I. W. INDUSTRIES SITE
35 MELVILLE PARK ROAD
MELVILLE, SUFFOLK COUNTY, NEW YORK

Site Management Plan

NYSDEC SITE #1-52-102

Prepared for:

Metro Assets III, LLC (Respondent)
For submittal to
New York State Department of Environmental Conservation

Prepared by:

FPM group™

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OCTOBER 2011

SITE MANAGEMENT PLAN

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

LIST OF TABLES

LIST OF FIGURES

LIST OF ATTACHMENTS

LIST OF ACRONYMS

Acronym	Definition
ASTs	Aboveground Storage Tanks
AOC	Area of Concern
ASP	Analytical Services Protocol
C/D	Construction and demolition
CAMP	Community Air Monitoring Program
CoC	chain-of-custody
CPP	Citizen Participation Plan
dBs	decibels
DSHM	NYSDEC's Division of Solid and Hazardous Materials
EC	Engineering Control
ELAP	Environmental Laboratory Approval Program
FPM	FPM Group, Ltd.
gpm	Gallons per minute
HASP	Health and Safety Plan
IC	Institutional Control
IRM	Interim Remedial Measure
IWI	I.W. Industries, Inc.
MS/MSD	Matrix spike/matrix spike duplicate
NYCRR	New York Code of Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
Objectives	NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives
PAHs	Polynuclear aromatic hydrocarbons
PE	Professional Engineer
PID	Photoionization detector
ppm	Parts per million
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RA	Remedial Action
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
SCDHS	Suffolk County Department of Health Services
SCDPW	Suffolk County Department of Public Works
SCGs	Standards, Criteria and Guidance

Acronym	Definition
SCOs	Soil Cleanup Objectives
SMP	Site Management Plan
SoMP	Soil Management Plan
SPDES	State Pollutant Discharge Elimination System
Standards	NYSDEC Class GA Ambient Water Quality Standards and Guidance Values
SVOCs	semivolatile organic compounds
TAGM	Technical Administrative Guidance Memorandum
TAL	Target Analyte List
TCL	Target Compound List
TICs	Tentatively-Identified Compounds
ug/m^3	micrograms per cubic meter
USTs	Underground Storage Tanks
VOCs	volatile organic compounds

SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required for fulfillment of Remedial Action at the I. W. Industries site (hereafter referred to as the "Site"), located at 35 Melville Park Road, Melville, Town of Huntington, Suffolk County, New York, under the New York State Inactive Hazardous Waste Disposal Site remedial program administered by New York State Department of Environmental Conservation (NYSDEC).

The previous owner of the Site, I.W. Industries, entered into an Order on Consent (Index No. W1-0725-00-06) for the development and implementation of a remedial program for the Site. Pursuant to that Order, the Site was investigated and subsequently remediated by I. W. Industries in accordance with a Record of Decision (ROD) issued by the NYSDEC on March 30, 2000. The selected remedy was implemented under a NYSDEC-approved Remedial Action Work Plan (June 2000). The remedial activities were completed and documented in a Remedial Action Report (November 2000), which was approved by the NYSDEC on January 4, 2002. Annual monitoring of groundwater and free-phase product was initiated in 2000.

Metro Assets III, LLC (Respondent) subsequently purchased the Site under a U.S. Bankruptcy Court Order. Under this Court Order, the Respondent has continuing obligations with respect to the remedial program for the Site. These obligations include completion of the remedial program for this Site and implementation of any required institutional and engineering controls. This Site Management Plan (SMP) has been prepared to identify and implement the institutional and/or engineering controls required for the Site and to provide the necessary monitoring and operation procedures for the approved remedy.

1.1.1 General

Metro Assets III, LLC (Metro) entered into an Order on Consent (Index #W1-0725-04-09) with the NYSDEC to complete the implementation of the remedial program for the I. W. Industries Site (Site) located at 35 Melville Park Road, Melville, Town of Huntington, Suffolk County, New York. This Order on Consent requires the Respondent to complete the implementation of the remedial program at the Site in accordance with the ROD, which includes

operation, maintenance and monitoring of the selected remedial alternative and the implementation of institutional and/or engineering controls. A map showing the Site location is presented in Figure 1.1.1.1.

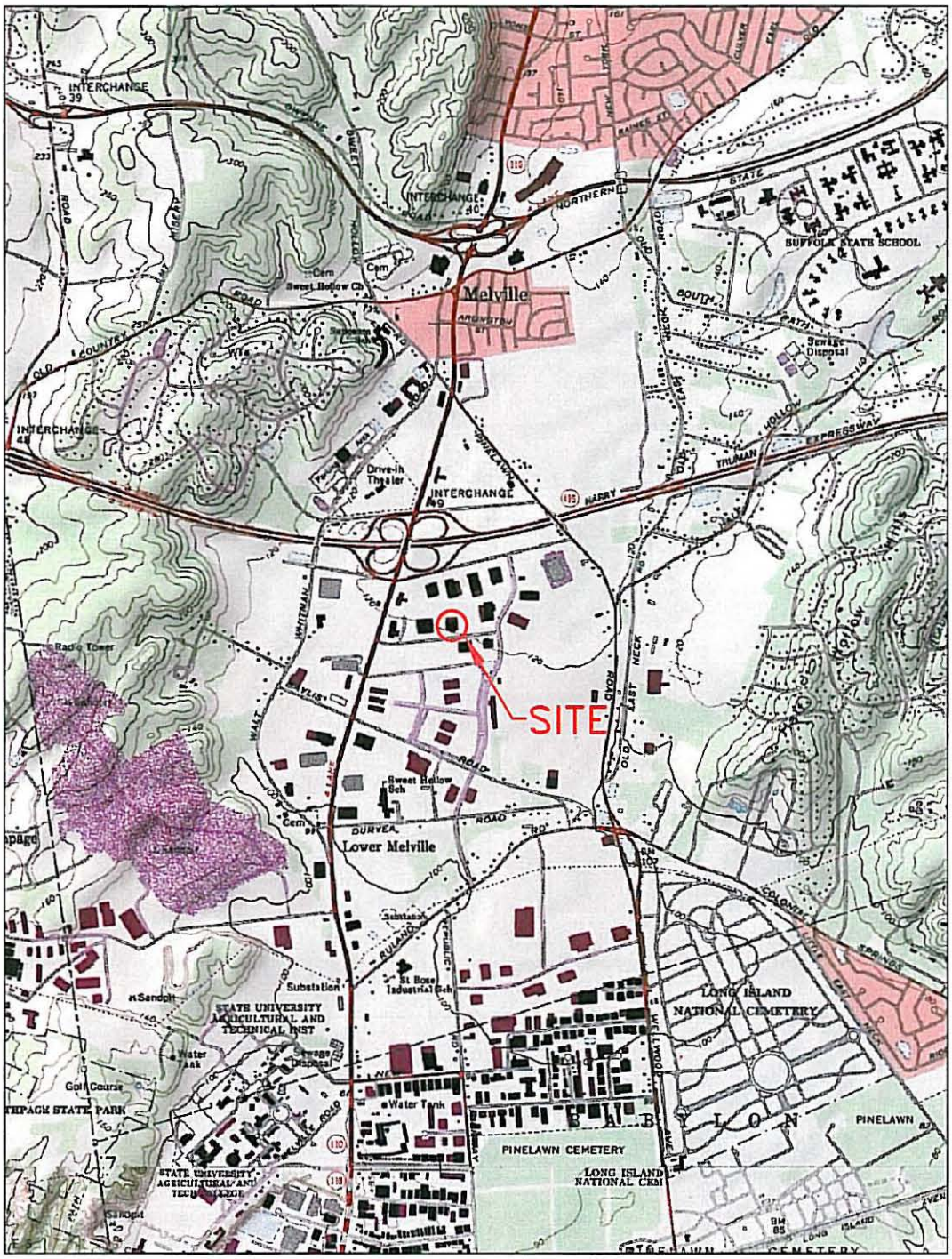
Kailyn Realty I, LLC (Kailyn) subsequently purchased the Site from Metro and presently operates offices and warehousing in the onsite building and leases portions of the building for similar office/warehouse operations. Kailyn and its successors and assigns and Kailyn's tenants are not responsible for any of the Respondent's obligations under the Order on Consent or for any of the requirements in the SMP except as specifically noted herein. Kailyn and its tenants are also not responsible for the historic residual contamination that originated prior to Kailyn's occupancy.

After completion of the remedial work described in the Remedial Action Report, some contamination was left in the subsurface at this Site, which is hereafter referred to as 'residual contamination.' The residual contamination consists of soil at the bottom of leaching pools LP-1, LP-2 and LP-3; free-phase product on the groundwater at select Site wells (MW-1, MW-2 and MW-7) and within the soil matrix beneath leaching pools LP-1, LP-2 and LP-3; and iron and/or manganese in groundwater in select Site wells. This Site Management Plan (SMP) was prepared to identify and implement the institutional and/or engineering controls required for the Site and to provide for the necessary monitoring and/or operation and maintenance of the remedy. Remedial action work was conducted and completed at the Site in 2000 and annual monitoring has been ongoing since that time. Additional remedial work was conducted in 2006 during facility closure prior to Kailyn's occupancy. 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 FPM Group, Ltd. (FPM) on behalf of Metro Assets III, LLC, the Respondent, in accordance with the requirements in the Order on Consent (Index #W1-0725-04-09), NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (draft dated December 23, 2004), and the guidelines provided by NYSDEC.

1.1.2 Purpose

The Site contains historic residual contamination left after completion of the Remedial Action performed in 2000 and subsequent remedial work in 2006. An Institutional Control (IC) has been incorporated into the Site remedy to provide proper management of residual contamination in the future to ensure protection of public health and the environment. This IC is a Site-specific Environmental Easement recorded with the Suffolk County Clerk that provides an



FPM GROUP		
FIGURE 1.1.1.1 SITE LOCATION IW INDUSTRIES, INC. MELVILLE, NEW YORK		
Drawn By: L.G.	Checked By: SOD	Date: 11/17/00

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enforceable means to ensure the continued and proper management of residual contamination and protection of public health and the environment. It requires strict adherence to all Engineering Controls (ECs) and ICs placed on this Site by the NYSDEC, the grantor of the Environmental Easement, and any and all successors and assigns of the grantor. The ICs provide restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP includes all methods necessary to ensure compliance with all ECs and ICs required by the Environmental Easement for residual contamination at the Site. The SMP has been approved by the NYSDEC, and compliance with this Plan is required by the grantor of the Environmental Easement and grantor's successors and assigns. This plan is subject to change by NYSDEC.

Site management is the last phase of the remedial process and is triggered by the approval of the Remedial Action Report by the NYSDEC. The SMP continues until extinguished in accordance with 6 NYCRR Part 375. Various site management activities will be conducted in accordance with the schedules established in Section 3 through 5 herein. The need for continuing site management activities will be evaluated in coordination with the NYSDEC. It is the responsibility of the Environmental Easement grantor, and its successors and assigns to ensure that all Site Management responsibilities under this plan are performed.

The SMP provides a detailed description of all procedures required to manage residual contamination at the Site following the completion of the remedial action and was developed in accordance with the NYSDEC. The SMP generally includes: (1) development, implementation, and management of all ECs and ICs; (2) development and implementation of monitoring systems and a Monitoring Plan; (3) development of a plan to operate and maintain all treatment, collection, containment, or recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual); (4) submittal of Site Management Reports, performance of inspections and certification of results, and demonstration of proper communication of Site information to NYSDEC; and/or (5) defining criteria for termination of treatment system operation.

To address the needs for this Site, this SMP includes four plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for conducting groundwater monitoring; (3) an Operation and Maintenance Plan for a remedial collection system and for abandonment of NYSDEC-specified leaching pool structures; and (4) a Site Management Reporting Plan for submittal of data, information, recommendations, and certifications to NYSDEC.

Site management activities, reporting, and EC/IC certification will be scheduled on a certification period basis. The certification period will be on a five-quarter (15-month) basis so as to coordinate with the groundwater monitoring interval requested by the NYSDEC.

Important notes regarding this SMP are as follows:

- This SMP defines Site-specific implementation procedures as required by the Environmental Easement. Failure to implement the SMP is a violation of the Order on Consent, the Environmental Conservation Law (ECL), and 6 NYCRR 375-2.11(a)(4);
- The Order on Consent (Index #W1-0725-04-09, Site #1-52-102) for the Site requires conformance with this SMP, and therefore, serves as a contractual binding authority between the NYSDEC and the Respondent (Metro) under which this SMP is to be implemented. The Inactive Hazardous Waste Disposal Site law itself also requires the preparation of a SMP (formerly known as an Operation, Maintenance and Monitoring Plan). Therefore, the Order on Consent is a binding contract and the ECL is statutory authority under which this SMP is required and is to be implemented.
- At the time this report was prepared, the SMP and all Site documents related to Remedial Investigation and Remedial Action are maintained at the NYSDEC Region 1 offices in Stony Brook. At the time of SMP submission, _____ 2010, the Site documents can also be found in the repository established for this project:

Huntington Public Library
338 Main Street
Huntington, NY 11743
Hours: 9 AM to 9 PM Monday through Friday, 9 to 5 on Saturday
Phone: 631-427-5165

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located in Suffolk County, New York and is identified by the following Suffolk County Tax Map number: District 400 (Town of Huntington), Section 268, Block 1 and Lot 5. The Site is an approximately six-acre lot and is bounded by Melville Park Road and commercial/industrial buildings to the west, north and east. The property immediately to the west is also an Inactive Hazardous Waste Disposal Site, the New York Twist Drill Site (Site No. 1-52-169). This adjoining site is impacted with chlorinated solvents.

The I.W. Industries Site includes an approximately 97,000-square-foot masonry building, associated paved parking areas, and landscaped vegetation and was formerly used for manufacture of threaded metal parts.

The Site was redeveloped starting in 2006 and is presently owned by Kailyn, which operates offices and warehousing in the Site building and leases portions of the building to others for similar office and warehouse uses. No manufacturing or industrial uses currently occur onsite. The current operations by Kailyn and its tenants are not related to the historic residual contamination present onsite, although Kailyn continues to utilize onsite leaching systems to manage and dispose stormwater runoff and sanitary waste.

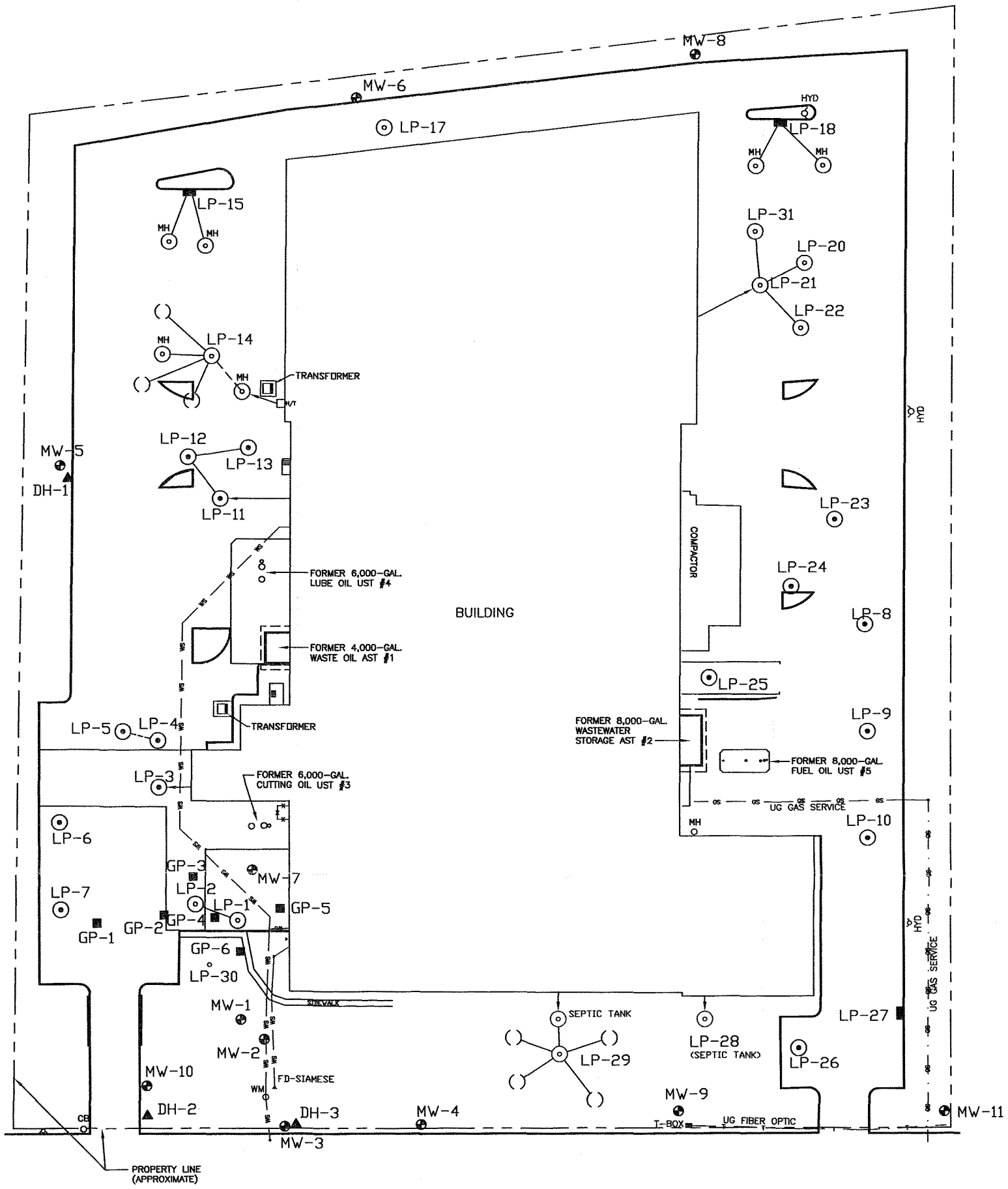
1.2.2 Site History

I.W. Industries, Inc. (IWI) occupied the Site since it was developed in approximately 1966 and manufactured threaded metal parts onsite until approximately 2005. These parts were milled from brass rods, composed of copper, zinc and lead. The manufacturing process produced scrap brass with associated lubrication and cutting oils. Washing of the finished parts produced wastewater, which was discharged to two leaching pools (LP-1 and LP-2) under a State Pollutant Discharge Elimination System (SDPES) permit prior to 1984. Onsite management of scrap also resulted in some inadvertent discharges of scrap brass and oils to other onsite leaching pools. A site plan showing the facility layout, including the leaching pools, groundwater monitoring wells, and boring locations is presented in Figure 1.2.2.1.

In 1982 oil and/or oil emulsion were noted to be present in several leaching pools, including LP-1, LP-2, LP-3, LP-4, LP-5, LP-6, LP-7, and LP-9. On November 5, 1982 IWI entered into an Order on Consent with the Suffolk County Department of Health Services (SCDHS) for the elimination of wastewater discharges and cleanout of the leaching pools. By January 4, 1983 the SCDHS reported that all floating oil had been removed from the leaching pools and in 1983 an ultrafiltration unit was installed to reduce discharges from the parts washing machine. Also in 1983 two groundwater monitoring wells, MW-1 and MW-2, were installed at the property.

On February 27, 1984 the SCDHS reported that LP-1 and LP-2 again contained oil and oil removal was requested. By September 14, 1984 LP-1 and LP-2 had been cleaned by removing sediments and liquids.

Additional groundwater monitoring wells (MW-3 through MW-5) were installed in 1985; sampling results indicated that no significant concentrations of organic compounds were detected at upgradient well MW-5; however, low to moderate levels of several chlorinated volatile



MELVILLE PARK ROAD

30 0 30 60 90
GRAPHIC SCALE – FEET

LEGEND:

MW-11 MONITORING WELL LOCATION

DH-1 OR GP-1 SOIL BORING LOCATION

LP-1 OR LP-27 LEACHING POOL LOCATION WITH MANHOLE

( ) LEACHING POOL LOCATION WITH SUBGRADE ACCESS

FPM GROUP		
FIGURE 1.2.2.1 SITE PLAN 35 MELVILLE PARK ROAD MELVILLE, NEW YORK		
Drawn By:HC	Checked By:SOD	Date: 5/28/10

H:\IWT\METROASSETS\FIGURE 1.2.2.1 Site_pl.dwg, 5/28/2010 10:53:37 AM, Tabloid

organic compounds (VOCs) were noted at wells MW-3 and MW-4. These wells are located on the southwest portion of the property and were likely affected by a plume of chlorinated solvents from the adjoining New York Twist Drill site.

By October 28, 1986 IWI had switched to a hold and haul operation for the disposal of washwater and was no longer discharging to onsite leaching pools. However, during a September 7, 1989 inspection by the SCDHS numerous drums were noted throughout the facility and oil was noted to be leaking into a storm drain in the loading dock area along the west side of the building. Another SCDHS inspection on April 26, 1990, indicated that no spill containment systems were provided for the drum storage areas and oil was noted in several storm drains in loading bays.

In July 1993 two additional groundwater monitoring wells (MW-6 and MW-7) were installed after floating oil had been detected on the water table at MW-1 and MW-2 in May 1993. Additional soil and groundwater investigations were conducted in 1993 and 1994. Organic compounds were detected in one soil sample and floating oil was detected in one monitoring well. A product recovery device placed in this well recovered a minimal amount of floating oil.

The property was listed as a NYSDEC Inactive Hazardous Waste Disposal site due to the leaching pool discharges and detected groundwater impacts. A Remedial Investigation (RI) was performed in 1997 following a NYSDEC-approved RI Work Plan; the work was overseen by the NYSDEC. The RI included sampling of the leaching pools, soil and groundwater. The RI is discussed in more detail in Section 1.3.1 below; however, the findings are summarized as follows:

- Several leaching pools were identified with sediments requiring remediation;
- No soil requiring remediation was identified;
- VOCs and metals were present in onsite groundwater and groundwater monitoring was required; and
- Free-phase product that appeared to have originated as lubrication and/or cutting oil found at wells downgradient of leaching pools LP-1 and LP-2.

Remediation activities were conducted in 2000 following the issuance of the ROD and were documented in a Remedial Action Report (November 2000). Remediation included removal of impacted sediments from leaching pools LP-3 through LP-15, LP-18, LP-22 through LP-24, LP-28, LP-29, and LP- 31. Verification samples were collected from the remediated leaching pools and were compared with the cleanup goals. The VOCs formerly present in the

leaching pools were successfully remediated and concentrations of semivolatile organic compounds (SVOCs) and metals were also significantly reduced, although residual contamination remained present in some leaching pools. No further remediation of the leaching pools was required at that time by the NYSDEC.

Removal of free-phase product from the top of the water table was implemented in 2000 and continued through 2005. Minor amounts of free-phase petroleum or visible sheen were noted at wells MW-1, MW-2, and/or MW-7 periodically during this time and were treated as necessary. No measurable accumulations (>0.01 foot) have been noted since 2005, although product monitoring is ongoing. Product removal is discussed in more detail below.

IWI ceased operations and vacated the Site in early 2006. Resource Conservation and Recovery Act (RCRA) closure activities were subsequently conducted under a RCRA Closure Plan approved by the NYSDEC and were overseen by NYSDEC representatives. Additional facility closure activities were conducted under the oversight of the SCDHS. RCRA closure activities were conducted in those areas of the facility where hazardous wastes were formerly generated, treated, and/or stored. During RCRA closure activities, the remaining stored wastes at the Site were characterized, removed and properly disposed, all contaminated equipment and structures were decontaminated and/or properly disposed, and all wastes generated during the closure process were disposed in accordance with applicable State and Federal regulations. Sampling and analyses were performed in accordance with the Quality Assurance Project Plan (QAPP) and demonstrated that the closure was complete. The results were documented in Phase I and Phase II Closure Reports (July 2007) submitted to the NYSDEC and approved on September 5, 2007.

Additional non-RCRA facility closure activities were conducted in 2007 under SCDHS oversight and were documented in a November 13, 2007 correspondence to the SCDHS. These activities included additional decontamination of the facility interior; sampling and remediation of select leaching pools; and removal of non-RCRA storage tanks. The SCDHS performed an ongoing review of this work while in progress and, after work completion, determined (SCDHS September 27, 2007 correspondence) that the only remaining requirements included the abandonment of leaching pools LP-1, LP-2 and LP-3 and additional remediation of leaching pools LP-6, LP-7, LP-11 and LP-24. The additional remediation of these leaching pools is not required by the NYSDEC and will not be discussed further herein. Abandonment of leaching pools LP-1 through LP-3 was required by the NYSDEC under the Order on Consent and was conducted by Metro as discussed further in Section 2.2 herein.

Under the RCRA and non-RCRA closure activities all of the onsite storage tanks, including underground and aboveground storage tanks (USTs and ASTs) were properly removed from the Site under NYSDEC and/or SCDHS oversight. These tanks included the following:

- An 8,000-gallon wastewater storage AST;
- A 4,000-gallon waste oil storage AST;
- A 6,000-gallon lube oil UST;
- An 8,000-gallon fuel oil UST;
- A 6,000-gallon cutting oil UST; and
- Three small (<50-gallon) ASTs suspended in the southwest loading dock.

All of the larger USTs and ASTs are shown on the site plan in Figure 1.2.2.1. Tank removal activities are discussed in Section 1.3.1.4 below. Documentation of the closure of the RCRA tanks was submitted to the NYSDEC in the RCRA Closure Report and documentation of the closure of the non-RCRA tanks was submitted to the SCDHS (November 13, 2007 correspondence). No further work has been required in any of the former tank areas and no tanks remain present at the Site.

1.2.3 Geological Conditions

The geological conditions at the Site were evaluated based on published reference documents and boring logs prepared during the RI and previous investigations. Well and boring locations are shown on Figure 1.2.2.1.

In general, up to six feet of mixed sand, gravel, and clay fill is present immediately beneath the Site surface. Beneath the fill material is approximately 50 feet of upper Pleistocene Glacial Deposits. These deposits consist of well-graded to poorly-graded fine- to coarse-grained sand with gravel. Gravel content was generally noted to increase in the interval from 42 feet to approximately 55 feet. Although laminations of sand of differing grain sizes could be discerned, no intervals of fine-grained materials (silt or clay) were noted in the glacial deposits.

The base of the upper Pleistocene Glacial Deposits was observed in detail in the deep soil borings and was encountered at depths of 55 to 57 feet below grade. Generally, light brown sand with silt was encountered at the base of the interval with gravel. Below the sand was light brown to orange brown silty clay with muscovite mica, which is interpreted as the top of the Magothy Formation.

Deep boring DH-2 was continued to a depth of 104 feet below grade to confirm the presence of the Magothy Formation. Generally, below the silty clay at the top of the Magothy Formation (which was approximately three feet thick), the Magothy consists of light brown fine- to medium-grained sand with muscovite mica. The sand generally becomes lighter in color and finer-grained downward. Another approximately three-foot-thick silt and clay layer was encountered at approximately 72 feet below grade. No field indications of contamination were encountered in any of Magothy Formation materials. All borings not used for well installation were properly abandoned during the RI.

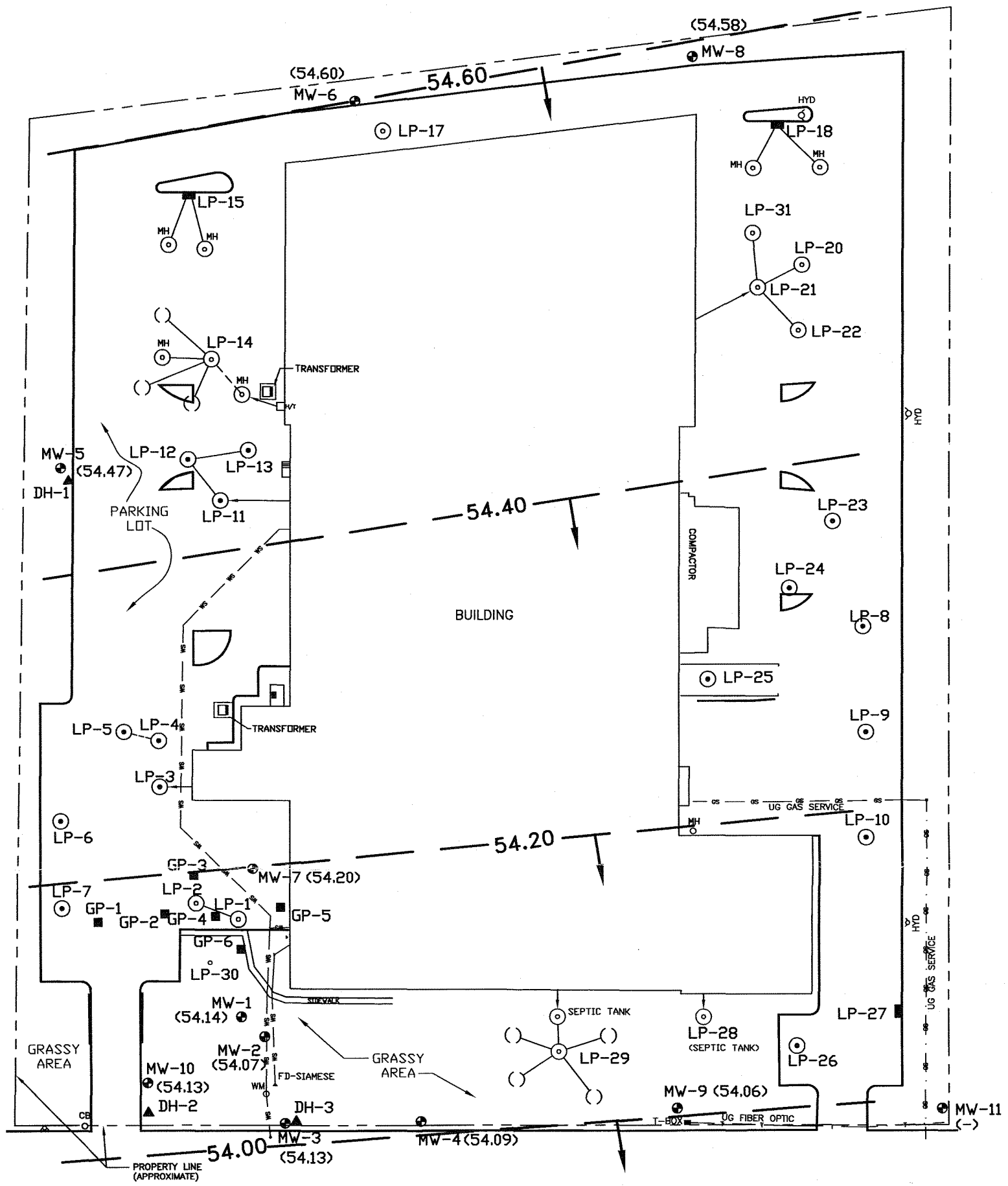
There are two primary aquifers beneath the Site. The shallower aquifer is the Upper Glacial (water table) Aquifer and has a saturated thickness of less than 10 feet beneath the Site. This aquifer is associated with the upper Pleistocene Glacial Deposits. The deeper aquifer is the Magothy Aquifer, which underlies the Upper Glacial Aquifer and is associated with the Magothy Formation.

The water table is present approximately 50 feet below grade and the groundwater flow direction is generally to the south with a gradient of 0.0008 to 0.0009. A recent groundwater flow map is shown in Figure 1.2.3.1. Water level data obtained during well development were evaluated to estimate the specific capacity of the Upper Glacial Aquifer. At a pumping rate of approximately 7.2 gallons per minute (gpm), the water levels in the pumping wells were drawn down between 0.36 and 0.97 feet. Based on these data, the specific capacity of the Upper Glacial Aquifer ranges from 7.5 to 20.5 gpm/foot.

The International Groundwater Modeling Center computer program TGUESS (revision 1.01, May, 1991) was used to calculate hydraulic conductivity values from the water level data obtained during well development. The calculated hydraulic conductivity values range from 122 to 368 feet per day (913 to 2,753 gals/day/ft^2) which is similar to the estimated average hydraulic conductivity for the Site area (2,000 gals/day/ft^2) given in the U. S. Geological Survey Paper 627-E, "Water Transmitting Properties of Aquifers on Long Island, New York (1972)".

1.3 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

The SMP and all Site documents, including the RI Report, the Remedial Action Work Plan, and the Remedial Action Report are maintained by the NYSDEC (or successor agency). At the time of publication, these reports could be found at the Region 1 NYSDEC offices in Stony Brook, New York.



MELVILLE PARK ROAD

LEGEND:

- MW-10 (54.13) — MONITORING WELL LOCATION WITH WATER TABLE RELATIVE ELEVATIONS IN FEET
- (-) — WATER TABLE NOT MEASURED
- DH-1 OR GP-1 — SOIL BORING LOCATION
- LP-1 OR LP-27 — LEACHING POOL LOCATION WITH MANHOLE
- ( ) — LEACHING POOL LOCATION WITH SUBGRADE ACCESS
- → — GROUNDWATER FLOW DIRECTION
- 50.5 — WATER TABLE RELATIVE ELEVATION CONTOUR

30 0 30 60 90
GRAPHIC SCALE – FEET

FPM GROUP

FIGURE 1.2.3.1
MARCH 8, 2006
WATER TABLE RELATIVE ELEVATIONS
35 MELVILLE PARK ROAD
MELVILLE, NEW YORK

Drawn By: H.C., J.S.	Checked By: J.B.	Date: 5/27/08

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1.3.1 Summary of Remedial Investigation Findings

The documents associated with the RI for this Site include the following:

Remedial Investigation Work Plan for I. W. Industries Site, May 1997

- Final Focused Remedial Investigation Report for I. W. Industries Site, January 1999
- Focused Feasibility Study for I. W. Industries Site, February 1999

The RI findings are summarized in the following sections.

The conceptual model for contamination at this Site focused on the onsite leaching pools, two of which (LP-1 and LP-2) were identified to have received wastewater discharges under a SPDES permit and which continued to receive stormwater runoff discharges until their abandonment. Additional leaching pools also received inadvertent discharges associated with facility operations and materials storage and handling practices. Discharges to these subsurface leaching structures included waste cutting oil, treated wastewater, and metal shavings associated with the manufacturing process. The materials in the impacted leaching pools, which included metals and SVOCs, affected the soil underlying certain of these structures. Groundwater beneath and downgradient of some of the structures also became impacted. Therefore, the areas of concern (AOCs) at this Site included the leaching structures, the soil underlying the leaching structures, and the groundwater beneath and downgradient of some of the leaching structures. The constituents of concern included metals and SVOCs associated with materials historically used or generated at the Site.

The Site also adjoins another Inactive Hazardous Waste Disposal Site, the New York Twist Drill Site, which is located to the west. This adjoining site is impacted with chlorinated solvent VOCs, which affect soil beneath the southeast portion of the site and groundwater beneath and downgradient of this area. The VOC-impacted groundwater from this adjoining site has been found beneath the southwestern portion of the IWI Site, but does not originate from the IWI Site.

1.3.1.1 Soil

Soil borings were performed during the RI in the vicinity and downgradient of the LP-1/LP-2 area and soil that appeared to be impacted on the basis of visual or PID data was encountered in several borings. Generally, visibly impacted soil was found only in the vicinity of the water table in borings GP-1, GP-2, GP-3, GP-5, and DH-3. These borings are located in the vicinity of or downgradient from LP-1 and LP-2, as shown on Figure 1.2.2.1. At boring GP-6, located downgradient of LP-1 and LP-2, visibly impacted soil was encountered from

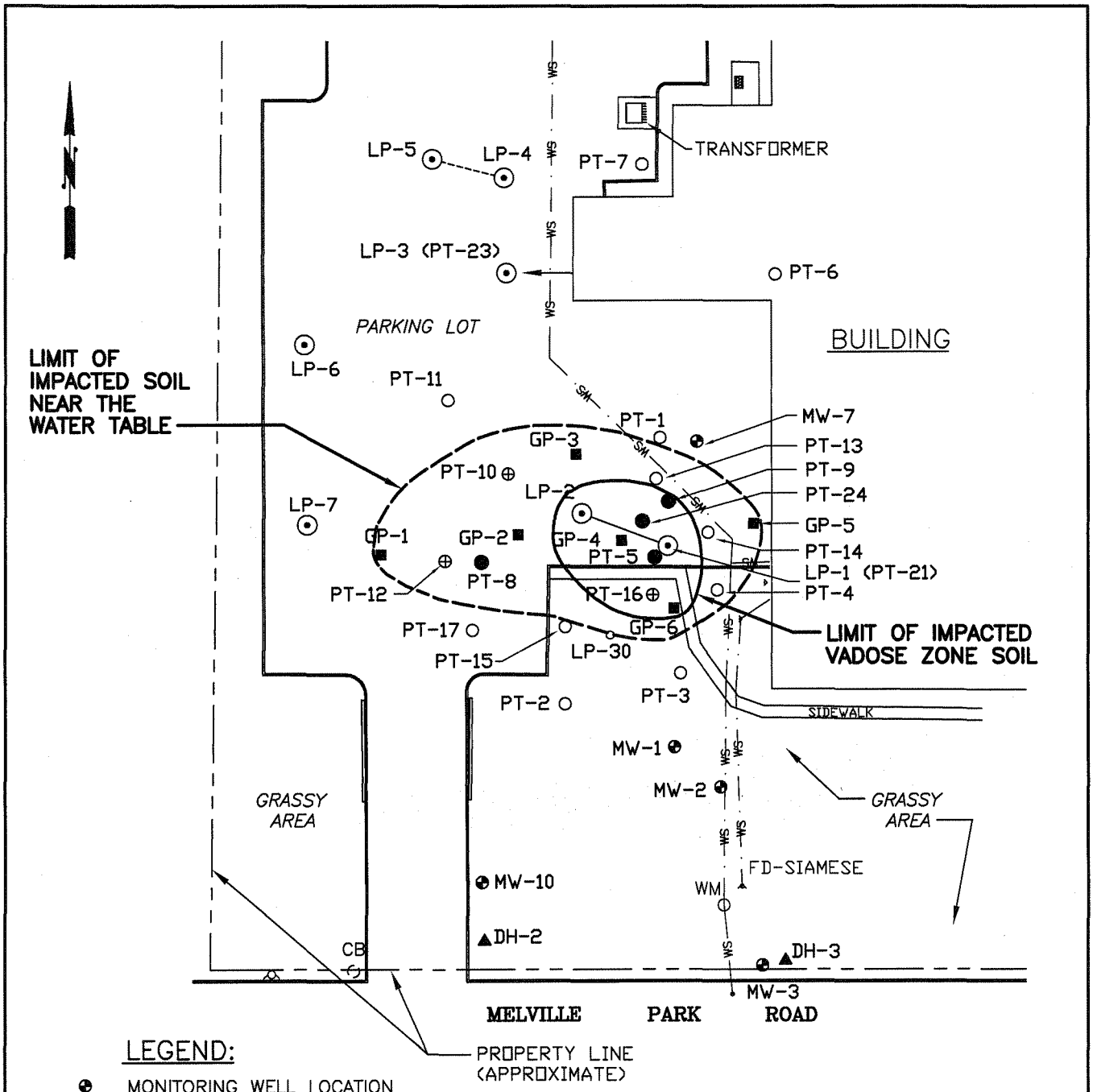
approximately 28 feet below grade to the water table. At boring GP-4, located between LP-1 and LP-2, visibly impacted soil was encountered from approximately 11 feet below grade to the water table. Impacted soil was generally gray to black, oily, with a petroleum odor and elevated PID readings. In general, the impact appeared to be selectively concentrated in both coarser-grained layers and finer-grained layers within the overall sand matrix. Although lateral impact migration did appear to be influenced by grain-size changes, there did not appear to be any silt or clay layers that were significantly directing the lateral migration of impacts.

Based on an evaluation of the qualitative indicators of soil contamination in the vadose zone from both the RI borings and the previously-obtained data, visibly-impacted soil in the vadose zone appeared to be confined to the area in the immediate vicinity of LP-1 and LP-2 as shown on Figure 1.3.1.1.1. Visibly-impacted soil was present in the vicinity of the water table over a larger area as shown in the same figure.

A summary of the soil chemical analytical data from the RI vadose zone soil borings is presented in Tables 1.3.1.1.1 and 1.3.1.1.2. Several VOCs, primarily tetrachloroethene, xylene, 2-butanone, and ethylbenzene, were detected in several of the soil samples; however, none of the detected concentrations exceeded their respective NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives (Objectives). VOC Tentatively-Identified Compounds (TICs) were detected in several soil samples; however, the total VOCs concentrations (which include TICs) did not exceed the NYSDEC Objective.

Several SVOCs were detected in two soil boring sample; however, none of the detected concentrations exceeded their respective NYSDEC Objectives. SVOC TICs were detected in all of the soil boring samples. Unknown alkanes were detected in one soil boring sample at a concentration that slightly exceeded the NYSDEC Objective for a single SVOC. However, since the detected value represented the sum of six individual unknown alkane compounds, none of which exceeded the NYSDEC Objective for a single SVOC, there was not an exceedance of the NYSDEC Objective.

Metals were detected in all of the soil boring samples. However, none of the detected concentrations exceeded their respective NYSDEC Objectives with the exception of zinc at one location that slightly exceeded its Objective of 20 mg/kg, and iron at several locations at concentrations that somewhat exceeded the Objective of 2,000 mg/kg. The zinc and iron detections were also compared to the range of Eastern USA background concentrations for these metals (no site-specific, Suffolk County, or Long Island background concentrations have been established). The zinc detection was within the range of Eastern USA background zinc concentrations as were the iron detections.



LEGEND:

- MW-11 — MONITORING WELL LOCATION
- DH-1 OR GP-1 — SOIL BORING LOCATION
- LP-1 OR LP-27 — LEACHING POOL LOCATION WITH MANHOLE
- PT-8 — SOIL BORING W/SIGNIFICANT ODOR
- PT-10 — SOIL BORING W/SOME ODOR
- PT-1 — SOIL BORING W/NO ODOR
- ( ) — LEACHING POOL LOCATION WITH SUBGRADE ACCESS

30 0 30 60
GRAPHIC SCALE–FEET

Fanning, Phillips & Molnar
Engineers

FIGURE 1.3.1.1.1
EXTENT OF VISIBLY IMPACTED SOIL
I.W. INDUSTRIES SITE
35 MELVILLE PARK ROAD
MELVILLE, NEW YORK

Drawn By: H.C.	Checked By: SOD	Date: 3/5/98

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TABLE 1.3.1.1.1
SOIL BORING SAMPLES
ORGANIC PARAMETERS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	GP-1	GP-1	GP-2	GP-2	GP-3	GP-3	GP-4	GP-4	GP-5	GP-5	GP-6	GP-6	NYSDEC TAGM 4046 Cleanup Objectives
Sample Depth (ft)	22-24	34-36	22-28	40-42	8-10	18-20	12-14	32-34	28-30	42-44	18-20	32-34	
Sampling Date	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/1/97	7/1/97	6/30/97	6/30/97	7/3/97	7/3/97	
Volatile Organic Compounds in ug/kg													
Xylene (total)	ND	ND	ND	ND	ND	ND	ND	94 J	ND	ND	ND	ND	1,200
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	17 J	ND	ND	ND	ND	5,500
2-Butanone	ND	ND	ND	ND	ND	ND	ND	6 J	ND	ND	ND	21	300
Toluene	ND	ND	ND	ND	ND	ND	2 J	ND	ND	ND	ND	4 J	1,500
Tetrachloroethene	ND	ND	ND	110 J	ND	4 J	13 J	25 J	ND	ND	ND	16	1,400
Tentatively Identified Volatile Organic Compounds in ug/kg													
Unknown alkanes	572 J	ND	ND	40 J	ND	ND	103 J	388 J	ND	ND	ND	4,780 J	-
Unknowns	203 J	ND	ND	413 J	ND	ND	586 J	99 J	ND	ND	ND	2,400 J	-
Unknown cyclic	39 J	ND	ND	391 J	ND	ND	194 J	310 J	ND	ND	ND	1,440 J	-
C3 Subs. benzene	38 J	ND	ND	ND	ND	ND	ND	170 J	ND	ND	ND	ND	-
Decahydro-methyl-naphthalene is	ND	ND	ND	ND	ND	ND	87 J	ND	ND	ND	ND	ND	-
Nonane	ND	ND	ND	ND	ND	ND	ND	96 JN	ND	ND	ND	ND	-
Methyl-nonane isomer	ND	ND	ND	ND	ND	ND	ND	319 J	ND	ND	ND	ND	-
Decane	ND	ND	ND	ND	ND	ND	ND	100 JN	ND	ND	ND	ND	-
Undecane	ND	ND	ND	ND	ND	ND	ND	170 JN	ND	ND	ND	ND	-
Total VOCs	852	ND	ND	954	ND	4	985	1,814	ND	ND	ND	8,763	10,000

Notes:

Only analytes detected in one or more samples are included in this table.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
N = Presumptive evidence of a compound.
ug/kg = micrograms per kilograms.
- = NYSDEC Recommended Soil Cleanup Objective not established for this compound.

TABLE 1.3.1.1.1 (CONTINUED)
SOIL BORING SAMPLES
ORGANIC PARAMETERS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	GP-1	GP-1	GP-2	GP-2	GP-3	GP-3	GP-4	GP-4	GP-5	GP-5	GP-6	GP-6	NYSDEC TAGM 4046 Cleanup Objectives
Sample Depth (ft)	22-24	34-36	22-28	40-42	8-10	18-20	12-14	32-34	28-30	42-44	18-20	32-34	
Sampling Date	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/1/97	7/1/97	6/30/97	6/30/97	7/3/97	7/3/97	
Semivolatile Organic Compounds in ug/kg													
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	580 JD	ND	ND	ND	ND	7,900
Naphthalene	ND	ND	ND	ND	ND	ND	ND	420 JD	ND	ND	ND	ND	13,000
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	580 JD	ND	ND	ND	ND	36,400
Phenanthrene	ND	ND	ND	ND	ND	ND	ND	990 JD	ND	ND	ND	ND	50,000
Diethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	71 J	ND	7,100
Tentatively Identified Semivolatile Organic Compounds in ug/kg													
Unknowns	1,630 J	1,200 J	1,370 J	37,060 JD	2,670 J	2,620 J	5,170 JD	25,800 JD	2,340 J	2,300 J	1,030 J	20,500 JD	50,000
Unknown alkanes	ND	ND	ND	1,200 JD	ND	ND	1,000 JD	**51,600 JD**	1,200 J	1,200 J	2,800 J	34,900 JD	50,000
Unknown polycyclic cpd.	ND	ND	ND	ND	ND	1,100 J	13,000 JD	19,000 JD	ND	ND	ND	ND	50,000
Unknown cyclic cpd.	ND	ND	ND	ND	ND	ND	ND	2,900 JD	ND	ND	ND	ND	50,000
C4 subs. benzene	ND	ND	ND	ND	ND	ND	ND	4,400 JD	ND	ND	ND	ND	50,000
Unknown PNA	ND	ND	ND	ND	ND	ND	ND	3,600 JD	ND	ND	ND	3,100 JD	50,000
Acetophenone	ND	ND	ND	1,100 JND	ND	ND	ND	ND	ND	ND	ND	ND	50,000
Total Non-carcinogenic SVOCs	1,630	1,200	1,370	39,360	2,670	3,720	19,170	109,870	3,540	3,500	3,901	58,500	500,000

Notes:

Only analytes detected in one or more samples are included in this table.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
N = Presumptive evidence of a compound.
A = TIC is a suspected aldol-condensation product.
D = Diluted sample.
ug/kg = micrograms per kilograms.
- = NYSDEC Recommended Soil Cleanup Objectives not established for this compound.
Bold values exceed their NYSDEC Recommended Soil Cleanup Objective.

TABLE 1.3.1.1.2
SOIL BORING SAMPLES
INORGANIC PARAMETERS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	GP-1	GP-1	GP-2	GP-2	GP-3	GP-3	GP-4	GP-4	GP-5	GP-5	GP-6	GP-6	NYSDEC TAGM 4046 Cleanup Objectives
Sample Depth (ft)	22-24	34-36	22-28	40-42	8-10	18-20	12-14	32-34	28-30	42-44	18-20	32-34	
Sampling Date	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/1/97	7/1/97	6/30/97	6/30/97	7/3/97	7/3/97	
Total Metals in mg/kg													
Aluminum	626	1060	579	729	860	763	658	853	598	852	712	683	SB
Antimony	ND	ND	ND	ND	ND	ND	0.41 JB	ND	ND	ND	ND	ND	SB
Arsenic	0.67 B	0.88 B	0.47 B	1.6	0.69 B	1.3	0.38 B	1.0	0.32 B	1.1	0.35 B	0.81 B	7.5
Barium	2.9 JBE	7.7 JB	2.8 JB	5.2 JB	6.7 JB	4.2 JB	3.5 JB	4.7 JB	3.2 JB	4.3 JB	3.6 JB	4.0 JB	300
Beryllium	0.07 B	0.09 B	0.07 B	0.06 B	0.09 B	0.09 B	0.04 B	0.11 B	0.06 B	0.06 B	0.11 B	0.07 B	0.16
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10
Calcium	59.7 B	330 B	40.3 B	50.8 B	59.3 B	378 B	73.8 B	36.4 B	34.8 B	37.8 B	92.3 B	51.2 B	SB
Chromium	5.9	6.0	5.3	3.8	2.7	6.8	19.6	6.3	1.5	2.0	2.7	3.5	50
Cobalt	0.77 B	0.84 B	0.55 B	0.58 B	3.2 B	0.68 B	0.27 B	0.91 B	0.39 B	0.69 B	0.61 B	1.2 B	30
Copper	2.9	4	4.6	3.3	2.5	4.2	12.2	11.3	1.5 B	1.6 B	2.3 B	3.8	25
Iron	**2,430**	**3770**	**2470**	**3430**	**3660**	**3230**	1990	**5180**	1530	**2510**	**3600**	1680	2000
Lead	1.0	1.2	1.4	2.2	1.5	3.6	347	6.9	0.85	0.87	1.0	2.1	500
Magnesium	145 B	365 B	150 B	198 B	223 B	231 B	170 B	221 B	116 B	272 B	189 B	169 B	SB
Manganese	57.5	31.6	26.7	13.0	175	49.4	11.5	36.4	31.0	18.9	28.6	19.4	SB
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1
Nickel	1.4 B	2.0 B	1.1 B	0.86 B	1.5 B	1.1 B	0.76 B	1.1 B	0.78 B	1.1 B	1.1 B	1.5 B	13
Potassium	91.4 B	187 B	95.5 B	105 B	122 B	107 B	107 B	185 B	87.6 B	110 B	131 B	121 B	SB
Selenium	ND	ND	ND	ND	ND	0.35 B	ND	ND	ND	ND	ND	ND	2
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SB
Sodium	23.5 B	39.5 B	25.9 B	28.8 B	31.1 B	25.5 B	24.4 B	26.1 B	30.9 B	33.2 B	33.7 B	24.4 B	SB
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SB
Vanadium	1.8 B	3.4 B	2.2 B	2.2 B	2.3 B	3.5 B	2.0 B	3.6 B	1.4 B	2.2 B	2.4 B	2.1 B	150
Zinc	5.2 J	7.1 J	7.7 J	7.0 J	9.7 J	15.6 J	9.7 J	10.0 J	4.2 J	5.5 J	6.6 J	**32.1 J**	20

Notes:

B = Reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.
E = Reported value is estimated due to the presence of interference.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

SB = Site Background.
mg/kg = milligrams/kilogram
ND = Not Detected.
J = Estimated value.

Based on these results, although visibly-impacted soil was present in the vadose zone in the vicinity of leaching pools LP-1 and LP-2, in general, concentrations of VOCs, SVOCs and metals did not exceed their respective NYSDEC Objectives. Exceedances of the NYSDEC Objective for iron were noted for several samples. However, Long Island soils naturally contain high concentrations of iron and, therefore, the elevated concentrations of this constituent do not necessarily indicate soil contamination. Also, the detected concentrations are within the range of Eastern USA background concentrations for iron. Zinc was detected at one location at a concentration somewhat exceeding its NYSDEC Objective but within the range of Eastern USA background zinc concentrations.

The data from soil samples collected onsite during the RI confirmed that while visual and olfactory indications of soil contamination were present in samples from the vicinity of leaching pools LP-1 and LP-2, in general, metals, VOCs or SVOCs were not detected at elevated concentrations in these soils. The NYSDEC reviewed these results and did not require any remediation of the onsite soil.

1.3.1.2 Groundwater

Groundwater samples were obtained from seven onsite groundwater monitoring wells and from the DH-2 Hydropunch location in an initial sampling event during the RI. These sampling locations are shown in Figure 1.2.2.1. Two wells, MW-4 and MW-5, were found to be dry and, therefore, were not sampled. Two wells, MW-2 and MW-7, were found to contain floating product and, therefore, were not sampled in concurrence with the onsite NYSDEC representative. Concentrations of several metals were noted to be elevated in several of the initial groundwater samples and it was theorized that the elevated metals concentrations may be attributable to suspended material within the groundwater samples since several of the groundwater samples had been noted to be turbid. Therefore, it was proposed to perform additional groundwater sampling at select wells and have splits of the resulting groundwater samples filtered. The resulting filtered and unfiltered samples would be analyzed for metals. This proposed sampling was in accordance with NYSDEC TAGM 4015 and was approved by the NYSDEC representative; the sampling was performed in a second sampling event during the RI.

Free-phase product was identified at wells MW-2 and MW-7 at apparent thicknesses of 0.03 feet and approximately 0.4 feet, respectively. MW-7 is in the vicinity of LP-1 and LP-2 and MW-2 is located downgradient. It was concluded that the free-phase product originated from oil and/or emulsion that was formerly present in these leaching pools.

The chemical analytical results from the RI groundwater samples are presented in Tables 1.3.1.2.1 through 1.3.1.2.3 and are compared to the NYSDEC Class GA Ambient Water Quality Standards or Guidance Values (Standards). Chlorinated VOCs were detected in three of the groundwater samples, all of which were located on the southwest corner of the Site in the vicinity of an adjoining site with a plume of chlorinated VOC-impacted groundwater. These constituents were not detected at elevated levels in either soil or leaching pool sediment samples at the IWI Site and did not originate from the IWI Site.

SVOCs were detected in several of the groundwater samples, although generally at low concentrations. Exceedances of the NYSDEC Standards were noted only for dichlorobenzenes, which were detected at concentrations slightly exceeding their NYSDEC Standard. As discussed above, these exceedances were noted for two sampling locations on the southwest corner of the Site in the vicinity of an adjoining site with a plume of VOC-impacted groundwater. These dichlorobenzenes are not believed to have originated from the IWI Site.

Metals were detected in all of the groundwater samples from the initial (unfiltered) sampling event. The data from the second sampling event shown significant reductions in the metals detections for the samples that had been filtered when compared to the results of the unfiltered (whole) samples. For the filtered samples, the only metals concentrations that exceeded the NYSDEC Standards were iron, manganese, sodium, and the sum of iron and manganese. These data indicate that many of the metals exceedances noted in the initial data resulted from suspended particulate material in the groundwater samples and were not representative of metals concentrations dissolved in the groundwater. Accordingly, the metals results from the second sampling round were used to evaluate groundwater conditions at the Site.

Although offsite groundwater sampling was not performed, the onsite groundwater data were used to develop projections of offsite iron and manganese concentrations. Iron and manganese concentrations were noted to decrease onsite in a downgradient direction from MW-1 to MW-10. Based on the observed rate of concentration decrease, it was projected that the groundwater iron and manganese concentrations noted on the southwest side of the Site should decrease to below the NYSDEC Standards approximately 50 feet south of the MW-10 location (10 feet south of the Site boundary), assuming that the rate of decrease is linear. Since these wells are completed at approximately the same depth, this projection was unaffected by changes in the vertical distribution of iron or manganese. Using the same rate of concentration decrease, it can be projected that the groundwater manganese concentration at MW-9 on the southeast side of the Site should decrease to below the NYSDEC Standard approximately 20 feet south of the MW-9 location (10 feet south of the Site boundary). Based on these projections, the iron and

TABLE 1.3.1.2.1
GROUNDWATER SAMPLES
ORGANIC PARAMETERS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-1	MW-3	MW-6	MW-8	MW-9	MW-10	MW-11	DH-2	NYSDEC GA Standards
Sampling Date	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/8/97	
Sampling Depth (ft)	52.85	49.20	52.77	51.30	54.50	58.00	58.00	65.00	
Volatile Organic Compounds in ug/l									
1,2-Dichloroethene	3 J	ND	ND	ND	ND	**47**	ND	**55**	5
1,1-Dichloroethane	ND	ND	ND	ND	ND	1 J	ND	3 J	5
Trichloroethene	ND	ND	ND	ND	ND	**9 J**	ND	**16**	5
Chlorobenzene	**41**	ND	ND	ND	ND	2 J	ND	**12**	5
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	2 J	2
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	2 J	-
Tetrachloroethene	ND	ND	ND	ND	ND	**29**	ND	**20**	5
Tentatively Identified Volatile Organic Compounds in ug/l									
Unknown alkanes	20 J	ND	ND	ND	ND	ND	ND	ND	-
Benzene, 1,4-dichloro-	**11 JN**	ND	ND	ND	ND	ND	ND	**7 JN**	4.7*

Notes:

Only analytes detected in one or more samples are included in this table.
Sample Depth refers to well depth for monitoring wells and to the hydropunch screen depth for the DH-2 sample.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
N = Presumptive evidence of a compound.
ug/l = micrograms per liter.
- = NYSDEC Class GA Standard or Guidance Value not established for this compound.
* = Refers to the sum of the dichlorobenzenes.
Bold values exceed their respective NYSDEC Class GA Standard or Guidance Value.

TABLE 1.3.1.2.1 (CONTINUED)
GROUNDWATER SAMPLES
ORGANIC PARAMETERS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	MW-1	MW-3	MW-6	MW-8	MW-9	MW-10	MW-11	DH-2	NYSDEC GA Standards
Sampling Date	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/8/97	
Sampling Depth (ft)	52.85	49.20	52.77	51.30	54.50	58.00	58.00	65.00	
Semivolatile Organic Compounds in ug/l									
1,2-Dichlorobenzene	**2 J**	ND	ND	ND	ND	ND	ND	**1 J**	4.7*
1,4-Dichlorobenzene	**6 J**	ND	ND	ND	ND	2 J	ND	**4 J**	4.7*
bis(2-Ethylhexyl) phthalate	ND	ND	ND	ND	ND	ND	ND	ND	50
Di-n-butylphthalate	ND	ND	1 J	ND	2 J	ND	2 J	ND	50
Diethylphthalate	ND	1 J	ND	ND	ND	ND	ND	4 J	50
Tentatively Identified Semivolatile Organic Compounds in ug/l									
Unknowns	ND	6 J	2 J	2 J	2 J	5 J	ND	ND	-
Unknown alkanes	8 J	ND	ND	ND	ND	14 J	9 J	6 J	-
Unknown alcohols	14 J	ND	ND	5 J	ND	4 J	ND	34 J	-
Unknown ketone	ND	ND	9 J	ND	ND	6 J	8 J	7 J	-
Unknown cyclic cpd.	7 J	ND	ND	3 J	3 J	ND	ND	ND	-

Notes:

Only analytes detected in one or more samples are included in this table.
Sample Depth refers to well depth for monitoring wells and to the hydropunch screen depth for the DH-2 sample.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
N = Presumptive evidence of a compound.
ug/l = micrograms per liter.
- = NYSDEC Class GA Standard or Guidance Value not established for this compound.
* = Refers to the sum of the dichlorobenzenes.
Bold values exceed their respective NYSDEC Class GA Standard or Guidance Value.

TABLE 1.3.1.2.2
GROUNDWATER SAMPLES
INORGANIC PARAMETERS DATA
REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-1	MW-3	MW-6	MW-8	MW-9	MW-10	MW-11	DH-2	NYSDEC GA Standards
Sampling Date	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/14/97	7/8/97	
Sampling Depth (ft)	52.85	49.20	52.77	51.30	54.50	58.00	58.00	65.00	
Total Metals in ug/l									
Aluminum	7,350	4,370	1,270	2,820	7,460	269	272	68,400	-
Antimony	**3.6 JBN**	ND	ND	ND	ND	ND	ND	**3.6 JBN**	3
Arsenic	**35.3**	6.3 B	ND	3.5 B	ND	ND	ND	**143**	25
Barium	75.8 B	61.2 B	47.2 B	53.6 B	55.5 B	148 B	35.0 B	351	1,000
Beryllium	0.87 B	0.50 B	0.17 B	0.23 B	0.83 B	ND	ND	**6.9**	3
Cadmium	3.5 B	0.67 B	ND	0.33 B	ND	ND	ND	ND	10
Calcium	25,400	6,830	8,280	11,200	12,800	9,780	20,800	37,100	-
Chromium	11.1	18.2	5.4 B	20.2	0.87 B	5.7 B	1.7 B	**677**	50
Cobalt	24.4 B	6.3 B	2.0 B	3.4 B	5.8 B	27.9 B	1.5 B	43.7 B	-
Copper	**306**	43.7	18.7 B	24.0 B	120	7.8 B	6.4 B	**201**	200
Iron	**58,000**	**18,900**	**3,360**	**8,280**	85.1 B	**19,600**	294	**232,000**	300
Lead	**41.3**	**29.9**	4.8	14.7	17.2	ND	1.1 B	**91.4**	25
Magnesium	4,520 B	3,340 B	2,010 B	4,020 B	3,220 B	2,370 B	1,710 B	8,880	35,000
Manganese	**1,000**	**403**	143	227	**592**	**1,570**	107	**2,150**	300
Mercury	0.11 B	ND	ND	ND	ND	ND	ND	0.1 B	2
Nickel	13.3 B	9.3 B	4.2 B	5.3 B	20.4 B	10.1 B	1.6 B	192	-
Potassium	15,100	2,450 B	1,570 B	2,000 B	10,900	1,910 B	2,920 B	12,100	-
Selenium	ND	3.0 B	ND	ND	ND	ND	ND	9.3	10
Silver	ND	ND	ND	1.3 B	ND	ND	ND	ND	50
Sodium	**30,300 JE**	10,600 JE	9,180 JE	**22,900 JE**	**28,700 JE**	12,100 JE	8,960 JE	17,100 JE	20,000
Thallium	ND	ND	ND	ND	ND	ND	ND	**9.0 B**	4
Vanadium	14.1 B	14.1 B	4.9 B	6.4 B	ND	ND	3.8 B	392	-
Zinc	261	65.8	21.7	35.3	74.9	40.2	11.5 B	**320**	300
Iron and Manganese	**59,000**	**19,303**	**3,503**	**8,507**	**677.1**	**21,170**	401	**234,150**	500

Notes:

Sample Depth refers to well depth for monitoring wells and to the hydropunch screen depth for the DH-2 sample.
ND = Not Detected.
B = Reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.
E = Reported value is estimated due to the presence of interference.
N = Matrix spiked sample recovery not within control limits.
J = Estimated value.
ug/l = micrograms per liter.
Bold values exceed their respective NYSDEC Class GA Standard or Guidance Value.

TABLE 1.3.1.2.3
GROUNDWATER SAMPLES
INORGANIC PARAMETERS DATA
REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-1			MW-3			MW-8			MW-9			MW-10			NYSDEC GA Standards
Sampling Date	7/14/97	1/29/98	1/29/98	7/14/97	1/29/98	1/29/98	7/14/97	1/29/98	1/29/98	7/14/97	1/29/98	1/29/98	7/14/97	1/29/98	1/29/98	
Sample Type	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Filtered	
Sampling Depth (ft)		52.85			49.20			51.30			54.50			58.00		
Total Metals in ug/l																
Aluminum	7,350	485	ND	4,370	1,050	28.9 B	2,820	1,960	11.5 B	7,460	10,800	6,090	269	61,600	17.8 B	-
Antimony	**3.6 BN**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.4 B**	ND	3
Arsenic	**35.3**	23.6	12.9	6.3 B	1.9 B	ND	3.5 B	ND	ND	ND	6.9 B	ND	ND	**119**	ND	25
Barium	75.8 B	44.1 B	13.6 B	61.2 B	59.9 B	37.7 B	53.6 B	122 B	76.1 B	55.5 B	53.0 B	40.3 B	148 B	**5,630**	92.5 B	1,000
Beryllium	0.87 B	0.20 B	ND	0.50 B	0.10 B	ND	0.23 B	0.17 B	ND	0.83 B	1.8 B	0.80 B	ND	**6.3**	ND	3
Cadmium	3.5 B	0.63 B	ND	0.67 B	0.30 B	ND	0.33 B	0.23 B	ND	ND	0.80 B	ND	ND	0.27 B	ND	10
Calcium	25,400	13,600	12,400	6,830	11,500	9,990	11,200	16,800	16,000	12,800	16,700	18,300	9,780	11,200	9,590	-
Chromium	11.1	1.8 B	ND	18.2	3.5 B	0.73 B	20.2	13.5	1.3 B	0.87 B	7.1 B	ND	5.7 B	**90.7**	ND	50
Cobalt	24.4 B	14.4 B	12.4 B	6.3 B	3.4 B	1.7 B	3.4 B	2.0 B	ND	5.8 B	51.3	12.2 B	27.9 B	61.3	10.4 B	-
Copper	**306**	43.1	3.1 B	43.7	22.7 B	4.6 B	24.0 B	36.4	2.4 B	120	27.1	20.9 B	7.8 B	164	1.7 B	200
Iron	**58,000**	**95,900**	**80,400**	**18,900**	**4,720**	187	**8,280**	2,750	23.1 B	85.1 B	**9,360**	30.2 B	**19,600**	**249,000**	**9,500**	300
Lead	**41.3**	14.5	1.5 B	**29.9**	19.9	4.9	14.7	10.6	ND	17.2	10.7	0.81 B	ND	**118**	ND	25
Magnesium	4,520 B	2,120 B	1,970 B	3,340 B	3,830 B	3,410 B	4,020 B	3,950 B	3,530 B	3,220 B	3,480 B	3,570 B	2,370 B	8,120	2,340 B	35,000
Manganese	**1,000**	**1,710 JN**	**1,590 JN**	**403**	237 JN	128 JN	227	160 JN	27.5 JN	**592**	**1,650 JN**	**855 JN**	**1,570**	**1,890 JN**	**823 NJ**	300
Mercury	0.11 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.46	ND	2
Nickel	13.3 B	4.8 B	3.5 B	9.3 B	2.2 B	ND	5.3 B	4.9 B	ND	20.4 B	21.3 B	17.3 B	10.1 B	59.9	3.7 B	-

TABLE 1.3.1.2.3 (CONTINUED)
GROUNDWATER SAMPLES
INORGANIC PARAMETERS DATA
REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-1			MW-3			MW-8			MW-9			MW-10			NYSDEC GA Standards
Sampling Date	7/14/97	1/29/98	1/29/98	7/14/97	1/29/98	1/29/98	7/14/97	1/29/98	1/29/98	7/14/97	1/29/98	1/29/98	7/14/97	1/29/98	1/29/98	
Sample Type	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Filtered	
Sampling Depth (ft)		52.85			49.20			51.30			54.50			58.00		
Total Metals in ug/l																
Potassium	15,100	5,200	4,540 B	2,450 B	3,330 B	2,960 B	2,000 B	2,810 B	2,490 B	10,900	10,200	10,700	1,910 B	11,300	5,740	-
Selenium	ND	4.5 B	4.1 B	3.0 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	**12.4**	ND	10
Silver	ND	ND	ND	ND	ND	ND	1.3 B	ND	ND	ND	ND	ND	ND	ND	ND	50
Sodium	**30,300 E**	10,900 JE	9,890 JE	10,600 E	11,900 JE	12,000 JE	**22,900 E**	**40,200 JE**	**40,000 JE**	**28,700 E**	**24,300 JE**	**27,100 JE**	12,100 E	12,800 JE	14,000 JE	20,000
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.3 B	ND	4
Vanadium	14.1 B	2.2 B	ND	14.1 B	3.6 B	ND	6.4 B	2.3 B	ND	ND	14.7 B	ND	ND	220	ND	-
Zinc	261	71.5	30.7	65.8	25.3	27.7	35.3	33.8	15.2 B	74.9	56.4	50.1	40.2	228	16.5 B	300
Iron and Manganese	**59,000**	**97,610**	**81,990**	**19,303**	**4,957**	315	**8,507**	**2,910**	50.6	**677.1**	**11,010**	**885.2**	**21,170**	**250,890**	**10,323**	500

Notes:

Sample Depth refers to well depth for monitoring wells and to the hydropunch screen depth for the DH-2 sample.
ND = Not Detected.
B = Reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.
E = Reported value is estimated due to the presence of interference.
N = Matrix spiked sample recovery not within control limits.
J = Estimated value.
ug/l = micrograms per liter.
Bold values exceed their respective NYSDEC Class GA Standard or Guidance Value.

manganese groundwater contamination was not projected to extend more than 10 feet south of the Site boundary.

The groundwater sampling results obtained during the RI were presented to the NYSDEC in the RI Report, together with the historic groundwater sampling data. It was concluded that free-phase (floating) product was present in two wells and was likely associated with past discharges to LP-1 and LP-2. Removal of the free-phase product was recommended. Although the groundwater data indicated that concentrations of VOCs and metals were present in the onsite groundwater, the impacts to groundwater were not elevated and the VOC impacts were shown to be associated with the adjoining New York Twist Drill site to the west. Groundwater monitoring was recommended.

Groundwater monitoring has been conducted and reported to the NYSDEC on an annual basis since 2001. Groundwater monitoring procedures are provided in Section 3.0 herein. The historic and most recent (June 2007) groundwater monitoring results are shown on Tables 1.3.1.2.4 and 1.3.1.2.5.

VOC concentrations in June 2007 were low to non-detect in wells MW-1 through MW-4, MW-7, and MW-10, and were all non-detect in wells MW-5, MW-6, and MW-9. In general, VOC concentrations have decreased or remained relatively unchanged. As discussed above, wells with VOC detections are located at the southwest corner of the Site in the vicinity of the adjoining New York Twist Drill site with VOC-impacted groundwater. These VOCs do not originate from the Site. Therefore, changes in VOC concentrations do not appear to reflect changes in Site groundwater quality related to the remediation of the Site leaching pools.

SVOC concentrations in the wells on the Site are currently very low to non-detect and have remained relatively unchanged when compared to previous sampling events with the exception of crossgradient well MW-5. Only one SVOC, 1,4-dichlorobenzene was detected at the Site (well MW-7) in exceedance of its Standard. The detected concentration is estimated and is very low. Extremely low levels of several SVOCs were detected in well MW-5, which is crossgradient and next to the adjoining property with impacted groundwater. SVOCs have not previously been noted in MW-5. No SVOCs were detected at wells MW-3, MW-4, MW-6, MW-9, or MW-10. SVOCs do not present a significant concern in Site groundwater.

In general, metals concentrations have declined in the majority of the Site wells between 1997 and 2007. The general reductions in metals concentrations in most of the Site wells between 1997 and 2007 likely result from the removal of impacted sediments in the leaching pools. Based on the Site-specific hydraulic conductivity, the current Site-specific horizontal

TABLE 1.3.1.2.4
GROUNDWATER SAMPLES
ORGANIC PARAMETERS DATA
I.W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-1						MW-2		MW-3				MW-4		MW-5		MW-6			MW-7		NYSDEC GA Standards
Sampling Date	7/14/97	3/22/01	3/30/04	3/23/05	3/8/06	6/29/07	3/8/06	6/29/07	7/14/97	3/22/01	3/8/06	6/29/07	3/8/06	6/29/07	3/8/06	6/29/07	7/14/97	3/8/06	6/29/07	3/8/06	6/29/07	
Sampling Depth (ft)	52.85						52		49.2				48		48		52.77			52		
Volatile Organic Compounds in ug/l																						
Acetone	U	U	U	U	U	U	U	U	U	NS	U	U	UB	U	UB	U	U	UB	U	U	U	50**
Bromomethane	U	NA	U J	UJ	U	U	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	5
2-Butanone (MEK)	U	U	U	U	U	U	U	U	U	NS	1.9 J	U	U	U	U	U	U	U	U	U	U	50**
1,2-Dichloroethene	3 J	3 J	U	3.7 J	1.4 J	U	U	U	U	NS	U	U	2.4 J	U	U	U	U	U	U	U	U	5
1,2-Dichloroethane	U	NA	U	U	U	U	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	0.6
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	5
Trichloroethene	U	U	U	U	U	U	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	5
Chlorobenzene	41	20	9	6.8	1.5 J	25	0.92 J	4.3 J	U	NS	U	U	U	U	U	U	U	U	U	4.3 J	8.1	5
Tetrachloroethene	U	U	U	0.57 J	1.1 J	U	0.66 J	1.3 J	U	NS	4.4 J	2.6 J	0.51 J	U	U	U	U	U	U	U	U	5
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	5
Toluene	U	U	U	UB	U	U	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	5
cis-1,2-Dichloroethene	U	U	U	U	U	7.3	U	1.1 J	U	U	U	U	U	2.3 J	U	U	U	U	U	U	U	5
Methylene Chloride	NA	NA	U	UB	UB	U	UB	U	NA	NS	UB	U	UB	U	UB	U	U	UB	U	UB	U	5
Semivolatile Organic Compounds in ug/l																						
1,2-Dichlorobenzene	2 J	1 J	U	U	U	3.7 J	U	U	U	1 J	U	U	U	U	U	U	U	U	U	U	U	3
1,3-Dichlorobenzene	U	NA	U	U	U	U	U	U	U	NA	U	U	U	U	U	U	U	U	U	U	U	3
1,4-Dichlorobenzene	6 J	3 J	U	2 J	U	2.1 J	0.9 J	0.52 J	U	3 J	U	U	U	U	U	U	U	U	U	0.6 J	4.5 J	3
2,4-Dinitrophenol	U	U	U	UJ	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	10
Benzoic Acid	U	NA	U	U	U	U	U	U	U	NA	U	U	U	U	U	U	U	U	U	U	U	-
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	U	1 JB	U	U	2 J	U	U	U	U	U	U	2 J	U	50
Di-n-butylphthalate	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1 J	U	U	U	U	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.89 J	U	U	U	U	U	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.77 J	U	U	U	U	U	ND
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.4 J	U	U	U	U	U	0.002
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.74 J	U	U	U	U	U	-
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.42 JM	U	U	U	U	U	0.002
Chrysene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.85 J	U	U	U	U	U	0.002
Fluoranthene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.6 J	U	U	U	U	U	50
Phenanthrene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.55 J	U	U	U	U	U	50
Pyrene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.4 J	U	U	U	U	U	50
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.81 J	U	U	U	U	U	0.002
Diethylphthalate	U	1 J	U	U	U	U	U	U	1 J	1 J	U	U	U	U	U	U	U	U	U	U	U	50

TABLE 1.3.1.2.4 (CONTINUED)
GROUNDWATER SAMPLES
ORGANIC PARAMETERS DATA
I.W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-8				MW-9								MW-10								NYSDEC GA Standards
Sampling Date	7/14/97	3/22/01	3/8/06	6/29/07	7/14/97	3/22/01	3/27/02	3/20/03	3/30/04	3/23/05	3/8/06	6/29/07	7/14/97	3/22/01	3/27/02	3/20/03	3/30/04	3/23/05	3/8/06	6/29/07	
Sampling Depth (ft)	51.3				54.5								58								
Volatile Organic Compounds in ug/l																					
Acetone	U	U	UB	NS	U	U	U	U	U	UB	UB	U	U	U	U	U	U	UB	UB	UM	50**
Bromomethane	U	NA	U	NS	U	NA	U J	U	U J	UJ	U	U	U	NA	UJ	U	U J	UJ	U	U	5
2-Butanone (MEK)	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	UB	U	U	50**
1,2-Dichloroethene	U	U	U	NS	U	U	U	U	U	U	U	U	**47**	**6**	5 J	3 J	**6**	**6.7**	U	U	5
1,2-Dichloroethane	U	NA	U	NS	U	NA	U	U	U	U	U	U	U	NA	UJ	U	U	U	U	U	0.6
1,1-Dichloroethane	U	U	U	NS	U	U	U	U	U	U	U	U	1 J	1 J	5	2 J	U	U	U	U	5
Trichloroethene	U	U	U	NS	U	U	U	U	U	U	U	U	**9 J**	2 J	**21**	5 J	2 J	4.9 J	U	UM	5
Chlorobenzene	U	U	U	NS	U	U	U	U	U	U	U	U	2 J	1 J	U	2 J	**18**	3.4 J	U	U	5
Tetrachloroethene	U	U	U	NS	U	U	0.9 J	U	U	U	U	U	**29**	**6**	**44**	**15**	**8**	**18**	**10**	3.6 J	5
1,1,1-Trichloroethane	U	U	U	NS	U	U	U	U	U	U	U	U	UJ	2 J	**6 J**	2 J	U	U	U	U	5
Toluene	U	U	U	NS	U	U	U	U	U	UB	U	U	U	U	U	U	U	UB	U	U	5
Methylene Chloride	NA	NA	U	NS	NA	NA	NA	NA	U	UB	UB	U	NA	NA	NA	NA	U	UB	UB	UM	5
Semivolatile Organic Compounds in ug/l																					
1,2-Dichlorobenzene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	0.7 J	U	1 J	U	U	U	3
1,3-Dichlorobenzene	U	NA	U	NS	U	NA	U	U	U	U	U	U	U	NA	1 JM	U	1 J	U	U	U	3
1,4-Dichlorobenzene	U	U	U	NS	U	U	U	U	U	U	U	U	2 J	2 J	3 J	2 J	**6 J**	U	U	U	3
2,4-Dinitrophenol	U	U	U	NS	U	U	UJ	U	U	UJ	UJ	U	U	U	UJ	U	U	UJ	UJ	U	10
Benzoic Acid	U	NA	U	NS	U	NA	R	U	U	U	U	U	U	NA	R	U	U	U	U	U	-
bis(2-Ethylhexyl)phthalate	U	1 JB	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	50
Di-n-butylphthalate	U	U	U	NS	2 J	U	U	U	0.9 J	U	U	U	U	U	U	U	U	U	U	U	50
Benzo(a)anthracene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.002
Benzo(a)pyrene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ND
Benzo(b)fluoranthene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.002
Benzo(g,h,i)perylene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	-
Benzo(k)fluoranthene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.002
Chrysene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.002
Fluoranthene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	50
Phenanthrene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	50
Pyrene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	50
Indeno(1,2,3-cd)pyrene	U	U	U	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.002
Diethylphthalate	U	1 JB	U	NS	U	U	U	U	0.3 J	U	U	U	U	U	U	U	U	U	U	U	50

Notes:

Only analytes detected in one or more samples are included in this table.
Sample Depth refers to well depth.
Several wells were dry on occasion and could not be sampled.
NS = Not Sampled.
NA = Not Analyzed.
U = Not detected
B = Analyte is detected in an associated blank.

J = Result is an estimated value below the reporting limit.
M = Manually integrated compound.
ug/l = micrograms per liter.
Bold shaded values exceed their respective NYSDEC Class GA Standard or Guidance Value.
** = There is no established Standard; a Guidance Value of 50 ug/l has been established.

TABLE 1.3.1.2.5
GROUNDWATER SAMPLES
INORGANIC PARAMETERS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-1										MW-2			MW-3								MW-4			NYSDEC GA Standards
Sampling Date	7/14/97	1/29/98		3/22/01		3/30/04	3/23/05	3/8/06		6/29/07	3/8/06		6/29/07	7/14/97	1/29/98		3/22/01		3/8/06		6/29/07	3/8/06		6/29/07	
Sample Type	Whole	Whole	Filtered	Whole	Filtered	Whole	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Whole	Filtered	Whole	Filtered	Whole	Filtered	Whole	Whole	Filtered	Whole	
Sampling Depth (ft)	52.85										52			49.2								48			
Metals in ug/l																									
Aluminum	7,350	485	U	976	9.9 B	786	192 B	169 B	U	U	332 B	U	U	4,370	1,050	28.9 B	1,760	48.3 B	132 B	U	U	U	U	U	-
Antimony	**3.6 BN**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	3
Arsenic	**35.3**	23.6	12.9	15.8	7.7 B	**25.1 B**	13.5 B	14.7 B	9.5 BJ	6.7 J	6.3 B	U	9.0 J	6.3 B	1.9 B	U	18.1	U	**28.6 B**	13.4 BJ	12 J	U	U	8.8 J	25
Barium	75.8 B	44.1 B	13.6 B	67.2 B	22.1 B	76.4	27.3	17.3	8.1 J	9.8	92.5	72.1 J	13	61.2 B	59.9 B	37.7 B	164 B	12.5 B	53.6	36.2 J	64	112	90.1 J	230	1,000
Beryllium	0.87 B	0.20 B	U	0.20 B	U	U	U	U	U	U	U	U	U	0.50 B	0.10 B	U	0.34 B	U	U	U	U	U	U	U	-
Cadmium	3.5 B	0.63 B	U	0.43 B	U	2.0 B	1.8 B	U	U	U	U	U	U	0.67 B	0.30 B	U	1.0 B	U	U	U	U	U	U	U	5
Calcium	25,400	13,600	12,400	11,400	11,200	24,700	13,400	8,970	9,190 J	7,900	29,200	28,900 J	11,900	6,830	11,500	9,990	8,030	5,860	11,900	13,100 J	10,900	15,600	13,800 J	13,700	-
Chromium	11.1	1.8 B	U	2.8 B	U	2.7 B	1.8 B	2.3 B	1.8 BJ	2.0 J	U	U	U	18.2	3.5 B	0.73 B	7.8 B	1.8 B	1.9 B	2.3 B J	U	1.6 B	U	U	50
Cobalt	24.4 B	14.4 B	12.4 B	8.1 B	6.9 B	11.5	7.1 B	3.8 B	3.7 BJ	U	2.1 B	1.9 BJ	5.2 J	6.3 B	3.4 B	1.7 B	1.8 B	U	21.4	20.9 J	5.9 J	35.7	8.4 BJ	22	-
Copper	**306**	43.1	3.1 B	30.5	U	84.8	13.1	21.3	5.0 BJ	11	11.3	10.4 J	15	43.7	22.7 B	4.6 B	43.7	6.9 B	65.6	24.1 J	15	7.2 B	4.4 BJ	7.6 J	200
Iron	**58,000**	**95,900**	**80,400**	**38,000**	**33,000**	**65,900**	**72,300**	**70,200**	**38,800 J**	**57,500**	**20,300**	**475 J**	**45,500**	**18,900**	**4,720**	187	**43,300**	**785**	**59,500**	**36,500 J**	**55,000**	**20,700**	**2,560 J**	**47,300**	300
Lead	**41.3**	14.5	1.5 B	13.4	U	12.5	3.3 JB	3.2 B	U	U	4.7 B	U	U	**29.9**	19.9	4.9	**66.8**	17.3	4.4 B	U	U	U	U	U	25
Magnesium	4,520 B	2,120 B	1,970 B	2,160 B	2,040 B	2,610	2,080	1,810	1,850 J	1,400	1,770	1,840 J	2,000	3,340 B	3,830 B	3,410 B	2,690 B	2,060 B	2,810	3,060 J	2,700	2,980	3,180 J	2,600	-
Manganese	**1,000**	**1,710 JN**	**1,590 JN**	**822**	**853**	**1,080**	**892**	**831**	**745 J**	**530**	**328**	187 J	**470**	**403**	237 JN	128 JN	248	8.3 B	**1,380**	**1,200 J**	**550**	**3,130**	**608 J**	**1,600**	300
Mercury	0.11 B	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	0.11 B	U	U	U	U	U	U	U	0.7
Nickel	13.3 B	4.8 B	3.5 B	6.5 B	3.7 B	5.7 B	2.6 B	U	2.2 BJ	U	2.0 B	4.4 BJ	2.5 J	9.3 B	2.2 B	U	2.8 B	U	14.7	15.0 J	3.2 J	20.4	4.3 BJ	3.0 J	100
Potassium	15,100	5,200	4,540 B	5,120 J	5,350 J	12,700 J	4,050	2,110	2,090 J	1,500	23,700	22,700 J	1,900	2,450 B	3,330 B	2,960 B	1,960 JB	1,670 JB	3,930	4,170 J	2,500	3,980	3,580 J	3,200	-
Selenium	U	4.5 B	4.1 B	U	U	U J	U	U	U	U	U	U	U	3.0 B	U	U	4.4 B	3.4 B	U	U	U	U	U	U	10
Silver	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	50
Sodium	**30,300 E**	10,900 JE	9,890 JE	14,600	15,300	**50,100**	19,200	10,700	**21,600**	11,600	**119,000**	**123,000**	10,800	10,600 E	11,900 JE	12,000 JE	8,610	8,630	19,200	**32,600**	17,400	**27,900**	16,800 J	16,500	20,000
Thallium	U	U	U	U	U	U J	U	UJ	U	U	UJ	UJ	U	U	U	U	U	U	UJ	UJ	U	U	UJ	U	-
Vanadium	14.1 B	2.2 B	U	4.7 B	0.44 B	5.0 B	2.1 B	2.4 B	U	2.2 J	4.5 B	U	1.3 J	14.1 B	3.6 B	U	14.1 B	0.61 B	2.5 B	U	1.1 J	U	U	U	-
Zinc	261	71.5	30.7	39.7	28	70.1	U	35.3 B	36.9 BJ	U	11.1 BJ	20.6 J	U	65.8	25.3	27.7	48.3	36.1	18.5 BJ	48.9 BJ	U	35.5 B	U	U	-
Iron and Manganese	**59,000**	**97,610**	**81,990**	**38,822**	**33,853**	**66,980**	**73,192**	**71,031**	**39,545 J**	**58,030**	**20,628**	**662 J**	**45,970**	**19,303**	**4,957**	315	**43,548**	**793.3**	**60,880**	**37,700 J**	**55,500**	**23,830**	**3,168 J**	**48,900**	500

TABLE 1.3.1.2.5 (CONTINUED)
GROUNDWATER SAMPLES
INORGANIC PARAMETERS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-5			MW-6				MW-7			MW-8							NYSDEC GA Standards
Sampling Date	3/8/06		6/29/07	7/14/97	3/8/06		6/29/07	3/8/06		6/29/07	7/14/97	1/29/98		3/22/01		3/8/06		
Sample Type	Whole	Filtered	Whole	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Whole	Filtered	Whole	Filtered	Whole	Filtered	
Sampling Depth (ft)	48			52.77				52			51.3							
Total Metals in ug/l																		
Aluminum	7,710	U	1,000	1,270	U	U	U	228 B	U	U	2,820	1,960	11.5 B	989	22.5 B	760	U	-
Antimony	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	3
Arsenic	9.8 B	U	U	U	U	U	U	6.7 B	4.3 BJ	15 J	3.5 B	U	U	U	U	U	U	25
Barium	70.1	20.3 J	73	47.2 B	35.1	18.1 J	46	41.6	35.5 J	87	53.6 B	122 B	76.1 B	134 B	131 B	47.8	45.1 J	1,000
Beryllium	U	U	U	0.17 B	U	U	U	U	U	U	0.23 B	0.17 B	U	U	U	U	U	-
Cadmium	U	U	U	U	U	U	U	U	U	U	0.33 B	0.23 B	U	0.42 B	0.65 B	U	U	5
Calcium	11,400	10,800 J	12,500	8,280	9,100	7,680 J	9,500	12,800	13,300 J	14,100	11,200	16,800	16,000	23,400	25,500	25200 J	30,400 J	-
Chromium	11.4	U	2.1 J	5.4 B	U	U	U	U	U	U	20.2	13.5	1.3 B	6.1 B	U	3.3 B	U	50
Cobalt	3.5 B	U	U	2.0 B	3.4 B	3.4 BJ	U	9.0 B	8.3 BJ	2.8 J	3.4 B	2.0 B	U	1.7 B	1.1 B	U	U	-
Copper	132	U	23	18.7 B	U	U	U	9.8 B	U	6.7 J	24.0 B	36.4	2.4 B	17.2 B	3.4 B	17.7	U	200
Iron	**9,280**	U	**1,300**	**3,360**	73.9 B	U	110 J	**21,200**	**12,900 J**	**29,000**	**8,280**	**2,750**	23.1 B	**2,690**	12.8 B	**1,490**	U	300
Lead	**45.0**	U	5.8 J	4.8	U	U	U	U	U	U	14.7	10.6	U	12.5	2.8 B	4.3 B	U	25
Magnesium	3,570	U	3,400	2,010 B	1,940	1,630 J	2,500	3,140	3,170 J	3,400	4,020 B	3,950 B	3,530 B	4,920 B	5,220	6,590 J	7,730 J	-
Manganese	126	**2,530 J**	**840**	143	10.2 B	U	16	**475**	**431 J**	190	227	160 JN	27.5 JN	216	194	63.1	11.4 BJ	300
Mercury	U	U	U	U	U	U	U	U	U	U	U	U	U	0.13 B	0.14 B	U	U	0.7
Nickel	6.2 B	2.2 BJ	U	4.2 B	U	U	U	4.8 B	5.4 BJ	U	5.3 B	4.9 B	U	5.6 B	4.0 B	U	2.8 BJ	100
Potassium	1,800	1,350 J	2,000	1,570 B	995	1,080 J	1,000	2,260	2,290 J	2,100	2,000 B	2,810 B	2,490 B	5,610 J	6,090 J	2,470 J	2,870 J	-
Selenium	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	10
Silver	U	U	U	U	U	U	U	U	U	U	1.3 B	U	U	1. 3 B	U	U	U	50
Sodium	9,910	**21,200**	**28,300**	9,180 JE	4,700	15,800	9,500	19,500	**30,500**	18,700	**22,900 E**	**40,200 JE**	**40,000 JE**	**34,500**	**37,100**	19,700	**35,300**	20,000
Thallium	UJ	UJ	U	U	UJ	UJ	U	UJ	UJ	U	U	U	U	U	U	UJ	UJ	-
Vanadium	14.4	U	1.8 J	4.9 B	U	U	U	U	U	U	6.4 B	2.3 B	U	2.3 B	U	1.9 B	U	-
Zinc	58.7	U	14 J	21.7	U	U	U	28.9 BJ	35.5 BJ	1.2 J	35.3	33.8	15.2 B	30.6	29.9	23.8 B	11.5 BJ	-
Iron and Manganese	**9,406**	**2,530 J**	**2,140**	**3,503**	84.1	U	126	**21,675**	**13,331 J**	**29,190**	**8,507**	**2,910**	50.6	**2,906**	206.8	**1,553**	11.4 J	500

TABLE 1.3.1.2.5 (CONTINUED)
GROUNDWATER SAMPLES
INORGANIC PARAMETERS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Well No.	MW-9												MW-10												NYSDEC GA Standards
Sampling Date	7/14/97	1/29/98		3/22/01	3/27/02		3/20/03	3/30/04	3/23/05	3/8/06		6/29/07	7/14/97	1/29/98		3/22/01	3/27/02		3/20/03	3/30/04	3/23/05	3/8/06		6/29/07	
Sample Type	Whole	Whole	Filtered	Whole	Whole	Filtered	Whole	Whole	Whole	Whole	Filtered	Whole	Whole	Whole	Filtered	Whole	Filtered	Whole	Filtered	Whole	Whole	Whole	Whole	Filtered	Whole	
Sampling Depth (ft)	54.5												58												
Total Metals in ug/l																									
Aluminum	7,460	10,800	6,090	19,300	17,700 J	16,200	9,330 NJ	7,860	1,960	1,470	U	770	269	61,600	17.8 B	2,010	27.1 B	911 J	U	739 NJ	624	347 B	U	U	U	-
Antimony	U	U	U	U	U	U	U	U	U	U	U	U	U	**3.4 B**	U	U	U	U	U	U	U	U	U	U	U	3
Arsenic	U	6.9 B	U	U	U	U	U	U	U	U	U	U	U	**119**	U	6.5 B	U	U	U	U	U	U	U	U	U	25
Barium	55.5 B	53.0 B	40.3 B	87.7 B	59.8 J	66.1 J	51.1	36.2	19.0	8.8	5.0 BJ	29	148 B	**5,630**	92.5 B	275	159 B	222	183	179	236	192	99.9	71.0 J	110	1,000
Beryllium	0.83 B	1.8 B	0.80 B	1.6 B	1.6 B	1.5 B	1.1 B	0.94 B	U	U	U	U	U	**6.3**	U	U	U	U	U	U	U	U	U	U	U	-
Cadmium	U	0.80 B	U	U	U	U	U	U	U	U	U	U	U	0.27 B	U	U	U	U	U	U	U	U	U	U	U	5
Calcium	12,800	16,700	18,300	11,500	18,800	20,100	27,500	23,800	7,400	10,800	11,100 J	18,200	9,780	11,200	9,590	10,900	10,800	13,600	13,900	21,100	21,600	14800	12,200	12,300 J	10,600	-
Chromium	0.87 B	7.1 B	U	3.1 B	3.9 B	2.3 B	3.9 B	U	11.9	35.2	37.8 J	16	5.7 B	**90.7**	U	3.3 B	U	1.7 B	U	U	U	1.6 B	U	U	U	50
Cobalt	5.8 B	51.3	12.2 B	38.7 B	28.9	21.3	16.4	13.6	4.8 B	6.5 B	U	4.2 J	27.9 B	61.3	10.4 B	8.0 B	6.8 B	3.3 B	3.7 B	14.4	41.2	23.3	3.3 B	2.4 BJ	2.7 J	-
Copper	120	27.1	20.9 B	44.9	33.1	33.7	16.4	21.9	7.5 B	4.9 B	U	6.2 J	7.8 B	164	1.7 B	10.7 B	U	4.6 B	6.3 B	2.4 B	5.5 B	6.0 B	U	5.4 BJ	4.3 J	200
Iron	85.1 B	**9,360**	30.2 B	**2,830**	**2,550**	157 B	**5,470**	**593**	**442**	**3,860 J**	U	U	**19,600**	**249,000**	**9,500**	**19,400**	**9,910**	**3,910**	**794**	**3,080**	**5,050**	**9,400**	**656**	U	**2,400**	300
Lead	17.2	10.7	0.81 B	4.2	U	U	U	U	UJ	U	U	U	U	**118**	U	8.3	U	U	U	U	U	UJ	U	U	U	25
Magnesium	3,220 B	3,480 B	3,570 B	3,550 B	4,480	4,640	5,070	4,600	1,680	2,070	2,050 J	3,000	2,370 B	8,120	2,340 B	2,490 B	2,310 B	3,020	3,000	4,620	4,960	3610	3,050	3,010 J	2,800	-
Manganese	**592**	**1,650 JN**	**855 JN**	**1,210**	**1,080**	**943 J**	**871**	**645**	219	181	13.9 BJ	89	**1,570**	**1,890 JN**	**823 NJ**	**1,110**	**1,140**	**1,580 J**	**1,850 J**	**4,680**	**5,730 J***	**2,000**	**303**	190 J	99	300
Mercury	U	U	U	0.21	U	U	U	U	UJ	U	U	U	U	0.46	U	0.15 B	*	U	U	U	U	UJ	U	U	U	0.7
Nickel	20.4 B	21.3 B	17.3 B	22.2 B	23.6	22.9	19.3	15.9	6.5 B	4.1 B	U	6.0 J	10.1 B	59.9	3.7 B	4.6 B	2.7 B	2.6 B	9.7 B	3.9 B	7.2 B	5.3 B	3.0 BJ	4.4 BJ	U	100
Potassium	10,900	10,200	10,700	19,800 J	27,500	28,500	17,700 NJ	12,300 J	4,790	2,750	2,230 J	2,700	1,910 B	11,300	5,740	3,010 JB	2,800 JB	3,730	3,550	4,410 NJ	5,710 J	4,870	4,540	4,210 J	2,400	-
Selenium	U	U	U	U	U	U	U	U J	U	U	U	U	U	**12.4**	U	U	U	U	U	U	U J	U	U	U	U	10
Silver	U	U	U	U	UJ	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	UJ	U	U	U	U	U	U	50
Sodium	**28,700 E**	**24,300 JE**	**27,100 JE**	**32,000**	**34,800**	**35,800**	**34,900**	**31,400**	**22,000**	**22,400**	**33,500**	19,300	12,100 E	12,800 JE	14,000 JE	12,900	13,800	16,100	16,600	16,700 E	**25,000**	**24,100**	**22,800**	**32,600**	17,500	20,000
Thallium	U	U	U	U	U	U	U	U J	U	UJ	UJ	U	U	2.3 B	U	U	U	U	U	U	U J	U	UJ	UJ	U	-
Vanadium	U	14.7 B	U	3.6 B	5.0 B	U	9.5	U	U	3.3 B	U	U	U	220	U	8.9 B	U	3.5 B	U	3.1 B	2.1 B	U	U	U	U	-
Zinc	74.9	56.4	50.1	66	69.9 J	93.7 J	49.8 B	44.3 B	17.2 B	23.3 B	U	150	40.2	228	16.5 B	19.5 B	16.3 B	U	24.9 B	U	U	U	15.1 B	16.1 BJ	U	-
Iron and Manganese	**677.1**	**11,010**	**885.2**	**4,040**	**3,630**	**1,100**	**6,341**	**1,238**	**661**	**4,041**	13.9 J	89	**21,170**	**250,890**	**10,323**	**20,510**	**11,050**	**5,490**	**2,644**	**7,760**	**10,780**	**11,400**	**959**	190 J	**2,499**	500

Notes:

Several wells were dry on occasion and could not be sampled.
Sample Depth refers to well depth.
U = Not Detected.
B = Reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.
E = Reported value is estimated.

NS = Not Sampled.
J = Estimated value.
ug/l = micrograms per liter.
Bold values exceed their respective NYSDEC Class GA Standard or Guidance Value.
*Laboratory data not valid.

hydraulic gradient in the Upper Glacial Aquifer, and the elapsed time since the completion of leaching pool remediation in 2000, the reductions in groundwater iron, manganese, and other metals concentrations resulting from the remediation are likely largely complete in the downgradient wells. Further reductions are possible; however, significant reductions in the remaining iron and manganese concentrations are not anticipated. The remaining Site-related constituents for which exceedances of NYSDEC Standards continue to be observed include only iron and manganese. These two metals are often found at elevated concentrations in Long Island groundwater and their NYSDEC Standards are based on aesthetic considerations, and not health-related concerns. Sodium concentrations in the Site wells are not related to remediation of Site soil because this sodium originates from an offsite source and/or from winter road salt application.

Based on the seven rounds of annual groundwater monitoring results to date, offsite monitoring does not appear to be warranted and has not been required by the NYSDEC. Offsite monitoring is not included in this SMP. Groundwater metals concentrations from the wells closest to the remediated leaching pools have decreased for those analytes associated with the leaching pools. It is anticipated that these concentrations will continue to generally decrease in time.

1.3.1.3 Leaching Pools

Sediment that appeared to be impacted based on visual observations or PID readings was encountered in most of the leaching pools examined. In general, the leaching pool sediments were described as dark gray to black sand with gravel and exhibited a petroleum odor. Sediment samples were collected for chemical analysis from each of the visibly-impacted leaching pools. Floating product was found in leaching pools LP-4, LP-5, LP-6, LP-20, LP-22, and LP-31. The floating product was removed with NYSDEC oversight during an Interim Remedial Measure (IRM) in August 1997 and properly disposed offsite; these leaching pools were sampled after the IRM was completed. No significant evidence of sediment contamination was noted in leaching pools LP-17, LP-25, or LP-30, and, therefore, these leaching pools were not sampled.

The chemical analytical results from the leaching pool samples are presented in Tables 1.3.1.3.1 and 1.3.1.3.2. VOCs detected in the leaching pool samples that exhibited exceedances of the NYSDEC Objectives included toluene, total xylene, and total VOCs. SVOCs detected in the leaching pool sediment samples that exceeded the NYSDEC Objectives included phenol, 4-methylphenol, various polynuclear aromatic hydrocarbons (PAHs), dibenzofuran, total SVOCs. Exceedances of the NYSDEC Objectives were noted for several metals.

TABLE 1.3.1.3.1
LEACHING POOL SEDIMENT SAMPLES
ORGANIC PARAMETERS DATA - REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	LP-1	LP-2	LP-3	LP-4	LP-5	LP-6	LP-7	LP-8	LP-9	LP-10	LP-11	LP-12	NYSDEC Cleanup Objectives
Sampling Date	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/10/97	7/2/97	7/10/97	7/8/97	7/8/97	
Volatile Organic Compounds in ug/kg													
Chloromethane	ND	ND	2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Carbon disulfide	ND	ND	7 J	4 J	ND	ND	8 J	2 J	ND	8 J	4 J	10 J	2,700
4-Methyl-2-pentanone	ND	ND	6 J	ND	ND	ND	ND	4 J	ND	6 J	ND	12 J	1,000
Xylene (total)	ND	17 JB	6 JB	ND	ND	91	ND	ND	ND	ND	12 J	ND	1,200
Ethylbenzene	ND	ND	ND	ND	ND	22 J	ND	ND	ND	ND	3 J	ND	5,500
2-Butanone	ND	ND	ND	ND	ND	ND	ND	5 J	ND	28	21	40 J	300
Toluene	ND	ND	ND	ND	250	ND	ND	32 J	ND	16 J	80 J	74	1,500
Tetrachloroethene	2 J	3 J	3 J	2 J	4 J	ND	ND	3 J	2 J	27	7 J	28 J	1,400
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	8 J	ND	ND	1,700
Tentatively Identified Volatile Organic Compounds in ug/kg													
Dimethyl sulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknown acid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	91 J	-
Hexane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknowns	327 J	260 J	515 J	9 J	210 J	520 J	720 J	ND	14 J	ND	254 J	97 J	-
Unknown alkene	ND	ND	ND	ND	ND	ND	ND	14 J	ND	ND	ND	ND	-
Unknown alkane	ND	ND	ND	ND	ND	ND	ND	ND	ND	405	ND	ND	-
Unknown hydrocarbons	2,070 J	3,208 J	1,721 J	230 J	3,061 J	13,660 J	8,000 J	ND	170 J	ND	2,548 J	2,492 J	-
Unknown cyclic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknown alcohols	290 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknown ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknown alkane + C3 sub benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
c3- subs.benzene	ND	ND	ND	11 J	ND	ND	ND	ND	ND	ND	ND	ND	-
c4 subs.benzene	ND	ND	ND	84 J	130 J	ND	ND	6 J	10 J	ND	ND	ND	-
Undecane, 2,5-dimethyl-	ND	ND	180 JN	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Total VOCs	2,689	3,488	2,440	340	3,555	**14,293**	8,728	66	196	498	2,929	2,844	10,000

Notes:

Only analytes detected in one or more samples are included in this table.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
N = Presumptive evidence of a compound.
E = Estimated concentration exceeding the calibration range of the instrument.
D = Diluted sample result.
ug/kg = micrograms per kilograms.
- = NYSDEC Recommended Soil Cleanup Objectives not established for this compound.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

TABLE 1.3.1.3.1 (CONTINUED)
LEACHING POOL SEDIMENT SAMPLES
ORGANIC PARAMETERS DATA - REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	LP-13	LP-14	LP-15	LP-18	LP-20	LP-21	LP-22	LP-23	LP-24	LP-26	LP-27	LP-28	LP-29	LP-31	NYSDEC Cleanup Objectives
Sampling Date	7/8/97	7/8/97	7/8/97	7/8/97	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97	7/8/97	7/10/97	7/10/97	7/10/97	
Volatile Organic Compounds in ug/kg															
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	120 J	ND	ND	-
Carbon disulfide	ND	880 J	ND	2 J	ND	4 J	2 J	ND	3 J	ND	ND	24 J	230 J	3 J	2,700
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND	7 J	ND	ND	170 J	ND	ND	1,000
Xylene (total)	55	**3,500 J**	24 J	ND	ND	ND	14 J	ND	340	ND	ND	ND	**1,500 J**	ND	1,200
Ethylbenzene	25 J	700 J	ND	ND	ND	ND	2 J	ND	54	ND	ND	ND	340 J	ND	5,500
2-Butanone	22 J	240 J	15 J	9 J	ND	30	8 J	ND	ND	6 J	ND	ND	230 J	10 J	300
Toluene	34 J	**45,000 JD**	120	21	23	180 D	32 JD	ND	4 J	34 J	ND	**71,000 JD**	130 J	310 D	1,500
Tetrachloroethene	26 J	20 J	12 J	ND	ND	36 JD	95 D	27	69 D	55 J	1 J	85 J	ND	34 JD	1,400
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	31 J	1,500 J	ND	1,700
Tentatively Identified Volatile Organic Compounds in ug/kg															
Dimethyl sulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	640 JN	ND	ND	-
Unknown acid	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Hexane	ND	ND	ND	ND	ND	25 JN	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknowns	ND	51,000 J	430 J	29 J	ND	26 J	ND	ND	ND	ND	ND	88 J	ND	ND	-
Unknown alkene	ND	ND	ND	ND	ND	11 J	ND	21 J	56 J	ND	ND	2,250 J	ND	ND	-
Unknown alkane	ND	ND	ND	ND	144 J	225 J	1,851 J	272 J	13 J	717 J	ND	300 J	19,860 J	2,137	-
Unknown hydrocarbons	6,760 J	280,900 J	4,790 J	254 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknown cyclic	ND	ND	ND	ND	ND	7 J	130 J	ND	ND	25 J	ND	160 J	ND	ND	-
Unknown alcohols	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknown ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,410 J	ND	ND	-
Unknown alkane + C3 sub benzene	ND	ND	ND	ND	ND	ND	230 J	ND	ND	ND	ND	ND	ND	ND	-
c3- subs.benzene	2,360 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
c4 subs.benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,600 J	ND	ND	-
Undecane, 2,5-dimethyl-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Total VOCs	9,282	**382,240**	5,391	315	167	1,124	2,649	320	1,017	837	1	**78,878**	**23,790**	2,534	10,000

Notes:

Only analytes detected in one or more samples are included in this table.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
N = Presumptive evidence of a compound.
E = Estimated concentration exceeding the calibration range of the instrument.
ug/kg = micrograms per kilograms.
- = NYSDEC Recommended Soil Cleanup Objectives not established for this compound.
D = Diluted sample result.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

TABLE 1.3.1.3.1 (CONTINUED)
LEACHING POOL SEDIMENT SAMPLES
ORGANIC PARAMETERS DATA - REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	LP-1	LP-2	LP-3	LP-4	LP-5	LP-6	LP-7	LP-8	LP-9	LP-10	LP-11	LP-12	NYSDEC Cleanup Objectives
Sampling Date	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/10/97	7/2/97	7/10/97	7/8/97	7/8/97	
Semivolatile Organic Compounds in ug/kg													
Fluoranthene	ND	ND	8,500 D	2,500	**470,000 JD**	23,000	13,000 D	**86,000 D**	48,000 D	**97,000 JD**	16,000 D	**190,000 D**	50,000
Naphthalene	ND	550 J	ND	ND	3,600 J	3,200 J	1,900 JD	ND	ND	ND	550 JD	760 J	13,000
2-Methylnaphthalene	ND	3,900	91 J	3,800	7,300 J	5,400	1,300 JD	ND	ND	ND	1,300 JD	1,500 J	36,400
Phenanthrene	ND	ND	4,500 D	16,000 D	**350,000 JD**	16,000	4,700 D	30,000 D	16,000	47,000 JD	9,600 D	**110,000 D**	50,000
Carbazole	ND	ND	860	3,900	20,000 J	2,400 J	ND	7,300	4,800	2,200 J	3,500 JD	8,600	-
Phenol	ND	**230 J**	**89 J**	ND	ND	ND	ND	ND	ND	ND	ND	**450 J**	30
Acenaphthene	ND	ND	450 J	32,000 D	30,000 JD	1,600 J	ND	930 J	890 J	690 J	3,100 JD	5,100	50,000
Dibenzofuran	ND	ND	390 J	**22,000 D**	**23,000 JD**	ND	ND	620 J	660 J	540 J	1,700 JD	4,200 J	6,200
Fluorene	ND	ND	780	27,000 D	36,000 JD	3,200 J	1,300 JD	1,400 J	1,500 J	2,000 J	2,600 JD	10,000	50,000
Anthracene	ND	ND	990	3,500	**120,000 JD**	4,600	720 JD	4,000 J	2,600 J	5,700 J	2,900 JD	25,000	50,000
Pyrene	ND	ND	8,700 D	3,200	**300,000 JD**	22,000 D	5,800 D	**62,000 D**	24,000	**65,000 JD**	13,000 D	**80,000 D**	50,000
Benzo(a)anthracene*	ND	ND	**3,600 D**	ND	**130,000 JD**	**14,000**	**3,000 JD**	**27,000**	**13,000**	**25,000 J**	**6,200 D**	**46,000 D**	224
Chrysene*	ND	ND	**7,300 D**	ND	**240,000 JD**	**33,000**	**5,800 D**	**49,000 D**	**31,000**	**42,000 JD**	**13,000 D**	**96,000 D**	400
bis(2-Ethylhexyl)phthalate*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50,000
Benzo(b)fluoranthene*	ND	ND	**3,100**	ND	**110,000 JD**	**11,000**	**3,600 JD**	**46,000 D**	**17,000**	**36,000 JD**	**4,600 D**	**42,000 JD**	224
Benzo(k)fluoranthene*	ND	ND	**3,100**	ND	**100,000 JD**	**9,200**	**3,300 JD**	**18,000**	**13,000**	**29,000 JD**	**5,100 D**	**43,000 JD**	224
Benzo(a)pyrene*	ND	ND	**2,800**	ND	**85,000 JD**	**11,000**	**3,200 JD**	**34,000 D**	**14,000**	**30,000 JD**	**4,600 D**	**32,000 JD**	61
Indeno(1,2,3-cd)pyrene*	ND	ND	2,300	ND	**66,000 JD**	**7,800**	1,700 JD	**32,000**	**7,200**	**17,000 JD**	**3,900 JD**	**19,000 JD**	3,200
Benzo(g,h,i)perylene	ND	ND	3,100	ND	**110,000 JD**	13,000	2,100 JD	26,000	11,000	12,000 JD	7,000 D	31,000 JD	50,000
Di-n-octylphthalate	ND	ND	ND	ND	ND	ND	ND	780 J	ND	ND	ND	ND	50,000
Dibenz[a,h]anthracene*	ND	ND	ND	ND	ND	ND	ND	**2,000 J**	ND	ND	ND	ND	14
Dimethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,000
4-Methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	900
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,000 J	ND	ND	50,000
Total Carcinogenic SVOCs	ND	ND	**22,200**	ND	**731,000**	**86,000**	**20,600**	**208,000**	**95,200**	**179,000**	**37,400**	**321,000**	10,000

TABLE 1.3.1.3.1 (CONTINUED)
LEACHING POOL SEDIMENT SAMPLES
ORGANIC PARAMETERS DATA - REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	LP-1	LP-2	LP-3	LP-4	LP-5	LP-6	LP-7	LP-8	LP-9	LP-10	LP-11	LP-12	NYSDEC Cleanup Objectives
Sampling Date	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/10/97	7/2/97	7/10/97	7/8/97	7/8/97	
Tentatively Identified Semivolatile Organic Compounds in ug/kg													
Unknowns	9,000 JD	320 J	3,130 J	1,460 J	5,500 J	13,000 J	16,300 JD	2,100 J	ND	10,200 J	48,700 JD	31,000 J	-
Unknown alkanes	131,000 JD	12,770 J	5,830 J	44,400 J	ND	79,600 J	111,700 JD	ND	850 J	1,200 J	45,100 JD	13,700 J	-
Unknown cyclic cpds.	3,800 JD	830 J	ND	2,500 J	ND	7,800 J	6,900 JD	ND	ND	ND	4,400 JD	ND	-
Unknown PNAs	ND	ND	ND	ND	19,100 J	ND	ND	27,200 J	9,000 J	13,500 J	ND	ND	-
Naphthalene, 1-methyl-	ND	570 JN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Dimethylnaphthalene isomer	ND	790 J	ND	4,300 J	ND	ND	17,000 JD	ND	ND	ND	ND	4,600 J	-
Dibenzothiophene	ND	ND	ND	ND	1,000 JN	ND	ND	ND	ND	ND	ND	ND	-
Trimethylnaphthalene isomer	ND	ND	ND	ND	ND	8,700 J	ND	ND	ND	ND	ND	ND	-
4H-Cyclopenta[def]phenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	2,600 JN	ND	ND	2,600 JN	-
Unknown ketone	ND	ND	ND	ND	ND	ND	ND	4,800 J	ND	ND	ND	ND	-
Unknown methylated PNA	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,700 J	ND	ND	-
Total Non-carcinogenic SVOCs	143,800	19,960	37,410	166,560	**1,495,500**	203,500	182,720	253,130	121,900	260,730	176,350	**518,510**	500,000

Notes:

Only analytes detected in one or more samples are included in this table.
ND = Not Detected.
B = Analyte is detected in an associated blank.
= An estimated value.
N = Presumptive evidence of a compound.
A = TIC is a suspected aldol condensation product.
E = Estimated concentration exceeding the calibration range of the instrument.
D = Diluted sample result.
ug/kg = micrograms per kilogram.
- = NYSDEC Recommended Soil Cleanup Objective not established for this compound.
* = Carcinogenic SVOC.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

TABLE 1.3.1.3.1 (CONTINUED)
LEACHING POOL SEDIMENT SAMPLES
ORGANIC PARAMETERS DATA - REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	LP-13	LP-14	LP-15	LP-18	LP-20	LP-21	LP-22	LP-23	LP-24	LP-26	LP-27	LP-28	LP-29	LP-31	NYSDEC Cleanup Objectives
Sampling Date	**7/8/97**	**7/8/97**	**7/8/97**	**7/8/97**	**7/10/97**	**7/10/97**	**7/10/97**	**7/10/97**	**7/10/97**	**7/10/97**	**7/8/97**	**7/10/97**	**7/10/97**	**7/10/97**	
Semivolatile Organic Compounds in ug/kg															
Fluoranthene	9,700 J	ND	40,000 D	94,000 D	340 J	320 J	ND	**340,000 D**	280,000 JD	1,300	5,500 D	ND	ND	ND	50,000
Naphthalene	4,400 J	ND	2,100 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13,000
2-Methylnaphthalene	1,100 J	32,000 J	3,800 J	ND	ND	ND	1,300 D	ND	ND	ND	ND	ND	11,000 JD	1,400 D	36,400
Phenanthrene	8,600 J	ND	41,000 D	33,000 D	200 J	ND	ND	**150,000 D**	**120,000 JD**	840	1,800 JD	ND	5,100 JD	ND	50,000
Carbazole	2,600 J	ND	18,000	11,000	ND	ND	ND	20,000	21,000 J	ND	540 JD	ND	ND	ND	-
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8,700 J**	ND	ND	30
Acenaphthene	1,200 J	ND	18,000	1,400 J	ND	ND	ND	3,000 J	4,000 J	ND	ND	ND	ND	ND	50,000
Dibenzofuran	1,000 J	ND	**13,000**	950 J	ND	ND	ND	2,100 J	2,300 J	ND	ND	ND	ND	ND	6,200
Fluorene	1,800 J	4,200 J	15,000	2,000 J	ND	ND	ND	5,100	6,300 J	96 J	ND	ND	ND	ND	50,000
Anthracene	2,600 J	ND	16,000	6,800	ND	ND	ND	16,000	20,000 J	120 J	ND	ND	ND	ND	50,000
Pyrene	9,100 J	ND	32,000	41,000	260 J	660	ND	**230,000 D**	**210,000 JD**	1,600	2,900 JD	ND	ND	ND	50,000
Benzo(a)anthracene*	**3,800 J**	ND	**17,000**	**28,000**	100 J	ND	ND	**89,000 D**	**87,000 JD**	**810**	**1,300 JD**	ND	ND	ND	224
Chrysene*	**7,900 J**	ND	**35,000**	**60,000**	220 J	ND	ND	**150,000 D**	**130,000 JD**	**1,300**	**3,800 D**	ND	ND	ND	400
bis(2-Ethylhexyl)phthalate*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50,000
Benzo(b)fluoranthene*	**3,300 J**	ND	**17,000**	**31,000 D**	**260 J**	ND	ND	**110,000 D**	**110,000 JD**	ND	**1,900 JD**	ND	ND	ND	224
Benzo(k)fluoranthene*	**2,600 J**	ND	**19,000**	**25,000 D**	**240 J**	ND	ND	**120,000 D**	**84,000 JD**	ND	**1,900 JD**	ND	ND	ND	224
Benzo(a)pyrene*	**3,100 J**	ND	**13,000**	**20,000 JD**	**170 J**	ND	ND	**100,000 D**	**91,000 JD**	ND	**1,800 JD**	ND	ND	ND	61
Indeno(1,2,3-cd)pyrene*	2,000 J	ND	**10,000**	**13,000 JD**	94 J	ND	ND	**34,000**	**32,000 J**	ND	1,400 JD	ND	ND	ND	3,200
Benzo(g,h,i)perylene	3,400 J	ND	16,000	23,000 D	53 J	ND	ND	25,000	25,000 J	ND	2,300 JD	ND	ND	ND	50,000
Di-n-octylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50,000
Dibenz(a,h)anthracene*	ND	ND	ND	ND	ND	ND	ND	**2,000 J**	ND	ND	ND	ND	ND	ND	14
Dimethylphthalate	ND	ND	ND	ND	ND	ND	ND	600 J	ND	ND	ND	ND	ND	ND	2,000
4-Methylphenol	ND	**220,000 JD**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**420,000 JD**	ND	ND	900
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50,000
Total Carcinogenic SVOCs	**22,700**	ND	**111,000**	**177,000**	1,084	ND	ND	**605,000**	**534,000**	2,110	**12,100**	ND	ND	ND	10,000

TABLE 1.3.1.3.1 (CONTINUED)
LEACHING POOL SEDIMENT SAMPLES
ORGANIC PARAMETERS DATA - REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	LP-13	LP-14	LP-15	LP-18	LP-20	LP-21	LP-22	LP-23	LP-24	LP-26	LP-27	LP-28	LP-29	LP-31	NYSDEC Cleanup Objectives
Sampling Date	7/8/97	7/8/97	7/8/97	7/8/97	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97	7/10/97	7/8/97	7/10/97	7/10/97	7/10/97	
Tentatively Identified Semivolatile Organic Compounds in ug/kg															
Unknowns	58,700 J	38,100 J	ND	3,200 J	ND	3,670 J	ND	7,200 J	3,830 J	ND	21,600 JD	ND	47,000 JD	ND	-
Unknown alkanes	44,200 J	210,000 J	ND	1,500 J	1,390 J	10,580 J	12,190 JD	ND	ND	12,740 J	ND	46,000 J	6,100 JD	22,230 JD	-
Unknown cyclic cpd.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknown PNAs	ND	ND	13,100 J	18,500 J	ND	ND	2,200 JD	3,000 J	26,500 J	770 J	4,200 JD	ND	173,000 JD	1,800 JD	-
Naphthalene, 1-methyl-	2,500 JN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Dimethylnaphthalene isomer	ND	19,000 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Dibenzothiophene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Trimethylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
4H-Cyclopenta[def]phenanthrene	ND	ND	1,500 JN	2,000 JN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Unknown acid	ND	ND	ND	ND	940 J	ND	ND	ND	ND	ND	ND	3,080,000 J	ND	ND	-
Unknown ketones	ND	ND	ND	ND	2,420 J	2,210 J	ND	2,200 J	2,500 J	420 J	ND	180,000 J	62,300 JD	15,000 JD	-
Unknown alcohol	ND	ND	ND	ND	470 J	1,760 J	ND	ND	ND	ND	ND	824,000 J	64,000 JD	ND	-
Unknown aromatics	ND	ND	ND	ND	ND	ND	ND	7,300 J	ND	ND	ND	ND	ND	ND	-
Unknown amine	ND	ND	ND	ND	ND	ND	ND	ND	1,200 J	ND	ND	ND	86,000 JD	ND	-
Unknown methylated PNA	ND	ND	ND	ND	ND	ND	ND	ND	1,000 J	ND	ND	35,000 J	ND	ND	-
Butylated Hydroxytoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	58,000 JNDA	ND	-
Triclosan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	41,000 JND	ND	-
Total Non-carcinogenic SVOCs	150,900	**523,300**	229,500	250,350	7,873	19,990	15,690	**811,500**	**723,630**	17,880	38,840	**4,593,700**	**553,500**	40,430	500,000

Notes:

Only analytes detected in one or more samples are included in this table.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
N = Presumptive evidence of a compound.
A = TIC is a suspected aldol condensation product.
E = Estimated concentration exceeding the calibration range of the instrument.
D = Diluted sample result.
ug/kg = micrograms per kilograms.
- = NYSDEC Recommended Soil Cleanup Objectives not established for this compound.
* = Carcinogenic SVOC.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

TABLE 1.3.1.3.2
LEACHING POOL SEDIMENT SAMPLES
INORGANIC PARAMETERS DATA – REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	LP-1	LP-2	LP-3	LP-4	LP-5	LP-6	LP-7	LP-8	LP-9	LP-10	LP-11	LP-12	NYSDEC Cleanup Objectives
Sampling Date	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/2/97	7/10/97	7/2/97	7/10/97	7/8/97	7/8/97	
Total Metals in mg/kg													
Aluminum	793	776	2,600	1,390	1,260	2,410	2,410	4,830	952	9,500	2,490	22,200	SB
Antimony	ND	ND	7.8 JBN	11.5 JBN	0.68 JBN	1.0 JBN	2.9 JBN	10.6 JN	0.69 JBN	ND	3.2 JBN	0.47 JBN	SB
Arsenic	0.65 B	0.64 B	7	3.6	0.77 B	2.2	2.8	2.6	0.94	**8.6**	**18.1**	2.5	7.5
Barium	3.3 B	1.8 B	26.1 B	11.4 B	7.9 B	43.8	56.5	66.2	12.0 B	33.3	32.4	43.5	300
Beryllium	0.05 B	0.04 B	**0.25 B**	0.10 B	0.09 B	0.16 B	0.16 B	**0.33 B**	0.11 B	**0.19 B**	0.16 B	**0.25 B**	0.16
Cadmium	0.09 B	ND	**12.5**	3.8	1.6	3.6	3.5	2.5 JN	0.62	2.4 JN	0.71	1.7	10
Calcium	99.8 B	45.6 B	3,300	7,600	8,650	6,580	13,900	4,560	19,300	9,010	1,480	8,710	SB
Chromium	3.2 JN	3.8 JN	20.6 JN	39.8 JN	4.1 JN	35.9 JN	33.7 JN	35.6 JN	7.6 JN	46.0 JN	**82.5 JN**	23.1 JN	50
Cobalt	0.54 B	0.3 B	6.5 B	2.6 B	1.1 B	3.6 B	4.3 B	4.7 B	1.7 B	4.8 B	11.2	3.5 B	30
Copper	**101**	**88**	**179,000**	**62,000**	**6,470**	**23,000**	**29,800**	**2,880**	**3,170**	**5,110**	**4,610**	**9,910**	25
Iron	1,180	1,470	**6,510**	**5,880**	**3,170**	**6,340**	**6,210**	**8,970**	**4,280**	**9,840**	**43,100**	**6,950**	2,000
Lead	112 E	91.7 E	**7,200 E**	**2,630 E**	298 E	**1,110 E**	**2,090 E**	236 N	142 E	**885 N**	**636 E**	**1,390 E**	500
Magnesium	193 B	195 B	1,970	2,390	583 B	2,690	8,110	2,340	10,500	5,190	1,210	4,570	SB
Manganese	9.4 JN	10.4 JN	38.3 JN	49.7 JN	30.3 JN	45.0 JN	48.0 JN	37.8 J	39.8 JN	56.3	290 JN	48.8 JN	SB
Mercury	ND	ND	ND	**5.9**	ND	ND	ND	0.08 B	ND	**0.16**	ND	ND	0.1
Nickel	1.4 B	0.95 B	**172**	**72.4**	9.0	**29.2**	**41.3**	**20.5 JN**	8.3	**29.8 JN**	**80.9**	**19.8**	13
Potassium	92.2 B	76.5 B	320 B	172 B	160 B	293 B	189 B	703.0	141 B	243 B	223 B	395 B	SB
Selenium	ND	ND	0.81	0.41 B	ND	ND	0.41 B	1.1 J	ND	1.3 J	1.9	0.46 B	2
Silver	ND	ND	17.1 JN	6.6 JN	0.67 JBN	3.0 JN	3.7 JN	0.59 JBN	0.41 JBN	1.2 JBN	1.1 JBN	1.5 JN	SB
Sodium	27.1 B	22.3 B	4,970	1,540	38.1 B	86.5 B	67.1 B	177 B	56.3 B	104 B	66.9 B	107 B	SB
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.92 B	ND	SB
Vanadium	4.0 B	2.8 B	16.3	13.0	5.5 B	17.2	20.6	21.1	10.4	28.9	33.3	26.7	150
Zinc	**96.3 E**	**31.1 E**	**96,500 E**	**30,500 E**	**3,460 E**	**12,200 E**	**15,900 E**	**1,890**	**1,600 E**	**3,030**	**2,460 E**	**4,520 E**	20
Total Organic Carbon (mg/kg)	68,300	34,300	67,000	62,700	33,600	93,800	86,500	17,400	16,200	7,480 J	34,000	67,300	-

Notes:

ND = Not Detected.
B = Reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.
E = Reported value is estimated due to the presence of interference.
J = Estimated value.
mg/kg = milligrams per kilogram
N = Matrix spiked sample recovery not within control limits.
SB = Site Background.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

TABLE 1.3.1.3.2 (CONTINUED)
LEACHING POOL SEDIMENT SAMPLES
INORGANIC PARAMETERS DATA – REMEDIAL INVESTIGATION
I. W. INDUSTRIES, MELVILLE, NEW YORK

Boring No.	LP-13	LP-14	LP-15	LP-18	LP-20	LP-21	LP-22	LP-23	LP-24	LP-26	LP-27	LP-28	LP-29	LP-31	NYSDEC Cleanup Objectives
Sampling Date	**7/8/97**	**7/8/97**	**7/8/97**	**7/8/97**	**7/10/97**	**7/10/97**	**7/10/97**	**7/10/97**	**7/10/97**	**7/10/97**	**7/8/97**	**7/10/97**	**7/10/97**	**7/10/97**	
Total Metals in mg/kg															
Aluminum	4,090	659 J	2,080	1,570	2,210	2,830	2,590	2,750	3,410	7,010	1,230	645 J	10,700 J	4,530	SB
Antimony	1.2 JBN	1.6 JBN	1.0 JBN	ND	ND	0.43 JBN	0.44 JBN	0.63 JBN	0.92 JBN	ND	ND	ND	5.4 JBN	0.41 JBN	SB
Arsenic	2.4	1.9 JB	3.4	1.3	1.3	2.3	1.7	1.3 B	1.4	**11.2**	1.6	ND	**22.9 J**	2.2	7.5
Barium	34.6	97.3 J	13.9 B	18.2 B	4.3 B	10.5 B	5.8 B	38.0	41.2	29.6	7.4 B	21.7 JB	**593 J**	10.7 B	300
Beryllium	**0.20 B**	0.03 JB	**0.17 B**	0.12 B	0.11 B	0.11 B	0.16 B	**0.19 B**	**0.21 B**	**0.28 B**	0.11 B	0.05 JB	**0.76 JB**	0.15 B	0.16
Cadmium	1.2	10.0 J	J2.5	0.20 B	0.84 JN	0.64 JN	1.8 JN	0.62 JBN	0.79 JN	0.42 JBN	0.18 B	0.78 JBN	**74.5 JN**	2.2 JN	10
Calcium	29,500	282 JB	16,400	5,690	313 B	346 B	20,300	1,470	2,280	863	5,250	5,990 J	4,780 J	1,270	SB
Chromium	20.7 JN	27.5 JN	18.3 JN	19.4 JN	7.4 JN	8.8 JN	4.4 JN	15.0 JN	20.0 JN	10.5 JN	4.4 JN	6.1 JN	**1,990 JN**	5.6 JN	50
Cobalt	3.2 B	6.8 JB	2.3 B	2.0 B	0.91 B	1.8 B	1.4 B	2.2 B	2.9 B	3.5 B	1.4 B	1.4 JB	**52.0 J**	3.6 B	30
Copper	**11,200**	**7,250 J**	**31,500**	**217**	**53.5**	**239**	**167**	**633**	**1,270**	**53.3**	**145**	**255 J**	**22,100 J**	**138**	25
Iron	**8,160**	1,740 J	**6,960**	**5,540**	**2,720**	**3,530**	**3,610**	**8,050**	**5,550**	**8,180**	**4,470**	1,590 J	**115,000 J**	**6,880**	2,000
Lead	**888 E**	**1,430 JE**	**1,230 E**	76.3 E	471 N	**760 N**	**1,180 N**	107 N	248 N	86.1 N	56.1 E	24.2 JN	**2,550 JN**	**1,150 N**	500
Magnesium	15,200	149 JB	9,320	3,230	441 B	583 B	11,800	921	1,070	944	1,130	632 JB	2,840 JB	1,310	SB
Manganese	69.8 JN	6.9 JN	40.2 JN	48.1 JN	14.6	23.6	60.6	34.1	28.0	48.3	77.5 JN	37.7 J	233 J	54.6	SB
Mercury	ND	**1.6 J**	ND	ND	**0.11**	ND	ND	ND	**0.11 B**	**0.11**	ND	**0.54 J**	**4.8 J**	ND	0.1
Nickel	**20.1**	**23.1 J**	**27.9**	5.1	3.4 JBN	7.8 JN	3.2 JBN	7.8 JN	10.7 JN	6.2 JN	5.8	6.5 JBN	**114 JN**	5.6 JN	13
Potassium	361 B	133 JB	177 B	208 B	130 B	161 B	170 B	415 B	449 B	288 B	90.0 B	442 JB	1,320 JB	203 B	SB
Selenium	ND	**4.6 J**	ND	ND	0.61 J	0.75	ND	0.87	0.56 B	0.82	ND	**2.4 JB**	**16.0 J**	0.73	2
Silver	1.4 JN	8.5 JN	2.9 JN	ND	ND	0.24 JBN	ND	0.16 JBN	0.72 JBN	0.11 JBN	ND	33.4 JN	34.8 JN	0.18 JBN	SB
Sodium	104 B	202 JB	60.4 B	62.7 B	37.7 B	46.3 B	42.6 B	99.7 B	113 B	36.9 B	39.7 B	367 JB	468 JB	152 B	SB
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.8 JB	ND	SB
Vanadium	17.6	23.2 J	17.4	9.9	8.5	15.6	7.4	11.1	14.7	17.1	5.1 B	2.4 JB	99.0 J	17.6	150
Zinc	**5,990 E**	**3,220 JE**	**16,800 E**	**177 E**	**90.3**	**220**	**165**	**466**	**657**	**130**	**155 E**	**472 J**	**22,100 J**	**227**	20
Total Organic Carbon (mg/kg)	35,700	269,000 J	12,300	35,400	20,300	46,000	30,200	41,100	22,300	20,600	7,140	672,000 J	1,000,000 J	60,900	-

Notes:

ND = Not Detected.
B = Reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.
E = Reported value is estimated due to the presence of interference.
J = Estimated value.
mg/kg = milligrams per kilogram
N = Matrix spiked sample recovery not within control limits.
SB = Site Background.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

Impacted soil was identified in all of the sampled leaching pools. However, the magnitude of the impact was variable. The following leaching pools were characterized as having one or more target compounds or analytes exceeding their respective NYSDEC Objectives by more than one order of magnitude: LP-3 through LP-15, LP-18, LP-23, LP-24, LP-28 and LP-29. Remediation of the sediments in these leaching pools was recommended and was subsequently performed during the remedial action.

The remaining leaching pools, LP-1, LP-2, LP-20 through LP-22, LP-26, LP-27, and LP-31, did not exhibit exceedances of the NYSDEC Objectives by more than one order of magnitude. It was also concluded that, with the exception of iron and manganese, target compounds were not detected at elevated concentrations downgradient of these leaching pools and, therefore, it did not appear that the materials in the leaching pools had contributed significantly to groundwater contamination at this Site. Since the materials in the leaching pools had been present for an extended time, it was anticipated that any potential groundwater impact from these materials would be evident in the groundwater chemical analytical data. Therefore, it appeared that the constituents in the materials in the leaching pools were relatively immobile in the subsurface environment. No remediation was recommended for these leaching pools and the NYSDEC concurred with this remedial approach at the time that the remedial action was completed in 2000.

1.3.1.4 Underground Storage Tanks

Under the RCRA and non-RCRA closure activities all of the onsite storage tanks, including underground and aboveground storage tanks (USTs and ASTs) were properly removed from the Site under NYSDEC and/or SCDHS oversight. These tanks included the following:

- An 8,000-gallon wastewater storage AST;
- A 4,000-gallon waste oil storage AST;
- A 6,000-gallon lube oil UST;
- An 8,000-gallon fuel oil UST;
- A 6,000-gallon cutting oil UST; and
- Three small (<50-gallon) ASTs suspended in the southwest loading dock.

Each of these tanks was emptied of its contents, cut open and cleaned, inspected for holes, pitting and/or corrosion, and properly disposed offsite. All of the tank contents and wastes from tank cleaning were removed and properly disposed offsite. The excavations for the USTs were inspected by representatives from the SCDHS and confirmatory samples were collected where requested.

No indications of tank leakage were noted and no indications of potential contamination were noted for any of the tanks with the exception of a small amount of impacted soil on top of the fuel oil UST. Spill #06-05685 was reported for this soil. The impacted soil was removed and properly disposed and the remaining soil was sampled under the oversight of the SCDHS. The confirmatory samples were analyzed for NYSDEC STARS Table 2 compounds and the laboratory results indicated that no targeted compounds were detected. This information was submitted to the NYSDEC and the spill was closed on September 18, 2007. Following tank and soil removal all of the excavations were backfilled to grade with clean backfill. Documentation of the closure of the RCRA tanks was submitted to the NYSDEC in the RCRA Closure Report and documentation of the closure of the non-RCRA tanks was submitted to the SCDHS (November 13, 2007 correspondence). No further work has been required in any of the former tank areas and no tanks remain present at the Site.

1.4 DESCRIPTION OF REMEDIAL ACTIONS

The Site was remediated in accordance with the scope of work presented in the NYSDEC-approved Remedial Action Work Plan (RAWP) dated June 2000. The documents associated with the remedial action for this Site include the following:

- Remedial Action Work Plan for I. W. Industries Site, June 2000
- Remedial Action Report for I. W. Industries Site, November 2000

The following is a summary of the remedial actions required and implemented at the Site:

1. Removal and offsite disposal of impacted sediments and associated liquids from leaching pools LP-3 through LP-15, LP-18, LP-23, LP-24, LP-28 and LP-29;
2. Screening for indications of contamination (by visual means, odor, and monitoring with PID) of all excavated soil during all intrusive site work;
3. Confirmatory sampling to document the condition of the remediated leaching pools;
4. Restoration of the remediated leaching pool structures;
5. Initiation of a free-phase product removal from select wells downgradient of leaching pools LP-1 and LP-2;
6. Initiation of a groundwater monitoring program;
7. Recording of an Environmental Easement to prevent future exposure to any residual contamination remaining at the Site (a copy of the Environmental Easement is provided in Attachment 4).

8. Preparation of a Site Management Plan (SMP) for long-term management of residual contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and/or Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;

9. All responsibilities associated with the remedial action, including permitting requirements and monitoring requirements, addressed in accordance with the RAWP and all applicable Federal, State and local rules and regulations.

1.4.1 Removal of Contaminated Materials from the Site

Sediments impacted with VOCs, SVOCs, and/or metals and associated liquids were removed from selected leaching pools, including LP-3 through LP-15, LP-18, LP-22 through LP-24, LP-28, LP-29, and LP-31. Remediation of the leaching pools included the following steps: waste characterization, removal of the liquids and sediments from the pools, transportation and disposal of the liquids and sediments, collection and analysis of end-point samples, and restoration of the leaching pools.

Waste characterization was primarily performed prior to initiating remediation. Waste characterization included collection and analysis of representative waste samples by the selected remediation contractor, in consultation with FPM and the selected waste disposal facilities. The targeted waste disposal facilities included the Suffolk County Department of Public Works (SCDPW) Bergen Point sewage treatment plant (non-hazardous, non-oily liquids), the Carteret Biocycle Corporation facility (non-hazardous source soil), and IPC (oily water). The materials to be removed were sampled and analyzed for the parameters required by the targeted disposal facilities. All of the materials were found to be non-hazardous and were accepted by the targeted disposal facilities.

Sediments and associated liquids were removed from the selected leaching pools by accessing the leaching pool interiors, removing accumulated liquids, removing the impacted sediments, pressure-washing to remove soil adhering to the interior of the leaching pools, and transfer of the liquids and sediments to appropriate containers for transportation and offsite disposal.

Liquid removal was accomplished using either a vacuum truck, a submersible pump, or a vactor. Liquids were then transferred to one of two 22,000-gallon tanks staged onsite. No separate-phase liquids were encountered in the pools. Following waste disposal approval, the liquid wastes were transferred from the tanks and transported for offsite disposal.

Sediment removal was accomplished by utilizing a high-vacuum vactor to vacuum the impacted sediments from the interior of the leaching pools. The condition of the sediment

remaining in each pool was monitored during the removal process. If possible, removal of sediment continued at each pool until soil that appeared visibly clean was encountered. In most cases, removal of sediment was conducted either to the base or just below the base of the leaching pool structure. At this point, visibly clean soil was generally noted and an end-point sample was collected. In some cases, sediment removal was conducted to several feet below the base of a leaching pool structure and, although the remaining soil appeared less impacted, visibly-clean soil was not encountered. In these cases, removal of more material was not feasible using the vactoring method without risking pool settlement or failure. In these cases, an end-point sample and a deeper sample were collected.

Following removal of the liquids and sediments, the interior of each leaching pool was pressure-washed and the accumulated rinseate was removed with the vactor. This rinseate was containerized and disposed offsite. All liquids and sediments removed from the Site were properly transported and disposed to the approved disposal facilities. A total of 125.38 tons of sediment and approximately 65,000 gallons of associated leaching pool liquids and oily water were removed from the Site and properly disposed. Manifests and waste receipts were used to document the waste disposal procedures and quantities and were included in the Remedial Action (RA) Report.

Following the completion of remediation of each leaching pool, an end-point soil sample was collected to document the condition of the remaining soil. In the cases where leaching pool remediation was terminated prior to encountering visibly-clean soil, a deeper soil sample was obtained from several feet below the top of the remaining soil to evaluate the vertical extent of contamination which may remain below the base of the excavation. Sampling was conducted in accordance with the RAWP. It should be noted that an end-point sample was not collected from LP-28 since this was found to be a solid-bottom structure. The end-point sample results are summarized in Tables 1.4.1.1 through 1.4.1.3.

The VOC results are shown on Table 1.4.1.1. Although low concentrations of several VOCs were detected in all of the samples, none of the detected concentrations exceeded the NYSDEC Objectives. Based on the end-point and deeper sample results, all of the sediments impacted with VOCs were removed from the Site.

The SVOC results are shown in Table 1.4.1.2. Although SVOCs were detected in each of the samples, exceedances of the NYSDEC Objectives were noted only for the end-point samples from LP-3, LP-4, LP-5, LP-9, LP-10, and LP-24 and in the deeper samples from LP-4 and LP-5. The detected concentrations represent significant reductions in SVOC concentrations relative to the initial SVOC concentrations in the sediments in each of these leaching pools. Although the detected SVOC concentrations in the LP-5 end-point sample remained elevated,

TABLE 1.4.1.1
LEACHING POOL SAMPLES
VOLATILE ORGANIC COMPOUNDS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Sample No.	LP-3 end	LP-4 end	LP-4 @ 15'	LP-5 end	LP-5 @ 18'	LP-6 end	LP-7 end	LP-7 @ 26'	LP-8 end	LP-9 end	LP-10 end	LP-11 end	NYSDEC Cleanup Objectives
Sampling Date	7/10/00	7/10/00	7/10/00	7/11/00	7/11/00	7/19/00	7/19/00	7/19/00	7/13/00	7/13/00	7/13/00	7/11/00	
Volatile Organic Compounds in ug/kg													
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	4 J	ND	ND	ND	ND	1,400
Toluene	ND	18 J	1 J	ND	ND	ND	2 J	ND	ND	ND	ND	ND	1,500
Total VOCs	ND	18	1	ND	ND	ND	2	4	ND	ND	ND	ND	10,000

Sample No.	LP-12 end	LP-12 @ 20'	LP-13 end	LP-14 end	LP-15 end	LP-15 @ 16'	LP-18 end	LP-22 end	LP-23 end	LP-23 @ 15'	LP-24 end	LP-24 @ 18'	LP-29 end	LP-31 end	NYSDEC Cleanup Objectives
Sampling Date	7/12/00	7/12/00	7/14/00	7/21/00	7/15/00	7/15/00	7/17/00	7/18/00	7/14/00	7/14/00	7/21/00	7/21/00	7/21/00	7/18/00	
Volatile Organic Compounds in ug/kg															
2-Butanone	ND	ND	4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	300
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,400
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,500
Total VOCs	ND	ND	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,000

Notes:

Only analytes detected in one or more samples are included in this table.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
ug/kg = micrograms per kilograms.

TABLE 1.4.1.2
LEACHING POOL SAMPLES
SEMIVOLATILE ORGANIC COMPOUNDS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Sample No.	LP-3 end	LP-4 end	LP-4 @ 15'	LP-5 end	LP-5 @ 18'	LP-6 end	LP-7 end	LP-7 @ 26'	LP-8 end	LP-9 end	LP-10 end	LP-11 end	NYSDEC Cleanup Objectives
Sampling Date	7/10/00	7/10/00	7/10/00	7/11/00	7/11/00	7/19/00	7/19/00	7/19/00	7/13/00	7/13/00	7/13/00	7/11/00	
Semivolatile Organic Compounds in ug/kg													
Fluoranthene	450	6,500 J	6,900 J	**200,000**	2,100	ND	ND	ND	67 J	120 J	270 J	36 J	50,000
Naphthalene	ND	210 J	180 J	ND	ND	ND	100 JB	ND	ND	ND	ND	ND	13,000
2-Methylnaphthalene	ND	160 J	200 J	370 J	ND	ND	ND	ND	ND	ND	89 J	ND	36,400
Phenanthrene	200 J	9,000 J	8,500 J	**87,000**	1,600	ND	ND	ND	78 J	73 J	310 J	37 J	50,000
Carbazole	ND	1,000 J	1,200 J	3,900 J	100 J	ND	ND	ND	ND	ND	ND	ND	-
Acenaphthene	ND	1,300 J	1,200 J	3,500 J	110 J	ND	ND	ND	ND	ND	ND	ND	50,000
Dibenzofuran	ND	840 J	750 J	3,700 J	80 J	ND	ND	ND	ND	ND	ND	ND	6,200
Fluorene	ND	1,400 J	1,100 J	9,100 J	150 J	ND	ND	ND	ND	ND	38 J	ND	50,000
Anthracene	ND	2,000 J	ND	**59,000**	680	ND	ND	ND	ND	ND	36 J	ND	50,000
Pyrene	430	6,500 J	6,800 J	**270,000**	2,900 J	ND	ND	ND	80 J	150 J	260 J	ND	50,000
Benzo(a)anthracene	200 J	**3,100 J**	**3,400 J**	**110,000**	**1,500 J**	ND	ND	ND	40 J	74 J	100 J	ND	224
Chrysene	350 J	**4,000 J**	**4,800 J**	**110,000**	**1,400 J**	ND	ND	ND	51 J	91 J	140 J	ND	400
Benzo(b)fluoranthene	**270 J**	**2,800 J**	**3,300 J**	**75,000**	**1,100 J**	ND	ND	ND	37 J	74 J	120 J	ND	224
Benzo(k)fluoranthene	**240 J**	**1,900 J**	**900 J**	**66,000**	**900 J**	ND	ND	ND	41 J	81 J	110 J	ND	224
Benzo(a)pyrene	**210 J**	**3,100 J**	**3,200 J**	**86,000**	**1,200 J**	ND	ND	ND	35 J	**80 J**	**100 J**	ND	61
Indeno(1,2,3-cd)pyrene	180 J	2,300 J	2,800 J	**60,000**	1,000 J	ND	ND	ND	ND	74 J	100 J	ND	3,200
Benzo(g,h,i)perylene	300 J	2,900 J	2,400 J	**65,000**	1,100 J	ND	ND	ND	ND	67 J	92 J	ND	50,000
Dibenz[a,h]anthracene	**57 J**	**1,000 J**	**900 J**	**27,000 J**	**370 J**	ND	ND	ND	ND	ND	ND	ND	14
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50,000
Acenaphthylene	ND	ND	45 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	41,000
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110 J	ND	7,900

TABLE 1.4.1.2 (CONTINUED)
LEACHING POOL SAMPLES
SEMIVOLATILE ORGANIC COMPOUNDS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Sample No.	LP-12 end	LP-12 @ 20'	LP-13 end	LP-14 end	LP-15 end	LP-15 @ 16'	LP-18 end	LP-22 end	LP-23 end	LP-23 @ 15'	LP-24 end	LP-24 @ 18'	LP-29 end	LP-31 end	NYSDEC Cleanup Objectives
Sampling Date	**7/12/00**	**7/12/00**	**7/14/00**	**7/21/00**	**7/15/00**	**7/15/00**	**7/17/00**	**7/18/00**	**7/14/00**	**7/14/00**	**7/21/00**	**7/21/00**	**7/21/00**	**7/18/00**	
Semivolatile Organic Compounds in ug/kg															
Fluoranthene	ND	65 J	33 J	ND	ND	ND	ND	ND	72 J	41 J	180 J	ND	ND	ND	50,000
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13,000
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36,400
Phenanthrene	ND	40 J	ND	ND	ND	ND	ND	ND	38 J	ND	66 J	ND	ND	ND	50,000
Carbazole	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50,000
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6,200
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50,000
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33 J	ND	ND	ND	50,000
Pyrene	ND	65 J	ND	ND	ND	ND	ND	ND	75 J	53 J	53 J	ND	ND	ND	50,000
Benzo(a)anthracene	ND	35 J	ND	ND	ND	ND	ND	ND	35 J	ND	50 J	ND	ND	ND	224
Chrysene	ND	51 J	ND	ND	ND	ND	ND	ND	73 J	44 J	120 J	ND	ND	ND	400
Benzo(b)fluoranthene	ND	45 J	ND	ND	ND	ND	ND	ND	75 J	50 J	95 J	ND	ND	ND	224
Benzo(k)fluoranthene	ND	43 J	ND	ND	ND	ND	ND	ND	51 J	38 J	100 J	ND	ND	ND	224
Benzo(a)pyrene	ND	36 J	ND	ND	ND	ND	ND	ND	51 J	ND	**78 J**	ND	ND	ND	61
Indeno(1,2,3- cd)pyrene*	ND	39 J	ND	ND	ND	ND	ND	ND	120 J	56 J	ND	ND	ND	ND	3,200
Benzo(g,h,i)perylene	ND	42 J	ND	ND	ND	ND	ND	ND	120 J	67 J	ND	ND	ND	ND	50,000
Dibenz(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	55 J	ND	ND	ND	ND	50,000
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	41,000
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,900

Notes:

Only analytes detected in one or more samples are included in this table.
ND = Not Detected.
B = Analyte is detected in an associated blank.
J = An estimated value.
N = Presumptive evidence of a compound.
E = Estimated concentration exceeding the calibration range of the instrument.
D = Diluted sample result.
ug/kg = micrograms per kilogram.
- = NYSDEC Recommended Soil Cleanup Objective not established for this compound
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

the reduction in SVOC concentrations in the deeper LP-5 sample, collected 2.5 feet below the end-point sample, indicated that these concentrations were decreasing significantly with depth. In addition, none of the SVOCs exhibiting these exceedances was detected in groundwater samples obtained from wells located downgradient of these leaching pools. Based on this information, it was concluded that the SVOC concentrations in the Site leaching pools were significantly reduced and the remaining SVOCs did not present a significant threat to groundwater.

The metals results are shown on Table 1.4.1.3 and shown that significant reductions in leaching pool sediment metals concentrations were achieved. The remaining exceedances of the NYSDEC Objectives for metals were noted in several samples, including copper and/or zinc in the end-point samples from LP-3 through LP-5, LP-10, LP-23, and LP-24 and the deeper samples from LP-5 and LP-24. The detected concentrations in the end-point and deeper soil samples represent significant reductions in copper and zinc relative to the initial concentrations in the sediments in each of these leaching pools. In addition, neither dissolved copper nor zinc was detected in groundwater samples obtained from the Site monitoring wells. Based on this information, it was concluded that the copper and zinc concentrations in the Site leaching pools had been significantly reduced and the remaining concentrations do not present a significant threat to groundwater.

Exceedances of the NYSDEC Objective for iron were detected in several of the end-point and deeper samples, including the LP-4, LP-10 through LP-13, LP-15, LP-18, and LP-22 through LP-24 end-point samples and the deeper samples at LP-12, LP-15, LP-23, and LP-24. All of the exceedances are within the same order of magnitude as the NYSDEC Objective and are comparable to the iron concentrations detected in Site soil. It was concluded that iron concentrations were reduced relative to the initial concentrations and were comparable to ambient Site soil conditions.

Following end-point sampling, each of the leaching pools was restored to its previous function. In most cases, addition of backfill material was necessary to restore the grade inside the leaching pool to an elevation above the base of the structure so as to stabilize the leaching pool structure. Backfill consisted of clean virgin bank-run sand as certified by 110 Sand Company, the backfill supplier.

The Site leaching pools were inspected during facility closure in 2006 under Suffolk County Department of Health Services (SCDHS) supervision to assess their condition. Sediment samples were retained for analysis from pools showing visible indications of impact, as determined by the SCDHS. The summarized data are shown in Table 1.4.1.4. Based on the

TABLE 1.4.1.3
LEACHING POOL SAMPLES
METALS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Sample No.	LP-3 end	LP-4 end	LP-4 @ 15'	LP-5 end	LP-5 @ 18'	LP-6 end	LP-7 end	LP-7 @ 26'	LP-8 end	LP-9 end	LP-10 end	LP-11 end	NYSDEC Cleanup Objectives
Sampling Date	7/10/00	7/10/00	7/10/00	7/11/00	7/11/00	7/19/00	7/19/00	7/19/00	7/13/00	7/13/00	7/13/00	7/11/00	
Total Metals in mg/kg													
Aluminum	385	699	1,020	1,240	654	495	850	743	624	610	684	789	SB
Antimony	0.74 B	0.61 B	0.62 B	0.44 B	ND	ND	ND	ND	ND	ND	ND	ND	SB
Arsenic	ND	0.58 B	1.2 B	0.59 B	ND	ND	0.66 B	ND	1.0 B	0.53 B	0.95 B	0.61 B	7.5
Barium	1.5 B	3.2 B	7.4 B	3.9 B	4.1 B	1.8 B	5.2 B	3.6 B	3.6 B	3.3 B	2.3 B	2.4 B	300
Beryllium	0.043 B	0.065 B	0.068 B	0.066 B	ND	0.051 B	0.047 B	ND	ND	0.048 B	0.068 B	0.065 B	0.16
Cadmium	0.28 B	0.20 B	0.30 B	0.055 B	ND	ND	ND	ND	ND	ND	ND	ND	10
Calcium	59.8 B	150 B	1,020 B	122 B	112 B	28.7 B	45.6 B	65.8 B	89.6 B	64.9 B	154 B	36.6 B	SB
Chromium	1.0 B	2.5	6.1	2.2	5.1	1.3 B	6.4	1.8 B	2.6	1.8 B	1.3 B	1.6 B	50
Cobalt	0.23 B	0.50 B	0.62 B	0.44 B	0.43 B	0.41 B	0.49 B	0.34 B	0.89 B	0.71 B	0.54 B	0.60 B	30
Copper	**3,140**	**2,810**	**5,040**	**68.7**	21.8	2.1 B	2.8 B	3.9 B	22.1	8.3	**235**	3.9 B	25
Iron	580	**2,060**	1,900	1,280	1,130	1,140	1,820	1,710	1,790	1,800	**2,220**	**3,170**	2,000
Lead	132	138	250	24.0	6.8	1.1 JN	3.0 JN	3.1 JN	6.1	2.6	12.0	7.6	500
Magnesium	79.9 B	200 B	708 B	212 B	262 B	114 B	240 B	172 B	222 B	166 B	208 B	182 B	SB
Manganese	3.4	14.3	9.5	8.9	9.6	7.1	9.9	8.0	34.7	54.7	31.6	30.5	SB
Mercury	ND	0.0048JN	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0031JBN	0.1
Nickel	3.5 B	4.3 B	7.6 B	2.3 B	2.6 B	1.1 B	1.3 B	1.2 B	1.4 B	1.4 B	1.9 B	1.2 B	13
Potassium	20.7 B	55.6 B	68.1 B	59.9 B	86.9 B	44.9 B	151 B	47.4 B	77.2 B	49.3 B	47.0 B	81.5 B	SB
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Silver	0.33 B	0.36 B	1.8 B	ND	ND	ND	ND	ND	ND	ND	ND	ND	SB
Sodium	19.1 B	16.9 B	25.3 B	17.5 B	20.7 B	9.1 B	20.8 B	46.5 B	11.9 B	10.1 B	11.9 B	15.8 B	SB
Thallium	ND	ND	1.1 B	0.66 U	ND	ND	ND	ND	ND	ND	ND	ND	SB
Vanadium	1.2 B	2.8 B	5.5 B	3.5 B	2.3 B	2.7 B	3.4 B	3.0 B	2.4 B	2.5 B	2.4 B	3.3 B	150
Zinc	**1,800**	**1,610**	**2,540**	**99.3**	16.2	5.7	9.5	11.2	14.6	8.5	**127**	6.2	20

Notes:

ND = Not Detected.
B = Reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.
J = Estimated value.
mg/kg = milligrams per kilogram
N = Matrix spiked sample recovery not within control limits.
SB = Site Background.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

TABLE 1.4.1.3 (CONTINUED)
LEACHING POOL SAMPLES
METALS DATA
I. W. INDUSTRIES, MELVILLE, NEW YORK

Sample No.	LP-12 end	LP-12 @ 20'	LP-13 end	LP-14 end	LP-15 end	LP-15 @ 16'	LP-18 end	LP-22 end	LP-23 end	LP-23 @ 15'	LP-24 end	LP-24 @ 18'	LP-29 end	LP-31 end	NYSDEC Cleanup Objectives
Sampling Date	7/12/00	7/12/00	7/14/00	7/21/00	7/15/00	7/15/00	7/17/00	7/18/00	7/14/00	7/14/00	7/21/00	7/21/00	7/21/00	7/18/00	
Total Metals in mg/kg															
Aluminum	845	1,100	1,050	422	936	892	1,450	687	897	731	1,240	1,160	574	784	SB
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SB
Arsenic	1.4 B	1.6 B	1.3 B	ND	1.6 B	1.7 B	2.4	0.84 B	1.1 B	1.3 B	1.3 B	4.2	ND	0.73 B	7.5
Barium	4.2 B	5.1 B	5.2 B	1.8 B	4.9 B	4.6 B	4.9 B	3.4 B	5.8 B	2.8 B	6.8 B	7.8 B	3.0 B	2.3 B	300
Beryllium	0.082B	0.080B	0.090B	ND	0.066B	0.058B	0.090B	0.043B	0.084B	0.078B	0.073B	0.14 B	ND	0.044B	0.16
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.086B	ND	ND	10
Calcium	45.7 B	140 B	87.2 B	24.7 B	88.7 B	109 B	112 B	107 B	300 B	61.6 B	221 B	99.3 B	60.1 B	27.0 B	SB
Chromium	1.9	3.3	1.7	1.7 B	1.7 B	2.0	2.2	1.3 B	2.9	1.8 B	6.4	2.8	4.8	1.4 B	50
Cobalt	1.0 B	1.2 B	1.3 B	0.29 B	1.0 B	0.64 B	1.1 B	0.50 B	1.7 B	0.72 B	1.1 B	3.5 B	0.19 B	0.57 B	30
Copper	7.6	13.3	7.9	1.2 B	2.5 B	4.0 B	3.1 B	1.9 B	**43.2**	9.4	**97.3**	**58.6**	3.1 B	2.4 B	25
Iron	**3,410**	**3,200**	**3,600**	1,380	**3,300**	**2,520**	**3,580**	**3,540**	**3,200**	**2,690**	**5,060**	**7,540**	731	1,990	2,000
Lead	2.4	7.9	6.5	2.6 JN	2.3	1.6	2.2	2.4 JN	22.2	8.5	52.2JN	4.9 JN	5.9 JN	16.0JN	500
Magnesium	178 B	274 B	263 B	88.0 B	218 B	276 B	316 B	162 B	322 B	226 B	381 B	358 B	126 B	210 B	SB
Manganese	124	95.9	31.5	5.6	104	40.9	49.6	ND	143	58.0	ND	ND	5.9	11.5	SB
Mercury	0.0039J BN	0.0037 JBN	0.0078 JN	0.0021 B	0.0028 JBN	ND	0.012 JN	ND	0.0086 JN	0.010 JN	0.057	ND	ND	ND	0.1
Nickel	1.7 B	3.6 B	2.1 B	1.0 B	1.6 B	1.5 B	1.9 B	0.89 B	2.6 B	1.9 B	2.1 B	3.8 B	0.53 B	1.4 B	13
Potassium	56.8 B	69.8 B	56.8 B	48.8 B	46.7 B	91.9 B	78.0 B	71.3 B	67.7 B	46.5 B	112 B	144 B	56.3 B	63.5 B	SB
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SB
Sodium	17.9 B	14.4 B	11.0 B	11.2 B	32.8 B	34.6 B	12.4 B	14.6 B	16.0 B	11.6 B	13.6 B	11.7 B	10.4 B	12.0 B	SB
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	SB
Vanadium	2.4 B	3.0 B	2.9 B	1.5 B	3.3 B	2.6 B	3.3 B	1.7 B	3.9 B	2.2 B	5.4 B	8.5 B	1.0 B	2.1 B	150
Zinc	12.8	16.4	ND	3.8	6.9	7.7	5.7	7.8	ND	ND	**50.1**	**49.9**	14.9	5.8	20

Notes:

ND = Not Detected.
B = Reported value is less than the Contract Required Detection Limit but greater than the Instrument Detection Limit.
J = Estimated value.
mg/kg = milligrams per kilogram
N = Matrix spiked sample recovery not within control limits.
SB = Site Background.
Bold values exceed the NYSDEC Recommended Soil Cleanup Objective.

TABLE 1.4.1.4
LEACHING POOL CHEMICAL ANALYTICAL DATA, 2006
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Sample No.	LP-1	LP-3*		LP-4*	LP-5*	LP-6	LP-7*		LP-10*	LP-11*		LP-13*		LP-21		LP-24*		LP-25	NE Loading Dock Drain		SCDHS Action Levels	SCDHS Cleanup Objectives
Sample Type	Initial	Initial	End-Point	Initial	Initial	End-Point	Initial	End-Point	Initial	Initial	End-Point	Initial	End-Point	Initial	End-Point	Initial	End-Point	Initial	Initial	End-Point		
Sample Depth (feet)	20	17	21	13	14.5	21	19.5	21	17	17	18.5	19.5	22	19	21	14.6	16	13	-	-		
Sampling Date	4/26/06	4/26/06	8/15/06	4/26/06	4/26/06	8/10/06	5/21/06	8/10/06	5/21/06	5/21/06	8/14/06	5/21/06	8/15/06	5/21/06	8/18/06	5/21/06	8/15/06	4/28/06	11/20/06	12/6/06		
Volatile Organic Compounds in ug/kg																						
p-Isopropyltoluene	ND	ND	NA	ND	ND	NA	26	NA	19	12	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	7,800	3,900
Semivolatile Organic Compounds in ug/kg																						
Fluoranthene	ND	4,400	NA	14,000	2,000	NA	16,000	NA	520	12,000	NA	9,100	NA	ND	NA	7,600	NA	5,300	NA	NA	75,000	50,000
Phenanthrene	ND	1,200	NA	6,200	ND	NA	5,700	NA	ND	ND	NA	3,500	NA	ND	NA	ND	NA	ND	NA	NA	75,000	50,000
Pyrene	ND	3,300	NA	10,000	1,500	NA	12,000	NA	410	9,200	NA	7,000	NA	ND	NA	6,000	NA	ND	NA	NA	75,000	50,000
Benzo(a)anthracene	ND	1,400	NA	4,600	ND	NA	5,300	NA	ND	4,200	NA	3,000	NA	ND	NA	ND	NA	ND	NA	NA	6,000	3,000
Chrysene	ND	**2,700**	NA	**9,000**	**1,300**	NA	**12,000**	NA	270	ND	NA	**5,500**	NA	ND	NA	**5,400**	NA	ND	NA	NA	800	400
Benzo(b)fluoranthene	ND	1,500	NA	**7,100**	ND	NA	**11,000**	NA	340	**6,600**	NA	**4,500**	NA	ND	NA	ND	NA	ND	NA	NA	2,200	1,100
Benzo(k)fluoranthene	ND	1,700	NA	**6,600**	ND	NA	**8,600**	NA	360	**4,900**	NA	**3,800**	NA	ND	NA	ND	NA	ND	NA	NA	2,200	1,100
Benzo(a)pyrene	ND	1,100	NA	5,200	ND	NA	6,700	NA	ND	ND	NA	3,100	NA	ND	NA	ND	NA	ND	NA	NA	22,000	11,000
Indeno(1,2,3-cd)pyrene	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	6,400	3,200
Benzo(g,h,i)perylene	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	75,000	50,000
Dibenz(a,h)anthracene	ND	ND	NA	ND	ND	NA	ND	NA	ND	7,100	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	75,000	50,000
Total Metals in mg/kg																						
Arsenic	1.78	2.45	ND	ND	2.21	ND	1.16	ND	1.49	2.99	ND	1.03	ND	5.13	ND	0.53	ND	2.64	ND	4.02	25	7.5
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8	1.6
Cadmium	1.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.77	ND	ND	ND	ND	3.77	ND	10	1
Chromium	11.5	41.9	ND	2.39	4.73	ND	13.5	ND	3.24	5.92	ND	3.03	ND	14.2	ND	17.5	ND	11.6	41.0	5.64	100	10
Copper	**1,740**	**13,500**	**168**	**2,030**	**590**	**448**	**1,370**	**480**	84.0	**1,870**	**41.9**	**804**	ND	289	ND	**1,700**	**42.8**	**1,370**	**16,700**	14.9	500	25
Lead	**436**	**745**	**116**	92.6	68.3	42.2	114	23	10.3	94.0	16.3	40.9	ND	**904**	32.2	94.9	ND	64.3	**6,470**	49	400	100
Mercury	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	NA	ND	NA	ND	NA	ND	NA	ND	ND	ND	2	0.1
Nickel	4.78	16.7	ND	2.84	4.01	ND	4.61	ND	3.31	5.27	ND	3.13	ND	13.0	ND	5.37	ND	9.64	1.73	4.02	1,000	13
Silver	ND	2.73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.11	ND	100	5

Notes:

Only analytes detected in one or more samples are included in this table. See lab report for complete data.
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
*Leaching pool remediated in 2000.
SB = Site Background

NA = Not Analyzed.
ND = Not Detected.
Bold shaded values for initial samples exceed the SCDHS Action Level.
Bold shaded values for end-point samples exceed the SCDHS Soil Cleanup Objectives.

laboratory results and visual observations, remediation was recommended for leaching pools LP-1, LP-2, LP-3, LP-6, LP-7, LP-11, LP-13, LP-21, and LP-24. The SCDHS approved the proposed scope of work and required endpoint sampling following remediation for leaching pools that previously exhibited elevated metals concentrations. No endpoint sampling was required for leaching pools previously exhibiting SVOC impacts, provided that the sediments observed following remediation showed little to no visual impacts.

Remediation and a subsequent visual inspection of these leaching pools were conducted under SCDHS supervision in August 2006 (with the exception of LP-1 and LP-2, as discussed below). Endpoint samples were collected from LP-3, LP-6, LP-7, LP-11, LP-13, LP-21, and LP-24, as directed by the SCDHS. The summarized data are shown in Table 1.4.1.4. The NYSDEC reviewed these data and did not require further work except at LP-3, as the endpoint results at the other leaching pools are below the NYSDEC Objectives to be protective of groundwater. As discussed in Section 1.2.2, additional remediation of several other leaching pools was required by the SCDHS, but was not required by the NYSDEC under the Order on Consent and will not be discussed further herein.

Although the analytical results for leaching pool LP-1 indicate that no targeted VOCs and SVOCs were detected, sediment within the leaching pool appeared visibly impacted. Based on these observations, the SCDHS recommended that the soil beneath leaching pools LP-1 and LP-2 (LP-2 is the overflow pool for LP-1) be vertically profiled by performing a soil boring through each pool and collecting soil samples from depths of 20, 30, and 40 feet below grade. The borings were conducted with SCDHS supervision on September 25, 2006. The laboratory results are summarized in Table 1.4.1.5. The boring logs showed the soils to be visually impacted to the full depth penetrated.

NYSDEC subsequently issued an Order on Consent to former owner and Respondent, Metro Assets III, LLC, for the proper abandonment of LP-1 and LP-2, as well as LP-3. This abandonment was completed in 2010 under an Underground Injection Control (UIC) Closure Plan approved by the USEPA in 2008.

1.4.2 Implementation of Free-Phase Product Removal

During remedial activities free-phase product removal was initiated in the area where recoverable free-phase product was formerly present on the water table surface. The measured free-product thicknesses in July 1997 at the Site ranged from 0.03 feet at well MW-2 to 0.4 feet at well MW-7. Free-phase product was not detected in May or July 2000 at wells MW-2, MW-7, or any nearby Site wells. The water table elevation was noted to be 0.5 to 1.0 feet higher in May and July, 2000 than in July 1997 and, therefore, it is likely that the free-phase product was not

TABLE 1.4.1.5
LP-1 AND LP-2 SOIL SAMPLES
I.W. INDUSTRIES SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Leaching Pool	LP-1			LP-2			SCDHS Cleanup Objectives
Sample Depth (feet)	20-22	28-30	38-40	20-22	28-30	38-40	
TCL Semivolatile Organic Compounds in micrograms per kilogram							
Bis(2-ethylhexyl)phthalate	ND	ND	910	ND	ND	ND	-
Chrysene	ND	ND	**470**	ND	ND	ND	400
SCDHS Metals in milligrams per kilogram							
Arsenic	1.35	0.66	ND	ND	1.13	2.23	7.5
Chromium	**15.9**	**27.5**	**24.8**	9.57	**23.2**	8.38	10.0
Copper	**189**	**82.9**	**91.4**	**151**	**175**	18.6	25.0
Lead	**200**	**134**	**217**	**154**	**534**	19.9	100.0
Nickel	2.98	4.15	3.58	3.44	3.89	3.32	13.0

Notes:

Samples collected on September 25, 2006
Only detected analytes are summarized on this table. See lab report for complete data.
ND = Not detected
- = Not established.
SCDHS = Suffolk County Department of Health Services
Bold shaded values exceed SCDHS Cleanup Objectives.

present as a continuous layer due to the elevated water table surface. However, it was anticipated that the free-phase product layer would reform as the water table declined. Therefore, free-phase product recovery efforts were initiated in July 2000 at wells MW-2 and MW-7 in anticipation of an eventual decline in the water table.

The product removal method utilized depended primarily on the apparent thickness of the product in the wells and the surface conditions in the vicinity of the wells, as discussed in the RA Work Plan. Free-phase product apparent thicknesses were monitored in July 2000 in wells MW-2 and MW-7 and no measurable free-phase product was detected, although a visible sheen was noted on the water from well MW-7. Therefore, product-absorbent materials were selected as the most appropriate free-phase product removal method at that time. The apparent thickness of the free-phase product has been measured in each of the affected Site wells on a monthly basis; this information is routinely reviewed to confirm the appropriate selection of product recovery methods.

Hydrophobic product-absorbent materials are widely utilized in industry and environmental remediation to absorb and remove free-phase product for disposal. These materials are manufactured in forms suitable for insertion into groundwater monitoring wells (e.g. Soak-Eze socks) and may be utilized to absorb thin free-phase product layers. On July 25, 2000, a Soak-Eze was placed into each of wells MW-2 and MW-7 in contact with the water table surface, which is the location where free-phase product would accumulate. The Soak-Eze have been periodically removed and inspected to evaluate if they are spent. When spent, the absorbent materials are placed into a sealed, labeled 55-gallon drum for eventual proper disposal offsite, as discussed below. A monitoring log of the Soak-Eze inspections is maintained and a copy has been provided in each of the annual monitoring reports for this site.

The removed product and spent absorbent materials have been placed into labeled drums, which have been stored indoors onsite pending disposal. The filled drums have been removed by a licensed waste hauler and transported offsite for proper disposal at an appropriate permitted disposal facility.

Free-phase product monitoring continued from July 2000 through March 2006 and additional product monitoring was recently conducted between June and August 2007. Product removal (when necessary) continues to be accomplished using hydrophobic absorbent socks (Soak-Eze). No absorbent socks are currently installed in any wells due to the absence of floating product.

Minor amounts of free-phase petroleum or visible sheen were noted at wells MW-1, MW-2, and/or MW-7 between July and September 2003. No floating product or sheen was

noted in any of the wells between October 2003 and January 2004. During the March 2004 groundwater sampling, floating product was measured 0.03 feet in well MW-7. No measurable floating product was noted in any of the other wells. An absorbent sock was installed in well MW-7 and subsequently removed on April 29, 2004. No floating product was noted in any of the wells between May 2004 and February 2005. During the March 2005 sampling event, a very minor thickness (0.01 feet) of product was noted in well MW-2 and an absorbent sock was subsequently installed. The sock was removed in April 2005 and no measurable floating product has been detected in any of the wells since that time.

Monitoring in 2006 and 2007 showed no measurable product, although a minor odor or sheen was occasionally noted in wells MW-2 and MW-7.

Historic water table relative elevations for Site wells MW-1, MW-2, and MW-7 are graphed on Figure 1.4.2.1. Due to above-average precipitation from 2005 to early 2007, groundwater relative elevations at the Site appear to be high at this time when compared to the historic levels. As previously discussed, floating product was last noted at the Site in March 2005. At that time, the groundwater relative elevation appeared to be at an average level for the Site.

To confirm that residual free-phase product is no longer present at the Site, product monitoring will continue at the Site until groundwater relative elevations decline to at least average levels as discussed in Section 2.2.2. Free-phase product monitoring is further discussed in Section 2.2.1 herein.

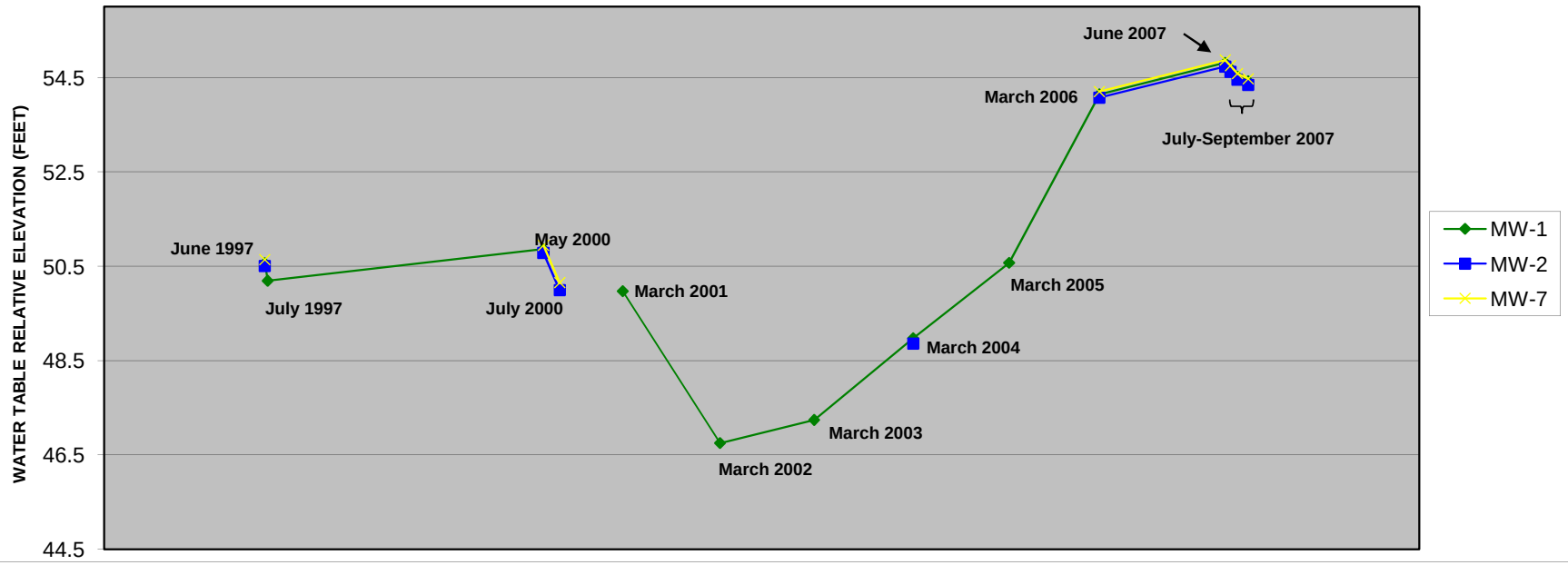
1.4.3 Residual Contamination

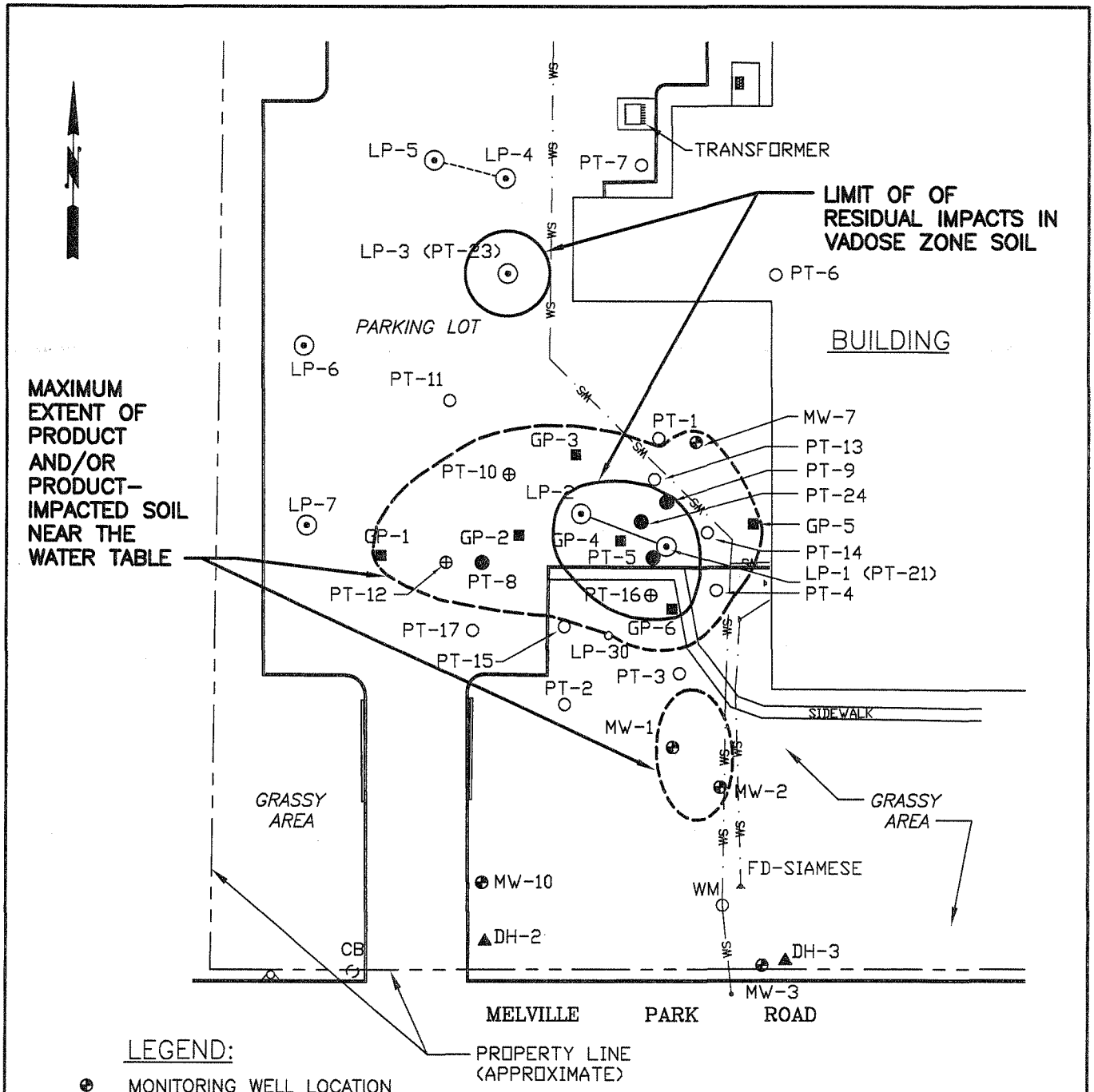
Residual contamination exists at the Site in the form of:

- Leaching pool sediments exceeding NYSDEC Objectives in LP-1, LP-2 and LP-3;
- Free-phase product within the soil matrix beneath the LP-1, LP-2 and LP-3 structures and on the groundwater at select Site wells; and
- Iron and/or manganese in groundwater in select Site wells.

The maximum extents of residual impacted vadose zone soil and residual product and/or product-impacted soil are shown in Figure 1.4.3.1. It should be noted that the impacted vadose zone soil is limited to a depth of 18.5 feet below grade and greater, based on previous soil boring and leaching pool sampling data. The seals above the abandoned leaching pools were set at between four and five feet below grade, which is well above the top of the residual soil. Implementation of ECs/ICs and monitoring activities are planned to address residual contamination. These measures are described in Sections 3 and 4 below.

FIGURE 1.4.2.1
HISTORIC WATER TABLE RELATIVE ELEVATIONS
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK





LEGEND:

- MW-11 — MONITORING WELL LOCATION
- DH-1 OR GP-1 — SOIL BORING LOCATION
- LP-1 OR LP-27 — LEACHING POOL LOCATION WITH MANHOLE
- PT-8 — SOIL BORING W/SIGNIFICANT ODOR
- PT-10 — SOIL BORING W/SOME ODOR
- PT-1 — SOIL BORING W/NO ODOR
- ( ) — LEACHING POOL LOCATION WITH SUBGRADE ACCESS

30 0 30 60

GRAPHIC SCALE-FEET

Fanning, Phillips & Molnar
Engineers

FIGURE 1.4.3.1
EXTENT OF RESIDUAL SOIL & PRODUCT
I.W. INDUSTRIES SITE
35 MELVILLE PARK ROAD
MELVILLE, NEW YORK

Drawn By:H.C.	Checked By:SOD	Date: 5/28/10

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1.4.4 Engineering and Institutional Controls

Since residual contamination is present at this Site, Engineering and Institutional Controls (ECs/ICs) have been implemented to protect public health and the environment in the future. The Site has two ECs: (1) the abandonment of leaching pools LP-1 through LP-3; and (2) free-phase product removal. These ECs are further described in Section 2.2 herein.

ICs are required to implement, maintain, and monitor the ECs. The Environmental Easement requires compliance with these ICs. These ICs consist of the following:

- The ECs must be implemented as specified in this SMP;
- The ECs must be inspected and certified at a frequency and in a manner defined in this SMP;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in this SMP;
- Onsite environmental monitoring devices, including but not limited to, groundwater monitor wells, must be protected and replaced as necessary to ensure continued functioning in the manner specified in this SMP.

The Site has ICs in the form of Site restrictions. Adherence to these ICs is required under the Environmental Easement. Site restrictions that apply to the Site are:

- Vegetable gardens and farming on the Site are prohibited;
- Use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use;
- All future activities on the Site that will disturb the ECs are prohibited unless conducted in a manner approved by the NYSDEC; and
- The Site may be used for commercial or industrial use only, unless other usage is approved by the NYSDEC.

These EC/ICs should:

- Prevent contact with residual soils;
- Prevent exposure to groundwater with contamination levels that exceed drinking water standards;

- Allow groundwater to be restored to pre-disposal/pre-release conditions, to the extent practicable;
- Isolate potential sources of groundwater contamination; and
- Prevent migration of contaminants that would result in offsite groundwater contamination.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved RAWP for the I. W. Industries Site (June 2000). The remedial goals included removal and offsite disposal of targeted impacted leaching pool sediments, commensurate with a planned restricted commercial use. A summary of the remedial strategies and EC/ICs implemented at the Site are as follows:

- Excavation and offsite disposal of targeted impacted leaching pool sediments (completed in 2000 and 2006);
- Implementation of free-phase product removal from select Site wells (initiated in 2000);
- Implementation of a groundwater monitoring program (initiated in 2000);
- Implementation of an EC consisting of abandonment of leaching pools LP-1 through LP-3 (implemented in 2010);
- Registration of an Environmental Easement, including ICs, to prevent future exposure to residual contamination remaining at the Site. A copy of the Environmental Easement recorded in Suffolk County is provided in Attachment 4.

Since residual contaminated sediments and groundwater exist beneath the Site, ECs and 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

The purpose of this Plan is to provide:

- A description of all EC/ICs on the Site;
- The basic operation and intended role of each implemented EC/IC;
- A description of the key components of the ICs created as stated in the Environmental Easement;
- A description of the features that should be evaluated during each inspection and compliance certification period;

- The roles and responsibilities of the Respondent and other parties relative to the ECs/ICs;
- A description of plans and procedures to be followed for implementation of EC/ICs; 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.

2.2 ENGINEERING CONTROL COMPONENTS

2.2.1 Engineering Controls

2.2.1.1 Abandonment of Leaching Pools LP-1 through LP-3

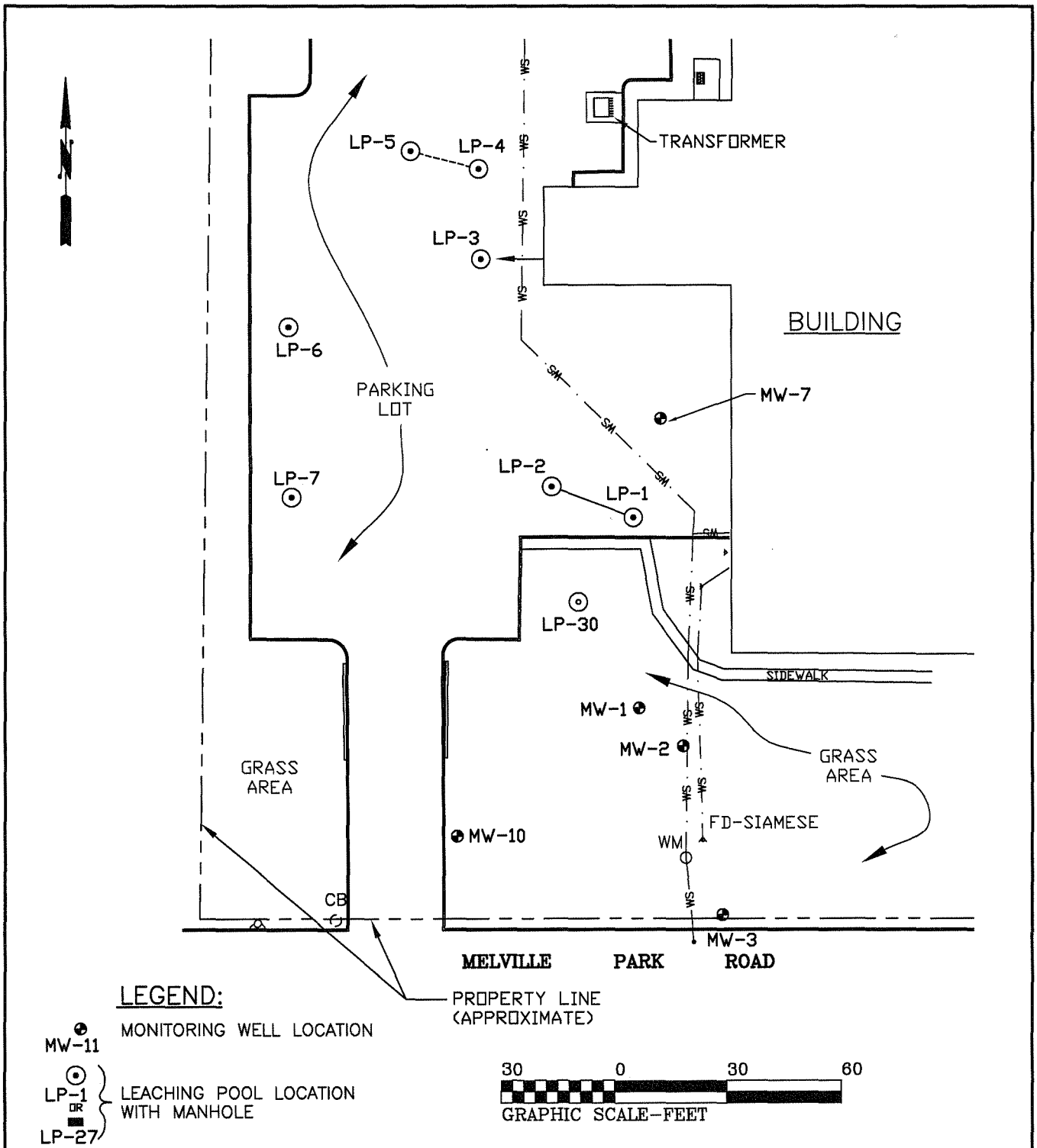
An EC has been implemented at the Site and includes the abandonment of leaching pools LP-1 through LP-3 to further reduce the potential for human contact and/or groundwater contamination. This EC included disconnecting the leaching pools from their piping systems, backfilling the pools with clean soil, and sealing the top of each pool with a 12-inch-thick reinforced cover set between four and five feet below grade. The area above each abandoned leaching pool was backfilled with approved materials and repaved. New leaching pools were also installed outside of the area of residual contamination to manage stormwater runoff previously directed to LP-1 through LP-3. Figure 2.2.1.1.1 shows the former locations of LP-1 thorough LP-3. A Soil Management Plan is included in Attachment 1 and outlines the procedures required in the event that residual contamination at the former locations of LP-1 through LP-3 is disturbed in the future. The Soil Management Plan is also discussed in greater detail in Section 2.3 of this EC/IC Plan. Issues related to inspection and maintenance of this EC are provided in Sections 3 and 5.3 of this SMP.

Procedures for monitoring the abandoned leaching pools are included in the Monitoring Plan (Section 3 of this SMP). Monitoring will be conducted by the Respondent. The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, such as a flooding event that may affect the EC at the Site, has occurred.

The abandonment of leaching pools LP-1 through LP-3 is a permanent EC and the integrity of the completed abandonment will be inspected at defined, regular intervals as required by the NYSDEC. Inspection may be discontinued if approved by the NYSDEC.

2.2.1.2 Free-Phase Product Removal

An EC is present and will be continued at the Site in the form of free-phase product removal. Free-phase product removal and offsite disposal will be conducted by the Respondent. Product removal materials are installed as necessary in affected wells (MW-1, MW-2, and/or MW-7) and are serviced in accordance with established operating and monitoring procedures.



Fanning, Phillips & Molnar
Engineers

FIGURE 2.2.1.1.1
LP-1, LP-2 & LP-3 LOCATIONS

35 MELVILLE PARK ROAD
MELVILLE, NEW YORK

Drawn By:H.C.	Checked By:SOD	Date: 05/27/08

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The product removal method selected is based on the apparent thickness of product to be removed. The selected method consists of hydrophobic product-absorbent materials in a form suitable for insertion into groundwater monitoring wells (Soak-Eze socks), which are installed into the affected wells. The Soak-Eze are removed and inspected in accordance with a routine monitoring schedule to evaluate if they are spent. When spent, the absorbent materials are placed into a sealed, labeled 55-gallon drum for timely proper disposal offsite. A monitoring log of the Soak-Eze inspections is maintained and a copy has been provided in each of the annual monitoring reports for this site.

The removed product and spent absorbent materials have been placed into labeled drums, which have been stored indoors onsite pending disposal. The filled drums have been periodically removed by a licensed waste hauler and transported offsite for proper disposal at an appropriate permitted disposal facility.

Monitoring in 2006 and 2007 showed no measurable product, although a minor odor or sheen was occasionally noted in wells MW-2 and MW-7. No absorbent socks are currently installed in any wells due to the absence of floating product and no containment drums are presently onsite. In the event that product is removed in the future, a sealed labeled 55-gallon drum will be staged onsite and removed product will be stored in compliance with applicable regulations pending timely offsite disposal.

Water table relative elevations for Site wells MW-1, MW-2, and MW-7 are used to evaluate whether groundwater levels have lowered sufficiently to evaluate whether any product remains trapped below the water table surface. Due to above-average precipitation from 2005 through 2007, groundwater relative elevations at the Site have been high when compared to the historic levels. Floating product was last noted at the Site in March 2005, at which time the groundwater relative elevation appeared to be at an average level for the Site.

To confirm that residual free-phase product is no longer present at the Site, product monitoring will continue at the Site until groundwater relative elevations decline to at least average levels and free-phase product remains absent, as discussed below. Free-phase product monitoring procedures are provided in Section 3.2.2 herein.

The monitoring and removal of free-phase product will not be discontinued without written approval by NYSDEC. A proposal to discontinue product removal and monitoring may be submitted: (1) after monitoring at the Site indicates that groundwater relative elevations have declined to at least average levels and free-phase product remains absent, or (2) if NYSDEC determines that the product removal has reached the limit of its effectiveness. Product monitoring and removal methods will remain in place and operational until permission to

discontinue their use is granted in writing by NYSDEC. These monitoring and removal activities will adhere to the procedures outlined in the Monitoring Plan section of this SMP.

2.3 INSTITUTIONAL CONTROLS COMPONENTS

2.3.1 Institutional Controls

Institutional Controls (ICs) are required under the RAWP to: (1) implement, maintain, and monitor ECs; (2) prevent future exposure to residual contamination by controlling disturbances of the ECs; and, (3) restrict the use of the Site to commercial and industrial uses only unless other uses are approved by the NYSDEC. Adherence to these ICs on the Site (Controlled Property) is required under the Environmental Easement and will be implemented under this SMP. These ICs are:

- The ECs must be implemented as specified in this SMP;
- The ECs must be inspected and certified at a frequency and in a manner defined in this SMP;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in this SMP;
- Onsite environmental monitoring devices, including but not limited to, groundwater monitor wells, must be protected and replaced as necessary to ensure continued functioning in the manner specified in this SMP.

The Controlled Property has a series of ICs in the form of Site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- Vegetable gardens and farming on the Site are prohibited;
- Use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use;
- All future activities on the Site that will disturb the ECs are prohibited unless conducted in a manner approved by the NYSDEC; and
- The Site may be used for commercial or industrial use only, unless other usage is approved by the NYSDEC.

2.3.2 Soil Management Plan

The Site has been fully remediated for commercial or industrial use. The residual contamination is present in the form of residual free-phase petroleum in limited areas of the Site at the water table (approximately 50 feet below grade) and soil at the bottom of leaching pools LP-1 through LP-3 (at least 18.5 feet below grade). These leaching pools were abandoned by backfilling and sealing them at a depth of four to five feet below grade. The areas above the abandoned leaching pools have been repaved. Therefore, it is not anticipated that any future intrusive work will disturb the residual contamination. It is also not anticipated that any future modifications or repairs will be made to the abandoned leaching pools LP-1 through LP-3. However, in the unlikely event that future activities with the potential to contact residual materials are conducted, these activities will be performed in compliance with the Soil Management Plan included in Attachment 1 of this SMP. The Soil Management Plan includes procedures for residual contaminated soil screening, stockpiling, materials excavation load-out, transport, and disposal, backfilling, and contingency measures, as more fully described in Attachment 1.

Intrusive work that will disturb residual contamination will be conducted in accordance with the procedures defined in the Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. The HASP is presented in Attachment 2 and the CAMP is presented in Attachment 3 of this SMP. The HASP is to be executed in compliance with DER-10 Technical Guide, 29 CFR 1910 and 1926, and all other applicable Federal, State and local regulations. Any intrusive work that will disturb the residual contamination must be certified as compliant with the SMP and documented in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5 herein).

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections of all monitoring devices and ECs at the Site will be conducted at the frequency specified in SMP Monitoring Plan schedule provided in Section 3.1.2. The inspections will determine and document the following:

- Whether the ECs continue to perform as designed;
- If these ECs continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;

- Sampling and analysis of appropriate media during monitoring events;
- If Site records are complete and current; and
- Changes, or needed changes, to the remedial or monitoring systems;

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 Site Management Reporting 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 to verify the continued effectiveness of the EC/ICs implemented at the Site. The result of this emergency inspection shall be promptly reported to the NYSDEC.

2.4.2 Notifications

2.4.2.1 NYSDEC-Acceptable Electronic Database

The following information is presented in Attachment 4 in an electronic database format:

- A Site summary;
- The name of the current Site owner and/or the remedial party implementing the SMP for the Site;
- The location of the Site;
- The current status of Site remedial and monitoring activity;
- A copy of the Environmental Easement; and
- A contact name and phone number of a person knowledgeable about the Environmental Easement's requirements, such that the NYSDEC may obtain additional information, as necessary.

This information should be: 1) modified as conditions change; (2) revised in Attachment 4 of this document; and, (3) submitted to NYSDEC in the Periodic Site Monitoring Report. Should the Environmental Easement be modified or terminated, the copy of the revised Environmental Easement will also be updated in this manner.

2.4.2.2 Non-Routine Notifications

Non-routine notifications are to be submitted by the property owner (presently Kailyn) to the NYSDEC on an as-needed basis for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are inconsistent with the terms of the Environmental Easement.
- 10-day advance notice of any proposed ground-intrusive activities with the potential to disturb residual materials.
- Notice within 48 hours of any damage or defect that reduces or has the potential to reduce the effectiveness of the ECs and, likewise, any action 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 any actions taken and the 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.

3.0 MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the implemented ECs in reducing or mitigating contamination at the Site. ECs at the Site include:

- Abandonment of leaching pools LP-1 through LP-3; and
- Free-phase product removal.

3.1.2 Purpose

This Monitoring Plan describes the methods to be used for:

- Compliance inspections;
- Sampling and analysis of groundwater;
- Monitoring of free-phase product;
- Evaluating Site information periodically to confirm that the remedy continues to be effective as per the design; and
- Preparing the necessary reports for the various monitoring activities.
- Assessing compliance with NYSDEC groundwater Standards;
- Assessing achievement of the remedial performance criteria.

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 for monitoring wells);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitor well decommissioning procedures; and
- Annual inspection and certification.

Periodic monitoring of the performance of the remedy will be conducted in accordance with the frequencies specified in Table 3.1.2.1 below. 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 programs are summarized in Table 3.1.2.1 and outlined in detail in Sections 3.2 and 3.3 below.

Table 3.1.2.1: Monitoring/Inspection Schedule

Monitoring/ Inspection Program	Frequency*	Matrix	Analysis	Analytical Methods
Free-phase Product	Monthly	Groundwater	Visual Observations and Interface Probe Measurements	-
Groundwater	Once/five quarters	Groundwater	TCL VOCs, TCL BN SVOCs, TAL metals	SW 846, Methods 8260B, 8270C, 6010B, and 7470A
Site-Wide Compliance Inspection	Once/five quarters	Site	Visual Observations	-

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

3.2 ENGINEERING CONTROL SYSTEM MONITORING

3.2.1 Compliance Inspections of Abandoned Leaching Pools LP-1 though LP-3

Abandoned leaching pools LP-1 through LP-3 will be monitored by visual inspection to confirm that the surface seals remain undisturbed. Compliance inspections are the responsibility of the Respondent. This inspection frequency will be once every five quarters and is subject to change by the NYSDEC. In the event that a severe condition occurs, such as a flooding event that may affect the seals above LP-1 through LP-3 occurs at the Site, or if it is suspected that some condition has occurred that may affect the LP-1 through LP-3 seals, then the property owner (Kailyn) will notify the Respondent and an inspection will be performed promptly following this event/condition. Any indicated corrective measures will be promptly undertaken by the Respondent.

Compliance inspection procedures for abandoned leaching pools LP-1 through LP-3 are included on the Site-Wide Inspection Form in Attachment 5 of this SMP. In general, the former locations of LP-1 through LP-3 will be visually inspected by a qualified environmental professional to confirm that the pavement above the seals (seals are at four to five feet below grade) remains intact and undisturbed and that there is no visual or other evidence of potential

discharges to the abandoned structures. If large holes or other significant damage occurs to the pavement above the leaching pool seals, then these damaged areas will be promptly repaired in kind. These routine repairs will be reported in the Periodic Site Management Report. If more significant damage or failures are noted or if the potential for discharges to these abandoned structures are noted, then the NYSDEC will be promptly notified and appropriate corrective measures will be implemented commensurate with the nature of the damage or failure. An interim report documenting non-routine maintenance will be promptly provided to the NYSDEC; this report will also be included in the Periodic Site Management Report.

3.2.2 Monitoring/Removal of Free-Phase Product

An EC is present and will be continued at the Site in the form of free-phase product removal. This EC is the responsibility of the Respondent and may be discontinued upon approval by the NYSDEC. Product removal materials installed in affected wells (MW-1, MW-2, and/or MW-7) if necessary and are serviced in accordance with established operating and monitoring procedures, as further described below. A monitoring log is maintained and a copy has been provided in each of the monitoring reports to date for this Site. A copy of the most recent product monitoring log is included in Attachment 5.

The product removal method is based on the apparent thickness of product in each affected well and has consisted, to date, of hydrophobic product-absorbent materials (Soak-Eze socks) inserted into the affected groundwater monitoring wells when free-phase product is noted. The affected wells are monitored on a monthly basis to evaluate their condition. Monitoring includes measuring the depth to groundwater and depth to any free-phase product that may be present with an interface probe. If free-phase product is noted, its apparent thickness is calculated. When free-phase product is noted, the Soak-Eze are inserted into the affected wells. The Soak-Eze are removed and inspected on a monthly basis to evaluate if they are spent. When spent, the absorbent materials are placed into a sealed, labeled 55-gallon drum for timely proper disposal offsite. The filled drums have been periodically removed by a licensed waste hauler and transported offsite for proper disposal at an appropriate permitted disposal facility. No measurable free-phase product has been noted in these wells since 2005 and, therefore, at present there is no containment drum onsite. In the event that free-phase product is removed, it will be contained as described above and disposed offsite in accordance with applicable regulations.

Water table relative elevations for Site wells MW-1, MW-2, and MW-7 are derived from each month's monitoring measurements and are used to evaluate whether groundwater levels have lowered sufficiently to ascertain whether any product remains trapped below the water table surface. To confirm that residual free-phase product is no longer present at the Site, product monitoring will continue at the Site until groundwater relative elevations decline to at least

average levels and free-phase product remains absent. Product monitoring and removal may be discontinued when the criteria for completion are met, as described in Section 2.2.1.2, and after approval by the NYSDEC.

A complete list of components to be checked during each monitoring event is provided in the Site-Wide Inspection Checklist presented in Attachment 5. If any readings are not within their typical range, any equipment is observed to be malfunctioning, or the product removal equipment is not performing within specifications, then prompt maintenance and repair of the affected wells and/or equipment, as per the Operation and Maintenance Plan is required to restore the product removal measures. Any maintenance and repair will be coordinated with the Site owner so as to not impact ongoing use of the Site to an unreasonable extent. Operational problems will be noted in the Periodic Site Management Report.

3.3 GROUNDWATER MONITORING PROGRAM

Groundwater monitoring will be performed on a regular basis to assess the performance of the remedy. Groundwater monitoring is the responsibility of the Respondent.

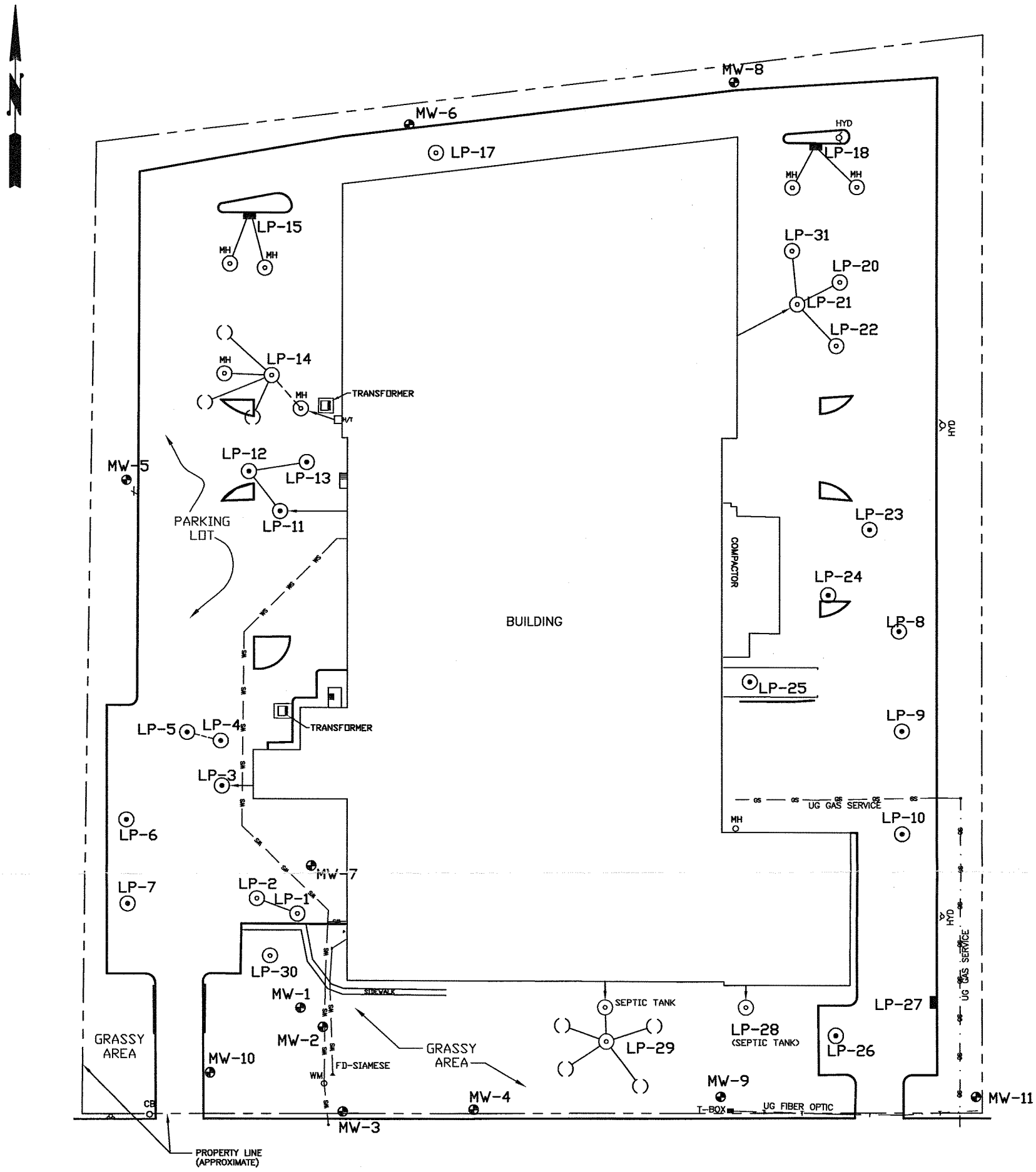
Groundwater monitoring activities will continue, as determined by the NYSDEC, until groundwater concentrations are found to be below the NYSDEC Standards or have become asymptotic over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. Groundwater monitoring activities are outlined in the Monitoring Plan of the SMP.

3.3.1 Monitoring System Design

The network of monitoring wells is designed to monitor both upgradient and downgradient groundwater conditions at the Site. The full network of Site wells is shown on Figure 3.3.1.1 and has been located based on the following criteria:

- Location relative to upgradient (northerly) and crossgradient (westerly and easterly) properties and potential offsite contaminant sources;
- Location downgradient (south) of former onsite sources (leaching pool systems); and
- Ability to monitor appropriate aquifer (water table Upper Glacial Aquifer).

Monitoring of this network since 2000 has provided sufficient data to evaluate impacts to onsite groundwater quality from offsite sources and to evaluate improvements in onsite groundwater quality following the remedial activities conducted in 2000. Accordingly, the scope of the monitoring program has been reduced (Order on Consent Index #W1-0725-04-09 for Site



MELVILLE PARK ROAD

30 0 30 60 90
GRAPHIC SCALE – FEET

LEGEND:

MW-11 MONITORING WELL LOCATION

LP-1 OR LP-27 LEACHING POOL LOCATION WITH MANHOLE

( ) LEACHING POOL LOCATION WITH SUBGRADE ACCESS

FPM GROUP

FIGURE 3.3.1.1
GROUNDWATER MONITORING WELL NETWORK
35 MELVILLE PARK ROAD
MELVILLE, NEW YORK

Drawn By:H.C.	Checked By:SOD	Date: 05/27/08

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#1-52-102) to include monitoring of select wells (MW-1, MW-2, MW-3, MW-5 and MW-7) downgradient of the former onsite source areas, as discussed below.

3.3.2 Groundwater Well Construction

All monitoring wells at the Site are constructed of two- or four-inch-diameter Schedule 40 PVC and are intended to span the water table. Some of the early wells were installed at a time when the water table was high and, therefore, these wells intercept only a limited portion of the water table when the water levels are low. Copies of the available well construction logs for the Site are included in Attachment 6. A table showing the available construction information for each of the wells is also included in Attachment 6.

3.3.3 Monitoring Schedule

Groundwater monitoring has historically been performed on an annual basis during the first quarter of each calendar year. In accordance with a request from the NYSDEC, the sampling frequency has been modified to once every five quarters so as to allow for evaluation of groundwater conditions at different times during the year. The sampling frequency may be modified in the future by the NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC. Deliverables for the groundwater- monitoring program are specified below.

3.3.4 Groundwater Sampling Protocol

All well sampling activities will be recorded by the field sampling personnel in a field book and on groundwater sampling logs, an example of which is presented in Attachment 6. Other observations pertaining to well conditions or other factors that may affect the monitoring results (e.g., well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network.

At each well to be sampled, the depth to the static water level, the depth to any non-aqueous-phase liquids (product), and depth of the well will be measured using an interface probe. Depth to groundwater measurements will also be obtained from the other Site wells not scheduled for sampling. Any well(s) exhibiting free-phase product will not be sampled. A decontaminated low-flow submersible pump will then be used to purge a minimum of three to a maximum of five casing volumes of water from each well to be sampled. The purge water will be examined for indications of visible contamination (sheen, odor) and, if no indications are noted, it will be discharged to the ground surface in the vicinity of the well and allowed to infiltrate. If visible indications of potential contamination are noted, the purge water will be containerized and managed in the same manner as the removed product, as discussed in Section 3.2.2 herein. Following the removal of each casing volume, field parameters, including pH,

turbidity, specific conductivity, and temperature, will be monitored. When all stability parameters vary by less than 10 percent between the removal of successive casing volumes, the wells will be sampled. Well sampling forms documenting the well purging and sampling procedures will be completed and provided in the Periodic Site Management Report.

Following purging, groundwater sampling will be performed. Samples to be analyzed for metals will be obtained directly from the low-flow pump used to purge the wells. If sample turbidity cannot be lowered to acceptable levels (below 50 NTU), then a second sample shall be obtained and filtered to removed particulates prior to analysis. Following sampling for metals, the pump will be removed and samples for VOC and SVOC analyses will be obtained using dedicated disposable polyethylene bailers. The retrieved samples will be decanted into laboratory-supplied sample containers. A groundwater sampling matrix is shown in Table 3.3.4.1 and indicates the wells to be sampled, the rationale for sampling, the types of sample containers, preservatives, and handling, the analyses and analytical methods to be performed, and the laboratory deliverables. This sampling matrix will be used to guide groundwater sampling activities in the field and will be adjusted as necessary as wells are removed from the monitoring program.

Groundwater monitoring procedures and results will be reported in the Periodic Site Management Report. This report shall include a groundwater flow direction map developed from the well elevations and depth-to-water measurements from all of the Site wells.

All non-disposable downhole sampling equipment will be decontaminated by washing in a potable water and Alconox solution and rinsing in potable water prior to use at each location to reduce the potential for cross-contamination. Decontamination fluids containing only water and Alconox (anionic detergent) and that do not appear to be visibly impacted will be discharged to the Site surface and allowed to infiltrate. All sampling equipment will be either dedicated disposable equipment or will be decontaminated prior to use at each location. The decontamination procedures utilized for all non-disposable sampling equipment will be as follows:

- The equipment will be scrubbed in a bath of potable water and low-phosphate detergent;
- The equipment will then be rinsed with potable water; and
- The equipment will be allowed to air dry, if feasible, and wrapped for storage and transportation.

In the event that petroleum or other materials are encountered that may not be amenable to decontamination with water-based decontamination fluids, then lab-grade methanol and/or

TABLE 3.3.4.1
GROUNDWATER SAMPLING MATRIX
I.W. INDUSTRIES SITE, MELVILLE, NEW YORK

Sample Type	Sample Name	Sampling Protocol	Analytes and Methods	Laboratory Deliverables	Sample Containers	Preservation
Primary Samples	MW-1, MW-2, MW-3,MW-5, and MW-7	If no free-phase product, purge and sample.	TCL VOCs (SW 846, Method 8260B) and base-neutral SVOCs (SW 846, Method 8270C), TAL metals (SW 846, Methods 6010B and 7470A)	Category B	Two VOA vials for VOCs Two 1-liter amber for SVOCs One 1-liter plastic for metals	HCl, cool to 4°C Cool to 4°C HNO_3, cool to 4°C
QA/QC Samples	Equipment Blank	One per day per matrix sampled	Same as matrix	Category B	Two VOA vials for VOCs One 1-liter plastic for metals Two 1-liter amber for SVOCs	HCl, cool to 4°C HNO_3, cool to 4°C Cool to 4°C
	Trip Blank	One per cooler containing VOC samples	TCL VOCs (SW 846, Method 8260B)	Category B	Two VOA vials (filled by lab)	HCl (by lab), cool to 4°C
	Blind Duplicate	One per 20 environmental samples per matrix	Same as matrix	Category B	Same as matrix	Same as matrix
	Matrix Spike/ Matrix Spike Duplicate	One each per sample delivery group	Same as matrix	Category B	Same as matrix	Same as matrix

hexane may be utilized as necessary to properly decontaminate the equipment. Use of methanol and/or hexane will be documented in the field logbook. Decontamination fluids containing methanol or hexane will be containerized and managed in the same manner as the removed product, as discussed in Section 3.2.2 herein.

All samples will be consistently identified in all field documentation, chain-of-custody documents, and laboratory reports using an alphanumeric code. The designation "MS" will be added at the end of the designation for matrix spike/matrix spike duplicate samples. The field duplicate samples will be labeled with a dummy sample location to ensure that they are submitted as blind samples to the laboratory. The dummy identification will consist of the sample type followed by a letter. Trip blanks and field blanks will be identified with "TB" and "FB", respectively.

All sample containers will be provided with labels containing the following information:

- Project identification
- Sample identification
- Date and time of collection
- Analyses to be performed
- Sampler's initials

Once the groundwater samples are collected and labeled, they will be placed in ice-filled coolers and stored in a cool area away from direct sunlight to await shipment to the laboratory. The completed COC form will accompany the cooler. Samples will be shipped overnight (e.g., via Federal Express) or transported by a laboratory courier. All coolers shipped to the laboratory will be sealed with mailing tape and a COC seal to ensure that the coolers remain sealed during delivery.

Field personnel will be responsible for maintaining the sample coolers in a secured location until they are delivered to the laboratory. The record of possession of samples from the time they are obtained in the field to the time they are delivered to the laboratory or shipped offsite will be documented on COC forms. The COC forms will contain the following information: project name; names of sampling personnel; sample number; date and time of collection and matrix; and signatures of individuals involved in sample transfer, and the dates and times of transfers. Laboratory personnel will note the condition of the custody seal at sample check-in.

All groundwater samples collected during monitoring activities will be analyzed using the most recent NYSDEC ASP. Analytical data will be submitted in complete ASP Category B data packages including documentation of laboratory QA/QC procedures that will provide legally defensible data in a court of law.

The laboratory proposed to perform the analyses will be certified through the NYSDOH ELAP to perform CLP analyses and Solid Waste and Hazardous Waste analytical testing on all media to be sampled.

Where appropriate, trip blanks, field blanks, field duplicates, and MS/MSD samples will be collected at the frequencies specified in Table 3.3.4.1 and will be used to assess the quality of the data.

3.4 WELL REPLACEMENT/REPAIRS AND DECOMMISSIONING

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance. Well decommissioning for the purpose of replacement should be reported to NYSDEC prior to decommissioning and in the Periodic Site Management Report. Well decommissioning without replacement must receive prior approval from the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC.

3.5 SITE-WIDE INSPECTION

Site-wide inspections will be performed by the Respondent on a regular schedule at a minimum of once every five quarters. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed (Attachment 5). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- The condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- That Site Management activities being conducted including, where appropriate, groundwater sampling and health and safety inspections;
- Compliance with schedules included in the Operation and Maintenance Plan; and
- That Site records are up to date.

3.6 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site (Attachment 7). Main Components of the QAPP include:

- QA/QC Objectives for data;
- Sampling Program:
    - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) by the analytical laboratory prior to their use. 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;
- Data Reduction and Validation:
    - Data validation will be performed in accordance with the USEPA validation guidelines for organic and inorganic data review. Validation will include the following:
        - Verification of 100% of all QC sample results (both qualitative and quantitative);
        - Verification of the identification of 100% of all sample results (both positive hits and non-detects);
        - Recalculation of 10% of all investigative sample results; and

- 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; and
- Corrective Action Measures.

3.7 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file at the Remedial Engineer's office. All forms, and 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 Site Management Report, as specified in the Reporting Plan of this SMP. Monitoring reporting is the responsibility of the Respondent; the Site owner will be provided with a copy of monitoring reports following their approval by the NYSDEC.

All monitoring results will be reported to NYSDEC on a periodic (once every five quarters) basis in the Site Management Report. The Site Management Report will include the following monitoring information, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., groundwater);
- 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 the sampling locations and groundwater flow direction;
- A figure illustrating the fluctuation of groundwater elevations;

- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (also to be submitted electronically in the NYSDEC-identified format);
- A copy of the laboratory certification;
- 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. A summary of the Site monitoring and inspection program and deliverables, including the groundwater monitoring component, is presented in Table 3.7.1 below.

Table 3.7.1: Monitoring/Inspection Deliverables

Task	Frequency*	Periodic Reporting Requirement
Groundwater Monitoring	Once per five quarters	X
Free-Phase Product Monitoring	Monthly	X
Site-Wide Compliance Inspection	Once per five quarters and after emergencies	X

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

3.8 CERTIFICATIONS

Site inspections and sampling activities will take place as outlined above. Frequency of inspection is subject to change by NYSDEC. Inspection certification for all ICs and ECs will be submitted to NYSDEC on a periodic (once per five quarters) basis and must be submitted within three months of completion of each five-quarter period. A qualified environmental professional, as determined by NYSDEC, will perform inspection and certification. Certification is the responsibility of the Respondent. Further information on the certification requirements are outlined in the Reporting Plan of this SMP.

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

The Operation and Maintenance Plan describes the measures necessary to operate and maintain mechanical components of the remedy selected for the Site. The Site has a network of groundwater monitoring wells that may require periodic maintenance. This Operation and Maintenance Plan describes the measures necessary to operate and maintain this monitoring well network. This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the monitoring wells;
- Includes an operation and maintenance contingency plan; and,
- Will be updated periodically to reflect changes in Site conditions or the manner in which the monitoring wells are operated and maintained.

A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the Site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP. The Operation and Management Plan is subject to NYSDEC revision.

Information on the non-mechanical ECs installed at this Site (i.e. seals above abandoned leaching pools LP-1 through LP-3) can be found in Section 3 - Engineering and Institutional Control Plan.

4.2 GROUNDWATER MONITORING WELL MAINTENANCE

The groundwater monitoring wells actively used for monitoring purposes, some of which are also used for free-phase product monitoring and recovery, will be inspected, at a minimum, on a periodic (once every five quarters) basis. Inspection and maintenance are the responsibility of the Respondent. The monitoring wells used for free-phase product monitoring and recovery will be inspected on a monthly basis. Inspection for the wells used for groundwater monitoring will include lowering a weighted measuring tape to the bottom of the wells to ensure that they have not been filled in with silt, and a visual assessment of the well casing, cap, and protective standpipe/manhole. Any minor damage (e.g., missing well cap, cracked riser) will be repaired and documented.

If sand/silt accumulation has occurred in any of the Site's active monitoring wells, the affected wells will be physically agitated/surged and redeveloped. Groundwater generated

during redevelopment will be contained and disposed offsite if visual indications of potential contamination are noted. If no visual indicators of potential contamination are noted, then the groundwater generated during redevelopment will be discharged onsite in the vicinity of the well and allowed to infiltrate. Additionally, active monitoring wells will be properly decommissioned and replaced as needed (as per Section 3.4 of the Monitoring Plan), if an event renders the wells unusable. If a replacement well is installed, the elevation of the top of the casing shall be surveyed to the nearest 0.01 foot.

4.3 MAINTENANCE REPORTING REQUIREMENTS

Maintenance reports and any other information generated during regular operations at the Site will be kept on-file at the office of the Remedial Engineer. Duplicates of certain information may be maintained onsite if relevant for site operation. All reports, forms, and other relevant information generated will be available upon request to the NYSDEC and submitted as part of the Periodic Site Management Report, as specified in the Section 5 of this SMP.

4.3.1 Routine Maintenance Reports

Checklists or forms (see Attachments 5 and 6) will be completed during each routine well monitoring and/or maintenance event. Checklists/forms will include, but not be limited to the following information:

- Date;
- Name, company, and position of person(s) conducting monitoring/maintenance activities;
- Monitoring/maintenance activities conducted;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

4.3.2 Non-Routine Maintenance Reports

During each non-routine maintenance event, a report will be completed which will include, but not be limited to, the following information:

- Date;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;

- Nature of non-routine maintenance/repair;
- Resolution of non-routine maintenance/repair;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and,
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the report/form).

4.4 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions. Emergencies that may occur during free-phase product or groundwater monitoring or associated maintenance events will be managed in accordance with the procedures outlined below.

4.4.1 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. Prompt contact should also be made to the Remedial Engineer, as shown below. These emergency contact lists must be maintained in an easily accessible location at the Site.

Table 4.4.1.1: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
NYSDEC Spills Hotline	(800) 457-7362
Stephanie Davis, FPM Group Project Manager	(631) 737-6200, ext. 228
Brian Jankauskas, NYSDEC Project Manager	(518) 402-9620

***Note**: Contact numbers are subject to change and will be updated as necessary and, at a minimum, in the Periodic Site Management Report.

4.4.2 Directions to Nearest Health Facility

Site Location: I. W. Industries Site, 35 Melville Park Road, Melville, NY

Nearest Hospital Name: North Shore University Hospital at Plainview

Hospital Location: 888 Old Country Road, Plainview, NY

Hospital Telephone: 631-681-8900

Directions to the Hospital:

- Exit the Site and make a right onto Melville Park Road. Follow Melville Park Road west to the end;
- Make a right turn from Melville Park Road onto Route 110 (Broad Hollow Road). Follow Route 110 northward for approximately one-quarter of a mile and turn left onto the Long Island Expressway (Route 495) westbound;
- Travel westbound on the Long Island Expressway (Route 495) for about two miles. Get off at exit 48, turn left onto Round Swamp Road and go underneath the Expressway;
- Travel south approximately one-eighth mile to Old Country Road and bear right onto Old Country Road;
- Continue westward on Old Country Road for approximately two miles. The hospital is located at 888 Old Country Road on the right side of the road.

Total Distance: approximately five miles.
Total Estimated Time: approximately fifteen minutes.

4.4.3 Response Procedures

4.4.3.1 Emergency Contacts/Notification System

As appropriate, the fire department and other emergency response groups will be notified promptly by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 4.4.1.1). The list will be made readily available to all environmental professional personnel at the Site at all times.

If a petroleum spill occurs on the Site the following procedures will be implemented:

- Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted as necessary. In the event that the spill is related to residual contamination or Respondent's activities under this SMP, then the Respondent will be identified as the responsible party. In the event that the spill is not related to residual contamination or to the Respondent's activities under this SMP, then the property owner or other appropriate entity shall be identified as the responsible party;

- The petroleum will be contained and removed from the Site surface by a petroleum remediation contractor in accordance with federal, state and local regulations;
- If Site soil is affected, then grossly contaminated soil will be excavated, stockpiled, and managed in accordance with the procedures presented in the Contingency Plan in Section 2.3.2.;

Copies of correspondence with disposal facilities concerning classification of materials, testing results, and permits/approvals will be maintained by the project manager and will be submitted to the NYSDEC as part of a close-out report, as described in Section 5. In the event that a spill is managed by the Respondent, a copy of the close-out report will be provided to the Site owner.

This Contingency Plan may be amended if Site conditions change. Amendments to the Contingency Plan will be made as needed and approved by the NYSDEC and will be included in the Periodic Site Management Report.

5.0 SITE MANAGEMENT REPORTING PLAN

5.1 INTRODUCTION

A Periodic Site Management Report will be submitted to NYSDEC following each five-quarter reporting period within three months of the end of the reporting period. The Site Management Report will be prepared by the Respondent in accordance with NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation requirements. A copy of the Site Management Report will be provided to the Site owner following its approval by the NYSDEC. This Site Management Reporting Plan and its requirements are subject to revision by NYSDEC.

This report will include the following:

- Identification of all required EC/ICs required for the Site;
- An evaluation of the Engineering and Institutional Control Plan and the Monitoring Plan for adequacy in meeting remedial goals;
- Assessment of the continued effectiveness of all ECs and ICs for the Site;
- Certification of the EC/ICs;
- Results of the required periodic Site Inspections; and
- All deliverables generated during the reporting period, as specified in Section 2 EC/IC Plan, Section 3 Monitoring Plan, and Section 4 Operation and Maintenance Plan.

5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

Information regarding the ECs and ICs can be found in the Engineering and Institutional Control Plan portion of this SMP. Inspection of the EC/ICs will be conducted by the Respondent and will occur at a frequency described in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan. After the last inspection of the reporting period, a qualified environmental professional will sign and certify the document. The document will certify that:

- The Site ECs/ICs are unchanged from the previous certification;
- They remain in-place and effective;
- The ECs are performing as designed;
- Nothing has occurred that would impair the ability of the controls to protect the public health and environment;

- Nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls;
- Site access is available to the NYSDEC and NYSDOH to evaluate continued maintenance of such controls; and
- Site usage is compliant with the Environmental Easement.

The signed certification will be included in the Periodic Site Management Report (see Section 5.4).

5.3 SITE INSPECTIONS

5.3.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP. At a minimum, a Site-wide inspection will be conducted:

- Once every five quarters;
- When a breakdown of the groundwater monitoring or product recovery systems has occurred; and
- Whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.3.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms (refer to Attachments 5 and 6 for inspection and monitoring forms). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records (including all sampling data for groundwater at the Site and product monitoring and removal logs) generated for the Site during the reporting period will be included in the Periodic Site Management Report.

5.3.3 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;

- Operation and maintenance activities are being conducted properly; and, based on the above items,
- The Site remedy continues to be protective of public health and the environment and is performing as designed.

5.4 SITE MANAGEMENT REPORT

The Site Management Report will be submitted following each five-quarter reporting period and will be submitted within three months of the end of the reporting period. Other activities, such as product monitoring reports, will be submitted quarterly for the first reporting period and as determined by NYSDEC thereafter, with those results also incorporated into the Periodic Site Management Report. The report will include:

- EC/IC certification;
- All applicable inspection forms and other records generated for the Site during the reporting period;
- A summary of any other monitoring data and/or information generated during the reporting period with comments and conclusions;
- Cumulative groundwater data summary tables and/or graphical representations of groundwater contaminants of concern, which include a listing of all compounds analyzed along with the applicable standards, with all exceedances highlighted;
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables required for all points sampled during the calendar year (also to be submitted electronically in the NYSDEC-specified format);
- A performance summary for the product recovery system at the Site during the reporting period, including information such as:
    - The number of monitoring events during the reporting period;
    - The depth to groundwater and product measurements and the calculated apparent thickness of product;
    - An evaluation of the water table elevation relative to historic water table elevations;
    - The volume of product removed;
    - A description of any breakdowns and/or repairs along with an explanation;

- A summary of the performance and/or effectiveness monitoring;
- Comments, conclusions, and recommendations based on data evaluation; and
- A description of the resolution of performance problems.

- A Site evaluation, which will address the following:
  - The compliance of the remedy with the requirements of the Site-specific Order on Consent and ROD;
  - The performance and effectiveness of the remedy;
  - The operation and the effectiveness of the product recovery system, including identification of any needed repairs or modifications;
  - Any new conclusions or observations regarding Site contamination based on inspections or data generated for the media being monitored; and
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan.
- A figure showing sampling and well locations and a table summarizing the analytical values at sampling locations and indicating exceedance of applicable regulatory guidance; and
- Comments, conclusions, and recommendations, based on an evaluation of the information included in the report, regarding EC/ICs at the Site.

The Site Management Report will be submitted, in hard-copy format, to the NYSDEC Project Manager at the NYSDEC office at 625 Broadway, Albany, New York 12233-7015 and in electronic format to NYSDEC and NYSDOH.

ATTACHMENT 1 OF SITE MANAGEMENT PLAN

Soil Management Plan

I.W. Industries Site
Melville, Suffolk County, New York

NYSDEC SITE #1-52-102

Prepared for:

Metro Assets III, LLC (Respondent)
For submittal to
New York State Department of Environmental Conservation

Prepared by:

FPM group™

909 MARCONI AVENUE
RONKONKOMA, NEW YORK 11779

OCTOBER 2011

SOIL MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF SITE

1.1 INTRODUCTION

This Soil Management Plan (SoMP) has been prepared for the I.W. Industries Site (hereafter referred to as the "Site") located at 35 Melville Park Road, Melville, Town of Huntington, Suffolk County, New York under the New York State Inactive Hazardous Waste Disposal Site remedial program administered by New York Department of Environmental Conservation (NYSDEC).

1.1.1 General

Metro Assets III, LLC (Respondent) entered into an Order on Consent (Index #W1-0725-04-09) with the NYSDEC to complete the implementation of the remedial program for the Site. This Order on Consent requires the Respondent to complete the implementation of the remedial program at the Site in accordance with the Record of Decision (ROD), which includes operation, maintenance and monitoring of the selected remedial alternative and the implementation of institutional and/or engineering controls.

After completion of the remedial work described in the Remedial Action Report, some contamination was left in the subsurface at this Site, which is hereafter referred to as 'residual contamination.' This SoMP was prepared to provide procedures to govern activities involving residual contamination at the Site until extinguishment of the Environmental Easement in accordance with 6 NYCRR Part 375. This SoMP addresses the means for conducting intrusive work that will disturb the residual contamination. This plan is subject to change by NYSDEC.

1.1.2 Purpose

The Site contains residual contamination left after completion of the Remedial Action performed in 2000 and additional remedial activities in 2006. Engineering Controls (ECs) have been incorporated into the Site remedy to provide proper management of residual contamination in the future to ensure protection of public health and the environment. A Site-specific Environmental Easement has been recorded with the Suffolk County Clerk as an Institutional Control (IC) to provide an enforceable means to ensure the continued and proper management of residual contamination and protection of public health and the environment. It requires strict adherence to all ECs and ICs placed on this Site by the NYSDEC, the grantor of the Environmental Easement, and any and all successors and assigns of the grantor. The ICs provide

restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for the ECs and ICs.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located in Suffolk County, New York and is identified by the following Suffolk County Tax Map number: District 400 (Town of Huntington), Section 268, Block 1 and Lot 5. The Site is an approximately six-acre lot and is bounded by Melville Park Road to the south and commercial/industrial buildings to the west, north and east. The property immediately to the west is also an Inactive Hazardous Waste Disposal Site, the New York Twist Drill Site. This adjoining site is impacted with chlorinated solvents.

The Site includes an approximately 97,000-square-foot masonry building, associated paved parking areas, and landscaped vegetation and was formerly used for manufacture of threaded metal parts. The Site was redeveloped in 2006 and is presently used for office and warehouse purposes.

1.2.2 Site History

I.W. Industries, Inc. (IWI) occupied the Site since it was developed in approximately 1966 and manufactured threaded metal parts onsite until approximately 2005. These parts were milled from brass rods, composed of copper, zinc and lead. The manufacturing process produced scrap brass with associated lubrication and cutting oils. Washing of the finished parts produced wastewater, which was discharged to two leaching pools (LP-1 and LP-2) under a State Pollutant Discharge Elimination System (SDPES) permit prior to 1984. Onsite management of scrap also resulted in some inadvertent discharges of scrap brass and oils to other onsite leaching pools.

During the early 1980s oil and/or oil emulsion were noted in some of the leaching pools (LP-1, LP-2, LP-3, LP-4, LP-5, LP-6, LP-7, and LP-9). IWI entered into an Order on Consent with the Suffolk County Department of Health Services (SCDHS) on November 5, 1982 for the elimination of wastewater discharges and cleanout of the leaching pools. Groundwater monitoring wells were subsequently installed on the property.

The property was listed as a NYSDEC Inactive Hazardous Waste Disposal Site due to the leaching pool discharges and detected groundwater impacts. A Remedial Investigation (RI) was performed in 1997 following a NYSDEC-approved RI Work Plan; the work was overseen by the NYSDEC. The RI included sampling of the leaching pools, soil, and groundwater and the findings are summarized as follows:

- Several leaching pools were identified with sediments requiring remediation;
- No soil requiring remediation was identified;
- VOCs and metals were present in onsite groundwater, and groundwater monitoring was required; and
- Free-phase product was found at wells downgradient of leaching pools LP-1 and LP-2 and required removal.

Remediation activities were conducted in 2000 following the issuance of the ROD and were documented in a Remedial Action Report (November 2000). Remediation included removal of impacted sediments from leaching pools LP-3 through LP-15, LP-18, LP-22 through LP-24, LP-28, LP-29, and LP-31. Verification samples were collected from the remediated leaching pools and compared with the cleanup goals. The VOCs formerly present in the leaching pools were successfully remediated and concentrations of semivolatile organic compounds (SVOCs) and metals were also significantly reduced. No further remediation of the leaching pools was required by the NYSDEC at that time.

Removal of free-phase product from the top of the water table was implemented in 2000 and has continued. Minor amounts of free-phase petroleum or visible sheen have been noted at wells MW-1, MW-2, and/or MW-7 periodically and were treated as necessary. No measurable accumulations (>0.01 foot) have been noted since 2005, although product monitoring is ongoing.

IWI ceased operations and vacated the Site in early 2006. Resource Conservation and Recovery Act (RCRA) closure activities were subsequently conducted under a RCRA Closure Plan approved by the NYSDEC and were overseen by NYSDEC representatives. Additional facility closure activities were conducted under the oversight of the SCDHS. RCRA closure activities were conducted in those areas of the facility where hazardous wastes were formerly generated, treated, and/or stored. During RCRA closure activities, the remaining stored wastes at the Site were characterized, removed and properly disposed, and all contaminated equipment and structures were disposed in accordance with applicable State and Federal regulations. Sampling and analyses were performed and demonstrated that the closure was complete. The results were documented in Phase I and Phase II Closure Reports (July 2007) submitted to the NYSDEC and approved on September 5, 2007.

Additional remediation was conducted on select leaching pools in 2006 during facility closure. Subsequently, leaching pools LP-1, LP-2 and LP-3 were abandoned.

1.2.3 Geological Conditions

The geological conditions at the Site were evaluated based on published reference documents and boring logs prepared during the RI and previous investigations and were described in detail in the RI Report. In general, up to six feet of mixed sand, gravel, and clay fill is present immediately beneath the Site surface. Beneath the fill material is approximately 50 feet of upper Pleistocene Glacial Deposits. These deposits consist of well-graded to poorly-graded fine- to coarse-grained sand with gravel. No intervals of fine-grained materials (silt or clay) were noted in the Glacial Deposits.

The base of the upper Pleistocene Glacial Deposits was encountered at depths of 55 to 57 feet below grade. Below the Glacial Deposits is a light brown to orange brown silty clay with muscovite mica, which is interpreted as the top of the Magothy Formation. No field indications of contamination were encountered in any of Magothy Formation materials.

The water table is present approximately 50 feet below grade within the deeper portion of the Glacial Deposits. The groundwater flow direction is generally to the south.

1.2.4 Residual Contamination

Residual contamination exists at the Site in the form of:

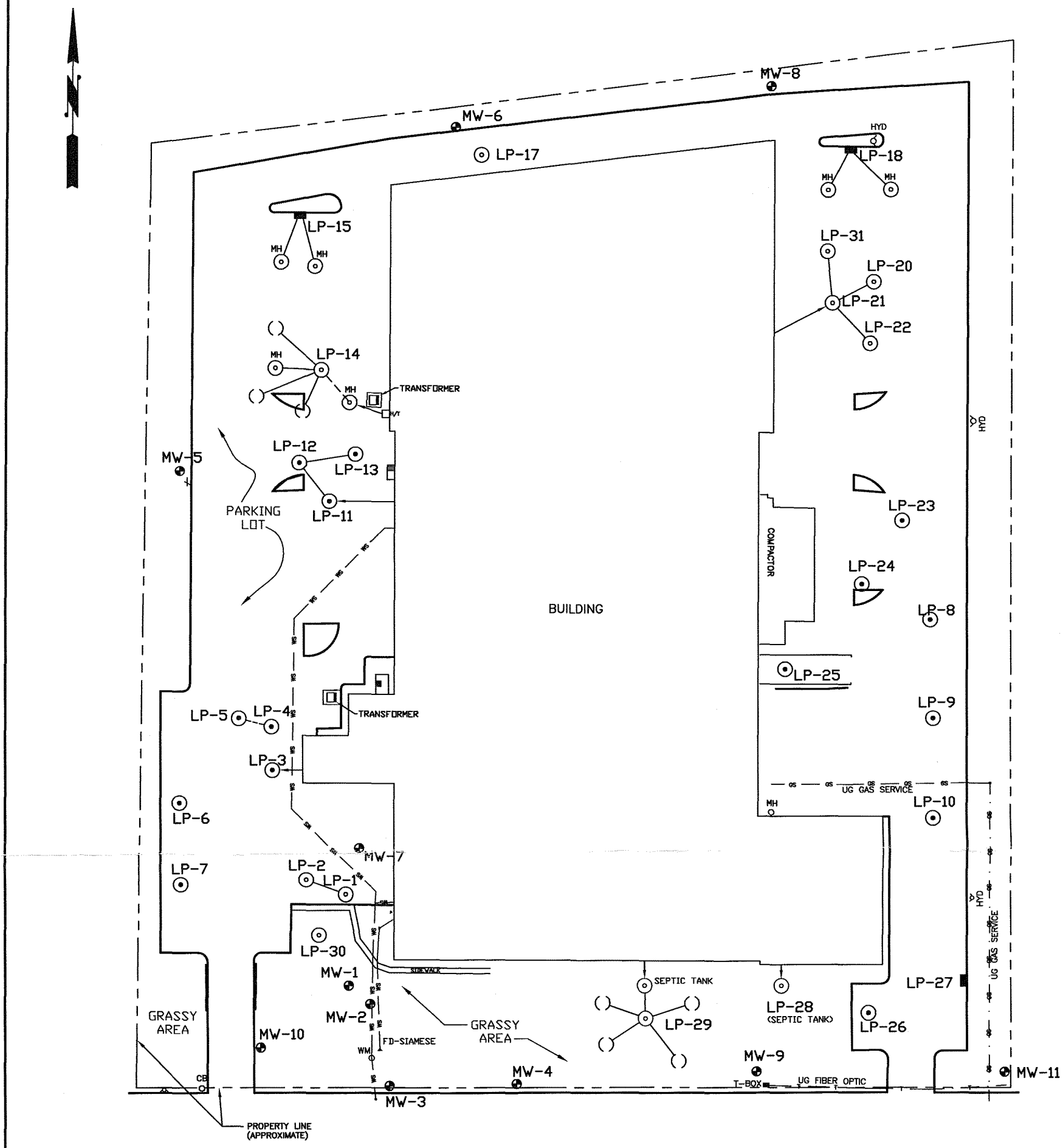
- Soil at the bottom of abandoned leaching pools LP-1, LP-2 and LP-3 at depths of 18.5 feet below grade and greater;
- Free-phase product within the soil matrix beneath the abandoned LP-1, LP-2 and LP-3 structures and on the groundwater at select Site wells (MW-1, MW-2 and MW-7); and
- Iron and/or manganese in groundwater in select Site wells.

Figure 1.2.4.1 shows the Site layout and the locations of the affected leaching pools and monitoring wells and Figure 1.2.4.2 shows the maximum extents of residual soil and product.

1.2.5 Engineering and Institutional Controls

Since residual contamination is present at this Site, Engineering Controls (ECs) and Institutional Controls (ICs) have been implemented to protect public health and the environment in the future. The Site has two ECs: (1) the abandonment of leaching pools LP-1 through LP-3; and (2) free-phase product removal.

Exposure to residual contaminated soil is prevented by the abandonment of leaching pools LP-1 through LP-3 to further reduce the potential for human contact and/or groundwater contamination. This EC included disconnecting the leaching pools from their piping systems, backfilling the pools with clean soil, and sealing the top of each pool with a concrete slab at



MELVILLE PARK ROAD

30 0 30 60 90
GRAPHIC SCALE – FEET

LEGEND:

MW-11 MONITORING WELL LOCATION

LP-1 OR LP-27 LEACHING POOL LOCATION WITH MANHOLE

( ) LEACHING POOL LOCATION WITH SUBGRADE ACCESS

FPM GROUP		
FIGURE 1.2.4.1 SITE PLAN 35 MELVILLE PARK ROAD MELVILLE, NEW YORK		
Drawn By:H.C.	Checked By:SOD	Date: 05/27/08

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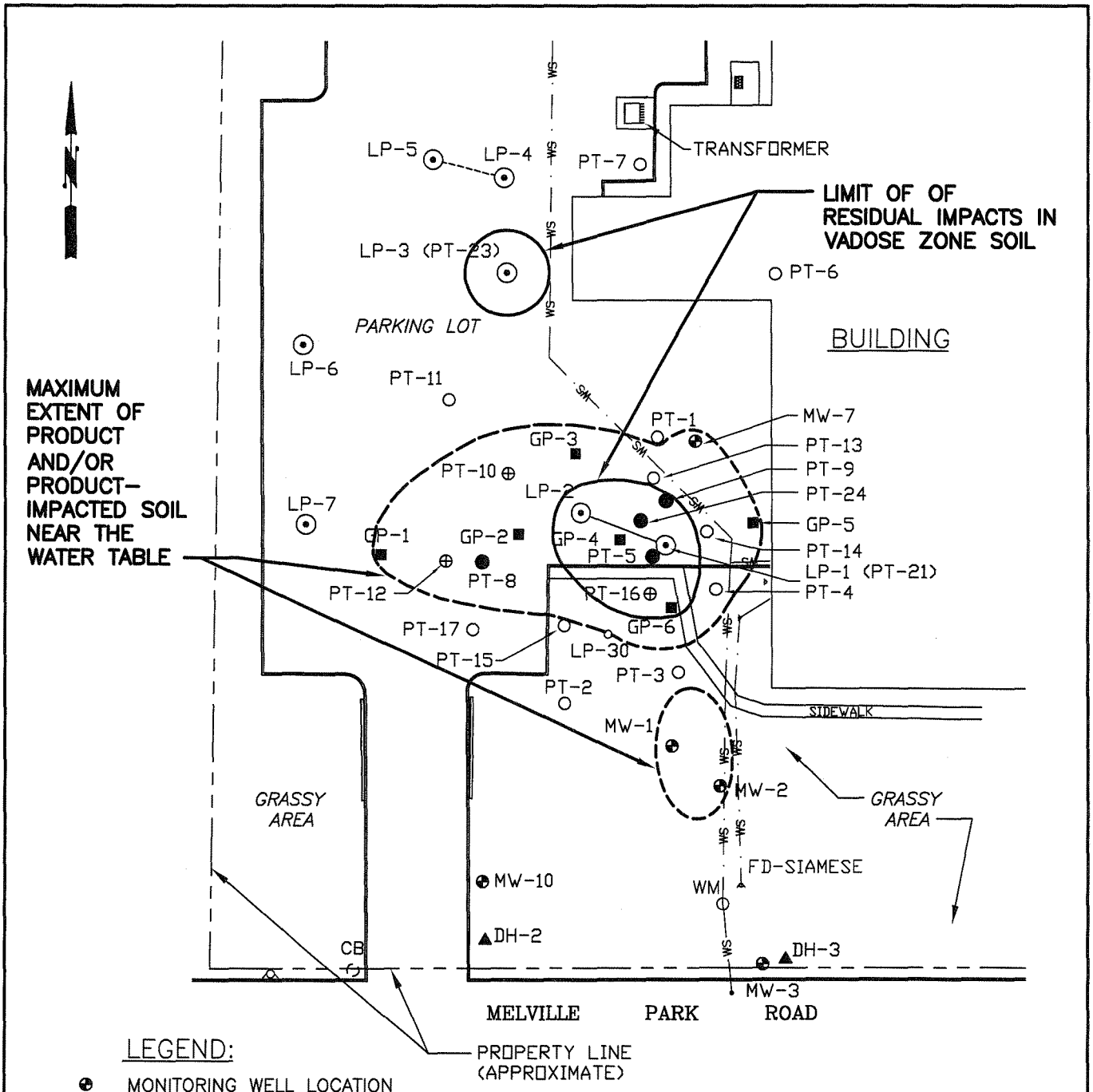

Fanning, Phillips & Molnar
Engineers

FIGURE 1.2.4.2
EXTENT OF RESIDUAL SOIL & PRODUCT
I.W. INDUSTRIES SITE
35 MELVILLE PARK ROAD
MELVILLE, NEW YORK

Drawn By:H.C.	Checked By:SOD	Date: 5/28/10

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depth of four to five feet below grade. The area above the seals was backfilled with approved materials and repaved. New leaching pools were installed to manage stormwater runoff previously directed to LP-1 through LP-3. Figure 1.2.4.1 shows the locations of abandoned LP-1 through LP-3. This SoMP outlines the procedures required in the event the residual contamination at the former locations of LP-1 through LP-3 is disturbed in the future. The Monitoring Plan (Section 3 of the SMP) addresses severe condition inspections in the event that a severe condition, such as a flooding event that may affect the EC at the Site, has occurred.

An EC is present at the Site in the form of free-phase product removal. Product removal materials are installed in affected wells (MW-1, MW-2, and/or MW-7) as necessary and are serviced in accordance with established operating and monitoring procedures. The product removal method selected consists of hydrophobic product-absorbent materials in a form suitable for insertion into groundwater monitoring wells (Soak-Eze socks), which are installed into the affected wells. The Soak-Eze are removed and inspected in accordance with a routine monitoring schedule (Section 3.1.2 of the SMP) to evaluate if they are spent. When spent, the absorbent materials are placed into a sealed, labeled 55-gallon drum for timely proper disposal offsite.

To confirm that residual free-phase product has been properly addressed at the Site, product monitoring will continue at the Site until groundwater relative elevations decline to at least average levels and free-phase product remains absent, as discussed in Section 2.2.1.2 in the SMP. Product monitoring may be discontinued upon the approval of the NYSDEC.

ICs are required to implement, maintain, and monitor the ECs. The Site has a series of ICs in the form of Site restrictions, which are described in Section 2.3.1 of the SMP.

2.0 SOIL MANAGEMENT PROCEDURES

The Site has been fully remediated for commercial and industrial use. Any future intrusive work that will be conducted within 10 feet of the residual soil in the vadose zone (as shown on Figure 1.2.4.2 and to a depth within five feet or less of the top of residual soil (18.5 feet below grade) will be performed in compliance with the soil management procedures herein. Intrusive construction work involving residual contamination 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. The HASP is presented in Attachment 2 of the SMP and the CAMP is presented in Attachment 3 of the SMP. The HASP is in compliance with the DER-10 Technical Guide, 29 CFR 1910 and 1926, and other applicable Federal, State and local regulations. Any intrusive construction work involving residual contamination, whether performed by the Respondent, the Site owner, or others, must be certified as compliant with the SMP and included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5 of the SMP).

2.1 SOIL SCREENING METHODS

Visual, olfactory and PID soil screening and assessment will be performed by a qualified environmental professional during all excavations into residual contamination. Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed into residual contamination.

Screening will be performed by qualified environmental professionals. Resumes will be provided in the Periodic Site Management Report for all personnel conducting invasive work field screening (i.e. environmental professional).

2.2 STOCKPILE METHODS

If residual contaminated soils are excavated, they may be stockpiled onsite temporarily prior to disposal. If stockpiles are made, they 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.

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. Soil stockpiles placed near water drainage features will be continuously encircled with silt fences. Hay bales will be used as needed near catch basins and other discharge points.

2.3 MATERIALS EXCAVATION AND LOAD OUT

The Remediation Engineer or a qualified environmental professional under his/her supervision will oversee all invasive work associated with residual contaminated soils and the excavation and load-out of all removed residual contaminated soils. The contractors engaged to perform work involving residual contamination will be held responsible for the safe execution of all invasive work performed.

The presence of utilities and easements on the Site will be investigated by the Remedial Engineer prior to conducting invasive work involving residual contamination. It will be determined whether a risk or impediment to the planned work under the SMP is posed by utilities or easements on the Site.

Vehicles loaded with residual contaminated soil and 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 onsite to clean vehicles loaded with residual contaminated soils prior to their leaving the Site. The Remedial Engineer will be responsible for ensuring that all outbound trucks loaded with residual contaminated soil will be washed at the truck wash before leaving the Site until the work involving residual contaminated soil is complete.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of offsite sediment tracking. The Remedial Engineer will be responsible for ensuring that all egress points for truck and equipment transport from the Site will be clean of residual contamination derived from the Site.

The parties performing this work are completely responsible for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations, such as building foundations.

2.4 MATERIALS TRANSPORT OFF-SITE

All transport of residual contaminated soils 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.

Truck transport routes will include only commercial and/or industrial areas. All trucks loaded with residual contaminated soil will exit the vicinity of the Site using only a truck route approved by the Remedial Engineer. It is most likely that the truck routes to the Site will include exiting the Site, traveling east or west on Melville Park Road and then traveling north on Route

110 or Maxess Road to the Long Island Expressway (Route 495). This is the most likely and appropriate route and takes into account: (a) limited transport through residential areas and past sensitive sites; (b) prohibiting offsite queuing of trucks entering the facility; (c) limiting total distance to major highways; (d) promoting safety in access to highways; and (e) overall safety in transport. The actual truck route will be determined by the Remedial Engineer at the time the work is performed and will also take into account the best truck route to the disposal site.

Trucks loaded with residual contaminated soil will be prohibited from stopping and idling in the neighborhood outside the project Site. Queuing of trucks will be performed onsite in order to minimize offsite disturbance; offsite queuing will be prohibited.

Site access points for transport will be kept clean of residual contamination. Trucks loaded with residual contaminated soil and exiting the Site will be secured with tight-fitting covers. If loads contain wet material capable of producing free liquid, truck liners will be used. All trucks carrying residual contaminated soil will be washed prior to leaving the Site. Truck was waters will be collected and disposed offsite in an appropriate manner.

2.5 MATERIALS DISPOSAL OFF-SITE

For large projects involving residual contaminated soil, the total quantity of material expected to be disposed offsite will be reported to the NYSDEC prior to performance of work. This will include the estimated quantity and a summary by class of material and disposal facility if appropriate.

All residual contaminated soil excavated and removed from the Site will be treated as regulated material and will be disposed in accordance with all local, State (including 6 NYCRR Part 360) and Federal regulations.

The following documentation will be obtained and reported by the Remedial Engineer for each disposal location for residual contaminated soil to fully demonstrate and document that the disposal of residual contaminated soil derived from the Site conforms to all applicable laws:

- A letter from the Remedial Engineer to each receiving facility describing the residual contaminated soil to be disposed and requesting formal written acceptance of the soil. This letter will state that material to be disposed is residual contaminated soil generated at an environmental remediation site in New York State. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the residual contaminated soil being transported; and

- A letter from each receiving facility stating it is in receipt of the above-referenced correspondence and is approved to accept the residual contaminated soil.

Non-hazardous residual contaminated soil taken offsite will be handled, at minimum, as a Municipal Solid Waste per 6 NYCRR Part 360-1.2. Residual contaminated soil from the Site is prohibited from being disposed at Part 360-16 Registration Facilities (also known as Soil Recycling Facilities) unless approved in advance by the NYSDEC.

Residual contaminated soils that are non-hazardous and are being removed from the Site may be sent to a permitted Part 360 landfill or equivalent-permitted facility outside of New York State. In each case, approval procedures will include, at a minimum, a letter to the proposed disposal facility that provides a detailed explanation that the residual contaminated soil is derived from a DER remediation Site, that the residual soil is contaminated, and that it must not be redirected to onsite or offsite Part 360-16 Registration Facility (soil recycling facility). The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the residual contaminated soil being transported.

The Periodic Site Management Report will include an accounting of the destination of all residual contaminated soil removed from the Site. Documentation associated with disposal of all residual contaminated soil must also include records and approvals for receipt of the material. This information will also be presented in a tabular form in the Periodic Site Management Report.

A Bill of Lading system or equivalent will be used for offsite movement of non-hazardous residual contaminated soil and will identify the disposal locations. Any hazardous wastes derived from the Site will be stored, transported, and disposed in full compliance with applicable local, State, and Federal regulations. Appropriately licensed haulers will be used for residual contaminated soil removed from this Site and transport will be in full compliance with all applicable local, State, and Federal regulations. This information will be reported in the Periodic Site Management Report.

Waste characterization will be performed for offsite disposal of residual contaminated soil in a manner suitable to the receiving facility(s) and in conformance with applicable permits. Sampling and analytical methods, sampling frequency, analytical results, and QA/QC will be reported in the Periodic Site Management Report. All data available for the residual contaminated soil to be disposed at a given facility must be submitted to that disposal facility with a suitable explanation prior to shipment from the Site.

2.6 RESIDUAL MATERIALS REUSE ON-SITE

Reuse of residual contaminated soil from locations where it is found onsite is not anticipated and will not be allowed unless approved in advance by the NYSDEC. Residual contaminated soil is found in the vicinity of LP-1 and LP-2 at the water table (approximately 50 feet below grade) and beneath leaching pools LP-1 through LP-3, which have been abandoned. The residual contamination beneath these leaching pools is found at a depth of at least 18.5 feet below grade and, therefore, is not anticipated to be encountered during typical construction or development activities. Therefore, in the unlikely event that residual contaminated soil is encountered during future onsite work, it will be removed and properly disposed in accordance with the procedures in this Soil Management Plan. The Remedial Engineer will ensure the procedures defined for residual contaminated soil removal and disposal are followed and that unacceptable material will not remain onsite.

2.7 FLUIDS MANAGEMENT

All fluids to be removed from the Site, including free-phase product and dewatering fluids, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. In any dewatering fluids are generated, they will not be recharged back to the land surface or subsurface of the Site unless approved in advance by the NYSDEC.

Discharge of dewatering fluids or other waters generated onsite to surface waters (i.e. a local pond, stream, or river) is prohibited without a SPDES permit.

2.8 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the Site under this SoMP will be in compliance with provisions in the 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 unless approved in advance by the NYSDEC.

All imported soils will meet 6 NYCRR Subpart 375 soil cleanup objectives for commercial use, which are compatible with the proposed use of this Site (commercial or industrial). These soil cleanup objectives are listed in 6 NYCRR Subpart 375-6.8(b).

Non-compliant soils will not be imported onto the Site without prior approval by NYSDEC. Nothing in the approved SMP or its approval by NYSDEC should be construed as an approval for this purpose. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Nothing in this SMP should be construed as an approval for this purpose. Solid waste will not be imported onto the Site.

2.9 CONTINGENCY PLAN

All excavations anticipated to include residual contaminated soil will be continuously monitored for the potential presence of buried tanks, drums or other containers, sludges, or soil that shows evidence of obvious contamination, such as heavy staining, sheen, or strong odors. If any of these are detected, excavation in the area will be halted. Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to the NYSDECs Project Manager. These findings will be also included in daily and periodic electronic media reports.

The affected area will be cordoned off and no further work will be performed at that location until the appropriate contingency response plan is implemented. Work zone air monitoring will be conducted during all contingency response actions, as described in the project HASP (see Attachment 2). In addition, community air monitoring will be conducted as described in the CAMP (see Attachment 3).

If underground tanks or other previously-unidentified contaminant sources are found during onsite excavation or construction involving residual materials, sampling will be performed on product, sediment, and/or surrounding soils, as appropriate. Chemical analytical parameters will include TAL metals, and TCL VOCs and SVOCs, in accordance with previous analytical requirements for this Site. Chemical analyses will not be limited to NYSDEC STARS parameters where tanks are identified without prior approval by the NYSDEC. Analysis will not be otherwise limited without NYSDEC approval.

2.10 COMMUNITY AIR MONITORING

A Community Air Monitoring Plan (CAMP) will be used during all intrusive activities with the potential to contact residual contamination. The CAMP is included in Attachment 3 of the SMP. The CAMP includes procedures to address potential community health and safety issues associated with activities involving residual contamination at the Site. Residual contamination, consisting of free-phase product found at the water table in select areas of the Site and impacted soil found beneath former leaching pools LP-1 through LP-3 at depths of 18.5 feet and greater, contain low levels of contaminants. ECs and ICs have been implemented to protect the Site occupants and the surrounding community from exposure to residual contamination. However, certain intrusive activities could expose residual contamination on a short-term basis. This CAMP describes monitoring procedures to be used during these intrusive activities involving residual contamination to protect the Site community.

The CAMP includes procedures for monitoring of organic vapors and dust, and will be implemented at the Site by environmental professionals during intrusive activities involving residual contamination that have the potential to affect the surrounding community. These activities may include excavation and/or well installation activities. Due to the nature of the activities, there is the potential for organic vapor and/or dust emissions to occur as these activities are conducted. To address these concerns, organic vapor and dust monitoring will be performed, as described in Attachment 3.

The CAMP findings will be included in daily and periodic electronic media reports. Exceedances observed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

2.11 ODOR, DUST AND NUISANCE CONTROL

If the air monitoring program identifies potential exposure of field personnel or the public to potential environmental hazards associated with the residual contamination, appropriate measures will be taken to control odors/dust and community air monitoring will be initiated as described in Section 2.10.

2.11.1 Odor Control Plan

The odor control plan is capable of controlling emissions of nuisance odors offsite and onsite during activities involving residual contamination. Specific odor control methods to be used on a routine basis will include minimizing of open excavations and stockpiles of residual contaminated soil, covering of stockpiles of residual contaminated soil, covering of excavations into residual contaminated soil, if necessary, and/or use of foam if necessary. All necessary means will be employed to prevent onsite and offsite odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations and stockpiles 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 residual contaminated soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems and, (f) use of staff to monitor odors in surrounding neighborhoods. Excavation sizes and open durations will be minimized to the extent possible. Soil stockpiles of residual contaminated soil will be minimized and kept covered with appropriately anchored tarps and/or plastic sheeting whenever excavation and/or loading operations are not occurring; the sheeting will be routinely inspected for damage and replaced as needed. Open excavated areas of residual contaminated soil will be covered with plastic sheeting whenever excavation operations are not occurring to minimize odors. Water will

be used as necessary to minimize odors during loading operations. Foam will be available, as needed, to control potential vapors or odors.

If nuisance odors are identified, work will be halted and the source of odors will be identified and corrected. NYSDEC and NYSDOH will be notified of all odor events and of all other complaints about the project. Implementation of all odor controls, including the halt of work, will be the responsibility of the Remediation Engineer who is responsible for certifying the Periodic Site Management Report.

2.11.2 Dust Control Plan

This dust suppression plan addresses dust management during invasive onsite work involving residual contamination. This plan includes the items listed below:

- Dust suppression will be achieved though the use of a dedicated onsite water truck for road wetting or other methods approved by the NYSDEC, when applicable. If a water truck is used, it will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations into residual contaminated materials and stockpiles.
- Larger excavations may be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-Site roads will be limited in total area to minimize the area required for water truck sprinkling.

To further minimize the generation of dust, residual contaminated soil stockpiles will be kept covered with appropriately anchored tarps and/or plastic sheeting whenever excavation and/or loading operations are not occurring; the sheeting will be routinely inspected for damage and replaced as needed. Open excavated areas will be covered with plastic sheeting whenever excavation operations are not occurring to minimize emission of dust. Water will be used as necessary to minimize the generation of dust during loading operations.

2.11.3 Other Nuisances

A noise control plan will be developed and utilized by the contractor for all work involving residual contamination. The noise control plan will be reviewed and approved by the Remedial Engineer prior to the start of work. In general, noise will be controlled by conducting work during normal business hours. In general, work will not be conducted on weekend or

during night hours and will be coordinated with the Site occupants so as to reduce impacts to ongoing Site operations.

ATTACHMENT 2 OF SITE MANAGEMENT PLAN

Health and Safety Plan

I. W. Industries Site
Melville, Suffolk County, New York

NYSDEC Site #1-52-102

Prepared for:

Metro Assets III, LLC (Respondent)
For submittal to
New York State Department of Environmental Conservation

Prepared by:

FPM group™

909 MARCONI AVENUE
RONKONKOMA, NEW YORK 11779

OCTOBER 2011

HEALTH AND SAFETY PLAN

This Health and Safety Plan (HASP) is to be utilized at the I.W. Industries Site (Site) during intrusive activities for the protection of worker health and safety. This HASP has been prepared in accordance with OSHA Hazardous Waste Operations Standards (29 CFR 1910.120) and applicable general Construction Standards (29 CFR 1926).

1.0 Introduction

This HASP is designed to be applicable to locations where excavations into residual contamination, free-phase product removal, well operations, and/or groundwater sampling are performed at the Site by all parties that either perform or witness the activities on Site. This HASP may be modified or amended to meet specific needs of the proposed work.

This HASP details the Site safety procedures, Site background, and safety monitoring. Contractors will be required to adopt this HASP in full or to follow a HASP approved by the Remedial Engineer. The Health and Safety Officer (HSO) will be present at the Site to inspect the implementation of the HASP; however, it is the sole responsibility of the Site workers to comply with the HASP.

The HASP has been formulated as a guide to complement professional judgment and experience. The appropriateness of the information presented should always be evaluated with respect to unforeseen Site conditions which may arise.

2.0 Site Work Zone and Visitors

The Site work zone (a.k.a. exclusion zone) during the performance of excavations into residual contamination, free-phase product removal, well operations, and/or groundwater monitoring will be a 30-foot radius about the work location. This work zone may be extended if, in the judgment of the HSO, Site conditions warrant a larger work zone.

No visitors will be permitted within the work zone without the consent of the HSO. All visitors will be required to be familiar with, and comply with, the HASP. The HSO will deny access to those whose presence within the work zone is unnecessary or those who are deemed by the HSO to be in non-compliance with the HASP.

All Site workers who have the potential to contact residual contamination at the Site, as defined below, including the contractors, will be required to have 40-hour hazardous material training (eight-hour refresher courses annually), and current medical surveillance as stated in 29 CFR 1910.120. Copies of documentation certifying the above-listed requirements will be kept at an offsite office location and will be provided to the HSO upon request.

The HSO will also give an on-Site health and safety discussion to all affected Site personnel prior to initiating the Site work. Affected workers not in attendance during the health and safety talk will be required to have the discussion with the HSO prior to entering the work zone.

Emergency telephone numbers and directions to the nearest hospital are shown in Figure 2.1 and will be kept at the Site in the possession of the HSO. Copies of this information will be available to all Site workers and visitors via posting at an applicable onsite location.

3.0 Key Personnel/Alternates

An environmental professional employee of the Remedial Engineer will act as the HSO. An alternate assistant HSO, who is also an environmental professional, may be designated for select field activities.

4.0 Site Background

Based on the Site history and analyses of samples, the known chemicals present at the Site include semivolatile organic compounds (SVOCs) and metals. These chemicals may be

FIGURE 2.1
EMERGENCY INFORMATION
I.W. INDUSTRIES SITE, 35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Emergency Site Contacts:

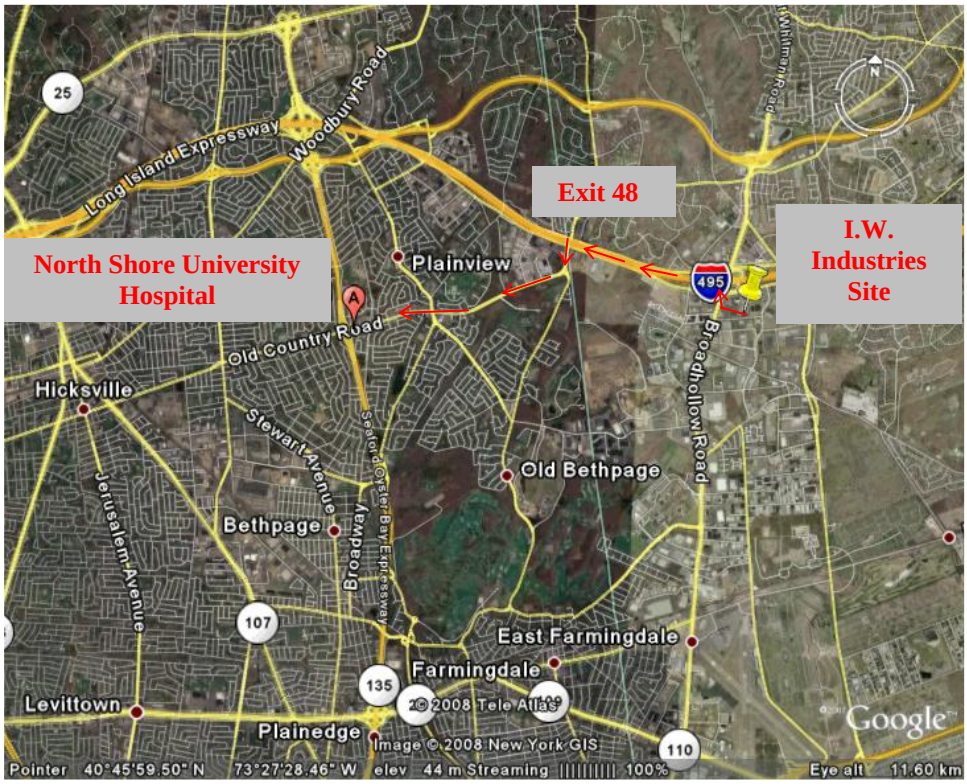
Respondent's Representative (Counsel) .....John Jakub, Esq. (908) 722-0700 ext. 309
Remedial Engineer Representatives: .....Kevin Phillips (631) 737-6200, ext. 204
Stephanie Davis (631) 737-6200, ext. 228, Cell (516) 381-3400
NYSDEC ..... Brian Jankauskis (518) 402-9620
Property Representative (Occupant) .....Perry Youngwall (631) 752-1240

Emergency Response Contacts:

Police 911
Ambulance 911
NYSDEC Spill Hotline ..... (800) 457-7362

Directions to Nearest Hospital:
North Shore University Hospital, Plainview, NY (516) 719-3000

When exiting the Site, make a right onto Melville Park Road and follow it west to the end. Make a right turn on to Route 110 (Broad Hollow Road). Follow Route 110 northward for approximately one-quarter of a mile and turn left onto Long Island Expressway (Route 495) westbound. Get off at exit 48, turn left and go underneath the Expressway and continue to Old Country Road. Bear right onto Old Country Road and continue for approximately two miles. The hospital is located at 888 Old Country Road on the right side of the road.



FPM

present in soil and groundwater at the Site. Remedial activities completed in 2000 and 2006 resulted in the removal of significant quantities of impacted soil from the Site. However, the remaining soil (residual contamination) in select areas exhibits some exceedances of the NYSDEC Objectives for SVOCs and metals. These areas include soil within and beneath former leaching pools LP-1 through LP-3. Residual contamination is also present in the form of free-phase petroleum in the soil matrix below former leaching pools LP-1 through LP-3 and on the groundwater at select Site wells. Groundwater sampling has also shown the metals iron and manganese in Site groundwater at levels slightly exceeding the NYSDEC Class GA Ambient Water Quality Standards at select locations.

Engineering and institutional controls, including capping of residual contamination, prohibitions against groundwater use, and restriction of the Site to commercial use, protect Site occupants from exposure to residual contamination. The protective measures described herein are intended to protect workers who may contact residual contamination during invasive activities. Invasive activities are anticipated to include excavations into residual contamination, groundwater sampling, well operations and free-phase product monitoring/recovery.

5.0 Task/Operation Health and Safety Analysis

This section presents health and safety analyses for excavation into residual contamination, monitoring well operations, free-phase product monitoring/recovery, and groundwater monitoring. In general, sampling and/or product monitoring/recovery activities will be performed by one to two environmental professionals. No excavation or other intrusive activities with the potential to contact residual contamination will be conducted by contractors without the presence of an environmental professional. In the event that the HSO is not present on the Site, the Assistant HSO will implement the HASP.

Background organic vapor readings will be obtained each day prior to the start of work using a calibrated photoionization detector (PID). These readings will be used to establish the background organic vapor level for that day. Any conditions that may affect organic vapor readings (high humidity, low temperatures, changes in traffic) will also be noted.

5.1 Excavation Safety Analysis

Excavation activities into residual contamination may occur during future construction work, although excavation activities into residual contamination are not anticipated due to the depth of these materials (greater than 18 feet below grade). In the event that excavation activities involving residual contamination are conducted, the following procedures are applicable.

Excavation activities into residual contamination will generally be performed by contractors. Environmental professionals are not anticipated to operate excavation equipment or to physically manage excavated materials. Excavation will involve the use of heavy equipment. Safety concerns will include risk of injury due to being struck by equipment, being trapped between moving equipment parts, being struck by dropped materials, and hearing damage due to equipment noise. Site personnel will take precautions against these risks when working in the vicinity of heavy equipment by being aware of equipment locations and movement, by wearing steel-toed boots and hard hats, and by using hearing protection, if necessary. Site personnel who have not previously worked in the vicinity of heavy equipment will be paired with and experienced person for at least one day to familiarize themselves with heavy equipment operations and safety procedures.

Excavation procedures into residual contamination will result in open excavations at the Site. Open excavations will be secured with fencing and other devices to limit access and to minimize their hazards.

During excavation activities into residual contamination, a PID will be utilized to screen vapors in the work zone. Level C personal protection (see Section 8.0) will be donned if steady-state concentrations exceed 10 parts per million (ppm) above background. Steady-state readings, for this purpose, will be defined as readings ranging between 10 and 20 ppm above background for a minimum of ten seconds. Upon encountering PID levels greater than 20 ppm above background in the worker's breathing zone, work will stop until the source of vapor is abated and readings are less than 20 ppm above background.

5.2 Monitoring Well Operations Safety Analysis

Monitoring well repairs and/or replacement may occur at the Site. Monitoring well decommissioning will be conducted, with NYSDEC approval, following the completion of the monitoring and free-phase product removal programs. Monitoring well repairs, replacement and/or decommissioning will be performed by both environmental professionals and by contractor personnel. Contractor personnel are anticipated to perform well operations requiring drilling equipment. Environmental professionals will participate in these activities.

Well operations may result in exposure to subsurface soil vapors. During these activities, a calibrated PID will be used to screen vapors in the work zone. Level C personal protection (see Section 8.0) will be donned if steady-state concentrations exceed 10 ppm above background. Steady-state readings, for this purpose, will be defined as readings ranging between 10 and 20 ppm above background for a minimum of ten seconds. Upon encountering PID levels greater

than 20 ppm above background in the worker's breathing zone, work will stop until the source of vapors is abated and readings are less than 20 ppm above background.

Nitrile gloves will be worn by contractors and environmental professionals to avoid dermal contact with Site soil and/or groundwater. Gloves will be periodically examined and will be discarded and replaced if indications of wear or deterioration are noted.

Well replacement or decommissioning will be performed using a direct-push and/or hollow-stem auger drill rig or similar equipment. Safety considerations when working around drill rigs include staying clear of moving machinery, hearing protection, protection from falling objects, and hazards associated with overhead and subsurface utilities. Environmental professionals shall remain clear of rig equipment while operating and shall follow driller's requests with respect to rig safety. Environmental professionals and contractor personnel shall also wear hard hats while in the vicinity of set up and/or operating rigs. Drillers shall be responsible for maintaining proper clearance between overhead/ subsurface utilities and their rig. Noise issues are discussed in Section 5.4 of this HASP.

5.3 Groundwater Sampling and Free-Phase product Recovery/Monitoring Safety Analysis

Groundwater sampling, free-phase product monitoring and recovery will generally be performed by environmental professionals. No contractor activities are anticipated.

During these activities, a calibrated PID will be utilized to screen vapors in the work zone. Level C personal protection (see Section 8.0) will be donned if steady-state concentrations exceed 10 ppm but are below 20 ppm above background. Steady-state readings, for this purpose, will be defined as readings ranging from 10 to 20 ppm above background for a minimum of ten seconds.

Upon encountering PID levels greater than 20 ppm above background in the worker's breathing zone, work will stop until the source of vapors is abated and readings are less than 20 ppm above background.

All personnel will wear chemical-resistant nitrile gloves during groundwater monitoring. Dermal contact with groundwater will be avoided.

5.4 Other Safety Considerations

Noise

During excavation or well operations, potentially harmful levels of noise may be generated. During these activities, the HSO will monitor noise levels with a hand-held sound level meter. Noise levels will be monitored in decibels (dBs) in the A-weighted, slow-response mode. Noise level readings that exceed 85 dBA will require hearing protection to reduce the sound level to less than 85 dBA.

Hearing protection will be available to all Site workers and will be required for exceedance of noise exposure limits. The hearing protection will consist of foam, expansion-fit earplugs (or other approved hearing protection) with noise reduction rating of at least 29 dB. Hearing protection must alleviate worker exposure to noise to an eight-hour time-weighted average of 85 dBA or below. In the event that the hearing protection is inadequate, work will cease until a higher level of hearing protection can be incorporated.

Slip/Trip/Fall Preventative Measures

To reduce the potential for slipping, tripping, or falling, the work zone will be kept clear of unnecessary equipment. In addition, all Site workers will be required to wear work boots with adequate tread to reduce the potential for slipping. Work boots must be leather or chemical-resistant and contain steel toes and steel shanks.

Insects and Ticks

Insect and tick problems are expected to be minimal. Potential insect problems at the Site may include, but are not limited to, bees, wasps, and hornets. Prior to commencement of work, each work area will be surveyed for nests and hives to reduce the possibility of disturbing these insects. In addition, each Site worker will be asked to disclose any allergies related to insect stings or bites. Any workers with allergies will be requested to keep his or her anti-allergy medicine on Site.

Tick species native to the Site area consist of the pinhead-sized deer tick and the much-larger dog tick. Ticks are unlikely to exist at the Site due to a paucity of suitable habitat. All Site workers will be advised to check for ticks on clothing periodically.

Potential Electrical Hazards

Potential electric hazards consist mainly of overhead and underground power lines. Prior to commencement of invasive work at the Site, all excavation and well installation locations will be inspected with respect to overhead lines. Drilling or excavation activities involving equipment will not be performed when the horizontal distance between the equipment and overhead wires is less than 30 feet.

Underground potential electrical hazards will be minimized by reviewing as-built Site blueprints to avoid contact with subsurface utility lines or structures. The One-Call service will also be contacted to provide markouts of the utilities beneath adjoining public streets.

The Buddy System

All activities in contaminated or potentially contaminated areas will be conducted by pairing off the Site workers in groups of two or three. Each person (buddy) will be able to:

- Provide his or her partner with assistance.

- Observe his or her partner for signs of chemical, cold, or heat exposure.
- Periodically check the integrity of his or her partner's protective clothing.
- Notify the HSO or others if emergency help is needed.

The buddy system will be instituted at the beginning of each work day. If new workers arrive on Site, a buddy will be chosen prior to the new worker entering the work zone.

Site Communications

Two sets of communication systems will be established at the Site: internal communication among personnel on-Site, and external communication between on-Site and off-Site personnel.

Internal communication will be used to:

- Alert team members to emergencies.
- Pass along safety information such as heat stress check, protective clothing check, etc.
- Communicate changes in the work to be accomplished.
- Maintain Site control.

Due to ambient noise, verbal communications may be difficult at times. In this event, hand signals or visual contact will be utilized.

An external communication system between on-Site and off-Site personnel will be established to:

- Coordinate emergency response
- Report to the Site Owner
- Maintain contact with essential off-Site personnel

A cellular phone or similar portable communication device will be available at all times in the HSO's vehicle. A backup portable communication device will also be identified.

General Safe Work Practices

Standing orders applicable during Site operations involving residual materials are as follows:

- No smoking, eating, drinking, or application of cosmetics in the work zone.
- No matches or lighters in the work zone.
- Any signs of contamination or unusual conditions will be evaluated by the HSO and appropriate actions will be taken.
- Loose-fitting clothing and loose long hair will be prohibited in the work zone during drilling operations.
- A signal person will direct the backing of work vehicles.
- Equipment operators will be instructed to check equipment for indications of damage such as oozing liquids, frayed cables, unusual odors, etc.

6.0 Personnel Training Requirements

All environmental professionals and contractor personnel will receive adequate training prior to entering the Site. Environmental professionals and contractor personnel with the potential to contact residual materials will, at a minimum, have completed OSHA-approved, 40-hour hazardous materials Site safety training and an OSHA-approved, eight-hour safety refresher course within one year prior to commencing field work. The HSO will have received the OSHA-approved, eight-hour course on managing hazardous waste operations. In addition, each worker must have a minimum of three days field experience under the direct supervision of a trained, experienced supervisor.

Prior to invasive Site field work, the HSO will conduct an in-house review of the project with respect to health and safety with all personnel who will be involved with field work at the Site. The review will include discussions of signs and symptoms of chemical exposure and heat/cold stress that indicate potential medical emergencies. In addition, review of personal protective equipment will be conducted.

7.0 Medical Surveillance Program

All workers at the Site with the potential to contact residual materials must participate in a medical surveillance program in accordance with 29 CFR 1910.120. A medical examination and consultation must have been performed within the last twelve months to be eligible for invasive work.

The content of the examination and consultation will include a medical and work history with special emphasis on symptoms related to the handling of hazardous substances, health hazards, and fitness for duty including the ability to wear required personal protective equipment under conditions that may be expected at the worksite.

All medical examinations and procedures shall be performed by, or under the supervision of, a licensed physician. The physician shall furnish a written opinion containing:

- The results of the medical examination and tests;
- The physician's opinion as to whether the worker has any detected medical conditions which would place the worker at increased risk of material impairment of health from work in proximity to residual materials;
- The physician's recommended limitations upon the worker assigned to the work; and
- A statement that the worker has been informed by the physician of the results of the medical examination and any further examination or treatment.

An accurate record of the medical surveillance will be retained at the worker's office. The record will consist of at least the following information:

- The name and social security number of the worker;
- The physician's written opinions, recommended limitations, and results of examinations and tests; and
- Any worker medical complaints related to exposure to hazardous substances.

8.0 Personal Protective Equipment

The two basic objectives of personal protective equipment (PPE) are to protect the wearer from safety and health hazards, and to prevent the wearer from incorrect use and/or malfunction of the PPE.

Potential Site hazards have been discussed previously in Section 5.0. All work is expected to be performed during daylight hours and workdays, in general, are expected to be eight to ten hours in duration. Any work performed beyond daylight hours will require the permission of the HSO. This decision will be based on the adequacy of artificial illumination and the type and necessity of the task being performed.

Personal protection levels for the Site activities, based on past investigations, are anticipated to be Level D with the possibility of upgrading to Level C. The equipment included for each level of protection is provided as follows:

Level C PPE

- Respiratory Protection: Air-purifying respirator, with particulate and organic vapor cartridges;
- Protective Clothing: Work clothing, work boots (leather or chemical-resistant, steel toe and shank), nitrile gloves;

Organic vapor readings of less than 20 ppm will permit the use of Level C protection.

Level D PPE

- Respiratory Protection: None
- Protective Clothing: Work clothing, nitrile gloves, work boots (leather or chemical-resistant, steel toe and shank)

If organic vapor levels do not exceed 10 ppm, use of Level D protection will be allowed.

Additional Considerations for Selecting Levels of Protection

Another factor which will be considered in selecting the appropriate level of protection is heat and physical stress. The use of protective clothing and respirators increases physical stress, in particular, heat stress on the wearer. Chemical protective clothing greatly reduces natural ventilation and diminishes the body's ability to regulate its temperature. Even in moderate ambient temperatures, the diminished capacity of the body to dissipate heat can result in one or more heat-related problems.

All chemical protective garments can be a contributing factor to heat stress. Greater susceptibility to heat stress occurs when protective clothing requires the use of a tightly fitted hood against the respirator face piece, or when gloves or boots are taped to the suit. As more body area is covered, less cooling takes place, increasing the probability of heat stress.

Wearing protective equipment also increases the risk of accidents. It is heavy, cumbersome, decreases dexterity, agility, interferes with vision, and is fatiguing to wear. These factors all increase physical stress and the potential for accidents. In particular, the necessity of selecting a level of protection will be balanced against the increased probability of heat stress and accidents.

Respirator Fit Testing

The fit or integrity of the facepiece-to-face seal of a respirator affects its performance. Most facepieces fit only a certain percentage of the population; thus each facepiece must be tested on the potential wearer in order to ensure a tight seal. Facial features such as scars, hollow temples, very prominent cheekbones, deep skin creases, dentures or missing teeth, and the chewing of gum and tobacco may interfere with the respirator-to-face seal. A respirator shall not be worn when such conditions prevent a good seal. The worker's diligence in observing these factors shall be evaluated by periodic checks. Fit testing will comply with 29 CFR 1910.1025 regulations.

Inspection, Maintenance, and Decontamination

PPE will be inspected as it is issued to workers and periodically as it is worn. PPE found to be damaged or worn to the extent that it no longer provides the necessary protection will be discarded.

Following use, air-purifying respirators will be dismantled, washed, and placed in sealed plastic bags. Specialized maintenance will be performed only by the factory or an authorized repair person. Routine maintenance, such as cleaning, will be performed by the personnel to which the equipment is assigned.

Personnel decontamination will occur whenever a worker leaves the work zone. Decontamination will include the following:

- Physical removal of contaminants from work boots;
- Removal of disposable PPE (gloves); and
- Hand and face washing, as necessary.

Used PPE and decontamination equipment will be containerized and properly disposed offsite as solid waste.

ATTACHMENT 3 OF SITE MANAGEMENT PLAN

Community Air Monitoring Plan

I.W. Industries Site
35 Melville Park Road
Melville, Suffolk County, New York

NYSDEC Site Number: 1-52-102

Prepared for:

Metro Assets III, LLC (Respondent)
For submittal to
New York State Department of Environmental Conservation

Prepared by:

909 MARCONI AVENUE
RONKONKOMA, NEW YORK 11779

OCTOBER 2011

COMMUNITY AIR MONITORING PLAN

This Community Air Monitoring Plan (CAMP) includes procedures to address potential community health and safety issues associated with activities involving residual contamination at the I.W. Industries Site (Site). Remedial activities were conducted in 2000 and 2006. However, the remaining contamination (residual contamination) is present in the form of residual contaminated soil within and beneath abandoned leaching pools LP-1 through LP-3 at depths of 18.5 feet below grade and greater, free-phase petroleum within the soil matrix beneath leaching pools LP-1 through LP-3 and on the groundwater in a limited area of the Site at a depth of approximately 50 feet, and iron and manganese in Site groundwater. Engineering and institutional controls have been implemented to protect the Site occupants and the surrounding community from exposure to residual contamination. However, certain intrusive activities have the potential to expose residual contamination on a short-term basis. This CAMP describes monitoring procedures to be used during these intrusive activities to protect the Site community.

This CAMP will be implemented at the Site by environmental professionals during intrusive activities involving residual contamination that have the potential to affect the surrounding community. These activities include excavations involving residual contamination and well installation. Due to the nature of the activities, there is the potential for organic vapor and/or dust emissions to occur as these activities are conducted. In addition, there is the potential for organic vapors and/or dust to be associated with the exhaust from the excavation and/or well installation equipment. To address these concerns, organic vapor and dust monitoring will be performed during these activities.

1.0 Organic Vapor Monitoring

Under the CAMP, organic vapor concentrations will be monitored by an environmental professional at the downwind perimeter of the work area while intrusive activities involving residual contamination are occurring. In general, the work area will be a 30-foot radius around the work zone, or the Site boundary, whichever is smaller. To monitor organic vapors, a photoionization detector (PID) will be used and maintained in good operating condition unless an alternate method is approved in advance by the NYSDEC. Calibration of the PID will be performed according to manufacturer's instructions. Background levels of organic vapors will be measured at the Site prior to beginning work and upwind of the work area periodically using a PID. Organic vapors will be monitored at the downwind perimeter of the work area while intrusive activities are occurring and will be averaged on a 15-minute basis. PID readings will be recorded in the field logbook and will include the time, location, and PID readings observed. The action levels and required responses are as follows:

Organic Vapor (PID) Readings	
Action Level	**Response Action**
Less than 5 ppm above background.	Continue work.
More than 5 ppm but less than 25 ppm above background.	Implement Vapor Emission Response Plan.
More than 25 ppm above background.	Stop work. Perform downwind monitoring in accordance with Vapor Emission Response Plan.

1.1 Vapor Emission Response Plan

The Vapor Emission Response Plan includes the following trigger levels and responses:

- In the event the level of organic vapors exceeds 5 ppm above the background at the downwind perimeter of the work area on a 15-minute average basis, activities will be halted and monitoring continued. Work may resume if the organic vapor

level then decreases to below 5 ppm above background, or concentrations measured 200 feet downwind or at half of the distance to the nearest commercial building, whichever is less, are below 5 ppm over background.

- If the level of organic vapors measured 200 feet downwind or at half of the distance to the nearest commercial structure, whichever is less, is greater than 5 ppm above background then all work will be halted, the vapor source will be identified, and corrective actions taken. If the level at the downwind location persists above 5 ppm over background after work stops and corrective actions are taken, then monitoring will be performed within 20 feet of the nearest downwind commercial structure (20-foot zone).
- If efforts to abate the emission source are unsuccessful and the vapor levels are greater than 25 ppm above background in the 20-foot zone, then work will be halted.

2.0 Particulate Monitoring

Particulate (dust) monitoring will be performed with a Miniram personal monitor (or equivalent) calibrated according to the manufacturer's instructions. Monitoring will be performed within, upwind and downwind of the work area by an environmental professional during excavations involving residual contamination and during well installation. The readings will be recorded in the environmental professional's field logbook.

If the downwind particulate level integrated over 15 minutes exceeds the upwind level by more than 100 micrograms per cubic meter (ug/m^3) or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Dust suppression techniques are anticipated to include reducing moving equipment rates and/or application of water to dry

surfaces. Work may continue with dust suppression techniques providing that the downwind particulate level does not exceed the upwind particulate level by more than 150 ug/m^3.

If, after implementation of dust suppression techniques, downwind particulate levels are greater than 150 ug/m^3 above upwind levels, then work will stop and activities will be reevaluated. Work may resume providing that dust suppression techniques and other controls are successful in reducing the downwind particulate level to within 150 ug/m^3 of the upwind level and in preventing visible dust migration.

3.0 Noise Monitoring

Due to the use of excavation, direct-push, and/or drilling equipment at the Site during intrusive activities, there is the potential for noise to impact the surrounding community. However, since work will generally be performed only during normal working hours when ambient noise levels are elevated due to ongoing traffic on the nearby Long Island Expressway and commercial activities in the community, and since there are no residences in the nearby area, the potential for noise impacts on the surrounding community is low. Work hours will be coordinated with the Site occupants so as to minimize disturbance of ongoing Site operations while also minimizing noise impacts.

The HSO will monitor ambient noise levels at the property boundary prior to starting work each day. During activities that produce noise, the HSO will periodically monitor noise levels at the closest property boundary with a hand-held sound level meter. Noise levels will be monitored in decibels (dBs) in the A-weighted, slow-response mode. If noise level readings during work activities significantly exceed ambient noise levels at the closest property boundary, the HSO will take appropriate measures to reduce noise exposure beyond these boundaries. These measures may include relocation of equipment that generates noise, reducing equipment

operations, or other measures, as appropriate. In the event that the noise exposure measures are inadequate, work will cease until noise levels can be reduced to within a reasonable level of ambient conditions at the closest Site boundary.

ATTACHMENT 4 OF SITE MANAGEMENT PLAN

Site Summary Information
(Text and CD)

I.W. Industries Site
Melville, Suffolk County, New York

NYSDEC SITE #1-52-102

Prepared for:

Metro Assets III, LLC (Respondent)
For submittal to
New York State Department of Environmental Conservation

Prepared by:

909 MARCONI AVENUE
RONKONKOMA, NEW YORK 11779

OCTOBER 2011

SITE SUMMARY INFORMATION

The following site summary information is also presented in digital format on a CD in this Attachment.

Site Name:	I.W. Industries
Site Location:	35 Melville Park Road, Melville, Suffolk County, New York
Site Number:	NYSDEC SITE #1-52-102
Respondent	Metro Assets III, LLC c/o Metrovest Equities, Inc. 4 Beacon Way, Suite 16 Jersey City, NJ 07304
Respondent Contact:	John A. Jakub, Esq. (Counsel) – (908) 722-0700
Site Owner:	Kailyn Realty I, LLC c/o Transaero, Inc. 35 Melville Park Road, Suite 100 Melville, NY 11747
Site Owner Contact:	Perry Youngwall (President/CEO) – (631) 752-1240
Site Summary:	A site summary is provided on the following pages and also on CD in this Attachment.
Status of Remediation/ Monitoring:	- Remedial Activities completed: November 2000 - Groundwater monitoring: Ongoing - Residual Contamination Management: Ongoing
Environmental Easement:	A copy of the Environmental Easement is provided on the CD in this Attachment.
Environmental Easement Contact:	John A. Jakub, Esq. (Counsel) – (908) 722-0700

I.W. INDUSTRIES SITE SUMMARY

1.0 Site Location and Description

The I.W. Industries Site (Site) is located in Suffolk County, New York and is identified by the following Suffolk County Tax Map Number: District 400 (Town of Huntington), Section 268, Block 1 and Lot 5.

The Site is an approximately six-acre lot and is bounded by Melville Park Road to the south and commercial/industrial buildings to the west, north, and east. The property immediately to the west is also an Inactive Hazardous Waste Disposal Site, the New York Twist Drill Site (Site No. 1-52-169). This adjoining site is impacted with chlorinated solvents.

The Site includes an approximately 97,000-square-foot masonry building, associated paved parking areas, and landscaped vegetation and was formerly used for manufacturing of threaded metal parts. The Site was redeveloped in 2006 and is presently used for office and warehousing purposes.

2.0 Site History

I.W. Industries, Inc. (IWI) occupied the Site since it was developed in approximately 1966 and manufactured threaded metal parts onsite until approximately 2005. The manufacturing process produced scrap brass with associated lubrication and cutting oils. Washing of the finished parts produced wastewater, which was discharged to two leaching pools (LP-1 and LP-2) under a State Pollutant Discharge Elimination System (SPDES) permit prior to 1984. Onsite management of scrap also resulted in some inadvertent discharges of scrap brass and oils to other onsite leaching pools.

The property was listed as a NYSDEC Inactive Hazardous Waste Disposal site due to the leaching pool discharges and detected groundwater impacts. A Remedial Investigation (RI) was performed in 1997 and included sampling of the leaching pools, soil and groundwater. The findings are summarized as follows:

- Several leaching pools were identified with sediments requiring remediation;
- No soil requiring remediation was identified;
- VOCs and metals were present in onsite groundwater and groundwater monitoring was required; and

- Free-phase product was found at wells downgradient of leaching pools LP-1 and LP-2 and required removal.

Remediation activities were conducted in 2000 and included removal of impacted sediments from select leaching pools. Verification samples were collected from the remediated leaching pools and were compared with the cleanup goals. No further remediation of the leaching pools was required by the NYSDEC at that time.

Removal of free-phase product from the top of the water table was implemented in 2000 and has continued. Minor amounts of free-phase petroleum or visible sheen were noted at wells MW-1, MW-2, and/or MW-7 periodically and were treated as necessary. No measurable accumulations (>0.01 foot) have been noted since 2005, although product monitoring is ongoing.

IWI ceased operations and vacated the Site in early 2006. Resource Conservation and Recovery Act (RCRA) closure activities were subsequently conducted under a RCRA Closure Plan approved by the NYSDEC. Additional facility closure activities were conducted under the oversight of the Suffolk County Department of Health Services (SCDHS). During RCRA and other closure activities, the remaining stored wastes at the Site were characterized, removed and properly disposed, all of the underground and aboveground storage tanks were properly removed, and all contaminated equipment and structures were disposed in accordance with applicable State and Federal regulations. Sampling and analyses were performed and demonstrated that the closure was complete. The results were documented in Phase I and Phase II Closure Reports (July 2007) submitted to the NYSDEC and approved on September 5, 2007.

3.0 Geological Conditions

The Site subsurface conditions were evaluated during several investigations. Approximately 50 feet of upper Pleistocene Glacial Deposits are present beneath the Site and consist of fine-to coarse-grained sand with gravel. The Magothy Formation is present beneath the glacial deposits; the upper portion of which is a silty clay.

The water table is present approximately 50 feet below grade with the deeper portion of the glacial deposits. The groundwater flow direction is generally to the south.

4.0 Residual Contamination

Residual contamination exists at the Site in the form of:

- Leaching pool sediments within LP-1, LP-2 and LP-3 and soil beneath these structures exceeding NYSDEC Objectives;

- Free-phase product within the soil matrix beneath leaching pools LP-1, LP-2 and LP-3 and on the groundwater at select Site wells; and
- Iron and/or manganese in groundwater in select Site wells.

5.0 Engineering and Institutional Controls

Since residual contamination is present at this Site, Engineering and Institutional Controls (ECs/ICs) have been implemented to protect public health and the environment in the future. The Site has two ECs: (1) the abandonment of leaching pools LP-1 through LP-3; and (2) free-phase product removal.

Leaching pools LP-1 through LP-3 have been abandoned to further reduce the potential for human contact and/or groundwater contamination. This EC included disconnecting the leaching pools from their piping systems, backfilling the pools with clean soil, and sealing the top of each pool with a concrete slab set at four to five feet below grade. The area above the seals was backfilled with approved materials and repaved. New leaching pools were installed outside of the area of residual contamination to manage stormwater runoff previously directed to LP-1 through LP-3.

Free-phase product removal will be continued at the Site until approval to discontinue is obtained from the NYSDEC. Product removal materials are installed as necessary in the affected wells (MW-1, MW-2 and/or MW-7) and are serviced in accordance with established operating and monitoring procedures. Product has not been noted since 2005. However, product monitoring will continue until groundwater relative elevations decline to at least average levels and free-phase product remains absent.

ICs are required to implement, maintain, and monitor the above-described ECs. The Environmental Easement requires compliance with these ICs. A copy of the Environmental Easement is included on this CD.

6.0 Monitoring

Groundwater monitoring will be continued at select site wells in accordance with the SMP. Monitoring may be discontinued with the approval of the NYSDEC.

CC # : C11-28268

COUNTY CLERK'S OFFICE

STATE OF NEW YORK
COUNTY OF SUFFOLK

I, JUDITH A. PASCALE, Clerk of the County of Suffolk and the Court of Record thereof do hereby certify that I have compared the annexed with the original

EASEMENT

recorded in my office on **07/29/2011** under Liber **D00012667** and Page **051** and, that the same is a true copy thereof, and of the whole of such original.

In Testimony Whereof, I have hereunto set my hand and affixed the seal of said County and Court this **07/29/2011** .

SUFFOLK COUNTY CLERK

Judith A. Pascale

JUDITH A. PASCALE

SEAL

SUFFOLK COUNTY CLERK
RECORDS OFFICE
RECORDING PAGE

Type of Instrument: EASEMENT
Number of Pages: 9
Receipt Number : 11-0085174
TRANSFER TAX NUMBER: 10-26596

Recorded: 07/29/2011
At: 03:29:59 PM

LIBER: D00012667
PAGE: 051

District:	Section:	Block:	Lot:
0400	268.00	01.00	005.000

EXAMINED AND CHARGED AS FOLLOWS

Deed Amount: $0.00

Received the Following Fees For Above Instrument

		Exempt			Exempt
Page/Filing	$45.00	NO	Handling	$20.00	NO
COE	$5.00	NO	NYS SRCHG	$15.00	NO
TP-584	$5.00	NO	Notation	$0.00	NO
Cert.Copies	$5.85	NO	RPT	$30.00	NO
Transfer tax	$0.00	NO			
			Fees Paid	$125.85	

TRANSFER TAX NUMBER: 10-26596

THIS PAGE IS A PART OF THE INSTRUMENT
THIS IS NOT A BILL

JUDITH A. PASCALE
County Clerk, Suffolk County

1 | 2

Number of pages 9

This document will be public record. Please remove all Social Security Numbers prior to recording.

RECORDED
2011 Jul 29 03:29:59 PM
JUDITH A. PASCALE
CLERK OF
SUFFOLK COUNTY
L D00012667
P 051
DT# 10-26596

Deed / Mortgage Instrument	Deed / Mortgage Tax Stamp	Recording / Filing Stamps

3 FEES

Page / Filing Fee _____
Handling 20.00
TP-584 5
Notation _____
EA-52 17 (County) _____ Sub Total _____
EA-5217 (State) _____
R.P.T.S.A. 8V
Comm. of Ed. 5.00
Affidavit _____
Certified Copy 5.85
NYS Surcharge 15.00 Sub Total _____
Other _____ Grand Total 125.85 mc

Mortgage Amt. _____
1. Basic Tax _____
2. Additional Tax _____
Sub Total _____
Spec./Assit.
or
Spec. /Add. _____
TOT. MTG. TAX _____
Dual Town _____ Dual County _____
Held for Appointment _____
Transfer Tax _____
Mansion Tax _____

The property covered by this mortgage is or will be improved by a one or two family dwelling only.
YES _____ or NO _____
If NO, see appropriate tax clause on page # _____ of this instrument.

0400 26800 0100 005000

4 Dist.

PTS
R CWH A
14-JUL-11

Real Property Tax Service Agency Verification

5 **Community Preservation Fund**

Consideration Amount $ _____

CPF Tax Due $ _____

Improved _____
Vacant Land _____
TD _____
TD _____
TD _____

6 Satisfactions/Discharges/Releases List Property Owners Mailing Address
RECORD & RETURN TO:

Norris McLaughlin & Marcus
Attn: John A. Jakub, Esq.
P.O. Box 5933 Suite 200
Bridgewater, NJ 077087-5933

Mail to: Judith A. Pascale, Suffolk County Clerk
310 Center Drive, Riverhead, NY 11901
www.suffolkcountyny.gov/clerk

7 **Title Company Information**
Co. Name Ridge Abstract Corp.
Title # L5841135

8 **Suffolk County Recording & Endorsement Page**

This page forms part of the attached Environmental Easement made by:
(SPECIFY TYPE OF INSTRUMENT)

Kailyn Realty I, LLC

The premises herein is situated in SUFFOLK COUNTY, NEW YORK.

TO

The People of the State of New York acting through their Commissioner of Dept of Enviro Conservation

In the TOWN of Huntington
In the VILLAGE or HAMLET of _____

BOXES 6 THRU 8 MUST BE TYPED OR PRINTED IN BLACK INK ONLY PRIOR TO RECORDING OR FILING.

(over)

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 10th day of June, 2011, between Owner(s) Kailyn Realty I, LLC, having an office care of Transaero, Inc., 35 Melville Park Road, County of Suffolk, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee"), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 35 Melville Park Road in the Town of Huntington, County of Suffolk and State of New York, known and designated on the tax map of the County Clerk of Suffolk as tax map parcel numbers: Section 268 Block 1 Lot 5, being the same as that property conveyed to Grantor by deed dated July 6, 2006 and recorded in the Suffolk County Clerk's Office in Instrument No. Liber 12459 Page 902, comprising of approximately 6.0 acres, and hereinafter more fully described in the Land Title Survey dated July 7, 2010 as revised through May 25, 2011 prepared by Control Point Associates, Inc., which will be attached to the Site Management Plan. The property description (the "Controlled Property") is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the

terms and conditions of NYSDEC Order on Consent Number: Index #W1-0725-04-09, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on 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.

A. (1) The Controlled Property may be used for:

Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.

(4) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(5) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(6) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(7) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.

(8) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.

(9) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for residential or restricted residential purposes, and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Remediation Engineer
NYSDEC – Region 1
Division of Environmental Remediation
SUNY @ Stony Brook
50 Circle Road
Stony Brook, NY 11790-3409
Phone: (631) 444-0240

or

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5 the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by

Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: 1-52-102
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

KAILYN REALTY I, LLC

By: _____

Title: MEMBER Date: 5/26/11

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Suffolk)

On the 26 day of May, in the year 2011, before me, the undersigned, personally appeared Perry Kyriacou, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Wendy L Mullally
Notary Public - State of New York

WENDY L MULLALLY
Notary Public - State of New York
NO. 01MU6208597
Qualified in Suffolk County
My Commission Expires 7-6-2013

SCHEDULE "A" PROPERTY DESCRIPTION

SECTION 268.00 BLOCK 01.00 LOT 005.000 ON THE TAX MAP OF SUFFOLK COUNTY

ALL that certain plot, piece or parcel of land, situate, lying and being at Melville, Town of Huntington, County of Suffolk and State of New York, known and designated on a certain map entitled "Map of Industrial Park, Section No. 4" and filed in the Suffolk County Clerk's office on March 22, 1966 as Map No. 4596 and by Lot No. 19, which lot is more particularly bounded and described as follows:

BEGINNING at a point on the Northerly side of Melville Park Road distant 519.73 feet Westerly measured along the Northerly side of Melville Park Road from the Westerly end of the curve connecting the Northerly side of Melville Park Road and the Westerly side of Maxess Road;

RUNNING THENCE South 83 degrees 31 minutes West along the Northerly side of Melville Park Road, 478.52 feet;

THENCE North 6 degrees 29 minutes West, 517.57 feet;

THENCE North 76 degrees 40 minutes 26 seconds East, 481.95 feet;

THENCE South 6 degrees 29 minutes East 575.00 feet to the Northerly side of Melville Park Road and the point or place of BEGINNING.

SCHEDULE A DESCRIPTION

ALL THAT CERTAIN PLOT, PIECE OR PARCEL OF LAND, SITUATE, LYING AND BEING AT MELVILLE, TOWN OF HUNTINGTON, COUNTY OF SUFFOLK AND STATE OF NEW YORK, KNOWN AND DESIGNATED ON A CERTAIN MAP ENTITLED, "MAP OF INDUSTRIAL PARK, SECTION NO. 4" AND FILED IN THE SUFFOLK COUNTY CLERK'S OFFICE ON MARCH 22, 1966 AS MAP NO. 4596 AND BY LOT NO. 19, WHICH LOT IS MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTHERLY SIDE OF MELVILLE PARK ROAD DISTANT 519.73 FEET WESTERLY MEASURED ALONG THE NORTHERLY SIDE OF MELVILLE PARK ROAD FROM THE WESTERLY END OF THE CURVE CONNECTING THE NORTHERLY SIDE OF MELVILLE PARK ROAD AND THE WESTERLY SIDE OF MAXESS ROAD;

RUNNING THENCE SOUTH 83 DEGREES 31 MINUTES WEST ALONG THE NORTHERLY SIDE OF MELVILLE PARK ROAD, 478.52 FEET;

THENCE NORTH 6 DEGREES 29 MINUTES WEST, 517.57 FEET;

THENCE NORTH 76 DEGREES 40 MINUTES 26 SECONDS EAST, 481.95 FEET;

THENCE SOUTH 6 DEGREES 29 MINUTES EAST 575.00 FEET TO THE NORTHERLY SIDE OF MELVILLE PARK ROAD AND THE POINT OR PLACE OF BEGINNING.

ENVIRONMENTAL EASEMENT COVERS THE ENTIRE PROPERTY AS DESCRIBED IN SCHEDULE "A" ABOVE.

"SOIL MANAGEMENT AREA 1"

BEGINNING AT A POINT IN BLOCK 1, LOT 5 SAID POINT BEING DISTANT THE FOLLOWING COURSES FROM THE POINT OF BEGINNING OF ABOVE SCHEDULE A;

A. ALONG THE NORTHERLY LINE OF MELVILLE PARK ROAD SOUTH 83 DEGREES 31 MINUTES 00 SECONDS WEST A DISTANCE OF 430.72 FEET TO A POINT THENCE;

B. THROUGH BLOCK 1, LOT 5 NORTH 6 DEGREES 29 MINUTES 00 SECONDS WEST A DISTANCE OF 140.64 FEET TO SAID POINT OF BEGINNING, THENCE THE FOLLOWING FOUR (4) COURSES THROUGH SAID LOT 5;

1. NORTH 6 DEGREES 29 MINUTES 00 SECONDS WEST 48.00 FEET TO A POINT, THENCE;
2. NORTH 83 DEGREES 31 MINUTES 00 SECONDS EAST, 49.00 FEET TO A POINT, THENCE;
3. SOUTH 6 DEGREES 29 MINUTES 00 SECONDS EAST, 48.00 FEET TO A POINT, THENCE;
4. SOUTH 83 DEGREES 31 MINUTES 00 SECONDS WEST 49.00 FEET TO THE POINT OR PLACE OF BEGINNING.

CONTAINING 2,352 S.F. OR 0.054 ACRES

"SOIL MANAGEMENT AREA 2"

BEGINNING AT A POINT IN BLOCK 1, LOT 5 SAID POINT BEING DISTANT THE FOLLOWING COURSES FROM THE POINT OF BEGINNING OF ABOVE SCHEDULE A;

A. ALONG THE NORTHERLY LINE OF MELVILLE PARK ROAD SOUTH 83 DEGREES 31 MINUTES 00 SECONDS WEST A DISTANCE OF 405.75 FEET TO A POINT THENCE;

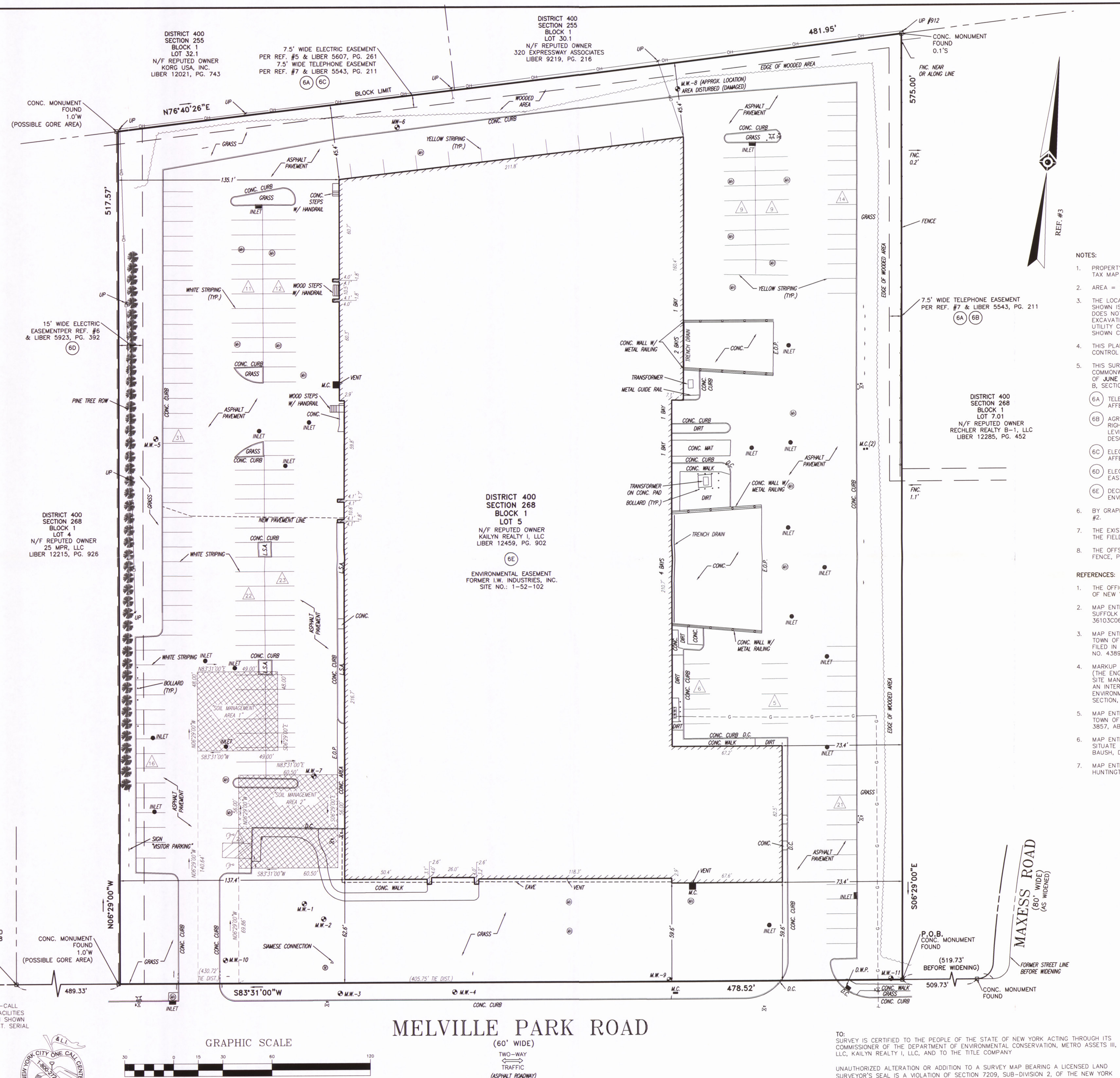
B. THROUGH BLOCK 1, LOT 5 NORTH 6 DEGREES 29 MINUTES 00 SECONDS WEST A DISTANCE OF 69.86 FEET TO SAID POINT OF BEGINNING, THENCE THE FOLLOWING FOUR (4) COURSES THROUGH SAID LOT 5;

1. NORTH 6 DEGREES 29 MINUTES 00 SECONDS WEST 56.00 FEET TO A POINT, THENCE;
2. NORTH 83 DEGREES 31 MINUTES 00 SECONDS EAST, 60.50 FEET TO A POINT, THENCE;
3. SOUTH 6 DEGREES 29 MINUTES 00 SECONDS EAST, 56.00 FEET TO A POINT, THENCE;
4. SOUTH 83 DEGREES 31 MINUTES 00 SECONDS WEST 60.50 FEET TO THE POINT OR PLACE OF BEGINNING.

CONTAINING 3,388 S.F. OR 0.078 ACRES

LEGEND

- HYDRANT
- WATER VALVE
- GAS VALVE
- SIAMESE CONNECTION
- OH — OVERHEAD WIRES
- G — UNCONFIRMED LOC. UNDERGROUND GAS LINE PER UTILITY MARKOUT (SEE NOTE #3)
- UTILITY POLE
- GUY WIRE
- GAS METER
- SIGN
- BOLLARD
- METAL GUIDE RAIL
- L.S.A. — LANDSCAPED AREA
- D.C. — DEPRESSED CURB
- M.W. — MONITORING WELL
- M.C. — METAL COVER
- D.W.P. — DETECTABLE WARNING PAD
- E.O.P. — EDGE OF PAVEMENT
- PARKING SPACE COUNT
- 1.0' — DENOTES OFFSET OF STRUCTURE AT GROUND LEVEL RELATIVE TO PROPERTY LINE
- UNKNOWN MANHOLE
- WATER METER
- AREAS SUBJECT TO SOIL MANAGEMENT AT DEPTH OF 13.5 FEET OR MORE PER REF. #4
- (6A) TITLE REPORT EXCEPTION



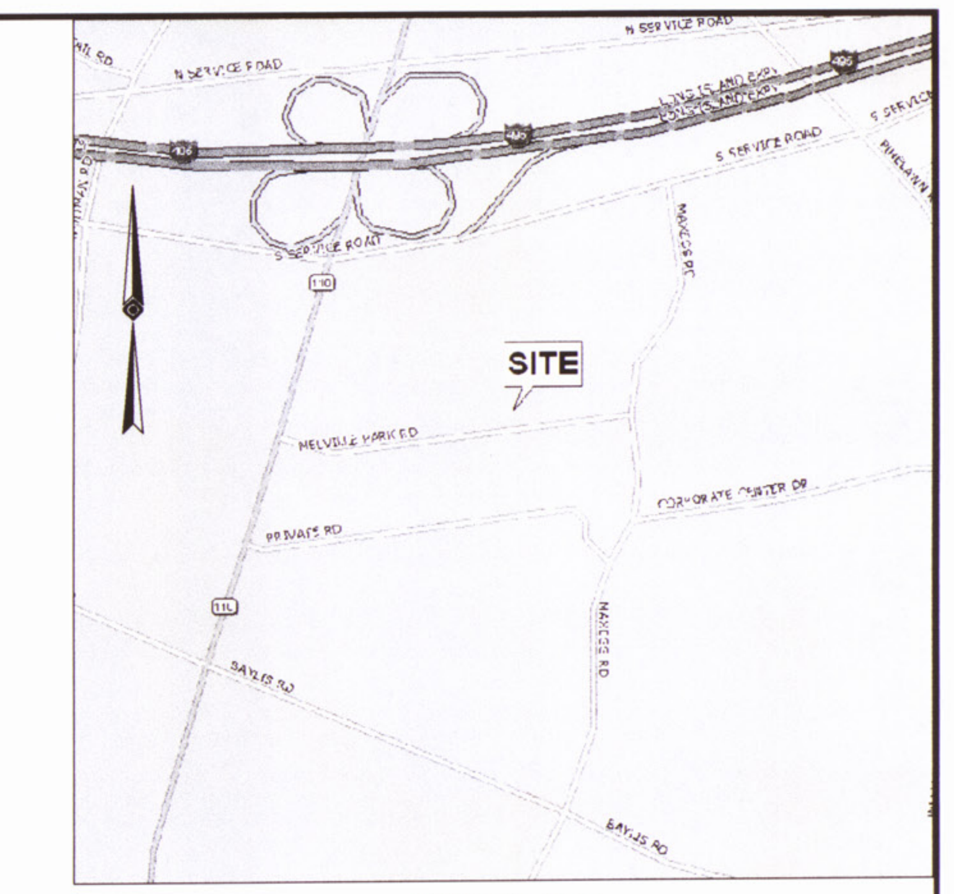
MELVILLE PARK ROAD

(60' WIDE)

TWO-WAY TRAFFIC (ASPHALT ROADWAY)

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.



VICINITY MAP
©2008 DeLorme. Street Atlas USA

NOTES:

1. PROPERTY KNOWN AS LOT 5, BLOCK 1, SECTION 268, DISTRICT 400 AS SHOWN ON THE OFFICIAL TAX MAP OF THE TOWN OF HUNTINGTON, COUNTY OF SUFFOLK, STATE OF NEW YORK.
2. AREA = 261,408 S.F. OR 6.00 AC.
3. THE LOCATION OF ALL UNDERGROUND UTILITIES HAVE NOT BEEN SHOWN. UTILITY INFORMATION SHOWN IS LIMITED TO VISIBLE UTILITY HARDWARE AND UTILITY MARKOUTS AT THE SURFACE AND DOES NOT INCLUDE SUCH ITEMS AS SUBSURFACE PIPING, UTILITY LINES, ETC. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY IS PREPARED WITH REFERENCE TO A TITLE REPORT PREPARED BY COMMONWEALTHLAND TITLE INSURANCE COMPANY, TITLE NO. L584113S, WITH AN EFFECTIVE DATE OF JUNE 15, 2010. WHERE THE FOLLOWING SURVEY RELATED EXCEPTIONS APPEAR IN SCHEDULE B, SECTION II:
   - (6A) TELEPHONE AGREEMENT IN LIBER 5543, PAGE 211 – 7.5' TELEPHONE EASEMENT – AFFECTS NORTHERLY AND EASTERLY PORTION OF PROPERTY, SHOWN.
   - (6B) AGREEMENT IN LIBER 5608, PG. 329 – NEW YORK TELEPHONE COMPANY SURRENDERS ITS RIGHTS AND PRIVILEGES ALONG EASTERLY BOUNDARY LINE TO ALEXANDER N. LEVINE, DAVID LEVINE, PHILLIP KAPLAN AND HAROLD CAGEN, D.B.A., MELVILLE INDUSTRIAL ASSOCIATES AS DESCRIBED IN LIBER 5543, PAGE 211, SHOWN.
   - (6C) ELECTRIC AND GAS AGREEMENT IN LIBER 5607, PAGE 261 – 7.5' ELECTRIC EASEMENT, AFFECTS NORTHERLY PORTION OF PROPERTY, SHOWN.
   - (6D) ELECTRIC EASEMENT IN LIBER 5923, PAGE 392 – 15' ELECTRIC EASEMENT, AFFECTS EASTERLY PORTION OF PROPERTY, SHOWN.
   - (6E) DECLARATION OF COVENANTS AND RESTRICTIONS IN LIBER 11725, PAGE 42 – ENVIRONMENTAL COVENANTS AND RESTRICTIONS, BLANKET IN NATURE, LOT 5 SHOWN.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS NOT LOCATED IN A FLOOD HAZARD ZONE PER REF. #2.
7. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.

REFERENCES:

1. THE OFFICIAL TAX ASSESSOR'S MAP OF THE TOWN OF HUNTINGTON, COUNTY OF SUFFOLK, STATE OF NEW YORK, DISTRICT 400, SECTION 268.
2. MAP ENTITLED, "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, SUFFOLK COUNTY, NEW YORK (ALL JURISDICTIONS), MAP INDEX – SHEET 1 OF 2, MAP NUMBER 36103C0620H," MAP REVISED: SEPTEMBER 25, 2009.
3. MAP ENTITLED, "MAP OF MELVILLE INDUSTRIAL PARK, SECTION NO. 2, SITUATED AT MELVILLE, TOWN OF HUNTINGTON, SUFFOLK, COUNTY, N.Y.," PREPARED BY BALDWIN & CORNELIUS CO., FILED IN THE SUFFOLK COUNTY CLERKS OFFICE ON AUGUST 30, 1963 AS FILE NO. 3856, ABS. NO. 4389.
4. MARKUP PLAN PROVIDED BY CLIENT, 6-9-2010. (THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THIS EASEMENT ARE SET FORTH IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY 12233.)
5. MAP ENTITLED, "MAP OF MELVILLE INDUSTRIAL PARK, SECTION NO. 3 SITUATED AT MELVILLE, TOWN OF HUNTINGTON, SUFFOLK COUNTY," PREPARED BY BALDWIN & CORNELIUS CO., FILE NO. 3857, ABS. NO. 4390, FILED IN THE NASSAU COUNTY CLERK'S OFFICE ON AUGUST 30, 1963.
6. MAP ENTITLED, "SURVEY OF LOT 13 & PART OF LOT 14, MELVILLE INDUSTRIAL PARK, SECT. 3, SITUATE AT MELVILLE, TOWN OF HUNTINGTON, SUFFOLK CO. N.Y.," PREPARED BY HAROLD R. BAUSH, DATED OCTOBER 6, 1965, LAST REVISED DECEMBER 21, 1965.
7. MAP ENTITLED, "EXHIBIT 'C', MAP OF MELVILLE INDUSTRIAL PARK, SECTION 3, MELVILLE. TOWN OF HUNTINGTON, COUNTY OF SUFFOLK, STATE OF NEW YORK."

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN	APPROVED	DATE
3	REVISE PER FIELD UPDATE	J.C.	J.W.	J.P.L.	5-25-11
2	REVISE TO ADD CERTIFICATION LANGUAGE	--	G.M.	J.P.L.	12-21-10
1	REVISE TO ADD "SMP" LANGUAGE	--	G.M.	J.P.L.	8-23-10

FIELD DATE: 5-27-10, 5-26-10
FIELD BOOK NO.: 10-26
FIELD BOOK PG.: 86
FIELD CREW: G.A./J.O./G.E.
DRAWN: G.M.

ALTA/ACSM LAND TITLE SURVEY

METRO ASSETS III, LLC

35 MELVILLE PARK ROAD
LOT 5, BLOCK 1, SECTION 268, DISTRICT 400
MELVILLE, (TOWN OF HUNTINGTON), SUFFOLK COUNTY
STATE OF NEW YORK

CONTROL POINT ASSOCIATES, INC.
35 TECHNOLOGY DRIVE
WARREN, NJ 07059
908.668.0099 - 908.668.9595 FAX

NEW BRITAIN CORPORATE CENTER
1600 MANOR DRIVE, SUITE 120
CHALFONT, PA 18914
215.712.9800 - 215.712.9802 FAX

REVIEWED:	APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
G.J.S.	J.P.L.	7-7-2010	1"=30'	C10100.01	1 OF 1

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT WAS BASED WERE MADE IN ACCORDANCE WITH "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS", JOINTLY ESTABLISHED AND ADOPTED BY ALTA, AND NSPS IN 2005, AND INCLUDES ITEMS 1, 2, 3, 4, 7(A), 8, 10, 11(A), 13, 14 & 19 OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE STATE OF NEW YORK, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH A BLUE INK SEAL

5-25-2011
DATE

JOHN P. LYNCH
NEW YORK PROFESSIONAL LAND SURVEYOR #50720

TO:
SURVEY IS CERTIFIED TO THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH ITS COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, METRO ASSETS III, LLC, KAILYN REALTY I, LLC, AND TO THE TITLE COMPANY

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY THE STATE OF NEW YORK ONE-CALL SYSTEM (1-800-272-4480) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST. SERIAL NUMBER(S): 101401035

UTILITY COMPANY	PHONE NUMBER
AT&T CORPORATION	903-753-3145
LIGHTPOWER FIBER NY	631-363-6924
LIPA & NATIONAL GRID	631-567-7800
MCI	800-289-3427
OPEN ACCESS, INC	631-815-1132
SUFFOLK CO. DEPT. PUBLIC WORKS	631-854-4185
SOUTH HUNTINGTON WATER DISTRICT	631-427-8190
TOWN OF HUNTINGTON	631-351-3056
VERIZON COMMUNICATIONS	718-471-4206

ATTACHMENT 5 OF SITE MANAGEMENT PLAN

Inspection Checklists
and
Product Removal Monitoring Log

I.W. Industries Site
35 Melville Park Road
Melville, Suffolk County, New York

NYSDEC Site Number: 1-52-102

Prepared for:

Metro Assets III, LLC (Respondent)
For submittal to
New York State Department of Environmental Conservation

Prepared by:

909 MARCONI AVENUE
RONKONKOMA, NEW YORK 11779

OCTOBER 2011

Site-Wide Inspection List
I.W. Industries Site
35 Melville Park Road, Melville, New York

Date of Inspection: _____

Site-wide inspections will be performed once per five quarters, at a minimum. A site-wide inspection shall also be performed after severe events that may affect the Engineering Controls (ECs) or monitoring wells.

The following inspection form shall be completed during each site-wide inspection. Supporting documentation shall be attached, as necessary. The completed site-wide inspection checklist and supporting documentation shall be included in the associated Periodic Site Management Report.

Compliance with Institutional Controls

Institutional Controls (ICs) are required at this Site to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to residual contamination by controlling disturbances of the subsurface residual materials; and, (3) restrict the use of the Site to commercial uses only. Adherence to these ICs on the Site (Controlled Property) is required under the Environmental Easement. These ICs are described in Section 2.3 of the Site Management Plan (SMP). Please complete the following checklist to confirm compliance with the Site ICs:

- The Controlled Property may be used for commercial or industrial use. Confirm whether commercial or industrial use is occurring: _____

  _____

- The Controlled Property may not be used for non-commercial (residential) use. Confirm that inappropriate use is not occurring: _____

  _____

- All Engineering Controls (seals over abandoned leaching pools LP-1 through LP-3, and free-phase product removal system) must be operated and maintained as specified in the Site Management Plan for the Controlled Property until approval to discontinue is obtained from the NYSDEC. Confirm operation and maintenance of ECs: _____

- Periodic inspections and certifications must be conducted in accordance with the SMP (Section 3.7). Confirm compliance with periodic inspections and certifications: _____

- Groundwater and other environmental or public health monitoring, and reporting of information thus obtained, must be performed in a manner specified in the SMP (Section 3.7). Confirm that the required monitoring and reporting are in accordance with the SMP: _____

- Onsite environmental monitoring devices (groundwater monitoring and product recovery wells), will be protected and replaced as necessary to ensure continued functioning in the manner specified in the SMP until permission to discontinue is obtained from the NYSDEC. Confirm that monitoring devices have been protected and/or replaced if necessary: _____

- Vegetable gardens are prohibited. Confirm the absence of vegetable gardens: _____

- All soil disturbance activities that will impact residual contamination as defined in the SMP, including building renovation/expansion, subgrade utility line repair/relocation, and new construction, must be conducted in accordance with the NYSDEC-approved SMP. Confirm that these activities are in compliance with the SMP: _____

_____

_____

- Use of the groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for the intended purpose. Confirm that groundwater use has not occurred or that appropriate treatment is in place: _____

_____

- The Controlled Property may not be used for a higher level of use, such as unrestricted use, and the above-stated ECs may not be discontinued without proper notification of the NYSDEC of the change and approval of that use by the NYSDEC, and an amendment of the SMP approved by the NYSDEC. Confirm continued compliance with the Environmental Easement: _____

_____

_____

- Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 to Article 71 of the Environmental Conservation Law.

- Confirm that property deed and all subsequent instruments of conveyance are in compliance:

_____

_____

_____

- Grantor covenants and agrees that the Environmental Easement shall be incorporated in full or by reference in any leases, license, or other instruments granting a right to use the Controlled Property. Confirm that leases, licenses or other right-to-use documents incorporate or reference the Environmental Easement: _____

_____

_____

_____

- Grantor covenants and agrees that it shall periodically in accordance with site management reporting requirements, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and SMP for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls. Confirm the submittal of the Periodic Certification Statement: _____

_____

_____

Compliance with Engineering Controls

Engineering Controls (ECs) at this Site include the abandonment of leaching pools LP-1 through LP-3 and free-phase product recovery. Each of these ECs is addressed below:

LP-1 through LP-03 Compliance Inspection

Leaching pools LP-1 through LP-3 were abandoned and the former locations of these structures were sealed by placement of a one-foot concrete seal above the backfill. The areas above the seals were backfilled with approved materials and repaved. A site plan showing the former LP-1 through LP-3 locations is included at the end of this checklist.

Activities that have the potential to disrupt the LP-1 through LP-3 seals must be reported in advance to the property owner and Respondent such that they can be monitored and documented by the Remedial Engineer and any necessary repairs made. Examples of activities that may disturb the LP-1 through LP-3 seals include:

- Cutting or removal of pavement in these areas to the depth of the seals (four to five feet below grade)
- Breakup or significant deterioration of pavement in these areas
- Construction within the backfill material above the seals
- Planting or removal of vegetation (trees/shrubs) through the seals
- Excavations for subsurface utilities or other purposes
- Any activities that may disturb the ground in the area of the former LP-1 through LP-3 structures

The areas above the LP-1 through LP-3 seals must be inspected at least once during each five-quarter reporting period. More frequent inspections may be conducted during construction activities with the potential to affect these areas. An inspection shall also be conducted following a severe condition (flood, fire, etc.) with the potential to affect the LP-1 through LP-3 seals. The following checklist shall be used during each inspection.

A visual inspection of the areas above the seals over the former locations of LP-1, LP-2 and LP-3 at the Site must be conducted, to include the visible overlying materials (pavement). Representative digital photographs must be taken showing the nature and condition of these areas. The following questions must be answered. Please attach supporting information as necessary.

- If pavement is present over the former LP-1 through LP-3 locations, note and describe its appearance and continuity: _____

  _____

  _____

- The seals above LP-1 through LP-3 are covered by backfill and pavement. Is any of the backfill material visible? Are the seals visible? _____

  _____

- Asphalt and/or concrete pavement cover the seals over the former locations of LP-1, LP-2 and LP-3. Are these materials continuous or are there significant penetrations? Describe:

  _____

  _____

  _____

- The seals above LP-1 through LP-3 consist of at least one foot of concrete above each former structure. Is any of this concrete visible? If so, describe the condition: _____

  _____

  _____

- If the concrete seals are visible, then corrective measures are indicated. Describe the nature and timing of the necessary corrective measures. _____

  _____

- Provide any other pertinent information regarding the condition of the LP-1 through LP-3 seals here: _____

  _____

Free-Phase Product Removal System Compliance Inspection

This property is equipped with a free-phase product monitoring and removal system, including monitoring wells MW-1, MW-2 and MW-7 and associated free-phase product removal materials, when necessary. Free-phase product monitoring and removal procedures are documented in Section 2.2.1.2 and 3.2.2 of the Site Management Plan (SMP). A site plan showing wells MW-1, MW-2 and MW-7 is included at the end of this checklist.

Activities that have the potential to disrupt the free-phase product monitoring and recovery must be reported in advance to the property owner and Respondent such that they can be monitored and documented by the Remedial Engineer and any necessary repairs made. Examples of activities that may disturb the monitoring and recovery system include:

- Cutting or removal of pavement in the well areas
- Breakup or significant deterioration of pavement in the well areas
- Paving in the well areas
- Planting or removal of vegetation (lawn/trees/shrubs) in the well areas
- Excavations for subsurface utilities or other purposes
- Any activities that may disturb the ground in the well areas

Free-phase product monitoring and removal will be conducted on a monthly basis until the criteria for completion/termination are met and permission to discontinue monitoring/removal is provided in writing by the NYSDEC (Section 2.2.1.2 of SMP). During the monthly monitoring events, the Monthly Free-Phase Product Monitoring Log (attached) will be updated. A complete inspection of the product monitoring and recovery system must be performed at least once during each five-quarter reporting period. More frequent inspections may be conducted during construction activities with the potential to affect this system. A complete inspection shall also be conducted following a severe condition (flood, fire, etc.) with the potential to affect the product monitoring/recovery system. The following checklist shall be used during each complete inspection. Supplemental information should be attached to the checklist, if needed. Copies of completed checklists, the product monitoring log, and any supplemental information will be included in the Periodic Site Management Report.

A visual inspection of the product monitoring/recovery wells (MW-1, MW-2 and MW-7) must be conducted. Representative digital photographs must be taken showing the condition of the wells and their immediately vicinity. The following questions must be answered. Please attach supporting information as necessary.

- Describe the condition of each well and its vicinity: _____

  _____

  _____

  _____

- Each well is protected with a bolt-down flush-mounted manhole and a locked expansion-fit plug. Are these protective devices in place and properly operating? _____. If not, explain the corrective measures to be taken. _____

  _____

  _____

- Product removal materials should be installed in the wells with noted free-phase product. Is product present in any of the wells? _____. If so, are the product removal materials properly installed and serviced? _____

  _____

  _____

- Comment on the condition of any installed product removal materials: _____

  _____

  _____

  _____

- Are there any indications of potential damage to the wells from ongoing facility operations or maintenance? _____. If yes, then describe the potential for damage and corrective measures to be implemented: _____.

  _____

  _____

- Is the Monthly Free-Phase Product Monitoring Log up to date? _____. Provide any comments concerning product monitoring/recovery during the inspection period: _____

- Provide any other pertinent information regarding the condition of the product monitoring/removal system here: _____

Using the above-described completed checklists, provide a written evaluation of the condition and continued effectiveness of the ECs: _____

General Site Conditions

Provide a written description of the Site conditions at the time of the site-wide inspection. Attach digital photographs or other supporting information as needed: _____

Site Management Activities

Provide a discussion and assessment of ongoing site management activities including, but not limited to, residual contamination management, groundwater monitoring, product monitoring/recovery community air monitoring, nuisance control, well replacement/repair, health and safety monitoring, and other applicable and pertinent activities. Attach supporting documentation as necessary: _____

Compliance with Permits and Schedules

The Operation and Maintenance Plan included in Section 4 of the Site Management Plan does not include any permit requirements but does include a schedule for groundwater monitoring well maintenance. Discuss compliance with the groundwater monitoring well maintenance schedule: _____

_____

_____

_____

_____

Site Records

The Site records may include, but are not limited to, groundwater monitoring reports, the site-wide inspection checklist product monitoring log, soil management documents, community air monitoring documents, non-routine notifications to the NYSDEC, regulatory agency correspondence, reports, and the Periodic Site Management Report. Confirm that each type of Site record is up to date and provide comments: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Inspector Information

Name and Affiliation of Inspector: _____

_____

Date of Inspection: _____

Reason for Inspection: _____

_____

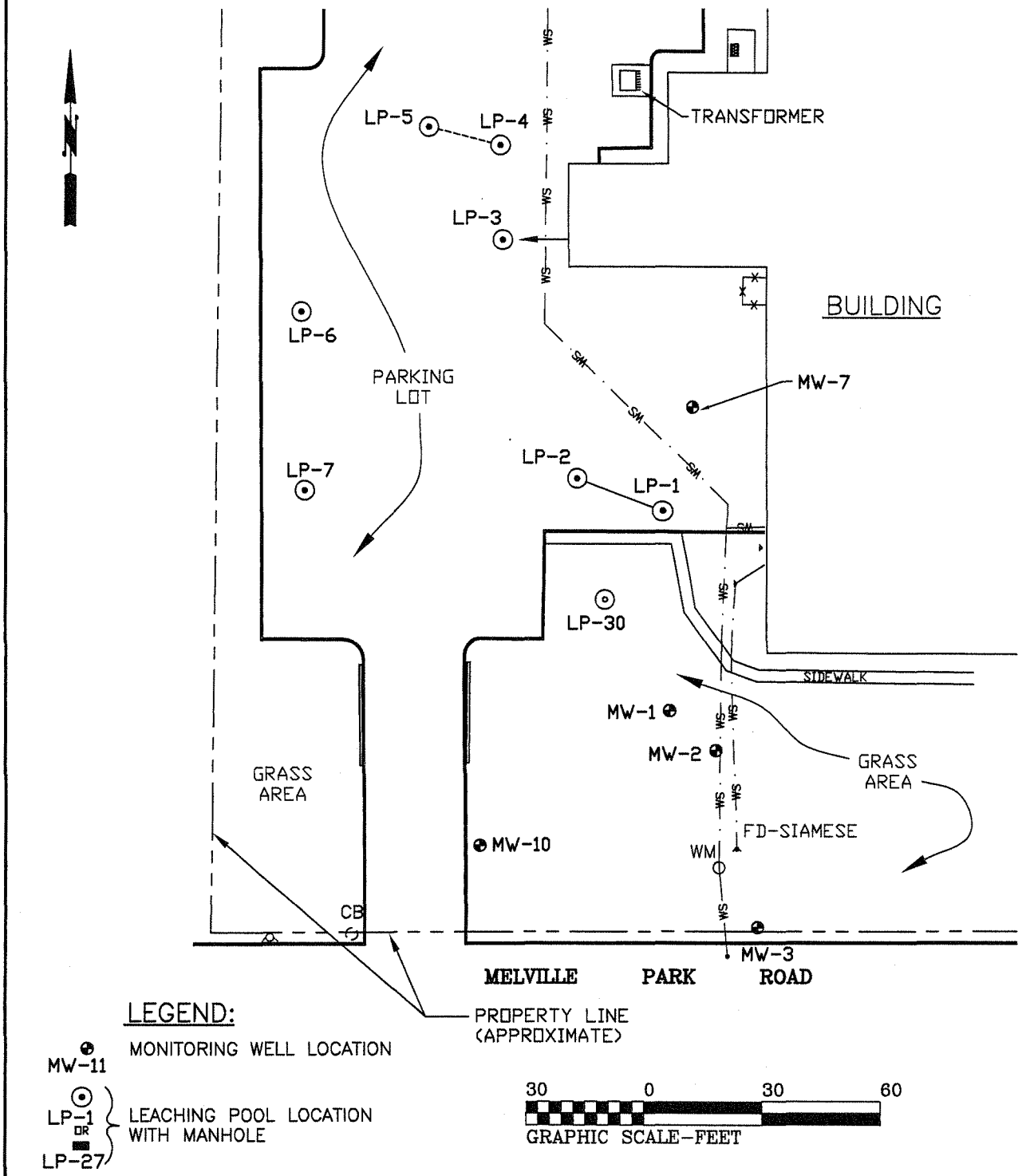
List additional inspections or activities conducted in association with this inspection: _____

_____

_____

_____

_____



Fanning, Phillips & Molnar
Engineers

MW-1, MW-2 AND
MW-7 LOCATIONS

35 MELVILLE PARK ROAD
MELVILLE, NEW YORK

Drawn By: H.C.	Checked By: SOD	Date: 1/28/08

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MONTHLY PRODUCT REMOVAL MONITORING LOG
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
7/25/00	MW-7	NA	49.07	-	No free-phase product detected by interface probe. Petroleum odor and product residue on probe. Installed Soak-Eze.
	MW-2	NA	49.10	-	No free-phase product detected by interface probe. No odor or evidence of product on probe. Installed Soak-Eze.
8/10/00	MW-7	NA	-	-	Checked Soak-Eze, 25% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 25% saturated, re-installed same Soak-Eze.
8/23/00	MW-7	NA	-	-	Removed Soak-Eze (33% saturated) and installed a fresh Soak-Eze.
	MW-2	NA	-	-	Removed Soak-Eze (33% saturated) and installed a fresh Soak-Eze.
9/15/00	MW-7	NA	-	-	Checked Soak-Eze, 25% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 25% saturated, re-installed same Soak-Eze.
9/29/00	MW-7	NA	-	-	Checked Soak-Eze, 33% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 25% saturated, re-installed same Soak-Eze.
11/9/00	MW-7	NA	-	-	Checked Soak-Eze, 50% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 33% saturated, re-installed same Soak-Eze.
1/4/01	MW-7	NA	-	-	Checked Soak-Eze, 50% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 33% saturated, installed new Soak-Eze.
2/8/01	MW-7	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
3/22/01	MW-7	NA	-	-	Checked Soak-Eze, 20% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 20% saturated, re-installed same Soak-Eze.
4/4/01	MW-7	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
5/22/01	MW-7	NA	-	-	Checked Soak-Eze, 25% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 25% saturated, installed new Soak-Eze.
6/22/01	MW-7	NA	-	-	Checked Soak-Eze, 15% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 15% saturated, re-installed same Soak-Eze.

MONTHLY PRODUCT REMOVAL MONITORING LOG
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
8/1/01	MW-7	NA	-	-	Checked Soak-Eze, 15% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 15% saturated, re-installed same Soak-Eze.
8/29/01	MW-7	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 15% saturated, installed new Soak-Eze.
9/14/01	MW-7	NA	-	-	Checked Soak-Eze, 5% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 5% saturated, re-installed same Soak-Eze.
10/16/01	MW-7	NA	-	-	Checked Soak-Eze, 10% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 10% saturated, re-installed same Soak-Eze.
12/18/01	MW-7	NA	-	-	Checked Soak-Eze, 15% saturated, re-installed same Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 15% saturated, re-installed same Soak-Eze.
1/18/02	MW-7	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
2/13/02	MW-7	NA	-	-	Soak-Eze, 10% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Soak-Eze, 10% saturated, installed new Soak-Eze.
3/27/02	MW-7	NA	-	-	Soak-Eze, 15% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Soak-Eze, 10% saturated, installed new Soak-Eze.
4/17/02	MW-7	NA	-	-	Checked Soak-Eze, 15% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, 10% saturated, installed new Soak-Eze.
5/22/02	MW-7	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	NA	-	-	Checked Soak-Eze, <5% saturated, removed Soak-Eze.
6/6/02	MW-7	NA	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	NA	52.70	0	No product in well.
7/18/02	MW-7	-	-	-	Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	NA	52.55	0	No product in well.
8/19/02	MW-7	-	-	-	Checked Soak-Eze, 15% saturated, installed new Soak-Eze.
	MW-2	NA	52.41	0	No product in well.
9/11/02	MW-7	-	-	-	Checked Soak-Eze, 10% saturated, removed Soak-Eze.
	MW-2	NA	52.39	0	No product in well.

MONTHLY PRODUCT REMOVAL MONITORING LOG
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
10/17/02	MW-7	NA	52.35	0	No product in well.
	MW-2	NA	52.37	0	No product in well.
10/24/02	MW-7	NA	52.22	0	No product in well.
	MW-2	NA	52.23	0	No product in well.
12/10/02	MW-7	NA	52.11	0	No product in well.
	MW-2	NA	52.14	0	No product in well.
1/15/03	MW-7	NA	52.13	0	No product in well.
	MW-2	NA	52.16	0	No product in well.
2/25/03	MW-7	NA	52.11	0	Heavy sheen observed. Installed Soak-Eze.
	MW-2	NA	52.10	0	Sheen observed.
3/20/03	MW-7	-	-	-	Checked Soak-Eze, 30% saturated, installed new Soak-Eze.
	MW-2	-	-	-	Sheen observed in bailer. Installed Soak-Eze.
	MW-1	52.42	52.55	0.13	Installed Soak-Eze.
3/26/03	MW-7	-	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	-	-	-	Checked Soak-Eze, 100% saturated, installed new Soak-Eze.
	MW-1	-	-	-	Checked Soak-Eze, 100% saturated, installed new Soak-Eze.
4/1/03	MW-7	-	-	-	Checked Soak-Eze, 20% saturated, installed new Soak-Eze.
	MW-2	-	-	-	Checked Soak-Eze, 75% saturated, installed new Soak-Eze.
	MW-1	-	-	-	Checked Soak-Eze, 100% saturated, installed new Soak-Eze.
4/25/03	MW-7	-	-	-	Checked Soak-Eze, 20% saturated, removed Soak-Eze.
	MW-2	-	-	-	Checked Soak-Eze, 50% saturated, installed new Soak-Eze.
	MW-1	-	-	-	Checked Soak-Eze, 75% saturated, installed new Soak-Eze.
5/1/03	MW-7	NA	51.82	0	No product in well.
	MW-2	-	-	-	Checked Soak-Eze, 50% saturated, installed new Soak-Eze.
	MW-1	-	-	-	Checked Soak-Eze, 75% saturated, installed new Soak-Eze.
5/14/03	MW-7	NA	51.79	0	No product in well.
	MW-2	-	-	-	Checked Soak-Eze, 25% saturated, installed new Soak-Eze.
	MW-1	-	-	-	Checked Soak-Eze, 75% saturated, installed new Soak-Eze.
6/4/03	MW-7	NA	51.75	0	No product in well.
	MW-2	-	-	-	Checked Soak-Eze, 25% saturated, installed new Soak-Eze.
	MW-1	-	-	-	Checked Soak-Eze, 50% saturated, installed new Soak-Eze.

MONTHLY PRODUCT REMOVAL MONITORING LOG
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
6/18/03	MW-7	NA	51.76	0	No product in well.
	MW-2	-	-	-	Soak-Eze 20% saturated, reinstalled Soak-Eze.
	MW-1	-	-	-	Soak-Eze 40% saturated, installed new Soak-Eze.
7/16/03	MW-7	NA	51.69	0	No product in well, sheen on water surface.
	MW-2	-	-	-	Soak-Eze 30% saturated, installed new Soak-Eze.
	MW-1	-	-	-	Soak-Eze 10% saturated, reinstalled same Soak-Eze.
7/29/03	MW-7	NA	51.64	0	No product in well, sheen.
	MW-2	-	-	-	Soak-Eze 10% saturated, removed Soak-Eze.
	MW-1	-	-	-	Soak-Eze 10% saturated, removed Soak-Eze.
8/14/03	MW-7	NA	51.60	0	No product in well, odor and sheen present.
	MW-2	NA	51.57	0	No product in well, odor and sheen present.
	MW-1	NA	52.14	0	No product in well, odor and sheen present.
8/26/03	MW-7	NA	51.50	0	No product noted; very slight sheen and odor.
	MW-2	NA	51.48	0	No product noted; very slight sheen and odor.
	MW-1	NA	51.99	0	No product noted; odor and sheen present.
9/12/03	MW-7	NA	51.41	0	No product or sheen observed in well; slight odor present.
	MW-2	NA	51.41	0	No product or sheen noted in well; only very slight odor.
	MW-1	-	-	0.03	Retrieved bailer containing minimal product, appearing to be only a surface film of product. Installed Soak-Eze.
9/23/03	MW-7	NA	51.34	0	No product or sheen present in well, only slight odor.
	MW-2	NA	51.33	0	No product in well, only very slight odor present, no sheen.
	MW-1	-	-	-	Soak-Eze 30% saturated, appears to be water/product mixture. No heavy odor and no measurable product in well. Removed Soak-Eze.
10/2/03	MW-7	NA	51.33	0	No product or sheen present in well, no odor.
	MW-2	NA	51.31	0	No product or sheen present in well, no odor.
	MW-1	-	-	-	No product or sheen present in well, no odor.
10/29/03	MW-7	NA	51.26	0	No product or sheen present in well, no odor.
	MW-2	NA	51.26	0	No product or sheen present in well, no odor.
	MW-1	NA	51.79	0	No product or sheen present in well, no odor.
11/20/03	MW-7	NA	51.23	0	No product or sheen present in well, no odor.
	MW-2	NA	51.22	0	No product or sheen present in well, no odor.
	MW-1	NA	51.75	0	No product or sheen present in well, no odor.

MONTHLY PRODUCT REMOVAL MONITORING LOG
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
12/26/03	MW-7	-	-	-	Sample retrieved by bailer, no product or sheen present in well, no odor.
	MW-2	-	-	-	Sample retrieved by bailer, no product or sheen present in well, no odor.
	MW-1	-	-	-	Sample retrieved by bailer, no product or sheen present in well, no odor.
1/26/04	MW-7	NA	51.00	0	No product or sheen present in well, no odor.
	MW-2	NA	50.99	0	No product or sheen present in well, no odor.
	MW-1	NA	51.52	0	No product or sheen present in well, no odor.
3/30/04	MW-7	50.23	50.26	0.03	Sump sock installed in well.
	MW-2	NA	50.23	0	No product or sheen present in well, no odor.
	MW-1	NA	50.70	0	No product in well, very slight sheen and odor.
4/29/04	MW-7	-	-	-	Sump sock removed (sock only 50% saturated). No evidence of floating product. Only minor petroleum odor and a very slight sheen observed.
	MW-2	NA	50.27	0	No product or sheen present in well, no odor.
	MW-1	NA	50.78	0	No product in well, very slight sheen and odor.
5/25/04	MW-7	NA	50.30	0	No measurable floating product; however, sheen and a petroleum odor were noted.
	MW-2	NA	50.27	0	No product in well, no odor.
	MW-1	NA	50.81	0	No product in well, very slight sheen and odor.
6/11/04	MW-7	-	-	-	Sample bailed. No measurable floating product. No sheen observed. Slight petroleum odor was noted.
	MW-2	-	-	-	Sample bailed. No product in well, no sheen, slight petroleum odor noted.
	MW-1	-	-	-	Sample bailed. No product in well, no sheen or odor.
7/28/04	MW-7	NA	49.51	0	No product or sheen observed. Slight petroleum odor was noted.
	MW-2	NA	49.51	0	No product or sheen, slight petroleum odor noted.
	MW-1	NA	50.00	0	No product in well, no sheen or odor.
8/9/04	MW-7	NA	49.39	0	No product or sheen observed. Slight petroleum odor was noted.
	MW-2	NA	49.37	0	No product or sheen, very slight petroleum odor noted.
	MW-1	NA	49.90	0	No product, sheen, or odor in well.
9/14/04	MW-7	NA	49.00	0	No product or sheen observed. Slight petroleum odor was noted.
	MW-2	NA	48.98	0	No product, sheen, or odor in well.
	MW-1	NA	49.50	0	No product, sheen, or odor in well.

MONTHLY PRODUCT REMOVAL MONITORING LOG
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
10/13/04	MW-7	NA	48.73	0	No product, sheen, or odor.
	MW-2	NA	48.73	0	No product, sheen, or odor.
	MW-1	NA	49.24	0	No product, sheen, or odor.
11/5/04	MW-7	NA	48.59	0	No product, sheen, or odor.
	MW-2	NA	48.58	0	No product, sheen, or odor.
	MW-1	NA	49.12	0	No product, sheen, or odor.
12/9/04	MW-7	NA	48.30	0	No product, sheen, or odor.
	MW-2	NA	48.28	0	No product, sheen, or odor.
	MW-1	NA	48.83	0	No product, sheen, or odor.
1/18/05	MW-7	NA	48.01	0	No product, sheen, or odor.
	MW-2	NA	47.99	0	No product, sheen, or odor.
	MW-1	NA	48.55	0	No product, sheen, or odor.
2/2/05	MW-7	NA	47.97	0	No product, sheen, or odor.
	MW-2	NA	47.98	0	No measurable product; slight sheen and odor.
	MW-1	NA	48.50	0	No product, sheen, or odor.
3/23/05	MW-7	-	-	-	
	MW-2	47.63	47.64	0.01	Sump sock installed.
	MW-1	NA	49.10	0	No product, sheen, or odor.
4/19/05	MW-7	NA	47.39	0	No product, sheen, or odor.
	MW-2	-	-	-	Sump sock removed (~75% saturated); no measurable product, slight sheen and odor.
	MW-1	NA	47.93	0	No product, sheen, or odor.
5/18/05	MW-7	NA	47.17	0	No product, sheen, or odor.
	MW-2	NA	47.17	0	No measurable product, slight sheen and odor.
	MW-1	NA	47.69	0	No product, sheen, or odor.
7/5/05	MW-7	NA	46.91	0	No product, sheen, or odor.
	MW-2	NA	46.92	0	No product or sheen, very slight odor.
	MW-1	NA	47.53	0	No product, sheen, or odor.
8/29/05	MW-7	NA	46.68	0	No product, sheen, or odor.
	MW-2	NA	46.69	0	No product, sheen, or odor.
	MW-1	NA	47.16	0	No product, sheen, or odor.

MONTHLY PRODUCT REMOVAL MONITORING LOG
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
9/28/05	MW-7	NA	46.54	0	No product, sheen, or odor.
	MW-2	NA	46.53	0	No product, sheen, or odor.
	MW-1	NA	47.07	0	No product, sheen, or odor.
11/4/05	MW-7	NA	46.39	-	Minor sheen and odor, no product.
	MW-2	-	-	-	
	MW-1	-	-	-	
11/28/05	MW-7	NA	46.25	0	Minor odor, no product or sheen.
	MW-2	NA	46.21	0	Minor odor, no product or sheen.
	MW-1	NA	45.75	0	Minor odor, no product or sheen.
1/26/06	MW-7	NA	45.37	0	Very minor sheen and odor, no product.
	MW-2	NA	45.36	0	Minor odor, no product or sheen.
	MW-1	NA	45.88	0	No odor, product, or sheen.
2/17/06	MW-7	NA	45.22	0	Very minor sheen and odor, no product.
	MW-2	NA	42.23	0	Minor odor, no product or sheen.
	MW-1	NA	45.75	0	No odor, product, or sheen.
3/8/06	MW-7	NA	45.02	0	Very minor sheen and odor, no product.
	MW-2	NA	45.02	0	Minor odor, no product or sheen.
	MW-1	NA	45.53	0	No odor, product, or sheen.
6/29/07	MW-7	NA	44.35	0	Minor sheen noted in purge water during annual monitoring.
	MW-2	NA	44.36	0	Very minor sheen noted in purge water during annual monitoring.
	MW-1	NA	44.86	0	No sheen noted in purge water during monitoring.
7/19/07	MW-7	NA	44.38	0	Very minor sheen observed.
	MW-2	NA	44.39	0	No sheen observed. Very minor petroleum odor noted.
	MW-1	NA	44.88	0	No odor or sheen noted.
8/15/07	MW-7	NA	44.39	0	Very minor sheen observed.
	MW-2	NA	44.39	0	No sheen observed. Very minor petroleum odor noted.
	MW-1	NA	44.90	0	No odor or sheen noted.
9/25/07	MW-7	NA	44.45	0	Very minor sheen observed.
	MW-2	NA	44.97	0	No sheen observed. Very minor petroleum odor noted.
	MW-1	NA	44.99	0	No odor or sheen noted.

MONTHLY PRODUCT REMOVAL MONITORING LOG
I.W. INDUSTRIES, INC. SITE
35 MELVILLE PARK ROAD, MELVILLE, NEW YORK

Date	Well Number	Depth to Product (feet)	Depth to Water (feet)	Product Apparent Thickness (feet)	Notes
10/26/07	MW-7	NA	44.49	0	Very minor sheen and petroleum odor noted.
	MW-2	NA	44.40	0	No sheen or odor noted.
	MW-1	NA	44.90	0	No sheen or odor noted.
11/30/07	MW-7	NA	44.31	0	Minor sheen and odor noted.
	MW-2	NA	44.23	0	No sheen observed. Very minor odor noted.
	MW-1	NA	44.67	0	No sheen or odor noted.
12/11/07	MW-7	NA	44.07	0	Minor sheen and odor noted.
	MW-2	NA	44.09	0	No sheen observed. Very minor odor noted.
	MW-1	NA	44.57	0	No sheen or odor noted.
1/10/08	MW-7	NA	43.96	0	Minor sheen and odor noted.
	MW-2	NA	43.99	0	No sheen observed. Very minor odor noted.
	MW-1	NA	44.46	0	No sheen or odor noted.
2/4/08	MW-7	NA	43.91	0	No sheen observed. Minor odor noted.
	MW-2	NA	43.93	0	No sheen observed. Minor odor noted.
	MW-1	NA	44.40	0	No sheen or odor noted.
3/25/08	MW-7	-	-	-	Sample bailed. No sheen observed. Minor odor noted.
	MW-2	-	-	-	Sample bailed. No sheen observed. Minor odor noted.
	MW-1	-	-	-	Sample bailed. No sheen or odor noted.
4/17/08	MW-7	NA	44.20	0	Very minor sheen and odor noted.
	MW-2	NA	44.21	0	No sheen observed. Very minor odor noted.
	MW-1	NA	44.71	0	No sheen or odor noted.
5/23/08	MW-7	NA	44.15	0	No sheen or odor noted.
	MW-2	NA	44.18	0	No sheen or odor noted.
	MW-1	NA	44.65	0	No sheen or odor noted.

Notes:

- = No data available.

NA = Not applicable, no floating product.

ATTACHMENT 6 OF SITE MANAGEMENT PLAN

Well Boring/Sampling Logs
and
Monitoring Well Data Table

I.W. Industries Site
35 Melville Park Road
Melville, Suffolk County, New York

NYSDEC Site Number: 1-52-102

Prepared for:

Metro Assets III, LLC (Respondent)
For submittal to
New York State Department of Environmental Conservation

Prepared by:

909 MARCONI AVENUE
RONKONKOMA, NEW YORK 11779

OCTOBER 2011

Well Sampling Data Form
I.W. Industries Site
35 Melville Park Road, Melville, New York

Well No.: _____ Well Diameter: _____

Date: _____ Start Time: _____

Weather: _____ Finish Time: _____

Sampled By (full name and affiliation): _____

Depth to Bottom of Well: _____ Feet.

Depth to Water: _____ Feet.

Height of Water Column: _____ Feet.

Water Volume in Casing: _____ Gallons.

Water Volume to be Purged: _____ Gallons.

Water Volume Actually Purged: _____ Gallons.

Purge Method: _____

Physical Appearance/Comments: _____

FIELD MEASUREMENTS:

Time	Gallons	pH	Cond. (uS)	Temp. (^{o}F)	Turbidity (NTU)

Sampling and Analytical Methods: _____

Laboratory Name and Location: _____

Condition of Well: _____

Condition of Surface Completion: _____

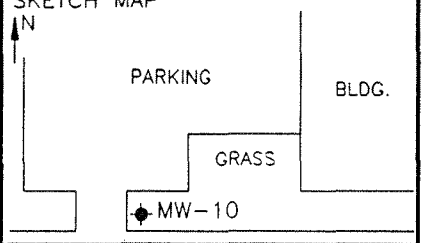
Recommended Repairs/Maintenance: _____

DRILLING LOG

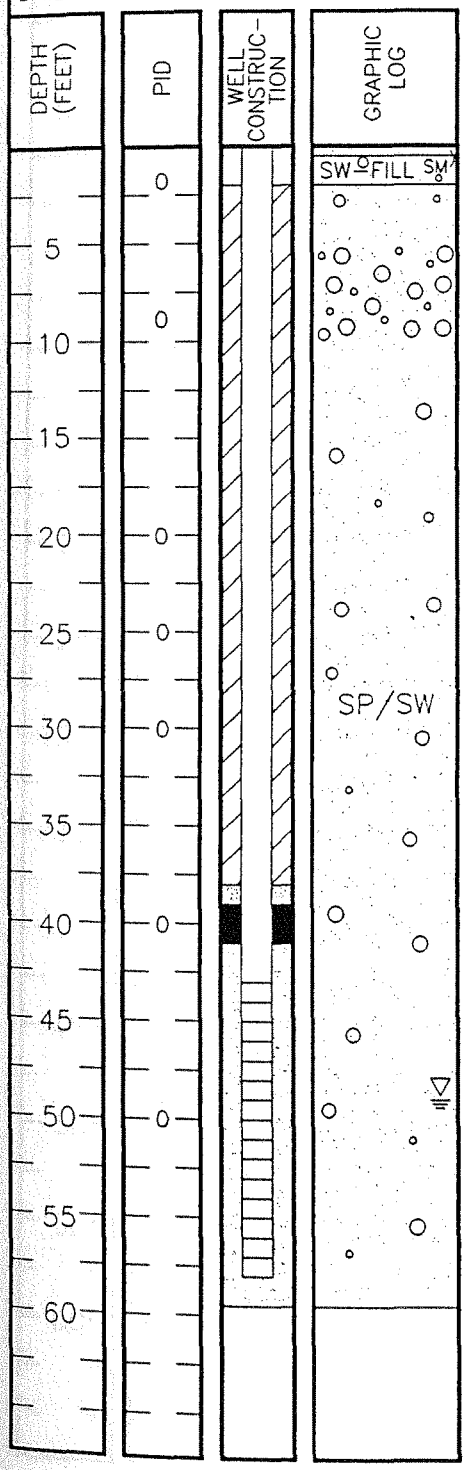
Fanning, Phillips & Molnar Engineers
Ronkonkoma New York

PROJECT IWI-RI OWNER
LOCATION 35 MELVILLE PARK RD. W.O. No.
WELL No. MW-10 TOTAL DEPTH 58' DIAMETER 10"
SURFACE ELEV. – WATER LEVEL INITIAL 48.97' 24-hrs 49.02'
SCREEN DIA. 4" LENGTH 15'(58'-43') SLOT SIZE 0.02"
CASING DIA. 4" LENGTH 43' TYPE SCHED. 40 PVC
DRILLING COMP. LAWES DRILLING METHOD HSA
DRILLER CARL LOG BY S. DAVIS DATE DRILLED 7/9/97

SKETCH MAP



NOTES:



DESCRIPTION/SOIL CLASSIFICATION
(COLOR, TEXTURE, STRUCTURES)

0-6" -SM -DARK BROWN SILTY SAND W/ GRAVEL AND ORGANIC MATERIAL. MOIST. NO ODOR/STAIN.

6"-2' -SW -BROWN FINE TO COARSE-GRAINED SAND W/ FINE TO MEDIUM GRAVEL. MOIST. FILL.

2'-59.5' -SW/SP -ORANGE-BROWN TO LIGHT BROWN FINE TO COARSE-GRAINED SAND W/ FINE TO COARSE GRAVEL. MOIST. NO STAIN/ODOR. GRAVELLY @ ~5'-10'.

BOTTOM OF AUGERS HAD LIGHT BROWN FINE SAND W/ MUSCOVITE. POSSIBLE MAGOTHY?? NO CLAY.

COMPLETION:

58'-43' SCREEN: 0.02"PVC MACHINE SLOTTED.

59.5'-41' WELL GRAVEL: MORIE #2 (8-50# BAGS).

41'-39' BENTONITE CHIPS: (1-50# BAG). HYDRATED.

59.5' 39'-38' 00 FINE SAND.

38'-2' CEMENT-BENTONITE GROUT.

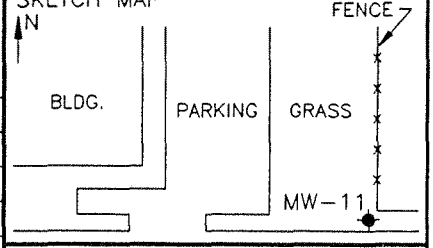
2'-GRADE FLUSH TO GRADE MANHOLE W/ SAND BACKFILL BELOW SLEEVE.

DRILLING LOG

Fanning, Phillips & Molnar Engineers
Ronkonkoma New York

PROJECT IWI-RI OWNER
LOCATION 35 MELVILLE PARK RD. W.O. No.
WELL No. MW-11 TOTAL DEPTH 58' DIAMETER 10"
SURFACE ELEV. – WATER LEVEL INITIAL 50.01' 24-hrs –
SCREEN DIA. 4" LENGTH 15'(58'-43') SLOT SIZE 0.02"
CASING DIA. 4" LENGTH 43' TYPE SCHED. 40 PVC
DRILLING COMP. LAWES DRILLING METHOD HSA
DRILLER CARL LOG BY S. DAVIS DATE DRILLED 7/9/97

SKETCH MAP



NOTES:

DEPTH (FEET)	PID	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
5	0		SM FILL	0'-5' -POST-HOLE DUG. -SM -BROWN SILTY SAND W/ GRAVEL AND METAL, WOOD FRAGMENTS. MOIST. FILL.
10	0			5'-59.5' -SP/SW -BROWN TO LIGHT BROWN FINE TO COARSE SAND W/ FINE TO COARSE GRAVEL.
15	0			GRAVEL LAYERS @ 5'-10' 45'-50'
20	0			
25				
30	0		SP/SW	
35				
40	0			
45				
50	0			
55	0			
59.5' 60				

COMPLETION:

58'-43' SCREEN: 0.02"SLOT, MACHINE CUT.

59.5'-40' SAND: MORIE #2 (10-50# BAGS)

40'-38' BENTONITE CHIPS: (1-50# BAG), HYDRATED.

38'-3' CEMENT: BENTONITE GROUT.

3'-GRADE FLUSH-TO-GRADE MANHOLE W/ SAND BACKFILL BELOW SLEEVE.

MONITORING WELL DATA
I.W. INDUSTRIES SITE
35 MELVILLE PARK ROAD
MELVILLE, SUFFOLK COUNTY, NEW YORK

Well No.	Well Diameter (inches)	Well Depth (feet below grade)	Top of Casing Relative Elevation (feet)*
MW-1	4	52.85	99.67
MW-2	4	52.8	99.09
MW-3	4	49.20	98.63
MW-4	4	48.35	99.16
MW-5	4	48.08	100.47
MW-6	4	52.77	98.23
MW-7	4	52.60	99.22
MW-8	4	51.40	99.62
MW-9	4	54.50	100.06
MW-10	4	58	99.23
MW-11	4	58	100.17

Note:

*All relative elevations referenced to an assumed datum of 100 feet set on the concrete pad for UST #3. This UST and the associated pad were removed in 2007.

ATTACHMENT 7 OF SITE MANAGEMENT PLAN

Quality Assurance Project Plan

I.W. Industries Site
35 Melville Park Road
Melville, Suffolk County, New York

NYSDEC Site Number: 1-52-102

Prepared for:

Metro Assets III, LLC (Respondent)
For submittal to
New York State Department of Environmental Conservation

Prepared by:

909 MARCONI AVENUE
RONKONKOMA, NEW YORK 11779

OCTOBER 2011

Quality Assurance Project Plan
I.W. Industries Site
Melville, Suffolk County, New York

This Quality Assurance Project Plan (QAPP) describes the quality assurance procedures and the sampling and analysis procedures to be used during groundwater monitoring.

1.0 QA/QC Objectives

The QA/QC objectives are applicable to all data-gathering activities at the Site. QA/QC objectives are incorporated into sampling, analysis, and quality assurance tasks associated with monitoring activities.

The primary data user for this project is FPM. The Respondent, the Site owner, and the NYSDEC will also be provided with the data. No other data users are anticipated.

The collected data are intended to assess the current nature and extent of groundwater impacts at the Site, including ambient groundwater conditions, and to assess the performance of the remedial measures. These data will allow for the evaluation of groundwater conditions and possible modification of the monitoring system and/or termination of groundwater monitoring.

The following applicable or relevant and appropriate requirements for the Site groundwater have been identified:

- The NYSDEC Class GA Ambient Water Quality Standards (1998), which are used to evaluate the groundwater chemical analytical results.

2.0 Sampling Quality Assurance Procedures

The Quality Assurance (QA) procedures to be utilized during the groundwater monitoring activities are described below.

Decontamination Procedures

Dedicated disposable equipment (disposable bailers, gloves, cord, etc.) will be utilized whenever possible to reduce the risk of cross-contamination. When it is not possible to use disposable equipment, all non-disposable downhole or sampling equipment (i.e., submersible pump, PVC bailers) will be decontaminated prior to use at each location. The equipment to be

decontaminated will be scrubbed in a bath of potable water and low-phosphate detergent followed by a potable water rinse. The equipment will then be rinsed with distilled water. A methanol rinse will also be utilized for removal of oily contamination, if present. The equipment will then be allowed to air dry prior to use if time permits and shall receive a final distilled water rinse. The decontaminated equipment will be wrapped in aluminum foil (shiny side out) for transport if necessary.

Sample Designation

All samples will be identified with sequential numbers referencing the sampling location from which they were obtained. If additional samples are collected from the same location, they will be clearly labeled with the sampling date and time so as to facilitate identification. All sample depths will be referenced to the top of the well casing.

Sample Containers, Packaging, and Shipment

All samples will be collected into laboratory-provided new sample containers with appropriate preservatives, if necessary. Containers with preservatives will be labeled as such. Table 2.1 documents the sample container type, preservation, and analysis for the primary and QA/QC samples.

All filled sample containers will be placed in a laboratory-supplied cooler and packed with ice to depress the temperature to 4 degrees Celsius. The filled coolers will be secured with tape and custody seals will be placed along cooler openings in a manner to reveal if the cooler was opened during transit. The secured coolers will be delivered to the laboratory by FPM or by an overnight carrier. In the event the samples cannot be delivered to the laboratory overnight, the samples will remain in the custody of FPM personnel overnight and the samples will be delivered to the laboratory the following day.

Chain-of-Custody Procedures

For each day of sampling, a chain-of-custody sheet will be completed and submitted to the laboratory together with the associated sample coolers. A copy of the chain-of-custody will be retained by FPM. The chain-of-custody sheet will include the project name, the sampler's signature, the sampling locations, the date and time, and analysis parameters requested. If the

TABLE 2.1
GROUNDWATER SAMPLING MATRIX
I.W. INDUSTRIES SITE, MELVILLE, NEW YORK

Sample Type	Sample Name	Sampling Protocol	Analytes and Methods	Laboratory Deliverables	Sample Containers	Preservation
Primary Samples	MW-1, MW-2, MW-3,MW-5, and MW-7	If no free-phase product, purge and sample.	TCL VOCs (SW 846, Method 8260B) and base-neutral SVOCs (SW 846, Method 8270C), TAL metals (SW 846, Methods 6010B and 7470A)	Category B	Two VOA vials for VOCs Two 1-liter amber for SVOCs One 1-liter plastic for metals	HCl, cool to 4°C Cool to 4°C HNO_3, cool to 4°C
QA/QC Samples	Equipment Blank	One per day per matrix sampled	Same as matrix	Category B	Two VOA vials for VOCs One 1-liter plastic for metals Two 1-liter amber for SVOCs	HCl, cool to 4°C HNO_3, cool to 4°C Cool to 4°C
	Trip Blank	One per cooler containing VOC samples	TCL VOCs (SW 846, Method 8260B)	Category B	Two VOA vials (filled by lab)	HCl (by lab), cool to 4°C
	Blind Duplicate	One per 20 environmental samples per matrix	Same as matrix	Category B	Same as matrix	Same as matrix
	Matrix Spike/ Matrix Spike Duplicate	One per sample delivery group	Same as matrix	Category B	Same as matrix	Same as matrix

samples are shipped using an overnight courier, the air bill number will be placed on the chain-of-custody to facilitate tracking, if necessary.

Samples will be tracked through the field collection, laboratory analysis, and laboratory report preparation processes. FPM will perform the sample tracking and assemble and review the analytical results as they are received.

QA/QC Samples

QA/QC samples will be obtained during the groundwater sampling events. QA/QC samples for groundwater will include equipment blank samples, trip blank samples, duplicate samples, and matrix spike/matrix spike duplicate (MS/MSD) samples.

One equipment blank sample per day of sampling will be obtained. Each equipment blank sample will be prepared by pouring laboratory-supplied, deionized water through the dedicated or decontaminated sampling equipment and into a set of sample containers. The equipment blank samples will be tested for the same analytes as the groundwater samples. The equipment blank sample results will be reviewed to evaluate the potential for field or laboratory contamination and will be used to attest to the quality of the decontamination procedures.

One trip blank sample will be provided by the laboratory for each cooler containing groundwater samples to be submitted to the laboratory for VOC analysis. The trip blank samples will be prepared by the laboratory from analyte-free, deionized water and will remain in the coolers in which the samples are stored. Trip blank samples will be analyzed for VOCs. The purposes of trip blank samples are to ensure that no cross-contamination of VOCs occurs in the sample cooler and to attest to laboratory quality.

MS/MSD samples will be submitted to the laboratory by obtaining an extra volume of groundwater sample. Preparation of the spike and spike duplicate will be performed by the laboratory. The frequency of MS/MSD samples will be one per groundwater sample delivery group (20 primary samples). The purpose of the MS/MSD samples is to confirm the accuracy and precision of the laboratory.

Blind duplicate samples for groundwater will be obtained at a frequency of at least one duplicate sample per sample delivery group. Each blind duplicate sample will be prepared by

obtaining an extra volume of groundwater sample. The purpose of the blind duplicate samples is to attest to the precision of the laboratory.

3.0 Analytical Quality Assurance Procedures

Sample Analyses

All samples will be submitted to New York State Department of Health ELAP-certified laboratories. The laboratory testing for the groundwater samples will conform to NYS ASP methods with Category B data reporting and deliverables. Laboratory testing and data reporting will be performed by subcontracted laboratories. 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. Laboratory analyses will include internal QC sample analyses and checks.

The laboratory reports will include sample analytical results, methods of analysis, reportable field and laboratory QA/QC sample analytical results, method limits of detection, and sample practical quantification limits (PQLs). All groundwater samples will be analyzed for Target Compound List (TCL) VOCs and base-neutral SVOCs and Target Analyte List (TAL) metals.

Data Validation

The laboratory results from all groundwater samples obtained and analyzed will be subjected to data validation in accordance with USEPA guidelines for organic and inorganic data review. The data validation will verify that the analytical results are of sufficient quality to be relied upon to assess the groundwater quality at the Site. A Data Usability Summary Report (DUSR) will present the data validation results, 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.

Data Evaluation

Data collected during the monitoring will be assembled, reviewed, and evaluated to assure satisfaction of the monitoring objectives. Data evaluated will include chemical analytical data, field reports, and other project documents. The data collected will be organized and analyzed to evaluate the nature and extent of groundwater impacts, including the nature of

ambient groundwater, and the performance of the remedial measures at the Site. Data will be presented and evaluated in the Periodic Site Management Report.

4.0 QA/QC Performance

QA/QC performance shall be assessed in each DUSR and in each groundwater monitoring report in the Annual Site Management Report. QA/QC assessment shall include the following:

- An evaluation of whether the QA/QC program is adequate to identify potential issues with data completeness, accuracy or precision;
- A review of monitoring equipment maintenance procedures and schedules to confirm their performance; and
- An evaluation of whether corrective actions are necessary for any of the monitoring or QA/QC procedures or equipment.

If corrective actions are identified, they will be implemented in subsequent monitoring events.