallium and cyanide.

Cadmium and nickel significantly exceeded the groundwater standards at 14 and 16 locations, respectively in the low-flow samples. Additionally, cadmium and nickel

were detected above the groundwater standards at 27 and eight filtered samples. These metals are discussed in more detail below.

Chromium and copper significantly exceeded the groundwater standards at nine and three low-flow sample locations. Additionally copper was detected above the groundwater standards at four filtered sample locations. Chromium was not detected above the groundwater standards in the filtered locations.

Hexavalent chromium was detected at two locations above the groundwater standard (MW-3S at 80 µg/L and MW-6S at 914 µg/L). The following discussion focuses on the four metals cadmium, chromium, copper, and nickel from the low-flow sampling.

Cadmium was detected above the groundwater standard at 31 locations. It appears that cadmium becomes prevalent in the groundwater just south of the cesspools and drainage structures in the parking area between the NTU Site and the Spectrum Site. The cadmium exceedances appear to originate from east to west across the Site paralleling the line of cesspools and drainage structures. The highest levels of cadmium were detected at MW-4S (672 µg/L) and GP-2 (593 µg/L).

Chromium was detected above the groundwater standard at seven locations: MW-1S, MW-1D2, MW-2S, MW-3S, MW-3D, MW-4S, and MW-6S. The highest level of chromium was detected at MW-6S (3,180 µg/L). The other chromium levels were less than 100µg/L. It appears that chromium could be from the Site as high levels of chromium were detected in the source areas (e.g., cesspools). However, upgradient groundwater at well MW-1 cluster contained elevated chromium levels (62.9 to 71.7 µg/L).

Copper was detected in excess of the groundwater standard primarily in the eastern portion of the Site. Three groundwater sample locations contained elevated levels from 205 µg/L to 1,910 µg/L. These data suggest that a source of copper exists or existed on-site. Upgradient copper concentrations ranged from 16.2 to 33.5 µg/L.

Nickel was detected at concentrations exceeding the groundwater standard at 20 locations. Upgradient groundwater contained nickel concentrations in excess of the groundwater standard (100 µg/L). Specifically at well cluster MW-1 and well MW-9S the nickel concentration ranged between 189 to 313 µg/L. However, the nickel concentrations are significantly higher at several downgradient locations MW-4S (916 µg/L); MW-6S (547 µg/L); and MW-12S (501 µg/L). This suggests a source of nickel exists on-site.

CDM collected eleven groundwater samples from the shallow aquifer at the Site collected on April 24, 2007 and August 1, 2007 and were analyzed by Chemtech for VOCs and total metals. MW-9 was not analyzed for metals. The analytical results were compared to AWQS.

Tetrachloroethene (PCE) and trichloroethene (TCE) were the only VOCs detected in eight of the eleven monitoring wells sampled. PCE was detected above the standard

of 5.0 micrograms per liter ($\mu\text{g}/\text{L}$) in six of the eleven wells with concentrations ranging from 12 $\mu\text{g}/\text{L}$ (MW-2) to 140 $\mu\text{g}/\text{L}$ (MW-6S). TCE was detected in well MW-9 at 12 $\mu\text{g}/\text{L}$.

Metal concentrations exceeded the AWQS for aluminum, antimony, cadmium, chromium, copper, iron, lead, manganese and nickel. The primary contaminants of concern, nickel, chromium and cadmium were found in wells MW-3, MW-4, MW-6 and MW-12 with the highest concentrations around MW-4 and MW-6. These wells are downgradient of the Site in the direction of groundwater flow.

The five groundwater samples from four temporary wells and existing well MW-9 were collected on October 24, 2007 and analyzed for VOCs by Chemtech. The analytical results were compared to New York State Ambient Water Quality Standards (NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1). PCE was the only VOC detected above the standard of 5.0 $\mu\text{g}/\text{L}$ in three of the five samples with concentrations ranging from 8 to 13 $\mu\text{g}/\text{L}$. The groundwater analytical summary tables from both sample events are provided in Appendix C.

1.3.4.2 Soil Vapor Analytical Results

Thirty-six subsurface soil vapor samples were collected in April 2007 and analyzed by Chemtech for VOCs (EPA Method TO-15). The results were compared to the NYSDOH sub-slab vapor concentrations to determine if additional investigation may be necessary. Elevated levels of PCE and trichloroethene (TCE) were found in the shallow and deep subsurface soil vapor samples at the Site and surrounding area. PCE concentrations in the shallow samples ranged from 5 to 1,817 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and 5 to 2,042 $\mu\text{g}/\text{m}^3$ in the deep sample. TCE concentrations in the shallow samples ranged from 1 to 186 $\mu\text{g}/\text{m}^3$ and 1 to 105 $\mu\text{g}/\text{m}^3$ in the deep sample. NYS does not have standards, criteria or guidance values for concentrations of VOCs in subsurface soil vapors. Elevated levels of VOCs, primarily PCE and TCE were found in the subsurface soil vapors across the Site.

1.4 Summary of Remedial Actions

The remedial construction was performed in accordance with the Contract Documents dated October 2007 including all addenda. A Notice to Proceed with the remedial action occurred on September 22, 2008.

1.4.1 Underground Storage Tank (UST) Removal

A total of 11 underground storage tanks (UST's) were removed from the Site between December 4, 2008 and June 18, 2009 and included tanks located at 50 and 60 Dale Street and 51 and 61 Cabot Street. All of the tanks were 1,000 gallons in capacity except for USTs-4 and -9; those were both 3,000 gallons in capacity. Approximately 6,000 gallons of liquid waste removed from the eleven USTs were disposed of off-site at an approved facility. The tank was exposed by excavating and the atmosphere in the tank was checked to determine if there was an explosive atmosphere present. If not, the tanks were cut open, ventilated as needed and the rest of the liquid and

sludge cleaned out of the tank. The area around the tank was excavated and the tank removed from the ground. All of the UST were found to be sound with evidence of leaks or soil staining around the tanks as noted in the tank closure report

Six confirmatory soil samples were collected from each tank excavation, the four sidewalls and two from the bottom. Samples were analyzed for volatiles EPA 8021 Spills Technology and Remediation Series (STARS) and semi-volatiles EPA 8270. All samples analyzed were below the STARS guidance values for petroleum contaminated soils. All sample results were below the STARS guidance values. A Suffolk County Department of Health Services (SCDHS) representative inspected each tank before it was disposed of off-Site and each excavation before it was backfilled.

1.4.2 Sentinel Monitoring Well Installation

Two sentinel wells were installed on October 22, 2008 in front of 457 17th Street, at the intersection of 17th Street and 7th Avenue. The shallow well, MW-16S, was screened from 40 to 50 feet and had a total depth of 50-feet. The intermediate well, MW-16D1, was screened from 80 to 90 feet with a total depth of 90-feet. A clay layer, the

Gardiner's clay, was encountered at 92 feet during the installation of the deep well. At the recommendation of CDM and with NYDEC concurrence, it was decided not to drill through this clay layer and not to install MW-16D2.

Both wells were developed using a submersible pump and development concluded when the turbidity dropped below 50 NTU's. The wells were allowed to sit for at least 2 weeks before they were sampled using the low flow sample method. The wells were sampled on February 20, 2009 and analyzed for VOCs, SVOCs, metals and PCB's and all laboratory results were non-detect.

1.4.3 Asbestos Abatement

Asbestos abatement was conducted by 212 Services, LLC at 50 Dale Street between November 19 through November 24, 2008 before building demolition was performed. Air monitoring was performed by an independent third party, Central Environmental, Inc. An airlock and decontamination unit was set up before abatement work started and was removed after work was completed. Non-friable asbestos waste was removed from the building perimeter curbing and flashing, the west addition roof and the window frames. All asbestos waste was transported by Certified Carting of Islip Terrace, NY, a certified waste hauler, to Coastal Rail Distribution who transported the waste to Lordstown Construction Recovery, a permitted landfill in Lordstown, Ohio.

1.4.4 Building Demolition

Building demolition of 50 Dale Street was performed by NYE Contracting between February 2, 2009 and February 12, 2009. Demolition started where the 50 Dale Street and 51 Cabot Street buildings were joined, also known as the west addition. After the

west addition was removed, the roof flashing to 51 Cabot Street was inspected and was determined to be intact with no damage. The rest of the Spectrum building was removed to the floor slab and the demolition material segregated for disposal. A total of 32 loads of demolition debris were removed from the Site for disposal; 22 loads of concrete, 3 loads of steel and 7 loads of mixed waste. The penetrations in the east wall of 51 Cabot Street were repaired by EnviroTrac under PCO-4. The repairs consisted of sealing up all openings that were pre-existing and those done during demolition work.

1.4.5 Alleyway Soil Excavation

The alleyways were divided into 3 areas; the east, west and south and were initially excavated down to a depth of two-feet bgs, as outlined in the contract documents. The south alleyway was remediated by first removing the asphalt and placing it in a roll-off for disposal and then excavating to a depth of two feet bgs. The contaminated soil was segregated on the concrete pad in a separate pile.

Confirmatory soil samples were collected from the three alleyways and it was determined that due to the elevated levels of metals that still remain in the east and west alleyways, additional excavation would take place. The west alleyway was excavated an additional two feet bgs and east alleyway was excavated to an additional 4 feet bgs as this was the limit that could be achieved without undermining the foundation for 40 Dale Street. Approximately 150 tons of waste removed from the east, west and south alleyways was disposed of at the Clean Earth facility. Confirmatory samples were collected in the east and west alleyways and a filter fabric delineation barrier installed prior to backfilling.

Based on the east alley excavation, soil contamination is believed to extend off-site under 40 Dale Street. This contamination is not addressed in this SMP and will be investigated under a separate operable unit identified for that site.

1.4.6 Building Sump Soil Excavation

The contract called for the removal of two sumps. Sump #1, located near north side of the building, was found to be approximately 3-feet by 8-feet and 5-feet deep with two 2-inch Polyvinyl Chloride (PVC) pipes leading into the sump and one 4-inch cast iron pipe (plugged with concrete). The soils on the bottom and sidewalls of the sump still showed some visible signs of stained red and green soil.

Sump #2 located near the front or east side of the building was a solid concrete vault and was approximately 4-feet by 4-feet and was 4.5-feet deep. The sump was filled with concrete, paper and sand debris that were removed along with the sump walls and bottom and some soil around the exterior of the sump. No pipes were found leading in or out of this sump.

Sump #2A was initially thought to be Sump #2 with a pipe sticking out of the floor at this location; however once excavation was started, it was determined that the it was

not a pipe but a 5 gallon bucket. An area of approximately 9-feet by 8-feet by 2-feet deep was excavated around Sump 2A.

Sump #3 was not shown on the Site drawing and was found by accident when a vacuum truck broke through the concrete slab exposing the sump. Once fully exposed, this sump was found to be 6-feet by 4-feet by 6-feet deep, constructed of cinder block walls with a concrete bottom and coated with paint or an epoxy. The excavation was opened up to approximately 12-feet by 8-feet by 13-feet deep. The sump soils on the bottom and sidewalls were stained green as was the concrete slab that covered it. End point confirmatory samples were collected for all three sumps and were analyzed for hazardous waste characteristics using TCLP VOCs and TCLP metals. The sump end point laboratory results showed that characteristically hazardous soils still remained due primarily to very high levels of Cadmium and Chromium.

CDM and the NYSDEC project managers decided to chase the visually contaminated material and the final area of visibly contaminated concrete slab that was exposed and disposed of was approximately 80-feet by 56-feet. This area was excavated to a minimum depth of 4 feet with deeper excavations of 15 to 17-feet around Sumps 1 and 3.

The south sidewall still had red and green visibly discolored contaminated soil remaining that could not be removed due to the proximity of the east alleyway and the foundation of 40 Dale Street possibly being compromised. Approximately 1,500.00 tons of hazardous waste soil from the sump areas and 230 tons of non-hazardous concrete were transported to the waste facility for disposal.

1.4.7 Drainage and Septic Structure Abandonment

Drainage and septic structure material was identified as hazardous or non-hazardous in the contract documents. The abandonment of drainage and cesspool system structures started by first removing any liquid in the structure and then vacuuming out the sediment in the structure to a depth of approximately 18-feet bgs, or as outlined in the contract documents. Sediment removal was completed when the desired depth specified in the contract documents was reached. End point samples were collected at each structure and analyzed for VOCs and metals.

The structures were abandoned by breaking up the top portion of the concrete structure into the lower portion of the structure. The structure was then backfilled and compacted with clean fill from on-site to grade.

1.4.8 Drainage and Septic Structure Installation

Cork and Sons performed the drainage and septic structure installation starting on May 14, 2009. The six septic systems and leaching structures were installed and inspected by a SCDHS inspector before backfilling and all of the systems passed inspection. The drainage structures were installed with filter fabric wrapped around the structures in accordance with the Town building code requirements. All roof

drain leaders from 61 Dale Street and 51 and 61 Cabot Street were redirected from existing drainage structures to newly installed structures.

1.4.9 Final Asphalt Paving, Site Restoration and As-Built Survey

Accurate Blacktop was on-site from July 3, 2009 through July 10, 2009 for final asphalt paving. Accurate Blacktop removed all of the existing asphalt, raised the manhole covers as needed to the required elevation and then graded and compacted with recycled concrete aggregate (RCA) to the required elevation. After preparation work was completed, Accurate Blacktop paved the entire Site with a 2" binder course and then a 1.5" wear course.

The alleyway excavations were restored in the following manner:

- The south alleyway was graded and compacted with RCA and then paved with a 3-inch binder course and a 2-inch wear course, and
- The east and west alleyways were restored with a 12-inch layer of compacted RCA to allow for drainage.

The areas in front of 50 and 60 Dale Street and 51 and 61 Cabot Street were restored to pre-construction conditions by removing any debris, grading the area with topsoil and then spreading grass seed. This work was started on June 16, 2009 and completed on September 4, 2009.

Site fencing was restored to pre-construction conditions by EnviroTrac's subcontractor, Double Eagle Fencing between July 13, 2009 and July 15, 2009. This work included installing a 6-foot chain link fence between 50 and 60 Dale Street and 51 and 61 Cabot Street and installing gates in front of 50 Dale Street and 51 and 61 Cabot Street. In addition, a 6-foot chain link fence was installed across the front of 50 Dale Street to close off the Site. This additional fence work was installed under PCO 17.

Concrete sidewalks that were damaged during remedial construction were replaced to pre-construction conditions.

1.4.10 Remaining Contamination

During the remedial construction, remediation work was conducted that included the removal of additional contaminated soils beneath the building. The contaminated soils were removed to the extent practical but levels of contamination above cleanup goals for metals (primarily Cadmium (1ppm), Chromium (10ppm), Copper (25ppm) and Nickel (13ppm)) still remain. However, for the purpose of this SMP and since the site is zoned as Commercial/Industrial, the following guidance values were used from DER-10; Cadmium (7.5 ppm), Chromium (1,500 ppm), Copper (270 ppm) and Nickel (130 ppm). Exceedances above these values were observed at the following locations and depths and are shown on Figure 4:

- East Alleyway at depths greater than 4 feet bgs; additional removal was not practical due to the adjacent building foundation. This area is delineated by a filter fabric at the point where soil excavation was stopped.
- Sump areas beneath 50 Dale Street – the south east sidewall near the east alleyway and the bottom of the sump excavation below approximately 15 to 18-feet bgs. Additional removal would jeopardize the foundation of 40 Dale Street. The limit of the excavation was delineated using filter fabric where the remedial excavation was stopped
- Former cesspool structures CP-3, CP-4, CP-7, and CP-8; Structures were cleaned to the bottom of the structure (approximately 18 feet bgs) and groundwater was entering the structure being cleaned and it was not practical to continue removing material.
- Former drainage structures DS-1, DS-5, and DS-9; Structures were cleaned to the bottom ring of the structure (approximately 18 feet bgs) and groundwater was entering the structure being cleaned and it was not practical to continue removing material.

Table 1 summarizes the soil contamination remaining at the Site above DER-10 Industrial/Commercial cleanup objectives.

Section 2

Engineering and Institutional Control Plan

2.1 Introduction

2.1.1 General

Since remaining contaminated soil, groundwater and soil vapor exists beneath the site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Declaration of Covenants and Restrictions;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the site remedy, as determined by the NYSDEC.

2.1.3 Institutional and Engineering Controls

The following controls apply to the use of the Controlled Property, run with the land are binding the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property. The Controlled Property may be used for commercial and industrial use as long as the following long-term engineering controls are employed and the land use restrictions specified below are adhered to:

- All ECs must be operated and maintained as specified in this SMP;

- All ECs on the Controlled Property (the Site) must be inspected and certified at a frequency and in a manner defined in the SMP;
- Groundwater, soil vapor and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to the site management for the Controlled Property must be reported at the frequency and in manner defined in this SMP;
- On-site environmental monitoring devices, including but not limited to groundwater monitoring wells must be protected and replaced as necessary to ensure continued functioning in the manner specified in this SMP.
- Compliance with this plan is required by the Declarant of the Declaration of Covenants and Restrictions and the Declarant's successors and assigns;
- A composite cover system consisting of concrete building foundation, concrete sidewalks, topsoil cover and recycled concrete aggregate surfaces in the areas not covered with the building, and asphalt parking surfaces must be inspected, certified operated and maintained as required by this SMP;
- ECs may not be discontinued without an amendment or extinguishment of the Declaration of Covenants and Restrictions and without obtaining approval from the NYSDEC.

The Controlled Property has a series of ICs in the form of Site restrictions. Adherence to these ICs is required under the Compliance with this plan is required by the Declarant of the Declaration of Covenants and Restrictions and the Declarant's successors and assigns. Site restrictions that apply to the Controlled Property are:

- Vegetable gardens, residence (single and multi family homes), and farming on the Controlled Property are prohibited;
- Use of groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for the intended use. Approval by New York State Department of Health (NYSDOH) must be obtained prior to such intended use;
- All future activities on the Controlled Property that will disturb residual contaminated material (any soil/fill material below the cover systems) are prohibited unless they are conducted in accordance with the soil management provisions in this SMP;
- The Controlled Property may be used for commercial and industrial use only, provided the long-term ECs/ICs included in this SMP remain in use;
- The topsoil and RCA cover, asphalt-paved surfaces, concrete surfaces and any buildings themselves, act as a cover system at the Controlled Property.

Disturbances and incidental damage to these cover systems shall be repaired upon discovery in a manner that complies with the SMP. If the type of cover system changes from that which existed prior to disturbances or incidental damage, the cover system must be implemented as required in this SMP;

- Any new buildings constructed on the Controlled Property must be constructed with a vapor barrier or vapor mitigation system prior to occupancy. The vapor mitigation system shall be operated and maintained until such time as the NYSDEC and the NYSDOH deems it is no longer needed;
- The Grantor and its successors and assigns must be provided a periodic certification of ECs/ICs, prepared and submitted by a professional engineer or such other expert acceptable to the NYSDEC, until the NYSDEC notifies the property owner in writing that this certification is no longer needed. This submittal would: (a) contain certification that the ICs/ECs put in place are still in place and are either unchanged from the previous certification or are compliant with NYSDEC-approved modifications; (b) allow the NYSDEC access to the site; and (c) state that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the NYSDEC.

The Grantor shall provide all persons who acquire an interest in the Controlled Property a true and complete copy of this SMP that the NYSDEC has approved for the Controlled Property and all NYSEC-approved amendments to this SMP

The Controlled Property may not be used for a higher level of use such as restricted residential or unrestricted residential use and the ECs may not be discontinued without an amendment or extinguishment of this plan as required by the Declarant of the Declaration of Covenants and Restrictions and the Declarant's successors and assigns.

2.2 Engineering Controls

2.2.1 Engineering Control Systems

2.2.1.1 Soil Cover, Concrete and Asphalt Cap

Exposure to remaining contamination in soil at the Site is prevented by a six foot high chain link fence enclosing the Site, and soil, concrete and asphalt cover systems placed over the Site. This cover system is comprised of a clean soil fill varying in depths from minimum of 2-feet to maximum of 15-feet, asphalt pavement, and remaining concrete building floor slabs and sidewalks. The Excavation Work Plan that appears in Appendix D outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of this SMP.

2.2.2 Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional treatment and/or control measures will be evaluated.

2.3 Institutional Controls

A series ICs is required by the ROD, to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to commercial/industrial uses only. Adherence to these ICs on the Site is required by the Declaration of Covenants and Restrictions and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Declaration of Covenants and Restrictions and this SMP by the Declarant and the Declarant's successors and assigns;
- All ECs must be maintained as specified in this SMP;
- All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater, soil vapor and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

ICs identified in the Declaration of Covenants and Restrictions may not be discontinued without an amendment to or extinguishment of the Declaration of Covenants and Restrictions.

The Site has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Declaration of Covenants and Restrictions. Site restrictions that apply to the Controlled Property are:

- The property may only be used for restricted commercial/industrial use provided that the long-term EC/ICs included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted residential use without additional remediation and amendment of the Declaration of Covenants and Restrictions, as approved by the NYSDEC;

- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed on the controlled property and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the property are prohibited;
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Excavation Work Plan

The Site has been remediated for restricted commercial/industrial use. Any future intrusive work that will penetrate the soil cover, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with this Excavation Work Plan (EWP) that is attached as Appendix D to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A sample HASP is attached as Appendix D to this SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and Federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations and adjacent properties, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by

excavations (such as building foundations). The Site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures located at the Site, the potential for SVI has been identified and SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (non-validated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation. SVI sampling results, evaluations, and follow-up actions will also be summarized in the Periodic Review Report.

2.4 Inspections and Notifications

2.4.1 Inspections

Inspection of all remedial components installed at the site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Declaration of Covenants and Restrictions;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;

- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the site will be conducted by a qualified environmental professional, as determined by NYSDEC, within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the Site.

2.4.2 Notifications

Notifications will be submitted to the NYSDEC by the property owner as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Declaration of Covenants and Restrictions, 6NYCRR Part 375, and/or Environmental Conservation Law.
- 15-day advance notice of any proposed intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action to be taken to mitigate the damage or defect.
- Notice within 48-hours of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, including a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the Declaration of Covenants and Restrictions and all approved work plans and reports, including this SMP

- Within 15 days after the transfer of all or part of the Site, the new owner’s name, contact representative, and contact information will be confirmed in writing.

2.5 Contingency Plan

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner’s representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. These emergency contact lists must be maintained in an easily accessible location at the Site.

Table 2: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility mark out)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Project Manager – David Chiusano	(518) 402-9814
NYSDEC Spills Hotline	(800) 457-7362

2.5.2 Map and Directions to Nearest Health Facility

Site Location: 50 Dale Street, Babylon, New York

Nearest Hospital Name: Good Samaritan Hospital Medical Center

Hospital Location: 1000 Montauk Highway, West Islip, New York

Hospital Telephone: (631) 376-3000

Directions to the Hospital: South on Dale Street toward Edison; turn right onto Edison then left onto Wellwood Ave (CR-3); Merge onto Southern Parkway via ramp on left; take Robert Moses Causeway South toward Ocean Beaches; merge onto Robert Moses CSWY S; Take Route 27A exit toward Babylon; Turn Right onto Montauk Hwy (NY-27A)

Total Distance: 9.8

Total Estimated Time: 15 minutes

2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is can be found above (Table 2). The list will be posted prominently at the Site and made readily available to all personnel at all times.

Section 3

Site Monitoring Plan

3.1 Introduction

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected site media identified below. Monitoring of other ECs is described in Chapter 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria.
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Annual monitoring of the performance of the remedy and overall reduction in contamination on-site and off-site will be conducted for the first 5 years. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in groundwater in the affected areas will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring program is as follows and outlined in detail in Sections 3.2 and inspection program in Section 3.3 below.

Monitoring Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Groundwater	Annually	Water	VOCs - EPA 8260B Metals – EPA SOW OLM4.2

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

3.2 Cover System Inspection

The soil, concrete and asphalt covers shall be inspected annually for compliance with EC/IC requirements. The integrity of these covers shall be maintained and repairs made as needed.

3.3 Media Monitoring Program

3.3.1 Groundwater Monitoring

Groundwater monitoring will be performed on an annual basis to assess the performance of the remedy. The existing network of monitoring wells will be used to monitor both up-gradient and down-gradient groundwater conditions at the Site. The network of on-site and off-site wells is shown on Figure 2 in the shallow and intermediate aquifers. The groundwater flow direction is to south/southeast as shown on Figure 2. The following monitoring wells will be sampled annually and analyzed for the parameters outlined above; Shallow Wells MW-1S, MW-2S, MW-3S, MW-4S, MW-6S, MW-7S, MW-9S, MW-11S, MW-12S and MW-14S; Intermediate wells MW-1D1, MW-2D, MW-3D, MW-4D, MW-5D1, MW-6D1, MW-7D1, MW-12D1, and MW-14D1 and the two sentinel wells.

The sampling frequency may be modified with the approval NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC. Deliverables for the groundwater monitoring program are specified below.

3.3.1.1 Sampling Protocol

All monitoring well sampling activities will be recorded in a field book and a copy of the notes provided in the periodic review report. Other observations (e.g., well integrity, etc.) will be noted on the field book. The field notes will serve as the inspection log for the groundwater monitoring well network and any observations presented in the report.

The wells will be gauged prior to sampling and purged using low flow sampling techniques as outline in the Quality Assurance Project Plan (QAPP) provided in Appendix E. The QAPP provides complete details on well gauging, purging, sampling method, and analytical methodology

3.3.1.2 Monitoring Well Repairs, Replacement and Decommissioning

If biofouling or silt accumulation occurs in the on-site and/or off-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells no longer in services will be properly decommissioned in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures" and the QAPP, if an event renders the wells unusable. Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of monitoring wells for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent periodic report. Well decommissioning without replacement will be done only with the prior approval of NYSDEC.

3.4 Site-wide Inspection

A site-wide inspection will be performed annually during the groundwater monitoring program and documented in the field book. The inspection will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Confirm that site records are up to date.

3.5 Monitoring Quality Assurance/Quality Control

All sampling and analyses will be performed in accordance with the requirements of the QAPP prepared for the site (Appendix E). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement;
- Sampling Program:

- Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
- Sample holding times will be in accordance with the NYSDEC ASP requirements.
- Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
 - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
 - The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
 - Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.
- Internal QC and Checks;
- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules;
- Corrective Action Measures.

3.6 Monitoring Reporting Requirements

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-site. Any forms or other relevant reporting formats used during the monitoring/inspection events will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. The report will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. The monitoring and inspection program Periodic Review Report schedule is as follows.

Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Groundwater Sampling	Annual
Site-wide Inspection	Bi-Annual

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC

Section 4

Inspections, Reporting and Certifications

4.1 Site Inspections

4.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan of this SMP. At a minimum, a site-wide inspection will be conducted bi-annually.

4.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All site-wide inspection and monitoring event field notes will be recorded in a field log book. All applicable field inspection and monitoring notes and other records, including all media sampling data, generated for the site during the reporting period will be provided in electronic format in the Periodic Review Report.

4.1.3 Evaluation of Records and Reporting

The results of the inspection and site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented; and
- The site remedy continues to be protective of public health and the environment.

4.2 Certification of Engineering and Institutional Controls

The signed certification will be included in the Periodic Review Report described below.

For each IC identified for the Site, I certify that all of the following statements are true:

- The institutional control employed at this site is unchanged from the date the control was put in place, or last approved by the NYSDEC;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;

- Access to the site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the site is compliant with the environmental easement;
- The information presented in this report is accurate and complete;
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] for the Site;
- No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid; and
- The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Periodic Review Report described below.

4.3 Periodic Review Report

A Periodic Review Report will be submitted to the NYSDEC every year, beginning 18 months after the Final Engineering Report was issued. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in Appendix A (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 90 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site;
- Results of the required annual site inspections;
- All applicable inspection notes and other records generated for the Site during the reporting period in electronic format;

- Data summary tables and graphical representations of contaminants of concern by media (groundwater), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A site evaluation, which includes the following:
 - The compliance of the remedy with the requirements of the site-specific ROD;
 - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
 - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
 - Comments, conclusions, and recommendations based on data evaluation.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Central Office, and in electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

4.4 Corrective Measures Plan

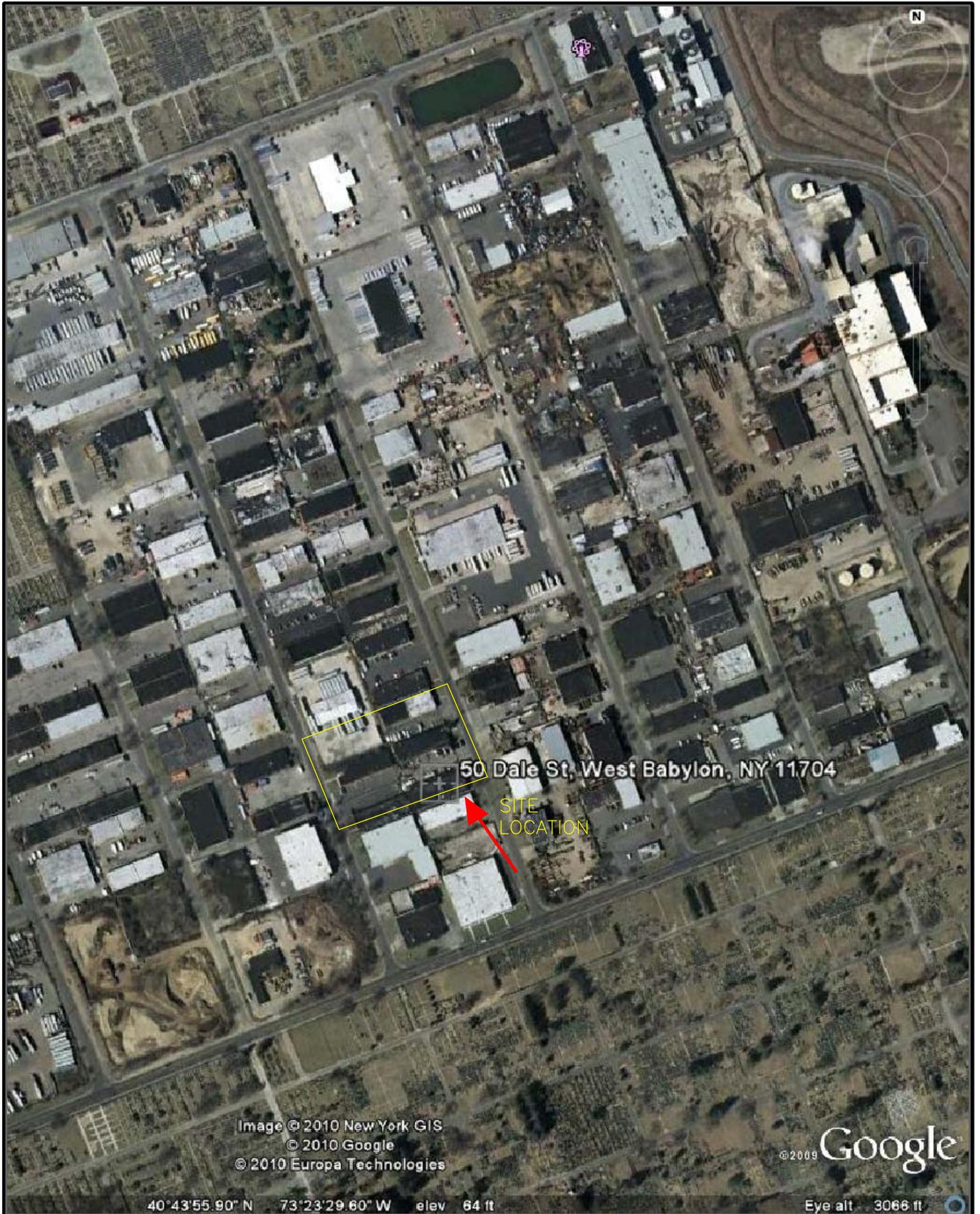
If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an IC/EC, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

TABLE 1
Spectrum Finishing Corporation
Site Management Plan

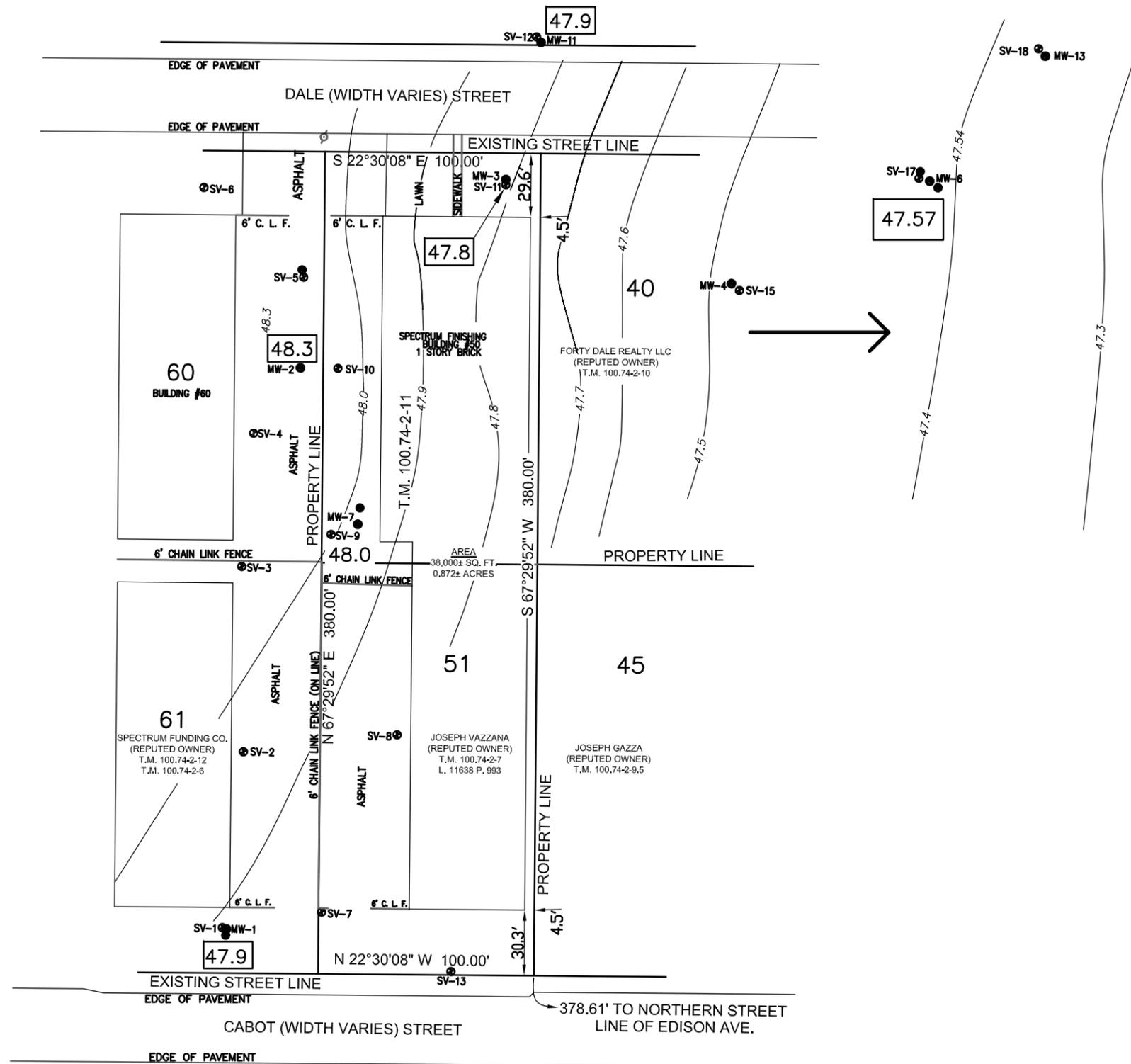
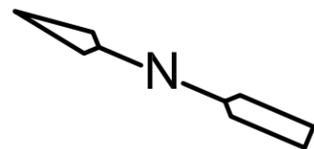
Soil Exceedances Above Commercial/Industrial Standards

	DER-10 Commercial/ Industrial Use	Sample Location									
		DS-1 (15'-18')	DS-5 (15'-18')	DS-9 (15'-18')	CP-3 (15'-18')	CP-4 (15'-18')	CP-7 (15'-18')	CP-8 (15'-18')	East Alleyway (4')	Sump Excavation (18')	Sump Excavation Sidewall
Cadmium	7.5	35	23	41	270	492	74	29	673	447	138
Chromium	1500	28	262	46	347	1,728	95	214	368	401	170
Copper	270	12	293	512	300	767	34	560	655	54	90
Nickel	130	21	44	30	236	1,010	58	166	463	106	1,440

All Concentrations are in PPM



SITE LOCATION MAP SPECTRUM FINISHING CORP.	DATE <u>JUNE 2010</u>	SITE MANAGEMENT PLAN	FIGURE NO.
 Camp Dresser & McKee			1



LEGEND

- 47.9 GROUND WATER ELEVATION AT WELL LOCATION
- W MW-2 MONITORING WELL
- SOIL VAPOR SAMPLE LOCATION APRIL 2007

NOTE

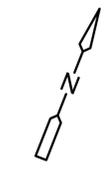
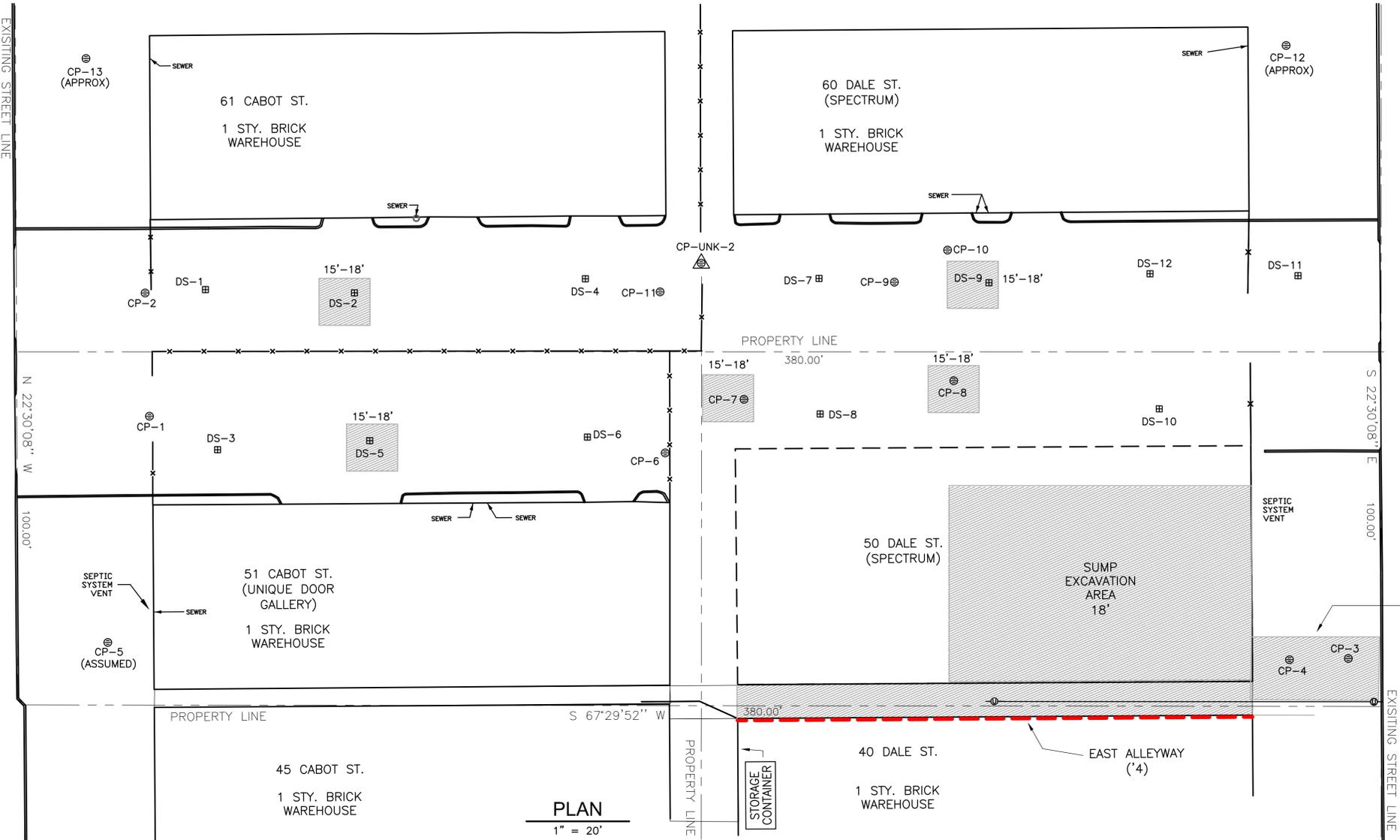
GROUNDWATER CONTOURS ARE INFERRED DUE TO SPACING AND FREQUENCY OF MONITORING WELLS. LOCATION OF MW-9 IS APPROXIMATE.

SPECTRUM FINISHING CORPORATION
 50 DALE STREET
 WEST BABYLON, NY
 SITE NO. 1-52-029

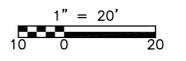
FIGURE 2
GROUNDWATER ELEVATION CONTOURS
IN SHALLOW OVERBURDEN-2007

STREET
CABOT STREET

STREET
DALE STREET



- LEGEND:**
- x— FENCE TO BE REMOVED AND REPLACED IN KIND (SEE DETAIL SHEET G-10)
 - o— OVERHEAD ELECTRIC AND UTILITY POLE
 - ⊙ CP-10 CESSPOOL LOCATION AND DESIGNATION
 - DS-11 DRAINAGE STRUCTURE LOCATION AND DESIGNATION
 - ⊙ CP-UNK-2 CESSPOOL LOCATION UNKNOWN
 - LIMIT OF CONTAMINATION NOT DEFINED (OFFSITE)
 - ▨ RESTRICTED EXCAVATION LOCATION
 - PROPERTY AND EXISTING STREET LINE



PLAN
1" = 20'

- NOTES:**
1. THE DEPTHS AT WHICH CONTAMINATED SOILS MAY BE ENCOUNTERED SHOWN ON THE FIGURE ARE APPROXIMATE DEPTHS OF WHERE CONTAMINATION BEGINS
 2. THE LIMITS AND DEPTHS OF CONTAMINATED SOILS ARE BASED ON CURRENT INFORMATION. CONTAMINATION MAY EXIST OUTSIDE OF THESE AREAS AND AT SHALLOWER DEPTHS THAN INDICATED.
 3. THE SITE IS RESTRICTED TO COMMERCIAL/INDUSTRIAL USE AND SHALL NOT BE USED FOR ANY OTHER PURPOSE SUCH AS RESIDENTIAL.
 4. THE GROUNDWATER TABLE BENEATH THE SITE IS CONTAMINATED AND NOT ACCEPTABLE FOR USE AS A POTABLE WATER SUPPLY OR FOR IRRIGATION.
 5. ONLY PORTION OF BUILDING FLOOR SLAB REMAINS AT 50 DALE. BUILDING WAS DEMOLISHED AS PART OF REMEDIATION.

WARNING
IT IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER IN ANY WAY PLANS, SPECIFICATIONS, PLATES OR REPORTS TO WHICH THE SEAL OF A PROFESSIONAL ENGINEER OR LAND SURVEYOR HAS BEEN ATTACHED.

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	1-29-09	AK	JPB	REVISIONS BASED ON COUNTY COMMENTS

CDM
Camp Dresser & McKee
11 British American Boulevard
Latham, NY 12110
Tel: (518) 782-4500
consulting • engineering • construction • operations

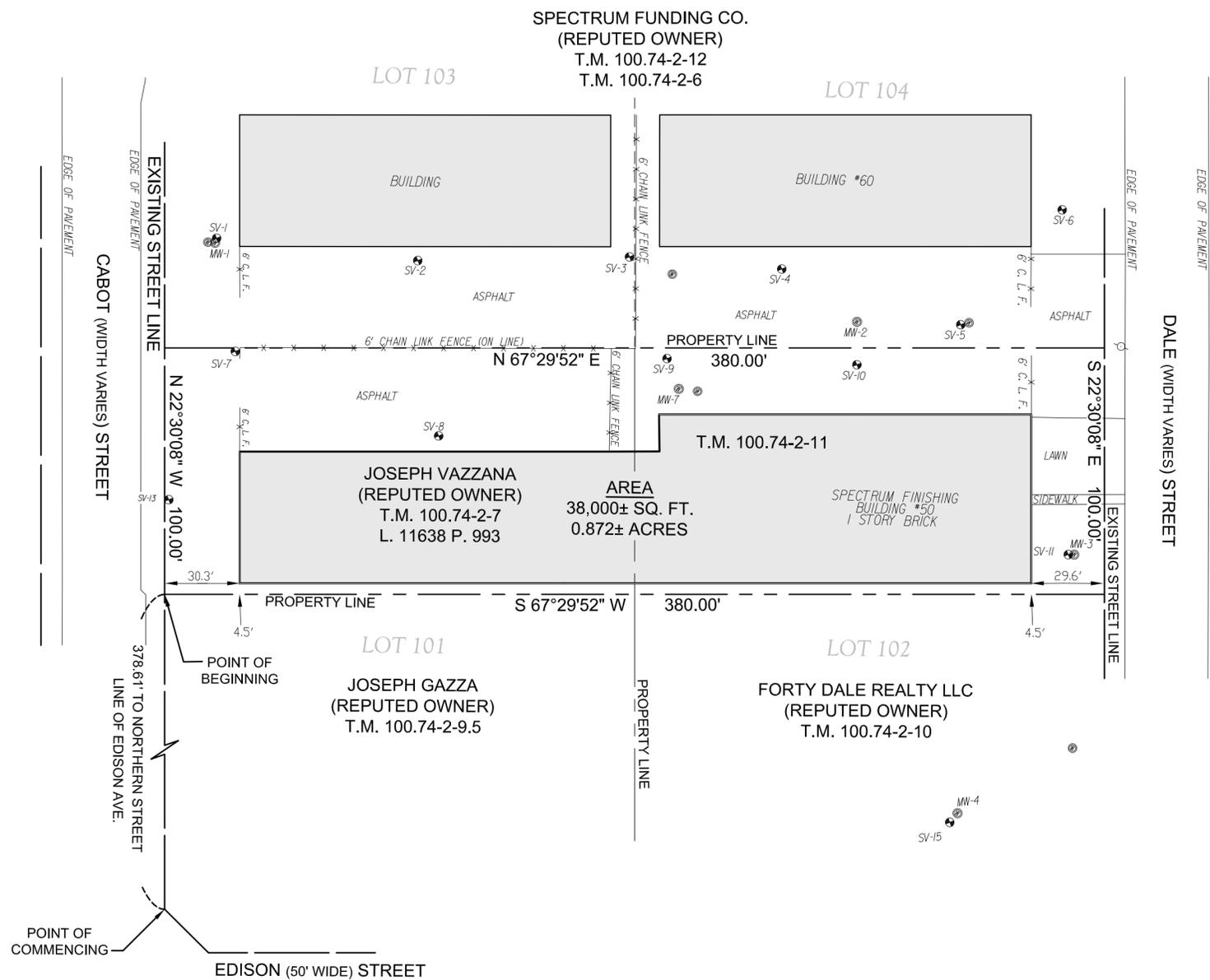
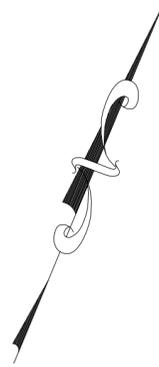
NYSDEC
CONTRACT NO. D006356
SPECTRUM FINISHING CORPORATION
BABYLON, NEW YORK

EXCAVATION RESTRICTION AREAS

PROJECT NO. 0897-58505
FILE NAME: FIGURE 4.dwg
SHEET NO.
FIGURE 4

C:\Projects\0897\58505\CIVIL\G4-A1 03/24/08 11:24 Koskior XREES: CDM_2234

APPENDIX A



SURVEY NOTES

1. HORIZONTAL LOCATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN DAUM 1983 / 96 - UTM ZONE 18.
2. PROJECT UNITS ARE U.S. SURVEY FEET.
3. VERTICAL LOCATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. DISTANCES SHOWN HEREON ARE GROUND DISTANCES.

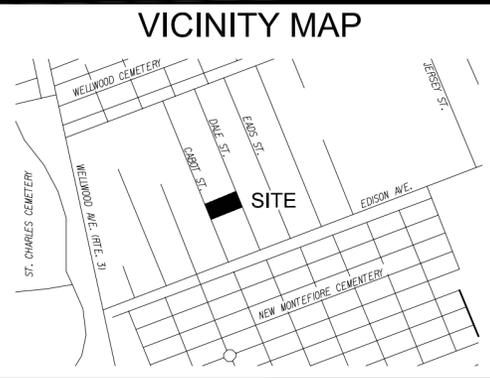
LEGAL DESCRIPTION

All that piece or parcel of land being a portion of Lots 101 & 102 as shown on a map titled "Map of City of Breslau, Sheet 9" and filed with the Suffolk County Clerk April 22, 1881 as File No. 330; also known as Tax Map Number 100.74, Block 2, Parcels 7 and 11, situate in the Town of Babylon, County of Suffolk and State of New York and being more particularly described as follows:

COMMENCING at a point formed by the intersection of the northerly street line of Edison Avenue, an existing town road and the easterly street line, as widened, of Cabot Street an existing town road, thence; Northwesterly along the easterly line of Cabot Street a distance of 378.61 feet to the point of BEGINNING, said point being on the division line between the property of Joseph Vazzana (reputed owner) on the north and the property of Joseph Gazza (reputed owner) on the south, thence; North 22°30'08" West continuing along the easterly street line of Cabot Street a distance of 100.00 feet to a point, said point being on the division line between the property of Joseph Vazzana (reputed owner) on the south and the property of Spectrum Funding Co. (reputed owner) on the north, thence; North 67°29'52" East along the last mentioned division line a distance of 380.00 feet to a point on the westerly street line, as widened, of Dale Street an existing town road, thence; South 22°30'08" East along the westerly line of said street a distance of 100.00 feet to point, said point being on the division line between the property of Joseph Vazzana (reputed owner) on the north and the property of Forty Dale Realty LLC (reputed owner) on the south, thence; South 67°29'52" West along the last mentioned division line and continuing along the first mentioned division line a total distance of 380.00 feet to the point of beginning, being 38,000± square feet or 0.872 acres, more or less.

REFERENCES

1. MAP ENTITLED, "CITY OF BRESLAU, SUFFOLK CO. N.Y., COMPRISING SHEET 9", SURVEYED BY R.B. WHEELER, DATED OCTOBER 1880, FILED AS FILE NO. 330 & DATED APRIL 22, 1881.
2. DEED, FILED IN LIBER 8807 AT PAGE 482.
3. DEED, FILED IN LIBER 11638 AT PAGE 993.
4. DEED, FILED IN LIBER 12184 AT PAGE 124.



LEGEND

- T.M. TAX MAP
- ⊕ MONITORING WELL
- ⊗ GEODETIC DRILL HOLE
- UTILITY POLE

CERTIFICATION

WE, POPLI ARCHITECTURE + ENGINEERING & L.S., P.C., HEREBY CERTIFY THAT THIS SURVEY AND MAP WAS PREPARED UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR AND FROM THE NOTES OF AN INSTRUMENT SURVEY COMPLETED MAY 2, 2007 AND THE REFERENCES LISTED HEREON. THIS SURVEY IS SUBJECT TO ANY EASEMENTS AND/OR ENCUMBRANCES AN UP-TO-DATE ABSTRACT OF TITLE MAY REVEAL.



MICHAEL A. VENTURO, L.S. 50079
 FOR: POPLI DESIGN GROUP
 PHONE: 585-388-2060

SURVEY BY:		PREPARED FOR:		
				SURVEYOR
		JOB NUMBER:		
		SURVEY CREW:	J. PHILLIPS, W. STRATTON	
DRAWN BY:	J. PHILLIPS	REVISIONS		
CHECKED BY:	M. VENTURO	6/30/10	REVISED LOGO, ADDED LEGAL DESCRIPTION, REMOVED SAMPLE TABLE	

BOUNDARY SURVEY & MAP

OF

SPECTRUM FINISHING CORPORATION SITE

N.Y.S. D.E.C. SITE I.D. NO. 1-52-0209

Being a portion of the Western Division of the Squaw Pit Purchase

Town of Babylon, County of Suffolk, State of New York

DATE: JUNE, 2007 SCALE: 1" = 40'

APPENDIX B

**Table 2-6
Summary of Surface Soil Sample Analytical Results**

**Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029**

Sample Location Sample Date	Site Background ⁷	TAGM # 4046 RSCO ⁸	Published Background ⁹	AP-1, S-1	AP-2, S-1	AP-5 ⁽⁴⁾	AP-6	AP-7	AP-8	AP-9	AP-10
				6/9/1999	6/9/1999	6/27/1999	6/27/1999	6/27/1999	6/27/1999	6/27/1999	6/27/1999
				Q	Q	Q	Q	Q	Q	Q	Q
Volatile Organics (ug/kg)											
Chloroethane		1900		6J							
1,1-Dichloroethene		400		5J							
1,1-Dichloroethane		200		2200 DEJ	100 J						
1,1,1-Trichloroethane		800		2400 DEJ	840 DJ						
Trichloroethene		700		7J	22J						
1,1,2-Trichloroethane		NV			5J						
Tetrachloroethene		1400		150J	10J		1J				
Toluene		1500		15J	10J						
Semi-Volatile Organics (ug/kg)											
Dimethyl phthalate		2000							420J		86J
Di-n-butyl phthalate		8100							110J		
Fluoranthene		50000									35J
Pyrene		50000							86J		47J
Butyl benzyl phthalate		50000				46J	220J	5800	4400	1200	37J
bis(2-Ethylhexyl)phthalate		50000		1200J	730J	180J	200J	5000	2600	880	140J
Di-n-octyl phthalate		50000							82J		
Benzo(b)fluoranthene		1100							100J		42J
Indeno(1,2,3-cd)pyrene		3200							140J		
Benzo(g,h,i)perylene		50000							350J	45J	
PCBs and Pesticides (ug/kg)											
Beta-BHC		200		NT	NT		NT	NT	NT	NT	1.5J
Gamma-BHC (Lindane)		60		NT	NT		NT	NT	NT	NT	0.36J
4,4'-DDD		2900		NT	NT	4.6	NT	NT	NT	NT	8.6
4,4'-DDE		2100		NT	NT	18	NT	NT	NT	NT	7J
4,4'-DDT		2100		NT	NT	16	NT	NT	NT	NT	29J
Dieldrin		44		NT	NT	1.2J	NT	NT	NT	NT	4.7
Endosulfan sulfate		1000		NT	NT		NT	NT	NT	NT	2J
Heptachlor		100		NT	NT		NT	NT	NT	NT	1.4
PCB-1254		1000 (total)		6100	720	27J	1000	380	3600	420	87P
PCB-1260		1000 (total)				37		230	1600	160J	
Gamma chlordane		540		NT	NT	NT	NT		NT	NT	2.3D
Alpha chlordane		NV		NT	NT	NT	NT		NT	NT	23J
Inorganics (mg/kg)											
Aluminum	7610	SB	33,000	2810*	6260*	7610	5140	2260	4100	3870	3850
Antimony		SB	NV	B	0.83B		0.67J	10.2J	1.4J	0.77J	
Arsenic	4.4	7.5 or SB	3-12	1.2B	4	4.4	3.8	2.2	5.3	2.4	10.9
Barium	19.2	300 or SB	15-600	36.8B	161	19.2B	22.3B	91.6	40.9	157	220
Beryllium	0.24	0.16 or SB	0-1.75	0.11B	0.8B	0.24B	0.27B	0.45B	0.29B	0.23B	0.19B
Cadmium	1.8	1 or SB	0.1-1	154	265	1.8J	174J	134J	1670J	153J	10.3J
Calcium	1400	SB	130-35,000	429B	1350	1400	2200	2490	2270	307B	22600
Chromium	10.1	10 or SB	1.5-40	447	194	10.1	220	488	3130	292	54.8
Cobalt	2	30 or SB	2.5-60	2.1B	18.3	2B	2.4B	3.9B	27.8	2.5B	3.4B
Copper	12	25 or SB	1-50	42J	302J	12J	53.2J	61.2J	1970J	96.5J	49J
Iron	8790	2,000 or SB	2,000-550,000	4550*	10200*	8790*	6850*	4010*	13100*	6930*	6090*
Lead	31.2	200-500	20-500 ¹⁰	72.5	94.8	31.2*	60.1*	188*	135*	38*	88*
Magnesium	669	SB	100-5,000	421B	1270	669B	1210	713B	778B	781B	3790
Manganese	63.1	SB	50-5,000	37.4J	70.1J	63.1*	46.8*	306*	613*	67.3*	196*
Mercury	0.03	0.1	0.001-0.2	0.05J	0.17J	0.03B	0.03B	0.04B	0.7		0.02B
Nickel	6.4	13 or SB	0.5-25	64.6J	368J	6.4B	109	97.2	21100J	86.2	38.5
Potassium	169	SB	8,500-43,000	143B	240B	169B	172B	153B	315B	201B	365B
Selenium	1.2	2 or SB	0.1-3.9			1.2J	1.1J	1.9J			
Silver		SB	NV	0.51B	18.1				7.7		
Sodium		SB	6,000-8,000	83B					242B		141B
Thallium	2.2	SB	NV	2B	2.2B	2.2	1.5B	1.2B	3.3	1.9B	1.5B
Vanadium	14	150 or SB	1-300	5.8B	15.7	14	9.2B	5.4B	7B	8.2B	8.2B
Zinc	51.8	20 or SB	9-50	89.6	343	51.8*	188*	401*	1190*	1030*	102*
Cyanide		NV	NV	21.2	7.9		30.3*	5.8*	65.7*	66.5*	0.37B*
Total Organic Carbon (mg/kg)											
Total Organic Carbon		NV		NT	NT	19100	NT	NT	NT	NT	2150

NOTES:

- Only compounds detected in one or more soil samples are presented in this table.
- Blank indicates compound was not detected. NT indicates compound was not tested.
- Analytical testing completed by CompuChem Corporation.
- Results presented for AP-5 are the higher of this sample and its duplicate.
- Q = laboratory qualifier. Refer to Appendix E for qualifier definitions.
- ug/kg = parts per billion, mg/kg = parts per million.
- AP-5 utilized for surface soil site background inorganics.
- TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from Technical and Administrative Guidance Memorandum No. HWR-94-4046
- Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No. HWR-94-4046.
- NV = no value, SB = Site background.
- Concentrations that are bold exceed RSCO.
- Surface soil samples were collected approximately 0 to 1.0 feet below ground surface or 0.5 feet below subbase material if paved.

Table 2-7
Summary of Subsurface Soil Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location	Site Background ⁸	TAGM #4046 RSCO ⁹	Published Background ¹⁰	GP-1,S-3 6/1/1999 4-6 ft	GP-1,S-8 6/1/1999 14-16 ft	GP-2,S-5 6/10/1999 8-10 ft	GP-2,S-10 6/10/1999 18-20 ft	GP-3,S-5 6/10/1999 8-10 ft	GP-3,S-9 6/10/1999 16-18 ft	GP-4,S-2 6/4/1999 2-4 ft	GP-4,S-9 6/4/1999 16-18 ft	GP-5,S-1 6/7/1999 0-2 ft	GP-5,S-8 6/7/1999 14-16 ft	GP-6,S-4 6/28/1999 6-8 ft	GP-6,S-7 6/28/1999 12-14 ft	GP-7,S-5 6/4/1999 8-10 ft	GP-7,S-10 6/28/1999 18-20 ft	GP-8,S-4 6/16/1999 6-8 ft	GP-9,S-4 6/7/1999 6-8 ft	GP-9,S-6 6/7/1999 10-12 ft	GP-10,S-1 6/15/1999 0-2 ft	GP-10,S-4 6/15/1999 6-8 ft	GP-11,S-4 6/3/1999 6-8 ft			
Sample Date				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q		
Sample Depth																										
Volatile Organics (ug/kg)																										
Chloromethane		NV																								
Bromomethane		NV																								
Methylene chloride		100																								
1,1,2-Trichloro-1,2,2-trifluoroethane		6000																								
Acetone		200		5 J		2 J																				
Carbon disulfide		2700																								
1,1-Dichloroethane		200																								
2-Butanone		300																								
1,1,1-Trichloroethane		800																								
Trichloroethene		700											17													
Tetrachloroethene		1400		1 J						20	2 J	30										6 J				
2-Hexanone		NV																								
4-Methyl-2-pentanone		1000																								
Toluene		1500		2 J								2 J														
1,2-Dibromo-3-chloropropane (DBCP)		NV																								
1,2,4-Trichlorobenzene		3400																								
Semi-Volatile Organics (ug/kg)																										
Phenol		30 or MDL		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Di-n-butyl phthalate		8100		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
bis(2-Ethylhexyl)phthalate		50000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	86 J	NT	NT	NT	
PCB and Pesticides (ug/kg)																										
Alpha-BHC		110		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Gamma-BHC (Lindane)		60		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
4,4'-DDE		2100		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endosulfan I		900		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endosulfan II		900		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endosulfan sulfate		1000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Endrin aldehyde		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Heptachlor epoxide		20		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
p,p'-Methoxychlor		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
PCB-1254		10000								1200 D	1400 D												290			
Gamma chlordane		540		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Inorganics (mg/kg)																										
Aluminum	723	SB	33,000	1320	986	842	1120	710	580	6100	2200	9370	923	4100	727	869	708	2440 *	5630	1070	5860	3600	4210 J			
Antimony		SB	NV				1.1 B					0.27 B	1.3 B						0.32 B					3.4 B		
Arsenic	1.0	7.5 or SB	3-12		0.86 B					1.3 B	1.6 B	1.4 B		2.7	1.5 B		1.6 B	1.2 B	1.3 B	3.3	2.2			3.7 J		
Barium	2.8	300 or SB	15-600	7.5 B	4.8 B	1.6 B	4.5 B	1.6 B	1.9 B	8.3 B	15.3 B	12.1 B	4.7 B	13.9 B	4.3 B	3.3 B	4.2 B	11.6 B	14.5 B	5.5 B	9.9 B	9.4 B	453			
Beryllium	0.08	0.16 or SB	0-1.75		0.17 B	0.12 B	0.12 B			0.18 B	0.13 B	0.26 B	0.14 B	0.29 B	0.12 B	0.11 B	0.17 B	0.21 B	0.28 B	0.13 B	0.17 B	0.16 B	0.33 B			
Cadmium		1 or SB	0.1-1				87.2			53.1	550	19.4	0.63 B	48.6 J	18.6 J	0.35 B	1.6 J			0.29 B	38.4		0.35 B			
Calcium	553.0	SB	130-35,000	393 B	33.5 B	16.1 B	82 B	13.1 B	12.9 B	345 B	434 B	810 B	26.3 B	184 B	25.2 B	290 B	29.9 B	35.4 B	171 B	74.9 B	294 B*	199 B*	22000			
Chromium	4.3	10 or SB	1.5-40	1.3 B	4.2	1.3 B	289	1.9 B	62.1	39.5	76.2	327	27.4	5.4	2.7	5.5	11.9	4.1	46.5	16.8	150	11.6	26.4			
Cobalt	0.91	30 or SB	2.5-60	2.4 B	1.6 B	0.71 B	1.4 B	0.76 B	0.32 B	2.4 B	2.4 B	2.3 B	0.74 B	3.1 B	1.1 B	0.98 B	0.7 B	2.5 B	2.7 B	3.2 B	1.8 B	2.2 B	5.4 B			
Copper	1.6	25 or SB	1-50	2.1 B	3.2 B	1.6 B	71.5 J	2 B	5.8 J	17.7	94.4	214 J	22.9 J	3.6 J	2 J	2.2 B	15.8 J	3.6 B	5.1 B	2.5 B	69.6 *	8.2 *	448			
Iron	1910	2,000 or SB	2,000-550,000	1870	3260	1750	2370	2150	1680	6010	6330	8550	2250	6660 *	1710 *	2130	2060 *	5410 *	6560	2930	6560 *	6190 *	16100			
Lead	0.54	200-500	20-500 ¹⁰	0.86	1.7	0.76	2.3	0.46 B	0.68	4.2	9.7	7.4	1.5	1.7 J	0.49 J	1.2	0.29 J	1.8	4.6	1.3	6.7	1.8	331			
Magnesium	454	SB	100-5,000	390 B	260 B	119 B	249 B	205 B	117 B	632 B	402 B	656 B	153 B	723 B	211 B	182 B	157 B	490 B	990 B	223 B	459 B	931 B	6290			
Manganese	50	SB	50-5,000	339	59	28.3 *	22.3	11.2	13.1 J	88	45.6	37.4	151 *	39.9 *	13.5	28.3 *	225 J	68.5		35.3	54.3	65.8	350			
Mercury		0.1	0.001-0.2	R	0.02 B	0.004 B	0.01 B	R	R	0.01 B	0.01 B	R	R	R	R	R	R	0.01 B	R	R	R	R	R			
Nickel	1.0	13 or SB	0.5-25	1.9 B	2 B	0.77 B	41.7	0.78 B	2.7 B	249	379	87	9.8	3.7 B	1.3 B	1.2 B	3.6 B	2.7 B	142	47.5	116	20.8	32.4			
Potassium	71.9	SB	8,500-43,000	77.1 B	105 B	40.9 B	131 B	64 B	58.9 B	189 B	164 B	263 B	83 B	191 B	135 B	66.4 B	92.4 B	153 B	325 B	145 B	245 B	513 B	462 B			
Selenium		2 or SB	0.1-3.9																			1.7 J		1.4		
Silver		SB	NV				0.15 B				0.91 B															
Sodium		SB	6,000-8,000				64.1 B		68.5 B			164 B	75.6 B							720 B	324 B	1020 B	511 B			
Thallium		SB	NV								0.81 B															
Vanadium	1.7	150 or SB	1-300	2 B	2.8 B	1.9 B	2.6 B	2.5 B	1.6 B	8.7 B	4.5 B	11.5	2.3 B	8.2 B	1.6 B	1.9 B	3 B	5.5 B	8.2 B	9.8 B	2.6 B	1.8 B	1.8 B	1.5 B		
Zinc	2.3	20 or SB	9-50	3.1 B	10.4 J	2.7 B	35.4	2.6 B	2.9 J	18.8	318	46.7	5.3 J	16 J	3.4 J	6.2 J	4.2 J	7.5 J	147	3.8 B	19.4	13.5	1230			
Cyanide	0.35	NV	NV				29.3			12.3	9.4	26.3	1.7	R	R			0.4 B			31.8	13.9				
Total Organic Carbon (mg/kg)																										
Total Organic Carbon				NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	227	NT	NT	NT		

- Notes: 1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank indicates compound was not detected.
3. NT indicates compound was not tested.
4. Analytical testing completed by CompuChem Corporation.
5. Results presented for GP-7, S-10; GP-9, S-6; GP-11, S-4; GP-44, S-8; GP-46, S-2; GP-47, S-2; GP-49, S-2; and MW-6S, S-2 are the higher of these samples and their respective duplicate.
6. Q = laboratory qualifier. See Appendix E for qualifier definitions.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. Refer to Table 4-1 for additional information on background Site conditions.
9. TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from NYSDEC Technical and Administrative Guidance Memorandum No. HWR-94-4046, based on background Site soil samples (see Table 4-1). NV = no value; ND = no detections.
10. Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No HWR-94-4046.
11. NV = no value; SB = site background; MDL = method detection limit.
12. Concentrations that are bold exceed RSCO.

**Table 2-7
Summary of Subsurface Soil Sample Analytical Results**

**Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029**

Sample Location Sample Date Sample Depth	Site Background ⁸	TAGM #4046 RSCO ⁹	Published Background ¹⁰	GP-12,S-4 6/1/1999 6-8 ft	GP-12,S-10 6/1/1999 18-20 ft	GP-13,S-6 6/2/1999 10-12 ft	GP-14,S-6 6/2/1999 10-12 ft	GP-14,S-10 6/2/1999 18-20 ft	GP-15,S-1 6/2/1999 0-2 ft	GP-15,S-3 6/2/1999 4-6 ft	GP-16,S-1 6/2/1999 0-2 ft	GP-16,S-8 6/2/1999 14-16 ft	GP-17,S-2 6/2/1999 2-4 ft	GP-17,S-6 6/2/1999 10-12 ft	GP-18,S-4 6/16/1999 6-8 ft	GP-19,S-4 6/2/1999 6-8 ft	GP-19,S-8 6/2/1999 14-16 ft	GP-20,S-3 6/4/1999 4-6 ft	GP-20,S-8 6/4/1999 14-16 ft	GP-21,S-2 6/4/1999 2-4 ft	GP-21,S-8 6/4/1999 14-16 ft	GP-22,S-2 6/2/1999 2-4 ft	GP-22,S-9 6/2/1999 16-18 ft	GP-23,S-4 6/15/1999 6-8 ft		
				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q		
Volatile Organics (ug/kg)																										
Chloromethane		NV																								
Bromomethane		NV																								
Methylene chloride		100																							12	
1,1,2-Trichloro-1,2,2-trifluoroethane		6000																								
Acetone		200						8 J						5 J											23	
Carbon disulfide		2700		2 J																						
1,1-Dichloroethane		200																								
2-Butanone		300																								
1,1,1-Trichloroethane		800																								
Trichloroethene		700																								
Tetrachloroethene		1400																								
2-Hexanone		NV																								
4-Methyl-2-pentanone		1000																								
Toluene		1500									2 J														3 J	
1,2-Dibromo-3-chloropropane (DBCP)		NV																								
1,2,4-Trichlorobenzene		3400																								
Semi-Volatile Organics (ug/kg)																										
Phenol		30 or MDL		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
Di-n-butyl phthalate		8100		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
bis(2-Ethylhexyl)phthalate		50000		NT	NT		39 J	NT	NT	NT	NT	NT	NT	NT		39 J		NT	NT	NT	NT	NT	NT	NT	56 J	
PCB and Pesticides (ug/kg)																										
Alpha-BHC		110		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
Gamma-BHC (Lindane)		60		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
4,4'-DDE		2100		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
Endosulfan I		900		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
Endosulfan II		900		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
Endosulfan sulfate		1000		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
Endrin aldehyde		NV		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
Heptachlor epoxide		20		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
p,p'-Methoxychlor		NV		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
PCB-1254		10000							70		100															
Gamma chlordane		540		NT	NT			NT	NT	NT	NT	NT	NT	NT				NT	NT	NT	NT	NT	NT	NT		
Inorganics (mg/kg)																										
Aluminum	723	SB	33,000	1020	1010	693		605		378	5760	9910	3730	951	5310*	1330	1290*	1060	781	923	697	6020	890	1110	837	720*
Antimony		SB	NV																							
Arsenic	1.0	7.5 or SB	3-12		1.5 B				2 B	2.3	2.1 B		1.3 B	1.6 B	2.3						1.7 BJ		0.87 B	1.2 B		
Barium	2.8	300 or SB	15-600	3.2 B		3.1 B	2.1 B	2.5 B	8.6 B	40.5 B	10.6 B	3.5 B	7 BE	4.7 B	4.8 B	4.3 B	3.3 B	3.3 B	2.9 B	15.3 B	3.7 B	5.4 B	3.6 B	1.9 B		
Beryllium	0.08	0.16 or SB	0-1.75		0.18 B	0.12 B			0.2 B	0.32 B	0.2 B			0.2 B	0.11 B	0.13 B		0.13 B	0.09 B	0.25 B	0.1 B		0.1 B			
Cadmium		1 or SB	0.1-1								2	17.9		7.9				20.3		3	0.29 B			8.1		
Calcium	553.0	SB	130-35,000	20.9 B	52.9 B	12.4 B	20.9 B	24 B	2680	154 B	33700	67 B	220 B	73.7 B	36 B	15.6 B	37.9 B	197 B	161 B	72.4 B	30 B	42.5 B	345 B	10.2 B		
Chromium	4.3	10 or SB	1.5-40	1.7 B	1.8 B	10.6	1 B	2.5	4.9	10.3	6	39.5	62.8*	17.6	10.7	3.4	37.5	2.5	4.9	6.2	2.6	1.4 B	52.3	1 B		
Cobalt	0.91	30 or SB	2.5-60	0.95 B	0.73 B	0.97 B	0.51 B	0.36 B	1.4 B	5.1 B	2.2 B	0.9 B	0.36 B	1.9 B	1.3 B	1.1 B	1.6 B	0.75 B	0.81 B	0.66 B	3.2 B	1.1 B	0.79 B	0.37 B		
Copper	1.6	25 or SB	1-50	2.1 B	3.6 B	1.9 B	6.4	11.5	2.6 B	6.4	6.2	8.3	1.7 B	46.1	3.2 B	2.2 B	19.3	2.1 B	3.9 B	3.7 B	2.4 B	17.9	12.2	1.3 B		
Iron	1910	2,000 or SB	2,000-550,000	2990	3390	2470	1280	1260	6580	8380	5080	2510	5050	2930	2920*	3410	1920	3230	2160	7910	2390	1760	2350	1790*		
Lead	0.54	200-500	20-500 ¹⁰	0.66	1.2	1	0.63	13	5.7	4.8	7.4	1.9	2.4	1.2	0.9 J	1.1	0.56 B	1.2	2.2	2.7	0.76 B	2.2	3	0.34 J		
Magnesium	454	SB	100-5,000	163 B	193 B	163 B	101 B	117 B	1650	1520	18100	330 B	400 B	298 B	225 B	238 B	202 B	276 B	227 B	743 B	265 B	147 B	353 B	147 B		
Manganese	50	SB	50-5,000	35.2	53	49.7	19.6	7	46.7	133	107	19.3	52.4	55	92.3 J	80.8	51.3	27.4	17.7	115	37.7	79.9	28.1	13 J		
Mercury		0.1	0.001-0.2	R	R	R	0.02 BJ	R	0.03 BJ	0.04 BJ	R	R	0.03 B	R	R	R	0.03 BJ	R	0.004 J	0.01 BJ	R	0.04 BJ	R	R		
Nickel	1.0	13 or SB	0.5-25	0.72 B	1.1 B	1.3 B	0.65 B	0.29 B	2.7 B	6.2 B	4.8 B	17.9	8.6	26.8	8.9	1.6 B	8.5	0.81 B	2.4 B	3.8 B	1.3 B	1.1 B	9.8	0.73 B		
Potassium	71.9	SB	8,500-43,000	74.7 B	74.5 B	62 B	50.6 B	67.7 B	126 B	265 B	181 B	244 B	115 B	135 B	98.8 B	118 B	66.6 B	68.8 B	51.1 B	155 B	110 B	59.9 B	67.5 B	65.4 B		
Selenium		2 or SB	0.1-3.9																							
Silver		SB	NV																							
Sodium		SB	6,000-8,000											99.9 B								58.2 B				
Thallium		SB	NV							0.87 B				0.89 B												
Vanadium	1.7	150 or SB	1-300	2.3 B	2.6 B	2.4 B	1.3 B	1.5 B	9.2 B	16.7	7.3 B	2.4 B	7.4 B	3 B	3.2 B	2.8 B	2.1 B	2.6 B	2.1 B	9.9 B	2.5 B	1.7 B	2.5 B	1.4 B		
Zinc	2.3	20 or SB	9-50	3.1 B	3.8 BJ	2.5 BJ	1.9 BJ	1.8 BJ	9.6 J	17.6 J	12.3 J	19.3	5.2	14.4 J	4.7 J	4.2 J	8.5 J	5.9 J	8.9 J	9.6 J	4.2 J	7.5 J	15.9 J	3.2 J		
Cyanide	0.35	NV	NV				0.35 B				0.49 B	25.7	0.52 B	1.1	4		31.7						11.6			
Total Organic Carbon (mg/kg)																										
Total Organic Carbon				NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	

Notes: (See Page 1.)

Table 2-7
Summary of Subsurface Soil Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location	Site Background ⁸	TAGM #4046 RSCO ⁹	Published Background ¹⁰	GP-24,S-3 6/3/1999 4-6 ft	GP-24,S-7 6/3/1999 12-14 ft	GP-25,S-5 6/3/1999 8-10 ft	GP-25,S-10 6/3/1999 18-20 ft	GP-26,S-5 6/1/1999 8-10 ft	GP-26,S-10 6/1/1999 18-20 ft	GP-27,S-5 6/15/1999 8-10 ft	GP-27,S-9 6/15/1999 16-18 ft	GP-28,S-3 6/15/1999 4-6 ft	GP-28,S-8 6/15/1999 14-16 ft	GP-29,S-4 6/3/1999 6-8 ft	GP-29,S-9 6/3/1999 16-18 ft	GP-30,S-1 6/3/1999 0-2 ft	GP-30,S-6 6/3/1999 10-12 ft	GP-32,S-5 6/1/1999 8-10 ft	GP-32,S-9 6/1/1999 16-18 ft	GP-33,S-4 6/2/1999 6-8 ft	GP-33,S-10 6/2/1999 18-20 ft
Sample Date	Sample Depth			Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatiles Organics (ug/kg)																					
Chloromethane		NV																			
Bromomethane		NV																			
Methylene chloride		100																			
1,1,2-Trichloro-1,2,2-trifluoroethane		6000																			
Acetone		200				12								3 J	3 J					3 J	3 J
Carbon disulfide		2700																			
1,1-Dichloroethane		200																			
2-Butanone		300																			
1,1,1-Trichloroethane		800																			
Trichloroethene		700																			
Tetrachloroethene		1400																			
2-Hexanone		NV																			
4-Methyl-2-pentanone		1000																			
Toluene		1500																			
1,2-Dibromo-3-chloropropane (DBCP)		NV																			
1,2,4-Trichlorobenzene		3400																			
Semi-Volatile Organics (ug/kg)																					
Phenol		30 or MDL		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
Di-n-butyl phthalate		8100		NT	NT	NT	NT	NT	NT	NT	NT	87 J	NT	NT	NT	NT	NT	NT	NT	NT	NT
bis(2-Ethylhexyl)phthalate		50000		NT	NT	NT	NT	NT	NT	NT	NT	39 J	NT	NT	NT	NT	NT	NT	NT	NT	NT
PCB and Pesticides (ug/kg)																					
Alpha-BHC		110		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
Gamma-BHC (Lindane)		60		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE		2100		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I		900		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II		900		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan sulfate		1000		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin aldehyde		NV		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor epoxide		20		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
p,p'-Methoxychlor		NV		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
PCB-1254		10000																			
Gamma chlordane		540		NT	NT	NT	NT	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT
Inorganics (mg/kg)																					
Aluminum	723	SB	33,000	1210	1180	1380	821	723	749	1090	644	2120*	799*	958	1360	1660	1870	1110	466	810	306
Antimony		SB	NV																		
Arsenic	1.0	7.5 or SB	3-12				1.4 BJ		0.96 B			1.1 B	0.9 B				0.91 BJ				
Barium	2.8	300 or SB	15-600	6.9 B	5.7 B	3 B	3 B	2.5 B	3.9 B	13.1 B	2.7 B	6.2 B	3.1 B	2.9 B	11.5 B	8.3 B	6.9 B	4.4 B	3.4 B	2.5 B	2.5 B
Beryllium	0.08	0.16 or SB	0.1-75	0.14 B	0.09 B	0.15 B	0.09 B		0.1 B	0.09 B		0.13 B	0.1 B	0.11 B	0.13 B	0.15 B	0.15 B	0.09 B		0.12 B	
Cadmium		1 or SB	0.1-1		1.7		0.42 B				0.71 B				0.16 B	1 B	0.41 B				1.3
Calcium	553.0	SB	130-35,000	21.1 B	85 B	2370 J	512 B	13.2 B	10.3 B	16.8 B*	14 B*	38.5 B	34.2 B	6.3 BJ	246 BJ	536 BJ	4200	10200	15.8 B	16.5 B	73 B
Chromium	4.3	10 or SB	1.5-40	1.8 B	5.1	13	10.8	4.3	2.5	2.5	1.8 B	4.2	1.7 B	1.3 B	3.7	5.9	4.6	16	1 B	1.1 B	7.9
Cobalt	0.91	30 or SB	2.5-60	0.99 B	1.2 B	1.2 B	0.68 B	0.91 B	0.5 B	0.79 B	1.1 B	0.6 B	1.7 B	0.85 B	0.98 B	1.1 B	1.7 B	1.9 B	1.2 B	0.81 B	0.63 B
Copper	1.6	25 or SB	1-50	2.4 B	6.7	3.4 B	2.8 B	1.6 B	1.3 B	2.8 B*	2.8 B*	3 B	2.2 B	2.5 B	2.6 B	4.7 B	3.9 B	3.7 B	2.5 B	7.5	20.6
Iron	1910	2,000 or SB	2,000-550,000	2990	3130	3710	2560	1790	1210	2460*	1600*	4770*	2830*	2920	2820	3330	3820	3280	1360	1710	1190
Lead	0.54	200-500	20-500 ¹⁰	1.4	1.6	1.6	0.95 B	0.54 B	0.45 B	4.9	1.3	0.81	0.96	1.1	1	3	5.7	1.2	1.1	0.6	14.5
Magnesium	454	SB	100-5,000	212 B	405 B	1520 J	419 B	124 B	151 B	172 B	104 B	748 B	176 B	144 BJ	522 BJ	561 BJ	2680	5980	85 B	150 B	122 B
Manganese	50	SB	50-5,000	60.7	24.8	71.1	29.8	28.5	26.5	25	21.8	72.9 J	53.4 J	26	38.5	98.3	86	49.3	30.6	17.8	9.6
Mercury		0.1	0.001-0.2	R	R	R	R	R	0.02 BJ	R	R	R	R	R	0.03 BJ	0.02 BJ	R	R	R	R	R
Nickel	1.0	13 or SB	0.5-25	1.1 B	2.8 B	2.1 B	1.5 B	1 B	0.79 B	1.1 B	1.4 B	2.2 B	1.1 B	0.82 B	1.7 B	2.4 B	2.6 B	2 B	1 B	0.76 B	0.7 B
Potassium	71.9	SB	8,500-43,000	94.1 B	295 B	109 B	82 B	50.9 B	83.7 B	55.8 B	44.8 B	166 B	76.6 B	63 B	365 B	119 B	137 B	96.8 B	54 B	64.5 B	76.7 B
Selenium		2 or SB	0.1-3.9																		
Silver		SB	NV																		
Sodium		SB	6,000-8,000									78.7 B			67.3 B	69.7 B					
Thallium		SB	NV									1.4 B	1.3 B								
Vanadium	1.7	150 or SB	1-300	2.6 B	4 B	3.7 B	2.3 B	1.5 B	1.7 B	2.4 B	1.8 B	8.3 B	2.1 B	2.4 B	4.3 B	3.9 B	4.1 B	3.1 B	1.5 B	1.4 B	1.2 B
Zinc	2.3	20 or SB	9-50	4.8 J	11.5 J	4.3 J	4.9 J	2.3 BJ	2.4 BJ	5.4 J	24.2	5.9 J	3.4 J	4.1 J	8.9 J	9.4 J	9.8 J	3.8 BJP	3.8 BJ	2.1 BJ	3.7 BJ
Cyanide	0.35	NV	NV																		5.8
Total Organic Carbon (mg/kg)																					
Total Organic Carbon				NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	223	NT	NT

Notes: (See Page 1.)

Table 2-7
Summary of Subsurface Soil Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location Sample Date Sample Depth	Site Background ⁸	TAGM #4046 RSCO ⁹	Published Background ¹⁰	GP-34,S-6 6/2/1999 10-12 ft	GP-34,S-10 6/2/1999 18-20	GP-35,S-8 6/3/1999 14-16 ft	GP-36,S-2 6/3/1999 2-4 ft	GP-36,S-8 6/3/1999 14-16 ft	GP-38,S-4 6/3/1999 6-8 ft	GP-38,S-9 6/3/1999 16-18 ft	GP-39,S-2 6/3/1999 2-4 ft	GP-39,S-8 6/3/1999 14-16 ft	GP-40,S-1 6/17/1999 0-2 ft	GP-40,S-4 6/17/1999 6-8 ft	GP-42,S-2 6/10/1999 2-4 ft	GP-42,S-6 6/10/1999 10-12 ft	GP-44,S-4 6/15/1999 6-8 ft	GP-44,S-8 6/15/1999 14-16 ft	GP-45,S-1 4/24/2001 0-2 ft	GP-45,S-2 4/24/2001 2-4 ft	GP-45,S-3 4/24/2001 4-6 ft	GP-45,S-4 4/24/2001 6-8 ft	GP-45,S-5 4/24/2001 8-10 ft
				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Organics (ug/kg)																							
Chloromethane		NV																					
Bromomethane		NV																					
Methylene chloride		100														26							
1,1,2-Trichloro-1,2,2-trifluoroethane		6000																					
Acetone		200					5 J	2 J	4 J	2 J		5 J	22 J	9 J									
Carbon disulfide		2700																					
1,1-Dichloroethane		200																					
2-Butanone		300																					
1,1,1-Trichloroethane		800																				2 J	
Trichloroethene		700											1 J			4 J				2 J	8 J		
Tetrachloroethene		1400											9 J			9 J				3 J	12		
2-Hexanone		NV																					
4-Methyl-2-pentanone		1000																					
Toluene		1500											2 J			4 J							
1,2-Dibromo-3-chloropropane (DBCP)		NV																					
1,2,4-Trichlorobenzene		3400																					
Semi-Volatile Organics (ug/kg)																							
Phenol		30 or MDL		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
Di-n-butyl phthalate		8100		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
bis(2-Ethylhexyl)phthalate		50000		NT	NT	50 J	NT	NT	NT	NT	NT	NT	NT	NT	NT								
PCB and Pesticides (ug/kg)																							
Alpha-BHC		110		NT	NT	NT	NT	NT	NT	1.2 J	NT	NT	NT	NT	NT								
Gamma-BHC (Lindane)		60		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
4,4'-DDE		2100		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
Endosulfan I		900		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
Endosulfan II		900		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
Endosulfan sulfate		1000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
Endrin aldehyde		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
Heptachlor epoxide		20		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
p,p'-Methoxychlor		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
PCB-1254		10000					870 DJ																
Gamma chlordanes		540		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								
Inorganics (mg/kg)																							
Aluminum	723	SB	33,000	715	706	948	7970	760	1480	1950	7240	661	5910	1220	6660*	731*	1420	735*	8610 J	6600 J	1160 J	1100 J	1140 J
Antimony		SB	NV																	0.41 BN			
Arsenic	1.0	7.5 or SB	3-12	1 B			2 B		1.4 B		1.9 B		1.5 B		2.8			0.96 B	6.1	1.4 B		0.39 B	
Barium	2.8	300 or SB	15-600	2.8 B	2.9 B	4.2 B	17.2 B	3.2 B	2.8 B	8.3 B	12.8 B	3.6 B	12.1 B	10.9 B	12.5 B	2.9 B	7.7 B	6.3 B	34.1 BN	11.9 B	5.1 B	5.2 B	4.2 B
Beryllium	0.08	0.16 or SB	0-1.75	0.08 B		0.14 B	0.3 B	0.1 B	0.24 B	0.21 B	0.26 B		0.17 B	0.16 B	0.2 B		0.12 B		0.33 B	0.22 B	0.16 B	0.2 B	0.16 B
Cadmium		1 or SB	0.1-1				5.5				1.8		4.9	1360	21.8					0.54 B			
Calcium	553.0	SB	130-35,000	553 B	32.6 B	46.7 B	542 BJ	99.7 BJ	8.5 BJ	135 BJ	12700 J	14.6 BJ	1680*	45.1 B*	255 B	16.2 B	22.8 B*	26.1 B	2270 E	301 BE	76.9 BE	51.1 BE	767 BE
Chromium	4.3	10 or SB	1.5-40	2.3	2.3	30.4	8.1	14	2.3 B	8	8.2	18.4	142	91.5	6.7	1.9 B	1.4 B	1.9 B	12.2	7.4	1.9 B	2.9	3.2
Cobalt	0.91	30 or SB	2.5-60	0.77 B	0.53 B	1.3 B	5.2 B	0.66 B	1.2 B	1.5 B	4.3 B	0.41 B	2.5 B	1.3 B	2.1 B	0.57 B	2.2 B	0.67 B	2 B	1.9 B	1.3 B	1 B	0.64 B
Copper	1.6	25 or SB	1-50	1.2 B	13.9	21.7	4.9 B	21.5 J	3.1 B	4.6 B	4.5 B	8.4 J	98.9*	3.6 B*	5.6 J	1.9 B	2.9 B*	1.9 B	17.1	4 B	1.8 B	2 B	1.7 B
Iron	1910	2,000 or SB	2,000-550,000	1910	1050	4730	8850	1870	5240	4900	8530	3630	6010*	6030*	7700*	2650*	2840*	1990*	11200	7850	3270	3830	3020
Lead	0.54	200-500	20-500 ¹⁰	0.52 B	0.97	13.8	4.8	1.1	1	2.1	4.2	2.2	10.9	1.1	12.5	0.77	1	0.79	67 NJ	5.7 NJ	1.2 NJ	1.1 NJ	1.4 NJ
Magnesium	454	SB	100-5,000	454 B	260 B	270 B	1050 BJ	153 BJ	235 BJ	435 BJ	8010 J	165 BJ	619 B	202 B	500 B	149 B	258 B	181 B	834 B	824 B	301 B	213 B	323 B
Manganese	50	SB	50-5,000	49.7	13.2	51	162	32	50	53.1	170	8.5	72.6	252	57.1 J	43.1 J	210	22.7 J	124	59.4	126	162	49.7
Mercury		0.1	0.001-0.2	R	0.02 BJ	R	0.01 BJ	0.01 BJ	R	R	0.01 BJ	0.01 BJ	0.02 J	R	0.01 J	R	R	R					
Nickel	1.0	13 or SB	0.5-25	0.87 B	1.1 B	3 B	4.9 B	9.4	1.5 B	1.9 B	5.4 B	2.6 B	895	62.4	3.5 B	0.95 B	1.6 B	0.95 B	6.6 B	4.9 B	2 B	1.8 B	1.3 B
Potassium	71.9	SB	8,500-43,000	71.9 B	80.7 B	99.9 B	265 B	60 B	150 B	440 B	268 B	65.2 B	212 B	55 B	172 B	80.2 B	113 B	86 B	324 B	208 B	75.1 B	88 B	105 B
Selenium		2 or SB	0.1-3.9										1.3 J		1.6					1.4 NJ	0.84 BNJ		
Silver		SB	NV									0.36 B								0.2 B			
Sodium		SB	6,000-8,000				68.6 B			130 B	72.7 B	69.7 B	1210	131 B	71.3 B	64.6 B		147 B	267 B	229 B	191 B	231 B	234 B
Thallium		SB	NV								1.1 B		1.3 B	1.6 B	1.9 B	1.2 B	1.1 B	1.1 B					
Vanadium	1.7	150 or SB	1-300	1.7 B	1.8 B	2.6 B	11.9	1.8 B	3.4 B	4 B	11.8	1.9 B	9.6 B	2.7 B	11.6	2.2 B	2.4 B	1.8 B	18.3	11.3	3 B	2.8 B	2.7 B
Zinc	2.3	20 or SB	9-50	1.9 BJ	2.6 BJ	7.4 J	11.7 J	4 BJ	6.8 J	13.9 J	11.6 J	5.2 J	54.8	10.2	17.3	2.2 J	6.5	2.2 J	79.1 EJ	15.2 E	3.5 BE	3.7 BE	3.2 BE
Cyanide	0.35	NV	NV		0.62	1.1		1.3				1.8	107	6.5					NT	NT	NT	NT	NT
Total Organic Carbon (mg/kg)																							
Total Organic Carbon				NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT								

Notes: (See Page 1.)

Table 2-7
Summary of Subsurface Soil Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location Sample Date Sample Depth	Site Background ⁸	TAGM #4046 RSCO ⁹	Published Background ¹⁰	GP-45,S-6 4/24/2001 10-12 ft.	GP-45,S-7 4/24/2001 12-14 ft.	GP-45,S-8 4/24/2001 14-16 ft.	GP-46,S-1 4/24/2001 0-2 ft.	GP-46,S-2 4/24/2001 2-4 ft.	GP-46,S-3 4/24/2001 4-6 ft.	GP-46,S-4 4/24/2001 6-8 ft.	GP-46,S-5 4/24/2001 8-10 ft.	GP-46,S-6 4/24/2001 10-12 ft.	GP-46,S-7 4/24/2001 12-14 ft.	GP-46,S-8 4/24/2001 14-16 ft.	GP-46,S-9 4/24/2001 16-18 ft.	GP-46,S-10 4/24/2001 18-20 ft.	GP-47, S-1 4/24/2001 0-2 ft.	GP-47, S-2 4/24/2001 2-4 ft.	GP-47,S-3 4/24/2001 4-6 ft.	GP-47,S-4 4/24/2001 6-8 ft.	GP-47,S-5 4/24/2001 8-10 ft.	GP-47,S-6 4/24/2001 10-12 ft.	GP-47,S-7 4/24/2001 12-14 ft.
				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Organics (ug/kg)																							
Chloromethane		NV																					
Bromomethane		NV																					
Methylene chloride		100		2 J	2 J	2 J																	
1,1,2-Trichloro-1,2,2-trifluoroethane		6000					2 J	2 J		2 J		2 J	2 J	1 J	1 J	2 J					2 J		
Acetone		200																					
Carbon disulfide		2700																					
1,1-Dichloroethane		200																					
2-Butanone		300																					4 J
1,1,1-Trichloroethane		800					4 J	1 J															
Trichloroethene		700					8 J	2 J															
Tetrachloroethene		1400					47	14															
2-Hexanone		NV		1 J																			
4-Methyl-2-pentanone		1000																					
Toluene		1500																					
1,2-Dibromo-3-chloropropane (DBCP)		NV																					
1,2,4-Trichlorobenzene		3400														1 J							
Semi-Volatile Organics (ug/kg)																							
Phenol		30 or MDL		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Di-n-butyl phthalate		8100		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
bis(2-Ethylhexyl)phthalate		50000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PCB and Pesticides (ug/kg)																							
Alpha-BHC		110		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Gamma-BHC (Lindane)		60		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE		2100		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I		900		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II		900		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan sulfate		1000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin aldehyde		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor epoxide		20		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
p,p'-Methoxychlor		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PCB-1254		10000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Gamma chlordane		540		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Inorganics (mg/kg)																							
Aluminum	723	SB	33,000	1030 J	1880 J	881 J	3310 J	2700 J	1160 J	951 J	1100 J	1060 J	1160 J	900 J	1280 J	1270 J	6520 J	2110 J	1780 J	1070 J	724 J	1510 J	1120 J
Antimony		SB	NV				0.68 B		0.37 B								1.5 BN	0.33 BN					0.42 BN
Arsenic	1.0	7.5 or SB	3-12		0.64 B	0.53 B	1.2 B	0.53 B		0.45 B	0.36 B	6.1		0.67 B	1.3 B	1 B	2.1 B	0.5 B	0.53 B			1.7 B	
Barium	2.8	300 or SB	15-600	3.6 B	6.7 B	4.2 B	27.2 B	7.4 B	6 B	6.5 B	4.2 B	3.4 B	6.6 B	2.9 B	6.3 B	5.9 B	18 B	8.2 B	8.2 B	3.3 B	3.1 B	10.4 B	7.1 B
Beryllium	0.08	0.16 or SB	0-1.75	0.18 B	0.15 B	0.15 B	0.15 B	0.13 B			0.16 B		0.11 B		0.11 B		0.27 B	0.16 B	0.16 B	0.15 B	0.16 B	0.18 B	0.16 B
Cadmium		1 or SB	0.1-1				20.9		0.17 B				0.11 B	0.32 B		0.16 B	0.34 B	590	42.1	200	0.16 B	25.6	103
Calcium	553.0	SB	130-35,000	40.6 BE	3020 E	624 BE	3210	372 B	152 B	29.7 B	2170	38.3 B	349 B	34.8 B	386 B	974 B	497 BE	250 BE	2650 E	135 BE	127 BE	242 BE	276 BE
Chromium	4.3	10 or SB	1.5-40	2.1	7.1	4.6	47.9 J	3.4	2.8	3.9	3.7	5	7.7	3.4	10 J	6.9	370	18.2	48.4	10.5	10.3	16.3	44.9
Cobalt	0.91	30 or SB	2.5-60	0.83 B	1.1 B	0.53 B	2.1 B	2.2 B	1.2 B	0.93 B	0.79 B	1.3 B	1 B	0.67 B	0.83 B	0.95 B	6 B	2 B	1.2 B	0.65 B	0.68 B	1.5 B	1.1 B
Copper	1.6	25 or SB	1-50	1.7 B	2.7	1.5 B	31.9	2.9 B	1.7 B	2.7 B	3.6 B	2.1 B	2.6 B	2.5 B	3.2 B	4.2 B	15.5	8.2	28	3.8 B	4.8 B	8.3	32.5
Iron	1910	2,000 or SB	2,000-550,000	4200	3820 B	2210	7030 *J	5000 *J	2120 *J	2670 *J	4740 *J	5890 *J	3320 *J	3760 *J	4330 *J	5350 *J	7820	4420	3690	3320	2270	3810	3570
Lead	0.54	200-500	20-500 ¹⁰	1.1 NJ	3.2 NJ	1.9 NJ	24.5	6.3	1.5	3.2	1.4	1.6	1.1	1.7	1	1.4	14 NJ	1.8 NJ	2.7 NJ	1.3 NJ	1.2 NJ	1.8 NJ	2.7 NJ
Magnesium	454	SB	100-5,000	185 B	432 B	204 B	2000	513 B	296 B	183 B	264 B	218 B	282 B	305 B	316 B	335 B	615 B	379 B	1790	208 B	182 B	390 B	275 B
Manganese	50	SB	50-5,000	51.2	83	37.6	117 *J	142 *J	142 *J	235 *J	50.2 *J	59.9 *J	118 *J	42.1 *J	67.8 *J	85.3 *J	99.9	204	92.1	39.1	26.5	72.3	66.9
Mercury		0.1	0.001-0.2																				
Nickel	1.0	13 or SB	0.5-25	1.3 B	2.2 B	1.1 B	56.3	3.2 B	2.8 B	2.5 B	2.1 B	2.3 B	3 B	1.7 B	2.9 B	2.9 B	1960	112	104	97.5	72.1	112	179
Potassium	71.9	SB	8,500-43,000	81.1 B	181 B	92.4 B	385 BJ	212 BJ	114 BJ	92.9 BJ	81.9 BJ	73 BJ	105 BJ	86.2 BJ	226 BJ	234 BJ	235 B	166 B	129 B	97.2 B	75.1 B	207 B	123 B
Selenium		2 or SB	0.1-3.9										0.47 B				0.71 BNJ		0.64 BNJ				
Silver		SB	NV														0.2 B						
Sodium		SB	6,000-8,000	217 B	264 B	191 B	176 B	155 B	166 B	176 B	166 B	158 B	137 B	133 B	148 B	151 B	280 B	279 B	218 B	216 B	214 B	254 B	240 B
Thallium		SB	NV	0.82 B			0.86 B	0.91 B				1.2 B			0.7 B		1.2 B						
Vanadium	1.7	150 or SB	1-300	2.2 B	4.3 B	2.2 B	8.9 B	5.4 B	2.2 B	2.6 B	2.5 B	3.2 B	3.2 B	3 B	3.7 B	4.2 B	12.4	3.5 B	3.9 B	2.4 B	2 B	5.2 B	3.1 B
Zinc	2.3	20 or SB	9-50	3.3 BE	5.8 E	2.6 BE	42.6	8.6	3.6 B	3 B	8.1	4.4	4.4	3.7 B	5.9	9.8	31.9 EJ	6.6 E	24.5 EJ	3.6 BE	5.6 E	12 E	22.6 EJ
Cyanide	0.35	NV	NV	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Organic Carbon (mg/kg)																							
Total Organic Carbon				NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes: (See Page 1.)

Table 2-7
Summary of Subsurface Soil Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location Sample Date Sample Depth	Site Background ⁸	TAGM #4046 RSCO ⁹	Published Background ¹⁰	GP-47,S-8 4/24/2001 14-16 ft.	GP-47,S-9 4/24/2001 16-18 ft.	GP-47,S-10 4/24/2001 18-20 ft.	GP-48,S-1 4/24/2001 0-2 ft.	GP-48,S-2 4/24/2001 2-4 ft.	GP-48,S-3 4/24/2001 4-6 ft.	GP-48,S-4 4/24/2001 6-8 ft.	GP-48,S-5 4/24/2001 8-10 ft.	GP-48,S-6 4/24/2001 10-12 ft.	GP-48,S-7 4/24/2001 12-14 ft.	GP-48,S-8 4/24/2001 14-16 ft.	GP-48,S-9 4/24/2001 16-18 ft.	GP-48,S-10 4/24/2001 18-20 ft.	GP-49,S-1 4/24/2001 0-2 ft.	GP-49,S-2 4/24/2001 2-4 ft.	GP-49,S-3 4/24/2001 4-6 ft.	GP-49,S-4 4/24/2001 6-8 ft.	GP-49,S-5 4/24/2001 8-10 ft.	GP-49,S-6 4/24/2001 10-12 ft.	GP-49,S-7 4/24/01 12-14 ft.	GP-49,S-8 4/24/2001 14-16 ft.		
				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
Volatile Organics (ug/kg)																										
Chloromethane		NV																								
Bromomethane		NV																								
Methylene chloride		100							4 J																	
1,1,2-Trichloro-1,2,2-trifluoroethane		6000					2 J	4 J																		
Acetone		200																								
Carbon disulfide		2700																								
1,1-Dichloroethane		200																								
2-Butanone		300																								
1,1,1-Trichloroethane		800							1 J																	
Trichloroethene		700							5 J																	
Tetrachloroethene		1400							24																	
2-Hexanone		NV																								
4-Methyl-2-pentanone		1000																								
Toluene		1500																								
1,2-Dibromo-3-chloropropane (DBCP)		NV																								
1,2,4-Trichlorobenzene		3400																								
Semi-Volatile Organics (ug/kg)																										
Phenol		30 or MDL		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Di-n-butyl phthalate		8100		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
bis(2-Ethylhexyl)phthalate		50000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PCB and Pesticides (ug/kg)																										
Alpha-BHC		110		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Gamma-BHC (Lindane)		60		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE		2100		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I		900		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II		900		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan sulfate		1000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin aldehyde		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor epoxide		20		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
p,p'-Methoxychlor		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PCB-1254		10000		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Gamma chlordane		540		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Inorganics (mg/kg)																										
Aluminum	723	SB	33,000	1620 J	2000 J	1220 J	4520 J	4980 J	1660	3870	735	553	2340	711	2890	707	5360	2950	557	1600	1130	592	1800	1110		
Antimony		SB	NV	6.8 BN	0.69 BN	0.57 BN											2.3 BN									
Arsenic	1.0	7.5 or SB	3-12	1.4 B	0.63 B	1.8 B	1.5 B	0.94 B	0.63 B	1 B					0.47 B		2.2									
Barium	2.8	300 or SB	15-600	67.8	14.6 B	20.6 B	10.2 B	8.9 B	5.8 B	14.6 B	12.4 B	2.6 B	2.6 B	8 B	5.5 B	8.4 B	4.2 B	13 B	4.8 B	1.2 B	3.2 B	4.1 B	2.2 B	5.6 B	8.9 B	
Beryllium	0.08	0.16 or SB	0-1.75	0.19 B	0.19 B	0.27 B	0.21 B	0.36 B	0.13 B	0.22 B				0.11 B	0.13 B	0.12 B	0.19 B	0.14 B								
Cadmium		1 or SB	0.1-1	299	599	26			4.2					0.18 B		0.33 B	0.43 B	94.3	21.2	2.6	3.7	4.3 J	2	12.8	0.89 B	
Calcium	553.0	SB	130-35,000	1530 E	1090 E	96 BE	1290 E	105 BE	4160	62.6 B	57.8 B	13.6 B	369 B	33.1 B	533 B	37.9 B	502 B	93.4 B	18.8 B	35 B	1590	42.3 B	3800	82.1 B		
Chromium	4.3	10 or SB	1.5-40	435	89.8	90.3	6.7	5.7	34.7 *	4.1 *	1.9 B*	1.8 B*	6.5 *	4.7 *	9.4 *J	5 *	766 *	54.2 *	5.1 *	13.6 *	49.1 *	21.3 *	70.7 *	25.9 *		
Cobalt	0.91	30 or SB	2.5-60	2.1 B	1.9 B	0.63 B	2.4 B	1.2 B	2.9 B	1.6 B	0.46 B	0.34 B	1.2 B	1.6 B	0.46 B	1.6 B	0.63 B	1.1 B	1.5 B	0.41 B	0.75 B	1.7 B	0.27 B	1.5 B	0.96 B	
Copper	1.6	25 or SB	1-50	127	67.5	100	3.5 B	2.6 B	9.9	3.5 B	2.2 B	1.5 B	3 B	1.9 B	8.7	13.6	97.5	2.9 B	1.2 B	1.9 B	7.2	3.6 B	12.7	5.2		
Iron	1910	2,000 or SB	2,000-550,000	4870	4960	4580	6710	7450	4090	7460	2510	2110	3330	2580	4630	2360	7720	3850	1630	3710	2610	1260	3800	3150		
Lead	0.54	200-500	20-500 ¹⁰	49.2 NJ	5.9 NJ	1.3 NJ	5.4 NJ	3.8 NJ	1.9 N*J	2.4 N*J	0.8 N*J	0.99 N*J	1.8 N*J	1.9 N*J	0.92 N*J	2.9 N*J	0.88 N*J	16.8 N*	2.1 N*J	0.53 BN*	1.3 N*J	1.5 N*J	0.65 N*J	2.3 N*J	1.2 N*J	
Magnesium	454	SB	100-5,000	1100	1020	323 B	655 B	384 B	385 B	630 B	143 B	123 B	465 B	263 B	1620	177 B	382 B	243 B	144 B	270 B	235 B	119 B	328 B	327 B		
Manganese	50	SB	50-5,000	81.9	114	33.7	121	59.5	151	214	44.6	41.1	64.1	46.3	99.7	41.7	56.1	90.6	31.9	42.9	62.9	11.6	89.7	73.8		
Mercury		0.1	0.001-0.2	0.12																						
Nickel	1.0	13 or SB	0.5-25	419	357	15	3.5 B	2.8 B	12.6 N*J	4.1 BN*	0.92 BN*	0.79 BN*J	2.6 BN*	0.98 BN*J	6.8 BN*	1.8 BN*	86.1 N*J	15.4 N*J	1.5 BN*	4.1 BN*	9.4 N*J	3.5 BN*J	17.6 N*J	3.1 BN*		
Potassium	71.9	SB	8,500-43,000	200 B	256 B	207 B	233 B	118 B	134 B	198 B	72 B	54.8 B	125 B	135 B	154 B	87.2 B	173 B	101 B	54.8 B	116 B	83.2 B	54.1 B	103 B	182 B		
Selenium		2 or SB	0.1-3.9				0.8 BNJ	0.75 BNJ																		
Silver		SB	NV	1.2 B																						
Sodium		SB	6,000-8,000	182 B	245 B	215 B	450 B	341 B	379 B	446 B	419 B	390 B	503 B	380 B	406 B	378 B	392 B	368 B	182 B	361 B	401 B	396 B	343 B	366 B		
Thallium		SB	NV	0.59 B			0.8 B	0.63 B	1.3 B	6.7 B	2.5 B	2 B					2 B	0.8 B		0.69 B			0.94 B			
Vanadium	1.7	150 or SB	1-300	4.3 B	6.1 B	5.5 B	8.3 B	9.1 B	3.8 B	6.7 B	2.5 B	2 B				2.4 B	13.2	4.9 B	1.6 B	3.1 B	3.6 B	1.7 B	3.9 B	3.5 B		
Zinc	2.3	20 or SB	9-50	158 EJ	59.8 EJ	11.5 E	9.3 E	11.6 E	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
Cyanide	0.35	NV	NV	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Total Organic Carbon (mg/kg)																										
Total Organic Carbon				NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	

Notes: (See Page 1.)

Table 2-7
Summary of Subsurface Soil Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location	Site Background ⁸	TAGM #4046 RSCO ⁹	Published Background ¹⁰	GP-49,S-9 4/24/2001 16-18 ft.	GP-49,S-10 4/24/2001 18-20 ft.	MW-5D1 7/12/1999 15-17 ft.	MW-6S,S-1 7/18/2000 16 - 18 ft	MW-6S, S-2 7/18/2000 26 - 28 ft	MW-10S, S-11 7/18/2000 20 - 22 ft	MW-11S-11 7/17/2000 20 - 22 ft	TP-1, S-1 7/21/2000 0.5 - 1 ft.	TP-1, S-2 7/21/2000 1 - 6 ft.
Sample Date				Q	Q	Q	Q	Q	Q	Q	Q	Q
Sample Depth												
Volatiles Organics (ug/kg)												
Chloromethane		NV										
Bromomethane		NV										
Methylene chloride		100		1 JB								
1,1,2-Trichloro-1,2,2-trifluoroethane		6000										
Acetone		200		13 B							4 J	8 J
Carbon disulfide		2700										
1,1-Dichloroethane		200									1 J	
2-Butanone		300										
1,1,1-Trichloroethane		800									78	18
Trichloroethene		700									28	6 J
Tetrachloroethene		1400									47	7 J
2-Hexanone		NV										
4-Methyl-2-pentanone		1000		2 J								
Toluene		1500					4 J		2 J		4 J	2 J
1,2-Dibromo-3-chloropropane (DBCP)		NV										
1,2,4-Trichlorobenzene		3400										
Semi-Volatile Organics (ug/kg)												
Phenol		30 or MDL		NT	NT		NT	NT	NT	NT	NT	NT
Di-n-butyl phthalate		8100		NT	NT		NT	NT	NT	NT	NT	NT
bis(2-Ethylhexyl)phthalate		50000		NT	NT	45 J	NT	NT	NT	NT	NT	NT
PCB and Pesticides (ug/kg)												
Alpha-BHC		110		NT	NT	NT	NT	NT	NT	NT	NT	NT
Gamma-BHC (Lindane)		60		NT	NT	NT	NT	NT	NT	NT	NT	NT
4,4'-DDE		2100		NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan I		900		NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan II		900		NT	NT	NT	NT	NT	NT	NT	NT	NT
Endosulfan sulfate		1000		NT	NT	NT	NT	NT	NT	NT	NT	NT
Endrin aldehyde		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT
Heptachlor epoxide		20		NT	NT	NT	NT	NT	NT	NT	NT	NT
p,p'-Methoxychlor		NV		NT	NT	NT	NT	NT	NT	NT	NT	NT
PCB-1254		10000		NT	NT	99	NT	NT	NT	NT	NT	NT
Gamma chlordane		540		NT	NT	NT	NT	NT	NT	NT	NT	NT
Inorganics (mg/kg)												
Aluminum	723	SB	33,000	1990	1080	609 *	405	590	518	843	15400 J	3940 J
Antimony		SB	NV									
Arsenic	1.0	7.5 or SB	3-12	0.62 B							13.7	
Barium	2.8	300 or SB	15-600	8 B	11.5 B	3.1 B	2.5 B	3.8 B	2.8 B	4.6 B	108	7.1 B
Beryllium	0.08	0.16 or SB	0-1.75					0.064 B		0.05 B	1 B	0.21 B
Cadmium		1 or SB	0.1-1	13.6	2.3	3.4	0.5 B	6.3			5500 J	111 J
Calcium	553.0	SB	130-35,000	3590	75.9 B	410 BE	4480 *	85.6 B *	21.1 B *	74.9 B *	8370 E	358 BE
Chromium	4.3	10 or SB	1.5-40	95.2 *	26.7 *	24.2	3.1	5.8	1.4 B	3.3	19600	220
Cobalt	0.91	30 or SB	2.5-60	1.3 B	0.86 B	0.66 B	0.18 B	0.33 B	0.28 B	0.44 B	4.4 B	1.9 B
Copper	1.6	25 or SB	1-50	31.6 J	9.3	8.8	1.4 B	3.9 B	1.2 B	2.2 B	3610	54.3
Iron	1910	2,000 or SB	2,000-550,000	4200	2220	2720	880	1230	1080	1910	7590	4640
Lead	0.54	200-500	20-500 ¹⁰	3 N*J	1.2 N*J	0.53 B	0.46 B	0.95	1.1	1.3	R	R
Magnesium	454	SB	100-5,000	430 B	337 B	137 B	2670	137 B	106 B	176 B	399	387
Manganese	50	SB	50-5,000	63.6	58.8	33 *	20	7.6	20	35.3	R	R
Mercury		0.1	0.001-0.2								0.3	
Nickel	1.0	13 or SB	0.5-25	54.2 N*	5.8 BN*J	5 B	2.4 B	5.6 B	0.66 B	1.1 B	4900	125
Potassium	71.9	SB	8,500-43,000	154 B	147 B	68.2 B	66.4 B	67.2 B	58.3 B	103 B	1520	204 B
Selenium		2 or SB	0.1-3.9								2.4	
Silver		SB	NV								0.42 B	
Sodium		SB	6,000-8,000	290 B	389 B		139 B	115 B	121 B	111 B	1300	526 B
Thallium		SB	NV	1.1 B						1.2 B	4.3 J	1.8 J
Vanadium	1.7	150 or SB	1-300	4.6 B	3.2 B	2.2 B	1.1 B	1.5 B	1.1 B	1.6 B	9.2 B	6.2 B
Zinc	2.3	20 or SB	9-50	R	R	4.6	2 B	2.7 B	1.9 B	3.5 B	2980 J	47 J
Cyanide	0.35	NV	NV	NT	NT	0.3 B					56.8	19.2
Total Organic Carbon (mg/kg)												
Total Organic Carbon				NT	NT	NT						

Notes: (See Page 1.)

Table 2-7
Summary of Subsurface Soil Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location Sample Date Sample Depth	Site Background ⁸	TAGM #4046 RSCO ⁹	Published Background ¹⁰
Volatile Organics (ug/kg)			
Chloromethane		NV	
Bromomethane		NV	
Methylene chloride		100	
1,1,2-Trichloro-1,2,2-trifluoroethane		6000	
Acetone		200	
Carbon disulfide		2700	
1,1-Dichloroethane		200	
2-Butanone		300	
1,1,1-Trichloroethane		800	
Trichloroethene		700	
Tetrachloroethene		1400	
2-Hexanone		NV	
4-Methyl-2-pentanone		1000	
Toluene		1500	
1,2-Dibromo-3-chloropropane (DBCP)		NV	
1,2,4-Trichlorobenzene		3400	
Semi-Volatile Organics (ug/kg)			
Phenol		30 or MDL	
Di-n-butyl phthalate		8100	
bis(2-Ethylhexyl)phthalate		50000	
PCB and Pesticides (ug/kg)			
Alpha-BHC		110	
Gamma-BHC (Lindane)		60	
4,4'-DDE		2100	
Endosulfan I		900	
Endosulfan II		900	
Endosulfan sulfate		1000	
Endrin aldehyde		NV	
Heptachlor epoxide		20	
p,p'-Methoxychlor		NV	
PCB-1254		10000	
Gamma chlordane		540	
Inorganics (mg/kg)			
Aluminum	723	SB	33,000
Antimony		SB	NV
Arsenic	1.0	7.5 or SB	3-12
Barium	2.8	300 or SB	15-600
Beryllium	0.08	0.16 or SB	0-1.75
Cadmium		1 or SB	0.1-1
Calcium	553.0	SB	130-35,000
Chromium	4.3	10 or SB	1.5-40
Cobalt	0.91	30 or SB	2.5-60
Copper	1.6	25 or SB	1-50
Iron	1910	2,000 or SB	2,000-550,000
Lead	0.54	200-500	20-500 ¹⁰
Magnesium	454	SB	100-5,000
Manganese	50	SB	50-5,000
Mercury		0.1	0.001-0.2
Nickel	1.0	13 or SB	0.5-25
Potassium	71.9	SB	8,500-43,000
Selenium		2 or SB	0.1-3.9
Silver		SB	NV
Sodium		SB	6,000-8,000
Thallium		SB	NV
Vanadium	1.7	150 or SB	1-300
Zinc	2.3	20 or SB	9-50
Cyanide	0.35	NV	NV
Total Organic Carbon (mg/kg)			
Total Organic Carbon			

Notes:

**Table 2-8
Summary of Cesspool Sediment Sample Analytical Results**

**Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029**

Sample Location	Site	TAGM # 4046	Published	AG-1-SED ¹²	CP-2-SED	CP-3-SED	CP-3 (IRM Conf.)	CP-3S-1	CP-3S-2	CP-4-SED	CP-4 (IRM Conf.)	CP-5-SED	CP-5 (IRM Conf.)	CP-6-SED	CP-6 (IRM Conf.)
Sample Date	Background ⁸	RSCO ⁹	Background ¹⁰	6/8/1999	6/9/1999	6/9/1999	4/11/2000	7/21/2000	7/21/2000	6/9/1999	4/10/2000	6/9/1999	4/10/2000	6/17/1999	4/10/2000
Sample Depth				14.5-15.5 ft.	13.5-14.5 ft.	12.0-13.0 ft.	13.0 - 13.5 ft.	13.5-14.5 ft.	14.5-15.5 ft.	12.0-13.0 ft.	13.0-13.5 ft.	13.0-14.0 ft.	14.5 - 15.0 ft.	11.0 - 12.0 ft.	12.0 - 12.5 ft.
				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Volatile Organics (ug/kg)															
Chloroethane		1900													34000 J
Methylene chloride		100										36 J			
Acetone		200					3 JB	3 J	10 J		1 JB		6 JB	970 J	31 B
Carbon disulfide		2700												49 J	
1,1-Dichloroethene		400												680 J	
1,1-Dichloroethane		200												52000 DJ	
Chloroform		300												120 J	
1,2-Dichloroethane		100												140 J	
2-Butanone		300												560 J	
1,1,1-Trichloroethane		800				7 J						100 J		23000 DJ	
Carbon tetrachloride		600													
Trichloroethene		700												2400 J	
Dibromochloromethane		NV													
4-Methyl-2-pentanone		1000				10 J									
2-Hexanone		NV												2400 J	
Tetrachloroethene		1400				17 J								12000 DJ	
1,1,2,2-Tetrachloroethane		600				6 J				12 J					
Toluene		1500						5 J	19					34000 DJ	
Chlorobenzene		1700										46000 J			
Ethylbenzene		5500												24 J	
Styrene		NV										54 J			
Xylenes (Total)		1200								4 J					
1,2-Dichloroethene(Total)		400										57 J		1900 J	
Semi-Volatile Organics (ug/kg)															
Naphthalene		13000		NT	NT	NT		NT	NT	NT		NT		NT	
2-Methylnaphthalene		36400		NT	NT	NT		NT	NT	NT		NT		NT	
Acenaphthene		50000		NT	NT	NT		NT	NT	NT		NT		NT	
Fluorene		50000		NT	NT	NT		NT	NT	NT		NT		NT	
Phenanthrene		50000		NT	NT	NT		NT	NT	NT		NT		NT	
Di-n-butyl phthalate		8100		NT	NT	NT		NT	NT	NT		NT		NT	
Pyrene		50000		NT	NT	NT		NT	NT	NT		NT		NT	
Butyl benzyl phthalate		50000		NT	NT	NT		NT	NT	NT		NT		NT	14740 D
bis(2-Ethylhexyl)phthalate		50000		NT	NT	NT		NT	NT	NT		NT		NT	
PCBs and Pesticides (ug/kg)															
Aldrin		41		NT	NT	NT	0.29 JBP	NT	NT	NT	0.12 JBP	NT	0.55 JB	NT	0.79 JBP
Alpha-BHC		110		NT	NT	NT	1.4 JBP	NT	NT	NT	0.62 JB	NT	3.4 BP	NT	0.42 JBP
Beta-BHC		200		NT	NT	NT	0.53 JB	NT	NT	NT	0.52 JBP	NT	5 BP	NT	0.18 JB
Delta-BHC		300		NT	NT	NT	0.46 JBP	NT	NT	NT	0.55 JBP	NT	1.5 JBP	NT	0.21 JBP
Gamma-BHC (Lindane)		60		NT	NT	NT	0.49 JBP	NT	NT	NT	0.16 JBP	NT	3.8 BP	NT	0.17 JB
4,4'-DDD		2900		NT	NT	NT	1 JB	NT	NT	NT	0.54 JBP	NT	0.56 JB	NT	
4,4'-DDE		2100		NT	NT	NT	4.2 BP	NT	NT	NT	0.092 JBP	NT	6.1 BP	NT	7.5 BP
4,4'-DDT		2100		NT	NT	NT	1.6 JBP	NT	NT	NT	0.1 JBP	NT	2.8 JBP	NT	
Dieldrin		44		NT	NT	NT	0.62 J	NT	NT	NT	0.15 JP	NT	0.31 JP	NT	2.8 JB
Endosulfan I		900		NT	NT	NT	0.28 JB	NT	NT	NT	0.061 JB	NT	0.64 JBP	NT	5.7 BP
Endosulfan II		900		NT	NT	NT	1 JBP	NT	NT	NT	0.028 JBP	NT	0.68 JBP	NT	8.4 BP
Endosulfan sulfate		1000		NT	NT	NT	0.88 JBP	NT	NT	NT	0.26 JBP	NT	0.42 JBP	NT	5.1 JBP
Endrin		100		NT	NT	NT	0.16 JBP	NT	NT	NT	0.16 JBP	NT	0.7 JBP	NT	1.5 JBP
Endrin aldehyde		NV		NT	NT	NT	4.3 JB	NT	NT	NT	0.03 JB	NT	3.9 JBP	NT	3.2 JBP
Heptachlor		100		NT	NT	NT	1.5 JBP	NT	NT	NT	0.068 JBP	NT	1.3 JBP	NT	0.44 JBP
Heptachlor epoxide		20		NT	NT	NT	0.15 JBP	NT	NT	NT	0.04 JBP	NT	1 JBP	NT	4.7 B
p,p'-Methoxychlor		NV		NT	NT	NT	0.26 JBP	NT	NT	NT	0.15 JBP	NT	0.19 JBP	NT	2.8 JBP
PCB-1254		10000				430 J		NT	NT	130 J				250 J	
Endrin ketone		NV		NT	NT	NT	3.3 JP	NT	NT	NT	0.6 JP	NT	2.8 JBP	NT	2.6 JP
Gamma chlordane		540		NT	NT	NT	0.99 JBP	NT	NT	NT	0.12 JB	NT	5.2 BP	NT	
Alpha chlordane		NV		NT	NT	NT	0.44 JBP	NT	NT	NT	0.16 JBP	NT	5.2 B	NT	6.7 BP

Notes: (See Page 2.)

**Table 2-8
Summary of Cesspool Sediment Sample Analytical Results**

**Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029**

Sample Location	Site	TAGM # 4046	Published	AG-1-SED ¹²	CP-2-SED	CP-3-SED	CP-3 (IRM Conf.)	CP-3S-1	CP-3S-2	CP-4-SED	CP-4 (IRM Conf.)	CP-5-SED	CP-5 (IRM Conf.)	CP-6-SED	CP-6 (IRM Conf.)														
Sample Date	Background ⁸	RSCO ⁹	Background ¹⁰	6/8/1999	6/9/1999	6/9/1999	4/11/2000	7/21/2000	7/21/2000	6/9/1999	4/10/2000	6/9/1999	4/10/2000	6/17/1999	4/10/2000														
Sample Depth				14.5-15.5 ft.	13.5-14.5 ft.	12.0-13.0 ft.	13.0 - 13.5 ft.	13.5-14.5 ft.	14.5-15.5 ft.	12.0-13.0 ft.	13.0-13.5 ft.	13.0-14.0 ft.	14.5 - 15.0 ft.	11.0 - 12.0 ft.	12.0 - 12.5 ft.														
				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q														
Inorganics (mg/kg)																													
Aluminum	723	SB	33,000	862	9170	29300	J	939	1490	J	1970	J	23700	J	658	4290	J	877	2450	J	921								
Antimony		SB	NV				J	441					268	J		4.2	J		11.8	J									
Arsenic	1.0	7.5 or SB	3-12		2.6	30.8	J						27.7	J		5.2	J		10.5	J									
Barium	2.8	300 or SB	15-600	3.5	B	32.2	B	656	J	15.9	B	7.7	B	9.8	B	182	J	3	B	86.3	J	3.5	B	89.9	J	13.3	B		
Beryllium	0.08	0.16 or SB	0-1.75	0.09	B	0.27	B	2.6	J			0.14	B	0.16	B	2	J			0.41	J			0.33	J	0.06	B		
Cadmium		1 or SB	0.1-1	4				19500	J	589		492	J	530	J	10700	J	66.9		328	J	0.65	B	1640	J	188			
Calcium	553.0	SB	130-35,000	37.8	BJ	4040	J	6960	J	234	B	237	BE	387	BE	8010	J	44.5	B	3400	J	193	B	127000	J	166	B		
Chromium	4.3	10 or SB	1.5-40	5.6		8.8		120000	J	1140		1340		1180		84100	J	278		84.9	J	2.9		924	J	11.1			
Cobalt	0.91	30 or SB	2.5-60	1.5	B	2.7	B	61.2	J	2.6	B	1.9	B	1.3	B	82.8	J	0.69	B	9	J	0.3	B	6.7	J	0.51	B		
Copper	1.6	25 or SB	1-50	5.7	J	6.2	J	26900	J	884		1150		941		19000	J	157		6190	J	84.7		923	J	5.7			
Iron	1910	2,000 or SB	2,000-550,000	1950		10100		33700	J	2000		3030		2950		26400	J	2370		11700	J	5060		9420	J	1360			
Lead	0.54	200-500	20-500 ¹⁰	4.2		51.3		8950	J	8.5		R		R		983	J	3.1		196	J	2.8		170	J	2.1			
Magnesium	454	SB	100-5,000	143	BJ	3000	J	1800	J	212	B	287		389		977	J	187	B	668	J	184	B	73900	J	161	B		
Manganese	50	SB	50-5,000	70		70		1060	J	52		R		R		1800	J	20.4		52.3	J	10.7		126	J	10			
Mercury		0.1	0.001-0.2	0.004	R	0.01	BJ	6.2	J	0.06	B	0.077	U	0.097		0.57	J	0.52		3	J			1.3	J				
Nickel	1.0	13 or SB	0.5-25	4.3	B	4.8	B	54500	J	1790		1030		766		32200	J	119		215	J	2.2	B	401	J	17.8			
Potassium	71.9	SB	8,500-43,000	45.4	B	288	B	831	J	113	B	113	B	231	B	1480	J	78.8	B	260	J	120	B	673	J	88.5	B		
Selenium		2 or SB	0.1-3.9			9.8	J							11.2	J					4.3	J			6.9	J				
Silver		SB	NV					6.1	J	0.58	B					0.82	J			4.4	J			17.5	J	0.39	B		
Sodium		SB	6,000-8,000			77.9	B			1350				628	B	633	B	12400	J	433	B	3300	J	140	B	796	J	195	B
Thallium		SB	NV					3.1	J					0.87	BJ	3.8	J												
Vanadium	1.7	150 or SB	1-300	2	B	14.7		24.2	J	2.2	B	3.5	B	3.5	B	16.6	J	2.8	B	8.4	J	3	B	10.2	J	1.9	B		
Zinc	2.3	20 or SB	9-50	11.5	J	33.5		5470	J	136		101	J	106	J	2600	J	17.9		2260	J	7.1		704	J	43.3			
Cyanide	0.35	NV	NV	0.36	B			866	J	728		950		514		5390	J	45.1		42.6	J	1.7		112	J	1.3			
Total Organic Carbon (mg/kg)																													
Total Organic Carbon		NV		NT		NT		NT						NT						NT					NT				

NOTES:

- Only compounds detected in one or more "CP" sediment samples are presented in this table.
- Blank indicates compound was not detected.
- NT indicates compound was not tested.
- Results presented for CP-10-SED are the higher of this sample and its duplicate.
- Analytical testing completed by CompuChem Corporation.
- Q = laboratory qualifier. Refer to Appendix E for qualifier definitions.
- ug/kg = parts per billion; mg/kg = parts per million.
- Refer to Table 4-1 for additional information on background Site conditions.
- TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from Technical and Administrative Guidance Memorandum No. HWR-94-4046.
- Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No HWR-94-4046.
- NV = no value; ND = no detections; SB = Site Background
- Sample AG-1 was collected from CP-1.
- IRM Conf. = Confirmatory samples collected following IRM sediment removal.
- No confirmatory sample was collected from CP-10 following IRM sediment removal; concrete bottom encountered.
- Concentrations that are bold exceed RSCO.

**Table 2-8
Summary of Cesspool Sediment Sample Analytical Results**

**Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029**

Sample Location	Site	TAGM # 4046	Published	CP-7-SED	CP-7 (IRM Conf.)	CP-8-SED	CP-8 (IRM Conf.)	CP-9-SED	CP-10-SED ¹⁴	CP-11, S-1
Sample Date	Background ⁸	RSCO ⁹	Background ¹⁰	6/17/1999	4/11/2000	6/18/1999	4/11/2000	6/18/1999	6/18/1999	7/25/2000
Sample Depth				12.5-13.5 ft	13.5 - 14.0 ft	6.0-8.0 ft	8.0 - 8.5 ft	13.0-14.0 ft	13.0-14.0 ft	12.0 - 13.0 ft
				Q	Q	Q	Q	Q	Q	Q
Volatile Organics (ug/kg)										
Chloroethane		1900							650 J	
Methylene chloride		100							33 JB	
Acetone		200			7 JB		7 JB		2300 B	7 J
Carbon disulfide		2700								
1,1-Dichloroethene		400								
1,1-Dichloroethane		200		3 J					93 J	
Chloroform		300								
1,2-Dichloroethane		100								
2-Butanone		300							440 B	
1,1,1-Trichloroethane		800								4 J
Carbon tetrachloride		600		13 J						
Trichloroethene		700								
Dibromochloromethane		NV		3 J						
4-Methyl-2-pentanone		1000								
2-Hexanone		NV								
Tetrachloroethene		1400								1 J
1,1,2,2-Tetrachloroethane		600		24 J						
Toluene		1500						3 J	1300 J	
Chlorobenzene		1700		6 J						
Ethylbenzene		5500							580 J	
Styrene		NV								
Xylenes (Total)		1200							3800 J	
1,2-Dichloroethene (Total)		400		3 J						
Semi-Volatile Organics (ug/kg)										
Naphthalene		13000		NT				NT	27000 J	NT
2-Methylnaphthalene		36400		NT				NT	200000 J	NT
Acenaphthene		50000		NT				NT	23000 J	NT
Fluorene		50000		NT				NT	35000 J	NT
Phenanthrene		50000		NT				NT	56000 J	NT
Di-n-butyl phthalate		8100		NT				NT		NT
Pyrene		50000		NT				NT	15000 J	NT
Butyl benzyl phthalate		50000		NT				NT	1100 J	NT
bis(2-Ethylhexyl)phthalate		50000		NT		690		NT	73000 J	NT
PCBs and Pesticides (ug/kg)										
Aldrin		41		NT	0.35 JBP		0.33 JBP	NT		NT
Alpha-BHC		110		NT	0.038 JBP		0.11 JBP	NT	7.7 J	NT
Beta-BHC		200		NT	0.19 JBP		0.25 JBP	NT		NT
Delta-BHC		300		NT	0.2 JBP		0.67 JBP	NT		NT
Gamma-BHC (Lindane)		60		NT	0.5 JBP		0.13 JBP	NT	15 J	NT
4,4'-DDD		2900		NT	1.1 JB		0.15 JB	NT		NT
4,4'-DDE		2100		NT	1.4 JB			NT	5.1 J	NT
4,4'-DDT		2100		NT	3.8 JB		0.29 JBP	NT	120 J	NT
Dieldrin		44		NT	1.2 JP		0.051 JB	NT		NT
Endosulfan I		900		NT	2.4 JBP		0.096 JBP	NT		NT
Endosulfan II		900		NT	1.2 JBP			NT	10 J	NT
Endosulfan sulfate		1000		NT	0.28 JBP		0.024 JB	NT		NT
Endrin		100		NT	0.76 JBP		0.12 JBP	NT		NT
Endrin aldehyde		NV		NT	2.4 JB		0.065 JBP	NT		NT
Heptachlor		100		NT	0.96 JBP		0.17 JBP	NT	6.1 JN	NT
Heptachlor epoxide		20		NT	1.1 JBP		0.057 JBP	NT	32 JN	NT
p,p'-Methoxychlor		NV		NT	0.95 JBP		0.071 JBP	NT		NT
PCB-1254		10000		2800 EJ				58		NT
Endrin ketone		NV		NT	2 JP		0.018 JP	NT	73 JN	NT
Gamma chlordane		540		NT	1.5 JBP		0.018 JBP	NT		NT
Alpha chlordane		NV		NT	2.6 JBP		0.26 JBP	NT	37 JN	NT

Notes: (See Page 2.)

**Table 2-8
Summary of Cesspool Sediment Sample Analytical Results**

**Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029**

Sample Location	Site	TAGM # 4046	Published	CP-7-SED	CP-7 (IRM Conf.)	CP-8-SED	CP-8 (IRM Conf.)	CP-9-SED	CP-10-SED ¹⁴	CP-11, S-1
Sample Date	Background ⁸	RSCO ⁹	Background ¹⁰	6/17/1999	4/11/2000	6/18/1999	4/11/2000	6/18/1999	6/18/1999	7/25/2000
Sample Depth				12.5-13.5 ft	13.5 - 14.0 ft	6.0-8.0 ft.	8.0 - 8.5 ft	13.0-14.0 ft.	13.0-14.0 ft.	12.0 - 13.0 ft
				Q	Q	Q	Q	Q	Q	Q
Inorganics (mg/kg)										
Aluminum	723	SB	33,000	2420 J	579	4210	657	2180	6080 J	1220 J
Antimony		SB	NV	112 J		24.7 J	0.62 B		3.2 J	
Arsenic	1.0	7.5 or SB	3-12	10.1 J		5.2		1.2 B	13.9 J	
Barium	2.8	300 or SB	15-600	119 J	5 B	17.9 B	2.3	12.3 B	880 J	12.5 B
Beryllium	0.08	0.16 or SB	0-1.75	0.5 J		0.22 B		0.2 B		0.14 B
Cadmium		1 or SB	0.1-1	10300 J	167	719	15.5	9.6 J	56.3 J	7.6 J
Calcium	553.0	SB	130-35,000	5540 J	95.5 B	7090 *	49.7 B	7440	14900 J	274 BE
Chromium	4.3	10 or SB	1.5-40	4980 J	189	4080	261	9.1	301 J	5.8
Cobalt	0.91	30 or SB	2.5-60	13.8 J	0.41 B	10.4 B	0.91 B	0.94 B	14.8 J	0.76 B
Copper	1.6	25 or SB	1-50	3650 J	55.2	8230 *	284	41.8 J	972 J	49.9
Iron	1910	2,000 or SB	2,000-550,000	12800 J	1880	12500 *	2490	3230 *	32400 J	10100
Lead	0.54	200-500	20-500 ¹⁰	1160 J	6	1230	28.5	26.8 *	1010 J	R
Magnesium	454	SB	100-5,000	373 J	117 B	838 B	151 B	4390	1860 J	197
Manganese	50	SB	50-5,000	170 J	18.5	151	16.2	21.3 *	226 J	R
Mercury		0.1	0.001-0.2	6.3 J			R	0.18	0.14	16.1 J
Nickel	1.0	13 or SB	0.5-25	5810 J	135	3890	309	5.4 B	170 J	3.7 B
Potassium	71.9	SB	8,500-43,000	789 J	95.8 B	114 B	55.1 B	129 B	345 J	138 B
Selenium		2 or SB	0.1-3.9	7.5 J		1.6 J			10.5 J	
Silver		SB	NV	8 J					6.3 J	
Sodium		SB	6,000-8,000	16800 J	839 B	528 B	158 B		3300 J	173 B
Thallium		SB	NV	2.4 J		2.2 B		0.85 B		2.8 J
Vanadium	1.7	150 or SB	1-300	12.7 J	1.2 B	4.9 B	1.7 B	3.6 B	13.1 J	3.6 B
Zinc	2.3	20 or SB	9-50	1740 J	42.5	723	31.5	36.7 *	2010 J	59.9 J
Cyanide	0.35	NV	NV	319 J	4.9	4.2	0.31 B		2.6 J	0.47 B
Total Organic Carbon (mg/kg)										
Total Organic Carbon		NV		NT		2980		NT	306000	

Notes: (See Page 2.)

Table 2-10
Summary of Drainage Structure Sediment Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location Sample Date Sample Depth	Site Background ⁸	TAGM # 4046 RSCO ⁹	Published Background ¹⁰	DS-1-SED	DS-2-SED	DS-3-SED	DS-4-SED ³	DS-4 (IRM Conf.)	DS-5-SED	DS-5 (IRM Conf.)	DS-6-SED	DS-7-SED	DS-8-SED	DS-8 (IRM Conf.)	DS-9-SED	DS-10-SED	DS-10 (IRM Conf.)	DS-11-SED	DS-12-SED		
				6/15/1999	6/15/1999	6/15/1999	6/16/1999	4/11/2000	6/16/1999	4/11/2000	6/17/1999	6/18/1999	4/11/2000	6/17/1999	6/18/1999	4/11/2000	6/18/1999	6/18/1999	4/11/2000	6/18/1999	6/18/1999
				11.0-12.0 ft.	11.0-12.0 ft.	11.5 - 12.5 ft.	~ 9.5 ft.	10.0 - 10.5 ft.	15.5 - 16.5 ft.	18.5 - 19.0 ft.	10.0 - 12.0 ft.	2.0 - 3.0 ft.	10.0 - 11.0 ft.	11.5 - 12.0 ft.	11.0 - 12.0 ft.	11.0 - 12.0 ft.	14.0 - 14.5 ft.	14.0 - 15.0 ft.	13.0 - 14.0 ft.		
				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q		
Volatile Organics (ug/kg)																					
Methylene chloride		100												77	DB				37	B	
Acetone		200						21	B					73	D	14	B	90	110	J	
Carbon disulfide		2700										2	J					4	JB	88	
2-Butanone		300			7	J				4	J			10	J					4	J
Tetrachloroethene		1400												12	DJ					10	J
Toluene		1500			28	J	3	J						6	J	2	J	280	13	J	17
Ethylbenzene		5500												2	J					43	
Styrene		NV																		14	JB
Xylenes (Total)		1200									2	J								24	B
														16	J						75
Semi-Volatile Organics (ug/kg)																					
Naphthalene		13000			NT		NT			NT				940	J			NT	NT	NT	NT
2-Methylnaphthalene		36400			NT	1000	J	NT	NT	NT				14000	J			NT	NT	NT	NT
Acenaphthene		50000			NT			NT	NT	NT				2900	J			NT	NT	NT	NT
Dibenzofuran		6200			NT			NT	NT	NT				1100	J			NT	NT	NT	NT
Fluorene		50000			NT			NT	NT	NT				4900				NT	NT	NT	NT
Phenanthrene		50000			NT	1400		NT	NT	NT				13000				NT	NT	NT	NT
Di-n-butyl phthalate		8100			NT	550	J	NT	NT	NT								NT	NT	NT	NT
Fluoranthene		50000			NT	480	J	NT	NT	NT								NT	NT	NT	NT
Pyrene		50000			NT	1100	J	NT	NT	NT				1800	J			NT	NT	NT	NT
Butyl benzyl phthalate		50000			NT	1600		NT	NT	NT				10000				NT	NT	NT	NT
Benzo(a)anthracene		224 or MDL			NT	190	J	NT	NT	NT								NT	NT	NT	NT
Chrysene		400			NT	340	J	NT	NT	NT								NT	NT	NT	NT
bis(2-Ethylhexyl)phthalate		50000			NT	4100		NT	NT	NT	350.2	J		20000		317.6	J	NT	NT	3467	D
Di-n-octyl phthalate		50000			NT	320	J	NT	NT	NT				780	J			NT	NT	NT	NT
Benzo(b)fluoranthene		1100			NT	260	XJ	NT	NT	NT								NT	NT	NT	NT
Benzo(k)fluoranthene		1100			NT	330	XJ	NT	NT	NT								NT	NT	NT	NT
PCB and Pesticides (ug/kg)																					
Aldrin		41			NT			NT	NT	1.4	JBP	NT		0.15	JBP	NT		NT	NT	13	BP
Alpha-BHC		110			NT			NT	NT	0.71	JBP	NT		0.21	JBP	NT		NT	NT	4.2	BP
Beta-BHC		200			NT	3.6	R	NT	NT	1.5	JBP	NT		0.53	JB	NT		NT	NT	6.1	BP
Delta-BHC		300			NT			NT	NT	0.61	JBP	NT		0.78	JBP	NT		NT	NT	5.7	BP
Gamma-BHC (Lindane)		60			NT			NT	NT	1.1	JBP	NT		0.17	JBP	NT		NT	NT	0.62	JBP
4,4'-DDD		2900			NT			NT	NT	0.3	JBP	NT						0.79	JB	NT	NT
4,4'-DDE		2100			NT	2.3	J	NT	NT					0.24	JBP	NT		NT	NT	170	DPB
4,4'-DDT		2100			NT			NT	NT									1.3	JB	NT	NT
Dieldrin		44			NT			NT	NT	1.1	JBP	NT		0.2	JBP	NT		NT	NT		NT
Endosulfan I		900			NT	4.3	JN	NT	NT	2.2	JBP	NT		0.21	JBP	NT		NT	NT	110	DBP
Endosulfan II		900			NT			NT	NT	0.28	JBP	NT		0.37	JBP	NT		NT	NT	130	DJBP
Endosulfan sulfate		1000			NT	6.4	J	NT	NT	0.58	JBP	NT		0.98	JBP	NT		NT	NT	140	DJBP
Endrin		100			NT	5.9	JN	NT	NT	0.07	JBP	NT		0.032	JBP	NT		NT	NT	15	DJB
Endrin Aldehyde		NV			NT			NT	NT	4.4	JBP	NT		0.032	JBP	NT		NT	NT	230	DBP
Heptachlor		100			NT			NT	NT	0.53	JBP	NT		0.13	JBP	NT		NT	NT	13	BP
Heptachlor epoxide		20			NT	11	R	NT	NT	0.61	JBP	NT		0.087	JBP	NT		NT	NT	56	DBP
p,p'-Methoxychlor		NV			NT			NT	NT	0.47	JBP	NT		2.2	JBP	NT		NT	NT	60	BP
PCB-1254		10000			200	J	160	710	D	210	4.1	J	20000	D	29	J	650	J	200	P	620
Endrin ketone		NV			NT			NT	NT	0.26	JP	NT						NT	NT	40	P
Gamma chlordane		540			NT	9.4	JN	NT	NT									NT	NT		NT
Alpha chlordane		NV			NT	7.2		NT	NT	2.2	JBP	NT		0.23	JBP	NT		NT	NT	5.3	BP

Notes: (See Page 2.)

Table 2-10
Summary of Drainage Structure Sediment Sample Analytical Results

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample Location Sample Date Sample Depth	Site Background ⁸	TAGM # 4046 RSCO ⁹	Published Background ¹⁰	DS-1-SED	DS-2-SED	DS-3-SED	DS-4-SED ³	DS-4 (IRM Conf.)	DS-5-SED	DS-5 (IRM Conf.)	DS-6-SED	DS-7-SED	DS-8-SED	DS-8 (IRM Conf.)	DS-9-SED	DS-10-SED	DS-10 (IRM Conf.)	DS-11-SED	DS-12-SED
				6/15/1999	6/15/1999	6/15/1999	6/16/1999	4/11/2000	6/16/1999	4/11/2000	6/17/1999	6/18/1999	4/11/2000	6/18/1999	6/18/1999	6/18/1999	4/11/2000	6/18/1999	6/18/1999
				11.0-12.0 ft.	11.0-12.0 ft.	11.5 - 12.5 ft.	~ 9.5 ft.	10.0 - 10.5 ft.	15.5 - 16.5 ft.	18.5 - 19.0 ft.	10.0 - 12.0 ft.	2.0 - 3.0 ft.	10.0 - 11.0 ft.	11.5 - 12.0 ft.	11.0 - 12.0 ft.	11.0 - 12.0 ft.	14.0 - 14.5 ft.	14.0 - 15.0 ft.	13.0 - 14.0 ft.
				Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Inorganics (mg/kg)																			
Aluminum	723	SB	33,000	1670*	3010*	3230*	29000J	868	4890J	738	4380	5640	5650	1480	8910	2860	549	2200	3600
Antimony		SB	NV	2.5B	1.2B	3.4B	3.6B		33.7		4.7BE	4.8BE	52.3J		8.6BE	21.4J		2.4BE	14.6J
Arsenic	1.0	7.5 or SB	3-12	1.6B	3.2	3.5	4.4		7.5		3.8	3.6	3.2		4.3	2.5B		3.4	5.8
Barium	2.8	300 or SB	15-600	12.8B	32.6B	26.4B	39.2B	7.6B	74.7	5B	37.2B	59.9	92.6	47.4	138	101	8B	54.6B	469
Beryllium	0.08	0.16 or SB	0-1.75		0.12B	0.12B	1.1B		0.25B		0.22B	0.15B	0.28B		0.3B	0.27B		0.18B	0.34B
Cadmium		1 or SB	0.1-1	50.1	56	369	67.4	0.42B	4350	13.3	103	18.7	496	2.6	48.1	246	62.8	42.6	80.3J
Calcium	553.0	SB	130-35,000	33200	74000	11100	23700	71.1B	39400	56.8B	37000*	6240*	11700*	109B	12600*	11300*	197B	10600*	6270
Chromium	4.3	10 or SB	1.5-40	25.7	59	155	253	2.4	1220	144	254	290	1630	119	175	5280	254	147	217
Cobalt	0.91	30 or SB	2.5-60	2.1B	2.7B	3.1B	7.2B	0.43B	7.4B	0.54B	6.7B	4.8B	7B	0.6B	3.8B	4B	0.61B	2.4B	4.8B
Copper	1.6	25 or SB	1-50	165J	281J	142J	1970J	2.8B	1010J	40	301*	188*	362*	9.4	370*	665*	26.5	207*	240J
Iron	1910	2,000 or SB	2,000-550,000	4350*	5810*	7440*	13100*	1650	12300*	3190	15800*	9180*	11100*	3030	12300*	9360*	6140	5970*	16200*
Lead	0.54	200-500	20-500	198	74.6	221	139	5	319	21.3	1170	192	313	9.7	300	211	43.2	132	292*
Magnesium	454	SB	100-5,000	19100	42400	6510	13900	261B	22600	247B	21600	3760	6890	351B	8050	4810	142B	6260	3490
Manganese	50	SB	50-5,000	46.8J	74.8J	42.8J	175J	13.1	106J	23.5	121	116	83.9	18.2	82.4	73.4	37.1B	42.6	64*
Mercury		0.1	0.001-0.2	0.1J	0.18J	0.25J	0.18J		0.41J	0.07B	R	0.24J	0.06J		R	0.11J	0.06B	0.14J	0.19
Nickel	1.0	13 or SB	0.5-25	23J	38J	73.7J	150J	1.6B	38J	40.8	201	83.1	956	11.5	98.1	476	31.2	64.7	102
Potassium	71.9	SB	8,500-43,000	115B	244B	145B	190B	73B	492B	92.5B	264B	109B	130B	82.9B	164B	139B	66.9B	106	172B
Selenium		2 or SB	0.1-3.9				1.8		2.6		1.9J	1.7J	2.2J			1.8J		1.7J	2.3J
Silver		SB	NV	0.33B		0.35B	0.51B		0.67B		0.26B	0.72B	0.37B		0.38B	0.44B		0.4B	3.3
Sodium		SB	6,000-8,000	223B	248B	210B	480B	150B	378B	159B	226B	191B	292B	157B	360B	428B	151B	164B	
Thallium		SB	NV	1.4B	1.5B	1.8B	2.7B		2.2B		2.6B	1.4B	1.8B		2.9	2B		1.2B	3.1
Vanadium	1.7	150 or SB	1-300	14.3	15.4	20.1	22.7	2.7B	21.3	2.8B	19.1	24.8	14.1B	4.5B	15.4	13.9B	3.3B	14.8B	16.9
Zinc	2.3	20 or SB	9-50	105	369	273	1270	6.2	840	22.6	354	224	788	45.2	754	1020	113	289	808*
Cyanide	0.35	NV	NV	0.65	0.81	1.8	2.2		32.4	1.3	3.6	1	8.5	7.2	2.3	25.8	15.9	1.7	2.5*
Total Organic Carbon (mg/kg)																			
Total Organic Carbon				NT	NT	NT	NT		NT		NT	NT	35800		NT	NT		NT	NT

NOTES:

1. Only compounds detected in one or more "DS" samples are presented in this table.
2. Blank indicates compound was not detected.
3. Results presented for DS-4-SED are the higher of this sample and its duplicate.
4. Analytical testing completed by CompuChem Corporation.
5. Q = laboratory qualifier. Refer to Appendix E for qualifier definitions.
6. ug/kg = parts per billion, mg/kg = parts per million.
7. IRM Conf. = Confirmatory samples collected following IRM sediment removal.
8. Refer to Table 4-1 for additional information on background Site conditions.
9. TAGM # 4046 RSCO are Recommended Soil Cleanup Criteria from Technical and Administrative Guidance Memorandum No. HWR-94-4046.
10. Published background as noted in NYSDEC Technical and Administrative Guidance Memorandum No HWR-94-4046.
11. Concentrations that are bold exceed the RSCO.
12. NT = not tested, SB = Site Background.

**Table 2-11
Summary of Drainage Structure Water Sample Analytical Results**

**Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029**

Sample Location Sample Date	DS-2-Water 6/15/1999		DS-3-Water 6/15/1999		DS-4-Water 6/16/1999		DS-5-Water ³ 6/16/1999		DS-6-Water 6/17/1999		DS-8-Water 6/18/1999		DS-9-Water 6/18/1999		DS-10-Water 6/18/1999		DS-11-Water 6/18/1999		DS-12-Water 6/28/1999			
		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		
Volatile Organics (ug/L)																						
Acetone									410	J				54	DJ							
2-Butanone					4	J																
Benzene															2	J						
4-Methyl-2-pentanone													4	J								
Toluene													12									
1,2-Dichloroethene(Total)															2	J						
Semi-Volatile Organics (ug/L)																						
4-Methylphenol	NT		NT		3	J			NT		NT		NT		NT		NT		NT		NT	
Di-n-butyl phthalate	NT		NT		7	J			NT		NT		NT		NT		NT		NT		NT	
Pyrene	NT		NT		1	J			NT		NT		NT		NT		NT		NT		NT	
Butyl benzyl phthalate	NT		NT		9	J			NT		NT		NT		NT		NT		NT		NT	
bis(2-Ethylhexyl)phthalate	NT		NT		30		2	J	NT		NT		NT		NT		NT		NT		NT	
PCB (ug/L)																						
Inorganics (ug/L)																						
Aluminum	619		2380		1810		529		999		643		7180		165	B	96.3	B	881			
Antimony	1.9	B			1.4	B			5.5	B	6.8	B	18.5	B	3.3	B						
Arsenic													14.4									
Barium	44	B	69.2	B	96.3	B	32.8	B	72.7	R	32	R	962	R	42.4	R	42.5	R	100	B		
Beryllium													0.42	B					0.58	B		
Cadmium	39	J	100	J	70.4	J	48.8	J	46		37.7		183		59.1		8.2		22.4			
Calcium	17000		28100		26700		12100		9990		5690		71900		35900		10600		8110			
Chromium	10.2	E	28.9	J	73.4	J	23.4	J	79.9	R	122	R	633	R	262	R	8.3	B	20.8			
Cobalt	1.5	B	2.2	B	5.8	B	1.5	B	6.3	B	1.9	B	21.2	B	2.9	B	1.1	B	2.8	B		
Copper	52.4		83.7		246		56.1		260		96.5		814		171		36.1		99.6			
Iron	2360	J	6480	J	7910	J	1570	J	3940		1960		57400		2900		583		2150			
Lead	18	J	113	J	129	J	44.4	J	98.2	J	49.3	J	545	J	7.5		8		35.1			
Magnesium	3790	BE	12400	J	9700	J	3780	BE	3070	B	1790	B	28800	J	2450	B	2040	B	2930	B		
Manganese	72.5	J	106	J	190	J	61.7	J	90.8	J	40.5	J	588	J	152	J	41.7	J	74.7			
Mercury	0.03	J		R		R		R	0.09	J		R	0.12	J		R		R	0.4			
Nickel	17.7	BE	52.7	J	105	J	33.4	BE	89	J	68.6	J	540	J	299	J	23.6	BE	42.4			
Potassium	1930	BE	1220	BE	3160	BE	1100	BE	1170	BE	305	BE	9090	J	2560	BE	967	BE	802	BE		
Selenium													8.6	J								
Silver							0.86	B					1.6	B								
Sodium	5840	J	2790	B	2960	B	2990	B	6490		1120	B	38800		14700		3540	B	4160	B		
Thallium													9.1	B								
Vanadium	5.3	B	12.1	B	11.8	B	4.6	B	8.5	B	7.1	B	40.2	B	2.6	B	3.7	B	9	B		
Zinc	199		602		627		385		419	R	369	R	3170	R	275	R	101	R	304			
Cyanide			6.2	B	16.3		34.3		29.6		9.9	B	20.6		15.2				19.2			

NOTES:

1. Only compounds detected in one or more "DS" water samples are presented in this table.
2. Blank indicates compound was not detected.
3. Results presented for DS-5-Water are the higher of this sample and its duplicate.
4. Analytical testing completed by CompuChem Corporation.
5. Q = laboratory qualifier. Refer to Appendix E for qualifier definitions.
6. ug/L = parts per billion.
7. NT indicates the sample was not tested.

APPENDIX C

Table 3
Spectrum Finishing Corporation
Site No. 1-52-029
Summary of Groundwater Analytical Results for VOCs - April 2007

Sample ID		MW1S	MW2	MW3S	MW4S	MW41S	MW6S	MW6SDL	MW7S	MW9	MW11S	MW12S	MW13ST	MW14S	TB1
Lab Sample Number		Y2464-08	Y2464-12	Y2464-01	Y2464-03	Y2464-04	Y2464-05	Y2464-05DL	Y2464-13	Y3829-01	Y2464-11	Y2464-06	Y2464-02	Y2464-07	Y2464-14
Sampling Date		04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	8/1/2007	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07
Matrix	Ambient	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER						
Dilution Factor	Water	1.0	1.0	1.0	1.0	1.0	1.0	4.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Units	Quality	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L						
Standard															
COMPOUND	CAS #		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Dichlorodifluoromethane	75-71-8	5#	0.17 U	0.68 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U				
Chloromethane	74-87-3	5#	0.34 U	1.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U				
Vinyl Chloride	75-01-4	2	0.33 U	1.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U				
Bromomethane	74-83-9	5	0.41 U	1.6 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U				
Chloroethane	75-00-3	5#	0.83 U	3.3 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U				
Trichlorofluoromethane	75-69-4	5	0.22 U	0.88 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U				
1,1,2-Trichlorotrifluoroethane	76-13-1	5	1.3 U	5.2 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U				
1,1-Dichloroethene	75-35-4	0.7#	0.42 U	1.7 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U				
Acetone	67-64-1	50#	2.3 U	9.0 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U				
Carbon Disulfide	75-15-0	NS	0.40 U	1.6 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U				
Methyl tert-butyl Ether	1634-04-4	NS	0.28 U	1.1 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U				
Methyl Acetate	79-20-9	NS	0.20 U	0.81 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U				
Methylene Chloride	75-09-2	5	0.43 U	1.7 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U				
trans-1,2-Dichloroethene	156-60-5	5	0.40 U	1.6 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U				
1,1-Dichloroethane	75-34-3	5	0.38 U	1.5 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U				
Cyclohexane	110-82-7	NS	0.36 U	1.5 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U				
2-Butanone	78-93-3	NS	1.1 U	4.6 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U				
Carbon Tetrachloride	56-23-5	5	1.1 U	4.5 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U				
cis-1,2-Dichloroethene	156-59-2	5	0.29 U	1.2 U	0.29 U	4.7 J	0.29 U								
Chloroform	67-66-3	7	0.33 U	1.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U				
1,1,1-Trichloroethane	71-55-6	5	0.32 U	1.3 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U				
Methylcyclohexane	108-87-2	NS	0.34 U	1.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U				
Benzene	71-43-2	1	0.39 U	1.5 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U				
1,2-Dichloroethane	107-06-2	0.6	0.34 U	1.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U				
Trichloroethene	79-01-6	5	0.46 U	0.46 U	1.7 J	0.46 U	0.46 U	1.8 U	0.46 U	12	0.46 U				
1,2-Dichloropropane	78-87-5	1	0.40 U	1.6 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U				
Bromodichloromethane	75-27-4	50#	0.33 U	1.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U				
4-Methyl-2-Pentanone	108-10-1	NS	1.6 U	6.5 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U				
Toluene	108-88-3	5	0.36 U	1.5 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U				
t-1,3-Dichloropropene	10061-02-6	NS	0.32 U	1.3 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U				
cis-1,3-Dichloropropene	10061-01-5	NS	0.36 U	1.4 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U				
1,1,2-Trichloroethane	79-00-5	1	0.41 U	1.6 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U				
2-Hexanone	591-78-6	50#	1.7 U	6.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U				
Dibromochloromethane	124-48-1	50#	0.26 U	1.1 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U				
1,2-Dibromoethane	106-93-4	NS	0.32 U	1.3 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U				
Tetrachloroethene	127-18-4	5	0.48 U	12	16	30	28	140 E	94 D	1.0 J	65	3.3 J	9.4	0.48 U	0.48 U
Chlorobenzene	108-90-7	5	0.47 U	1.9 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U				
Ethyl Benzene	100-41-4	5	0.45 U	1.8 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U				
m/p-Xylenes	126777-61-2	5	1.2 U	4.7 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U				
o-Xylene	95-47-6	5	0.46 U	1.8 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U				
Styrene	100-42-5	5#	0.41 U	1.6 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U				
Bromoform	75-25-2	50#	0.32 U	1.3 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U				

Table 3
Spectrum Finishing Corporation
Site No. 1-52-029
Summary of Groundwater Analytical Results for VOCs - April 2007

Sample ID		MW1S	MW2	MW3S	MW4S	MW41S	MW6S	MW6SDL	MW7S	MW9	MW11S	MW12S	MW13ST	MW14S	TB1
Lab Sample Number		Y2464-08	Y2464-12	Y2464-01	Y2464-03	Y2464-04	Y2464-05	Y2464-05DL	Y2464-13	Y3829-01	Y2464-11	Y2464-06	Y2464-02	Y2464-07	Y2464-14
Sampling Date		04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	8/1/2007	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07
Matrix	Ambient	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER						
Dilution Factor	Water	1.0	1.0	1.0	1.0	1.0	1.0	4.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Units	Quality	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L						
	Standard														
COMPOUND	CAS #		Q		Q		Q		Q		Q		Q		Q
Isopropylbenzene	98-82-8	5#	0.44 U	1.8 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U				
1,1,2,2-Tetrachloroethane	79-34-5	5	0.30 U	1.2 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U				
1,3-Dichlorobenzene	541-73-1	3	0.50 U	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U				
1,4-Dichlorobenzene	106-46-7	3	0.54 U	2.1 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U				
1,2-Dichlorobenzene	95-50-1	3	0.44 U	1.7 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U				
1,2-Dibromo-3-Chloropropane	96-12-8	0.4	0.38 U	1.5 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U				
1,2,4-Trichlorobenzene	120-82-1	5	0.46 U	1.8 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U				

Qualifiers

- U - The compound was not detected at the indicated concentration.
- J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is an approximate value.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
- # - Indicates Groundwater Guidance Value
- E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
- E (Inorganics) - The reported value is estimated because of the presence of interference.
- D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- * - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
- NS - No Groundwater Standard
- NR - Not analyzed

Table 4
Spectrum Finishing Corporation
Site No. 1-52-029
Summary of Groundwater Analytical Results for Metals - April 2007

Sample ID			MW1S	MW2	MW3S	MW4S	MW41S	MW6S	MW7S	MW11S	MW12S	MW13ST	MW14S
Lab Sample Number		Ambient Water Quality Standard	Y2464-08	Y2464-12	Y2464-01	Y2464-03	Y2464-04	Y2464-05	Y2464-13	Y2464-11	Y2464-06	Y2464-02	Y2464-07
Sampling Date			04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07	04/24/07
Matrix			WATER										
Dilution Factor			1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Units			ug/L										
COMPOUND	CAS #		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Aluminum	7429-90-5	100	2,830	225	2,920	943	650	141	57.9	272	146	16,800	69.6
Antimony	7440-36-0	3	3.100 U	3.100 U	9.940 J	3.100 U	3.100 U	3.100 U	3.100 U	5.670 J	3.100 U	3.100 U	3.100 U
Arsenic	7440-38-2	25	4.270 J	4.910 J	4.910 J	3.100 U	5.170 J	5.420 J	5.980 J	7.980 J	3.990 J	18.5	5.610 J
Barium	7440-39-3	1,000	52.7	33.4 J	46.3 J	70.3	59.8	42.5 J	50.1	84.1	62.5	121	53.3
Beryllium	7440-41-7	3#	0.430 J	0.290 J	0.270 J	0.230 J	0.210 J	0.120 J	0.130 J	0.430 J	0.210 J	1.440 J	0.190 J
Cadmium	7440-43-9	5	22.9	4.610	12.4	1270	1140	311	4.080	2.400 J	381	5.320	63.8
Calcium	7440-70-2	NS	42,700	14,800	18,600	19,500	16,800	14,800	29,100	19,500	19,900	55,300	21,300
Chromium	7440-47-3	50	5.710	5.860	63.2	14.4	9.480	186	17.4	5.710	9.760	91.4	2.490 J
Cobalt	7440-48-4	NS	2.890 J	1.710 J	1.630 J	3.400 J	3.350 J	2.030 J	1.300 U	2.290 J	3.890 J	18.4	1.300 U
Copper	7440-50-8	200	118	35.0	125	536	454	9.830 J	13.0	7.060 J	17.6	36.0	5.480 J
Iron	7439-89-6	500	1,240	666	2,760	774	292	201	341	371	121	23,100	126
Lead	7439-92-1	25	27.8	55.2	21.7	13.2	6.570	1.900 U	2.290 J	2.390 J	1.900 U	12.9	1.900 U
Magnesium	7439-95-4	35,000	4,490	2,980	3,600	3,960	3,340	2,890	3,560	3,480	3,980	9,820	4,320
Manganese	7439-96-5	500	190	142	105	228	196	56.4	4.030 J	52.0	122	1,740	16.2
Mercury	7439-97-6	0.7	0.12 J	0.11 U	0.34	0.12 J							
Nickel	7440-02-0	100	12.4 J	6.370 J	16.0 J	292	263	199	5.410 J	6.960 J	431	75.2	11.4 J
Potassium	7440-09-7	NS	7,230	2,110	1,990	3,250	2,810	2,100	2,140	2,610	2,740	7,950	3,140
Selenium	7782-49-2	10	5.610 J	5.380 J	4.100 J	3.000 J	2.100 U	3.160 J	3.970 J	3.300 J	3.180 J	2.680 J	3.610 J
Silver	7440-22-4	50	1.160 J	2.050 J	2.140 J	1.340 J	1.930 J	0.730 J	1.150 J	3.390 J	1.830 J	1.680 J	1.790 J
Sodium	7440-23-5	20,000	20,900	7,920	8,090	13,500	11,900	13,500	7,920	9,260	15,800	58,300	11,300
Thallium	7440-28-0	8	7.500 U										
Vanadium	7440-62-2	14	1.000 U	1.460 J	3.030 J	2.270 J	1.350 J	1.000 U	1.460 J	1.000 J	1.510 J	23.2	2.140 J
Zinc	7440-66-6	2,000#	198	54.2	950	203	177	77.8	54.2	95.2	181	117	53.4

Qualifiers

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

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

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

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

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

- Guidance Value

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

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

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

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

NS - No Standard or Guidance Value available

NR - Not analyzed

Table 9
Summary of Groundwater Sample Analytical Results for Volatile Organic Compounds
October 2007

Spectrum Finishing Corporation Site
West Babylon, New York
Site No. 1-52-029

Sample ID			152029-GW1	152029-MW9-01	152029-GW2	152029-GW3	152029-GW31	152029-GW4	152029-TB			
Lab Sample Number			Y5025-01	Y5025-02	Y5025-03	Y5025-04	Y5025-05	Y5025-06	Y5025-07			
Sampling Date			10/24/07	10/24/07	10/24/07	10/24/07	10/24/07	10/24/07	10/22/07			
Matrix		Ambient	WATER	WATER	WATER	WATER	WATER	WATER	WATER			
Dilution Factor		Water	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Units		Quality	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
Standard												
ANALYSIS	COMPOUND	CAS #		Q	Q	Q	Q	Q	Q			
	Dichlorodifluoromethane	75-71-8	5#	0.17	U	0.17	U	0.17	U	0.17	U	0.17
	Chloromethane	74-87-3	5#	0.34	U	0.34	U	0.34	U	0.34	U	0.34
	Vinyl Chloride	75-01-4	2.00	0.33	U	0.33	U	0.33	U	0.33	U	0.33
	Bromomethane	74-83-9	5.00	0.41	U	0.41	U	0.41	U	0.41	U	0.41
	Chloroethane	75-00-3	5#	0.83	U	0.83	U	0.83	U	0.83	U	0.83
	Trichlorofluoromethane	75-69-4	5.00	0.22	U	0.22	U	0.22	U	0.22	U	0.22
	1,1,2-Trichlorotrifluoroethane	76-13-1	5.00	1.30	U	1.30	U	1.30	U	1.30	U	1.30
	1,1-Dichloroethene	75-35-4	0.7#	0.42	U	0.42	U	0.42	U	0.42	U	0.42
	Acetone	67-64-1	50#	2.30	U	2.30	U	2.30	U	2.30	U	2.30
	Carbon Disulfide	75-15-0	NS	0.40	U	0.40	U	0.40	U	0.40	U	0.40
	Methyl tert-butyl Ether	1634-04-4	NS	0.28	U	0.28	U	0.28	U	0.28	U	0.28
	Methyl Acetate	79-20-9	NS	0.20	U	0.20	U	0.20	U	0.20	U	0.20
	Methylene Chloride	75-09-2	5.00	0.43	U	0.43	U	0.43	U	0.43	U	0.43
	trans-1,2-Dichloroethene	156-60-5	5.00	0.40	U	0.40	U	0.40	U	0.40	U	0.40
	1,1-Dichloroethane	75-34-3	5.00	0.38	U	0.38	U	0.38	U	0.38	U	0.38
	Cyclohexane	110-82-7	NS	0.36	U	0.36	U	0.36	U	0.36	U	0.36
	2-Butanone	78-93-3	NS	1.10	U	1.10	U	1.10	U	1.10	U	1.10
	Carbon Tetrachloride	56-23-5	5.00	1.10	U	1.10	U	1.10	U	1.10	U	1.10
	cis-1,2-Dichloroethene	156-59-2	5.00	0.29	U	0.29	U	0.29	U	0.29	U	0.29
	Chloroform	67-66-3	7.00	0.33	U	0.33	U	0.33	U	0.33	U	0.33
	1,1,1-Trichloroethane	71-55-6	5.00	0.32	U	0.32	U	0.32	U	0.32	U	0.32
	Methylcyclohexane	108-87-2	NS	0.34	U	0.34	U	0.34	U	0.34	U	0.34
	Benzene	71-43-2	1.00	0.39	U	0.39	U	0.39	U	0.39	U	0.39
	1,2-Dichloroethane	107-06-2	0.60	0.34	U	0.34	U	0.34	U	0.34	U	0.34
	Trichloroethene	79-01-6	5.00	0.46	U	0.46	U	0.46	U	0.46	U	0.46
	1,2-Dichloropropane	78-87-5	1.00	0.40	U	0.40	U	0.40	U	0.40	U	0.40
	Bromodichloromethane	75-27-4	50#	0.33	U	0.33	U	0.33	U	0.33	U	0.33
	4-Methyl-2-Pentanone	108-10-1	NS	1.60	U	1.60	U	1.60	U	1.60	U	1.60
	Toluene	108-88-3	5.00	0.36	U	0.36	U	0.36	U	0.36	U	0.36
	t-1,3-Dichloropropene	10061-02-6	NS	0.32	U	0.32	U	0.32	U	0.32	U	0.32
	cis-1,3-Dichloropropene	10061-01-5	NS	0.36	U	0.36	U	0.36	U	0.36	U	0.36
	1,1,2-Trichloroethane	79-00-5	1.00	0.41	U	0.41	U	0.41	U	0.41	U	0.41
	2-Hexanone	591-78-6	50#	1.70	U	1.70	U	1.70	U	1.70	U	1.70
	Dibromochloromethane	124-48-1	50#	0.26	U	0.26	U	0.26	U	0.26	U	0.26
	1,2-Dibromoethane	106-93-4	NS	0.32	U	0.32	U	0.32	U	0.32	U	0.32
	Tetrachloroethene	127-18-4	5.00	13.00		12.00		8.10		8.00		0.48
	Chlorobenzene	108-90-7	5.00	0.47	U	0.47	U	0.47	U	0.47	U	0.47
	Ethyl Benzene	100-41-4	5.00	0.45	U	0.45	U	0.45	U	0.45	U	0.45
	m/p-Xylenes	126777-61-2	5.00	1.20	U	1.20	U	1.20	U	1.20	U	1.20
	o-Xylene	95-47-6	5.00	0.46	U	0.46	U	0.46	U	0.46	U	0.46
	Styrene	100-42-5	5#	0.41	U	0.41	U	0.41	U	0.41	U	0.41
	Bromoform	75-25-2	50#	0.32	U	0.32	U	0.32	U	0.32	U	0.32
	Isopropylbenzene	98-82-8	5#	0.44	U	0.44	U	0.44	U	0.44	U	0.44
	1,1,2,2-Tetrachloroethane	79-34-5	5.00	0.30	U	0.30	U	0.30	U	0.30	U	0.30
	1,3-Dichlorobenzene	541-73-1	3.00	0.50	U	0.50	U	0.50	U	0.50	U	0.50
	1,4-Dichlorobenzene	106-46-7	3.00	0.54	U	0.54	U	0.54	U	0.54	U	0.54
	1,2-Dichlorobenzene	95-50-1	3.00	0.44	U	0.44	U	0.44	U	0.44	U	0.44
	1,2-Dibromo-3-Chloropropane	96-12-8	0.40	0.38	U	0.38	U	0.38	U	0.38	U	0.38
	1,2,4-Trichlorobenzene	120-82-1	5.00	0.46	U	0.46	U	0.46	U	0.46	U	0.46
	Total Confident Conc. VOC			13.00		12.00		8.10		8.00		0.00
	Total TICs			0.00		0.00		0.00		0.00		0.00

Qualifiers	
U	- The compound was not detected at the indicated concentration.
J	- Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.
	- The concentration given is an approximate value.
B	- The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
P	- For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
*	- For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
NR	- Not analyzed

Notes:
- indicates Groundwater Guidance Value

APPENDIX D

Appendix D

Excavation Work Plan

D-1 Notification

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the NYSDEC. Currently, this notification will be made in writing to:

Mr. David Chiusano
NYSDEC
Remediation Bureau E, Section A
625 Broadway
Albany, New York 12233-7017
This notification will include:

- A detailed description of the work to be performed, including the location and aerial extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil, concrete or asphalt covers, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of this EWP,
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,
- A copy of the contractor's health and safety plan, in electronic format,
- Identification of disposal facilities for potential waste streams,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

D-2 Soil Screening Methods

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will

include all excavation and invasive work performed during development, such as excavations for foundations and utility work.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

D-3 Stockpile Methods

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins with filter fabric under the catch basin lid.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced. Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

D-4 Materials Excavation and Load Out

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material. The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this EWP.

The presence of utilities and easements on the Site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site if deemed necessary. The qualified environmental professional will be responsible for determining if outbound trucks need to be washed at the truck wash before leaving the Site until the activities performed under this section are complete. Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

D-5 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded. Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. No loads that contain wet material capable of producing free liquid are permitted to exit site.

A truck transport route will be submitted to NYSDEC for review and approval prior to any material leaving the site. All trucks loaded with site materials will exit the vicinity of the site using only the approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks are prohibited from stopping and idling in any neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

D-6 Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts including weight tickets.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

D-7 Materials Reuse On-Site

Contaminated on-site material, including historic fill and contaminated soil, is not acceptable for re-use on-site. Backfill material placed during the remedial construction to replace contaminated soil maybe re-used as fill material.

D-8 Fluids Management

All liquids to be removed from the site, including excavation dewatering and well development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering and well development fluids will not be recharged back to the land surface or subsurface of the site, but will be managed off-site.

D-9 Cover System Restoration

After the completion of soil removal and any other invasive activities, the cover system will be restored in a manner that complies with the ROD. The demarcation layer, consisting of black filter fabric material will be replaced to provide a visual reference to the top of the 'Remaining Contamination Zone', the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. If the type of cover system changes from that which exists prior to the excavation, i.e., a soil cover is replaced by asphalt, this will constitute a modification of the cover element of the remedy and the upper surface of the 'Remaining Contamination'. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to this SMP.

D-10 Backfill from Off-Site Sources

All materials proposed for import onto the Site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site. All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d).

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

D-11 Stormwater Pollution Prevention

Barriers and hay bale checks will be installed and fabric installed under each catch basin lid and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately. Accumulated sediments will be removed as required to keep the barrier and hay bale

check functional and filter fabric in catch basins will be replaced after every storm event.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

D-12 Contingency Plan

If previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition. Sampling will be performed on surrounding soils as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for the following list of analyte; TAL metals, TCL volatiles and semi-volatiles since the site history and previous sampling results provide a sufficient justification to limit the list of analyte.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic review reports prepared pursuant to Section 5 of the SMP.

D-13 Community Air Monitoring Plan

During the site development, the contractor shall prepare a figure showing the location of air sampling stations based on generally prevailing wind conditions. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

D-14 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-site and on-site. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's representative, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and

size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odor masking in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

D-15 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.