Environmental Waste
Management Associates

Mid-Atlantic Regional Office:
51 Everett Drive, Suite A-10
West Windsor, NJ 08550
phone (609) 799-7300
fax (609) 799-0108
website - www.ewma.com

Sent Via Email and Regular Mail

March 4, 2009

Bryan Wong, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, New York 11101

Re: Revised Remedial Investigation Report
OCA LIC Fifth Street Mixed-Use Housing
5-20 46th Road
Long Island City
Queens, New York 11101
BCP No C241098
EWMA Project No. 205490

Dear Mr. Wong:

Environmental Waste Management Associates, LLC (EWMA), on behalf of OCA Long Island City, LLC (OCA), is enclosing one original and one copy of the December 23, 2009 Remedial Investigation Report (RIR) for the OCA LIC Fifth Street Mixed-Use Housing property (Property) which has been updated at the request of New York State Department of Environmental Conservation (NYSDEC) to reflect the additional delineation efforts for the Light Non-Aqueous Phase Liquid (LNAPL) migrating from off-site in the lower sand unit. EWMA is enclosing a redline version which is a comparison to the December 23, 2009 RIR to facilitate your review.

If you have any questions, please do not hesitate to contact me at EWMA's West Windsor office at 609-799-7300, extension 196.

Sincerely,
Environmental Waste Management Associates, LLC

Sharon McSwieney
Assistant Vice President

Enclosures: One (1) original and one (1) copy March 4, 2009 Revised RIR

cc: Bridget K. Callaghan, NYSDOH
Rory Levy, New York City Board of Standards and Appeals
Margaret Smith, NYCDEP
Brent L. Carrier, O'Connor Capital Partners
Michael Bogin, Esq., Sive, Paget, Riesel, PC
Howard Goldman, Esq., Law Offices of Howard Goldman, LLC
Susan L. Ferrel, P.G. (AIG)
Ravi Reddy, CitiStructure, LLC
Thomas V. Fusillo, ENVIRON
Daniel DiRocco, EWMA

Environmental
Waste
Management
Associates

REMEDIAL INVESTIGATION REPORT

Volume I of III

Site Known As:

OCA LIC Fifth Street Mixed-Use Housing
5-20 46th Road
Long Island City, Queens County, New York 11101
BCP Site No C241098

Prepared for:

OCA Long Island City, LLC
c/o O'Connor Capital Partners
535 Madison Avenue, 23rd Floor
New York, NY 10022

December 23, 2008
Updated March 3, 2009

Submitted by:

Environmental Waste Management Associates, LLC
P. O. Box 5430
Parsippany, New Jersey 07054
EWMA Case No. 205490

Chris Viani

Prepared by: Chris Viani, P.G.
Senior Hydrogeologist

Sharon McSwieney

Prepared & Reviewed By: Sharon McSwieney,
Project Manager

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LIST OF ACRONYMS AND ABBREVIATIONS

AOC – Area of Concern
bsg - below surface grade
BCA - Brownfiled Cleanup Agreement
BCP – Brownfield Cleanup Program
CAMP - Community Air Monitoring Plan
CHEMTECH - Chemtech Laboratory
COC – Chain of Custody
CRP - Concrete Removal Plan
DER – Division of Environmental Remediation (NYSDEC)
DUSR - Data Usability Summary Report
EEA - EEA, Inc.
ESA - Environmental Site Assessment
EWMA – Environmental Waste Management Associates, LLC
GA – Class GA Fresh Groundwaters
GPR – Ground Penetrating Radar
GWQS – Groundwater Quality Standards (per NYSDEC, Part 703)
HASP - Health and Safety Plan
JCB - J. C. Broderick & Associates, Inc.
LNAPL -Light Non-Aqueous Phase Liquids
Mikula - Mikula Contracting, Inc.
MDLs – Method Detection Limits
mg/kg (milligrams per kilogram)
mg/m3 - milligrams per cubic meter
NYCDOB - New York City Department of Buildings
NYCRR - New York Code of Rules and Regulations
NYSDEC - New York State Department of Environmental Conservation
NYSDOH - New York State Department of Health
OCA - OCA Long Island City, LLC
OSHA - Occupational Safety & Health Adminitration
PAHs – Polynuclear aromatic hydrocarbons
PCBs – Polychlorinated biphenyls
PEL - Permissible Exposure Limit
PID - Photoionization Detector
ppb – parts per billion
ppbv – parts per billion by volume
ppm - parts per million
QAPP - Quality Assurance Project Plan
RAWP – Remedial Action Work Plan
RI - Remedial Investigation
RIWP - Remedial Investigation Work Plan
RIR – Remedial Investigation Report
RSCO - Recommended Soil Cleanup Objective (as per TAGM 4046)
SCO - Soil Cleanup Objectives (per 6 NYCRR, Subpart 375-6)
SVOC - Semi-Volatile Organic Compound

TAGM 4046 - Technical and Administrative Guidance Memorandum # 4046 (Determination Of Soil Cleanup Objectives and Cleanup Levels)
TAL Metals – Target Analyte List Metals
TCL/TAL - Target Compound List/Target Analyte List
ug/L - micrograms per liter
ug/m3 - micrograms per cubic meter
USEPA - United States Environmental Protection Agency
USGS - United States Geologic Survey
UST – Underground Storage Tank
UUSCO – Unrestricted Use Soil Cleanup Objectives (per 6 NYCRR, Subpart 375-6)
VOCs - Volatile Organic Compounds
Zebra – Zebra Environmental Corp.

EXECUTIVE SUMMARY

Environmental Waste Management Associates, LLC (EWMA) was retained by OCA Long Island City, LLC (OCA) to complete a Remedial Investigation (RI) and prepare a Remedial Investigation Report (RIR) for the site known as OCA LIC Fifth Street Mixed-Use Housing Project located at 5-20 46th Road, City of New York, Queens County, New York (the Site). OCA has been accepted into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) as a "Volunteer", and the Site has been accepted as BCP Site No. C241098.

This RIR has been prepared on behalf of the OCA (the Volunteer) to fulfill the BCP requirements to address the nature and extent of the contamination at the Site and assess the potential for off-site exposure. The work was conducted in accordance with the Remedial Investigation Work Plan (RIWP) dated January 25, 2008, and subsequent RIWP Addendum, dated February 1, 2008 February 20, 2008 and June 25, 2008.

The Site is located within an industrial portion of Long Island City, Queens County, New York. The East River is the closest water body located approximately ¼-mile west of the Site. The Site is L-shaped with approximately 300 feet of frontage along the southern side of 46th Road, 200 feet of frontage along the eastern side of 5th Street, and 100 feet of frontage along the northern side of 47th Avenue.

Historically, the entire Site (except for a small parking area at the east end) was covered with buildings. As of June 2008, all the buildings on the property have been demolished to street grade. The concrete floor slabs have been left in place pending the submittal and approval of a Remedial Action Work Plan (RAWP). Upon the approval of the RAWP, the concrete slabs and underlying soils will be removed from the site.

A number of lessees previously occupied the Site, with recent operations including electrical contractor, art studio, office space, custom design furniture, marble and granite works, sheet metal duct work, motorcycle repair shop, etc. All of the lessees' spaces at the Site have been vacated.

The subsurface materials underlying the Site consist of 10 to 12 feet of historic fill, overlying a one to three-foot thick layer of clayey peat. The peat layer appears to be continuous beneath and adjacent to the Site. Fine to coarse sand to silty sand is present beneath the peat and extends to depths of 20 to 30 feet bsg. Discontinuous lenses of silt and clay are present within the sand. Bedrock is reportedly present at depths of 32 feet bsg or greater.

There are two water-bearing zones immediately beneath the Site: an upper, perched-water zone atop the peat layer, and an underlying sand aquifer. The peat acts as a confining layer, forming a perched-water zone within the overlying fill material. Formed by what was once a wetland, the peat layer is expected to pinch out to the east (inland) and west (towards the river), but is continuous within the area covered by this investigation. Depths to water for wells completed in the perched zone are about seven to eight feet bsg, and the saturated thickness of the perched zone is three to four feet.

The sand aquifer underlies the peat layer. Depths to water for wells completed in the sand aquifer are approximately 10 to 11 feet bsg, roughly two to three feet deeper than in the perched zone. The difference in water levels between the perched-water zone and the sand aquifer demonstrate that the peat layer is acting as a localized aquiclude or confining unit.

The reported construction details and observed water levels indicate that monitoring wells installed by others during previous investigations (i.e., MW-1, GW-1, GW- 2, GW-3, GW-4, GW-5) are screened across the peat confining layer. These wells may be allowing groundwater from the perched zone to flow into the underlying sand aquifer, and it is recommended that these wells be properly abandoned.

Groundwater flow within the perched-water zone is generally to the north and east, while groundwater flow within the sand aquifer is southwest, toward the East River.

Analytical results from the soil samples collected on the Site were compared to the Soil Cleanup Objectives (SCOs) outlined in 6 NYCRR Subpart 375-6. If no Part 375 SCO was established for a particular compound, EWMA utilized the SCO from NYSDEC's *Technical and Administrative Guidance Memorandum 4046* (TAGM 4046) as directed by the NYSDEC.

The groundwater data was compared to the groundwater quality standards (GWQS) for class GA groundwaters as listed in NYSDEC Technical Operation and Guidance Series (TOGS) 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations".

Based on the RI activities conducted by EWMA as described herein, soil and groundwater contamination, including metals, SVOCs, and volatile organic compounds (VOCs), were detected above NYSDEC applicable standards. PCBs were also detected above the GWQS in one sand aquifer temporary well point, TW-1. In addition, light non-aqueous phase liquid (LNAPL) was detected in both the perched groundwater and the sand aquifer.

Although standards were exceeded in samples collected from both above the peat layer (i.e., the perched water zone) and below the peat layer (i.e., the sand aquifer), the concentrations of nearly all contaminants were significantly higher above the peat layer.

The sources of the contaminants and LNAPL in the perched water zone appear to be historic manufacturing operations including the on-Site USTs located in the western half of the Site as well as site-wide historic fill materials. Based upon the results of the RI activities conducted, Site-related contaminants, including LNAPL, are generally confined to the Site. However, LNAPL was detected in groundwater monitoring wells in the perched water zone installed in the sidewalk along 46th Road and 5th Street.

The LNAPL in the sand aquifer (beneath the peat layer) is present in monitoring wells located at the eastern, most upgradient portion of the Site (based on the observed sand aquifer groundwater flow direction). Since the LNAPL was not observed in the perched water zone at these locations, and, since these wells are located in the upgradient portion of the Site, it appears these contaminants are due to an upgradient off-Site source.

The soil vapor investigation results indicated several VOCs were detected in both sub-slab and soil vapor samples at concentrations above background concentrations. In addition, PCE and methylene chloride were detected at concentrations above those provided in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. Therefore, the NYSDOH Guidance suggests a potential for vapor intrusion exists at the Site. This will be addressed through remediation and vapor mitigation measures implemented during Site development. Details of the proposed remediation of the Site are included in the draft Remedial Action Work Plan (RAWP) which has been submitted separately.

A Qualitative Human Health Exposure Assessment (QHHEA) was prepared for the Site. The QHHEA integrated the data and information gathered during the RI and provides a qualitative assessment of the potential for exposure to Site-related contaminants. The proposed remedial activities associated with the identified contamination, if approved, will be the primary potential human health exposure due to disturbance of site contaminants detected above the unrestricted use standard. This proposed work will be performed by and/or under the direction of environmental remediation contractors.

To minimize the potential exposure to potential populations and in preparation for proposed site remediation and construction activities, a Health and Safety Plan (HASP) and a Community Air Monitoring Plan (CAMP) have been prepared to protect the community, as well as site environmental and construction workers, and is included as appendices to this RIR. In addition, as directed by NYSDEC, OCA will construct a tent structure with vapor management for all remedial activities.

As per the NYDEC Division of Fish and Wildlife guidance document for Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA), EWMA engaged Great Ecology and Environment to complete a FWIA. Based on the findings of the FWIA, migration of contaminants through groundwater is the only potential complete pathway for exposure to ecological receptors. All other pathways were incomplete. A criteria-specific analysis is not recommended until removal of site contaminant sources and post-remediation monitoring is conducted.

A draft RAWP has been prepared and submitted which details the proposed remediation of the Site. The RAWP includes an analysis of remedial alternatives and addresses soil and groundwater contamination, including removal of identified USTS and LNAPL source material. The potential for vapor intrusion will be addressed through vapor mitigation measures implemented during development.

1.0 INTRODUCTION

Environmental Waste Management Associates, LLC (EWMA) was retained by OCA Long Island City, LLC (OCA) to complete a Remedial Investigation (RI) and prepare a Remedial Investigation Report (RIR) for the site known as OCA LIC Fifth Street Mixed-Use Housing Project located at 5-20 46th Road, City of New York, Queens County, New York (the Site). OCA has been accepted into the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) as a "Volunteer", and the Site has been accepted as BCP Site C241098.

This RIR has been prepared on behalf of the OCA (the Volunteer) to fulfill the BCP requirements to address the nature and extent of the contamination at the Site and any potential off-site impacts. The work was conducted in accordance with the Remedial Investigation Work Plan (RIWP) dated January 25, 2008, and subsequent RIWP Addenda, dated February 1, 2008, February 20, 2008, and June 25, 2008 (collectively).

1.1 PURPOSE OF REMEDIAL INVESTIGATION

The goals of the RI were to:

- Delineate the nature and extent of soil and groundwater impacts associated with former site operations at the eighteen (18) areas of concern (AOCs) identified in the RIWP;
- Delineate the nature and extent of LNAPL product in the sand aquifer, which is originating from an upgradient off-site location(s);
- Evaluate soil vapor conditions at select RI locations; and
- Further develop the dataset necessary to allow preparation of a RAWP.

1.2 SCOPE OF REMEDIAL INVESTIGATION

The scope of work for the RI was defined by the NYSDEC-approved RIWP (EWMA, 2008). The RI included the following tasks:

- Underground utility clearance;
- Community air monitoring;
- Surface soil sampling and analysis;
- Soil boring advancement and subsurface soil sample collection and analysis;
- Temporary well point installation and sampling;
- Groundwater sampling and analysis;
- LNAPL GC fingerprinting; and
- Soil vapor sampling and analysis.

All activities were performed in accordance with the methods specified in the approved RIWP (EWMA, 2008), including the site-specific Health and Safety Plan (HASP) and the site-specific Quality Assurance Project Plan (QAPP).

1.3 REPORT ORGANIZATION

The remainder of this RI Report is organized into the sections listed below:

- ***Section 2*** provides a description of the 5-20 5th Street Site, surrounding properties, site geology and site hydrogeology;
- ***Section 3*** provides a brief description of site history and the areas of concern;
- ***Section 4*** provides a description of the methodologies used during the field investigation activities;
- ***Section 5*** provides a discussion of the field investigation activities carried out in each AOC, and their results;
- ***Section 6*** provides a site-wide discussion of the RI results;
- ***Section 7*** discusses the data usability summary report;
- ***Section 8*** discusses the qualitative human health assessment;
- ***Section 9*** discussed the fish and wildlife impact analysis;
- ***Section 10*** discusses the summary and conclusion;
- ***Section 11*** discusses the recommendations; and
- ***Section 12*** provides a schedule for submittal of the RAWP
- ***Section 13*** provides a list of the references utilized herein.

As noted in the Table of Contents, tables, figures and appendices are included as referenced immediately following the text of this report.

2.0 SITE DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

The Site is located on the southeast corner of 46th Road and 5th Street in the Long Island City section of Queens in the State of New York.

- **Figure 1** is an excerpt of a USGS 7.5 Minute Topographic Quadrangle Site Location Map depicting the physical location of the Site.
- **Figure 2** shows the Site Plan with identified Areas of Concern (AOCs).

The Site covers approximately 47,578 square feet of area, or approximately 1.09 acres. The tax map identification for the Site is Block 28, Lots 21 and 38. The commonly used street address for the Site is 5-20 46th Road. However, the following additional street addresses are documented under the referenced Block/ Lot within the New York City Department of Buildings databases: 46-27 through 46-45 5th Street, 5-02 through 5-38 46th Road, and 5-01 through 5-09 47th Avenue.

2.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The Site is located within an industrial portion of the Long Island City, Queens County, New York. The East River is the closest water body located approximately ¼-mile west of the Site. The Site is L-shaped with approximately 300 feet of frontage along the southern side of 46th Road, 200 feet of frontage along the eastern side of the 5th Street, and 100 feet of frontage along the northern side of 47th Avenue.

Historically, the entire Site (except for a small parking area at the east end) was covered with buildings. The entire property has been cleared of all buildings to grade with the surrounding streets.

A number of lessees previously occupied the Site, with recent operations including electrical contractor, art studio, office space, custom design furniture, marble and granite works, sheet metal duct work, motorcycle repair shop, etc. All of the lessees' spaces at the Site have been vacated and demolished.

2.3 PHYSICAL CONDITIONS OF SITE AND SURROUNDINGS

2.3.1 Description of Structures, Roads, Other Improvements

Prior to the demolition activities which began in early 2008, the Site was primarily covered with buildings, which included 1-, 2-, and 3-story structures constructed in several stages. A small eastern portion of the Site served as a parking lot. The original portions of the subject buildings were constructed during the early 1900s. A majority of the buildings were constructed on concrete slabs with no basement levels, with the exception of the eastern section of the building along 46th Road (5-20 and 5-36 46th Road), which includes basements. The buildings on the Site were a mixture of brick and concrete block construction.

One (1) cable-operated elevator lift is known to have existed within the 5-20 46th Road building. The buildings were most recently heated by natural gas-fired systems. Water was supplied to the buildings through the municipal water supply system available in this area of Queens. There are no known on-site water supply wells within the subject building, or on exterior portions of the Site.

The exterior portions adjoining the Site include concrete sidewalks, except in the eastern direction where the Site adjoins another property. A number of underground vaults were observed within the sidewalks along 46th Road and 5th Street, which reportedly contain electrical transformers maintained by the local utility company, Consolidated Edison.

2.3.2 Topography

Based on a review of the USGS 7.5 Minute Series Central Park & Brooklyn, New York Topographic Quadrangle, the Site is approximately ten (10) feet above Mean Sea Level (MSL), with the surrounding area gently sloping towards the East River approximately ¼-mile to the west of the Site. The Site topography is relatively flat, and at-grade with the surrounding properties. The portion of the USGS 7.5 Minute USGS Topographic Map, Central Park & Brooklyn, New York, depicting the Site is included as **Figure 1**, Site Location Map.

2.3.3 Surface Water Bodies

As previously discussed in Section 2.2, the East River is the closest downgradient, major surface water body receptor to the Site, and is located approximately ¼-mile west of the Site.

2.3.4 Geology and Soils

The following description is based on the results of soil borings completed at the Site by EWMA and others.

The uppermost unit beneath the Site consists of 10 to 12 feet of historic fill. The texture of the fill is variable, but tends to be coarse grained (i.e., sand and/or gravel). Cinders, coal, and brick and wood fragments are common within the fill. Below the fill lies one to three feet of dark brown clayey peat. This clayey peat has been encountered in nearly all the soil borings, so it appears to be continuous beneath the Site. The clayey peat is interpreted as deposits from a wetland that bordered the East River before the area was filled-in and developed. As a former wetland, the peat layer is expected to pinch out to the east (inland) and west (towards the river).

Fine to coarse sand to silty sand underlies the clayey peat. The top of the sand is found at depths ranging from 11 to 15 feet bsg. Discontinuous lenses of silt and clay are present within the sand aquifer.

Bedrock was not encountered in any of the borings completed by EWMA, but geotechnical borings completed at the Site by others reportedly have encountered bedrock (schist and gneiss) at depths ranging from 32 feet bsg to greater than 52 feet bsg.

North-south and east-west geologic cross sections across the Site, showing the distribution of materials in the subsurface, are provided as **Figure 3.** The cross-sections show that the clayey peat layer is continuous beneath and adjacent to the Site.

2.3.5 Hydrogeology

Based on the soil boring and well installations performed by EWMA and others, there are two water-bearing zones immediately beneath the Site: an upper, perched-water zone, and an underlying sand aquifer.

The perched-water zone occurs within the fill material on top of the clayey peat. Depths to water in monitoring wells completed within the perched zone range from seven to eight feet bsg. The saturated thickness of the perched zone is three to four feet.

The sand aquifer underlies the clayey peat layer. Depths to water for monitoring wells completed in the sand aquifer range from 10 to 11 ft bsg.

There is a large difference in water levels between wells completed above the clayey peat (in the perched-water zone) and below the clayey peat (in the sand aquifer). Water elevation measurements made at monitoring well clusters MW-3S/3I, MW-4S/4I, MW-5S/5I, MW-6S/6I, and MW-7S/7I all show that water-level elevations within the perched-water zone are two to three feet higher than in the sand aquifer at the same location (**Table 3**). The large difference in water levels between the perched-water zone and the sand aquifer (two to three feet) shows that the clayey peat is acting as a localized aquiclude or confining layer and is greatly limiting the downward migration of groundwater from the fill into the underlying sand aquifer.

Based on water-level elevation contour maps (**Figures 4 through 9**), groundwater flow within the sand aquifer is to the southwest, toward the nearby East River. This contrasts sharply with groundwater flow within the shallow perched-water zone, which is to the north and east. The reason for the eastward flow within the perched-water zone is not known, but it may reflect the surface water drainage patterns that existed in the area before the historic fill was emplaced.

2.3.6 Boring Logs

Boring and well logs are included in **Appendix 1.**

3.0 SITE HISTORY

3.1 HISTORICAL USE OF THE SITE

According to the previous Phase I Environmental Site Assessments (ESAs) by others, the Site had initially been developed prior to 1898 for use as an ink factory (i.e., M.L. Perlee) and a varnish works (i.e., Pratt & Lambert). Other previous occupants and uses identified at the Site included George L. Fenner (ink factory), Toch Bros. (manufacturer of paints & varnishes), Thibault & Walker Co. (varnish works), I. Wohl Inc. (cleaners & dyers), a dry cleaning and spotting facility, and Accurate Metal Casting Co., Inc. These identified occupants and uses likely used industrial solvents, lubricating and cutting oils, metal polishing materials, plating bath solutions, paint and painting products, and dye products as part of their operations.

Based on available information, a portion of the Site identified as 5-20 46th Road, Long Island City, New York (Block 28, Lot 21) was the subject of an Administrative Order (Docket No. II RCRA-7003-91-0201) issued by the United States Environmental Protection Agency (USEPA) pursuant to Resource Conservation and Recovery Act (RCRA), Section 7003. Pursuant to this Order, Accurate Associates undertook certain removal, investigative and remedial activities at the premises under USEPA's oversight. As part of the remedial activities, portions of the concrete floor and walls within this portion of the Site were encapsulated for the purpose of encapsulating residual lead, arsenic, and selenium contamination. Pursuant to EPA's RCRA Administrative Order for the Site, effective May 29, 1991, the Order's Respondents filed a Notice in Deed in the Queens County City Register on July 14, 1993, No. 47605. The Notice stated that lead, arsenic and selenium are encapsulated beneath portions of the floor and walls at the premises, and that the RCRA Order required that the encapsulation be maintained. The Deed Notice was the final action required by Respondents pursuant to the RCRA Order, as all other removal and remediation actions were satisfactorily performed.

By a letter transmitted to DEC on March 29, 2007, EPA consented to the suspension of the Notice in Deed, No. 47605, and termination of that Notice, upon completion of the remedial program carried out pursuant to the BCP, and provided that the Brownfield Cleanup Agreement be filed in the same place and manner as the Notice in Deed, No. 47605 together with a copy of the EPA consent letter.

On April 5, 2007, NYSDEC accepted OCA's request to participate in the Brownfield Cleanup Program, established under Article 27, Title 14 of the Environmental Conservation Law (ECL). The NYSDEC has accepted OCA to participate in the program as a Volunteer. NYSDEC transmitted the Brownfield Cleanup Agreement (BCA) along with this approval to OCA for signatures and return back to NYSDEC for final execution.

3.2 PRIOR ENVIRONMENTAL INVESTIGATION ACTIVITIES

Several environmental investigation activities have been completed at the Site on behalf of the former as well as the current owners of the Site. The confirmed and/or potential Areas of Concern (AOCs) identified at the Site where investigations where conducted (as proposed in the January 2008 RIWP and subsequent addendums) are as follows:

- AOC-1: Former 10,000-Gallon #6 Fuel Oil UST/ 46th Road Sidewalk;
- AOC-2: Eastern Parking Lot;
- AOC-3: 1-Story Brick/ Concrete Block Building (Demand Electric);
- AOC-4: Motorcycle Repair Shop (Basement);
- AOC-4A: 1-Story Building;

- AOC-5: 3-Story Brick Building (Art Studios);
- AOC-6: 1-Story Brick Building (Knossos Custom Design Furniture);
- AOC-6A: 2-Story Brick Building;
- AOC-7: Two (2) Former Gasoline Storage Tanks;
- ACO-7A: Suspect Former Boiler/ Stack Area;
- AOC-8: Suspect Twenty-Two (22) 1,500-Gallon Varnoline Storage Tanks;
- AOC-9: 1-Story Building (AMN Renovation);
- AOC-10: 1-Story Building (JMJ Electrical);
- AOC-11: Former Wohl Inc. Cleaners and Dyers (Direct Air);
- AOC-12: Former Wohl Inc. Cleaners and Dyers (Liberty Contracting);
- AOC-13: 5th Street Sidewalk;
- AOC-14: Former Accurate Associates RCRA Area; and,
- AOC-15: 47th Avenue Sidewalk

These AOCs were identified based on a review of the available historical records, the result of several previous soil and/or groundwater investigations conducted, and field observations.

A list of reports that summarize the prior environmental investigation activities were previously submitted as part of the BCP application for the Site. Refer to Section 13.0, References.

Based on EWMA's review of these reports, a total of 18 AOCs have been identified at the Site. Prior investigation activities have been conducted at some of these AOCs.

The locations and results for all previous (pre-2008) site-wide soil and groundwater samples collected as part of the prior investigations discussed above are included in the RIWP. Figures showing the locations of soil and groundwater samples collected during previous investigations (pre-2008) and summarizing the contaminants in soil and groundwater that exceeded their respective standards are included in **Appendix 4-1 and 4-2.**

In addition to the investigation activities summarized in the reports above, investigation and cleanup activities were conducted during 1991-1992 at the Site as part of the USEPA enforcement actions under the RCRA Administrative Order at the 5-20 46th Road portion of the Site. A list of the reports summarizing the results of these activities is included in Section 13.0, References.

All AOCs identified in the referenced tables or prior investigations discussed above are discussed in detail in **Section 5.0** of this RIR.

3.3 GEOPHYSICAL SURVEY

On February 8, 2007, Enviroscan, Inc. of Lancaster, Pennsylvania conducted a geophysical survey of all accessible interior and sidewalk portions of the Site. The purpose of the geophysical survey was to delineate any underground utilities, and the potential presence of underground storage tanks (USTs), associated piping, or any other anomalies of concern. Enviroscan performed the survey using a GSSI SIR 2000 Ground Penetrating Radar (GPR) unit with 200 megaHertz (mHz) and 400 mHZ antennae.

The results of the survey did not detect any anomalies indicative of a UST within accessible areas at the Site. However, reinforced concrete floors within the survey area created overwhelming interference for the effective use of any electromagnetic instruments, and the GPR depth of investigation was limited to approximately 3-4 feet below grade. A copy of Enviroscan's Geophysical Survey report was included in the January 2008 RIW.

Refer to **Section 6.3,** Test Pit Investigation, for details of the recent GPR survey.

4.0 REMEDIAL INVESTIGATION FIELD ACTIVITIES

This section provides a description of the methodologies used during the field investigation of the Site. The initial RI field tasks were initiated in February 2008 and completed in July 2008. All field activities were conducted in accordance with the methods and procedures specified in the NYSDEC-approved RIWP and addenda (EWMA, 2008), unless noted herein.

As a result of the RI activities conducted in February through March 2008, additional sampling was deemed necessary and upon concurrence from the NYSDEC project manager was subsequently conducted in June through July 2008, in accordance with 6 NYCRR Part 375 and DER-10.

Specific tasks performed during the RI were conducted in accordance with the site-specific HASP and included the following:

- Underground Utility Clearance;
- Ground Penetrating Radar (GPR) Survey;
- Community Air Monitoring;
- Soil Sampling and Analysis;
- Temporary Groundwater Point Installation and Sampling;
- Soil vapor Sampling and Analysis;
- Monitoring Well Installation and Sampling; and
- Survey of Sampling Locations.

4.1 UNDERGROUND UTILITY CLEARANCE

Prior to the initiation of intrusive fieldwork, Zebra Environmental Corp. (Zebra) contacted Dig Safely New York to arrange for the location and marking of all underground utilities in the vicinity of the proposed test pits, soil vapor probes, soil borings, temporary groundwater sample point locations and monitoring well locations, as required by New York Code of Rules and Regulations (NYCRR) Part 753.

4.2 COMMUNITY AIR MONITORING PROGRAM

Community air monitoring was performed and documented to provide real-time measurements of total VOCs and particulate (airborne dust) concentrations upwind and downwind of each designated work area during intrusive investigation activities. Site personnel monitored the ambient air for any potential odors produced during these activities and none were noted. The monitoring was designed to provide protection to the public downwind of the work area from any potential releases of airborne contaminants, due to investigation activities, and to document air quality during intrusive activities.

A Vantage Pro 2 Weather Station was deployed to monitor barometric pressure, temperature, humidity, rainfall, wind speed and direction.

Monitoring instrumentation used as part of the Community Air Monitoring Plan (CAMP) program was located upwind and downwind of the work area, on stands located in the breathing zone. The instruments were calibrated daily and the data was recorded on separate field forms. The instrumentation used during the investigation activities included the following: a photoionization detector (PID) 10.6 eV to measure volatiles in parts per million (ppm) and a Data Ram 4 meter to detect the particulate concentrations in milligrams per cubic meter (mg/m^3). Additionally, a TST DustTRAK Monitor and MultiRAE Plus PGM-50 Monitor were deployed immediately adjacent to each work station.

The instruments were programmed to log air quality data at a frequency of once per minute during intrusive work activities. Personnel recorded readings and any observations from these instruments every 15 minutes on a separate CAMP field form. Data from the PID and DustTRAK monitors were downloaded to a field laptop computer on a daily basis. The recorded logs were reviewed for any exceedances and downloaded to a daily file with the work area location as the file name.

During the RI, there were a few instances when dust action levels (Dust Monitor readings greater than $3mg/m^3$) were reached or exceeded within the immediate work area. Exceedances were generally due to occasional truck traffic or concrete dust from jack hammering and not actual intrusive activities. Proper mitigation measures were taken (wetting down area) to reduce airborne dust. During the RI, there were no instances where CAMP action levels (PID readings greater than 1 ppm or dust monitor greater than 3 mg/m^3) were reached or exceeded at downwind locations during subsurface investigation activities. Based on the air quality monitoring data, the intrusive activities performed during the RI had no adverse impact on the air quality at the Site or at surrounding properties. A copy of the CAMP logs generated during RI activities reported herein has been enclosed as **Appendix 3.**

4.3 SOIL SAMPLING

A total of 23 soil borings (designated SBE-1 through SBE-19, and SBE- RCRA-1 through SBE-RCRA-4) were completed at the Site during February and March, 2008 (**Figure 2**).

Nineteen of the soil borings were completed by Zebra Environmental (of Lynbrook NY) using a track-mounted Geoprobe equipped with a 5-foot macrocore soil sampler. The remaining four soil borings (SBE-5, SBE-6, SBE-7, and SBE-13) were located within the basements of buildings along 46th Road. The basements could not be accessed by the Geoprobe, so borings SBE-5, SBE-6, SBE-7 and SB-13 were completed using a hand auger. Soil samples collected from all the borings were logged in the field by an EWMA geologist and screened for VOCs using a photionization detector (PID).

The original RIWP had specified that soil borings be completed at 20 ft bsg. However, the initial soil boring results indicated the presence of a clayey peat confining layer at about 10 to 12 ft bsg, with a perched-water zone on top. Based on the discovery of the confining layer, EWMA submitted a RIWP Addendum (RIWPA) to the NYDEC on February 1, 2008. The RIWPA was approved (with some modifications) on February 6, 2008. Under the modified RIWP, the completion depth for 18 of the 23 proposed soil borings was reduced to the top of the clayey peat (i.e., 12 ft bsg, or less). Five borings (SBE-1, SBE-5, SBE-10, SBE-14, and SBE-RCRA-3) were completed as deep borings, penetrating the clayey peat layer and terminating at macrocore refusal. The hand-auger borings were advanced until they met refusal.

Up to three soil samples from each boring were submitted for laboratory analyses. The sample from immediately above the first-encountered water (i.e., the perched-water zone, present at about eight ft bsg), and the sample from the bottom of the boring were submitted for every boring. A third sample was submitted from the zone that exhibited the highest PID readings. For soil borings where the PID reading was ND or the highest PID reading was encountered in the sample from above the first-encountered water, or from the bottom of the boring, the third sample was not submitted.

In most of the soil borings where elevated PID readings were encountered, the sample collected from immediately above the first-encountered water also exhibited the highest PID reading, so a third sample was not collected. The depths of the soil samples collected from each soil boring, and the rational for sampling that depth interval, are provided in **Table 1.**

The RIWP originally specified a sampling interval of six inches. However, it was determined in the field that there was not enough soil volume in six inches of macrocore for all the analyses required. Instead, it was found that nearly one foot of macrocore was needed to yield the volume of soil required by the lab. Therefore, EWMA used a one-foot sampling interval for all the soil samples. The portion of soil for VOC analysis was collected from the bottom of the one-foot interval, and the rest of the interval was used for the remaining analyses.

The test pits were installed utilizing a trackhoe. Samples collected from test pits were obtained utilizing disposable plastic sampling scoops or stainless steel, hand-turned augers.

All soil samples were placed directly into laboratory-supplied glassware immediately upon collection. The collected samples were then placed in a cooler with ice, and submitted, under chain-of-custody protocol to the analytical laboratory.

Soil samples were submitted to NYSDOH Certified laboratory Chemtech of Mountainside, NJ (NYSDOH ELAP CLP Certification 11376) for Full Target Compound List/ Target Analyte List + 30 (TCL/ TAL+30).

One additional soil boring (designated SBE-20) was completed at the Site as part of the December 2008 monitoring-well installation event (**Section 4.4.2**). Soil Boring SBE-20 was completed to determine if there was any evidence of LNAPL in the sand aquifer at that location, and no soil samples from this boring were submitted for laboratory analysis. The boring log is provided in **Appendix 1**.

4.4 MONITORING WELL INSTALLATION

4.4.1 Previously-Installed Monitoring Wells

Six monitoring wells (MW-01, GW-1, GW-2, GW-3, GW-4, and GW-5/MW-02) were installed at the Site by others during previous investigations (**Figure 2**). The completion depths are reported to range from 12.8 to 15 ft bsg, and measurements made by EWMA confirm the reported depths (**Table 3**). Based on the measured and reported well depths, some of these wells may be screened across the clayey peat confining layer.

4.4.2 EWMA-Installed Monitoring Wells

EWMA installed a total of 24 monitoring wells at the Site in 2008. The wells were installed during three events, in February, June, November and December 2008. Monitoring well locations are shown on **Figure 2**.

Eleven monitoring wells in five well clusters (MW-3S/3I/3D, MW-4S/4I, MW-5S/5I, MW-6S/6I, and MW-7S/7I) were installed at the Site during February, 2008. These wells were installed in the sidewalk surrounding the western half of the Site. The purpose of these wells was to monitor groundwater quality along the edge of the Site. The MW-6 and MW-7 well clusters were also installed to evaluate groundwater conditions in the vicinity of two suspected UST locations (AOC- 1).

The RIWP as originally approved had specified the installation of five monitoring wells, each to a depth of 20 ft bsg, and screened across the water table. However, the early boring results indicated the presence of a layer of clayey peat at depths ranging from 10 to 12 ft bsg. The clayey peat was about two to three feet thick and appeared to be acting as a local aquiclude or confining layer with a perched-water zone above. The installation of wells as originally planned would have placed the screened interval of each well across the clayey peat confining layer and could have resulted in cross contamination between the two zones.

Based on the discovery of the perched-water zone, EWMA submitted a RIWP Addendum (RIWPA) to the NYDEC on February 1, 2008. In the RIWPA, EWMA proposed to install a two-well cluster at each location, with one well screened above the clayey peat layer (in the perched-water zone), and a second well screened below the clayey peat. The RIWPA was approved on February 6, 2008.

The RIWPA included the completion of the following wells: five shallow wells (MW-3S, MW-4S, MW-5S, MW-6S, and MW-7S) completed within the perched-water zone to depths of approximately 10 ft bsg and screened across the perched-water table; five intermediate-depth wells (MW-3I, MW-4I, MW-5I, MW-6I, and MW-7I) completed below the perched-water zone at depths of 20 ft bsg, with five feet of screen; and one deep well (MW-3D) completed to the top of bedrock (or auger refusal).

A second set of six monitoring wells (MW-8S, MW-9S, MW-10I, MW-11S, MW-12S, and MW-13S) was installed in June, 2008 (**Figure 2**). The locations and depths of these wells were chosen based on the groundwater flow directions (**Figures 4** and **5**) and the sampling results for the February-March 2008 round of groundwater sampling.

Shallow wells MW-8S, MW-9S, MW-11S, MW-12S, and MW-13S were completed on top of the clayey peat layer (at about 11 ft bsg) within the perched-water zone. Wells designated as intermediate wells (MW-10I) were completed at 20 ft bsg within the sand aquifer that underlies the clayey peat.

Monitoring Wells MW-8S, 9S, 11S, and 13S were installed to delineate the extent of LNAPL detected previously at MW-7S, MW-6S, and GW-3. Monitoring Well MW-12S was installed to delineate LNAPL detected at GW-5. Monitoring Well MW-10I was installed to document groundwater quality within the sand aquifer at the upgradient (eastern) edge of the Site and evaluate the possibility of an offsite, upgradient source of groundwater contamination.

Per NYSDEC's October 10, 2008 comments, three additional monitoring wells (MW-14I, MW-15I, and MW-16I) were installed in November 2008. These monitoring wells were installed to delineate the extent of LNAPL detected in MW-10I which is screened in the sand aquifer located beneath the clayey peat confining layer and located at the upgradient edge of the Site.

Monitoring Wells MW-14I, MW-15I, and MW-16I were all completed in the sand aquifer at depths of 18 ft bsg.

Four additional monitoring wells (MW-17I, MW-18I, MW-19S, and MW-20I) were installed in December, 2008. Monitoring wells MW-17I, MW-18I, and MW-20I were installed to delineate the LNAPL emanating from off-site in the sand aquifer in the eastern half of the property. Monitoring well MW-19S was installed in the perched-water zone to complete delineation downgradient of MW-8S.

Monitoring wells completed during February, June and December 2008 were installed by Zebra Environmental of Lynbrook, NY. Wells completed during November 2008 were installed by Summit Drilling of Bound Brook, NJ. All of the monitoring wells were installed using a hollow-stem auger rig. Continuous Geoprobe Macrocore samples were collected at each well location. Soil samples were described in the field and screened for VOCs (using a photoionization detector) by an EWMA geologist.

The materials encountered in the monitoring well boreholes were similar to those encountered in the soil borings: approximately 10 to 12 feet of historic fill overlying several feet of peat and clay, with fine to medium sand and silty sand below. Well logs are provided in **Appendix 1.**

Monitoring wells were constructed of 2-inch diameter schedule 40 PVC and 0.01-inch slot screen. Screen lengths for wells completed within the perched-water zone were chosen to span the water table; well completed in the underlying sand aquifer were completed with five feet of screen. The sand pack extended from the base of each well screen to at least 1-foot above the top of the screened interval. The sand pack was overlain by a 1-foot bentonite seal and the remaining annular space was filled with cement grout (using a tremie pipe) to within approximately 1-foot of the ground surface. All of the wells were secured with a flush-mounted road box.

EWMA took measures to insure that well installation did not create any permanent conduits through the clayey peat that could potentially allow groundwater flow between the perched-water zone and the sand aquifer. This was accomplished in two ways. First, completion depths and screened intervals for all the wells installed by EWMA were chosen so that the screen interval did not cross the clayey peat. Second, for wells completed in the sand aquifer, the borehole annulus above the well screen and sand pack was tremie grouted to provide an effective seal between the two units.

The monitoring wells were developed no sooner than 24 hours after well installation (following NYSDEC protocol) to remove fine sediments from within each well, well screen, sand pack, and aquifer to promote good hydraulic connection between each well and the formation. The wells were developed utilizing either peristaltic or submersible pumps. All of the wells were developed until the water removed from each well was visually clear. All development water was containerized in 55 gallon, closed-topped drums for classification and disposal.

4.5 GROUNDWATER SAMPLING

Two types of groundwater sampling were performed during the RI: 1) the collection of groundwater grab samples from temporary well points; and 2) the collection of groundwater samples from monitoring wells.

4.5.1 Temporary Well Point Sampling

Groundwater samples were collected at each soil boring location during February and March, 2008. Groundwater samples were collected from a Geoprobe SP-16 temporary well point. Well-point/boring locations are shown on **Figure 2**. At each boring location, the SP-16 sampler was driven to the completion depth for that particular boring; the casing was then pulled back four feet to expose the screen and allow a groundwater sample to be collected. Four temporary well-point samples (TW-1, TW-10, TW-14, and TW-RCRA-3) were collected from the sand aquifer, at depths ranging from 18 ft bsg to 29 ft bsg. The remaining temporary well-point samples were collected from the perched-water zone. The sampling depths of the temporary well points are provided in **Table 1**.

Groundwater samples were collected from the temporary well points using the "low flow" purging and sampling method. Wells were purged using a Geoprobe Systems Mechanical Bladder pump at a rate of less than 100 ml/minute. Purge water was monitored for stability of field parameters (pH, dissolved oxygen, specific conductivity, turbidity and total dissolved solids) using a Horiba U-10 Water Quality Meter.

Where sample turbidity exceeded 50 NTU, and sufficient sample volume could be collected, EWMA also collected field-filtered samples for analysis for TAL metals and TCL SVOCs. These samples were collected to evaluate the effects of turbidity on contaminant levels.

Sample jars were labeled, placed in coolers containing ice, and sent under chain-of-custody protocols by courier to NYSDOH Certified laboratory Chemtech of Mountainside, NJ (NYSDOH ELAP CLP Certification 11376) for Full Target Compound List/ Target Analyte List + 30 (TCL/ TAL+30).

4.5.2 Monitoring Well Sampling

Groundwater samples were collected from monitoring wells during two multi-day sampling events (February 29 to March 4, 2008, and July 18 to 20, 2008). Prior to purging and sampling, the depth to water was measured to the nearest 0.01-foot in each monitoring well utilizing a Solinst Oil/Water Interface probe.

Groundwater samples for the February-March and July 2008 sampling events were collected using low-flow purging and sampling methods. Wells were purged using a Marshank Bladder pump at a rate of less than 100 ml/minute. Purge water was monitored for stability of field parameters (pH, dissolved oxygen, specific conductivity, turbidity, and total dissolved solids) using a Horiba U-22 Water Quality Meter with flow-cell. After all parameters had stabilized a sample was collected at a flow rate between 100 and 250 ml/min.

Where sample turbidity exceeded 50 NTU, and a sufficient volume of sample could be obtained, EWMA also collected a field-filtered water sample for analyses for TAL metals and TCL SVOCs so that the effects of turbidity on contaminant levels could be determined.

Sample jars were labeled, placed in coolers containing ice, and sent under chain-of-custody protocols by courier to NYSDOH Certified laboratory Chemtech of Mountainside, NJ (NYSDOH ELAP CLP Certification 11376) for Full Target Compound List/ Target Analyte List + 30 (TCL/ TAL+30).

4.6 SOIL VAPOR SAMPLING AND ANALYSIS

Sub-slab soil vapor samples were collected from four locations (SS-1 through SS-4) at the Site targeting specific AOCs at the Site during the RI field activities in accordance with the approved RIWP. In addition, EWMA collected three soil vapor samples (SG-1 through SG-3) at the depth of groundwater (approximately 7 feet bsg) and one background ambient air sample. The soil vapor sample locations are illustrated on **Figure 2**. Following apparatus set-up and purging procedures using a helium shroud, soil vapor samples were collected over an approximately one-hour period at each location using Summa canisters. The samples were analyzed for VOCs by USEPA Method TO-15. The soil vapor sampling results are discussed in **Section 6.2.**

4.7 SOIL AND GROUNDWATER ANALYTICAL PROGRAM

The soil and groundwater samples collected during this phase of the RI were analyzed for one or more of the following parameters:

- Volatile organic compounds (VOCs) by USEPA SW-846 Method 8260B and 624;
- Semi-volatile organic compounds (SVOCs) by USEPA SW-846 Method 8270C and 625;
- Lead (soil only) by USEPA SW-846 Method 6020;
- Pesticides by USEPA SW-846 Method 8081A and 608;
- Polychlorinated biphenyls (PCBs) by USEPA SW-846 Method 8082 and 608;
- Target analyte metals (TAL Metals) by USEPA SW-846 6000/7000 Series and 200.8; and
- Total Cyanide by USEPA SW-846 Method 9012A and 335.2.

All samples were submitted to NYSDOH Certified laboratory Chemtech of Mountainside, NJ (NYSDOH ELAP CLP Certification 11376).

For the purposes of this document, the referenced soil standards are the Soil Cleanup Objectives (SCOs) outlined in 6 NYCRR Subpart 375-6. If part 375 soil cleanup objectives were not established for a compound, as directed by the NYSDEC, EWMA utilized the *Technical and Administrative Guidance Memorandum 4046* (TAGM 4046) as the referenced soil standards.

The groundwater data was compared to the groundwater quality standards (GWQS) for GA fresh groundwaters, NYSDEC Technical Operation and Guidance Series ("TOGS") 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations".

4.8 SURVEY OF RI SAMPLING LOCATIONS AND BASE MAP DEVELOPMENT

The RI sample location horizontal elevations were surveyed utilizing a Trimble Pro XRS GPS and tied into a site map originally created from Land Title Survey map prepared by Montrose Surveying. Sample locations were collected with a minimum of 70 data points and 6 to 8 satellites.

5.0 REMEDIAL INVESTIGATION RESULTS SUMMARY BY AOC

In the following section, a summary of previous investigations for each of the AOCs is provided followed by a summary of the recent investigations conducted under the BCP program.

The locations and results for previous (pre-2008) site-wide soil and groundwater samples collected as part of the prior investigations by others are included in the RIWP. Figures showing the locations of these soil and groundwater samples and summarizing the contaminants that exceeded their respective standards are included in **Appendix 4.**

For the recent investigation conducted by EWMA, soil boring, temporary well point, and monitoring-well locations are shown on **Figure 2**. Soil sampling results are summarized in **Table 2** and **Figure 10**; the laboratory reports are provided in **Appendix 10**. Groundwater sampling results are summarized in **Tables 4, 5, 6 and 7**, and **Figures 11, 12, 13, and 14**; the laboratory reports are provided in **Appendix 11**.

5.1 AOC-1: FORMER 10,000 GALLON #6 FUEL OIL UST/ 46TH ROAD SIDEWALK

5.1.1 AOC-1 Prior Investigation Activities

CA Rich commenced investigations of AOC-1 in 1992 with the installation of two soil borings (Location # 1 and # 3) within the sidewalk along 46th Road. These sample locations were installed as part of the former RCRA area investigations (as further discussed under AOC-14), and were specifically installed to evaluate metal concentrations in the soils. Based on a review of prior investigation reports, sample locations #5 and #6 were installed on the neighboring property as background samples. The results of metals analysis for soil samples from these two locations did not reveal any significant metals concentrations, with the highest metal concentration (lead) detected at 23.3 mg/kg.

J. C. Broderick's (JCB) June 2005 Phase I Environmental Site Assessment (ESA) indicated that the UST database reports for the portion of the Site identified as Accurate Associates, Inc at 5-20 46th Road had a 10,000 gallon UST. This UST was of steel construction and reported to contain number 5 or 6 fuel oil. This UST is reported to have been removed December 1, 1993. No other information pertaining to this UST was available for review as part of JCB's Phase I ESA.

EEA, Inc.'s (EEA) May 2006 Phase I ESA also identified this former 10,000 gallon UST. The UST was installed circa February 1937, and was reportedly "closed-removed from the ground" at the Site circa December 1993 (NYSDEC PBS Facility ID 2-349666). As reported in EEA's Phase I ESA, according to the former Accurate Associates representative Mr. Brock, this UST was not removed, but was filled with slurry and abandoned in-place. Mr. Brock stated this UST to be presently located beneath the roadway (i.e. 46th Road) adjacent to the northern portion of the Site.

In April 2006, as part of the Phase II investigation, EEA installed three soil borings/groundwater monitoring wells (GW-2/EB-3, GW-3/EB-2, and GW-4/EB-1) along the 46th Street sidewalk, as shown on **Figure 2** and **Appendix 4-1**. The sample location GW-2/EB-3 is in close proximity to and downgradient of the suspect 10,000 gallon UST area. The soil and groundwater samples from these locations were analyzed for VOCs, SVOCs, pesticides, PCBs, metals, and cyanide.

The results of EEA's groundwater sampling detected floating petroleum (LNAPL) in the GW-3 monitoring well located approximately midway along the 46th Road sidewalk north of the Site in close proximity to the northwestern end of the 3-story brick building at the Site. As per EEA's May 2006 Phase II report, GW-3 was installed adjacent to the area where the 10,000-gallon #6 fuel oil tank (AOC-1) was removed/ abandoned in place. However, neither EEA's report nor any of the other prior reports show the exact location of this former tank.

EEA's report indicates that a sample of the LNAPL was collected and tested for a fingerprint analysis, and identified as number 6 fuel oil. Therefore, EEA concluded that the former 10,000 gallon tank may have released a significant amount of LNAPL into the ground and groundwater, and that these conditions constituted a reportable spill incident to NYSDEC. On October 23, 2006 EEA reported this presumed spill to NYSDEC, and obtained Spill No. 0608407. EEA recommended further investigation and delineation be performed as per NYSDEC requirements. On November 8, 2006, NYSDEC issued a response to Accurate Associates as the responsible party for the release, requesting a site investigation and submittal of a report within 30 days of the issuance of the letter. However, on November 29, 2006, NYDEC issued a letter to the attorneys representing OCA, as a follow up to conversations with them, that the referenced spill case will close in the event that the BCP application submitted by OCA was accepted by

NYSDEC. Upon the acceptance of the BCP, the spill related investigation and remedial work would then be performed under the Brownfield Cleanup Program.

On August 28, 2007, during EWMA's site walk-through with the NYSDEC representatives, two concrete grouted potential "fill boxes" and a potential "vent port" were noted within the 46th Road sidewalk adjacent to the 3-story brick building at the Site. Based on the available information, it is likely that the 10,000 gallon UST was properly abandoned and closed in this location. However, this UST was not detected during the geophysical survey conducted by Enviroscan on behalf of EWMA on January 11, 2007 in this area as well as along the entire 46th Road sidewalk and portions of the 46th Road with visible repaired areas.

5.1.2 AOC-1 Prior Investigation Results

C.A. Rich submitted two soils samples collected on 4/12/2006 for laboratory analysis of the metals arsenic and lead: #1 (7'-9') and #3 (5'-7'). No contaminants were detected in the soil samples at concentrations exceeding their UUSCO or RSCO.

In April 2006, as part of the Phase II investigation, EEA submitted three soil samples for laboratory analysis for VOCs, SVOCs, pesticides, PCBs, metals, and cyanide: EB-1 (7'-9'), EB-2 (5'-7'), and EB-3 (5'-7'). Contaminants detected in soil samples at concentrations exceeding their RSCO and UUSCO were the following:

EB-1: SVOC (Benzo(a)anthracene, Benzo(a)pyrene, Chrysene, Indeno(1,2,3-cd)pyrene); Metals (Mercury).

EB-2: VOC (Isopropylbenzene, n-propylbenzene), SVOC (Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene), Metals (lead , mercury).

EB-3: VOC (Acetone, Benzene, sec-butylbenzene, m+p xylenes), SVOC (Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene), Metals (lead).

Three groundwater samples were submitted for lab analysis of VOC, SVOC, and metals by EEA (GW-2, GW-3, and GW-4). EEA reported LNAPL in the GW-3 but was able to collect a sample of groundwater from below the LNAPL. Contaminants detected in groundwater samples at concentrations exceeding their GWQS during the April 20, 2006 sampling events were the following:

GW-2: VOCs (tert-Butylbenzene), SVOC (2-methylnaphtahalene), metals (beryllium, iron, lead, mercury, manganese, sodium).

GW-3: VOCs (tert-Butylbenzene, sec-butylbenzene, n-butylbenzene, isopropylbenzene, n-propylbenzene, and toluene).

GW-4: VOCs (MTBE, isopropylbenzene, n-propylbenzene, 1,2,4-Trimethylbenzene); metals (antimony, iron, lead, mercury, manganese, sodium).

The sampling results are presented in **Appendix 4-1** and **4-2** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.1.3 AOC-1 BCP Remedial Investigation

EWMA installed two sets of well clusters (MW-6S/6I and MW-7S/7I) within the 46th Road sidewalk. The purpose of these wells was to determine the groundwater quality in AOC-1, to investigate potential impacts from off-site sources, to delineate LNAPL noted in existing well GW-3 in previous investigations by others, and to investigate the suspected fill/vent port location in the vicinity of existing well GW-3 along 46th Road sidewalk. Monitoring Wells MW-6S and MW-7S are completed in the perched water zone. Monitoring Wells MW-6I and MW-7I are completed in the sand aquifer.

Groundwater samples were collected from the new monitoring wells (along with previously installed wells GW-2, GW-3, and GW-4) during February/March 2008 and July 2008 sampling events.

5.1.4 AOC-1 Results

Seven groundwater samples were submitted for lab analysis (GW-2, GW-3, GW-4, MW-6S, MW-6I, MW-7S and MW-7I). Contaminants detected in groundwater samples at concentrations exceeding their GWQS during the two sampling events were the following:

GW-2: metals (iron, manganese, sodium).

GW-3: SVOCs (chrysene); metals (antimony, iron, magnesium, manganese, sodium).

GW-4: VOCs (acetone, isopropylbenzene); metals (iron, magnesium, manganese, sodium)

MW-6S: LNAPL[1]; SVOCs (benzo(a)anthracene, benzo(b)fluoranthene, chrysene); metals (antimony, iron, magnesium, manganese, sodium)

MW-6I: VOCs (isopropylbenzene); metals (antimony, iron, magnesium, manganese, sodium)

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[1] Although LNAPL was present in the well, EWMA collected a groundwater sample for laboratory analysis of dissolved contamination to provide groundwater quality data for this area.

MW-7S: LNAPL[1]; VOCs (benzene, chloroform, isopropylbenzene, toluene); SVOCs (anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, bis(ethylhexyl)phthalate, fluorene, fluoranthrene, phenanthrene, pyrene); metals (antimony iron manganese sodium)

MW-7I: VOCs (benzene); SVOCs (naphthalene, 1,1-biphenyl); metals (iron, magnesium, manganese sodium)

The sampling results are presented in Tables 4 through 7 and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.2 AOC-2: EASTERN PARKING LOT

5.2.1 AOC-2 Prior Investigation Activities

In June 2005, JCB conducted a Phase I ESA for the Site, which indicated potential groundwater impacts from neighboring properties, which could only be further addressed through detailed subsurface investigation on the Site.

EEA's May 4, 2006 Phase I ESA identified "Bestcare Dry Cleaners" located at 5-48 46th Road under the RCRA hazardous waste generators surrounding or in close proximity to the Site. The Bestcare facility is located east of the Site and adjacent to the eastern fenced parking lot, and is listed in the EPA Hazardous Waste Generator Database as a small quantity generator of hazardous waste. This facility is located upgradient of the Site with regard to the documented groundwater flow in the lower sand aquifer. (Based on the data collected during the RI, it may be upgradient or cross-gradient from the site with respect to the perched groundwater.) Although no spill incidents were identified within the NYSDEC Spill database, this facility has generated hazardous waste (mainly tetrachloroethylene, or PCE) and is therefore identified to have the potential to affect the subsurface conditions at the Site.

In May 2005, JCB installed four soil boring locations (SB-1 through SB-4) within the fenced eastern parking lot. JCB installed one additional soil boring (SB-5) within the access driveway to the basement at the on-Site three story brick building along 46th Road, which is immediately west (assumed to be downgradient at that time)of the fenced parking area. The soil borings were installed using Geoprobe® method down to a depth of approximately eight feet below grade. Soil borings were advanced in four foot intervals at each location, and were field screened using a properly calibrated photoionization detector (PID) for evidence of potential contamination. Based on the field screenings, only two soil samples were collected from the SB-1 location at 4'-7' and 7'-8' depth intervals, and one soil sample was collected from the SB-5 location at 0'-4' depth interval. In addition, JCB collected two groundwater samples at SB-1 and SB-5 locations, which were located along the eastern and western end of the parking lot, respectively.

5.2.2 AOC-2 Prior Investigation Results

JCB installed SB-1 to SB-5 and collected samples which were analyzed for TAGM #4046 list of compounds for volatiles (VOCs), semi-volatiles (SVOCs), and metals. The groundwater samples from SB-1 and SB-5 were analyzed for TAGM VOCs and SVOCs.

The results of JCB's soil sampling within the eastern fenced parking lot did not detect any VOCs. SVOCs analysis indicated the presence of several compounds above TAGM 4046 soil cleanup objectives, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene. The target SVOC compounds were detected at concentrations ranging from less than 1 mg/kg to over 6 mg/kg. The results of metals analysis indicate the presence of several metals above the TAGM 4046 RSCOs, including copper, lead, mercury, and zinc. Lead was detected at the highest concentration of 1,595 mg/kg at SB-1 (4'-7' depth interval).

The results of JCB's groundwater sampling indicated that at SB-1 (located along the eastern end of the fenced parking lot), elevated concentrations of VOCs above the applicable NYSDEC GWQS were detected. Specifically, VOCs including: acetone, benzene, ethylbenzene, xylenes, n-butylbenzene, sec-butylbenzene, isopropylbenzene, p-isopropyltoluene, n-propylbenzene, 1,2,4-trimethylbenze, and 1,2,5-trimethylbenzene were detected. The VOCs at SB-1 were detected at concentrations ranging from 5 ug/L to 107 ug/L. Two SVOC compounds (2-methylnaphthalene and naphthalene) were also detected at SB-1 at 80 ug/L and 49ug/L respectively, above the NYSDEC GWQS of 4.7 ug/L and 10 ug/L, respectively. The groundwater sample collected from SB-5, which was located downgradient of the fenced parking lot within the driveway to the basement of the 3-story building along 46th Road, did not contain detectable levels of any target VOCs or SVOCs. The groundwater samples collected by JCB in this area were not analyzed for metals or any additional parameters.

In January 2006, as part of the Phase II investigation at the Site, EEA installed one soil boring(EB-4) which was converted to a permanent monitoring well (GW-1), within the southern portion of the fenced parking lot. Both soil and groundwater samples collected from this location were analyzed for VOCs, SVOCs, PCBs, pesticides, RCRA metals, and total cyanide.

The results of EEA's soil investigation indicated no VOCs, PCBs, or pesticides concentrations in soil sample from EB-4 which exceeded the NYSDEC TAGM RSCOs. Seven SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-c-b)pyrene) were detected at location EB-4 at concentrations above the NYSDEC TAGM RSCOs as well as the NYSDEC UUSCO criteria. The target SVOC compounds were detected at concentrations ranging from less than 1 mg/kg to over 8 mg/kg. In addition, seven metals (beryllium, chromium, copper, lead, mercury, nickel and zinc) were detected at EB-4 at concentrations above the NYSDEC TAGM RSCOs. Four of these metals (copper, lead, mercury, and zinc) were also above the NYSDEC UUSCO.

The results of EEA's groundwater investigation indicated that four VOCs (sec-butylbenzene, n-butylbenzene, isopropylbenzene, and n-propylbenzene) were detected at GW-1 above the NYSDEC GWQS. Seven metals were detected over NYSDEC GWQS, (antimony, beryllium, iron, lead, manganese, mercury, and sodium). The sampling results are presented in Appendix 4-1 and 4-2 and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.2.3 AOC-2 BCP Remedial Investigation

EWMA completed two soil borings and temporary well point locations (SBE-1/TW-1 and SBE-2/TW-2) within the eastern parking lot area, as shown in **Figure 2**.

Soil boring SBE-1 was completed at a depth of 23 ft bsg, and SBE-2 was completed at a depth of 12 ft bsg (above the clayey peat layer). Temporary well point (groundwater) sample TW-1 was collected from the sand aquifer, and TW-2 was collected from the perched water zone. EWMA also re-sampled nearby existing monitoring well GW-1.

EWMA installed three monitoring wells (MW-10I, MW-14I, and MW-15I) within the eastern parking area (**Figure 2**). All three wells are screened within the sand aquifer, at depths of approximately 19 to 20 ft bsg. Monitoring Well MW-10I was installed in June 2008 and Monitoring Wells MW-14I and MW-15I were installed in November, 2008. All three wells were installed to investigate the extent of the sand aquifer LNAPL emanating from an off-site source.

5.2.4 AOC-2 Results

Five soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-1 (6'-7'); SBE-1 (12.5'-13.5'); SBE-1 (22'-23'); SBE-2 (6'-7'); and SBE-2(11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-1 (6'-7'): metals (mercury).

SBE-1 (12.5'-13.5'): VOCs (ethylbenzene); SVOCs (naphthalene, acenaphthene, fluorene, phenanthrene); metals (mercury).

SBE-2 (6'-7'): metals (mercury).

Three groundwater samples were submitted for laboratory analysis (TW-1, TW-2 and GW-1). Contaminants detected in the groundwater samples at concentrations exceeding their GWQS were the following:

TW-1: VOCs (benzene, toluene, ethylbenzene, isopropylene); SVOCs (1,1-biphenyl, anthracene, benzo(a)anthracene, chrysene, fluorene, fluoranthene, phenanthrene, pyrene); metals (iron, manganese,, sodium).

TW-2: VOCs (acetone); metals (iron, manganese, sodium).

GW-1: metals (iron, manganese, sodium).

Monitoring Wells MW-10I, MW-14I, and MW-15I were not sampled, but were gauged for LNAPL:

MW-10I: LNAPL detected.

MW-14I: LNAPL detected.

MW-15I: No LNAPL.

The sampling and gauging results are presented in **Tables 2 through 7** and on **Figures 10 through 16** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.3 AOC-3: 1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)

This 1-story brick/concrete building occupies the southeastern-most portion of the Site immediately west of the fenced parking lot. The building has rear access from inside the fenced parking lot. This building was most recently occupied by Demand Electric, with a street address of 5-36 46th Road.

5.3.1 AOC-3 Prior Investigation Activities

As part of previous Phase I ESAs by JCB in June 2005, and EEA in May 2006, no specific AOCs were identified within this portion of the Site. However, in January 2006, as part of the Phase II investigation, EEA installed two soil borings (B-2 and B-3) within this portion of the Site. The soil borings were installed to a depth of approximately 4 feet below grade at B-2 (where refusal was met) and to 6 feet below grade at B-3. Soil samples were collected at depths of 2 to 4 feet below grade at B-2, and 2 to 6 feet below grade B-3, and were analyzed for VOCs, SVOCs, pesticides, PCBs, RCRA metals, and cyanide.

5.3.2 AOC-3 Prior Investigation Results

The results of prior soil sampling in AOC-3 indicate that the primary contaminants of concern in the soils are metals. Several metals were detected above the NYSDEC TAGM cleanup guidelines, including beryllium, chromium, copper, lead, mercury, nickel, and zinc. Some of these metals concentrations are also above the 6NYCRR subpart 375-6 UUSCO. At B-3, VOC compound 1,2-dichloroethane was detected at 0.0286 mg/kg, which is slightly above the 6NYCRR subpart 375-6 UUSCO. At B-2, SVOC compound di-n-butylphthalate was detected at 9.97 mg/kg, above the NYSDEC TAGM of 8.1 mg/kg, however, this substance is not listed in the current UUSCO tables.

5.3.3 AOC-3 BCP Remedial Investigation

EWMA installed two soil borings and temporary groundwater sample locations, SBE-3/TW-3 and SBE-4/TW-4, within the former Demand Electric space, in the area which is accessible with a small drill rig through a high-ceiling garage door. Other areas of this space which have been previously sampled were utilized for office space and can only be sampled using manual sampling equipment.

Soil borings SBE-3 and SBE-4 were both completed above the clayey peat at depths of 12 ft bsg. Temporary Well Point (groundwater) samples TW-3 and TW-4 were collected from the perched water-zone.

EWMA installed one monitoring well (MW-16I) within AOC-3 (**Figure 2**). Monitoring Well MW-16I was installed in November, 2008 and is screened within the sand aquifer at a depth of 18 ft bgs. MW-16I was installed to investigate the extent of the sand aquifer LNAPL emanating from an off-site source.

5.3.4 AOC-3 Results

Four soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-3 (7'-8'); SBE-3 (11'-12'); SBE-4 (6.5'-7.5'); and SBE-4 (11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-3 (7'-8'): SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; benzo(g,h)anthracene; and indeno (1,2,3-cd)pyrene).

SBE-3 (11'-12'): SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(a,h)anthracene; and indeno (1,2,3-cd)pyrene).

SBE-4 (6.5'-7.5'): SVOC (benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; benzo(a)pyrene; chrysene; dibenz(a,h)anthracene; and indeno (1,2,3-cd)pyrene).

Two groundwater samples were submitted for laboratory analysis (TW-3 and TW-4). Contaminants detected in the groundwater samples at concentrations exceeding their GWQS were the following:

TW-3: VOC (isopropylbenzene: benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; and indeno(1,2,3-cd)pyrene); Metals (antimony; iron; manganese; and sodium).

TW-4: VOC (vinyl chloride); Metals (iron; manganese; and sodium).

Monitoring Well MW-16I was not was not sampled, but was gauged for LNAPL:

MW-16I: LNAPL detected.

The sampling results are presented in **Tables 2 through 7** and **Figures 10 through 16** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.4 AOC-4: MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BUILDING)

As identified in previous investigations by others, a small motorcycle repair shop was known to be in operation most recently inside the basement of the 2-story building formerly located in the northeastern portion of the Site along 46th Road, and adjacent to the fenced parking lot. A driveway from the 46th Road to the east of the building leads into the entrance to the basement area with the repair shop. The repair shop was identified at the street address of 5-36 46th Road.

5.4.1 AOC-4 Prior Investigation Activities

No soil and/or groundwater sampling had previously been conducted within this repair shop, primarily as a result of restricted access and lack of any identifiable historic AOCs.

5.4.2 AOC-4 BCP Remedial Investigation

The basement of the building could not be accessed with a Geoprobe rig, so EWMA completed soil boring SBE-5 with a hand auger (**Figure 2**). Soil boring SBE-5 was completed to a depth of 1.5 feet below the basement floor, where the auger met refusal. The basement floor was measured to be approximately 6 ft bsg (using a basement window as a reference point), so the depth of the hand-auger boring, relative to the exterior ground surface, was 7.5 ft bsg. In order to be consistent with samples collected at exterior locations, the sample depth intervals provided for the hand-auger soil samples are relative to the exterior ground surface. A groundwater grab sample (TW-5) was collected from the borehole using a bailer, but EWMA could only collect enough water for VOC analysis.

5.4.3 AOC-4 Results

One soil sample was submitted for laboratory analyses, based on field observations and conditions: SBE-5 (7'-7.5'). Contaminants detected in the soil sample at concentrations exceeding their UUSCO were the following:

SBE-5: SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(g,h)anthracene; and indeno(1,2,3-cd)pyrene).

One groundwater sample was submitted for laboratory analysis (TW-5). This sample was analyzed for VOCs only, and there were no detected concentrations which exceeded the GWQS.

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.5 AOC-4A: 1-STORY BUILDING

A 1-story building was located west of the 2-story brick building along 46th Road in the northeastern portion of the Site. The building had a basement area below the street level which adjoined, and was accessible through, the former motorcycle repair shop area.

5.5.1 AOC-4A Prior Investigation Activities

No soil and/or groundwater sampling has previously been conducted within this building, primarily as a result of extremely limited access and lack of any identifiable AOCs within the basement portion of the building.

5.5.2 AOC-4A BCP Remedial Investigation

The basement of the building could not be accessed with a Geoprobe, so EWMA completed soil boring SBE-6 with a hand auger (**Figure 2**). Soil boring SBE-6 was completed at a depth of 4.5 feet below the basement floor, where the auger met refusal. The basement floor was measured to be approximately 6 ft bsg (using a basement window as a reference point), so the depth of the hand-auger boring, relative to the exterior ground surface, was 10.5 ft bsg. In order to be consistent with samples collected at exterior locations, the sample depth intervals provided for the hand-auger soil samples are relative to the exterior ground surface. Water was not present in the borehole, so a groundwater sample was not collected.

EWMA installed one monitoring well (MW-18I) within AOC-4A (**Figure 2**). Monitoring Well MW-18I was installed in December 2008 and is screened within the sand aquifer at a depth of 19 ft bgs. MW-18I was installed to investigate the extent of sand aquifer LNAPL emanating from an off-site source.

5.5.3 AOC-4A Results

One soil sample was submitted for laboratory analyses, based on field observations and conditions: SBE-6 (10'-10.5'). Contaminants detected in the soil sample at concentrations exceeding their UUSCO were the following:

SBE-6: SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; indeno(1,2,3-cd)pyrene); Metals (lead; mercury; and zinc).

Monitoring Well MW-18I was not sampled, but was gauged for LNAPL:

MW-18I: LNAPL.

The sampling and gauging results are presented in **Tables 2 through 7** and **Figures 10 through 16** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.6 AOC-5: 3-STORY BRICK BUILDING (ART STUDIOS)

A large 3-story brick building was located within the north-central portion of the Site along 46th Road. Most recently, the building was utilized by Art Studios, with the street address of 5-20 46th Road. The building had a basement below the street level. However, access to the basement was extremely limited and only through narrow iron staircases.

5.6.1 AOC-5 Prior Investigation Activities

No soil and/or groundwater sampling has previously been conducted within this building, primarily as a result of extremely limited access, and lack of any identifiable AOCs within the basement portion of the building.

5.6.2 AOC-5 BCP Remedial Investigation

The basement of the building could not be accessed with a Geoprobe, so Soil Boring SBE-7 was completed using a hand auger (**Figure 2**). Soil boring SBE-7 was completed at a depth of 1.5 feet below the basement floor, where the auger met refusal. The basement floor was level with the adjacent loading-dock driveway (which was measured to be approximately 6 ft bsg), so the depth of the hand-auger boring, relative to the exterior ground surface, was 7.5 ft bsg. In order to be consistent with samples collected at exterior locations, the sample depth intervals provided for the hand-auger soil samples are relative to the exterior ground surface. Water was not present in the borehole, so a groundwater sample was not collected.

5.6.3 AOC-5 Results

One soil sample was submitted for laboratory analyses, based on field observations and conditions: SBE-7 (6.5'-7'). Contaminants detected in the soil sample at concentrations exceeding their UUSCO were the following:

SBE-7: SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(g,h)anthracene; and indeno(1,2,3-cd)pyrene).

The sampling results are presented in **Table 2 and Figure 10** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.7 AOC-6: 1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)

This 1-story brick building is the largest building within the south-central portion of the Site along 46th Road. The AOC-6 area represents the southeastern portion of this building behind the 3-story brick building along 46th Road. This portion of the Site has been most recently used by Knossos Custom Design Furniture (Knossos) with the street address of 5-20 46th Road.

5.7.1 AOC-6 Prior Investigation Activities

A review of prior investigation reports indicates that no specific AOCs were identified within this referenced portion of the building. Most recently Knossos utilized this space for furniture construction and design. No specific details regarding Knossos operations were available to EWMA for the purpose of this RIWP.

In January 2006, as part of the Phase II investigation, EEA installed one soil boring within AOC-6. The soil boring was installed down to a depth of approximately 6 feet below grade. One soil sample was collected at the depth of 2 to 6 feet below grade, and was analyzed for VOCs, SVOCs, pesticides, PCBs, RCRA metals, and cyanide.

On August 28, 2007, during EWMA's site walk-through with NYSDEC representatives, a suspect former boiler/ stack area was identified within the portion of this building immediately west of the 3-story brick building, as shown on **Figure 2**. No further information regarding this location or potential presence or use of the boiler is known.

5.7.2 AOC-6 Prior Investigation Results

The results of prior soil sampling in the AOC-6 area indicate that the primary contaminants of concern in the soils are metals. Soil sample B-4 (2' – 6') collected on January 17, 2006 indicated metals (Arsenic and Copper) above the NYSDEC TAGM cleanup guidelines. A second sample was collected from the same location on April 12, 2006 from 7'-8' and indicated SVOC

(Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, and Indeno(1,2,3-cd)pyrene and metals (Copper, Lead, Mercury , and Zinc) above the 6NYCRR subpart 375-6 UUSCO

5.7.3 AOC-6 BCP Remedial Investigation

EWMA completed four soil borings and temporary well points (SBE-8/TW-8, SBE-9/TW-9, SBE-10/TW-10, and SBE-11/TW-11) within this AOC as shown on **Figure 2**.

Soil borings SBE-8, SBE-9, and SBE-11 were completed above the clayey peat confining layer, at depths ranging from 11 to 12 ft bsg. Soil boring SBE-10 was completed below the clayey peat, at a depth of 33.5 ft bsg. Temporary Well Point (groundwater) samples TW-8, TW-9, and TW-11 were collected from the perched water-zone, and TW-10 was collected from the sand aquifer (at a depth of 25 to 29 ft bsg).

EWMA installed one monitoring well (MW-20I) within AOC-6 (**Figure 2**). Monitoring Well MW-20I was installed in December 2008 and is screened within the sand aquifer at a depth of 19 ft bgs. MW-20I was installed to investigate the extent of sand aquifer LNAPL emanating from an off-site source.

5.7.4 AOC-6 Results

Eight soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-8 (8.5'-9.5'); SBE-8 (10'-11'); SBE-9 (7'-8'); SBE-9 (11'-12'); SBE-10 (6'-7'); SBE-10 (32.5'-33.5'); SBE-11 (6.5'-7.5'); and SBE-11 (11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-8 (8.5'-9.5'): VOC (acetone); SVOC (benzo(a)pyrene; benzo(b)fluoranthene; chrysene; indeno (1,2,3-cd)pyrene); Metals (lead; and zinc).

SBE-8 (10'-11'): VOC (acetone).

SBE-9 (7'-8'): VOC (acetone); SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(a,h)anthracene; and indeno (1,2,3-cd)pyrene); Metals (lead; and mercury).

SBE-9 (11'-12'): VOC (acetone).

SBE-10 (6'-7'): VOC (acetone; 2-butanone); SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(a,h)anthracene; and indeno (1,2,3-cd)pyrene); Metals (copper; lead; and mercury).

SBE-11 (6.5'-7.5'): SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(a,h)anthracene; and indeno (1,2,3-cd)pyrene; dibenzofuran); Metal (mercury).

Four groundwater samples were submitted for laboratory analysis (TW-8, TW-9, TW-10 and TW-11) Contaminants detected in the groundwater) samples at concentrations exceeding their GWQS were the following:

TW-8: VOC (isopropylbenzene); Metal (iron; manganese; sodium; and thallium).

TW-9: VOC (methylene chloride; isopropylbenzene); SVOC (benzo(b)fluoranthene); Metal (iron; manganese; sodium; and thallium).

TW-10: VOC (vinyl chloride); Metal (iron; manganese; sodium).

TW-11: VOC (isopropylbenzene); SVOC (acenaphthene; benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; fluorene; indeno (1,2,3-cd)pyrene; phenanthrene); Metal (antimony; iron; magnesium; manganese; sodium).

Monitoring Well MW-20I was not was not sampled, but was gauged for LNAPL:

MW-20I: LNAPL detected.

The sampling and gauging results are presented in **Tables 2 through 7** and **Figures 10 through 16** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.8 AOC-6A: 2-STORY BRICK BUILDING BETWEEN AOC-5 AND AOC-6

A 2-story brick building occupied the north-central portion of the Site along 46th Road, between AOC-5 and AOC-6. The most recent use of this building is unknown although it may have been part of the Knossos operations.

5.8.1 AOC-6A Prior Investigation Activities

No soil and/or groundwater sampling had previously been conducted within this area due to restricted access and lack of any identifiable historic AOCs.

5.8.2 AOC-6A BCP Remedial Investigation

The basement of the building could not be accessed with a Geoprobe, so EWMA completed Soil Boring SBE-13 using a hand auger (**Figure 2**). Soil boring SBE-13 was completed to a depth of 1.5 feet below the basement floor, where the auger met refusal. The basement floor was measured to be approximately 6 ft bsg (using a basement window as a reference point), so the depth of the hand-auger boring, relative to the exterior ground surface, was 7.5 ft bsg. In order to be consistent with samples collected at exterior locations, the sample depth intervals provided for the hand-auger soil samples are relative to the exterior ground surface. Water was not present in the borehole, so a groundwater sample was not collected.

5.8.3 AOC-6A Results

One soil sample was submitted for laboratory analyses based on field observations and conditions: SBE-13 (7'-7.5'). Contaminants detected in the soil sample at concentrations exceeding their UUSCO were the following:

SBE-13: SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; dibenz(a,h)anthracene; and indeno(1,2,3-cd)pyrene).

The sampling results are presented in **Table 2** and **Figures 10** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.9 AOC-7: TWO (2) FORMER GASOLINE STORAGE TANKS

5.9.1 AOC-7 Prior Investigation Activities

EEA's May 2006 Phase I ESA indicates that the 1936, 1947, 1950, and 1979 Sanborn maps depict the presence of two gasoline storage tanks buried beneath the Site. This portion of the Site was constructed between 1950 and 1970, and EEA concluded that it is likely that these tanks were covered over by concrete flooring installed in conjunction with the construction. During site reconnaissance, EEA also identified a fill port demarcated with "gasoline" embedded in the concrete sidewalk fronting the western side of the building located along 5th Street and two vent lines extending through the roof on the northwestern side of the building along 46th Road. These items are normally associated with the presence of underground storage tanks (USTs). As per EEA, no information pertaining to the closure of these tanks was noted within available regulatory databases reviewed.

Based on EWMA's review of the referenced Sanborn maps, the approximate location of these formerly identified gasoline tanks are shown on **Figure 2**. These tanks appear to have been located along the northwestern portion of the Site most recently occupied by Knossos.

No soil and/or groundwater investigation was conducted in the immediate vicinity of these gasoline tanks or within the interior of the buildings. However, a number of soil borings and monitoring wells were installed and sampled within the sidewalks along 46th Road and 5th Street, as shown on **Figure 2**. The former monitoring well location GW-4 installed by EEA in April 2006 is the closest groundwater sampling location to these tanks. GW-4 is located northeast of the tanks along 46th Road, and generally down- to side-gradient of the tanks. As summarized in the RIWP, the groundwater samples from GW-4 indicated the presence of elevated concentration of some VOCs above the applicable NYSDEC GWQS (methyl-tert-butyl-ether (MTBE), isopropylbenzene, n-propylbenzene, and 1,2,4-trimethylbenzene). In addition, several metals (antimony, iron, lead, manganese, mercury, and sodium) were detected above the applicable NYSDEC GWQS.

Based on the limited prior investigation in this area and locations of the prior samples, it was unclear if the contaminants detected at GW-4 are from the former gasoline USTs.

5.9.2 AOC-7 BCP Remedial Investigation

A geophysical survey conducted in this area in June 2008 did not identify any suspected USTs. However, the resolution of the survey was limited due to local subsurface conditions.

EWMA completed a test pit in this area during June 2008 to investigate the potential presence of USTs in this area. Test pit locations are shown in **Figure 2**.

EWMA installed one soil boring and temporary well point (SBE-14/TW-14) in this AOC. Soil boring SBE-14 was completed below the clayey peat confining layer, at a depth of 31 ft bsg. Temporary Well Point sample TW-14 was collected from the sand aquifer, at a depth of 24 to 28 ft bsg.

5.9.3 AOC-7 Results

Two soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-14 (6.5'-7.5') and SBE-14 (30'-31'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-14 (6.5'-7.5'): VOC (acetone); SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h)anthracene; indeno(1,2,3-cd)pyrene); Metal (lead; and mercury).

SBE-14 (30'-31'): Metal (nickel).

One groundwater sample was submitted for laboratory analysis (TW-14). Contaminants detected in the groundwater sample at concentrations exceeding their GWQS were the following:

TW-14: SVOC (benzo(a)anthracene; benzo(k)fluoranthene; indeno(1,2,3-cd)pyrene); Metal (iron; magnesium; manganese; and sodium).

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

The test pit conducted in this area did not uncover a UST but did encounter LNAPL-saturated soils, as well as piping and a concrete pad consistent with the presence of a UST. A sample of the LNAPL-saturated soil (designated 46-ROAD) was submitted for GC fingerprint analysis. The GC fingerprint results were consistent with No. 2 heating oil. The test pit results are discussed in detail in Section 6.3.

5.10 AOC-7A: SUSPECT FORMER BOILER/ STACK AREA

5.10.1 AOC-7A Prior Investigation Activities

No soil and/or groundwater sampling was previously conducted within this AOC.

5.10.2 AOC-7A BCP Remedial Investigation

EWMA installed one soil boring and temporary groundwater sample location (SBE-12/TW-12) within the suspect former boiler/stack area, as shown on **Figure 2**. Soil boring SBE-12 was completed above the clayey peat, at a depth of 11 ft bsg. Temporary Well Point (groundwater) sample TW-12 was collected from the perched water-zone.

5.10.3 AOC-7A Results

Two soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-12 (6.5'-7.5'); and SBE-12 (10'-11'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-12 (6.5'-7.5'): VOC (acetone); SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; indeno (1,2,3-cd)pyrene); Metal (lead; mercury);

SBE-12 (10'-11'): SVOC (naphthalene; and 3-methylphenol).

One groundwater sample was submitted for laboratory analysis (TW-12). Contaminants detected in the groundwater sample at concentrations exceeding their GWQS were the following:

TW-12: VOC (benzene; ethylbenzene; isopropylbenzene); SVOC (benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; and indeno(1,2,3-cd)pyrene; fluorene; phenanthrene; fluoranthene); Metal (antimony; iron; manganese; sodium and thallium).

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.11 AOC-8: SUSPECT TWENTY-TWO (22) 1,500-GALLON VARNOLINE STORAGE TANKS

5.11.1 AOC-8 Prior Investigation Activities

EEA's May 2006 Phase I ESA indicates that the 1936, 1947, 1950, and 1979 Sanborn maps depict the presence of twenty-two 1,500-gallon Varnoline storage tanks buried beneath the Site. The 1979 Sanborn map depicts eighteen solvent tanks buried beneath the Site in the same vicinity. Based on EWMA's review of the referenced Sanborn maps, the 1979 depiction appears to be for the same tank farm depicted on previous maps, since the 1979 map also depicts three additional solvent tanks in the same vicinity. As per EEA, this tank farm may have been covered over by the concrete flooring installed in conjunction with the construction of buildings on this portion of the Site between 1950 and 1970. EEA was unable to obtain any information pertinent to the closure of these tanks within available regulatory databases reviewed.

Based on available site history, the suspect Varnoline tank farm was likely used as part of the former operations such as Toch Bros. Paints & Varnish (1915) and Pratt & Lambert Varnish Works (1898) during the years prior to 1950.

5.11.2 AOC-8 BCP Remedial Investigation

A geophysical survey conducted in this area in June 2008 did not identify any suspected USTs. However, the resolution of the survey was limited due to the properties of the soils at the Site.

EWMA completed test pits in this area during June 2008 to investigate the potential presence of USTs. Test pit locations are shown in **Figure 2.**

In addition, EWMA installed soil boring/temporary well point SBE-15/TW-15 within this portion of the Site, as shown on **Figure 2.** Soil boring SBE-15 was completed above the clayey peat, at a depth of 12 ft bsg. Temporary Well Point (groundwater) sample TW-15 was collected from the perched water-zone.

Sample locations SBE-11/TW-11 and SBE-14/TW-14 (completed nearby as part of investigations of AOC-6 and AOC-7) were also used to evaluate potential impacts from the Varnoline tank.

5.11.3 AOC-8 Results

Two soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-15 (6.5'-7.5'); and SBE-15 (11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-15 (6.5'-7.5'): SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; chrysene; and indeno(1,2,3-cd)pyrene).

SBE-15 (11'-12'): Metal (lead; mercury; zinc); Pesticide (4,4-DDE; 4,4-DDT).

Contaminants detected in the temporary well point (groundwater) sample at concentrations exceeding their GWQS were the following:

TW-15: VOC (acetone; isopropylbenzene); SVOC (benzo(a)anthracene; benzo(b)fluoranthene; chrysene; indeno(1,2,3-cd)pyrene); Metal (antimony; iron; magnesium; manganese; and sodium).

The sampling results are presented in Table 2 and 4 through 7 and Figures 10 through 14 and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

The results of the test pits performed in this area identified one approximately 1,500-gallon capacity UST, along with LNAPL stained and saturated soil. Two samples of LNAPL-saturated soil (designated VAL-E and VAL-NE) were submitted for GC fingerprinting. A sample of NAPL from the UST (designated VAL-UST) was also submitted fro GC fingerprinting. Sample VAL-E was consistent with No. 2 heating oil, and Samples VAL-NE and VAL-UST were consistent with Stoddard Solvent. The test pit results are discussed in detail in Section 6.3.

5.12 AOC-9: 1-STORY BUILDING (AMN RENOVATION)

The AOC-9 represents the northwestern portion of the Site buildings along the corner of 46th Road and 5th Street. Most recently, this portion of the Site has been used by AMN Renovation as a marble and granite works shop, with a street address of 46-31 5th Street. AOC-9 is located west of the suspect Varnoline tank farm (AOC-8).

5.12.1 AOC-9 Prior Investigation Activities

Based on available site history, portions of the Site along 5th Street were used by M.L. Perlee Ink Factory (1898), Ged L. Fenner Ink Factory (1915), Wohl Inc. Cleaners & Dyers (1936-1970), and Accurate Metal Castings Co., Inc.

In January 2006, as part of the Phase II investigation, EEA installed one soil boring (B-5) within or in close proximity to this portion of the Site, as shown on **Figure 2**. The soil boring was installed down to a depth of approximately six feet below grade. One soil sample was collected at the depth of 2 to 6 feet below grade, and analyzed for VOCs, SVOCs, pesticides, PCBs, RCRA Metals, and cyanide.

5.12.2 AOC-9 Prior Investigation Results

The results of prior soil sampling in the adjacent AOC-10 area indicate that the primary contaminants of concern in the soils are metals. The results of metals analysis indicate the presence of several metals above the TAGM RSCOs, including arsenic, beryllium, chromium, copper, and zinc. Copper, mercury, and zinc as well as lead are also above the 6NYCRR subpart 375-6 UUSCO.

5.12.3 AOC-9 BCP Remedial Investigation

EWMA installed one soil boring and a temporary well point (SBE-16/TW-16) within this portion of the Site, as shown on **Figure 2**.

Soil boring SBE-16 was completed above the clayey peat, at a depth of 12 ft bsg. Temporary Well Point (groundwater) sample TW-16 was collected from the perched water-zone.

5.12.4 AOC-9 Results

Two soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-16 (7'-8'); and SBE-16 (11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-16 (7'-8') VOC (acetone); SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; dibenz(g,h)anthracene; indeno (1,2,3-cd)pyrene); Metal (lead); and Pesticide (4,4-DDD).

SBE-16 (11'-12'): VOC (acetone and benzene).

One groundwater sample was submitted for laboratory analysis (TW-16). Contaminants detected in the groundwater sample at concentrations exceeding their GWQS were the following:

TW-16: VOC (acetone; benzene; toluene; isopropylbenzene); SVOC (benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; bis-2-ethylhexylphthalate; chrysene; and indeno(1,2,3-cd)pyrene); Metal (antimony; iron; magnesium; manganese; sodium, thallium) and cyanide.

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.13 AOC-10: 1-STORY BUILDING (JMJ ELECTRICAL)

This portion of the Site buildings along 5th Street is immediately south of the AOC-9 area. Most recently, this area has been occupied by JMJ Electrical Contractors with a street address of 46-33 5th Street.

5.13.1 AOC-10 Prior Investigation Activities

Prior investigations did not identify any specific AOCs within this portion of the Site. As such, the available site history discussed under AOC-9 also applies to this portion of the Site.

On August 28, 2007, during EWMA's site walk-through with NYSDEC representatives, two (2) suspected fill/vent ports were identified along the southwestern portion of this AOC, as shown on **Figure 2**. Based on the visual observation, it is likely that these ports are associated with a UST that may still be present in this area. The geophysical survey conducted by Enviroscan on behalf of EWMA on January 11, 2007 did not detect any potential anomalies in this area.

5.13.2 AOC-10 BCP Remedial Investigation

A geophysical survey conducted by Enviroscan on behalf of EWMA in June 2008 did not indicate any suspected USTs in this area. However, the resolution of the survey was limited due to the properties of the soils at the Site.

EWMA completed one test pit in this area during July 2008 to investigate the potential presence of USTs in this area. Test pit locations are shown in **Figure 2**.

EWMA installed a soil boring and temporary groundwater sample location SBE-17/TW-17 within this portion of the Site, as shown on **Figure 2**. Soil boring SBE-17 was completed above the clayey peat, at a depth of 12 ft bsg. Temporary Well Point (groundwater) sample TW-17 was collected from the perched water-zone.

5.13.3 AOC-10 Results

Three soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-17 (5.5'-6.5'); SBE-17 (7.5'- 8.5') and SBE-17 (11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-17 (5.5'-6.5'): VOC (acetone); SVOC (benzo(a)pyrene); Metal (copper; lead; mercury); and Pesticide (4,4-DDD).

SBE-17 (7.5'-8.5'): VOC (acetone; ethylbenzene); SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; indeno(1,2,3-cd)pyrene); Metal (lead); and Pesticide (4,4-DDD).

One groundwater sample was submitted for laboratory analysis (TW-17). Contaminants detected in the groundwater sample at concentrations exceeding their GWQS were the following:

TW-17: VOC (tetrachloroethylene; benzene; ethylbenzene; isopropylbenzene); Metal (antimony; magnesium; manganese; and sodium).

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

The test pits conducted in this area did not uncover a UST, but did encounter piping and a concrete pad consistent with the presence of a UST. The test pit results are discussed in detail in Section 6.3.

5.14 AOC-11: FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)

The southern most portions of the building space at the Site along 5th Street were formerly operated by Wohl, Inc. Cleaners and Dyers (1936-1970). Most recently, this portion of the Site was occupied by Direct Air Corp. at the street address of 46-35 5th Street.

5.14.1 AOC-11 Prior Investigation Activities

In January 2006, as part of the Phase II investigation, EEA installed one soil boring (B-1) within or in close proximity to this portion of the Site. The soil boring was installed down to a depth of approximately 6 feet bsg. One (1) soil sample was collected at depths of 2 to 6 feet below grade, and analyzed for VOCs, SVOCs, pesticides, PCBs, RCRA metals, and cyanide.

5.14.2 AOC-11 Prior Investigation Results

EEA submitted two soil samples for B-1 for laboratory analyses: B-1 (2' -6'); and B-1 (7'-9'). Contaminants detected in the soil sample at concentrations exceeding their RSCO and UUSCO were the following:

B-1 (2'-6') – VOC (Acetone); Metals (Arsenic, Copper, Lead, and Nickel)
B-1 (7'-9') – SVOC (Benzo(a)pyrene, Indeno(1,2,3-cd)Pyrene)

No groundwater sampling was conducted by the previous consultants at this AOC.

The soil sampling results are summarized in **Appendix 4-1** and are further discussed Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.14.3 AOC-11 BCP Remedial Investigation

EWMA installed one soil boring and temporary groundwater sample location SBE-18/TW-18, as shown on **Figure 2**.

5.14.4 AOC 11 Results

Two soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-18 (6.5'-7.5'); and SBE-18 (11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-18 (6.5'-7.5'): VOC (acetone; cis-1,2-dichloroethene; and ethylbenzene); SVOC (indeno(1,2,3-cd)pyrene); Metal (mercury);

SBE-18 (11'-12'): VOC (methylene chloride); and Pesticide (4,4-DDD).

One groundwater sample was submitted for laboratory analysis (TW-18). Contaminants detected in the groundwater sample at concentrations exceeding their GWQS were the following:

TW-18: VOC (ethylbenzene; isopropylbenzene); SVOC (benzo(a)anthracene; benzo(b)fluoranthene; bis-2-ethylhexylphthalate; chrysene); Metal (antimony; and sodium).

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.15 AOC-12: FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)

The southern most portions of the building space at the Site along 5th Street were formerly operated by Wohl, Inc. Cleaners and Dyers (1936-1970). Most recently, this southwestern portion of the Site was occupied by Liberty Contracting at the street address of 46-45 5th Street.

5.15.1 AOC-12 Prior Investigation Activities

Based on EWMA's review of prior reports, no information regarding prior soil or groundwater investigation in this portion of the Site is available.

5.15.2 AOC-12 BCP Remedial Investigation

EWMA installed one soil boring and temporary well point location (SBE-19/TW-19), as shown on **Figure 2**. Soil boring SBE-19 was completed above the clayey peat, at a depth of 12 ft bsg. Temporary Well Point (groundwater) sample TW-19 was collected from the perched water-zone.

5.15.3 AOC-12 Results

Two soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-19 (7'-8'); and SBE-19 (11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-19 (7'-8'): VOC (acetone).

One groundwater sample was submitted for laboratory analysis (TW-19). Contaminants detected in the groundwater sample at concentrations exceeding their GWQS were the following:

TW-19: VOC (acetone; isopropylbenzene; acenaphthene); Metal (antimony; iron; manganese; sodium; thallium).

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0: Site-Wide Discussion of Remedial Investigation Results.

5.16 AOC-13: 5TH STREET SIDEWALK

The 5th Street sidewalk abuts the Site along its western boundary in a north-south direction.

5.16.1 AOC-13 Prior Investigation Activities

In August 2005, JCB collected groundwater samples from two previously existing monitoring wells (MW-01 and MW-02) located within the 5th Street sidewalk. It is unclear who installed these monitoring wells, although they appear to have been installed as part of the investigations at the Site.

5.16.2 AOC-13 Prior Investigation Results

The results of the groundwater sample from MW-01, located along the northern portion of the 5th Street sidewalk (adjacent to AOC-9), did not detect any contaminants of concern. However, groundwater samples from MW-2, located halfway along the 5th Street sidewalk (in the vicinity of AOC-10) detected VOC compounds above the NYSDEC GWQS. The VOCs (benzene, 1,2-dichloroethane, m+p xylenes, n-butykbenzene, sec-butylbenzene, isopropylbenzene, p-isopropylbenzene, n-propylbenzene, 1,2,4-trimethylbezene, and 1,3,5-trimethylbenzene,) and

SVOCs (Acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, 2-methylnaphthalene, naphthalene, and phenanthrene) detected at this location were similar to those detected at GW-3 where LNAPL was detected. Additionally, approximately two inches of LNAPL was observed in MW-02.

In January 2006, as part of the Phase II investigation, EEA also collected a groundwater sample from MW-02. However, the results of groundwater sample analysis by EEA did not detect any VOCs, SVOCs, or metals above the NYSDEC GWQS.

5.16.3 AOC-13 BCP Remedial Investigation

EWMA installed five additional permanent monitoring wells within the 5th Street sidewalk. One well cluster (MW-3S/3I/3D) was installed along the northern portion of the 5th Street sidewalk, downgradient of the AOC-7 and AOC-8. A second well cluster (MW-4S/4I) was installed along the southern portion of the 5th Street sidewalk downgradient of AOC-11 and AOC-12. Monitoring wells MW-3S, MW-4S are completed within the perched-water zone, while MW-3I, MW-3D, and MW-4I are completed in the sand aquifer.

Groundwater samples were collected from the new monitoring wells (along with previously installed wells MW-01 and MW-02) during February/March 2008, and July 2008.

5.16.4 AOC-13 Results

No soil samples were collected as AOC-13 is the sidewalk adjacent to the Site and is, therefore, considered off-site.

Seven groundwater samples were submitted for laboratory analysis (MW-01, MW-02, MW-3S, MW-3I, MW-3D, MW-4S and MW-4I). Contaminants detected in groundwater samples at concentrations exceeding their GWQS during the two sampling events were the following:

MW-01: VOC (isopropylbenzene); Metal (antimony; iron; magnesium; manganese; sodium).

MW-02: LNAPL.

MW-3S: LNAPL[1]; VOC (acetone; isopropylbenzene); Metal (antimony; sodium).

MW-3I: VOC (isopropylbenzene); Metal (iron; manganese; sodium);

MW-3D: VOC (t-1,3-dichloropropene); Metal (iron; manganese; manganese; sodium);

MW-4S: LNAPL[1]; VOC (cis-1,2-dichloroethene); SVOC (bis(ethylhexyl)phthalate; pentachlorophenol); Metal (antimony; iron; manganese; sodium); Pesticide (4,4-DDD).
MW-4I: isopropylbenzene; arsenic; iron; manganese; sodium.

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.17 AOC-14: FORMER ACCURATE ASSOCIATES RCRA AREA

As outlined in EEA's May 2006 Phase I ESA, and previously presented in the BCP application, a review of the United States Environmental Protection Agency (USEPA), Region II correspondence letter dated November 5, 1993 issued to Ms. Miriam E. Villani, Esq. with Rifkin, Radler & Kremer regarding Accurate Associates, Administrative Order, Docket No. II RCRA-7003-91-0201 ("Order") indicated that Accurate Associates had filed the agreed upon Notice In Deed with the Queens County City Register. Such filing occurred on July 14, 1993, and was assigned serial number 47605. This Notice In Deed indicated that the portion of the Site identified as 5-20 46th Road, Long Island City, New York (Block 28, Lot 21) was the subject of the above referenced Administrative Order issued by the USEPA pursuant to Resource Conservation and Recovery Act (RCRA), Section 7003. Pursuant to the Order, the owner undertook certain removal, investigative and remedial activities at the premises. The remedial activities were undertaken by the owner with USEPA's approval. The remedial activities took the form of encapsulation of the contaminated soil beneath portions of the building floor and encapsulation of contaminants located in portions of the concrete floor and walls. Lead, arsenic and selenium are encapsulated beneath portions of the floor and within portions of the walls of the premises.

As per EEA's Phase I ESA, any and all renovations at the premises were to be undertaken with care so that the integrity of the encapsulation was maintained. These provisions applied to all operating leases signed by Accurate Associates for this portion of the Site under the Notice In Deed.

By letter transmitted to NYSDEC on March 29, 2007, USEPA confirmed that the Deed Notice was the final action required by the former Accurate Associates Respondents pursuant to the RCRA Order, and that all other removal and remediation actions were satisfactorily performed.

USEPA also consented in that letter to the suspension of the Notice in Deed, No. 47605, and termination of that Notice, upon completion of the remedial program carried out pursuant to the BCP, and provided that the Brownfield Cleanup Agreement be filed in the same place and manner as the Notice in Deed, No. 47605 together with a copy of the USEPA consent letter.

EEA did not review any other specific documents outlining the actual activities performed under the above referenced USEPA Administrative Order.

5.17.1 AOC 14 Prior Investigation Activities

OCA provided EWMA with several prior environmental documents which document the activities undertaken on behalf of Accurate Associates under the USEPA Administrative Order.

Copies of the relevant documents were provided in Appendix 3 of the 2008 RIWP. A summary of these documents is provided below:

> *CA Rich correspondence to USEPA dated March 23, 1992 titled "Disposal of Drummed Trench/Pit Bottoms and Power Wash Water from the Accurate Famous Castings Site, Long Island City, NY."* In the March 23, 1992 correspondence to USEPA, CA Rich requested USEPA's approval to remove and dispose of sixteen 55-gallon drums of solid and liquid waste material from the former Accurate Famous Castings facility within the area identified as AOC-14 in this RIWP. As per CA Rich, the trenches of this facility were physically scraped out using shovels and placed into the 55-gallon drums, followed by washing of the trenches and pits using power water wash. The wash water was also collected and stored in 55-gallon drums. Based on the laboratory analysis the drummed material was classified as D010 – Waste Poison B solid/ liquid, and proposed for appropriate disposal.
>
> *CA Rich correspondence to Mr. Miriam E. Villani, Esq. of Rivkin, Radler & Kremer dated March 24, 1992 titled "Report of Investigation and Clean-up Activities, Accurate Famous Castings Site, Long Island City, NY."* In the March 24, 1992 correspondence to Ms. Miriam E. Villani, Esq. (representing Accurate Famous Castings facility), CA Rich reported the results of investigation and clean-up activities. Apart from a site history and a summary of the events that led to the USEPA Administrative Order, the report documented the clean-up of floor sumps, trenches, and staining on the interior walls, disposal of the drummed wash water and solids, and integrity testing of floor drains and underground wastewater drain pipes. As part of this report, CA Rich presented the results of chip samples collected from the floors and the walls, and soil/ sediment samples collected from the areas of the floor drains and drain pipes. The results indicated that both arsenic and lead exceeded the NYSDEC guidelines in several samples, and the concentrations of copper and selenium exceeded the measured background levels. CA Rich recommended remediation in the form of source control for the remaining impacts at this facility, through the following:
>
> - Treatment of all trenches and pits with an encapsulant;
> - Disconnecting all former sanitary sewer lines used in the plating operation and filling in the existing trenches and pits with concrete;
> - Application of a high grade, industrial strength floor paint over the entire floor surface and the bottom two feet of the perimeter walls.

USEPA correspondence to CA Rich dated April 06, 1992 titled "Disposal of Drummed Trench/Pit Bottoms and Power Wash Water, Accurate Famous Castings Site, Long Island City, NY." On April 6, 1992, USEPA issued a response to CA Rich's March 24, 1992 report and approved the proposed activities provided activities were conducted in accordance with applicable laws and regulations.

CA Rich correspondence to USEPA dated April 17, 1992 titled "Proposed Project Status Meeting, Accurate Famous Casting Site, Long Island City, New York." CA Rich's April 17, 1992 correspondence to USEPA suggested that a progress meeting regarding the case was being scheduled for May 1, 1992, and that the arrangements to have the on-Site drums removed and properly disposed of at Cyclechem, New Jersey were still being made.

CA Rich correspondence to USEPA dated April 30, 1992 titled "Certification of Completion, Investigation and Clean-up of the Accurate Famous Castings Site, Long Island City, New York." CA Rich's April 30, 1992 correspondence to USEPA certified the completion of the following tasks initially outlined in CA Rich's Workplan dated January 21, 1992:

- the clean-up of floor sumps, trenches and staining of interior walls,
- disposal of drummed solids and wash water,
- integrity testing of floor drains and underground wastewater drain pipes,
- accompanying USEPA on a site inspection, and
- preparation of a final report.

CA Rich correspondence to Mr. Miriam E. Villani, Esq. of Rivkin, Radler & Kremer dated July 10, 1992 titled "Report of Soil Sample Investigation for: Accurate Famous Castings, Inc. Site, Long Island City, New York." CA Rich's July 10, 1992 correspondence to Ms. Miriam E. Villani, Esq. (representing Accurate Famous Castings facility) provided a report on soil sample investigations for the purpose of evaluating any potential impacts to the Site soils from the underground sewer pipeline connecting the former Accurate Famous Castings facility. A total of six soil borings were installed to a depth of 3.5 to 4.5 feet, which is at the same depth as sewer lines, along the sidewalks surrounding the Site, and across 5th Street. The soil samples were analyzed for metals. Based on the results, CA Rich concluded that the remediation of metals in the subsurface soils beneath the sidewalk and street adjoining the former Accurate Famous Castings site did not appear to be warranted.

CA Rich's July 17, 1992 correspondence to USEPA: This correspondence forwarded the laboratory report sheets from the soil sampling investigation along the sidewalks and streets, which are summarized in **Appendix 4** of this report.

CA Rich's July 23, 1992 correspondence to USEPA. This correspondence presented a Corrective Measures Plan (CMP) for the Accurate Famous Castings facility based on the results of the investigative activities performed from January through June 1992, and the outcome of their meeting with the USEPA on May 1, 1992. The CMP proposed the following three corrective measures as part of the referenced USEPA Administrative Order:

- Encapsulation of floor trenches, pits and stained walls;
- Disconnect sewer lines and fill in floor trenches and pits with concrete; and,
- Application of high grade industrial floor covering.

CA Rich's CMP also presented the detailed results of all previous investigation and remedial activities, including maps showing the locations of all subsurface features (including floor sumps, drains, drain pipes) and soil samples, and data tables summarizing the results of all samples collected as part of this effort.

On July 2, 1993, Accurate Associates field a Notice In Deed with the County of Queens, State of New York. The Deed confirmed that the remedial activities undertaken at the Site included the corrective measures previously proposed and as summarized above, and approved by the USEPA with continued obligation to maintain and periodically verify the integrity of the corrective measures. The Deed also included lease provision to ensure that tenants shall not undertake any renovations or other activities which may jeopardize the integrity of the corrective measures.

On November 5, 1993, USEPA issued a letter to Ms. Miriam Villani, Esq. (representing Accurate Associates) confirming the recording of the Notice In Deed with the Queens County City Register office on July 14, 1993 (Serial Number 47605), and the conclusion of respondent's (Accurate Associates') activities under the referenced USEPA Administrative Order. The letter also noted that Accurate had an ongoing obligation to protect the encapsulation of the hazardous material at the facility and to insure that lessees do so as well.

5.17.2 AOC 14 Prior Investigation Results

In August 2005, JCB installed two soil borings (SB-06 and SB-07) at the Site. Based on review of JCB's September 19, 2005 report, these two borings appear to be within the former Accurate Associates RCRA area. Both soil borings were installed to a depth of approximately 12 feet below grade. No soil samples were collected from these two locations based on the results of the field screening and observation. However, JCB also collected temporary groundwater samples from both SB-06 and SB-07 locations. JCB only analyzed SB-06 groundwater sample for VOCs and SVOCs, which did not detect any contaminants of concern at this location.

5.17.3 AOC 14 BCP Remedial Investigation

Based on the information presented above, a significant amount of investigation, remediation, and corrective measures have been undertaken within the former Accurate Associates RCRA Area (AOC-14) at the Site. Based on EWMA's review of prior investigation reports, the concentrations of metals remaining in the subsurface soils in this area do not appear to be or are not anticipated to be significant and/or hazardous in nature.

As authorized by EPA's March 29, 2007 letter, and, in order to further characterize the soils in the AOC-14 as part of the BCP process, EWMA installed four soil borings and temporary well points through this former RCRA Area (SBE-RCRA-1/TW-RCRA-1 through SBE-RCRA-4/TW-RCRA-4), as shown on **Figure 2**. As previously noted, these soil borings were installed through the slab, and the slab was restored to pre-investigation integrity as per NYSDEC request that the slab remain in place in this area during the investigation.

Soil borings SBE-RCRA-1, SBE-RCRA-2, and SBE-RCRA-4 were all completed above the clayey peat confining layer, at depths of 12 ft bsg. SBE-RCRA-3 was completed below the confining layer, at a depth of 31.5 ft bsg. Temporary Well Point (groundwater) Samples TW-RCRA-1, TW-RCRA-2, and TW-RCRA-4 were collected from the perched water-zone. Temporary Well Point Sample TW-RCRA-3 was collected from the sand aquifer, at a depth of 25 to 29 ft bsg.

5.17.4 AOC-14 Results

Thirteen soil samples were submitted for laboratory analyses, based on field observations and conditions: SBE-3 (7'-8'); SBE-3 (11'-12'); SBE-4 (6.5'-7.5'); and SBE-4 (11'-12'), SBE-RCRA-1 (6'-7'), SBE-RCRA-1 (11'-12'), SBE-RCRA-2 (6'-7'), SBE-RCRA-2 (8'-9'), SBE-RCRA-2 (11.5'-12.5'), SBE-RCRA-3 (6.5'-7.5'), SBE-RCRA-3 (30.5'-31.5'), SBE-RCRA-4 (6'-7'), SBE-RCRA-4 (11'-12'). Contaminants detected in the soil samples at concentrations exceeding their UUSCO were the following:

SBE-RCRA-1 (6'-7'): SVOC (acenaphthene; benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; benzo(g,h)anthracene; dibenzofuran; fluorene; and indeno(1,2,3-cd)pyrene); Metal (copper; mercury).

SBE-RCRA-2 (6'-7'): VOC (acetone); SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; benzo(g,h)anthracene; indeno(1,2,3-cd)pyrene); Metal (arsenic; copper; lead; mercury; zinc);

SBE-RCRA-2 (8'-9'): SVOC (benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; benzo(g,h)anthracene; indeno(1,2,3-cd)pyrene); and VOC (acetone).

SBE-RCRA-2 (11.5'-12.5'): VOC (acetone); and Metal (mercury).

SBE-RCRA-3 (6.5'-7.5'): SVOC (naphthalene).

SBE-RCRA-4 (6'-7'): SVOC (2-methylphenol; 3,4-methylphenols; benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; benzo(g,h)anthracene; indeno(1,2,3-cd)pyrene); Metal (copper; mercury; zinc).

SBE-RCRA-4 (11'-12'): Metal (copper).

Four groundwater samples were submitted for laboratory analysis (TW-RCRA-1, TW-RCRA-2, TW-RCRA-3 and TW-RCRA-4). The following contaminants were detected in the groundwater) samples at concentrations exceeding their GWQS:

TW-RCRA-1: VOC (acetone; 1,3-dichloropropene; isopropylbenzene); SVOC (benzo(a)anthracene; chrysene; fluorene; phenanthrene); Metal (iron; magnesium; manganese; sodium; thallium).

TW-RCRA-2: VOC (vinyl chloride); Metal (iron; manganese; and sodium).

The sampling results are presented in **Table 2 and 4 through** 7 and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

5.18 AOC-15: 47TH AVENUE SIDEWALK

The 47th Avenue sidewalk abuts the Site along its southwestern portion in an east-west direction. Based on EWMA's recent conversations with the representatives of Consolidated Edison, a high voltage electrical feeder cable currently runs along the 47th Avenue sidewalk down to the 5th Street intersection, and then turns south along the 5th Street sidewalk away from the Site. As per Consolidated Edison, the feeder cables are encased within oil-o-static lines to regulate the temperature of the feeders. Therefore a potential exists for a leak from the feeder lines to adversely impact the Site.

5.18.1 AOC-15 Prior Investigation Activities

As previously discussed as part of AOC-14 (Former Accurate Associates RCRA Area), CA Rich's July 10, 1992 correspondence to Ms. Miriam E. Villani, Esq. (representing Accurate Famous Castings Site) provided a report on soil sample investigations for the purpose of evaluating any potential impacts to the Site soils from the underground sewer pipeline connecting the former Accurate Famous Castings facility.

Based on a review of the referenced CA Rich reports, some of the soil borings were installed along the sewer lines entering the Site from the 47th Avenue sidewalk. A total of six (6) soil borings were installed to a depth of 3.5 to 4.5 feet bsg, which is at the presumed depth of the building's sewer lines, along the sidewalks surrounding the Site and across 5th Street.

5.18.2 AOC-15 Prior Investigation Results

The soil samples were analyzed for metals only. Based on the results, CA Rich concluded that the remediation of metals in the subsurface soils beneath the sidewalk and street adjoining the former Accurate Famous Castings facility did not appear to be warranted.

5.18.3 AOC 15 BCP Remedial Investigation

EWMA installed one well cluster (MW-5S/5I) within the 47th Avenue sidewalk. The purpose of this well was to determine the groundwater quality in this AOC and potential impacts from the Consolidated Edison oil-o-static feeder lines and/or potential off-Site sources.

Groundwater samples were collected from the monitoring wells during February/March 2008, and July 2008. No soil samples were collected.

5.18.4 AOC 15 Results

Two groundwater samples were submitted for laboratory analysis (MW-5S and MW-5I). Contaminants detected in groundwater samples at concentrations exceeding their GWQS during the two sampling events were the following:

MW-5S: Metal (antimony; arsenic; iron; lead; manganese; nickel; sodium);

MW-5I: VOC (benzene; ethylbenzene; toluene; isopropylbenzene); SVOC (2,4-dimethylphenol; 1,1-biphenyl; acenaphthene; fluorene; pentachlorophenol); Metal (iron; manganese; sodium).

The sampling results are presented in **Table 2 and 4 through 7** and **Figures 10 through 14** and are further discussed in Section 6.0, Site-Wide Discussion of Remedial Investigation Results.

6.0 SITE-WIDE DISCUSSION OF REMEDIAL INVESTIGATION RESULTS

6.1 SOIL SAMPLING RESULTS

The analytical results from the sampling efforts conducted by EWMA and others at the Site are presented in **Figure 10, Table 2** and in **Appendix 4-1 and 4-2.** The results are summarized and discussed below.

6.1.1 VOCs

The following VOCs were detected in soil at concentrations exceeding the NYS Unrestricted Use Soil Cleanup Objectives (UUSCO): acetone; methylene chloride; 2-butanone; benzene; and ethyl benzene (**Table 2, Figure 10**).

Acetone was the most commonly detected VOC, and exceeded its UUSCO (0.05 ppm) at 14 boring locations. The highest acetone concentration (2.6 ppm) was detected at 7-8 ft bsg in soil boring SB-19 (located in AOC-12). Acetone concentrations in the rest of the soil samples were all below 1 ppm. Acetone was detected in soils throughout the Site and does not appear to be concentrated in any particular AOC.

The second most commonly detected VOC was ethylbenzene, which exceeded its UUSCO (1 ppm) at three boring locations. The highest ethylbenzene concentration (6.9 ppm) was detected at SB-18, located in AOC-11.

The remaining VOCs were each detected in only one or two samples at concentrations that slightly exceeded their UUSCO.

6.1.2 SVOCs

Polynuclear aromatic hydrocarbons (PAHs) were the most commonly detected SVOCs in soil at the Site. PAHs detected at concentrations exceeding their respective UUSCO include naphthalene, acenaphthene, fluorene, phenanthrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzofuran, and dibenz(a,h)anthracene) (**Table 2, Figure 10**). PAHs were detected in soil throughout the Site, but the highest concentrations were detected in samples collected from depths of 12 ft bsg or less, suggesting that the source of the contaminants is from historic site operations and/or fill materials. Soil samples collected from below this depth had low or non-detectable PAH concentrations.

Several PAHs, including naphthalene, fluorene, and phenanthrene, are commonly found in fuel oil (although fluorene and phenanthrene are also found in fly ash). Naphthalene exceeded its UUSCO (12 ppm) at four boring locations (SBE-1, SBE-11, SBE-12, and SBE-RCRA-3). The highest concentration of naphthalene detected was 230 ppm, detected in SBE-12 at 10-11 ft.
Elevated naphthalene concentrations were generally encountered in soil above the clayey peat (i.e., depths of 12 ft bsg or less), except for boring SBE-1. In SBE-1, naphthalene was not detected in the sample collected from above the clayey peat, but was detected (at a concentration of 84 ppm) below the clayey peat layer, at 12.5-13.5 ft bsg. Elevated concentrations of fluorene and phenanthrene were also detected at this level.

In SBE-1, naphthalene and other PAHs were detected below the clayey peat layer. There are no identified naphthalene sources (i.e., fuel-oil USTs) in that area of the Site, and the sample collected from above the clayey peat in SBE-1 did not exhibit naphthalene. Therefore, it is unlikely that a nearby surface or UST spill is responsible for the detected naphthalene. Instead, naphthalene detected below the clayey peat layer at SB-1 is most likely due to an off-site source to the east.

Fluorene exceeded its UUSCO at two locations, and phenanthrene exceeded its UUSCO at one location. The highest fluorene concentration was 53 ppm (compared to the UUSCO of 30 ppm), detected at SBE-1. The highest phenanthrene concentration was 130 ppm (compared to the UUSCO of 100 ppm) and was also detected at SBE-1.

The source of the naphthalene and other PAHs in soil at this location cannot be definitively determined. Fuel oil releases from USTs located in AOC-1 are likely the source of the naphthalene detected in SBE-12, but there is no obvious source for the naphthalene detected in other borings.

6.1.3 Metals

Metals in soil that exceeded their respective UUSCO were arsenic, copper, lead, mercury, nickel, and zinc (**Table 2, Figure 10**). Elevated concentrations of one or more metals were detected in soil samples collected from 17 of the 23 borings throughout the Site.

Metals were detected at concentrations exceeding their respective UUSCO throughout the Site. The source of the detected metals is attributable to the historic site operations and/or historic fill materials. Review of historic documents including Sanborn Fire Insurance Maps and Phase I Environmental Site Assessments indicated that past operations at the Property included varnish works, ink factory, electroplating, paint and paint product manufacture, dye and dye product manufacturing and dry cleaning. These operations were conducted across a majority of the Site with the electroplating operations being the most recent with Accurate Metals, Inc. According to the Handbook of Environmental Contaminants[2] the metals identified in soils in exceedance of the UUSCO are common in the process stream for electroplating. The RCRA capped area (AOC-14) contained the highest concentrations of these six metals at sample location SBE-RCRA-2. At least one, if not several, of these metals were detected in soils around the remainder of the Site at concentrations in slight exceedance of their respective UUSCO and may be attributable to fill materials containing process waste or discharges from former operations in these areas.

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[2] Shineldecker, Chris L. Handbook of Environmental Contaminants: A Guide for Site Assessment. Lewis Publishers, Inc 1992.

6.1.4 Pesticides and PCBs

The only pesticide detected in soil at the Site was 4,4-DDD, which exceeded it's UUSCO in soil samples collected from SBE-17, SBE-18, and SBE-19 (**Table 2, Figure 10**). The highest concentration of 4,4-DDD was 3.3 mg/kg (compared to the UUSCO of 0.0033 mg/kg), detected at 5.5-6.5 ft bsg in SBE-17.

The pesticide 4,4-DDD has not been used in the United States since the 1970's; how it may have been used at the Site prior to that date is unknown.

No PCBs were detected in soil at the Site (**Table 2**).

6.2 SOIL VAPOR INVESTIGATION

As part of the approved RIWP, EWMA proposed to conduct a soil vapor intrusion (SVI) assessment at the Site as per the NYSDOH *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated October 2007 (NYSDOH Guidance). The NYSDOH requested that the proposed vapor intrusion investigation be conducted prior to the removal of the concrete slab. Therefore, an interim approval to conduct the investigation was issued by NYSDEC on January 18, 2008, included as Appendix 8 of the RIWP. The SVI investigation proposal was subsequently implemented on January 22, 2008, prior to the RIWP submittal. All completed activities were conducted in conformance with the proposed investigation procedures outlined in the approved RIWP.

EWMA collected a total of four sub-slab air samples (SS-1, SS-2, SS-3, and SS-4) at the Site with one sample each within AOC-4, AOC-5, AOC-10 and AOC-14, respectively, as per Section 2 of the NYSDOH Guidance (**Figure 2**). In addition, EWMA collected a total of three soil vapor samples (SG-1 through SG-3) at the proposed development depth or depth of excavation (approximately 7 feet below grade) throughout the Site. Soil vapor sample SG-1 was collected within the eastern parking lot in order to evaluate the potential for vapor intrusion from possible off-site impacts (adjacent dry cleaner); SG-2 was collected in the area downgradient of suspect USTs (AOC-7) and suspect tank farm (AOC-8); and SG-3 was collected in the area of former Wohl Inc. Cleaners & Dyers (AOC-11). In addition to the sub-slab and soil vapor samples, one outdoor air sample was collected during each air sampling event in order to provide ambient or background data.

All activities related to the SVI investigation, including the laboratory analysis and reporting of the data, were conducted in accordance with the referenced NYSDOH Guidance document. The methodology used for collecting the shallow soil vapor samples is found in the FSPP, Appendix 5 of the 2008 RIWP.

All soil vapor samples were submitted to an ELAP-certified laboratory for analysis via EPA method TO-15.

6.2.1 Soil Vapor Results

The results of the soil vapor sample analyses were compared to the background air sampling results and Table 3.1 from the NYSDOH Vapor Intrusion Guidance document. The analytical results for the soil vapor samples are summarized in **Table 8** and **Figure 17**; the laboratory report is included as **Appendix 12.**

The results of the January 2008 vapor sampling indicate the following VOCs above the background level: acetone, benzene, 1,3-butadiene, carbon disulfide, chloroform, cyclohexane, dichlorodifluoromethane, cis-1,2-dichloroethylene (cis-1,2-DCE), ethylbenzene, heptane, hexane, isopropyl alcohol, methyl ethyl ketone (MEK), methyl isobutyl ketone, methylene chloride, methyl-t-butyl ether (MTBE), styrene, tetrachloroethylene (PCE), toluene, 1,1,1-trichloroethane (TCA), trichloroethylene (TCE), trichlorofluoromethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, vinyl chloride, m or p-xylene, and o-xylene.

Of these contaminants, dichlorodifluoromethane was detected in soil vapor sample SG-2 (5.1 ug/m^3) and was not detected in any of the sub-slab vapor samples. Cis-1,2-DCE, isopropyl alcohol, methyl isobutyl ketone, MTBE, styrene and vinyl chloride were detected in the sub-slab vapor sampling but were not detected in the soil vapor.

Methylene chloride and PCE were detected above the NYSDOH air guideline values (Table 3.1 of the NYSDOH Guidance document) in both the soil vapor and sub-slab vapor samples. Methylene chloride was detected in soil vapor samples SG-2 (63 ug/m^3) and SG-3 (274 ug/m^3) and sub-slab vapor sample SS-4 (247 ug/m^3). PCE was detected in soil vapor sample SG-3 (136 ug/m^3). Soil gas sample SG-3 which indicted PCE at concentrations above the NYSDOH air guidelines is located in an area of an historic dry cleaner. Soil samples collected in this area indicated PCE (SBE-16, SB-17, and SB-18) but at levels below the NYSDEC criteria. As PCE and Methylene Chloride are both volatile organic compounds, the vapors may have accumulated beneath the concrete slab and any soil source has since degraded as noted by the presence of cis-1,2-DCE, a daughter product of PCE, in sample SBE-18. As for the presence of Methylene Chloride in three of the soil vapor samples, only SBE-18 in the area of SG-3 indicated detectable concentrations of this compound in soils.

6.3 TEST PIT INVESTIGATION

Due to the suspected presence of Underground Storage Tanks (USTs) in three AOCs at the Site, including AOC 7, AOC-8 and AOC-10, EWMA coordinated the excavation of test pits in these areas to further evaluate the presence of USTs and associated impacts. Due to concerns for possible odor generation from LNAPL in the subsurface and dust generation associated with the removal of the remaining concrete surface cap across the entire Site, NYSDEC and the NYSDOH required that limited areas of concrete be removed from the suspect UST areas, and an additional geophysical scan of the ground be performed in these areas to identify any subsurface anomalies prior to conducting test pits.

At the direction of NYSDEC, EWMA prepared a Concrete Removal Plan (CRP), dated May 13, 2008, which detailed the necessary health and safety, air monitoring, and concrete removal procedures. The NYSDEC approved the CRP in a letter dated May 20, 2008. Copies of the May 13, 2008 Concrete Removal Plan and May 20, 2008 NYSDEC approval letter have been included in **Appendix 9.**

Removal of the concrete slabs in the three suspect UST areas was conducted by Mikula Contracting, Inc. on June 6, 2008 and June 9, 2008. EWMA provided oversight and health and safety monitoring for the removal of concrete from the three suspected UST areas in accordance with the approved CRP. **Figure 2** depicts the approximate extent of the three concrete removal areas. . Several old electrical conduits were noted to transverse the area beneath the concrete at the 5th Street removal area. These pipes were removed to clear the area for a geophysical survey. No other pipes or conduits were observed beneath the concrete removed in the other two areas. No elevated levels of vapor or dust in exceedance of the guidance limits stated in the site HASP were detected during the concrete removal activities. A copy of the air monitoring logs has been included as **Appendix 3.**

6.3.1 Geophysical Surveys

As described in Section 3.3, on February 8, 2007, Enviroscan, Inc. of Lancaster, Pennsylvania conducted a Geophysical Survey of accessible interior and sidewalk portions of the Site. According to the geophysical report prepared by EnviroScan, Inc of Lancaster, Pennsylvania, no anomalies indicative of an UST were observed during the survey. However, EnviroScan noted that reinforcing in the concrete created overwhelming interference limiting the viewing range of the geophysical instrumentation (3-4 feet bsg). A copy of the EnviroScan Geophysical Survey Report was included as Appendix 4 of the RIWP.

On June 17, 2008, Subsurface Informational Surveys, Inc (SIS) of East Longmeadow, MA conducted a geophysical survey of the three suspect UST areas following the removal of the overlying concrete pads. According to SIS's geophysical report, dated June 17, 2008, the Ground Penetrating Radar (GPR) was only able to read a maximum of three feet below the surface due to the high conductivity of the soils. The SIS Geophysical Survey Report is included as Appendix 5.

6.3.2 Test Pit Results

On July 10, 2008 Mikula Contracting, Inc. conducted test pit excavations in the three suspect UST areas. A mini excavator was utilized and soils were carefully removed to avoid disturbing any piping or tanks within the soil. The following is a summary of the test pit investigation for each of the three AOCs. A copy of test pit field notes and photographs have been included as **Appendix 11.**

6.3.2.1 5th Street Test Pit (AOC-10)

An area 15 feet by 15 feet was cleared of concrete to investigate the possible fuel oil UST suspected to be present in this area. This area is adjacent to 5th Street and was noted to have two fill ports labeled "fuel oil" in the concrete and one vent pipe. Electrical conduits that lay above the soils were removed to allow for exploration of the soils beneath. Soils were removed from the excavation and revealed several pipes embedded in a second concrete pad three feet bsg across the entire excavation area. The concrete pad may have been placed above the USTs to prevent floatation, or the "pad" may represent the top of a concrete vault surrounding the tanks. Based on the size of the pad and spread of the three ports, the USTs are possibly one or more 1,000 to 2,000 gallon USTs. One of the pipes encountered was noted to run north-south across the excavation and did not enter the concrete pad. The pipe was inadvertently cracked during excavation and was screened with PID which indicated elevated readings (~200 ppm) and a petroleum-like odor. No LNAPL was observed in the soils or inside the broken pipe and the pipe was sealed with absorbent pads prior to backfilling with the excavated material. No samples were collected for laboratory analysis as the soils above the UST concrete pad did not indicate any signs of impact. The area was backfilled with the excavated material and securely covered with six-millimeter thick plastic. Photographs of the Test Pit activities have been included as **Appendix 11.**

6.3.2.2 Varnoline UST Test Pit (AOC-8)

An area measuring approximately 30 feet by 30 feet was cleared of concrete to investigate the possible presence of an estimated twenty-two 1,500 gallon Varnoline (a.k.a. Stoddard solvent) USTs as noted on review of historic Sanborn maps from the 1940-50's. Several trenches were excavated to a depth of approximately 4 ft bsg in an east-west direction and revealed a subsurface concrete pad approximately three to four feet bsg. The concrete pad extended out approximately 20 feet from the western edge of the cleared area and the entire 30 foot length north and south. The pad was observed to extend further south and west under the concrete slab at surface grade. A 10-foot wide area extending off the western edge of the cleared area was not impeded by the concrete pad and allowed for excavation below the water table (approximately 7 feet bsg).

LNAPL stained soils noted in the top six inches to one foot of soils on top of the subsurface concrete pad indicated a maximum PID reading of 1,000 ppm and the soils exhibited a strong odor. A sample of these soils, "VAL-NE", was collected and analyzed for a Gas Chromatogram (GC) Fingerprint which indicated the LNAPL to be a possible #2 heating oil or Stoddard solvent. In addition, one 1,500 gallon UST was observed embedded vertically in the subsurface concrete pad in the southeast area of the subsurface concrete pad. Approximately 1.5 feet of the tank was observed to extend upward from the concrete pad with several pipes running away from the tank to the south and the east. The piping was removed and a bailer was dropped down the opening of the tank to measure LNAPL thickness. Approximately one foot of water and 1.5 feet of a brownish translucent LNAPL was observed. A sample of the LNAPL was collected for GC Fingerprint analysis and indicated possible fuel oil/stoddard solvent fingerprint. The laboratory report for the GC fingerprint analyses are provided in **Appendix 10**. After the sample was collected, the openings of the tank were sealed with absorbent pads, and the tank and concrete pad were re-covered.

The accessible 10-foot gap off the western edge of the cleared area was excavated to approximately 10 ft bsg. A concrete wall with plywood plank supports was observed to extend ten feet deep along the western side of the subsurface concrete pad area indicating a possible tank vault. Black staining was observed along the wall, and a noticeable petroleum/solvent odor was noted in the excavated soils. In addition, LNAPL was observed to accumulate on the water table surface in this area and was observed to be seeping from soils excavated from beneath the water table. This LNAPL appeared to be different from that observed in the UST found in this area and the soil located above the subsurface concrete pad. A sample of the LNAPL on the water table and the saturated soils, VAL-E, was collected and analyzed for GC Fingerprint analysis. The GC fingerprint results indicated the LNAPL to resemble a #2 fuel oil (**Appendix 10**). After sampling, the excavation was backfilled with the excavated materials and securely covered with six-millimeter plastic. Photographs of the Test Pit activities have been included as **Appendix 11.**

6.3.2.3 Suspect UST along 46th Road (AOC-7)

An area 10 feet by 15 feet was cleared of concrete along 46th Road to investigate a suspect gasoline UST. Soils were excavated to a depth of 11 feet bsg. No UST or indications of a UST were observed within the excavation limits. The perched water table was encountered at approximately eight feet bsg with visual indication of the water noted in soils around 6.5-7 feet bsg. The visual indication of the water table depth was noted by the wet soils and water seepage into the test pit. A petroleum-like odor was noted when soils within the perched water table were encountered, and LNAPL was observed to be seeping from the saturated soils and floating on the water table. A sample of the saturated soils was collected and analyzed for GC Fingerprint, and the results indicated the LNAPL to be in the range of #2 fuel oil (**Appendix 10**) After sampling, the excavation was backfilled with the excavated soils and securely covered with six-millimeter plastic. Photographs of the Test Pit activities have been included as **Appendix 11.**

6.3.3 Conclusions and Recommendations

The test pit activities revealed that USTs are present at two of the investigated areas. In addition impacted soil and groundwater were observed at two of the locations. The following is a summary of the findings of the test pit activities with recommendations for further action to remove the USTs. LNAPL identified in two of these test pits, 46th Road and Varnoline, is further discussed in Section 6.4.

6.3.3.1 5th Street Test Pit (AOC-10)

A concrete pad was observed on top of the suspected 5th street UST heating oil tank at approximately three feet bsg. Several pipes were observed entering the concrete pad including two pipes labeled "fuel oil." A pipe that extended horizontally across the excavation indicated PID reading and a fuel oil smell from a crack in the pipe made during excavation and indicated that additional USTs may be located north and/or south of this location. The concrete pad will need to be removed in order to properly close the tank. In addition, during proposed site development activities, the areas to the north and south of this location should be carefully excavated as additional USTs may be present as noted by the horizontal pipe run.

6.3.3.2 Varnoline UST Test Pit (AOC-8)

At the suspected varnoline UST area, only one 1,500 gallon UST oriented vertically was identified encased in a subsurface concrete pad. A sample of the product in the UST indicates petroleum hydrocarbons identified as either a #2 fuel oil or stoddard solvent. The subsurface concrete pad at approximately three ft bsg extended beyond the limits of the surface concrete cut to the south and east and may contain additional USTs as noted on the 1940-50's Sanborn maps indicating 22 USTs. During proposed site development, this UST and any others identified in the area will require proper closure.

LNAPL was observed in the soils and groundwater at this location. A sample of the LNAPL indicated a petroleum hydrocarbon resembling a #2 fuel oil with possible mix of stoddard solvent.

6.3.3.3 Suspect UST along 46th Road (AOC-7)

The 46th Road test pit area did not reveal any USTs but LNAPL was observed in the soils and groundwater at this location. A sample of the product indicated a petroleum hydrocarbon in the range of #2 fuel oil. Samples of the soil and floating product analyzed for GC Fingerprint indicated that the product in the soils and on the perched water table resembled #2 heating oil. The soils and LNAPL will require an environmental remedy.

6.4 WATER-LEVEL ELEVATIONS, LNAPL THICKNESSES, AND GROUNDWATER FLOW

Water-level and LNAPL measurements were collected from on-site monitoring wells on March 11, 2008, June 8, 2008, July 17, 2008, and November 13, 2008. A limited round of water-level and LNAPL measurements (only for those wells completed in the sand aquifer and located in the eastern half of the Site) was completed on February 9, 2009. Water-level measurements, LNAPL thickness, and water-level elevations (corrected for the presence of LNAPL) are summarized in **Table 3.** No density analyses were performed for LNAPL detected in the perched zone, so an assumed LNAPL density of 0.8 was used when correcting the perched-water zone water-level elevations. Measured LNAPL densities for the LNAPL in the sand aquifer were approximately 0.85 (**Appendix 10**), and this value was used to correct the water-level elevations in the sand aquifer. Depths to water have ranged from approximately 5.2 ft bsg to 10.8 ft bsg.

It should be noted that the LNAPL thickness measured in a monitoring well is generally not the same as the thickness of the LNAPL within the formation itself because there is a tendency for LNAPL to accumulate in a monitoring well over time. This is especially true for wells completed in the sand aquifer at the Site. Water levels in wells completed in the sand aquifer are five to six feet above the top of the screen, so LNAPL entering the screened interval tends to rise up into the cased portion of the well and accumulate.

Within the perched-water zone, LNAPL was detected in wells MW-3S, MW-4S, MW-6S, MW-7S, GW-3, GW-4, and GW-5 during at least one measurement event **(Table 3**). The greatest LNAPL thickness measured in the perched-water zone was 3.6 ft, detected in MW-6S on July 17, 2008. The LNAPL detected in these wells is brown to black with a petroleum-hydrocarbon odor. At some wells where LNAPL was confirmed to be present (using a bailer), the LNAPL did not register on the interface probe, and the LNAPL thickness could not be determined.

The estimated extent of LNAPL within the perched-water zone is shown on **Figure 15**. The LNAPL extent was determined based on LNAPL measurements in monitoring wells and the presence or absence of hydrocarbon sheens and odors in soil borings. Within the perched-water zone, LNAPL is present only in the western half of the property.

Within the sand aquifer, four monitoring wells (MW-10I, MW-14I, MW-16I and MW-20I) have exhibited measurable thicknesses of LNAPL **(Table 3).** All of these wells are located near the eastern edge of the property and the most upgradient with regard to groundwater flow direction in the sand aquifer indicating an off-site source. LNAPL thicknesses detected in these wells ranges from 0.54 to 7.97 ft. A fourth well completed within the sand aquifer near the southern edge of the property (MW-15I) has not exhibited measurable LNAPL, but it did produce small amounts of LNAPL during development. Monitoring Well MW-18I exhibited LNAPL when it was originally installed, but it could not be accessed during the February measurement event. Monitoring Well MW-20I did not exhibit any LNAPL when it was installed, but it did exhibit 0.54 ft of LNAPL two months later.

The estimated extent of LNAPL within the sand aquifer is shown on **Figure 16**. The LNAPL extent was determined based on LNAPL measurements in monitoring wells, and the presence or absence of hydrocarbon sheens and odors in soil borings. Within the sand aquifer, LNAPL was found to be present only in the eastern half of the property.

Although LNAPL was detected in MW-20I, the LNAPL thickness detected here (0.54 ft) is much lower than the LNAPL thicknesses detected in wells located further to the east. This suggests that MW-20I is close to the leading (i.e. western) edge of the LNAPL plume.

The distribution of LNAPL in groundwater is discussed in **Section 6.6**. Results of GC fingerprint analyses of the LNAPL samples are discussed in **Section 6.7**.

Water-level elevations (corrected for the presence of LNAPL, where appropriate) range from 2.79 feet above mean sea level (ft amsl) to -1.29 ft amsl (**Table 3**). Water-level elevations for wells completed within the perched-water zone range from 0.59 ft amsl to 2.79 ft amsl, while water-level elevations for wells completed within the underlying sand aquifer range from -0.54 ft amsl to -1.29 ft amsl.

A comparison of corrected water-level elevations at individual well clusters (i.e., MW-3S/3I, MW-4S/4I, MW-5S/5I, MW-6S/6I, and MW-7S/7I) shows that water-level elevations in the perched-water zone are two to three feet higher than in the sand aquifer at the same location. This relationship was observed in all five monitoring-well clusters, including multiple instances where LNAPL was not present on the measurement date (e.g., MW-3S/3I, MW-4S/4I, MW-5S/5I on March 11, 2008, and MW-3S/3I and MW-5S/5I on May 8, 2008). The difference in water levels between the perched zone and underlying sand aquifer demonstrates that the clayey peat is acting as a confining layer and restricting migration between the two water-bearing zones.

Based on water-level elevation contour maps (**Figures 4** through **9**), groundwater flow within the sand aquifer is generally westward toward the East River (as expected). This contrasts sharply with groundwater flow within the overlying perched-water zone, which is to the north and east. The reason for the different flow direction within the perched-water zone is not known, but it may reflect the surface water drainage patterns that existed in the area before the historic fill was emplaced.

6.5 GROUNDWATER SAMPLING RESULTS

Laboratory results for groundwater samples collected during February/March 2008 (from both monitoring wells and temporary well points) are provided in **Tables 4 and 5.** Laboratory results for groundwater samples collected from the monitoring wells in July 2008 are provided in **Tables 6 and 7.**

The distribution of the various detected compounds for the February/March 2008 sampling events (monitoring wells, and temporary well points) is summarized in **Figure 11** (perched-water zone) and **Figure 12** (sand aquifer). The distribution of detected compounds in groundwater for the July 2008 sampling event (monitoring wells only) is summarized in **Figure 13** (perched-water zone) and **Figure 14** (sand aquifer).

6.5.1 VOCs

Several VOCs have been detected in groundwater samples at concentrations exceeding the NYS GWQS. VOCs that exceeded their GWQS include acetone, ethylbenzene, isopropylbenzene, benzene, toluene, vinyl chloride, methylene chloride, tetrachloroethylene (PCE), cis-1,2-DCE, and t-1,3-dichloropropene.

The highest VOC concentrations were detected within the perched-water zone in the western portion of the Site (**Figure 11**); VOC concentrations were very low or non-detectable for groundwater samples collected in the eastern portion of the Site.

Most of the VOCs were detected at only one or two locations, but a few were detected more widely across the Site. Acetone and isopropylbenzene were detected most frequently and at the highest concentrations. Acetone was detected at concentrations which exceeded the 50 ppb GWQS at six locations, with the highest acetone concentrations detected at TW-RCRA-1 and TW-15 (both 340 ppb). Isopropylbenzene concentrations exceeded the 5 ppb GWQS at 14 locations, with the highest concentration (150 ppb) detected at TW-16.

The highest acetone concentrations are clustered in areas adjacent to the former Varnoline UST area (AOC 8). Outside of that area, acetone exceeded the standard at TW-19 only, which is located in AOC 12 (former Wohl, Inc. cleaners and dyers). Acetone was not detected in any of the field or trip blanks. These findings indicate that the presence of acetone is not due to laboratory contamination but is most likely due to historic site operations.

The highest isopropylbenzene concentrations are also found in the western portion of the Site. Isopropylbenzene is a component of fuel oil, as well as other petroleum compounds. Several suspected fuel oil USTs are located in the western portion of the Site, and numerous wells in this area have also exhibited LNAPL. Therefore, UST releases in the western area of the Site are the likely source of the isopropylbenzene.

Monitoring Well MW-12S is screened within the perched-water zone and located hydraulically upgradient (i.e., to the west) of the Site. VOC concentrations in groundwater at MW-12S are lower than most of the onsite wells, so the VOCs detected in groundwater at the Site do not appear to be derived from an offsite source to the west.

The distribution of VOCs in the sand aquifer is similar to the distribution within the perched-water zone. Isopropylbenzene and acetone are present at the highest concentrations and are concentrated in the western portion of the Site. However, it should be noted that the VOC concentrations in the sand aquifer are much lower when compared to the overlying perched-water zone concentrations. This indicates that the clayey peat is behaving as a confining layer, and limiting downward migration of VOCs in groundwater.

TW-1 was screened within the sand aquifer and exhibited elevated VOC concentrations in groundwater. TW-1 is located near the eastern most upgradient edge of the Site (**Figure 12**). Benzene, toluene, ethylbenzene, and isopropylbenzene were detected at concentrations exceeding their GWQS. These compounds are components of fuel oil, but there are no known potential fuel oil sources in that area of the Site. Further, it would be difficult for a source that might exist to penetrate the clayey peat confining layer without also impacting the overlying perched-water zone. Groundwater flow within the sand aquifer is westward, so the source of these compounds is most likely located to the east on an upgradient property. The presence of LNAPL in nearby monitoring wells also completed in the sand aquifer (i.e., MW-10I, MW-14I, and MW-16I)), indicates that there is an upgradient, offsite source of fuel oil (or other petroleum product) to the east.

6.5.2 SVOCs

Several SVOCs were detected in groundwater at concentrations exceeding their GWQS, including 2,4-dimethylphenol, 1,1-biphenyl, acenaphthene, fluorene, pentachlorophenol, phenanthrene, fluoranthene, benzo(a)anthracene, chrysene, bis(2-ethylhexylphthalate), benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene. These SVOC's were encountered sporadically throughout the Site, in both the unfiltered and laboratory-filtered samples, and in both the perched-water zone and in the sand aquifer (at much lower concentrations).

Several SVOC's (1,1-biphenyl, fluorene, acenaphthene, and phenanthrene) exceeded their GWQSs in the same wells that exhibited elevated levels of naphthalene. Like naphthalene, 1,1-biphenyl is also found in fuel oil. Fluorene, acenaphthene, and phenanthrene are found both in historic fill and petroleum. Their association with naphthalene and 1,1-biphenyl suggests that they may be derived from the same petroleum source at these locations.

Naphthalene was detected at a maximum concentration of 3,400 ppb (compared to its GWQS of 10 ppb) in MW-8S during the July 2008 sampling event. Naphthalene concentrations also exceeded the GWQS at MW-7I during the same sampling event (though at a much lower concentration). Monitoring wells MW-8S and MW-7I are both located near the northwest corner of the Site, near suspected USTs, and where numerous wells have exhibited LNAPL (**Figure 15**). The likely source of the naphthalene detected at these locations is the LNAPL.

Monitoring Well MW-12S is screened within the perched-water zone and located hydraulically upgradient (i.e., to the west) of the Site. SVOC concentrations in groundwater at MW-12S are lower than most of the onsite wells, so the SVOCs detected in groundwater at the Site do not appear to be derived from an offsite source to the west.

Monitoring Well MW-5I is completed in the sand aquifer near the southwest corner of the Site, upgradient from the onsite USTs. Naphthalene (and other petroleum-related compounds) detected here may be derived from upgradient offsite source to the east.

6.5.3 Metals

The groundwater samples exhibited numerous metals at concentrations exceeding their GWQSs. Groundwater samples collected from almost every monitoring well or well point exhibited several metals that exceeded their GWQS. Metals that exceeded their GWQS include antimony, arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium, and thallium. Iron, manganese and sodium were the most commonly detected metals, and high concentrations (greater than the GWQS) were present throughout the property in both the perched-water zone and the sand aquifer. For the rest of the metals, the highest concentrations were generally found in the western half of the property, especially in AOC 11 (former Wohl Inc. cleaners and dyers) and AOC 14 (Former Accurate Associates RCRA area). In the filtered perched zone samples, however, the only metals that exceeded their GWQSs within the perched-water zone were antimony, iron, lead, magnesium, manganese, nickel, sodium and thallium.

Metals, including iron, manganese and sodium, detected throughout the Site are likely representative of natural background levels. The rest of the detected metals may be the result of historic site operations, or may reflect local variations in the composition of the historic fill.

For unfiltered groundwater samples collected from the sand aquifer, all the metals on the TAL list were detected at concentrations exceeding their GWQS. Like the perched-water zone, metals concentrations in the filtered samples were much lower, and only antimony, iron, magnesium, manganese, and sodium were detected at concentrations exceeding their GWQSs. The maximum antimony concentration detected was 10.5 ppb.

Review of historic operations at this site which consisted of varnish, ink, paint, and dye manufacturing as well as electroplating operations, indicates that the metals identified in groundwater are common contaminants in the process stream of these operations. According to the Handbook of Environmental Contaminants[3] many of the metals identified in groundwater, are common in the process material stream of the former operations on this property.

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[3] Shineldecker, Chris L. et seq.

6.5.4 PCBs and Pesticides

PCBs were detected in only one groundwater sample, collected from Temporary Well Point TW-1. The groundwater sample at TW-1 was collected from 14 to 18 ft bsg (i.e., below the peat layer, in the sand aquifer). In this sample, Arochlor-1260 was detected at a concentration of 1,500 ppb, which exceeds its GWQS of 0.9 ppb by several orders of magnitude. A soil sample collected from roughly the same depth at this location [SBE-1 (12.5'-13.5')] also exhibited Arochlor-1260, but the concentration (0.1 ppm) did not exceed the soil standard. Arochlor-1260 was not detected in the soil sample collected from above the peat layer at this location [SBE-1 (6'-7')]

Temporary Well Point TW-1 represents the water quality in the sand aquifer at the most upgradient portion of the Site. Therefore, the PCBs detected in TW-1 are from an unknown, off-site source to the east.

One pesticide, 4,4-DDD, was detected in a groundwater sample collected from MW-4S. The 4,4-DDD concentration was 2.6 ppb, which exceeds its GWQS of 0.3. Soil samples collected in this area from borings SBE-17, SBE-18, and SBE-19 also exhibited 4,4-DD. The source of the pesticide is unknown.

6.6 DISTRIBUTION OF LNAPL IN GROUNDWATER

Measurable thicknesses of LNAPL have been detected in wells completed in both the perched-water zone and the underlying sand aquifer. However, the distribution of LNAPL within the two water-bearing zones is very different: LNAPL is found in the perched-water zone only in the western half of the Site (**Figure 15**); while LNAPL is found in the sand aquifer only in the eastern half of the Site (**Figure 16**). The available subsurface information indicates that the two LNAPL plumes are completely separate, suggesting that the two plumes have different sources.

Several known or suspected USTs (i.e., the heating-oil USTs beneath the sidewalks, and the Stoddard solvent USTs) are present in the western half of the Site within the area covered by the perched-water LNAPL plume, and one or more of these is the likely source of the LNAPL found within the perched-water zone. Monitoring Well MW-12S (screened within the perched-water zone and located hydraulically upgradient of the Site) has not exhibited LNAPL, so it is unlikely that an offsite source to the west is responsible for the LNAPL detected in the perched-water zone.

Although on-site USTs are probably the source(s) of the LNAPL within the perched-water zone, there are no obvious on-site sources for the LNAPL detected in the sand aquifer. There are no known or suspected USTs in the eastern half of the Site, and there is no sign of any significant petroleum hydrocarbon contamination within the perched-water zone above the sand aquifer LNAPL plume.

Furthermore, the presence of the peat layer between the two water-bearing zones makes it extremely difficult for LNAPL from any source on the site to migrate from the perched-water zone into the sand aquifer. A breach in the peat layer somewhere in the western half of the Site could potentially allow LNAPL to migrate from the perched-water zone into the sand aquifer. But that LNAPL would then have to migrate 200 to 300 feet *upgradient* to the eastern edge of the Site, without impacting the much-closer *downgradient* wells within the sand aquifer (e.g., MW-3I, MW-4I, MW-5I). The absence of LNAPL in the sand aquifer directly beneath the perched-water LNAPL plume demonstrates that the peat layer is preventing the downward migration of LNAPL.

For the reasons stated above, it is extremely unlikely that the LNAPL detected in the sand aquifer is derived from an on-site source. The presence of LNAPL in the sand aquifer only near the upgradient (eastern) edge of the property indicates that the LNAPL source is probably located offsite to the east. The peat layer eventually pinches out to the east (inland, away from the East River), so it would be much easier for an offsite source to the east to impact the sand aquifer.

Observations from monitoring wells and soil borings, combined with the local groundwater flow directions, show that the extent of LNAPL within the perched-water zone has been delineated (**Figure 15**). The LNAPL plume in the perched-water zone appears to be derived from the on-site USTs, and there is no indication that LNAPL from the perched-water zone has migrated onto adjacent properties. The LNAPL detected in the sand aquifer is confined to the eastern half of the property (**Figure 16**). The source of the LNAPL in the sand aquifer is an unknown offsite source(s), located upgradient to the east. Observations from monitoring wells and soil borings indicate that the LNAPL plume in the sand aquifer extends from the eastern edge of the property west to Monitoring Well MW-20I.

The vertical extent of LNAPL within the sand aquifer can be estimated from observations made during the monitoring well borings (**Appendix 1**). Several well borings (MW-10I, MW-14I, MW-15I, MW-16I and MW-18I) encountered hydrocarbon sheens within the 15 ft bgs to 17 ft bgs depth interval, suggesting that the LNAPL plume in the sand aquifer does not extend below approximately 17 ft bgs. Water and LNAPL levels in the sand aquifer wells also suggest that the LNAPL does not extend below approximately 17 ft bgs: based on two rounds of measurements, the LNAPL/water interface has fluctuated at depths of 15 ft bgs to 17 ft bgs in the wells that have exhibited the greatest LNAPL thicknesses (MW-10I, MW-14I, and MW-16I, **Table 3**). The fact that the LNAPL/water interface in the sand aquifer has never been observed to be deeper than approximately 17 ft bgs suggests that LNAPL in the sand aquifer does not extend below that depth.

6.7 LNAPL GC FINGERPRINT RESULTS

Samples of the LNAPL were collected from several of the monitoring wells, temporary wells as well as from product soaked soils, groundwater, and onsite USTs. These samples were analyzed by GC Fingerprint analysis to evaluate the hydrocarbon fingerprint in comparison to the industry standard chromatographs. According to the GC Fingerprint results, LNAPL on the site ranges from light to heavy range petroleum and Stoddard solvent/mineral spirits with a majority of the LNAPL on the site consisting of #2 grade fuel oil. A summary of the GC Fingerprint results has been included in the table below. The GC Fingerprint laboratory reports have been included as **Appendix 10.**

LNAPL GC FINGERPRINT ANALYSIS

Sample	**Lab Interpretation** [1]	**Chromatograph Interpretation** [2]	**Notes**
Monitoring Wells and Temporary Well Points			
TW-1	#4 Fuel Oil	#2 Fuel Oil	LNAPL in Well
MW-10I	#2 Fuel Oil	#2 Fuel Oil	LNAPL in Well. Brown, light viscosity with Petroleum-like odor
GW-03	Contaminated Motor Oil	Possible waste oil, motor oil, gasoline, fuel oil.	LNAPL in Well. Dark brown/black, light to medium viscosity.
GW-04	Gasoline and Fuel Oil Mix	Gasoline with more #2 fuel oil	LNAPL in Well.
GW-05/MW-2	No Calibrated Fuel Type Detected	#2 Fuel Oil	LNAPL in Well.
MW-4S	Gasoline and Fuel Oil Mix	50/50 mix of gasoline and #2 fuel oil	LNAPL in Well.
MW-7S	Gasoline and Fuel Oil Mix	Gasoline with more #2 fuel oil	LNAPL in Well.
MW-10I[3]	-	#2 Fuel Oil	LNAPL in Well.
MW-14I[3]	-	#2 Fuel Oil	LNAPL in Well.
MW-16I[3]	-	#2 Fuel Oil	LNAPL in Well.
Subsurface Groundwater and Soils – Test Pits			
4 6 Road	#2 Fuel Oil	Fuel oil with possible Stoddard solvent/mineral spirits.	Floating product on the water table in 46th Road Test Pit
Val-E (Soil/product)	#2 Fuel Oil	Fuel oil with possible Stoddard solvent/mineral spirits.	Product soaked soils in Varnoline Test Pit
Val-E	#2 Fuel Oil	Fuel oil with possible	Floating Product on

(LNAPL)		Stoddard solvent/mineral spirits.	the water table in Varnoline Test Pit
Suspect Varnoline UST Subsurface Concrete Pad – Test Pits			
Val-NE	#2 Fuel Oil	Stoddard Solvent/Mineral Spirit	Product soaked soils above subsurface concrete pad
Val-UST	#2 Fuel Oil	Stoddard Solvent/Mineral Spirit	Product from UST uncovered in Suspect Varnoline Area

Notes: GC Fingerprint Analysis conducted by Chem Tech Laboratories
[1] - GC Interpretation provided by Chem Tech Laboratories
[2] - Interpretation based on review by EWMA and Integrated Analytical Laboratories of the Chem Tech GC Fingerprint Laboratory Reports.
[3] – GC analyses and interpretation performed by Integrated Analytical Laboratories.

7.0 DATA USABILITY SUMMARY REPORT (DUSR)

A comprehensive Data Usability Summary Report (DUSR) has been prepared and is included as **Appendix 6** of the RIR.

8.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

A Qualitative Human Health Exposure Assessment has been prepared and is included as **Appendix 8.** The QHHEA integrated the data and information gathered during the RI and provides a qualitative assessment of the potential for exposure to site-related contaminants that are associated with the environmental conditions encountered at the Site. Based on the remedial/redevelopment actions to be outlined in the forthcoming Remedial Action Work Plan (RAWP), the potential for exposure to site-related soil and groundwater contaminants will be eliminated.

9.0 FISH & WILDLIFE IMPACT ANALYSIS

As per the NYDEC Division of Fish and Wildlife guidance document for Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA), EWMA engaged Great Ecology and Environment to complete a FWIA. A copy of this report is included herein as **Appendix 7**. Based on the findings of the FWIA, migration of contaminants through groundwater is the only potential complete pathway for exposure to ecological receptors. All other pathways were incomplete. A criteria-specific analysis is not recommended until removal of site contaminant sources and post-remediation monitoring is conducted.

10.0 SUMMARY AND CONCLUSIONS

10.1 SOIL

VOCs (including acetone, methylene chloride, 2-butanone, benzene, and ethylbenzene) were detected at concentrations that exceeded their UUSCOs in soils. The most elevated VOC concentrations in soils were detected above the clayey peat layer in the western half of the Site. The source for most of the VOCs appears to be releases associated with the former USTs (Varnoline, gasoline, and fuel oil) at the Site.

SVOCs (including naphthalene, acenaphthene, fluorene, phenanthrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzofuran, and dibenz(a,h)anthracene) were detected at concentrations above their UUSCOs. Several SVOCs, including naphthalene, fluorine and phenanthrene, are likely due to petroleum releases from on-site USTs at the Site.

Metals (including arsenic, copper, lead, mercury, nickel, and zinc) were detected at concentrations exceeding their UUSCOs throughout the Site and are likely due to historic site operations and/or historic fill materials.

One pesticide (4,4-DDD) was detected in three soil borings near the western edge of the Site. No PCBs were detected in soil.

The bulk of the contaminants detected in soil at the Site, including VOCs, metals and SVOCs, are derived from on-site AOCs. Several SVOCs and metals may be derived from on-site fill materials.

10.2 GROUNDWATER

10.2.1 Hydrogeology

The subsurface materials underlying the Site consist of 10 to 12 feet of historic fill, overlying a one to three-foot thick layer of clayey peat. The peat layer appears to be continuous beneath and adjacent to the Site. Fine to coarse sand to silty sand is present beneath the peat and extends to depths of 20 to 30 feet bsg. Discontinuous lenses of silt and clay are present with the sand. Bedrock underlies the dense silt at depths of 32 feet bsg or greater. Geotechnical borings completed at the Site by others have reportedly indicated that bedrock is present at depths ranging from 32 ft bsg to greater than 52 ft bsg.

There are two water-bearing zones immediately beneath the Site: an upper, perched-water zone, and an underlying sand aquifer. The peat acts as a confining layer, forming a perched-water zone within the fill material. The peat was originally deposited in a wetland located along the shore of the East River. As such, the peat layer is expected to pinch out to the west (towards the river), and to the east (inland), but the peat layer is continuous under the Site and within the entire area covered by this investigation. Depths to water for wells completed in the perched zone are about seven to eight feet bsg, and the saturated thickness of the perched zone is three to four feet.

The sand aquifer underlies the peat layer. Depth to water for wells completed in the sand aquifer is approximately 10 to 11 feet bsg which is deeper than in the perched zone. The difference in water levels between the perched-water zone and the sand aquifer demonstrate that the peat layer is acting as an aquiclude or confining unit.

The reported construction details and observed water levels indicate that monitoring wells installed by others during previous investigations (i.e., MW-1, MW-5, GW-1, GW- 2, GW-3, and GW-4) are screened across the peat confining layer. These wells may be allowing groundwater from the perched zone to flow into the underlying sand aquifer, and it is recommended that these wells be properly abandoned.

Groundwater flow within the perched-water zone is generally to the north and east, while groundwater flow within the sand aquifer is westward, toward the East River.

10.2.2 Groundwater Quality

VOCs (including acetone, ethylbenzene, isopropylbenzene, benzene, toluene, vinyl chloride, methylene chloride, PCE, cis-1,2-DCE, and t-1,3-dichloropropene) exceeded their GWQS in groundwater samples. The most elevated VOC concentrations were detected within the perched-water zone in the western portion of the Site. Concentrations detected in the eastern portion of the Site and in the sand aquifer were significantly lower. Two VOCs (acetone and isopropylbenzene) were detected most frequently and at the highest concentrations. The source of the acetone is likely the Varnoline UST area and the fuel oil/gasoline USTs are the likely source of the isopropylbenzene, benzene and toluene.

Several SVOCs (including 2,4-dimethylphenol, 1,1-biphenyl, acenaphthene, fluorene, pentachlorophenol, phenanthrene, fluoranthene, benzo(a)anthracene, chrysene, bis(2-ethylhexylphthalate), benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene) were detected in groundwater at concentrations exceeding their GWQS,. These SVOC's were encountered sporadically throughout out the Site in both the perched-water zone and in the sand aquifer (at much lower concentrations). Naphthalene, fluorene, phenanthrene and 1,1-biphenyl are likely derived from petroleum released from the USTs at the Site. The other SVOCs may be due to historic site operations and/or historic fill.

Numerous metals (including antimony, arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium, and thallium) were detected in the groundwater above NYS GWQS. Many of these metals are likely derived from historic site operations. Other metals, including iron, manganese, and sodium are either naturally occurring or associated with the historic fill.

PCBs were detected in a single (unfiltered) groundwater sample collected from temporary well point TW-1. TW-1 was completed within the sand aquifer beneath the clayey peat confining layer near the eastern most upgradient edge of the Site. Groundwater flow within the sand aquifer is toward the west, and there are no nearby potential PCB sources onsite. Therefore, the PCBs detected in the groundwater at this location must be due to an upgradient, off-site source to the east.

Two off-site wells completed in the perched-water zone (MW-12S and MW-8S) exhibited elevated levels of VOCs and/or SVOCs. MW-12S is located hydraulically upgradient (west) of the Site. Therefore, the isopropylbenzene detected in this well above standard must be due to an off-site source. MW-8S is located hydraulically downgradient of the former gasoline and Varnoline USTs. Therefore, the naphthalene, benzene, and other VOCs detected in this well are most probably due to one or both of those sources.

LNAPL has been detected in many monitoring wells completed in the perched-water zone in the western half of the Site. In that area, LNAPL thicknesses of several feet or more have been encountered. This LNAPL is most likely derived from the abandoned fuel oil and gasoline USTs.

Of the contaminants detected at the Site, LNAPL has the greatest potential for off-site impacts. However, several rounds of water-level measurements indicate that the LNAPL is confined to the Site and adjacent sidewalk and does not extend onto adjacent properties.

LNAPL has also been detected in several wells completed in the sand aquifer in the eastern half of the Site. There are no potential on-site LNAPL sources in that area, and no evidence of LNAPL has been encountered in the perched-water zone. Even if some on-site LNAPL source did exist in that area, the clayey peat confining layer would prevent the downward migration of LNAPL into the underlying sand aquifer. The groundwater flow direction within the sand aquifer is westward, so the LNAPL observed in the sand aquifer must be due to an off-site source located to the east of the Site.

10.3 SOIL VAPOR

The results of the January 2008 vapor sampling indicate the following VOCs above the background level: acetone, benzene, 1,3-butadiene, carbon disulfide, chloroform, cyclohexane, dichlorodifluoromethane, cis-1,2-dichloroethylene, ethylbenzene, heptane, hexane, isopropyl alcohol, MEK, methyl isobutyl ketone, methylene chloride, MTBE, styrene, PCE, toluene, 1,1,1-TCA, TCE, trichlorofluoromethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, vinyl chloride, m or p-xylene, and o-xylene.

Of these contaminants, dichlorodifluoromethane was detected in soil vapor sample SG-2 (5.1 ug/m^3) and was not detected in any of the sub-slab vapor samples. Cis-1,2-DCE, isopropyl alcohol, methyl isobutyl ketone, MTBE, styrene and vinyl chloride were detected in the sub-slab vapor sampling but were not detected in the soil vapor.

Methylene chloride and PCE were detected above the NYSDOH air guideline values (table 3.1 of the NYSDOH Guidance document) in both the soil vapor and sub-slab vapor samples. Methylene chloride was detected in soil vapor samples SG-2 (63 ug/m^3) and SG-3 (274 ug/m^3) and sub-slab vapor sample SS-4 (247 ug/m^3). PCE was detected in soil vapor sample SG-3 (136 ug/m^3).

10.4 CONCLUSIONS

Based on the RI activities conducted by EWMA as described herein, soil and groundwater contamination, including metals, SVOCs, and volatile organic compounds (VOCs), were detected above NYSDEC applicable standards. PCBs were also detected above the GWQS in one sand aquifer temporary well point, TW-1. In addition, light non-aqueous phase liquid (LNAPL) was detected in both the perched groundwater and the sand aquifer..

Although standards were exceeded in samples collected from both above the peat layer (i.e., the perched water zone) and below the peat layer (i.e., the sand aquifer), the concentrations of nearly all contaminants were significantly higher above the peat layer.

The sources of the contaminants and LNAPL in the perched water zone appear to be historic manufacturing operations (including the on-Site USTs located in the western half of the Site) as well as site-wide historic fill materials. Based upon the results of the RI activities conducted, Site-related contaminants, including LNAPL, are generally confined to the Site. However, LNAPL was detected in groundwater monitoring wells in the perched water zone installed in the sidewalk along 46th Road and 5th Street.

The LNAPL in the sand aquifer (beneath the peat layer) is present in monitoring wells located at the easternmost, most upgradient portion of the Site (based on the observed sand aquifer groundwater flow direction). Since the LNAPL was not observed in the perched water zone at these locations and since these wells are located in the upgradient portion of the Site, it appears these contaminants are due to an upgradient off-Site source.

Several VOCs and SVOC's associated with petroleum were detected in perched groundwater at concentrations exceeding their GWQS in off-site monitoring well MW-8S. MW-8S is located in 46th Road and is hydraulically downgradient (north) of the Site. The contaminants detected in this well are likely derived from the LNAPL that has been detected in the northwest portion of the Site.

The dissolved groundwater contamination has been delineated with the exception of MW-8S. MW-19S has been installed downgradient and is scheduled for sampling and analysis. The extent of LNAPL within the perched-water zone has been delineated, and LNAPL has not been detected in the perched-water zone wells located on adjacent properties.

LNAPL has also been detected in several groundwater monitoring wells screened beneath the peat in the lower sand aquifer and located at the most upgradient portion of the Site (based on the observed groundwater flow direction within the sand aquifer). Since the LNAPL was not observed in the upper zone at these locations, and, since these wells are located in the upgradient portion of the Site, it appears these contaminants are due to an upgradient off-Site source. Because DEC considers LNAPL product to be a potential source of dissolved contaminants in groundwater beneath the peat layer, the RAWP will address the sand aquifer groundwater LNAPL contamination.

The soil vapor investigation results indicated several VOCs were detected in both sub-slab and soil vapor samples at concentrations above background concentrations. In addition, PCE and methylene chloride were detected at concentrations above those provided in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. Therefore, the NYSDOH Guidance suggests a potential for vapor intrusion exists at the Site. This will be addressed through remediation and vapor mitigation measures implemented during Site development. Details of the proposed remediation of the Site will be included in the RAWP which will be submitted separately.

A QHHEA was prepared for the Site. The QHEEA integrated the data and information gathered during the RI and provides a qualitative assessment of the potential for exposure to site-related contaminants that are associated with the environmental conditions encountered at the Site. Based on the remedial/redevelopment actions to be outlined in the forthcoming Remedial Action Work Plan (RAWP), the potential for exposure to Site-related soil and groundwater contaminants will be eliminated.

11.0 RECOMMENDATIONS

Based on the results of the RI activities conducted by EWMA and previous Phase II investigations conducted by others, EWMA provides the following recommendations for the various impacted media at the Site.

11.1 SOIL

An RAWP, which will include an analysis of remedial alternatives, will be prepared and submitted to the NYSDEC to address soil contamination present at the Site. Further investigation and removal of the identified USTs will be included as part of the RAWP.

11.2 GROUNDWATER

A RAWP, which will include an analysis of remedial alternatives, will be prepared and submitted to the NYSDEC to address dissolved groundwater contamination and LNAPL.

11.3 SOIL VAPOR

An RAWP will be prepared and submitted which details the proposed remediation and redevelopment of the Site. The potential for vapor intrusion will be addressed through vapor mitigation measures implemented during development.

12.0 SCHEDULE

The proposed schedule provided below is dependent upon review and approval of this RIR and the subsequent RAWP by the NYCDEP.

Task	Anticipated Start Date
Submit Remedial Investigation Report	December 22, 2008
Submit Draft RAWP	December 30, 2008
NYSDEC/NYSDOH Review & Meeting	15-30 days from submittal
Submit Final RAWP	Within 30 days of Comments/Meeting
45-day Public Comment Period for RAWP	45 days from RAWP Submittal
NYSDEC Approval	Within 15-30 days from RAWP Submittal
Equipment Mobilization	5 days after RAWP approval
Begin Soil Excavation & Disposal	10 days after RWWP approval
Separate-phase product ground water mitigation	concurrent with soil excavation & disposal
Post-Excavation Sampling	concurrent with soil excavation & disposal
Complete Excavation & Disposal	45 days after RAWP approval
Post-Remedial Soil Vapor Monitoring	10 days after completion of soil remediation
Post-Remedial Ground Water Monitoring	10 days after completion of soil remediation
Reporting	daily and monthly as outlined herein
Final Engineering Report	within 30 days of completion of project

13.0 REFERENCES

1. "Phase I Environmental Site Assessment, 46-31, 46-33, 46-35 5th Street, Long Island City, New York", prepared by J.C. Broderick & Associates, Inc. (JCB), June 2005;

2. Letter report titled "Environmental Sampling Services Utilizing Geoprobe® Methodology at 5-36 46th Road, Long Island City, New York, Sampling Date: May 18,2005", prepared by JCB, June 09, 2005;

3. Letter report titled "Environmental Sampling Services Utilizing Geoprobe® Methodology at 5-36 46th Road, Long Island City, New York, Sampling Date: August 08 and 09, 2005", prepared by JCB, September 19, 2005;

4. "Phase I Environmental Site Assessment, 5-20 46th Road, Long Island City, New York", prepared by EEA, Inc. (EEA), May 4, 2006;

5. "Phase II Subsurface Investigation Report, 5-20 46th Road, Long Island City, New York", prepared by EEA, May 19, 2006;

6. "Report of Investigation and Clean-Up Activities, Accurate Famous Castings, Inc. Site, Long Island City, New York", prepared by CA Rich Consultants, Inc. (CA Rich), March 24, 1992;

7. "Report of Soil Sample Investigation for: Accurate Famous Castings, Inc. Site, Long Island City, New York", prepared by CA Rich, July 10, 1992;

8. "Corrective Measures Plan for the Accurate Famous Casting Site, Long Island City, New York", prepared by CA Rich, July 10, 1992.

9. October 2006: "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York", New York State Department of Health, Center for Environmental Health, Bureau of Environmental Exposure Investigation. October 2006. http://www.health.state.ny.us/environmental/indoors/vapor_intrusion

10. NYSDEC, 2002. Draft DER-10 Technical Guidance for Site Investigation and Remediation, December 2002.

11. NYSDEC 375-1. 6 NYCRR Subpart 375-1, General Remedial Program Requirements, December 14, 2006.

12. NYSDEC 375-6. 6 NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives, December 14, 2006.

13. NYSDEC, 1994. Technical and Administrative Guidance Memorandum (TAGM) 4046, 1994.

Tables

Table 1

OCA-LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Summary of Soil and Temporary Well Point Sample Depths

Sample ID	Sampling Depth Interval (ft bsg)	Zone Sampled
SBE-1	6.0-7.0	Soil-AWT
SBE-1	12.5-13.5	Soil-high PID
SBE-1	22-23	Soil-BOB
SBE-2	6.0-7.0	Soil-AWT
SBE-2	11.0-12.0	Soil-BOB
SBE-3	7.0-8.0	Soil-AWT
SBE-3	11.0-12.0	Soil-BOB
SBE-4	6.5-7.5	Soil-AWT
SBE-4	11.0-12.0	Soil-BOB
SBE-5 *	7.5-8	Soil-AWT
SBE-5 *	8.5-9	Soil-high PID
SBE-6 *	8.5-9	Soil-AWT
SBE-7 *	6.5-7	Soil-AWT
SBE-8	8.5-9.5	Soil-AWT
SBE-8	10.0-11.0	Soil-BOB
SBE-9	7.0-8.0	Soil-AWT
SBE-9	11.0-12.0	Soil-BOB
SBE-10	6.0-7.0	Soil-AWT
SBE-10	32.5-33.5	Soil-BOB
SBE-11	6.5-7.5	Soil-AWT
SBE-11	11.0-12.0	Soil-BOB
SBE-12	6.5-7.5	Soil-AWT
SBE-12	10.0-11.0	Soil-BOB
SBE-13 *	7-7.5	Soil-AWT
SBE-14	6.5-7.5	Soil-AWT
SBE-14	30.0-31.0	Soil-BOB
SBE-15	6.5-7.5	Soil-AWT
SBE-15	11.0-12.0	Soil-BOB
SBE-16	7.0-8.0	Soil-AWT
SBE-16	11.0-12.0	Soil-BOB

Table 1

OCA-LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Summary of Soil and Temporary Well Point Sample Depths

Sample ID	Sampling Depth Interval (ft bsg)	Zone Sampled
SBE-17	5.5-6.5	Soil-AWT
SBE-17	7.5-8.5	Soil-high PID
SBE-17	11.0-12.0	Soil-BOB
SBE-18	6.5-7.5	Soil-AWT
SBE-18	11.0-12.0	Soil-BOB
SBE-19	7.0-8.0	Soil-AWT
SBE-19	11.0-12.0	Soil-BOB
SBE-RCRA-1	6.0-7.0	Soil-AWT
SBE-RCRA-1	11.0-12.0	Soil-BOB
SBE-RCRA-2	6.5-7.5	Soil-AWT
SBE-RCRA-2	8.0-9.0	Soil-high PID
SBE-RCRA-2	11.5-12.0	Soil-BOB
SBE-RCRA-3	5.5-6.5	Soil-AWT
SBE-RCRA-3	30.5-31.5	Soil-BOB
SBE-RCRA-4	6.0-7.0	Soil-AWT
SBE-RCRA-4	11.0-12.0	Soil-BOB
TW-1	14-18	GW-Sand Aquifer
TW-2	7-11	GW-Perched Water
TW-3	7-11	GW-Perched Water
TW-4	7-11	GW-Perched Water
TW-5	NI	GW-Perched Water
TW-6	NI	-
TW-7	NI	-
TW-8	7-11	GW-Perched Water
TW-9	7-11	GW-Perched Water

Table 1

OCA-LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Summary of Soil and Temporary Well Point Sample Depths

Sample ID	Sampling Depth Interval (ft bsg)	Zone Sampled
TW-10	25-29	GW-Sand Aquifer
TW-11	7-11	GW-Perched Water
TW-12	7-11	GW-Perched Water
TW-13	NI	-
TW-14	24-28	GW-Sand Aquifer
TW-15	7-11	GW-Perched Water
TW-16	8-12	GW-Perched Water
TW-17	6-10	GW-Perched Water
TW-18	6-10	GW-Perched Water
TW-19	6-10	GW-Perched Water
TW-20	7-11	GW-Perched Water
TW-RCRA-1	7-11	GW-Perched Water
TW-RCRA-2	7-11	GW-Perched Water
TW-RCRA-3	25-29	GW-Sand Aquifer
TW-RCRA-4	7-11	GW-Perched Water

* Hand auger soil boring.

NI: Not installed; location was not accessible by Geoprobe rig.

AWT: Sample collected from above the water table.

High PID: Sample collected from interval with highest PID reading.

BOB: Sample collected from bottom of the boring.

GW: Groundwater.

OCA LIC
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Table 2: February-March 2008 Soil Sampling Results
Volatile Organic Compounds

Soil Boring	NY375	SBE-1		SBE-1		SBE-1		SBE-2		SBE-2		SBE-3		SBE-3		SBE-4		SBE-4		SBE-5		SBE-6		SBE-7	
Sample Depth (ft bg)		6-7		12.5-13.5		22-23		6-7		11-12		7-8		11-12		6.5-7.5		11-12		7-7.5		10-10.5		6.5-7	
Lab Sample Number	375.6	Z1635-18		Z1635-19		Z1636-01		Z1635-16		Z1635-17		Z1644-07		Z1644-08		Z1644-05		Z1644-06		Z2238-12		Z2238-13		Z2238-14	
Sampling Date	UUSCO	2/20/08		2/20/08		2/20/08		2/20/08		2/20/08		2/21/08		2/21/08		2/21/08		2/21/08		4/1/08		4/1/08		4/1/08	
Matrix		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Units	mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg					
VO+10																									
Dichlorodifluoromethane	NA	0.013	U	0.13	U	0.011	U	0.013	U	0.012	U	0.011	U	0.035	U	0.012	U	0.036	U	0.012	U	0.011	U	0.011	U
Chloromethane	NA	0.0088	U	0.056	U	0.0075	U	0.0087	U	0.0086	U	0.0078	U	0.024	U	0.0082	U	0.025	U	0.008	U	0.0077	U	0.0079	U
Vinyl Chloride	0.02	0.0091	U	0.046	U	0.0078	U	0.0091	U	0.0089	U	0.0081	U	0.025	U	0.0085	U	0.026	U	0.0083	U	0.0079	U	0.0082	U
Bromomethane	NA	0.013	U	0.21	U	0.011	U	0.013	U	0.013	U	0.012	U	0.037	U	0.013	U	0.038	U	0.012	U	0.012	U	0.012	U
Chloroethane	NA	0.012	U	0.12	U	0.01	U	0.012	U	0.012	U	0.011	U	0.034	U	0.011	U	0.035	U	0.011	U	0.011	U	0.011	U
Trichlorofluoromethane	NA	0.0079	U	0.081	U	0.0067	U	0.0078	U	0.0077	U	0.007	U	0.022	U	0.0073	U	0.022	U	0.0072	U	0.0069	U	0.0071	U
1,1,2-Trichlorotrifluoroethane	NA	0.011	U	0.093	U	0.0095	U	0.011	U	0.011	U	0.0099	U	0.031	U	0.01	U	0.032	U	0.01	U	0.0097	U	0.01	U
1,1-Dichloroethene	0.33	0.0066	U	0.1	U	0.0056	U	0.0066	U	0.0064	U	0.0059	U	0.018	U	0.0062	U	0.019	U	0.006	U	0.0058	U	0.0059	U
Acetone	0.05	0.11	U	0.33	U	0.096	U	0.11	U	0.11	U	0.15		0.44	J	0.1	U	0.32	U	0.1	U	0.098	U	0.1	U
Carbon Disulfide	NA	0.0072	U	0.03	U	0.0061	U	0.0071	U	0.007	U	0.017	J	0.02	U	0.015	J	0.02	U	0.0065	U	0.0062	U	0.0064	U
Methyl tert-butyl Ether	0.93	0.0059	U	0.035	U	0.005	U	0.0058	U	0.076		0.0052	U	0.016	U	0.0055	U	0.017	U	0.0054	U	0.0051	U	0.0053	U
Methyl Acetate	NA	0.011	U	0.069	U	0.0095	U	0.011	U	0.011	U	0.0099	U	0.031	U	0.01	U	0.032	U	0.01	U	0.0097	U	0.01	U
Methylene Chloride	0.05	0.016	U	0.058	U	0.014	U	0.017	J	0.016	U	0.014	U	0.045	U	0.015	U	0.046	U	0.015	U	0.014	U	0.014	U
trans-1,2-Dichloroethene	0.19	0.0081	U	0.067	U	0.0069	U	0.0081	U	0.0079	U	0.0072	U	0.023	U	0.0076	U	0.023	U	0.0074	U	0.0071	U	0.0073	U
1,1-Dichloroethane	0.27	0.0074	U	0.073	U	0.0063	U	0.0073	U	0.0072	U	0.0066	U	0.021	U	0.0069	U	0.021	U	0.0067	U	0.0064	U	0.0066	U
Cyclohexane	NA	0.0068	U	0.58	J	0.0057	U	0.0067	U	0.16		0.006	U	0.019	U	0.0063	U	0.019	U	0.0061	U	0.0059	U	0.006	U
2-Butanone	0.12	0.033	U	0.3	U	0.028	U	0.033	U	0.032	U	0.03	U	0.092	U	0.031	U	0.095	U	0.03	U	0.029	U	0.03	U
Carbon Tetrachloride	0.76	0.0039	U	0.041	U	0.0033	U	0.0039	U	0.0038	U	0.0035	U	0.011	U	0.0036	U	0.011	U	0.0036	U	0.0034	U	0.0035	U
cis-1,2-Dichloroethene	0.25	0.0085	U	0.11	U	0.0073	U	0.0085	U	0.0083	U	0.0076	U	0.024	U	0.008	U	0.024	U	0.0078	U	0.0074	U	0.0076	U
Chloroform	0.37	0.0059	U	0.069	U	0.005	U	0.0058	U	0.0057	U	0.0052	U	0.016	U	0.0055	U	0.017	U	0.0054	U	0.0051	U	0.0053	U
1,1,1-Trichloroethane	0.68	0.0063	U	0.059	U	0.0054	U	0.0062	U	0.0061	U	0.0056	U	0.017	U	0.0059	U	0.018	U	0.0057	U	0.0055	U	0.0056	U
Methylcyclohexane	NA	0.0055	U	3.1		0.0047	U	0.0054	U	0.78		0.086		0.015	U	0.0051	U	0.016	U	0.005	U	0.0048	U	0.0049	U
Benzene	0.06	0.0048	U	0.053	U	0.0041	U	0.0047	U	0.051		0.0042	U	0.013	U	0.0044	U	0.014	U	0.0043	U	0.0041	U	0.0043	U
1,2-Dichloroethane	0.02	0.0054	U	0.062	U	0.0046	U	0.0054	U	0.0053	U	0.0048	U	0.015	U	0.0051	U	0.015	U	0.0049	U	0.0047	U	0.0049	U
Trichloroethene	0.47	0.0048	U	0.052	U	0.0041	U	0.0048	U	0.0047	U	0.0043	U	0.013	U	0.0045	U	0.014	U	0.0044	U	0.0042	U	0.0043	U
1,2-Dichloropropane	NA	0.0062	U	0.07	U	0.0053	U	0.0062	U	0.0061	U	0.0055	U	0.017	U	0.0058	U	0.018	U	0.0057	U	0.0054	U	0.0056	U
Bromodichloromethane	NA	0.0046	U	0.035	U	0.0039	U	0.0046	U	0.0045	U	0.0041	U	0.013	U	0.0043	U	0.013	U	0.0042	U	0.004	U	0.0041	U
4-Methyl-2-Pentanone	NA	0.025	U	0.27	U	0.022	U	0.025	U	0.025	U	0.022	U	0.07	U	0.024	U	0.072	U	0.023	U	0.022	U	0.023	U
Toluene	0.7	0.0058	U	0.024	U	0.005	U	0.0058	U	0.0057	U	0.0052	U	0.058	J	0.0054	U	0.017	U	0.0053	U	0.0051	U	0.0052	U
t-1,3-Dichloropropene	NA	0.0056	U	0.047	U	0.0047	U	0.0055	U	0.0054	U	0.0049	U	0.015	U	0.0052	U	0.016	U	0.0051	U	0.0048	U	0.005	U
cis-1,3-Dichloropropene	NA	0.0044	U	0.044	U	0.0038	U	0.0044	U	0.0043	U	0.0039	U	0.012	U	0.0041	U	0.013	U	0.004	U	0.0039	U	0.004	U
1,1,2-Trichloroethane	NA	0.004	U	0.049	U	0.0034	U	0.004	U	0.0039	U	0.0036	U	0.011	U	0.0038	U	0.012	U	0.0037	U	0.0035	U	0.0036	U
2-Hexanone	NA	0.029	U	0.27	U	0.025	U	0.029	U	0.028	U	0.026	U	0.08	U	0.027	U	0.082	U	0.026	U	0.025	U	0.026	U
Dibromochloromethane	NA	0.0044	U	0.035	U	0.0037	U	0.0043	U	0.0043	U	0.0039	U	0.012	U	0.0041	U	0.012	U	0.004	U	0.0038	U	0.0039	U
1,2-Dibromoethane	NA	0.0054	U	0.04	U	0.0046	U	0.0054	U	0.0053	U	0.0048	U	0.015	U	0.0051	U	0.015	U	0.0049	U	0.0047	U	0.0049	U
Tetrachloroethene	1.3	0.0082	U	0.15	U	0.007	U	0.0081	U	0.008	U	0.0073	U	0.023	U	0.0077	U	0.023	U	0.0075	U	0.0071	U	0.0073	U
Chlorobenzene	1.1	0.005	U	0.043	U	0.0043	U	0.005	U	0.0049	U	0.0045	U	0.014	U	0.0047	U	0.014	U	0.0046	U	0.0044	U	0.0045	U
Ethyl Benzene	1	0.0053	U	1.9		0.0045	U	0.0052	U	0.0052	U	0.0047	U	0.015	U	0.0049	U	0.015	U	0.0048	U	0.0046	U	0.0047	U
m/p-Xylenes *	1.2	0.012	U	1.3	J	0.01	U	0.012	U	0.012	U	0.038	J	0.034	U	0.011	U	0.035	U	0.011	U	0.011	U	0.011	U
o-Xylene *	1.2	0.005	U	0.68	J	0.0043	U	0.005	U	0.0049	U	0.0045	U	0.014	U	0.0047	U	0.014	U	0.0046	U	0.0044	U	0.0045	U
Styrene	NA	0.0041	U	0.029	U	0.0035	U	0.0041	U	0.004	U	0.0036	U	0.011	U	0.0038	U	0.012	U	0.0037	U	0.0036	U	0.0037	U
Bromoform	NA	0.0054	U	0.067	U	0.0046	U	0.0053	U	0.0052	U	0.0048	U	0.015	U	0.005	U	0.015	U	0.0049	U	0.0047	U	0.0048	U
Isopropylbenzene	2.3	0.0054	U	1.2		0.0046	U	0.0054	U	0.39		4.5	E	0.015	U	0.061		0.015	U	0.0049	U	0.0047	U	0.0049	U
1,1,2,2-Tetrachloroethane	NA	0.0059	U	0.056	U	0.005	U	0.0058	U	0.0057	U	0.0052	U	0.016	U	0.0055	U	0.017	U	0.0054	U	0.0051	U	0.0053	U
1,3-Dichlorobenzene	2.4	0.0044	U	0.043	U	0.0038	U	0.0044	U	0.0043	U	0.0039	U	0.012	U	0.0041	U	0.013	U	0.004	U	0.0039	U	0.004	U
1,4-Dichlorobenzene	1.8	0.0051	U	0.034	U	0.0043	U	0.0051	U	0.005	U	0.0045	U	0.014	U	0.0048	U	0.015	U	0.0046	U	0.0044	U	0.0046	U
1,2-Dichlorobenzene	1.1	0.0057	U	0.061	U	0.0048	U	0.0056	U	0.0055	U	0.0051	U	0.016	U	0.0053	U	0.016	U	0.0052	U	0.005	U	0.0051	U
1,2-Dibromo-3-Chloropropane	NA	0.0068	U	0.088	U	0.0057	U	0.0067	U	0.0066	U	0.006	U	0.019	U	0.0063	U	0.019	U	0.0061	U	0.0059	U	0.006	U
1,2,4-Trichlorobenzene	NA	0.0044	U	0.059	U	0.0037	U	0.0043	U	0.0043	U	0.0039	U	0.012	U	0.0041	U	0.012	U	0.004	U	0.0038	U	0.0039	U

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Table 2: February-March 2008 Soil Sampling Results
Volatile Organic Compounds

Soil Boring	NY375	SBE-8		SBE-8		SBE-9		SBE-9		SBE-10		SBE-10		SBE-11		SBE-11		SBE-12		SBE-12		SBE-13		SBE-14	
Sample Depth (ft bg)		8.5-9.5		10-11		7-8		11-12		6-7		32.5-33.5		6.5-7.5		11-12		6 .5-7.5		10-11		7-7.5		6.5-7.5	
Lab Sample Number	375.6	Z1636-04		Z1636-05		Z1644-09		Z1644-10		Z1644-01		Z1644-02		Z1635-12		Z1635-13		Z1636-02		Z1636-03		Z2238-15		Z1679-09	
Sampling Date	UUSCO	2/20/08		2/20/08		2/21/08		2/21/08		2/21/08		2/21/08		2/20/08		2/20/08		2/20/08		2/20/08		4/1/08		2/25/08	
Matrix		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Units	mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
VO+10																									
Dichlorodifluoromethane	NA	0.011	U	0.03	U	0.011	U	0.04	U	0.011	U	0.012	U	0.011	U	0.025	U	0.013	U	0.023	U	0.012	U	0.012	U
Chloromethane	NA	0.0076	U	0.021	U	0.008	U	0.027	U	0.0078	U	0.0086	U	0.008	U	0.018	U	0.0088	U	0.016	U	0.0084	U	0.0086	U
Vinyl Chloride	0.02	0.0078	U	0.022	U	0.0082	U	0.028	U	0.0081	U	0.0089	U	0.0082	U	0.018	U	0.0092	U	0.016	U	0.0087	U	0.009	U
Bromomethane	NA	0.012	U	0.032	U	0.012	U	0.042	U	0.012	U	0.013	U	0.012	U	0.027	U	0.013	U	0.024	U	0.013	U	0.013	U
Chloroethane	NA	0.011	U	0.029	U	0.011	U	0.038	U	0.011	U	0.012	U	0.011	U	0.024	U	0.012	U	0.022	U	0.012	U	0.012	U
Trichlorofluoromethane	NA	0.0068	U	0.019	U	0.0071	U	0.025	U	0.007	U	0.0077	U	0.0071	U	0.016	U	0.0079	U	0.014	U	0.0075	U	0.0077	U
1,1,2-Trichlorotrifluoroethane	NA	0.0095	U	0.026	U	0.01	U	0.035	U	0.0098	U	0.011	U	0.01	U	0.022	U	0.011	U	0.02	U	0.011	U	0.011	U
1,1-Dichloroethene	0.33	0.0057	U	0.016	U	0.006	U	0.021	U	0.0058	U	0.0064	U	0.006	U	0.013	U	0.0066	U	0.012	U	0.0063	U	0.0065	U
Acetone	0.05	0.17		0.56		0.35		0.36	J	0.55		0.11	U	0.1	U	0.22	U	0.15	J	0.2	U	0.11	U	0.36	
Carbon Disulfide	NA	0.0061	U	0.017	U	0.0065	U	0.022	U	0.015	J	0.0069	U	0.0065	U	0.014	U	0.0072	U	0.013	U	0.0068	U	0.007	U
Methyl tert-butyl Ether	0.93	0.0051	U	0.014	U	0.0053	U	0.018	U	0.0052	U	0.0057	U	0.0053	U	0.012	U	0.0059	U	0.011	U	0.0056	U	0.0058	U
Methyl Acetate	NA	0.0096	U	0.026	U	0.01	U	0.035	U	0.0099	U	0.011	U	0.01	U	0.022	U	0.011	U	0.02	U	0.011	U	0.011	U
Methylene Chloride	0.05	0.014	U	0.038	U	0.016	J	0.05	U	0.014	U	0.016	U	0.015	U	0.034	J	0.016	U	0.029	U	0.015	U	0.016	U
trans-1,2-Dichloroethene	0.19	0.007	U	0.019	U	0.0074	U	0.025	U	0.0072	U	0.0079	U	0.0074	U	0.016	U	0.0082	U	0.015	U	0.0078	U	0.008	U
1,1-Dichloroethane	0.27	0.0064	U	0.018	U	0.0067	U	0.023	U	0.0066	U	0.0072	U	0.0067	U	0.015	U	0.0074	U	0.013	U	0.0071	U	0.0073	U
Cyclohexane	NA	0.0058	U	0.016	U	0.0061	U	0.021	U	0.006	U	0.0066	U	0.0061	U	0.06	J	0.042		0.012	U	0.0065	U	0.26	
2-Butanone	0.12	0.029	U	0.079	U	0.03	U	0.1	U	0.12	J	0.032	U	0.03	U	0.066	U	0.033	U	0.06	U	0.032	U	0.033	U
Carbon Tetrachloride	0.76	0.0034	U	0.0092	U	0.0035	U	0.012	U	0.0035	U	0.0038	U	0.0035	U	0.0078	U	0.0039	U	0.007	U	0.0037	U	0.0038	U
cis-1,2-Dichloroethene	0.25	0.0073	U	0.02	U	0.0077	U	0.027	U	0.0075	U	0.0083	U	0.0077	U	0.017	U	0.0086	U	0.015	U	0.0082	U	0.0084	U
Chloroform	0.37	0.0051	U	0.014	U	0.0053	U	0.018	U	0.0052	U	0.0057	U	0.0053	U	0.012	U	0.0059	U	0.011	U	0.0056	U	0.0058	U
1,1,1-Trichloroethane	0.68	0.0054	U	0.015	U	0.0057	U	0.02	U	0.0056	U	0.0061	U	0.0057	U	0.012	U	0.0063	U	0.011	U	0.006	U	0.0062	U
Methylcyclohexane	NA	0.11		0.013	U	0.23		0.077	J	0.0049	U	0.0053	U	0.005	U	0.059	J	0.15		0.0099	U	0.0053	U	0.24	
Benzene	0.06	0.0041	U	0.011	U	0.0043	U	0.051	J	0.015	J	0.0046	U	0.0043	U	0.0095	U	0.0048	U	0.033	J	0.0046	U	0.0047	U
1,2-Dichloroethane	0.02	0.0047	U	0.013	U	0.0049	U	0.017	U	0.0048	U	0.0053	U	0.0049	U	0.011	U	0.0055	U	0.0098	U	0.0052	U	0.0053	U
Trichloroethene	0.47	0.0041	U	0.011	U	0.0044	U	0.015	U	0.0043	U	0.0047	U	0.0044	U	0.0096	U	0.0049	U	0.0087	U	0.0046	U	0.0047	U
1,2-Dichloropropane	NA	0.0053	U	0.015	U	0.0056	U	0.019	U	0.0055	U	0.006	U	0.0056	U	0.012	U	0.0063	U	0.011	U	0.0059	U	0.0061	U
Bromodichloromethane	NA	0.004	U	0.011	U	0.0042	U	0.014	U	0.0041	U	0.0045	U	0.0042	U	0.0092	U	0.0047	U	0.0083	U	0.0044	U	0.0045	U
4-Methyl-2-Pentanone	NA	0.022	U	0.06	U	0.023	U	0.079	U	0.022	U	0.025	U	0.023	U	0.05	U	0.025	U	0.045	U	0.024	U	0.025	U
Toluene	0.7	0.005	U	0.05	J	0.0053	U	0.018	U	0.025	J	0.0057	U	0.0053	U	0.012	U	0.0059	U	0.11		0.0056	U	0.0057	U
t-1,3-Dichloropropene	NA	0.0048	U	0.013	U	0.005	U	0.017	U	0.0049	U	0.0054	U	0.005	U	0.011	U	0.0056	U	0.01	U	0.0053	U	0.0055	U
cis-1,3-Dichloropropene	NA	0.0038	U	0.01	U	0.004	U	0.014	U	0.0039	U	0.0043	U	0.004	U	0.0088	U	0.0045	U	0.008	U	0.0042	U	0.0044	U
1,1,2-Trichloroethane	NA	0.0035	U	0.0096	U	0.0036	U	0.013	U	0.0036	U	0.0039	U	0.0036	U	0.008	U	0.0041	U	0.0073	U	0.0039	U	0.004	U
2-Hexanone	NA	0.025	U	0.068	U	0.026	U	0.09	U	0.026	U	0.028	U	0.026	U	0.058	U	0.029	U	0.052	U	0.028	U	0.028	U
Dibromochloromethane	NA	0.0038	U	0.01	U	0.0039	U	0.014	U	0.0039	U	0.0042	U	0.0039	U	0.0087	U	0.0044	U	0.0079	U	0.0042	U	0.0043	U
1,2-Dibromoethane	NA	0.0047	U	0.013	U	0.0049	U	0.017	U	0.0048	U	0.0053	U	0.0049	U	0.011	U	0.0055	U	0.0098	U	0.0052	U	0.0053	U
Tetrachloroethene	1.3	0.007	U	0.019	U	0.0074	U	0.026	U	0.0073	U	0.008	U	0.0074	U	0.016	U	0.0082	U	0.015	U	0.042		0.0081	U
Chlorobenzene	1.1	0.0043	U	0.012	U	0.0045	U	0.016	U	0.0044	U	0.0049	U	0.0045	U	0.01	U	0.0051	U	0.009	U	0.0048	U	0.0049	U
Ethyl Benzene	1	0.0045	U	0.013	U	0.0048	U	0.017	U	0.0047	U	0.0051	U	0.0048	U	0.81		0.0053	U	0.53		0.0051	U	0.0052	U
m/p-Xylenes *	1.2	0.011	U	0.029	U	0.045	J	0.038	U	0.011	U	0.012	U	0.011	U	0.71		0.018	J	0.98		0.012	U	0.012	U
o-Xylene *	1.2	0.0043	U	0.012	U	0.0045	U	0.016	U	0.0044	U	0.0049	U	0.0045	U	0.32		0.0051	U	0.46		0.0048	U	0.0049	U
Styrene	NA	0.0035	U	0.0097	U	0.0037	U	0.013	U	0.0036	U	0.004	U	0.0037	U	0.0082	U	0.0041	U	0.0074	U	0.0039	U	0.004	U
Bromoform	NA	0.0046	U	0.013	U	0.0048	U	0.017	U	0.0047	U	0.0052	U	0.0048	U	0.011	U	0.0054	U	0.0096	U	0.0051	U	0.0053	U
Isopropylbenzene	2.3	0.15		0.013	U	16	E	0.32		2.1	E	0.0053	U	0.038		1.3		0.36		0.069		0.0052	U	0.3	
1,1,2,2-Tetrachloroethane	NA	0.0051	U	0.014	U	0.0053	U	0.018	U	0.0052	U	0.0057	U	0.0053	U	0.012	U	0.0059	U	0.011	U	0.0056	U	0.0058	U
1,3-Dichlorobenzene	2.4	0.0038	U	0.01	U	0.004	U	0.014	U	0.0039	U	0.0043	U	0.004	U	0.0088	U	0.0045	U	0.008	U	0.0042	U	0.0044	U
1,4-Dichlorobenzene	1.8	0.0044	U	0.012	U	0.0046	U	0.016	U	0.0045	U	0.005	U	0.0046	U	0.01	U	0.0051	U	0.0092	U	0.0049	U	0.005	U
1,2-Dichlorobenzene	1.1	0.0049	U	0.013	U	0.0051	U	0.018	U	0.005	U	0.0055	U	0.0051	U	0.011	U	0.0057	U	0.01	U	0.0054	U	0.0056	U
1,2-Dibromo-3-Chloropropane	NA	0.0058	U	0.016	U	0.0061	U	0.021	U	0.006	U	0.0066	U	0.0061	U	0.013	U	0.0068	U	0.012	U	0.0065	U	0.0066	U
1,2,4-Trichlorobenzene	NA	0.0038	U	0.01	U	0.0039	U	0.014	U	0.0039	U	0.0042	U	0.0039	U	0.0087	U	0.0044	U	0.0079	U	0.0042	U	0.0043	U

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Table 2: February-March 2008 Soil Sampling Results
Volatile Organic Compounds

Soil Boring	NY375	SBE-14		SBE-15		SBE-15		FD-2 (SBE-15)		SBE-16		SBE-16		SBE-17		SBE-17		SBE-17		SBE-18		SBE-18	
Sample Depth (ft bg)		30-31		6.5-7.5		11-12				7-8		11-12		5.5-6.5		7.5-8.5		11-12		6.5-7.5		11-12	
Lab Sample Number	375.6	Z1679-10		Z1635-14		Z1635-15		Z1644-13		Z1590-01		Z1590-02		Z1590-03		Z1590-04		Z1590-05		Z1635-01		Z1635-02	
Sampling Date	UUSCO	2/25/08		2/20/08		2/20/08		2/21/08		2/15/08		2/15/08		2/15/08		2/15/08		2/15/08		2/19/08		2/19/08	
Matrix		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Units	mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
VO+10																							
Dichlorodifluoromethane	NA	0.013	U	0.15	U	0.012	U	0.012	U	0.012	U	0.03	U	0.013	U	0.012	U	0.029	U	0.011	U	0.035	U
Chloromethane	NA	0.0088	U	0.062	U	0.0085	U	0.0086	U	0.008	U	0.021	U	0.0093	U	0.008	U	0.02	U	0.0077	U	0.024	U
Vinyl Chloride	0.02	0.0091	U	0.05	U	0.0088	U	0.009	U	0.0083	U	0.022	U	0.0097	U	0.0083	U	0.021	U	0.008	U	0.025	U
Bromomethane	NA	0.013	U	0.23	U	0.013	U	0.013	U	0.012	U	0.032	U	0.014	U	0.012	U	0.031	U	0.012	U	0.037	U
Chloroethane	NA	0.012	U	0.13	U	0.012	U	0.012	U	0.011	U	0.029	U	0.013	U	0.011	U	0.028	U	0.011	U	0.034	U
Trichlorofluoromethane	NA	0.0079	U	0.088	U	0.0076	U	0.0077	U	0.0072	U	0.019	U	0.0083	U	0.0072	U	0.018	U	0.0069	U	0.022	U
1,1,2-Trichlorotrifluoroethane	NA	0.011	U	0.1	U	0.011	U	0.011	U	0.01	U	0.026	U	0.012	U	0.01	U	0.025	U	0.0098	U	0.031	U
1,1-Dichloroethene	0.33	0.0066	U	0.11	U	0.0064	U	0.0065	U	0.006	U	0.016	U	0.007	U	0.006	U	0.015	U	0.0058	U	0.018	U
Acetone	0.05	0.11	U	0.36	U	0.14	J	0.11	U	0.3		0.39	J	0.18		0.13	J	0.53		0.55		0.31	U
Carbon Disulfide	NA	0.0071	U	0.033	U	0.0069	U	0.007	U	0.0065	U	0.017	U	0.0076	U	0.0065	U	0.016	U	0.0063	U	0.02	U
Methyl tert-butyl Ether	0.93	0.0059	U	0.038	U	0.0057	U	0.0058	U	0.0054	U	0.014	U	0.0062	U	0.0054	U	0.013	U	0.0052	U	0.016	U
Methyl Acetate	NA	0.011	U	0.075	U	0.011	U	0.011	U	0.01	U	0.026	U	0.053		0.01	U	0.026	U	0.0098	U	0.031	U
Methylene Chloride	0.05	0.016	U	0.063	U	0.015	U	0.016	U	0.015	U	0.038	U	0.017	U	0.015	U	0.037	U	0.014	U	0.05	J
trans-1,2-Dichloroethene	0.19	0.0081	U	0.073	U	0.0078	U	0.008	U	0.0074	U	0.019	U	0.0086	U	0.0074	U	0.019	U	0.0072	U	0.023	U
1,1-Dichloroethane	0.27	0.0074	U	0.08	U	0.0071	U	0.0073	U	0.0067	U	0.018	U	0.0078	U	0.0068	U	0.017	U	0.0065	U	0.021	U
Cyclohexane	NA	0.0067	U	0.095	U	0.0065	U	0.0066	U	0.089		0.068	J	0.0071	U	0.026	J	0.015	U	0.11		0.019	U
2-Butanone	0.12	0.033	U	0.32	U	0.032	U	0.033	U	0.03	U	0.078	U	0.035	U	0.03	U	0.076	U	0.029	U	0.092	U
Carbon Tetrachloride	0.76	0.0039	U	0.045	U	0.0038	U	0.0038	U	0.0036	U	0.0092	U	0.0041	U	0.0036	U	0.0089	U	0.0034	U	0.011	U
cis-1,2-Dichloroethene	0.25	0.0085	U	0.12	U	0.0082	U	0.0084	U	0.0078	U	0.02	U	0.009	U	0.0078	U	0.02	U	0.27	JD	0.024	U
Chloroform	0.37	0.0059	U	0.075	U	0.0057	U	0.0058	U	0.0054	U	0.014	U	0.0062	U	0.0054	U	0.013	U	0.0052	U	0.016	U
1,1,1-Trichloroethane	0.68	0.0063	U	0.065	U	0.006	U	0.0062	U	0.0057	U	0.015	U	0.0067	U	0.0057	U	0.014	U	0.0055	U	0.017	U
Methylcyclohexane	NA	0.0055	U	0.31	J	0.0053	U	0.0054	U	0.36		0.013	U	0.0058	U	0.38		0.055	J	0.85		0.015	U
Benzene	0.06	0.0048	U	0.058	U	0.0046	U	0.0047	U	0.0043	U	0.4		0.005	U	0.0043	U	0.011	U	0.016	J	0.013	U
1,2-Dichloroethane	0.02	0.0054	U	0.068	U	0.0052	U	0.0053	U	0.0049	U	0.013	U	0.0057	U	0.005	U	0.012	U	0.0048	U	0.015	U
Trichloroethene	0.47	0.0048	U	0.057	U	0.0046	U	0.0047	U	0.0044	U	0.011	U	0.0051	U	0.0044	U	0.011	U	0.0043	U	0.013	U
1,2-Dichloropropane	NA	0.0062	U	0.077	U	0.006	U	0.0061	U	0.0057	U	0.015	U	0.0066	U	0.0057	U	0.014	U	0.0055	U	0.017	U
Bromodichloromethane	NA	0.0046	U	0.038	U	0.0045	U	0.0045	U	0.0042	U	0.011	U	0.0049	U	0.0042	U	0.011	U	0.0041	U	0.013	U
4-Methyl-2-Pentanone	NA	0.025	U	0.29	U	0.024	U	0.025	U	0.023	U	0.06	U	0.027	U	0.023	U	0.058	U	0.022	U	0.07	U
Toluene	0.7	0.0058	U	0.027	U	0.0056	U	0.0057	U	0.035		0.12		0.0062	U	0.062		0.12		0.0051	U	0.016	U
t-1,3-Dichloropropene	NA	0.0055	U	0.052	U	0.0053	U	0.0055	U	0.0051	U	0.013	U	0.0059	U	0.0051	U	0.013	U	0.0049	U	0.015	U
cis-1,3-Dichloropropene	NA	0.0044	U	0.048	U	0.0043	U	0.0044	U	0.004	U	0.01	U	0.0047	U	0.004	U	0.01	U	0.0039	U	0.012	U
1,1,2-Trichloroethane	NA	0.004	U	0.053	U	0.0039	U	0.004	U	0.0037	U	0.0095	U	0.0043	U	0.0037	U	0.0092	U	0.0036	U	0.011	U
2-Hexanone	NA	0.029	U	0.29	U	0.028	U	0.028	U	0.026	U	0.068	U	0.031	U	0.026	U	0.066	U	0.025	U	0.08	U
Dibromochloromethane	NA	0.0044	U	0.038	U	0.0042	U	0.0043	U	0.004	U	0.01	U	0.0046	U	0.004	U	0.01	U	0.0038	U	0.012	U
1,2-Dibromoethane	NA	0.0054	U	0.043	U	0.0052	U	0.0053	U	0.0049	U	0.013	U	0.0057	U	0.005	U	0.012	U	0.0048	U	0.015	U
Tetrachloroethene	1.3	0.0082	U	0.16	U	0.0079	U	0.0081	U	0.03	J	0.019	U	0.15		0.12		0.019	U	0.075		0.023	U
Chlorobenzene	1.1	0.005	U	0.047	U	0.0048	U	0.0049	U	0.0046	U	0.012	U	0.0053	U	0.0046	U	0.012	U	0.0044	U	0.014	U
Ethyl Benzene	1	0.0053	U	0.0083	U	0.0051	U	0.0052	U	0.0048	U	0.044	J	0.051		4.9	D	0.045	J	6.9	D	0.015	U
m/p-Xylenes *	1.2	0.012	U	0.078	U	0.012	U	0.012	U	0.16		0.27		0.024	J	1.2		0.62		28	D	0.034	U
o-Xylene *	1.2	0.005	U	0.027	U	0.0048	U	0.0049	U	0.0046	U	0.2		0.28		7.9	D	0.31		0.0044	U	0.014	U
Styrene	NA	0.0041	U	0.032	U	0.0039	U	0.004	U	0.0037	U	0.0097	U	0.0043	U	0.0037	U	0.0094	U	0.0036	U	0.011	U
Bromoform	NA	0.0053	U	0.073	U	0.0052	U	0.0053	U	0.0049	U	0.013	U	0.0057	U	0.0049	U	0.012	U	0.0047	U	0.015	U
Isopropylbenzene	2.3	0.0054	U	1.1		0.0052	U	0.0053	U	1.4	E	0.28		0.12		13	D	2.4		0.0048	U	0.089	J
1,1,2,2-Tetrachloroethane	NA	0.0059	U	0.062	U	0.0057	U	0.0058	U	0.0054	U	0.014	U	0.0062	U	0.0054	U	0.013	U	0.0052	U	0.016	U
1,3-Dichlorobenzene	2.4	0.0044	U	0.047	U	0.0043	U	0.0044	U	0.004	U	0.01	U	0.0047	U	0.004	U	0.01	U	0.0039	U	0.012	U
1,4-Dichlorobenzene	1.8	0.0051	U	0.037	U	0.0049	U	0.005	U	0.0046	U	0.012	U	0.0054	U	0.0046	U	0.012	U	0.0045	U	0.014	U
1,2-Dichlorobenzene	1.1	0.0057	U	0.067	U	0.0055	U	0.0056	U	0.0052	U	0.013	U	0.006	U	0.0052	U	0.013	U	0.005	U	0.016	U
1,2-Dibromo-3-Chloropropane	NA	0.0067	U	0.097	U	0.0065	U	0.0066	U	0.0061	U	0.016	U	0.0071	U	0.0062	U	0.015	U	0.0059	U	0.019	U
1,2,4-Trichlorobenzene	NA	0.0044	U	0.065	U	0.0042	U	0.0043	U	0.004	U	0.01	U	0.0046	U	0.004	U	0.01	U	0.0038	U	0.012	U

Table 2: February-March 2008 Soil Sampling Results
Volatile Organic Compounds

Soil Boring	NY375	SBE-19		SBE-19		SBE-RCRA-1		SBE-RCRA-1		SBE-RCRA-2		SBE-RCRA-2		SBE-RCRA-2		SBE-RCRA-3		SBE-RCRA-3		SBE-RCRA-4		FD-1 (SBE-RCRA-4)		SBE-RCRA-4	
Sample Depth (ft bg)		7-8		11-12		6-7		11-12		6.5-7.5		8-9		11.5-12		5.5-6.5		30.5-31.5		6-7		6-7		11-12	
Lab Sample Number	375.6	Z1635-03		Z1635-04		Z1635-10		Z1635-11		Z1635-07		Z1635-08		Z1635-09		Z1644-03		Z1644-04		Z1635-05		Z1636-06		Z1635-06	
Sampling Date	UUSCO	2/19/08		2/19/08		2/20/08		2/20/08		2/19/08		2/19/08		2/19/08		2/21/08		2/21/08		2/19/08		2/20/08		2/19/08	
Matrix		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Units	mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
VO+10																									
Dichlorodifluoromethane	NA	0.13	U	0.031	U	0.013	U	0.012	U	0.013	U	0.012	U	0.017	U	0.011	U	0.013	U	0.014	U	0.011	U	0.043	U
Chloromethane	NA	0.056	U	0.022	U	0.0087	U	0.0086	U	0.0091	U	0.0081	U	0.012	U	0.0078	U	0.0089	U	0.0094	U	0.0077	U	0.03	U
Vinyl Chloride	0.02	0.046	U	0.022	U	0.009	U	0.0089	U	0.0094	U	0.0085	U	0.012	U	0.0081	U	0.0092	U	0.0098	U	0.008	U	0.031	U
Bromomethane	NA	0.21	U	0.033	U	0.013	U	0.013	U	0.014	U	0.012	U	0.018	U	0.012	U	0.014	U	0.014	U	0.012	U	0.045	U
Chloroethane	NA	0.12	U	0.03	U	0.012	U	0.012	U	0.013	U	0.011	U	0.016	U	0.011	U	0.012	U	0.013	U	0.011	U	0.041	U
Trichlorofluoromethane	NA	0.081	U	0.019	U	0.0078	U	0.0077	U	0.0081	U	0.0073	U	0.011	U	0.0069	U	0.0079	U	0.0084	U	0.0069	U	0.026	U
1,1,2-Trichlorotrifluoroethane	NA	0.093	U	0.027	U	0.011	U	0.011	U	0.011	U	0.01	U	0.015	U	0.0098	U	0.011	U	0.012	U	0.0097	U	0.037	U
1,1-Dichloroethene	0.33	0.1	U	0.016	U	0.0065	U	0.0064	U	0.0068	U	0.0061	U	0.0088	U	0.0058	U	0.0067	U	0.0071	U	0.0058	U	0.022	U
Acetone	0.05	2.6	J	0.28	U	0.12	J	0.11	U	0.69		0.6		0.21	J	0.099	U	0.11	U	0.12	U	0.19		0.44	J
Carbon Disulfide	NA	0.03	U	0.017	U	0.0071	U	0.025	J	0.027	J	0.015	J	0.023	J	0.0063	U	0.0072	U	0.0076	U	0.014	J	0.024	U
Methyl tert-butyl Ether	0.93	0.035	U	0.014	U	0.0058	U	0.0057	U	0.0061	U	0.0055	U	0.0079	U	0.0052	U	0.0059	U	0.0063	U	0.0051	U	0.02	U
Methyl Acetate	NA	0.069	U	0.027	U	0.011	U	0.011	U	0.012	U	0.01	U	0.015	U	0.0099	U	0.011	U	0.012	U	0.0097	U	0.037	U
Methylene Chloride	0.05	0.058	U	0.039	U	0.016	U	0.016	U	0.017	U	0.015	U	0.021	U	0.014	U	0.016	U	0.017	U	0.014	U	0.054	U
trans-1,2-Dichloroethene	0.19	0.067	U	0.02	U	0.008	U	0.0079	U	0.0084	U	0.0075	U	0.011	U	0.0072	U	0.0082	U	0.0087	U	0.0071	U	0.027	U
1,1-Dichloroethane	0.27	0.073	U	0.018	U	0.0073	U	0.0072	U	0.0077	U	0.0069	U	0.0099	U	0.0065	U	0.0075	U	0.0079	U	0.0065	U	0.025	U
Cyclohexane	NA	0.087	U	0.32		0.0067	U	0.0066	U	0.007	U	0.056		0.009	U	0.006	U	0.0068	U	0.0072	U	0.079		0.023	U
2-Butanone	0.12	0.3	U	0.081	U	0.033	U	0.032	U	0.034	U	0.031	U	0.044	U	0.029	U	0.033	U	0.036	U	0.029	U	0.11	U
Carbon Tetrachloride	0.76	0.041	U	0.0095	U	0.0039	U	0.0038	U	0.004	U	0.0036	U	0.0052	U	0.0034	U	0.0039	U	0.0042	U	0.0034	U	0.013	U
cis-1,2-Dichloroethene	0.25	0.11	U	0.021	U	0.0084	U	0.0083	U	0.0088	U	0.0079	U	0.011	U	0.0075	U	0.0086	U	0.0091	U	0.0074	U	0.029	U
Chloroform	0.37	0.069	U	0.014	U	0.0058	U	0.0057	U	0.0061	U	0.0055	U	0.0079	U	0.0052	U	0.0059	U	0.0063	U	0.0051	U	0.02	U
1,1,1-Trichloroethane	0.68	0.059	U	0.015	U	0.0062	U	0.0061	U	0.0065	U	0.0058	U	0.0084	U	0.0055	U	0.0063	U	0.0067	U	0.0055	U	0.021	U
Methylcyclohexane	NA	0.9		0.49		0.032	J	0.0054	U	0.07		0.46		0.0073	U	0.0048	U	0.0055	U	0.0059	U	0.45		0.018	U
Benzene	0.06	0.053	U	0.012	U	0.0047	U	0.0046	U	0.0049	U	0.0044	U	0.0064	U	0.0042	U	0.0048	U	0.0051	U	0.12		0.016	U
1,2-Dichloroethane	0.02	0.062	U	0.013	U	0.0054	U	0.0053	U	0.0056	U	0.005	U	0.0072	U	0.0048	U	0.0055	U	0.0058	U	0.0047	U	0.018	U
Trichloroethene	0.47	0.052	U	0.012	U	0.0048	U	0.0047	U	0.005	U	0.0045	U	0.0065	U	0.0043	U	0.0049	U	0.0052	U	0.0042	U	0.016	U
1,2-Dichloropropane	NA	0.07	U	0.015	U	0.0061	U	0.0061	U	0.0064	U	0.0058	U	0.0083	U	0.0055	U	0.0063	U	0.0066	U	0.0054	U	0.021	U
Bromodichloromethane	NA	0.035	U	0.011	U	0.0046	U	0.0045	U	0.0048	U	0.0043	U	0.0062	U	0.0041	U	0.0047	U	0.005	U	0.004	U	0.016	U
4-Methyl-2-Pentanone	NA	0.27	U	0.062	U	0.025	U	0.025	U	0.026	U	0.023	U	0.034	U	0.022	U	0.025	U	0.027	U	0.022	U	0.085	U
Toluene	0.7	0.024	U	0.014	U	0.0058	U	0.0057	U	0.006	U	0.017	J	0.0078	U	0.0051	U	0.0059	U	0.0062	U	0.11		0.079	J
t-1,3-Dichloropropene	NA	0.047	U	0.014	U	0.0055	U	0.0054	U	0.0057	U	0.0051	U	0.0074	U	0.0049	U	0.0056	U	0.0059	U	0.0048	U	0.019	U
cis-1,3-Dichloropropene	NA	0.044	U	0.011	U	0.0044	U	0.0043	U	0.0046	U	0.0041	U	0.0059	U	0.0039	U	0.0045	U	0.0047	U	0.0039	U	0.015	U
1,1,2-Trichloroethane	NA	0.049	U	0.0099	U	0.004	U	0.0039	U	0.0042	U	0.0037	U	0.0054	U	0.0036	U	0.0041	U	0.0043	U	0.0035	U	0.014	U
2-Hexanone	NA	0.27	U	0.071	U	0.029	U	0.028	U	0.03	U	0.027	U	0.039	U	0.026	U	0.029	U	0.031	U	0.025	U	0.097	U
Dibromochloromethane	NA	0.035	U	0.011	U	0.0043	U	0.0043	U	0.0045	U	0.004	U	0.0058	U	0.0039	U	0.0044	U	0.0047	U	0.0038	U	0.015	U
1,2-Dibromoethane	NA	0.04	U	0.013	U	0.0054	U	0.0053	U	0.0056	U	0.005	U	0.0072	U	0.0048	U	0.0055	U	0.0058	U	0.0047	U	0.018	U
Tetrachloroethene	1.3	0.15	U	0.02	U	0.0081	U	0.008	U	0.0085	U	0.0076	U	0.011	U	0.0072	U	0.0083	U	0.0088	U	0.0072	U	0.028	U
Chlorobenzene	1.1	0.87		0.012	U	0.005	U	0.0049	U	0.0052	U	0.0047	U	0.0067	U	0.0044	U	0.0051	U	0.0054	U	0.0044	U	0.017	U
Ethyl Benzene	1	0.0076	U	0.013	U	0.0052	U	0.0052	U	0.0055	U	0.0049	U	0.0071	U	0.0047	U	0.0053	U	0.0057	U	0.0046	U	0.018	U
m/p-Xylenes *	1.2	0.072	U	0.03	U	0.012	U	0.012	U	0.092		0.088		0.016	U	0.011	U	0.012	U	0.013	U	0.011	U	0.041	U
o-Xylene *	1.2	0.024	U	0.012	U	0.005	U	0.0049	U	0.0052	U	0.0047	U	0.0067	U	0.0044	U	0.0051	U	0.0054	U	0.0044	U	0.017	U
Styrene	NA	0.029	U	0.01	U	0.0041	U	0.004	U	0.0042	U	0.0038	U	0.0055	U	0.0036	U	0.0041	U	0.0044	U	0.0036	U	0.014	U
Bromoform	NA	0.067	U	0.013	U	0.0053	U	0.0052	U	0.0055	U	0.005	U	0.0072	U	0.0047	U	0.0054	U	0.0057	U	0.0047	U	0.018	U
Isopropylbenzene	2.3	11		0.013	U	0.45		0.0053	U	0.66		1.9	D	0.047		0.0048	U	0.0055	U	0.0058	U	1		0.018	U
1,1,2,2-Tetrachloroethane	NA	0.056	U	0.014	U	0.0058	U	0.0057	U	0.0061	U	0.0055	U	0.0079	U	0.0052	U	0.0059	U	0.0063	U	0.0051	U	0.02	U
1,3-Dichlorobenzene	2.4	0.043	U	0.011	U	0.0044	U	0.0043	U	0.0046	U	0.0041	U	0.0059	U	0.0039	U	0.0045	U	0.0047	U	0.0039	U	0.015	U
1,4-Dichlorobenzene	1.8	0.034	U	0.012	U	0.005	U	0.005	U	0.0053	U	0.0047	U	0.0068	U	0.0045	U	0.0051	U	0.0054	U	0.0044	U	0.017	U
1,2-Dichlorobenzene	1.1	0.061	U	0.014	U	0.0056	U	0.0055	U	0.0059	U	0.0053	U	0.0076	U	0.005	U	0.0057	U	0.0061	U	0.005	U	0.019	U
1,2-Dibromo-3-Chloropropane	NA	0.088	U	0.017	U	0.0067	U	0.0066	U	0.007	U	0.0062	U	0.009	U	0.006	U	0.0068	U	0.0072	U	0.0059	U	0.023	U
1,2,4-Trichlorobenzene	NA	0.059	U	0.011	U	0.0043	U	0.0043	U	0.0045	U	0.004	U	0.0058	U	0.0039	U	0.0044	U	0.0047	U	0.0038	U	0.015	U

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EWMA Project # 205490

Table 2: February-March 2008 Soil Sampling Results
Semi-Volatile Organic Compounds

Sample ID	NY375	SBE-1	SBE-1	SBE-1	SBE-2	SBE-2	SBE-3	SBE-3	SBE-4	SBE-4	SBE-5	SBE-6	SBE-7	SBE-8	SBE-8	SBE-9	SBE-9	SBE-10
Sample Depth (ft bg)		6-7	12.5-13.5	22-23	6-7	11-12	7-8	11-12	6.5-7.5	11-12	7-7.5	10-10.5	6.5-7	8.5-9.5	10-11	7-8	11-12	6-7
Lab Sample Number	375.6	Z1635-18	Z1635-19	Z1636-01	Z1635-16	Z1635-17	Z1644-07	Z1644-08	Z1644-05	Z1644-06	Z2238-12	Z2238-13	Z2238-14	Z1636-04	Z1636-05	Z1644-09	Z1644-10	Z1644-01
Sampling Date	UUSCO	2/20/08	2/20/08	2/20/08	2/20/08	2/20/08	2/21/08	2/21/08	2/21/08	2/21/08	4/1/08	4/1/08	4/1/08	2/20/08	2/20/08	2/21/08	2/21/08	2/21/08
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BNA+20																		
Benzaldehyde	NA	0.089 U	0.8 U	0.013 U	0.088 U	0.086 U	0.077 U	0.24 U	0.4 U	0.25 U	0.13 U	0.11 U	0.13 U	0.12 U	0.036 U	0.4 U	0.28 U	0.39 U
Phenol	0.33	0.074 U	0.66 U	0.011 U	0.073 U	0.071 U	0.064 U	0.2 U	0.33 U	0.21 U	0.11 U	0.092 U	0.11 U	0.1 U	0.029 U	0.33 U	0.23 U	0.33 U
bis(2-Chloroethyl)ether	NA	0.035 U	0.31 U	0.005 U	0.034 U	0.033 U	0.03 U	0.095 U	0.16 U	0.099 U	0.052 U	0.043 U	0.05 U	0.048 U	0.014 U	0.16 U	0.11 U	0.15 U
2-Chlorophenol	NA	0.072 U	0.65 U	0.01 U	0.071 U	0.069 U	0.062 U	0.2 U	0.33 U	0.2 U	0.11 U	0.089 U	0.1 U	0.1 U	0.029 U	0.32 U	0.22 U	0.32 U
2-Methylphenol	0.33	0.071 U	0.63 U	0.01 U	0.07 U	0.068 U	0.061 U	0.19 U	0.32 U	0.2 U	0.11 U	0.088 U	0.1 U	0.098 U	0.028 U	0.32 U	0.22 U	0.31 U
2,2-oxybis(1-Chloropropane)	NA	0.11 U	0.98 U	0.016 U	0.11 U	0.11 U	0.095 U	0.3 U	0.5 U	0.31 U	0.16 U	0.14 U	0.16 U	0.15 U	0.044 U	0.49 U	0.34 U	0.48 U
Acetophenone	NA	0.079 U	41	0.011 U	0.078 U	0.076 U	0.068 U	0.22 U	0.36 U	0.22 U	0.12 U	0.098 U	0.11 U	0.11 U	0.032 U	0.36 U	0.24 U	0.35 U
3+4-Methylphenols	0.33	0.081 U	0.72 U	0.012 U	0.08 U	0.078 U	0.07 U	0.22 U	0.37 U	0.23 U	0.12 U	0.1 U	0.12 U	0.11 U	0.032 U	0.36 U	0.25 U	0.36 U
N-Nitroso-di-n-propylamine	NA	0.097 U	0.86 U	0.014 U	0.095 U	0.093 U	0.083 U	0.26 U	0.44 U	0.27 U	0.14 U	0.12 U	0.14 U	0.13 U	0.038 U	0.43 U	0.3 U	0.43 U
Hexachloroethane	NA	0.087 U	0.78 U	0.012 U	0.086 U	0.084 U	0.075 U	0.24 U	0.39 U	0.25 U	0.13 U	0.11 U	0.12 U	0.12 U	0.035 U	0.39 U	0.27 U	0.38 U
Nitrobenzene	NA	0.063 U	0.56 U	0.0089 U	0.062 U	0.06 U	0.054 U	0.17 U	0.28 U	0.18 U	0.093 U	0.077 U	0.089 U	0.086 U	0.025 U	0.28 U	0.19 U	0.28 U
Isophorone	NA	0.087 U	0.78 U	0.012 U	0.086 U	0.084 U	0.075 U	0.24 U	0.39 U	0.25 U	0.13 U	0.11 U	0.12 U	0.12 U	0.035 U	0.39 U	0.27 U	0.39 U
2-Nitrophenol	NA	0.098 U	0.87 U	0.014 U	0.097 U	0.094 U	0.084 U	0.27 U	0.44 U	0.28 U	0.15 U	0.12 U	0.14 U	0.13 U	0.039 U	0.44 U	0.3 U	0.43 U
2,4-Dimethylphenol	NA	0.08 U	0.71 U	0.011 U	0.079 U	0.076 U	0.069 U	0.22 U	0.36 U	0.23 U	0.12 U	0.098 U	0.11 U	0.11 U	0.032 U	0.36 U	0.25 U	0.35 U
bis(2-Chloroethoxy)methane	NA	0.061 U	0.55 U	0.0087 U	0.061 U	0.059 U	0.053 U	0.17 U	0.28 U	0.17 U	0.091 U	0.076 U	0.087 U	0.084 U	0.024 U	0.27 U	0.19 U	0.27 U
2,4-Dichlorophenol	NA	0.063 U	0.57 U	0.009 U	0.063 U	0.061 U	0.055 U	0.17 U	0.29 U	0.18 U	0.094 U	0.078 U	0.09 U	0.087 U	0.025 U	0.28 U	0.2 U	0.28 U
Naphthalene	12	0.064 U	84	0.0092 U	0.064 U	0.062 U	1.6 J	0.18 U	2.4 J	0.18 U	1.1 J	0.76 J	0.092 U	0.089 U	0.026 U	2.2 J	0.2 U	3.1 J
4-Chloroaniline	NA	0.18 U	1.6 U	0.025 U	0.17 U	0.17 U	0.15 U	0.48 U	0.79 U	0.5 U	0.26 U	0.22 U	0.25 U	0.24 U	0.07 U	0.79 U	0.54 U	0.77 U
Hexachlorobutadiene	NA	0.11 U	0.97 U	0.015 U	0.11 U	0.1 U	0.093 U	0.3 U	0.49 U	0.31 U	0.16 U	0.13 U	0.15 U	0.15 U	0.043 U	0.48 U	0.33 U	0.48 U
Caprolactam	NA	0.32 U	2.9 U	0.046 U	0.32 U	0.31 U	0.28 U	0.87 U	1.4 U	0.9 U	0.48 U	0.4 U	0.46 U	0.44 U	0.13 U	1.4 U	0.99 U	1.4 U
4-Chloro-3-methylphenol	NA	0.078 U	0.7 U	0.011 U	0.077 U	0.075 U	0.067 U	0.21 U	0.35 U	0.22 U	0.12 U	0.097 U	0.11 U	0.11 U	0.031 U	0.35 U	0.24 U	0.35 U
2-Methylnaphthalene	NA	0.39 J	540 E	0.011 U	0.074 U	6.1	0.53 J	0.21 U	0.34 U	0.21 U	0.11 U	0.093 U	0.11 U	0.1 U	0.03 U	0.34 U	0.23 U	0.33 U
Hexachlorocyclopentadiene	NA	0.14 U	1.2 U	0.019 U	0.14 U	0.13 U	0.12 U	0.37 U	0.62 U	0.39 U	0.2 U	0.17 U	0.19 U	0.19 U	0.054 U	0.61 U	0.42 U	0.6 U
2,4,6-Trichlorophenol	NA	0.062 U	0.55 U	0.0088 U	0.061 U	0.06 U	0.053 U	0.17 U	0.28 U	0.18 U	0.092 U	0.077 U	0.088 U	0.085 U	0.025 U	0.28 U	0.19 U	0.27 U
2,4,5-Trichlorophenol	NA	0.079 U	0.71 U	0.011 U	0.078 U	0.076 U	0.068 U	0.22 U	0.36 U	0.22 U	0.12 U	0.098 U	0.11 U	0.11 U	0.031 U	0.35 U	0.24 U	0.35 U
1,1-Biphenyl	NA	0.079 U	12 J	0.011 U	0.078 U	0.076 U	0.068 U	0.22 U	0.36 U	0.22 U	0.12 U	0.097 U	0.11 U	0.11 U	0.031 U	0.35 U	0.24 U	0.35 U
2-Chloronaphthalene	NA	0.065 U	0.58 U	0.0092 U	0.064 U	0.062 U	0.056 U	0.18 U	0.29 U	0.18 U	0.096 U	0.08 U	0.092 U	0.089 U	0.026 U	0.29 U	0.2 U	0.29 U
2-Nitroaniline	NA	0.13 U	1.1 U	0.018 U	0.12 U	0.12 U	0.11 U	0.34 U	0.56 U	0.35 U	0.19 U	0.15 U	0.18 U	0.17 U	0.05 U	0.56 U	0.39 U	0.55 U
Dimethylphthalate	NA	0.078 U	0.69 U	0.011 U	0.077 U	0.075 U	0.067 U	0.21 U	0.35 U	0.22 U	0.12 U	0.096 U	0.11 U	0.11 U	0.031 U	0.35 U	0.24 U	0.34 U
Acenaphthylene	100	0.039 U	0.35 U	0.0056 U	0.039 U	0.037 U	0.034 U	0.11 U	0.18 U	0.11 U	0.058 U	0.048 U	0.056 U	0.054 U	0.016 U	0.17 U	0.12 U	2.4 J
2,6-Dinitrotoluene	NA	0.095 U	0.85 U	0.014 U	0.094 U	0.091 U	0.082 U	0.26 U	0.43 U	0.27 U	0.14 U	0.12 U	0.14 U	0.13 U	0.038 U	0.43 U	0.29 U	0.42 U
3-Nitroaniline	NA	0.18 U	1.6 U	0.025 U	0.17 U	0.17 U	0.15 U	0.48 U	0.8 U	0.5 U	0.26 U	0.22 U	0.25 U	0.24 U	0.07 U	0.79 U	0.55 U	0.78 U
Acenaphthene	20	0.058 U	29 JD	0.0082 U	0.057 U	0.86 J	0.05 U	0.16 U	1.9 J	0.16 U	0.086 U	0.46 J	0.082 U	0.079 U	0.023 U	2.4 J	0.18 U	7.6 J
2,4-Dinitrophenol	NA	0.14 U	1.3 U	0.02 U	0.14 U	0.14 U	0.12 U	0.39 U	0.64 U	0.4 U	0.21 U	0.18 U	0.2 U	0.2 U	0.057 U	0.64 U	0.44 U	0.63 U
4-Nitrophenol	NA	0.16 U	1.4 U	0.023 U	0.16 U	0.15 U	0.14 U	0.43 U	0.71 U	0.45 U	0.24 U	0.2 U	0.23 U	0.22 U	0.063 U	0.71 U	0.49 U	0.7 U
Dibenzofuran	7	0.083 U	0.74 U	0.012 U	0.082 U	0.079 U	0.071 U	0.23 U	0.37 U	0.23 U	0.12 U	0.35 J	0.12 U	0.11 U	0.033 U	0.37 U	0.25 U	5.9 J
2,4-Dinitrotoluene	NA	0.088 U	0.79 U	0.013 U	0.087 U	0.085 U	0.076 U	0.24 U	0.4 U	0.25 U	0.13 U	0.11 U	0.13 U	0.12 U	0.035 U	0.4 U	0.27 U	0.39 U
Diethylphthalate	NA	0.091 U	0.81 U	0.013 U	0.09 U	0.087 U	0.078 U	0.25 U	0.41 U	0.26 U	0.14 U	0.11 U	0.13 U	0.13 U	0.036 U	0.41 U	0.28 U	0.4 U
4-Chlorophenyl-phenylether	NA	0.1 U	0.91 U	0.014 U	0.1 U	0.098 U	0.088 U	0.28 U	0.46 U	0.29 U	0.15 U	0.13 U	0.14 U	0.14 U	0.04 U	0.45 U	0.31 U	0.45 U
Fluorene	30	0.072 U	53	0.01 U	0.071 U	1.5 J	0.062 U	0.2 U	0.32 U	0.2 U	0.11 U	0.48 J	0.1 U	0.099 U	0.029 U	0.32 U	0.22 U	10 J
4-Nitroaniline	NA	0.21 U	1.9 U	0.03 U	0.21 U	0.2 U	0.18 U	0.57 U	0.95 U	0.59 U	0.31 U	0.26 U	0.3 U	0.29 U	0.084 U	0.94 U	0.65 U	0.93 U
4,6-Dinitro-2-methylphenol	NA	0.36 U	3.2 U	0.051 U	0.36 U	0.35 U	0.31 U	0.99 U	1.6 U	1 U	0.54 U	0.45 U	0.51 U	0.5 U	0.14 U	1.6 U	1.1 U	1.6 U
N-Nitrosodiphenylamine	NA	0.2 U	1.8 U	0.029 U	0.2 U	0.19 U	0.17 U	0.55 U	0.9 U	0.57 U	0.3 U	0.25 U	0.29 U	0.28 U	0.08 U	0.9 U	0.62 U	0.88 U
4-Bromophenyl-phenylether	NA	0.12 U	1.1 U	0.017 U	0.12 U	0.12 U	0.1 U	0.33 U	0.55 U	0.34 U	0.18 U	0.15 U	0.17 U	0.17 U	0.048 U	0.54 U	0.37 U	0.54 U
Hexachlorobenzene	0.33	0.081 U	0.72 U	0.011 U	0.08 U	0.077 U	0.069 U	0.22 U	0.36 U	0.23 U	0.12 U	0.1 U	0.11 U	0.11 U	0.032 U	0.36 U	0.25 U	0.36 U
Atrazine	NA	0.19 U	1.7 U	0.027 U	0.19 U	0.18 U	0.16 U	0.51 U	0.85 U	0.53 U	0.28 U	0.23 U	0.27 U	0.26 U	0.075 U	0.84 U	0.58 U	0.83 U
Pentachlorophenol	0.8	0.3 U	2.7 U	0.043 U	0.3 U	0.29 U	0.26 U	0.83 U	1.4 U	0.85 U	0.45 U	0.37 U	0.43 U	0.42 U	0.12 U	1.4 U	0.93 U	1.3 U
Phenanthrene	100	0.35 J	130 JD	0.012 U	0.082 U	3.7	0.49 J	1.7 J	6.3 J	0.23 U	1 JB	3.9 B	0.51 JB	0.76 J	0.11 J	7.4 J	0.26 U	45
Anthracene	100	0.09 U	9.4 J	0.013 U	0.089 U	0.28 J	0.077 U	0.25 U	2.5 J	0.25 U	0.13 U	0.92 J	0.13 U	0.12 U	0.036 U	2.9 J	0.28 U	20
Carbazole	NA	0.2 U	1.8 U	0.029 U	0.2 U	0.2 U	0.18 U	0.56 U	0.92 U	0.58 U	0.3 U	0.25 U	0.29 U	0.28 U	0.081 U	1.3 J	0.63 U	0.9 U
Di-n-butylphthalate	NA	0.13 U	1.1 U	0.018 U	0.12 U	0.12 U	0.11 U	0.34 U	0.57 U	0.35 U	0.19 U	0.15 U	0.18 U	0.17 U	0.05 U	0.56 U	0.39 U	0.55 U
Fluoranthene	100	0.065 U	7.9 J	0.0092 U	0.064 U	0.29 J	0.84 J	3.9 J	13	0.18 U	2.5 JB	3.6 B	1.1 JB	1.1 J	0.16 J	10 J	0.2 U	47
Pyrene	100	0.058 U	14 J	0.0083 U	0.057 U	0.44 J	0.87 J	3.6 J	15	0.16 U	2.3 JB	3.1 JB	1.1 JB	1.1 J	0.15 J	11 J	0.18 U	42
Butylbenzylphthalate	NA	0.17 U	1.5 U	0.024 U	0.17 U	0.16 U	0.15 U	0.46 U	0.76 U	0.48 U	0.25 U	0.21 U	0.24 U	0.23 U	0.067 U	0.76 U	0.52 U	0.74 U
3,3-Dichlorobenzidine	NA	0.2 U	1.8 U	0.029 U	0.2 U	0.19 U	0.17 U	0.55 U	0.91 U	0.57 U	0.3 U	0.25 U	0.29 U	0.28 U	0.08 U	0.9 U	0.62 U	0.89 U
Benzo(a)anthracene	1	0.064 U	0.57 U	0.0091 U	0.063 U	0.062 U	1 J	3 J	15	0.18 U	2.8 J	1.8 J	1.5 J	0.96 J	0.14 J	12	0.2 U	24
Chrysene	1	0.05 U	0.44 U	0.0071 U	0.049 U	0.048 U	0.93 J	3 J	14	0.14 U	2.3 J	1.5 J	1.3 J	1.1 J	0.14 J	11 J	0.15 U	20
bis(2-Ethylhexyl)phthalate	NA	0.1 U	0.91 U	0.015 U	0.1 U	0.098 U	0.36 J	2.1 J	0.46 U	0.29 U	0.15 U	0.13 U	0.15 U	0.14 U	0.041 U	0.46 U	0.31 U	0.45 U
Di-n-octyl phthalate	NA	0.093 U	0.84 U	0.013 U	0.092 U	0.09 U	0.081 U	0.26 U	0.42 U	0.26 U	0.14 U	0.12 U	0.13 U	0.13 U	0.037 U	0.42 U	0.29 U	0.41 U
Benzo(b)fluoranthene	1	0.28 J	1.7 U	0.027 U	0.19 U	0.18 U	1.9 J	4.2 J	27	0.54 U	5.1	2.3 J	3.2 J	1.3 J	0.28 J	25	0.59 U	25
Benzo(k)fluoranthene	0.8	0.12 U	1.1 U	0.017 U	0.12 U	0.12 U	0.71 J	1.6 J	9 J	0.35 U	1.6 J	0.72 J	0.85 J	0.69 J	0.049 U	9.3 J	0.38 U	8.1 J
Benzo(a)pyrene	1	0.33 J	0.7 U	0.011 U	0.078 U	0.075 U	2 J	4.2 J	28	0.22 U	4.2	1.7 J	2.6 J	1.6 J	0.26 J	28	0.24 U	23
Indeno(1,2,3-cd)pyrene	0.5	0.067 U	0.6 U	0.0096 U	0.067 U	0.065 U	2 J	3.6 J	22	0.19 U	3.3 J	1.1 J	2 J	1.3 J	0.16 J	21	0.21 U	14
Dibenz(a,h)anthracene	0.33	0.2 U	1.7 U	0.028 U	0.19 U	0.19 U	0.59 J	0.95 J	6.5 J	0.55 U	0.57 J	0.24 U	0.53 J	0.27 U	0.078 U	6.2 J	0.6 U	4 J
Benzo(g,h,i)perylene	100	0.19 U	1.7 U	0.027 U	0.19 U	0.19 U	1.8 J	3.3 J	24	0.55 U	3.2 J	1.3 J	2.1 J	1.2 J	0.15 J	21	0.59 U	14

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Table 2: February-March 2008 Soil Sampling Results
Semi-Volatile Organic Compounds

Sample ID	NY375	SBE-10		SBE-11		SBE-11		SBE-12		SBE-12		SBE-13		SBE-14		SBE-14		SBE-15		SBE-15		FD-2 (SBE-15)		SBE-16		SBE-16		SBE-17		SBE-17		SBE-17	
Sample Depth (ft bg)		32.5-33.5		6.5-7.5		11-12		6.5-7.5		10-11		7-7.5		6.5-7.5		30-31		6.5-7.5		11-12				7-8		11-12		5.5-6.5		7.5-8.5		11-12	
Lab Sample Number	375.6	Z1644-02		Z1635-12		Z1635-13		Z1636-02		Z1636-03		Z2238-15		Z1679-09		Z1679-10		Z1635-14		Z1635-15		Z1644-13		Z1590-01		Z1590-02		Z1590-03		Z1590-04		Z1590-05	
Sampling Date	UUSCO	2/21/08		2/20/08		2/20/08		2/20/08		2/20/08		4/1/08		2/25/08		2/25/08		2/20/08		2/20/08		2/21/08		2/15/08		2/15/08		2/15/08		2/15/08		2/15/08	
Units	mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
BNA+20																																	
Benzaldehyde	NA	0.085		0.08	U	0.17	U	0.76	U	0.26	U	0.14	U	0.072	U	0.015	U	0.088	U	0.084	U	0.085	U	0.11	U	0.069	U	0.71	U	0.13	U	0.065	U
Phenol	0.33	0.07		0.067	U	0.14	U	0.63	U	0.22	U	0.12	U	0.06	U	0.012	U	0.073	U	0.07	U	0.07	U	0.095	U	0.057	U	0.59	U	0.11	U	0.054	U
bis(2-Chloroethyl)ether	NA	0.033		0.031	U	0.067	U	0.29	U	0.1	U	0.055	U	0.028	U	0.0057	U	0.034	U	0.033	U	0.033	U	0.045	U	0.027	U	0.28	U	0.052	U	0.025	U
2-Chlorophenol	NA	0.069		0.065	U	0.14	U	0.61	U	0.21	U	0.11	U	0.058	U	0.012	U	0.071	U	0.068	U	0.069	U	0.093	U	0.056	U	0.58	U	0.11	U	0.053	U
2-Methylphenol	0.33	0.067		0.064	U	0.14	U	0.6	U	0.21	U	0.11	U	0.057	U	0.012	U	0.07	U	0.067	U	0.067	U	0.091	U	0.055	U	0.57	U	0.11	U	0.052	U
2,2-oxybis(1-Chloropropane)	NA	0.1		0.099	U	0.21	U	0.93	U	0.32	U	0.17	U	0.088	U	0.018	U	0.11	U	0.1	U	0.1	U	0.14	U	0.085	U	0.88	U	0.16	U	0.08	U
Acetophenone	NA	0.075		0.071	U	0.15	U	0.67	U	0.23	U	0.12	U	0.064	U	0.013	U	0.078	U	0.075	U	0.075	U	0.1	U	0.061	U	52		0.12	U	0.058	U
3+4-Methylphenols	0.33	0.077	U	0.073	U	0.16	U	0.69	U	3	J	0.13	U	0.065	U	0.013	U	0.08	U	0.076	U	0.077	U	0.1	U	0.062	U	0.65	U	0.12	U	0.059	U
N-Nitroso-di-n-propylamine	NA	0.092	U	0.087	U	0.19	U	0.82	U	0.28	U	0.15	U	0.078	U	0.016	U	0.095	U	0.091	U	0.092	U	0.12	U	0.074	U	0.77	U	0.14	U	0.07	U
Hexachloroethane	NA	0.083	U	0.078	U	0.17	U	0.74	U	0.26	U	0.14	U	0.07	U	0.014	U	0.086	U	0.082	U	0.083	U	0.11	U	0.067	U	0.7	U	0.13	U	0.064	U
Nitrobenzene	NA	0.059	U	0.056	U	0.12	U	0.53	U	0.18	U	0.098	U	0.05	U	0.01	U	0.062	U	0.059	U	0.059	U	0.08	U	0.048	U	0.5	U	0.093	U	0.046	U
Isophorone	NA	0.083	U	0.078	U	0.17	U	0.74	U	0.26	U	0.14	U	0.07	U	0.014	U	0.086	U	0.082	U	0.083	U	0.11	U	0.067	U	0.7	U	0.13	U	0.064	U
2-Nitrophenol	NA	0.093	U	0.088	U	0.19	U	0.83	U	0.29	U	0.15	U	0.079	U	0.016	U	0.096	U	0.092	U	0.093	U	0.13	U	0.075	U	0.78	U	0.14	U	0.071	U
2,4-Dimethylphenol	NA	0.075	U	0.072	U	0.15	U	0.67	U	1.9	J	0.12	U	0.064	U	0.013	U	0.079	U	0.075	U	0.075	U	0.1	U	0.061	U	0.64	U	0.12	U	0.058	U
bis(2-Chloroethoxy)methane	NA	0.058	U	0.055	U	0.12	U	0.52	U	0.18	U	0.096	U	0.049	U	0.01	U	0.06	U	0.058	U	0.058	U	0.079	U	0.047	U	0.49	U	0.091	U	0.045	U
2,4-Dichlorophenol	NA	0.06	U	0.057	U	0.12	U	0.54	U	0.19	U	0.099	U	0.051	U	0.01	U	0.062	U	0.06	U	0.06	U	0.081	U	0.049	U	0.51	U	0.094	U	0.046	U
Naphthalene	12	0.061	U	3.8		41		4.5	J	230	E	1.5	J	0.47	J	0.011	U	1.2	J	0.061	U	0.061	U	1.2	J	0.05	U	7.5	J	2.8	J	0.41	J
4-Chloroaniline	NA	0.17	U	0.16	U	0.34	U	1.5	U	67	E	0.27	U	0.14	U	0.029	U	0.17	U	0.17	U	0.17	U	0.23	U	0.14	U	1.4	U	0.26	U	0.13	U
Hexachlorobutadiene	NA	0.1	U	0.097	U	0.21	U	0.91	U	0.32	U	0.17	U	0.087	U	0.018	U	0.11	U	0.1	U	0.1	U	0.14	U	0.083	U	0.86	U	0.16	U	0.079	U
Caprolactam	NA	0.3	U	0.29	U	0.62	U	2.7	U	0.93	U	0.5	U	0.26	U	0.053	U	0.32	U	0.3	U	0.3	U	0.41	U	0.25	U	2.6	U	0.47	U	0.23	U
4-Chloro-3-methylphenol	NA	0.074	U	0.07	U	0.15	U	0.66	U	0.23	U	0.12	U	0.063	U	0.013	U	0.077	U	0.074	U	0.074	U	0.1	U	0.06	U	0.62	U	0.12	U	0.057	U
2-Methylnaphthalene	NA	0.071	U	1.3	J	1.3	J	2.5	J	17		0.78	J	0.061	U	0.012	U	0.074	U	0.071	U	0.071	U	0.097	U	0.058	U	3.4	J	2.1	J	0.055	U
Hexachlorocyclopentadiene	NA	0.13	U	0.12	U	0.26	U	1.2	U	0.4	U	0.21	U	0.11	U	0.023	U	0.13	U	0.13	U	0.13	U	0.18	U	0.11	U	1.1	U	0.2	U	0.1	U
2,4,6-Trichlorophenol	NA	0.059	U	0.056	U	0.12	U	0.52	U	0.18	U	0.097	U	0.05	U	0.01	U	0.061	U	0.059	U	0.059	U	0.08	U	0.048	U	0.49	U	0.092	U	0.045	U
2,4,5-Trichlorophenol	NA	0.075	U	0.071	U	0.15	U	0.67	U	0.23	U	0.12	U	0.064	U	0.013	U	0.078	U	0.075	U	0.075	U	0.1	U	0.061	U	0.63	U	0.12	U	0.058	U
1,1-Biphenyl	NA	0.075	U	0.5	J	0.15	U	0.67	U	0.23	U	0.12	U	0.063	U	0.013	U	0.078	U	0.074	U	0.075	U	0.1	U	0.061	U	0.63	U	0.12	U	0.057	U
2-Chloronaphthalene	NA	0.061	U	0.058	U	0.12	U	0.55	U	0.19	U	0.1	U	0.052	U	0.011	U	0.064	U	0.061	U	0.061	U	0.083	U	0.05	U	0.52	U	0.096	U	0.047	U
2-Nitroaniline	NA	0.12	U	0.11	U	0.24	U	1.1	U	0.37	U	0.2	U	0.1	U	0.021	U	0.12	U	0.12	U	0.12	U	0.16	U	0.096	U	1	U	0.19	U	0.091	U
Dimethylphthalate	NA	0.074	U	0.07	U	0.15	U	0.66	U	0.23	U	0.12	U	0.063	U	0.013	U	0.077	U	0.073	U	0.074	U	0.1	U	0.06	U	0.62	U	0.12	U	0.057	U
Acenaphthylene	100	0.037	U	0.31	J	0.075	U	0.33	U	0.11	U	0.061	U	0.031	U	0.0064	U	0.038	U	0.037	U	0.037	U	0.05	U	0.03	U	0.31	U	0.058	U	0.028	U
2,6-Dinitrotoluene	NA	0.09	U	0.086	U	0.18	U	0.81	U	0.28	U	0.15	U	0.077	U	0.016	U	0.094	U	0.09	U	0.09	U	0.12	U	0.073	U	0.76	U	0.14	U	0.069	U
3-Nitroaniline	NA	0.17	U	0.16	U	0.34	U	1.5	U	0.52	U	0.28	U	0.14	U	0.029	U	0.17	U	0.17	U	0.17	U	0.23	U	0.14	U	1.4	U	0.26	U	0.13	U
Acenaphthene	20	0.055	U	11		1.4	J	10	J	6.5	J	2.6	J	3		0.0095	U	4.5		0.054	U	0.055	U	5.3		0.044	U	0.46	U	0.88	J	0.042	U
2,4-Dinitrophenol	NA	0.13	U	0.13	U	0.27	U	1.2	U	0.42	U	0.22	U	0.11	U	0.023	U	0.14	U	0.13	U	0.13	U	0.18	U	0.11	U	1.1	U	0.21	U	0.1	U
4-Nitrophenol	NA	0.15	U	0.14	U	0.31	U	1.3	U	0.46	U	0.25	U	0.13	U	0.026	U	0.16	U	0.15	U	0.15	U	0.2	U	0.12	U	1.3	U	0.23	U	0.12	U
Dibenzofuran	7	0.078	U	3.5	JD	0.74	J	0.7	U	4.2	J	1.6	J	1.5	J	0.014	U	0.46	J	0.078	U	0.078	U	0.11	U	0.064	U	0.66	U	0.12	U	0.06	U
2,4-Dinitrotoluene	NA	0.084	U	0.079	U	0.17	U	0.75	U	0.26	U	0.14	U	0.071	U	0.015	U	0.087	U	0.083	U	0.084	U	0.11	U	0.068	U	0.7	U	0.13	U	0.064	U
Diethylphthalate	NA	0.086	U	0.082	U	0.18	U	0.77	U	0.27	U	0.14	U	0.073	U	0.015	U	0.09	U	0.086	U	0.086	U	0.12	U	0.07	U	0.73	U	0.13	U	0.066	U
4-Chlorophenyl-phenylether	NA	0.096	U	0.091	U	0.2	U	0.86	U	0.3	U	0.16	U	0.082	U	0.017	U	0.1	U	0.096	U	0.096	U	0.13	U	0.078	U	0.81	U	0.15	U	0.074	U
Fluorene	30	0.068	U	7.8		0.81	J	7.3	J	3.4	J	2	J	1.5	J	0.012	U	3		0.068	U	0.068	U	0.092	U	0.055	U	0.57	U	0.11	U	0.052	U
4-Nitroaniline	NA	0.2	U	0.19	U	0.41	U	1.8	U	0.61	U	0.33	U	0.17	U	0.035	U	0.21	U	0.2	U	0.2	U	0.27	U	0.16	U	1.7	U	0.31	U	0.15	U
4,6-Dinitro-2-methylphenol	NA	0.34	U	0.32	U	0.7	U	3.1	U	1.1	U	0.56	U	0.29	U	0.059	U	0.36	U	0.34	U	0.34	U	0.46	U	0.28	U	2.9	U	0.53	U	0.26	U
N-Nitrosodiphenylamine	NA	0.19	U	0.18	U	0.39	U	1.7	U	0.59	U	0.31	U	0.16	U	0.033	U	0.2	U	0.19	U	0.19	U	0.26	U	0.15	U	1.6	U	0.3	U	0.15	U
4-Bromophenyl-phenylether	NA	0.12	U	0.11	U	0.23	U	1	U	0.36	U	0.19	U	0.098	U	0.02	U	0.12	U	0.11	U	0.12	U	0.16	U	0.094	U	0.97	U	0.18	U	0.089	U
Hexachlorobenzene	0.33	0.076	U	0.072	U	0.16	U	0.68	U	0.24	U	0.13	U	0.065	U	0.013	U	0.079	U	0.076	U	0.076	U	0.1	U	0.062	U	0.64	U	0.12	U	0.059	U
Atrazine	NA	0.18	U	0.17	U	0.36	U	1.6	U	0.55	U	0.29	U	0.15	U	0.031	U	0.19	U	0.18	U	0.18	U	0.24	U	0.14	U	1.5	U	0.28	U	0.14	U
Pentachlorophenol	0.8	0.29	U	0.27	U	0.58	U	2.6	U	0.68	U	0.47	U	0.24	U	0.05	U	0.3	U	0.29	U	0.29	U	0.39	U	0.23	U	2.4	U	0.45	U	0.22	U
Phenanthrene	100	0.079	U	8.5		0.77	J	24		5.6	J	14	B	0.4	J	0.014	U	5.2		0.078	U	0.079	U	12		0.064	U	3.4	J	4.1		0.24	J
Anthracene	100	0.085	U	5.5		0.17	U	8.7	J	1.1	J	3.5	J	1	J	0.015	U	1.6	J	0.085	U	0.085	U	3.1	J	0.069	U	0.72	U	1.1	J	0.065	U
Carbazole	NA	0.19	U	0.81	J	0.39	U	1.7	U	0.6	U	1.4	J	0.16	U	0.034	U	0.2	U	0.19	U	0.19	U	0.26	U	0.16	U	1.6	U	0.3	U	0.15	U
Di-n-butylphthalate	NA	0.12	U	0.11	U	0.24	U	1.1	U	0.37	U	0.2	U	0.1	U	0.021	U	0.12	U	0.12	U	0.12	U	0.16	U	0.096	U	1	U	0.19	U	0.091	U
Fluoranthene	100	0.061	U	14		0.79	J	18	J	1.6	J	12	B	2.3		0.011	U	3.4		0.061	U	0.061	U	0.083	U	0.05	U	0.52	U	1.7	J	0.34	J
Pyrene	100	0.055	U	13		0.11	U	12	J	1.3	J	9.8	B	1.9	J	0.0096	U	2.5	J	0.055	U	0.055	U	0.075	U	0.045	U	0.46	U	0.086	U	0.26	J
Butylbenzylphthalate	NA	0.16	U	0.15	U	0.33	U	1.4	U	0.49	U	0.26	U	0.14	U	0.028	U	0.17	U	0.16	U	0.16	U	0.22	U	0.13	U	1.3	U	0.25	U	0.12	U
3,3-Dichlorobenzidine	NA	0.19	U	0.18	U	0.39	U	1.7	U	0.59	U	0.31	U	0.16	U	0.033	U	0.2	U	0.19	U	0.19	U	0.26	U	0.15	U	1.6	U	0.3	U	0.15	U
Benzo(a)anthracene	1	0.061	U	13	D	0.12	U	7.6	J	0.19	U	5.8		1.3	J	0.011	U	1.4	J	0.061	U	0.061	U	3.3	J	0.049	U	0.51	U	1.7	J	0.33	J
Chrysene	1	0.047	U	12		0.096	U	7.5	J	0.14	U	4.9		0.99	J	0.0082	U	1.4	J	0.047	U	0.047	U	3.5		0.038	U	0.4	U	1.6	J	0.33	J
bis(2-Ethylhexyl)phthalate	NA	0.097	U	0.092	U	0.2	U	0.86	U	1.7	J	0.16	U	0.082	U	0.069	JB	0.1	U	0.096	U	0.097	U	0.13	U	0.079	U	9.2	J	4.4		0.074	U
Di-n-octyl phthalate	NA	0.089	U	0.084	U	0.18	U	0.79	U	0.27	U	0.15	U	0.075	U	0.015	U	0.092	U	0.088	U	0.089	U	0.12	U	0.072	U	0.75	U	0.14	U	0.068	U
Benzo(b)fluoranthene	1	0.18	U	24	D	0.37	U	10	J	0.56	U	6.8		2.1	J	0.032	U	1.9	J	0.18	U	0.18	U	4.9		0.15	U	1.5	U	3	J	0.58	J
Benzo(k)fluoranthene	0.8	0.12	U	8.5		0.24	U	3.1	J	0.36	U	2.2	J	0.7	J	0.02	U	0.56	J	0.12	U	0.12	U	2.1	J	0.094	U	0.98	U	1.2	J	0.25	J
Benzo(a)pyrene	1	0.074	U	25	D	0.15	U	8.8	J	0.23	U	5.2		2.2		0.013	U	1.9	J	0.074	U	0.074	U	4.9		0.061	U	3.1	J	2.1	J	0.62	J
Indeno(1,2,3-cd)pyrene	0.5	0.064	U	21	D	0.13	U	7.5	J	0.2	U	3.4	J	1.6	J	0.011	U	1.4	J	0.064	U	0.064	U	2.1	J	0.052	U	0.54	U	1.3	J	0.24	J
Dibenz(a,h)anthracene	0.33	0.19	U	4.9	JD	0.38	U	1.7	U	0.57	U	0.88	J	0.52	J	0.032	U	0.19	U	0.18	U	0.19	U	0.56	J	0.15	U	1.6	U	0.29	U	0.14	U
Benzo(g,h,i)perylene	100	0.18	U	16		0.37	U	6.6	J	0.56	U	3.3	J	1.5	J	0.032	U	1.3	J	0.18	U	0.18	U	1.7	J	0.15	U	1.5	U	1.3	J	0.25	J

OCA LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Table 2: February-March 2008 Soil Sampling Results
Semi-Volatile Organic Compounds

Sample ID	NY375	SBE-18		SBE-18		SBE-19		SBE-19		SBE-RCRA-1		SBE-RCRA-1		SBE-RCRA-2		SBE-RCRA-2		SBE-RCRA-2		SBE-RCRA-3		SBE-RCRA-3		SBE-RCRA-4		FD-1 (SBE-RCRA-4)		SBE-RCRA-4	
Sample Depth (ft bg)		6.5-7.5		11-12		7-8		11-12		6-7		11-12		6.5-7.5		8-9		11.5-12		5.5-6.5		30.5-31.5		6-7		6-7		11-12	
Lab Sample Number	375.6	Z1635-01		Z1635-02		Z1635-03		Z1635-04		Z1635-10		Z1635-11		Z1635-07		Z1635-08		Z1635-09		Z1644-03		Z1644-04		Z1635-05		Z1636-06		Z1635-06	
Sampling Date	UUSCO	2/19/08		2/19/08		2/19/08		2/19/08		2/20/08		2/20/08		2/19/08		2/19/08		2/19/08		2/21/08		2/21/08		2/19/08		2/20/08		2/19/08	
Units	mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
BNA+20																													
Benzaldehyde	NA	0.077	U	0.24	U	0.08	U	0.22	U	0.087	U	0.086	U	0.092	U	0.41	U	0.12	U	0.078	U	0.087		0.093	U	0.64	U	0.29	U
Phenol	0.33	0.064	U	0.2	U	0.066	U	0.18	U	0.072	U	0.072	U	0.077	U	0.34	U	0.097	U	0.065	U	0.072		0.077	U	0.53	U	0.24	U
bis(2-Chloroethyl)ether	NA	0.03	U	0.094	U	0.031	U	0.086	U	0.034	U	0.034	U	0.036	U	0.16	U	0.045	U	0.031	U	0.034		0.036	U	0.25	U	0.11	U
2-Chlorophenol	NA	0.063	U	0.2	U	0.065	U	0.18	U	0.071	U	0.07	U	0.075	U	0.33	U	0.094	U	0.063	U	0.07		0.075	U	0.52	U	0.23	U
2-Methylphenol	0.33	0.061	U	0.19	U	0.063	U	0.17	U	0.069	U	0.069	U	0.073	U	0.32	U	0.092	U	0.062	U	0.069		0.76	J	0.51	U	0.23	U
2,2-oxybis(1-Chloropropane)	NA	0.095	U	0.3	U	0.098	U	0.27	U	0.11	U	0.11	U	0.11	U	0.5	U	0.14	U	0.096	U	0.11		0.11	U	0.78	U	0.35	U
Acetophenone	NA	0.069	U	0.22	U	0.071	U	0.2	U	0.078	U	0.077	U	0.082	U	0.36	U	0.1	U	0.07	U	0.077		0.083	U	0.57	U	0.25	U
3+4-Methylphenols	0.33	0.07	U	0.22	U	0.072	U	0.2	U	0.079	U	0.078	U	0.084	U	0.37	U	0.11	U	0.071	U	0.079	U	3.7		0.58	U	0.26	U
N-Nitroso-di-n-propylamine	NA	0.084	U	0.26	U	0.086	U	0.24	U	0.094	U	0.093	U	0.1	U	0.44	U	0.13	U	0.085	U	0.094	U	0.1	U	0.69	U	0.31	U
Hexachloroethane	NA	0.075	U	0.24	U	0.078	U	0.21	U	0.085	U	0.084	U	0.09	U	0.4	U	0.11	U	0.077	U	0.085	U	0.091	U	0.62	U	0.28	U
Nitrobenzene	NA	0.054	U	0.17	U	0.056	U	0.15	U	0.061	U	0.061	U	0.065	U	0.29	U	0.082	U	0.055	U	0.061	U	0.065	U	0.45	U	0.2	U
Isophorone	NA	0.076	U	0.24	U	0.078	U	0.21	U	0.085	U	0.084	U	0.09	U	0.4	U	0.11	U	0.077	U	0.085	U	0.091	U	0.62	U	0.28	U
2-Nitrophenol	NA	0.085	U	0.27	U	0.087	U	0.24	U	0.095	U	0.095	U	0.1	U	0.45	U	0.13	U	0.086	U	0.095	U	0.1	U	0.7	U	0.31	U
2,4-Dimethylphenol	NA	0.069	U	0.22	U	0.071	U	0.2	U	0.078	U	0.077	U	0.082	U	0.36	U	0.1	U	0.07	U	0.077	U	1.9	J	0.57	U	0.26	U
bis(2-Chloroethoxy)methane	NA	0.053	U	0.17	U	0.055	U	0.15	U	0.06	U	0.059	U	0.063	U	0.28	U	0.08	U	0.054	U	0.059	U	0.064	U	0.44	U	0.2	U
2,4-Dichlorophenol	NA	0.055	U	0.17	U	0.057	U	0.16	U	0.062	U	0.061	U	0.065	U	0.29	U	0.082	U	0.056	U	0.061	U	0.066	U	0.45	U	0.2	U
Naphthalene	12	1.4	J	0.17	U	0.058	U	2.2	J	5.4		0.062	U	0.65	J	0.29	U	0.084	U	20	E	0.062	U	0.63	J	6.6	J	0.21	U
4-Chloroaniline	NA	0.15	U	0.48	U	0.16	U	0.43	U	0.17	U	0.17	U	0.18	U	0.8	U	0.23	U	0.15	U	0.17	U	0.18	U	1.3	U	0.56	U
Hexachlorobutadiene	NA	0.093	U	0.29	U	0.097	U	0.27	U	0.11	U	0.1	U	0.11	U	0.49	U	0.14	U	0.095	U	0.1	U	0.11	U	0.77	U	0.35	U
Caprolactam	NA	0.28	U	0.87	U	0.29	U	0.79	U	0.31	U	0.31	U	0.33	U	1.5	U	0.42	U	0.28	U	0.31	U	0.33	U	2.3	U	1	U
4-Chloro-3-methylphenol	NA	0.068	U	0.21	U	0.07	U	0.19	U	0.076	U	0.076	U	0.081	U	0.36	U	0.1	U	0.069	U	0.076	U	0.081	U	0.56	U	0.25	U
2-Methylnaphthalene	NA	3.1		0.2	U	0.067	U	0.18	U	8.6		0.073	U	0.078	U	0.34	U	0.098	U	5.4		0.073	U	0.32	J	0.54	U	0.24	U
Hexachlorocyclopentadiene	NA	0.12	U	0.37	U	0.12	U	0.34	U	0.13	U	0.13	U	0.14	U	0.63	U	0.18	U	0.12	U	0.13	U	0.14	U	0.98	U	0.44	U
2,4,6-Trichlorophenol	NA	0.054	U	0.17	U	0.055	U	0.15	U	0.061	U	0.06	U	0.064	U	0.28	U	0.081	U	0.054	U	0.06	U	0.064	U	0.44	U	0.2	U
2,4,5-Trichlorophenol	NA	0.068	U	0.21	U	0.071	U	0.19	U	0.077	U	0.076	U	0.082	U	0.36	U	0.1	U	0.069	U	0.077	U	0.082	U	0.56	U	0.25	U
1,1-Biphenyl	NA	0.068	U	0.21	U	0.071	U	0.19	U	0.39	J	0.076	U	0.082	U	0.36	U	0.1	U	1.9	J	0.077	U	0.082	U	0.56	U	0.25	U
2-Chloronaphthalene	NA	0.056	U	0.18	U	0.058	U	0.16	U	0.063	U	0.063	U	0.067	U	0.3	U	0.084	U	0.057	U	0.063	U	0.067	U	0.46	U	0.21	U
2-Nitroaniline	NA	0.11	U	0.34	U	0.11	U	0.31	U	0.12	U	0.12	U	0.13	U	0.57	U	0.16	U	0.11	U	0.12	U	0.13	U	0.89	U	0.4	U
Dimethylphthalate	NA	0.067	U	0.21	U	0.07	U	0.19	U	0.076	U	0.075	U	0.08	U	0.36	U	0.1	U	0.068	U	0.076	U	0.081	U	0.55	U	0.25	U
Acenaphthylene	100	0.034	U	0.11	U	0.035	U	0.096	U	1.4	J	0.038	U	1.3	J	0.18	U	0.051	U	0.034	U	0.038	U	2.2	J	0.28	U	0.13	U
2,6-Dinitrotoluene	NA	0.082	U	0.26	U	0.085	U	0.23	U	0.093	U	0.092	U	0.098	U	0.44	U	0.12	U	0.084	U	0.092	U	0.099	U	0.68	U	0.31	U
3-Nitroaniline	NA	0.15	U	0.48	U	0.16	U	0.43	U	0.17	U	0.17	U	0.18	U	0.81	U	0.23	U	0.16	U	0.17	U	0.18	U	1.3	U	0.57	U
Acenaphthene	20	1.3	J	0.16	U	2.3	J	1.4	J	67	D	0.056	U	3.1		14		0.075	U	4.9		0.056	U	0.48	J	5.3	J	0.94	J
2,4-Dinitrophenol	NA	0.12	U	0.39	U	0.13	U	0.35	U	0.14	U	0.14	U	0.15	U	0.65	U	0.18	U	0.12	U	0.14	U	0.15	U	1	U	0.46	U
4-Nitrophenol	NA	0.14	U	0.43	U	0.14	U	0.39	U	0.15	U	0.15	U	0.16	U	0.72	U	0.21	U	0.14	U	0.15	U	0.16	U	1.1	U	0.51	U
Dibenzofuran	7	1.1	J	0.22	U	0.74	J	0.2	U	57	D	0.08	U	0.085	U	0.38	U	0.11	U	5.8		0.08	U	0.086	U	0.59	U	0.27	U
2,4-Dinitrotoluene	NA	0.076	U	0.24	U	0.079	U	0.22	U	0.086	U	0.085	U	0.091	U	0.4	U	0.12	U	0.077	U	0.086	U	0.092	U	0.63	U	0.28	U
Diethylphthalate	NA	0.079	U	0.25	U	0.081	U	0.22	U	0.089	U	0.088	U	0.094	U	0.42	U	0.12	U	0.08	U	0.088	U	0.095	U	0.65	U	0.29	U
4-Chlorophenyl-phenylether	NA	0.088	U	0.28	U	0.091	U	0.25	U	0.099	U	0.098	U	0.11	U	0.46	U	0.13	U	0.089	U	0.099	U	0.11	U	0.72	U	0.33	U
Fluorene	30	1.2	J	0.19	U	1.8	J	0.18	U	50	D	0.069	U	3.8		12	J	0.093	U	8.2		0.07	U	0.075	U	3.4	J	0.23	U
4-Nitroaniline	NA	0.18	U	0.57	U	0.19	U	0.52	U	0.2	U	0.2	U	0.22	U	0.96	U	0.27	U	0.18	U	0.2	U	0.22	U	1.5	U	0.67	U
4,6-Dinitro-2-methylphenol	NA	0.31	U	0.98	U	0.32	U	0.88	U	0.35	U	0.35	U	0.37	U	1.6	U	0.47	U	0.32	U	0.35	U	0.37	U	2.6	U	1.2	U
N-Nitrosodiphenylamine	NA	0.17	U	0.54	U	0.18	U	0.49	U	0.2	U	0.19	U	0.21	U	0.92	U	0.26	U	0.18	U	0.19	U	0.21	U	1.4	U	0.64	U
4-Bromophenyl-phenylether	NA	0.11	U	0.33	U	0.11	U	0.3	U	0.12	U	0.12	U	0.13	U	0.56	U	0.16	U	0.11	U	0.12	U	0.13	U	0.87	U	0.39	U
Hexachlorobenzene	0.33	0.07	U	0.22	U	0.072	U	0.2	U	0.079	U	0.078	U	0.083	U	0.37	U	0.1	U	0.071	U	0.078	U	0.084	U	0.57	U	0.26	U
Atrazine	NA	0.16	U	0.51	U	0.17	U	0.46	U	0.18	U	0.18	U	0.19	U	0.86	U	0.25	U	0.17	U	0.18	U	0.2	U	1.3	U	0.6	U
Pentachlorophenol	0.8	0.26	U	0.82	U	0.27	U	0.74	U	0.3	U	0.29	U	0.31	U	1.4	U	0.39	U	0.27	U	0.29	U	0.31	U	2.2	U	0.97	U
Phenanthrene	100	3		0.23	U	4.4		0.2	U	40	E	0.3	J	9.8		43		0.11	U	16		0.081	U	0.87	J	7.8	J	0.27	U
Anthracene	100	0.75	J	0.24	U	1.1	J	0.22	U	19		0.087	U	5.8		13		0.12	U	2.7		0.087	U	4.1		5.3	J	0.29	U
Carbazole	NA	0.18	U	0.55	U	0.18	U	0.5	U	2.9		0.2	U	0.21	U	0.93	U	0.27	U	4.5		0.2	U	3		1.5	U	0.65	U
Di-n-butylphthalate	NA	0.11	U	0.34	U	0.11	U	0.31	U	0.12	U	0.12	U	0.13	U	0.57	U	0.16	U	0.11	U	0.12	U	0.13	U	0.89	U	0.4	U
Fluoranthene	100	1.8	J	0.18	U	1.5	J	0.16	U	29	E	0.063	U	14		31		0.084	U	3.9		0.063	U	4.3		21		0.21	U
Pyrene	100	1.4	J	0.16	U	1.4	J	0.14	U	22	E	0.056	U	12		27		0.076	U	2.8		0.056	U	3.8		18	J	0.19	U
Butylbenzylphthalate	NA	0.15	U	0.46	U	0.15	U	0.41	U	0.16	U	0.16	U	0.17	U	0.77	U	0.22	U	0.15	U	0.16	U	0.18	U	1.2	U	0.54	U
3,3-Dichlorobenzidine	NA	0.17	U	0.55	U	0.18	U	0.49	U	0.2	U	0.19	U	0.21	U	0.92	U	0.26	U	0.18	U	0.2	U	0.21	U	1.4	U	0.65	U
Benzo(a)anthracene	1	0.65	J	0.17	U	0.76	J	0.16	U	5.6	JD	0.062	U	6.6		31		0.084	U	0.33	J	0.062	U	1.6	J	18	J	0.21	U
Chrysene	1	0.65	J	0.13	U	0.78	J	0.12	U	5	JD	0.048	U	8.6		31		0.065	U	0.29	J	0.048	U	1.8	J	16	J	0.16	U
bis(2-Ethylhexyl)phthalate	NA	2.4		0.74	J	2.5		0.25	U	0.1	U	0.099	U	0.11	U	0.47	U	0.13	U	0.089	U	0.099	U	0.38	J	0.73	U	0.33	U
Di-n-octyl phthalate	NA	0.081	U	0.25	U	0.084	U	0.23	U	0.091	U	0.09	U	0.097	U	0.43	U	0.12	U	0.082	U	0.091	U	0.097	U	0.67	U	0.3	U
Benzo(b)fluoranthene	1	0.88	J	0.52	U	0.33	J	0.47	U	4.2	JD	0.19	U	9.6		57		0.25	U	0.17	U	0.19	U	3.9		33		0.62	U
Benzo(k)fluoranthene	0.8	0.33	J	0.33	U	0.11	U	0.3	U	1.8	JD	0.12	U	2.9		22		0.16	U	0.11	U	0.12	U	0.91	J	13	J	0.39	U
Benzo(a)pyrene	1	0.92	J	0.21	U	0.29	J	0.19	U	4.1	JD	0.076	U	9.1		59		0.1	U	0.069	U	0.076	U	3.5		35		0.25	U
Indeno(1,2,3-cd)pyrene	0.5	0.71	J	0.18	U	0.06	U	0.17	U	3.1	JD	0.065	U	7.5		51		0.088	U	0.059	U	0.066	U	4		28		0.22	U
Dibenz(a,h)anthracene	0.33	0.17	U	0.53	U	0.18	U	0.48	U	0.59	J	0.19	U	1.5	J	12		0.26	U	0.17	U	0.19	U	0.86	J	6.9	J	0.63	U
Benzo(g,h,i)perylene	100	0.63	J	0.52	U	0.17	U	0.47	U	2.5	J	0.19	U	6.3		39		0.25	U	0.17	U	0.19	U	5.1		25		0.62	U

OCA LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Table 2: February-March 2008 Soil Sampling Results
PCB, Pesticides, Cyanide, and Metals

Sample ID	NY375	SBE-1	SBE-1	SBE-1	SBE-2	SBE-2	SBE-3	SBE-3	SBE-4	SBE-4	SBE-5	SBE-6	SBE-7	SBE-8	SBE-8	SBE-9	SBE-9
Sample Depth (ft bg)		6-7	12.5-13.5	22-23	6-7	11-12	7-8	11-12	6.5-7.5	11-12	7-7.5	10-10.5	6.5-7	8.5-9.5	10-11	7-8	11-12
Lab Sample ID	375.6	Z1635-18	Z1635-19	Z1636-01	Z1635-16	Z1635-17	Z1644-07	Z1644-08	Z1644-05	Z1644-06	Z2238-12	Z2238-13	Z2238-14	Z1636-04	Z1636-05	Z1644-09	Z1644-10
Sampling Date	UUSCO	2/20/2008	2/20/2008	2/20/2008	2/20/2008	2/20/2008	2/21/2008	2/21/2008	2/21/2008	2/21/2008	4/1/2008	4/1/2008	4/1/2008	2/20/2008	2/20/2008	2/21/2008	2/21/2008
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pesticides																	
alpha-BHC	0.02	0.00056 U	0.00051 U	0.00048 U	0.00056 U	0.00055 U	0.00016 U	0.00052 U	0.00017 U	0.00054 U	0.00017 U	0.00016 U	0.00016 U	0.0024 U	0.0013 U	0.00017 U	0.00058 U
beta-BHC	0.036	0.00073 U	0.00065 U	0.00062 U	0.00072 U	0.0007 U	0.00021 U	0.00067 U	0.00022 U	0.00069 U	0.00022 U	0.00021 U	0.00021 U	0.003 U	0.0017 U	0.00022 U	0.00075 U
delta-BHC	0.04	0.00073 U	0.00065 U	0.00062 U	0.00072 U	0.0007 U	0.00021 U	0.00067 U	0.00022 U	0.00069 U	0.00022 U	0.00021 U	0.00021 U	0.003 U	0.0017 U	0.00022 U	0.00075 U
gamma-BHC	0.1	0.00064 U	0.00058 U	0.00055 U	0.00064 U	0.00063 U	0.00019 U	0.00059 U	0.0002 U	0.00061 U	0.00019 U	0.00019 U	0.00018 U	0.0027 U	0.0015 U	0.00019 U	0.00067 U
Heptachlor	0.042	0.0006 U	0.00054 U	0.00051 U	0.0006 U	0.00059 U	0.00018 U	0.00055 U	0.00018 U	0.00057 U	0.00018 U	0.00017 U	0.00017 U	0.0025 U	0.0014 U	0.00018 U	0.00062 U
Aldrin	0.005	0.00064 U	0.00058 U	0.00055 U	0.00064 U	0.00063 U	0.00019 U	0.00059 U	0.0002 U	0.00061 U	0.00019 U	0.00019 U	0.00018 U	0.0027 U	0.0015 U	0.00019 U	0.00067 U
Heptachlor epoxide	NA	0.00077 U	0.00069 U	0.00065 U	0.00076 U	0.00074 U	0.00022 U	0.0007 U	0.00023 U	0.00073 U	0.00023 U	0.00022 U	0.00022 U	0.0032 U	0.0018 U	0.00023 U	0.00079 U
Endosulfan I	2.4	0.00077 U	0.00069 U	0.00065 U	0.00076 U	0.00074 U	0.00022 U	0.0007 U	0.00023 U	0.00073 U	0.00023 U	0.00022 U	0.00022 U	0.0032 U	0.0018 U	0.00023 U	0.00079 U
Dieldrin	0.005	0.00077 U	0.00069 U	0.00065 U	0.00076 U	0.00074 U	0.00022 U	0.0007 U	0.00023 U	0.00073 U	0.00023 U	0.00022 U	0.00022 U	0.0032 U	0.0018 U	0.00023 U	0.00079 U
4,4-DDE	0.0033	0.00077 U	0.00069 U	0.00065 U	0.00076 U	0.00074 U	0.00022 U	0.0007 U	0.00023 U	0.00073 U	0.00023 U	0.00022 U	0.00022 U	0.0032 U	0.0018 U	0.00023 U	0.00079 U
Endrin	0.014	0.0023 U	0.0021 U	0.0019 U	0.0023 U	0.0022 U	0.00067 U	0.0021 U	0.0007 U	0.0022 U	0.00069 U	0.00066 U	0.00065 U	0.0097 U	0.0054 U	0.00069 U	0.0024 U
Endosulfan II	2.4	0.00081 U	0.00072 U	0.00068 U	0.0008 U	0.00078 U	0.00023 U	0.00074 U	0.00025 U	0.00077 U	0.00024 U	0.00023 U	0.00023 U	0.0034 U	0.0019 U	0.00024 U	0.00083 U
4,4-DDD	0.0033	0.0011 U	0.00098 U	0.00092 U	0.0011 U	0.0011 U	0.00032 U	0.001 U	0.00033 U	0.001 U	0.00032 U	0.00031 U	0.00031 U	0.0046 U	0.0026 U	0.00033 U	0.0011 U
Endosulfan Sulfate	2.4	0.00093 U	0.00083 U	0.00079 U	0.00092 U	0.0009 U	0.00027 U	0.00085 U	0.00028 U	0.00088 U	0.00028 U	0.00027 U	0.00026 U	0.0039 U	0.0022 U	0.00028 U	0.00096 U
4,4-DDT	0.0033	0.00064 U	0.00058 U	0.00055 U	0.00064 U	0.00063 U	0.00019 U	0.00059 U	0.0002 U	0.00061 U	0.00019 U	0.00019 U	0.00018 U	0.0027 U	0.0015 U	0.00019 U	0.00067 U
Methoxychlor	NA	0.00085 U	0.00076 U	0.00072 U	0.00084 U	0.00082 U	0.00025 U	0.00078 U	0.00026 U	0.0008 U	0.00025 U	0.00024 U	0.00024 U	0.0036 U	0.002 U	0.00025 U	0.00087 U
Endrin ketone	NA	0.0019 U	0.0017 U	0.0016 U	0.0019 U	0.0018 U	0.00055 U	0.0017 U	0.00058 U	0.0018 U	0.00057 U	0.00055 U	0.00054 U	0.008 U	0.0045 U	0.00057 U	0.002 U
Endrin aldehyde	NA	0.00081 U	0.00072 U	0.00068 U	0.0008 U	0.00078 U	0.00023 U	0.00074 U	0.00025 U	0.00077 U	0.00024 U	0.00023 U	0.00023 U	0.0034 U	0.0019 U	0.00024 U	0.00083 U
alpha-Chlordane	0.094	0.00077 U	0.00069 U	0.00065 U	0.00076 U	0.00074 U	0.00022 U	0.0007 U	0.00023 U	0.00073 U	0.00023 U	0.00022 U	0.00022 U	0.0032 U	0.0018 U	0.00023 U	0.00079 U
gamma-Chlordane	NA	0.00073 U	0.00065 U	0.00062 U	0.00072 U	0.0007 U	0.00021 U	0.00067 U	0.00022 U	0.00069 U	0.00022 U	0.00021 U	0.00021 U	0.003 U	0.0017 U	0.00022 U	0.00075 U
Toxaphene	NA	0.014 U	0.013 U	0.012 U	0.014 U	0.014 U	0.0042 U	0.013 U	0.0044 U	0.014 U	0.0043 U	0.0042 U	0.0041 U	0.061 U	0.034 U	0.0043 U	0.015 U
PCB																	
Aroclor-1016	0.1	0.0034 U	0.0031 U	0.0029 U	0.0034 U	0.0033 U	0.003 U	0.0094 U	0.0031 U	0.0097 U	0.0045 U	0.0043 U	0.0043 U	0.0029 U	0.0082 U	0.0031 U	0.011 U
Aroclor-1221	0.1	0.0053 U	0.0048 U	0.0045 U	0.0053 U	0.0052 U	0.0046 U	0.015 U	0.0049 U	0.015 U	0.0055 U	0.0053 U	0.0052 U	0.0045 U	0.013 U	0.0048 U	0.016 U
Aroclor-1232	0.1	0.0079 U	0.0072 U	0.0068 U	0.008 U	0.0077 U	0.0069 U	0.022 U	0.0073 U	0.023 U	0.0058 U	0.0056 U	0.0055 U	0.0067 U	0.019 U	0.0072 U	0.025 U
Aroclor-1242	0.1	0.0071 U	0.0064 U	0.006 U	0.0071 U	0.0069 U	0.0062 U	0.019 U	0.0065 U	0.02 U	0.0025 U	0.0024 U	0.0024 U	0.0059 U	0.017 U	0.0064 U	0.022 U
Aroclor-1248	0.1	0.0034 U	0.0031 U	0.0029 U	0.0034 U	0.0033 U	0.003 U	0.0094 U	0.0031 U	0.0098 U	0.0055 U	0.0053 U	0.0053 U	0.0029 U	0.0082 U	0.0031 U	0.011 U
Aroclor-1254	0.1	0.0022 U	0.002 U	0.0019 U	0.0022 U	0.0022 U	0.0019 U	0.0061 U	0.002 U	0.0064 U	0.0056 U	0.0054 U	0.0054 U	0.0019 U	0.0053 U	0.002 U	0.0069 U
Aroclor-1260	0.1	0.0057 U	0.1	0.0048 U	0.0057 U	0.032	0.2	0.016 U	0.0052 U	0.016 U	0.0045 U	0.0043 U	0.0043 U	0.0048 U	0.014 U	0.0051 U	0.018 U
Metals																	
Aluminum	NA	8980	9770	11000	11200	9800	4170	4640	3360	2280	6430	5680	7680	7130	9430	3310	9460
Antimony	NA	0.305 U	0.305 U	0.26 U	0.308 U	0.299 U	0.266 U	0.831 U	0.28 U	0.879 U	0.272 U	0.262 U	0.261 U	0.258 U	0.729 U	0.275 U	0.956 U
Arsenic	13	2.6	2.6	4.01	3.6	0.632 J	2.63	2.82	6.65	2.59	5.24	3.34	3.25	3.4	1.65 J	3.82	8.33
Barium	350	62.4	62.4	39.9	66.7	8.89	29.2	28.9	32.1	10.8 J	57.3	77.2	62.7	58.4	39.7	58.5	42.7
Beryllium	7.2	0.385	0.385	0.472	0.43	0.446	0.153 J	0.222 J	0.246 J	0.088 J	0.008 U	0.008 U	0.008 U	0.46	0.429 J	0.202 J	0.534 J
Cadmium	2.5	0.054 U	0.054 U	0.046 U	0.172 J	0.053 U	0.047 U	0.147 U	0.049 U	0.155 U	0.048 U	0.046 U	0.046 U	0.046 U	0.129 U	0.049 U	0.169 U
Calcium	NA	62100	62100	809	57000	1760	1200	4950	4850	4970	12300	3950	4170	3150	9210	3090	9750
Chromium	NA	10.9	15.9	11.2	13.1	12.4	5.85	9.11	6.57	6.01	18.5	11.8	14.1	16.1	15	6.8	16.1
Cobalt	NA	5.2	6.27	4.95	4.23	2.58	5.11	3.72	5.39	0.587 J	28	7.02	6.66	9.07	2.93 J	3.47	6.12
Copper	50	10.5	12.8	10.8	16.7	5.45	17.7	8.77	30.2	3.97	19.8	28.3	21.5	32.8	8.34	17.9	12.1
Iron	NA	14900	14900	33300	9420	11600	19800	6120	28000	4110	21600	13500	15500	13500	12400	8960	16200
Lead	63	11.5	11.5	9.46	49.1	7.91	44	45.1	35	16.7	58.6	302	45.3	79.4	16.5	94.3	54.6
Magnesium	NA	3240	3240	1140	3960	2200	781	1020	563	1470	3090	2200	2480	2410	4010	847	2720
Manganese	1600	300	300	197	305	61.5	167	116	336	80.8	480	247	228	142	175	115	318
Mercury	0.18	1.6	1.6	0.008 J	0.184	0.004 U	0.006 J	0.012 U	0.004 U	0.062	0.113	0.873	0.091	0.112	0.01 U	0.573	0.066
Nickel	30	7.93	15.2	9.14	8.78	7.86	11.8	8.05	12	2.14 J	21.6	17.3	15.7	24.6	13.7	8.75	14.1
Potassium	NA	2720	2720	2550	2720	817	596	727	372	538	1350	1160	1740	2110	2760	500	1670
Selenium	3.9	0.161 U	0.161 U	0.138 U	0.163 U	0.159 U	0.141 U	0.44 U	0.148 U	0.465 U	0.144 U	0.139 U	0.138 U	0.137 U	0.386 U	0.146 U	0.506 U
Silver	2	0.161 U	0.161 U	0.138 U	0.163 U	0.159 U	0.141 U	0.44 U	0.148 U	0.465 U	0.144 U	0.139 U	0.138 U	0.137 U	0.386 U	0.146 U	0.506 U
Sodium	NA	744	744	127	1170	542	103	159 J	109	291	209	168	147 J	212	1180	118	863
Thallium	NA	1.69 U	1.69 U	1.45 U	1.71 U	1.66 U	1.48 U	4.62 U	1.56 U	4.88 U	1.51 U	1.46 U	1.45 U	1.43 U	4.05 U	1.53 U	5.32 U
Vanadium	NA	18.7	19.7	14.7	18.7	18.1	8.75	17.3	13.2	12.5	18.9	16.3	20.5	22.1	23.2	10.4	29.3
Zinc	109	24.2	35.4	84.8	72.1	26	96.7	30.2	19	8.78	31.2	149	42.6	195	34.5	92.5	47.2
Cyanide																	
Cyanide	27	0.677 U	0.608 U	0.574 U	0.679 U	0.661 U	0.592 U	1.85 U	0.617 U	1.94 U	0.601 U	0.579 U	0.577 U	0.569 U	1.61 U	0.608 U	2.11 U

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Table 2: February-March 2008 Soil Sampling Results
PCB, Pesticides, Cyanide, and Metals

Sample ID	NY375	SBE-10	SBE-10	SBE-11	SBE-11	SBE-12	SBE-12	SBE-13	SBE-14	SBE-14	SBE-15	SBE-15	FD-2 (SBE-15)	SBE-16	SBE-16	SBE-17
Sample Depth (ft bg)		6-7	32.5-33.5	6.5-7.5	11-12	6.5-7.5	10-11	7-7.5	6.5-7.5	30-31	6.5-7.5	11-12	11-12	7-8	11-12	5.5-6.5
Lab Sample ID	375.6	Z1644-01	Z1644-02	Z1635-12	Z1635-13	Z1636-02	Z1636-03	Z2238-15	Z1679-09	Z1679-10	Z1635-14	Z1635-15	Z1644-13	Z1590-01	Z1590-02	Z1590-03
Sampling Date	UUSCO	2/21/2008	2/21/2008	2/20/2008	2/20/2008	2/20/2008	2/20/2008	4/1/2008	2/25/2008	2/25/2008	2/20/2008	2/20/2008	2/21/2008	2/15/2008	2/15/2008	2/15/2008
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Pesticides			U													
alpha-BHC	0.02	0.00017 U	0.00018 U	0.00051 U	0.0011 U	0.0057 U	0.0049 U	0.00018 U	0.00091 U	0.00019 U	0.00056 U	0.00054 U	0.00018 U	0.0005 U	0.0013 U	0.00059 U
beta-BHC	0.036	0.00022 U	0.00023 U	0.00065 U	0.0014 U	0.0073 U	0.0063 U	0.00023 U	0.0012 U	0.00024 U	0.00071 U	0.0007 U	0.00023 U	0.00064 U	0.0017 U	0.00076 U
delta-BHC	0.04	0.00022 U	0.00023 U	0.00065 U	0.0014 U	0.0073 U	0.0063 U	0.00023 U	0.0012 U	0.00024 U	0.00071 U	0.0007 U	0.00023 U	0.00064 U	0.0017 U	0.00076 U
gamma-BHC	0.1	0.00019 U	0.00021 U	0.00058 U	0.0013 U	0.0065 U	0.0056 U	0.0002 U	0.001 U	0.00021 U	0.00063 U	0.00062 U	0.00021 U	0.00057 U	0.0015 U	0.00068 U
Heptachlor	0.042	0.00018 U	0.00019 U	0.00054 U	0.0012 U	0.0061 U	0.0053 U	0.00019 U	0.00097 U	0.0002 U	0.0006 U	0.00058 U	0.00019 U	0.00053 U	0.0014 U	0.00064 U
Aldrin	0.005	0.00019 U	0.00021 U	0.00058 U	0.0013 U	0.0065 U	0.0056 U	0.0002 U	0.001 U	0.00021 U	0.00063 U	0.00062 U	0.00021 U	0.00057 U	0.0015 U	0.00068 U
Heptachlor epoxide	NA	0.00023 U	0.00025	0.00069 U	0.0015 U	0.0077 U	0.0067 U	0.00024 U	0.0012 U	0.00025 U	0.00075 U	0.00074 U	0.00025 U	0.00068 U	0.0018 U	0.00081 U
Endosulfan I	2.4	0.00023 U	0.00025 U	0.00069 U	0.0015 U	0.0077 U	0.0067 U	0.00024 U	0.0012 U	0.00025 U	0.00075 U	0.00074 U	0.00025 U	0.00068 U	0.0018 U	0.00081 U
Dieldrin	0.005	0.00023 U	0.00025 U	0.00069 U	0.0015 U	0.0077 U	0.0067 U	0.00024 U	0.0012 U	0.00025 U	0.00075 U	0.00074 U	0.00025 U	0.00068 U	0.0018 U	0.00081 U
4,4-DDE	0.0033	0.00023 U	0.00025 U	0.00069 U	0.0015 U	0.0077 U	0.0067 U	0.00024 U	0.0012 U	0.00025 U	0.00075 U	0.00074 U	**0.0078**	0.00068 U	0.0018 U	0.00081 U
Endrin	0.014	0.00069 U	0.00074 U	0.0021 U	0.0045 U	0.023 U	0.02 U	0.00072 U	0.0037 U	0.00076 U	0.0023 U	0.0022 U	0.00074 U	0.002 U	0.0053 U	0.0024 U
Endosulfan II	2.4	0.00024 U	0.00026 U	0.00072 U	0.0016 U	0.0081 U	0.007 U	0.00025 U	0.0013 U	0.00027 U	0.00079 U	0.00078 U	0.00026 U	0.00071 U	0.0019 U	0.00085 U
4,4-DDD	0.0033	0.00032 U	0.00035 U	0.00097 U	0.0021 U	0.011 U	0.0095 U	0.00034 U	0.0018 U	0.00036 U	0.0011 U	0.001 U	0.00035 U	**0.061**	0.0025 U	**3.3** D
Endosulfan Sulfate	2.4	0.00028 U	0.0003 U	0.00083 U	0.0018 U	0.0094 U	0.0081 U	0.00029 U	0.0015 U	0.00031 U	0.00091 U	0.00089 U	0.0003 U	0.00082 U	0.0021 U	0.00098 U
4,4-DDT	0.0033	0.00019 U	0.00021 U	0.00058 U	0.0013 U	0.0065 U	0.0056 U	0.0002 U	0.001 U	0.00021 U	0.00063 U	0.00062 U	**0.0076**	0.00057 U	0.0015 U	0.00068 U
Methoxychlor	NA	0.00025 U	0.00027 U	0.00076 U	0.0016 U	0.0085 U	0.0074 U	0.00027 U	0.0014 U	0.00028 U	0.00083 U	0.00081 U	0.00027 U	0.00075 U	0.002 U	0.00089 U
Endrin ketone	NA	0.00057 U	0.00061 U	0.0017 U	0.0037 U	0.019 U	0.017 U	0.00059 U	0.003 U	0.00063 U	0.0019 U	0.0018 U	0.00061 U	0.0017 U	0.0044 U	0.002 U
Endrin aldehyde	NA	0.00024 U	0.00026 U	0.00072 U	0.0016 U	0.0081 U	0.007 U	0.00025 U	0.0013 U	0.00027 U	0.00079 U	0.00078 U	0.00026 U	0.00071 U	0.0019 U	0.00085 U
alpha-Chlordane	0.094	0.00023 U	0.00025 U	0.00069 U	0.0015 U	0.0077 U	0.0067 U	0.00024 U	0.0012 U	0.00025 U	0.00075 U	0.00074 U	0.00025 U	0.00068 U	0.0018 U	0.00081 U
gamma-Chlordane	NA	0.00022 U	0.00023 U	0.00065 U	0.0014 U	0.0073 U	0.0063 U	0.00023 U	0.0012 U	0.00024 U	0.00071 U	0.0007 U	0.00023 U	0.00064 U	0.0017 U	0.00076 U
Toxaphene	NA	0.0043 U	0.0046 U	0.013 U	0.028 U	0.15 U	0.13 U	0.0045 U	0.023 U	0.0048 U	0.014 U	0.014 U	0.0046 U	0.013 U	0.033 U	0.015 U
PCB			U													
Aroclor-1016	0.1	0.0031 U	0.0033 U	0.0031 U	0.0067 U	0.0035 U	0.006 U	**0.0047** U	0.0033 U	0.0034 U	0.0034 U	0.0033 U	0.0033 U	0.003 U	0.0079 U	0.0036 U
Aroclor-1221	0.1	0.0047 U	0.0051 U	0.0048 U	0.01 U	0.0054 U	0.0094 U	0.0058 U	0.0051 U	0.0052 U	0.0052 U	0.0051 U	0.0051 U	0.0047 U	0.012 U	0.0056 U
Aroclor-1232	0.1	0.0071 U	0.0076 U	0.0072 U	0.015 U	0.0081 U	0.014 U	0.006 U	0.0076 U	0.0078 U	0.0078 U	0.0076 U	0.0076 U	0.0071 U	0.018 U	0.0083 U
Aroclor-1242	0.1	0.0063 U	0.0068 U	0.0064 U	0.014 U	0.0072 U	0.012 U	0.0027 U	0.0068 U	0.007 U	0.007 U	0.0068 U	0.0068 U	0.0063 U	0.016 U	0.0074 U
Aroclor-1248	0.1	0.0031 U	0.0033 U	0.0031 U	0.0067 U	0.0035 U	0.0061 U	0.0058 U	0.0033 U	0.0034 U	0.0034 U	0.0033 U	0.0033 U	0.0031 U	0.0079 U	0.0036 U
Aroclor-1254	0.1	0.002 U	0.0022 U	0.002 U	0.0044 U	0.0023 U	0.0039 U	0.0059 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.0022 U	0.002 U	0.0052 U	0.0023 U
Aroclor-1260	0.1	0.0051 U	0.0055	0.0051 U	0.011 U	0.0058 U	0.01 U	0.0047 U	0.0055 U	0.0056 U	0.0056 U	0.0055 U	0.0055 U	0.0051 U	0.013 U	0.006 U
Metals			U													
Aluminum	NA	3390	6890 U	6480	4540	8150	8710	5200	5750	15500	6480	10900	8300	5150	8960	4640
Antimony	NA	0.273 U	0.289 U	0.276 U	0.598	0.309 U	0.535 U	2.57	0.294 U	0.301 U	0.276 U	0.301 U	0.296 U	0.273 U	0.71 U	0.324 U
Arsenic	13	3.16	1.47 U	2.7	0.867 U	4.2	2.75	9.94	10.8	3.31	2.7	6.89	1.44	3.83	1.58 J	3.31
Barium	350	44.5	58.9 U	39.7	13.4 J	98.7	61.3	167	79.3	163	39.7	122	78.3	44.5	19	109
Beryllium	7.2	0.18 J	0.336 U	0.378	0.357	0.398	0.452 J	0.008 U	0.392	0.794	0.378	0.505	0.398	0.258	0.46 J	0.22 J
Cadmium	2.5	0.048 U	0.051 U	0.049 U	0.106 J	0.055 U	0.094 U	0.05 U	0.052 U	0.053 U	0.049 U	0.053 U	0.052 U	0.048 U	0.125 U	0.057 U
Calcium	NA	2760	12700	4000	7880 U	20500	10800	2640	11400	26200	4000	14400	15100	5780	5970	37100
Chromium	NA	9.16	13.6	13.9	9.39	13.7	15.2	20.4	20.6	35.4	13.9	17.9	18.6	10.1	17.6	8.65
Cobalt	NA	3.24	6.02 U	5.35	2.82	6.21	3.91	9.39	7.59	15	5.35	7.1	7.63	7.83	5.43	4.76
Copper	50	**60.2**	13.3	15.2	9.43	34.1	13.4	**358**	39.1	29.4	15.2	32.3	17.4	39.7	11.9	**112**
Iron	NA	9730	12200	16200	9170	16700	10600	11200	21500	27500	16200	20900	13700	17800	17100	21100
Lead	63	**78.8**	5.32	35.7	7.31	**107**	51.7	**974**	**174**	10.2	35.7	**942**	5.62	**121**	13.6	**194**
Magnesium	NA	829	5910 U	2070	3920	2450	4620	1650	3000	17100	2070	3290	8580	2260	5590	10500
Manganese	1600	99.3	307	150	114	307	170	83.9	227	658	150	217	320	236	271	460
Mercury	0.18	**0.39**	0.018	**0.301**	0.033	**0.649**	0.052	**2.9**	**0.329**	0.008 J	**0.301**	**0.194**	0.016	0.041	0.01 U	**0.301**
Nickel	30	7.53	14	14.3	12.5	16.9	14.1	16.1	19.3	**31.5**	14.3	20.7	16.6	15.4	17.9	11.4
Potassium	NA	475	2110	951	1050	1150	2340	758	1080	5270	951	1070	3230	1320	1970	827
Selenium	3.9	0.144 U	0.153	0.146 U	0.322	0.164 U	0.327 J	0.15 U	3.53	0.159 U	0.146 U	0.159 U	0.156 U	0.144 U	0.376 U	0.172 U
Silver	2	0.144 U	0.153	0.146 U	0.317 J	0.164 U	0.283 U	0.15 U	0.156 U	0.159 U	0.146 U	0.159 U	0.156 U	0.144 U	0.376 U	0.172 U
Sodium	NA	73.6 J	283	115	1220 U	209	1390	200	164 J	893	115	277	437	64.8 J	1370	244
Thallium	NA	1.52 U	1.61	1.54 U	3.32	1.72 U	2.97 U	1.57 U	1.63 U	1.67 U	1.54 U	1.67 U	1.64 U	1.52 U	3.95 U	1.8 U
Vanadium	NA	9.32	17.1	17.4	24.4 U	20.9	26.5	18.7	27.5	46.8	17.4	19.9	25.2	15.7	34.2	11
Zinc	109	52.2	28.4	40.5	14.6	66.7	46.7	**218**	64.8	76.4	40.5	**150**	37.4	32.9	41.8	69.5
Cyanide																
Cyanide	27	0.605 U	0.646 U	0.613 U	1.32	0.682 U	1.19 U	1.31	0.65 U	0.66 U	0.663 U	0.653 U	0.652 U	0.602 U	1.58 U	3.93

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Table 2: February-March 2008 Soil Sampling Results
PCB, Pesticides, Cyanide, and Metals

Sample ID	NY375	SBE-17		SBE-17		SBE-18		SBE-18		SBE-19		SBE-19		SBE-RCRA-1		SBE-RCRA-1		SBE-RCRA-2		SBE-RCRA-2		SBE-RCRA-2		SBE-RCRA-3		SBE-RCRA-3		SBE-RCRA-4		FD-1 (SBE-RCRA-4)		SBE-RCRA-4	
Sample Depth (ft bg)		7.5-8.5		11-12		6.5-7.5		11-12		7-8		11-12		6-7		11-12		6.5-7.5		8-9		11.5-12		5.5-6.5		30.5-31.5		6-7		6-7		11-12	
Lab Sample ID	375.6	Z1590-04		Z1590-05		Z1635-01		Z1635-02		Z1635-03		Z1635-04		Z1635-10		Z1635-11		Z1635-07		Z1635-08		Z1635-09		Z1644-03		Z1644-04		Z1635-05		Z1636-06		Z1635-06	
Sampling Date	UUSCO	2/15/2008		2/15/2008		2/19/2008		2/19/2008		2/19/2008		2/19/2008		2/20/2008		2/20/2008		2/19/2008		2/19/2008		2/19/2008		2/21/2008		2/21/2008		2/19/2008		2/20/2008		2/19/2008	
Units	mg/kg	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Pesticides																											U						
alpha-BHC	0.02	0.00051	U	0.0012	U	0.00049	U	0.0015	U	0.00051	U	0.0014	U	0.00056	U	0.00055	U	0.00058	U	0.00052	U	0.00074	U	0.00017	U	0.00019	U	0.0006	U	0.0048	U	0.0018	U
beta-BHC	0.036	0.00065	U	0.0016	U	0.00063	U	0.002	U	0.00065	U	0.0018	U	0.00072	U	0.0007	U	0.00074	U	0.00067	U	0.00095	U	0.00021	U	0.00024	U	0.00077	U	0.0062	U	0.0023	U
delta-BHC	0.04	0.00065	U	0.0016	U	0.00063	U	0.002	U	0.00065	U	0.0018	U	0.00072	U	0.0007	U	0.00074	U	0.00067	U	0.00095	U	0.00021	U	0.00024	U	0.00077	U	0.0062	U	0.0023	U
gamma-BHC	0.1	0.00058	U	0.0014	U	0.00056	U	0.0018	U	0.00058	U	0.0016	U	0.00064	U	0.00063	U	0.00066	U	0.00059	U	0.00084	U	0.00019	U	0.00021	U	0.00068	U	0.0055	U	0.0021	U
Heptachlor	0.042	0.00054	U	0.0013	U	0.00052	U	0.0017	U	0.00054	U	0.0015	U	0.0006	U	0.00059	U	0.00062	U	0.00056	U	0.00079	U	0.00018	U	0.0002	U	0.00064	U	0.0052	U	0.0019	U
Aldrin	0.005	0.00058	U	0.0014	U	0.00056	U	0.0018	U	0.00058	U	0.0016	U	0.00064	U	0.00063	U	0.00066	U	0.00059	U	0.00084	U	0.00019	U	0.00021	U	0.00068	U	0.0055	U	0.0021	U
Heptachlor epoxide	NA	0.00069	U	0.0017	U	0.00066	U	0.0021	U	0.00069	U	0.0019	U	0.00076	U	0.00074	U	0.00079	U	0.0007	U	0.001	U	0.00023	U	0.00025		0.00081	U	0.0066	U	0.0024	U
Endosulfan I	2.4	0.00069	U	0.0017	U	0.00066	U	0.0021	U	0.00069	U	0.0019	U	0.00076	U	0.00074	U	0.00079	U	0.0007	U	0.001	U	0.00023	U	0.00025	U	0.00081	U	0.0066	U	0.0024	U
Dieldrin	0.005	0.00069	U	0.0017	U	0.00066	U	0.0021	U	0.00069	U	0.0019	U	0.00076	U	0.00074	U	0.00079	U	0.0007	U	0.001	U	0.00023	U	0.00025	U	0.00081	U	0.0066	U	0.0024	U
4,4-DDE	0.0033	0.00069	U	0.0017	U	0.00066	U	0.0021	U	0.00069	U	0.0019	U	0.00076	U	0.00074	U	0.00079	U	0.0007	U	0.001	U	0.00023	U	0.00025	U	0.00081	U	0.0066	U	0.0024	U
Endrin	0.014	0.0021	U	0.005	U	0.002	U	0.0063	U	0.0021	U	0.0056	U	0.0023	U	0.0022	U	0.0024	U	0.0021	U	0.003	U	0.00068	U	0.00076	U	0.0024	U	0.02	U	0.0073	U
Endosulfan II	2.4	0.00072	U	0.0017	U	0.0007	U	0.0022	U	0.00072	U	0.002	U	0.0008	U	0.00078	U	0.00083	U	0.00074	U	0.0011	U	0.00024	U	0.00027	U	0.00085	U	0.0069	U	0.0026	U
4,4-DDD	0.0033	0.31	D	0.043		0.00094	U	0.037		0.00098	U	0.0027	U	0.0011	U	0.0011	U	0.0011	U	0.001	U	0.0014	U	0.00032	U	0.00036	U	0.0012	U	0.0093	U	0.0035	U
Endosulfan Sulfate	2.4	0.00083	U	0.002	U	0.0008	U	0.0025	U	0.00083	U	0.0023	U	0.00091	U	0.0009	U	0.00095	U	0.00085	U	0.0012	U	0.00027	U	0.00031	U	0.00098	U	0.0079	U	0.003	U
4,4-DDT	0.0033	0.00058	U	0.0014	U	0.00056	U	0.0018	U	0.00058	U	0.0016	U	0.00064	U	0.00063	U	0.00066	U	0.00059	U	0.00084	U	0.00019	U	0.00021	U	0.00068	U	0.0055	U	0.0021	U
Methoxychlor	NA	0.00076	U	0.0018	U	0.00073	U	0.0023	U	0.00076	U	0.0021	U	0.00083	U	0.00082	U	0.00087	U	0.00078	U	0.0011	U	0.00025	U	0.00028	U	0.00089	U	0.0073	U	0.0027	U
Endrin ketone	NA	0.0017	U	0.0041	U	0.0016	U	0.0052	U	0.0017	U	0.0047	U	0.0019	U	0.0018	U	0.0019	U	0.0017	U	0.0025	U	0.00056	U	0.00062	U	0.002	U	0.016	U	0.006	U
Endrin aldehyde	NA	0.00072	U	0.0017	U	0.0007	U	0.0022	U	0.00072	U	0.002	U	0.0008	U	0.00078	U	0.00083	U	0.00074	U	0.0011	U	0.00024	U	0.00027	U	0.00085	U	0.0069	U	0.0026	U
alpha-Chlordane	0.094	0.00069	U	0.0017	U	0.00066	U	0.0021	U	0.00069	U	0.0019	U	0.00076	U	0.00074	U	0.00079	U	0.0007	U	0.001	U	0.00023	U	0.00025	U	0.00081	U	0.0066	U	0.0024	U
gamma-Chlordane	NA	0.00065	U	0.0016	U	0.00063	U	0.002	U	0.00065	U	0.0018	U	0.00072	U	0.0007	U	0.00074	U	0.00067	U	0.00095	U	0.00021	U	0.00024	U	0.00077	U	0.0062	U	0.0023	U
Toxaphene	NA	0.013	U	0.031	U	0.012	U	0.04	U	0.013	U	0.035	U	0.014	U	0.014	U	0.015	U	0.013	U	0.019	U	0.0043	U	0.0048	U	0.015	U	0.12	U	0.046	U
PCB																											U						
Aroclor-1016	0.1	0.0031	U	0.0074	U	0.003	U	0.0094	U	0.0031	U	0.0084	U	0.0034	U	0.0033	U	0.0036	U	0.0032	U	0.0045	U	0.003	U	0.0034	U	0.0036	U	0.003	U	0.011	U
Aroclor-1221	0.1	0.0048	U	0.012	U	0.0046	U	0.015	U	0.0048	U	0.013	U	0.0052	U	0.0052	U	0.0055	U	0.0049	U	0.007	U	0.0047	U	0.0052	U	0.0056	U	0.0046	U	0.017	U
Aroclor-1232	0.1	0.0071	U	0.017	U	0.0069	U	0.022	U	0.0072	U	0.02	U	0.0078	U	0.0077	U	0.0083	U	0.0074	U	0.011	U	0.007	U	0.0078	U	0.0084	U	0.0069	U	0.026	U
Aroclor-1242	0.1	0.0064	U	0.015	U	0.0061	U	0.019	U	0.0064	U	0.017	U	0.007	U	0.0069	U	0.0074	U	0.0065	U	0.0093	U	0.0062	U	0.007	U	0.0075	U	0.0061	U	0.023	U
Aroclor-1248	0.1	0.0031	U	0.0075	U	0.003	U	0.0094	U	0.0031	U	0.0085	U	0.0034	U	0.0034	U	0.0036	U	0.0032	U	0.0045	U	0.003	U	0.0034	U	0.0036	U	0.003	U	0.011	U
Aroclor-1254	0.1	0.002	U	0.0049	U	0.0019	U	0.0061	U	0.002	U	0.0055	U	0.0022	U	0.0022	U	0.0023	U	0.0021	U	0.003	U	0.002	U	0.0022	U	1.1	E	0.0019	U	0.0072	U
Aroclor-1260	0.1	0.0051	U	0.012	U	0.0049	U	0.016	U	0.0051	U	0.014	U	0.0056	U	0.0055	U	0.0059	U	0.0053	U	0.0075	U	0.005	U	0.0056		0.006	U	0.0049	U	0.018	U
Metals																																	
Aluminum	NA	3030		10300		5330		4780		5850		6630		4110		1770		2360		3330		3100		7970		9060	U	1330		5560		8060	
Antimony	NA	0.274	U	0.669	U	0.268	U	0.84	U	0.274	U	0.768	U	0.303	U	0.295	U	0.316	U	0.283	U	0.408	U	0.27	U	0.301	U	0.325	U	0.267	U	22.5	
Arsenic	13	2.83		1.13	J	5.19		2.66		1.97		1.16	J	4.66		2.41		19		3.56		2.97		1.82		1.62	U	6.56		7.25		5.39	
Barium	350	88.1		25.8		37.2		14.6		27.7		21.6		63.8		19.7		123		36		22.8		23.6		90.1	U	36		99.2		21.4	
Beryllium	7.2	0.171	J	0.576	J	0.277		0.289	J	0.26		0.305	J	0.215	J	0.1	J	0.264	J	0.192	J	0.133	J	0.267		0.39	U	0.136	J	0.342		0.345	J
Cadmium	2.5	0.048	U	0.118	U	0.047	U	0.148	U	0.048	U	0.136	U	0.053	U	0.052	U	0.364	J	0.05	U	0.072	U	0.048	U	0.053	U	0.057	U	0.047	U	0.171	U
Calcium	NA	6510		4170		892		3800		639		3440		1210		409		2430		3200		3070		744		11100		670		17900		3750	
Chromium	NA	7.29		19.9		10.3		10.3		9.16		12.9		9.06		3.41		15		5.95		6.09		10.2		20.7		5.97		11.6		12.6	
Cobalt	NA	3.45		6.57		3.76		2.17	J	4.18		3.44		3.12		3.26		3.17		2.45		2.3		4.37		7.98	U	2.18		5.45		11.6	
Copper	50	15		13.8		14.9		9.84		10.2		7.87		107		7.66		69.1		11.1		8.85		7.17		17.7		501		45.9		11.3	
Iron	NA	7160		24700		9300		7100		10700		11800		12400		2510		7290		10500		7240		10900		15100		3050		16200		22100	
Lead	63	172		23		62.4		13.6		14.9		42.6		59.8		5.53		4490		52.2		55.6		4.73		6.77		39.3		169		32.3	
Magnesium	NA	2360		5650		1570		2560		1380		3120		922		459		665		829		969		1520		8210	U	118		2420		2940	
Manganese	1600	145		297		95.7		135		161		286		59.5		42.6		74.2		214.		109		187		301		30.5		261		278	
Mercury	0.18	0.089		0.009	U	0.48		0.045		0.096		0.04		8.1		0.004	U	11.3		0.108		0.275		0.001		0.02		0.41		0.208		0.095	
Nickel	30	10.7		20.4		10.5		9.67		8.7		11.5		7.39		5.17		7.43		6.24		4.44		9.38		17.7		21.6		16.4		27.3	
Potassium	NA	607		2070		663		1450		459		1240		464		625		403		451		676		694		3700		173	J	1050		1110	
Selenium	3.9	0.145	U	0.354	U	0.142	U	0.444	U	0.145	U	0.407	U	0.16	U	0.156	U	3.61		0.15	U	0.216	U	0.143	U	0.16		0.272	J	0.141	U	0.513	U
Silver	2	0.145	U	0.354	U	0.142	U	0.444	U	0.145	U	0.407	U	0.16	U	0.156	U	0.486		0.15	U	0.216	U	0.143	U	0.16		0.172	U	0.141	U	0.513	U
Sodium	NA	91.4		888		177		3140		140		1230		143		294		274		112		659		189		339		344		283		1100	
Thallium	NA	1.52	U	3.72	U	1.49	U	4.67	U	1.52	U	4.27	U	1.68	U	1.64	U	1.76	U	1.57	U	2.27	U	1.5	U	1.68		1.81	U	1.48	U	5.38	U
Vanadium	NA	7.37		37.4		14.9		21.1		11.2		23		12.9		3.84		11.3		9.14		9.86		14		27		5.33		20		33.3	
Zinc	109	29.6		49.7		101		36.2		30.6		28.4		35.4		6.09		401		24.4		23.2		26.2		44.1		342		58		77.9	
Cyanide																																	
Cyanide	27	0.608	U	1.47	U	0.592	U	1.85	U	0.609	U	1.69	U	1.13		0.659	U	6.88		0.625	U	0.901	U	0.595	U	0.665	U	18		0.588	U	2.14	U

Table 3

OCA LIC
5th St. Mixed Use Housing EWMA Project # 205490

Water-Level Measurements and Well-Construction Summary

				Date:	March 11, 2008					May 8, 2008				
Well ID	Well Diameter (inches)	Screened Interval (ft bsg)	Water-Bearing Zone	Top of Casing (TOC) Elevation (ft amsl)	Depth to Water (DTW) (ft btoc)	Depth to LNAPL (ft btoc)	LNAPL Thickness (ft)	Corrected DTW (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (DTW) (ft btoc)	Depth to LNAPL (ft btoc)	LNAPL Thickness (ft)	Corrected DTW (ft btoc)	Groundwater Elevation (ft amsl)
MW-3S	2	5-10	Perched Water	9.30	7.21	-	0.00	7.21	2.09	7.26	-	0.00	7.26	2.04
MW-4S	2	5-10	Perched Water	9.55	6.76	-	0.00	6.76	2.79	7.07	7.05	0.02	7.05	2.50
MW-5S	2	5-10	Perched Water	9.38	6.75	-	0.00	6.75	2.63	6.91	-	0.00	6.91	2.47
MW-6S	2	5-10	Perched Water	9.59	(1)	7.75	(2)	(2)	(2)	(1)	(3)	(2)	(2)	(2)
MW-7S	2	6-11	Perched Water	9.24	7.74	7.54	0.20	7.58	1.66	7.85	7.50	0.35	7.57	1.67
MW-8S	2	3-11	Perched Water	9.24	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-9S	2	3-11	Perched Water	9.21	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-11S	2	3-11	Perched Water	8.56	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-12S	2	3-11	Perched Water	10.02	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-13S	2	3-11	Perched Water	8.59	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-19S	2		Perched Water	9.29	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-3I	2	15-20	Sand Aquifer	9.30	9.94	-	0.00	9.94	-0.64	9.94	-	0.00	9.94	-0.64
MW-4I	2	15-20	Sand Aquifer	9.51	10.80	-	0.00	10.80	-1.29	10.80	-	0.00	10.80	-1.29
MW-5I	2	14-19	Sand Aquifer	9.57	10.46	-	0.00	10.46	-0.89	10.46	-	0.00	10.46	-0.89
MW-6I	2	15-20	Sand Aquifer	9.46	10.00	-	0.00	10.00	-0.54	10.00	-	0.00	10.00	-0.54
MW-7I	2	15-20	Sand Aquifer	9.16	9.80	-	0.00	9.80	-0.64	9.80	-	0.00	9.80	-0.64
MW-10I	2	14.5-19.5	Sand Aquifer	10.38	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-14I	2	13-18	Sand Aquifer	9.82	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-15I	2	13-18	Sand Aquifer	9.77	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-16I	2	13-18	Sand Aquifer	9.66	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-17I	2		Sand Aquifer	9.78	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-18I	2		Sand Aquifer	NS	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-20I	2		Sand Aquifer	10.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-3D	2	22.5-27.5	Sand Aquifer	9.18	10.00	-	0.00	10.00	-0.82	9.74	-	0.00	9.74	-0.56
GW-1	2	5-15	Perched Water (4)	10.06	8.70	-	0.00	8.70	1.36	8.76	-	0.00	8.76	1.30
GW-2	2	5-15	Perched Water (4)	9.96	9.19	-	0.00	9.19	0.77	9.25	-	0.00	9.25	0.71
GW-3	2	5-15	Perched Water (4)	8.97	(1)	7.70	(2)	(2)	(2)	(1)	(3)	(2)	(2)	(2)
GW-4	2	5-15	Perched Water (4)	8.86	7.70	7.05	0.65	7.18	1.68	7.60	7.10	0.50	7.20	1.66
GW-5/MW-2	1	? - 12.8(5)	Perched Water (4)	9.10	7.10	6.90	0.20	6.94	2.16	9.00	6.90	2.10	7.32	1.78
MW-1	4	? - 13.5(5)	Perched Water (4)	9.34	8.75	-	0.00	8.75	0.59	7.70	7.45	0.25	7.50	1.84

Notes:
All wells are flush mounted.
ft bsg = feet below surface grade.
ft amsl = feet above mean sea level.
ft btoc = feet below top of casing.
NI: Well not installed.
DTW's corrected using an LNAPL density of 0.8 (perched zone-density assumed) or 0.85 (sand aquifer-density measured).
(1) Water not detected by interface probe.
(2) Could not be determined.
(3) Interface probe did not respond to LNAPL; presence of LNAPL determined using a bailer.
(4) Well screen may also be partially open to the sand aquifer.
(5) Based on field measurements by EWMA; well log not available.

Table 3

OCA LIC
5th St. Mixed Use Housing EWMA Project # 205490

Water-Level Measurements and Well-Construction Summary

				Date:	July 17, 2008					November 13, 2008				
Well ID	Well Diameter (inches)	Screened Interval (ft bsg)	Water-Bearing Zone	Top of Casing (TOC) Elevation (ft amsl)	Depth to Water (DTW) (ft btoc)	Depth to LNAPL (ft btoc)	LNAPL Thickness (ft)	Corrected DTW (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Water (DTW) (ft btoc)	Depth to LNAPL (ft btoc)	LNAPL Thickness (ft)	Corrected DTW (ft btoc)	Groundwater Elevation (ft amsl)
MW-3S	2	5-10	Perched Water	9.30	7.21	(3)	(3)	(2)	(2)	7.19	7.15	0.04	7.16	2.14
MW-4S	2	5-10	Perched Water	9.55	7.97	6.69	1.28	6.95	2.60	8.02	6.80	1.22	7.04	2.51
MW-5S	2	5-10	Perched Water	9.38	6.78	-	0.00	6.78	2.60	7.00	-	0.00	7.00	2.38
MW-6S	2	5-10	Perched Water	9.59	10.40	6.80	3.60	7.52	2.07	(1)	7.95	(2)	(2)	(2)
MW-7S	2	6-11	Perched Water	9.24	(1)	(3)	(3)	(2)	(2)	8.80	7.81	0.99	8.01	1.23
MW-8S	2	3-11	Perched Water	9.24	8.02	-	0.00	8.02	1.22	8.03	-	0.00	8.03	1.21
MW-9S	2	3-11	Perched Water	9.21	8.35	-	0.00	8.35	0.86	8.45	-	0.00	8.45	0.76
MW-11S	2	3-11	Perched Water	8.56	7.35	-	0.00	7.35	1.21	7.40	-	0.00	7.40	1.16
MW-12S	2	3-11	Perched Water	10.02	5.49	-	0.00	5.49	4.53	5.23	-	0.00	5.23	4.79
MW-13S	2	3-11	Perched Water	8.59	7.64	-	0.00	7.64	0.95	7.79	-	0.00	7.79	0.80
MW-19S	2		Perched Water	9.29	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-3I	2	15-20	Sand Aquifer	9.30	9.75	-	0.00	9.75	-0.45	9.54	-	0.00	9.54	-0.24
MW-4I	2	15-20	Sand Aquifer	9.51	10.42	-	0.00	10.42	-0.91	10.14	-	0.00	10.14	-0.63
MW-5I	2	14-19	Sand Aquifer	9.57	10.30	-	0.00	10.30	-0.73	9.98	-	0.00	9.98	-0.41
MW-6I	2	15-20	Sand Aquifer	9.46	9.78	-	0.00	9.78	-0.32	9.56	-	0.00	9.56	-0.10
MW-7I	2	15-20	Sand Aquifer	9.16	9.79	-	0.00	9.79	-0.63	9.54	-	0.00	9.54	-0.38
MW-10I	2	14.5-19.5	Sand Aquifer	10.38	(1)	(3)	(3)	(2)	(2)	15.54	8.84	6.70	9.85	0.54
MW-14I	2	13-18	Sand Aquifer	9.82	NI	NI	NI	NI	NI	16.29	8.32	7.97	9.52	0.30
MW-15I	2	13-18	Sand Aquifer	9.77	NI	NI	NI	NI	NI	8.95	-	0.00	8.95	0.82
MW-16I	2	13-18	Sand Aquifer	9.66	NI	NI	NI	NI	NI	14.19	8.53	5.66	9.38	0.28
MW-17I	2		Sand Aquifer	9.78	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-18I	2		Sand Aquifer	NS	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-20I	2		Sand Aquifer	10.03	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
MW-3D	2	22.5-27.5	Sand Aquifer	9.18	10.67	-	0.00	10.67	-1.49	9.43	-	0.00	9.43	-0.25
GW-1	2	5-15	Perched Water (4)	10.06	9.11	-	0.00	9.11	0.95	8.73	-	0.00	8.73	1.33
GW-2	2	5-15	Perched Water (4)	9.96	9.11	-	0.00	9.11	0.85	9.21	-	0.00	9.21	0.75
GW-3	2	5-15	Perched Water (4)	8.97	(1)	6.98	(2)	(2)	(2)	(1)	7.67	(2)	(2)	(2)
GW-4	2	5-15	Perched Water (4)	8.86	(1)	6.98	(2)	(2)	(2)	7.24	6.96	0.28	7.02	1.84
GW-5/MW-2	1	? - 12.8(5)	Perched Water (4)	9.10	(1)	6.62	(2)	(2)	(2)	8.40	6.51	1.89	6.89	2.21
MW-1	4	? - 13.5(5)	Perched Water (4)	9.34	9.71	-	0.00	9.71	-0.37	7.93	-	0.00	7.93	1.41

Notes:
All wells are flush mounted.
ft bsg = feet below surface grade.
ft amsl = feet above mean sea level.
ft btoc = feet below top of casing.
NI: Well not installed.
DTW's corrected using an LNAPL density of 0.8 (perched zone-density assumed) or
(1) Water not detected by interface probe.
(2) Could not be determined.
(3) Interface probe did not respond to LNAPL; presence of LNAPL determined using a bailer.
(4) Well screen may also be partially open to the sand aquifer.
(5) Based on field measurements by EWMA; well log not available.

Table 3

OCA LIC
5th St. Mixed Use Housing EWMA Project # 205490

Water-Level Measurements and Well-Construction Summary

				Date:	February 9, 2009				
Well ID	Well Diameter (inches)	Screened Interval (ft bsg)	Water-Bearing Zone	Top of Casing (TOC) Elevation (ft amsl)	Depth to Water (DTW) (ft btoc)	Depth to LNAPL (ft btoc)	LNAPL Thickness (ft)	Corrected DTW (ft btoc)	Groundwater Elevation (ft amsl)
MW-3S	2	5-10	Perched Water	9.30	-	-	-	-	-
MW-4S	2	5-10	Perched Water	9.55	-	-	-	-	-
MW-5S	2	5-10	Perched Water	9.38	-	-	-	-	-
MW-6S	2	5-10	Perched Water	9.59	-	-	-	-	-
MW-7S	2	6-11	Perched Water	9.24	-	-	-	-	-
MW-8S	2	3-11	Perched Water	9.24	-	-	-	-	-
MW-9S	2	3-11	Perched Water	9.21	-	-	-	-	-
MW-11S	2	3-11	Perched Water	8.56	-	-	-	-	-
MW-12S	2	3-11	Perched Water	10.02	-	-	-	-	-
MW-13S	2	3-11	Perched Water	8.59	-	-	-	-	-
MW-19S	2		Perched Water	9.29	-	-	-	-	-
MW-3I	2	15-20	Sand Aquifer	9.30	-	-	-	-	-
MW-4I	2	15-20	Sand Aquifer	9.51	-	-	-	-	-
MW-5I	2	14-19	Sand Aquifer	9.57	-	-	-	-	-
MW-6I	2	15-20	Sand Aquifer	9.46	-	-	-	-	-
MW-7I	2	15-20	Sand Aquifer	9.16	-	-	-	-	-
MW-10I	2	14.5-19.5	Sand Aquifer	10.38	15.54	8.93	6.61	9.92	0.46
MW-14I	2	13-18	Sand Aquifer	9.82	16.44	8.38	8.06	9.59	0.79
MW-15I	2	13-18	Sand Aquifer	9.77	9.00	-	0.00	9.00	1.38
MW-16I	2	13-18	Sand Aquifer	9.66	16.16	8.48	7.68	9.63	0.75
MW-17I	2		Sand Aquifer	9.78	9.51	-	0.00	9.51	0.87
MW-18I	2		Sand Aquifer	NS	-	-	-	-	-
MW-20I	2		Sand Aquifer	10.03	10.76	10.22	0.54	10.30	0.08
MW-3D	2	22.5-27.5	Sand Aquifer	9.18	-	-	-	-	-
GW-1	2	5-15	Perched Water (4)	10.06	-	-	-	-	-
GW-2	2	5-15	Perched Water (4)	9.96	-	-	-	-	-
GW-3	2	5-15	Perched Water (4)	8.97	-	-	-	-	-
GW-4	2	5-15	Perched Water (4)	8.86	-	-	-	-	-
GW-5/MW-2	1	? - 12.8(5)	Perched Water (4)	9.10	-	-	-	-	-
MW-1	4	? - 13.5(5)	Perched Water (4)	9.34	-	-	-	-	-

Notes:
All wells are flush mounted.
ft bsg = feet below surface grade.
ft amsl = feet above mean sea level.
ft btoc = feet below top of casing.
NI: Well not installed.
DTW's corrected using an LNAPL density of 0.8 (perched zone-density assumed) or
(1) Water not detected by interface probe.
(2) Could not be determined.
(3) Interface probe did not respond to LNAPL; presence of LNAPL determined using a bailer.
(4) Well screen may also be partially open to the sand aquifer.
(5) Based on field measurements by EWMA; well log not available.

OCA LIC, LCC
5th Street Mixed-Use Housing
EWMA Project No. 205490

Table 4: Ground-Water Sampling Results Results for Perched-Water Zone/Shallow wells
Volatile Organic Compounds and Cyanide

Sample ID	NYS	TW-2		TW-3		FD-3 (TW-3)		TW-4		MS-TW4		TW-5		TW-8		TW-9		TW-11		TW-12		TW-15		FD-2 (TW15)		TW-16	
Lab Sample Number	TOGS	Z1679-04		Z1645-09		Z1645-11		Z1679-13		Z1679-14		Z2238-11		Z1645-05		Z1645-10		Z1645-03		Z1645-04		Z1645-02		Z1645-06		Z1590-06	
Sampling Date	1.1.1	2/26/08		2/22/08		2/22/08		2/25/08		2/25/08		4/1/2008		2/21/08		2/22/08		2/21/08		2/21/08		2/21/08		2/21/08		2/15/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	1		1		1		1		1		10		1		10		1		1		10		10		1	
VO+10	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Dichlorodifluoromethane	5	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	8.8	U	0.88	U	8.8	U	0.88	U	0.88	U	8.8	U	8.8	U	0.88	U
Chloromethane	5	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	3.7	U	0.37	U	3.7	U	0.37	U	0.37	U	3.7	U	3.7	U	0.37	U
Vinyl Chloride	2	0.3	U	0.3	U	0.3	U	5.4		4.2	J	3	U	0.3	U	3	U	0.3	U	0.3	U	3	U	3	U	0.3	U
Bromomethane	5	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	14	U	1.4	U	14	U	1.4	U	1.4	U	14	U	14	U	1.4	U
Chloroethane	5	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	8	U	0.8	U	8	U	0.8	U	0.8	U	8	U	8	U	0.8	U
Trichlorofluoromethane	5	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	5.3	U	0.53	U	5.3	U	0.53	U	0.53	U	5.3	U	5.3	U	0.53	U
1,1,2-Trichlorotrifluoroethane	5	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	6.1	U	0.61	U	6.1	U	0.61	U	0.61	U	6.1	U	6.1	U	0.61	U
1,1-Dichloroethene	5	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	6.7	U	0.67	U	6.7	U	0.67	U	0.67	U	6.7	U	6.7	U	0.67	U
Acetone	50	2.2	U	2.2	U	42		2.2	U	2.2	U	22	U	42		22	U	37		38		340		22	U	140	
Carbon Disulfide	NA	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	2	U	0.2	U	2	U	0.2	U	0.2	U	2	U	2	U	0.2	U
Methyl tert-butyl Ether	NA	8.4		0.23	U	0.23	U	0.23	U	0.23	U	2.3	U	0.23	U	2.3	U	0.23	U	0.23	U	2.3	U	2.3	U	2.1	J
Methyl Acetate	NA	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	4.5	U	0.45	U	4.5	U	0.45	U	0.45	U	4.5	U	4.5	U	0.45	U
Methylene Chloride	5	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	3.8	U	0.38	U	13	J	0.38	U	0.38	U	3.8	U	3.8	U	0.38	U
trans-1,2-Dichloroethene	5	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	4.4	U	0.44	U	4.4	U	0.44	U	0.44	U	4.4	U	4.4	U	0.44	U
1,1-Dichloroethane	5	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	6.7	U	0.67	U	6.7	U	0.67	U	0.67	U	6.7	U	6.7	U	0.67	U
Cyclohexane	NA	0.57	U	0.57	U	0.57	U	0.57	U	0.57	U	5.7	U	0.57	U	5.7	U	0.57	U	4.1	J	5.7	U	5.7	U	3.4	J
2-Butanone	50	1.9	U	1.9	U	2.8	J	1.9	U	1.9	U	19	U	1.9	U	19	U	1.9	U	1.9	U	19	U	19	U	12	J
Carbon Tetrachloride	5	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	2.7	U	0.27	U	2.7	U	0.27	U	0.27	U	2.7	U	2.7	U	0.27	U
cis-1,2-Dichloroethene	5	0.72	U	0.72	U	0.72	U	2.7	J	1.6	J	7.2	U	1.1	J	7.2	U	0.72	U	0.72	U	7.2	U	7.2	U	0.72	U
Chloroform	7	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	4.5	U	0.45	U	4.5	U	0.45	U	0.45	U	4.5	U	4.5	U	0.45	U
1,1,1-Trichloroethane	5	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	3.9	U	0.39	U	3.9	U	0.39	U	0.39	U	3.9	U	3.9	U	0.39	U
Methylcyclohexane	NA	0.47	U	2.5	J	0.47	U	0.47	U	0.47	U	4.7	U	0.47	U	4.7	U	2.1	J	5.2		4.7	U	4.7	U	4.5	J
Benzene	1	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	3.5	U	0.35	U	3.5	U	0.35	U	11		3.5	U	3.5	U	7.9	
1,2-Dichloroethane	0.6	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	4.1	U	0.41	U	4.1	U	0.41	U	0.41	U	4.1	U	4.1	U	0.41	U
Trichloroethene	5	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	3.4	U	0.34	U	3.4	U	0.34	U	0.34	U	3.4	U	3.4	U	0.34	U
1,2-Dichloropropane	1	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	4.6	U	0.46	U	4.6	U	0.46	U	0.46	U	4.6	U	4.6	U	0.46	U
Bromodichloromethane	50	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	2.3	U	0.23	U	2.3	U	0.23	U	0.23	U	2.3	U	2.3	U	0.23	U
4-Methyl-2-Pentanone	NA	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	18	U	1.8	U	18	U	1.8	U	1.8	U	18	U	18	U	1.8	U
Toluene	5	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	1.6	U	0.16	U	1.6	U	0.16	U	1.5	J	1.6	U	1.6	U	6.5	
t-1,3-Dichloropropene	0.4	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	3.1	U	0.31	U	3.1	U	0.31	U	0.31	U	3.1	U	3.1	U	0.31	U
cis-1,3-Dichloropropene	0.4	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	2.9	U	0.29	U	2.9	U	0.29	U	0.29	U	2.9	U	2.9	U	0.29	U
1,1,2-Trichloroethane	1	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	3.2	U	0.32	U	3.2	U	0.32	U	0.32	U	3.2	U	3.2	U	0.32	U
2-Hexanone	50	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	18	U	1.8	U	18	U	1.8	U	1.8	U	18	U	18	U	1.8	U
Dibromochloromethane	50	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	2.3	U	0.23	U	2.3	U	0.23	U	0.23	U	2.3	U	2.3	U	0.23	U
1,2-Dibromoethane	0.0006	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	2.6	U	0.26	U	2.6	U	0.26	U	0.26	U	2.6	U	2.6	U	0.26	U
Tetrachloroethene	5	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	9.7	U	0.97	U	9.7	U	0.97	U	0.97	U	9.7	U	9.7	U	0.97	U
Chlorobenzene	5	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	2.8	U	0.28	U	2.8	U	0.28	U	0.28	U	2.8	U	2.8	U	0.28	U
Ethyl Benzene	5	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.5	U	0.05	U	0.5	U	1.2	J	25		0.5	U	0.5	U	0.05	U
m/p-Xylenes	NA	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	4.7	U	0.47	U	4.7	U	2.2	J	5.9	J	4.7	U	4.7	U	5.9	J
o-Xylene	NA	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	1.6	U	0.16	U	1.6	U	1.6	J	5.5		1.6	U	1.6	U	3	J
Styrene	5	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	1.9	U	0.19	U	1.9	U	0.19	U	0.19	U	1.9	U	1.9	U	0.19	U
Bromoform	50	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	4.4	U	0.44	U	4.4	U	0.44	U	0.44	U	4.4	U	4.4	U	0.44	U
Isopropylbenzene	5	0.37	U	4.2	J	6.9		0.37	U	0.37	U	3.7	U	13		110		36		20		37	J	41	J	150	
1,1,2,2-Tetrachloroethane	5	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	3.7	U	0.37	U	3.7	U	0.37	U	0.37	U	3.7	U	3.7	U	0.37	U
1,3-Dichlorobenzene	3	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	2.8	U	0.28	U	2.8	U	0.28	U	0.28	U	2.8	U	2.8	U	0.28	U
1,4-Dichlorobenzene	3	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	2.2	U	0.22	U	2.2	U	0.22	U	0.22	U	2.2	U	2.2	U	0.22	U
1,2-Dichlorobenzene	3	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	4	U	0.4	U	4	U	0.4	U	0.4	U	4	U	4	U	0.4	U
1,2-Dibromo-3-Chloropropane	0.04	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	5.8	U	0.58	U	5.8	U	0.58	U	0.58	U	5.8	U	5.8	U	0.58	U
1,2,4-Trichlorobenzene	5	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	3.9	U	0.39	U	3.9	U	0.39	U	0.39	U	3.9	U	3.9	U	0.39	U
CYANIDE																											
Cyanide	200	39		39		30		15		17				15		16		10	U	10		12		10	U	222	

OCA LIC, LCC
5th Street Mixed-Use Housing
EWMA Project No. 205490

Table 4: Ground-Water Sampling Results Results for Perched-Water Zone/Shallow wells
Volatile Organic Compounds and Cyanide

Sample ID	NYS	TW-17		TW-18		TW-19		TW-RCRA-1		TW-RCRA-2		TW-RCRA-4		FD-1 (TW_RCRA-4)		GW-01		GW-02		GW-03		GW-4		FD-6 (GW-4)		MW-01	
Lab Sample Number	TOGS	Z1637-01		Z1637-02		Z1637-06		Z1645-01		Z1637-07		Z1637-08		Z1637-09		Z1850-11		Z1850-16		Z1850-18		Z1753-04		Z1753-05		Z1850-12	
Sampling Date	1.1.1	2/19/08		2/19/08		2/20/08		2/21/08		2/20/08		2/20/08		2/20/08		3/4/08		3/4/08		3/4/08		2/29/08		2/29/08		3/4/2008	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	10		1		1		10		1		1		1		1		1		1		5		50		1	
VO+10	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Dichlorodifluoromethane	5	4.3	U	0.43	U	0.43	U	8.8	U	0.43	U	0.43	U	0.43	U	0.88	U	0.88	U	0.88	UJ	4.4	U	44	U		
Chloromethane	5	3.8	U	0.38	U	0.38	U	3.7	U	0.38	U	0.38	U	0.38	U	0.37	U	0.37	U	0.37	UJ	1.8	U	18	U		
Vinyl Chloride	2	4.6	U	0.46	U	0.46	U	3	U	0.46	U	0.46	U	0.46	U	0.3	U	0.3	U	0.3	UJ	1.5	U	15	U	-	
Bromomethane	5	6.3	U	0.63	U	0.63	U	14	U	0.63	U	0.63	U	0.63	U	1.4	U	1.4	U	1.4	UJ	6.8	U	68	U		
Chloroethane	5	4.9	U	0.49	U	0.49	U	8	U	0.49	U	0.49	U	0.49	U	0.8	U	0.8	U	0.8	UJ	4	U	40	U		
Trichlorofluoromethane	5	4	U	0.4	U	0.4	U	5.3	U	0.4	U	0.4	U	0.4	U	0.53	U	0.53	U	0.53	UJ	2.6	U	26	U		
1,1,2-Trichlorotrifluoroethane	5	3.5	U	0.35	U	0.35	U	6.1	U	0.35	U	0.35	U	0.35	U	0.61	U	0.61	U	0.61	UJ	3	U	30	U		
1,1-Dichloroethene	5	5.5	U	0.55	U	0.55	U	6.7	U	0.55	U	0.55	U	0.55	U	0.67	U	0.67	U	0.67	UJ	3.4	U	34	U		
Acetone	50	27	U	8.8		93		340		29		12		2.7	U	2.2	U	2.2	U	2.2	UJ	180		110	U	-	
Carbon Disulfide	NA	5.1	U	0.51	U	0.51	U	2	U	0.51	U	0.51	U	0.51	U	0.2	U	0.2	UJ	0.2	UJ	1	U	10	U	-	
Methyl tert-butyl Ether	NA	5	U	0.5	U	0.5	U	2.3	U	0.5	U	0.5	U	0.5	U	0.23	U	0.23	U	0.23	UJ	56		12	U	-	
Methyl Acetate	NA	9.2	U	0.92	U	0.92	U	4.5	U	0.92	U	0.92	U	0.92	U	0.45	U	0.45	U	0.45	UJ	2.2	U	22	U	-	
Methylene Chloride	5	5.2	U	0.52	U	0.52	U	3.8	U	0.52	U	0.52	U	0.52	U	0.38	U	0.38	U	0.38	UJ	1.9	U	19	U	-	
trans-1,2-Dichloroethene	5	5.7	U	0.57	U	0.57	U	4.4	U	0.57	U	0.57	U	0.57	U	0.44	U	0.44	U	0.44	UJ	2.2	U	22	U	-	
1,1-Dichloroethane	5	5.5	U	0.55	U	0.55	U	6.7	U	0.55	U	0.55	U	0.55	U	0.67	U	0.67	U	0.67	UJ	3.4	U	34	U	-	
Cyclohexane	NA	3.7	U	0.37	U	0.37	U	5.7	U	0.37	U	4.5		0.37	U	0.57	U	0.57	U	0.57	UJ	2.8	U	28	U	-	
2-Butanone	50	46	U	4.6	U	4.6	U	19	U	4.6	U	4.6	U	4.6	U	1.9	U	1.9	U	1.9	UJ	9.7	U	97	U	-	
Carbon Tetrachloride	5	4.9	U	0.49	U	0.49	U	2.7	U	0.49	U	0.49	U	0.49	U	0.27	U	0.27	U	0.27	UJ	1.4	U	14	U	-	
cis-1,2-Dichloroethene	5	5.3	U	3.8		0.53	U	7.2	U	0.53	U	0.53	U	0.53	U	0.72	U	0.72	U	0.72	UJ	3.6	U	36	U	-	
Chloroform	7	4.6	U	0.46	U	0.46	U	4.5	U	0.46	U	0.46	U	0.46	U	0.45	UJ	0.45	UJ	0.45	UJ	2.2	U	22	U	-	
1,1,1-Trichloroethane	5	4.6	U	0.46	U	0.46	U	3.9	U	0.46	U	0.46	U	0.46	U	0.39	U	0.39	U	0.39	UJ	2	U	20	U	-	
Methylcyclohexane	NA	4.3	U	0.43	U	1.2		4.7	U	0.43	U	0.43	U	0.43	U	0.47	U	0.47	U	2	J	2.4	U	24	U	-	
Benzene	1	5.2	U	0.52	U	0.52	U	3.5	U	0.52	U	0.52	U	0.52	U	0.35	U	0.35	U	0.35	UJ	1.8	U	18	U	-	
1,2-Dichloroethane	0.6	3.8	U	0.38	U	0.38	U	4.1	U	0.38	U	0.38	U	0.38	U	0.41	U	0.41	U	0.41	UJ	2	U	20	U	-	
Trichloroethene	5	5.6	U	0.56	U	0.56	U	3.4	U	0.56	U	0.56	U	0.56	U	0.34	U	0.34	U	0.34	UJ	1.7	U	17	U	-	
1,2-Dichloropropane	1	5.6	U	0.56	U	0.56	U	4.6	U	0.56	U	0.56	U	0.56	U	0.46	U	0.46	U	0.46	UJ	2.3	U	23	U	-	
Bromodichloromethane	50	5.9	U	0.59	U	0.59	U	2.3	U	0.59	U	0.59	U	0.59	U	0.23	U	0.23	U	0.23	UJ	1.2	U	12	U	-	
4-Methyl-2-Pentanone	NA	27	U	2.7	U	2.7	U	18	U	2.7	U	2.7	U	2.7	U	1.8	U	1.8	U	1.8	UJ	8.8	U	88	U	-	
Toluene	5	5.1	U	0.51	U	0.51	U	1.6	U	0.51	U	0.51	U	0.51	U	0.16	U	0.16	U	0.16	UJ	0.8	U	8	U	-	
t-1,3-Dichloropropene	0.4	4.4	U	0.44	U	0.44	U	21	J	0.44	U	0.44	U	0.44	U	0.31	U	0.31	U	0.31	UJ	1.6	U	16	U	-	
cis-1,3-Dichloropropene	0.4	5.4	U	0.54	U	0.54	U	2.9	U	0.54	U	0.54	U	0.54	U	0.29	U	0.29	U	0.29	UJ	1.4	U	14	U	-	
1,1,2-Trichloroethane	1	5.2	U	0.52	U	0.52	U	3.2	U	0.52	U	0.52	U	0.52	U	0.32	U	0.32	U	0.32	UJ	1.6	U	16	U	-	
2-Hexanone	50	29	U	2.9	U	2.9	U	18	U	2.9	U	2.9	U	2.9	U	1.8	U	1.8	U	1.8	UJ	8.8	U	88	U	-	
Dibromochloromethane	50	4.5	U	0.45	U	0.45	U	2.3	U	0.45	U	0.45	U	0.45	U	0.23	U	0.23	U	0.23	UJ	1.2	U	12	U	-	
1,2-Dibromoethane	0.0006	5.6	U	0.56	U	0.56	U	2.6	U	0.56	U	0.56	U	0.56	U	0.26	U	0.26	U	0.26	UJ	1.3	U	13	U	-	
Tetrachloroethene	5	13		0.68	U	0.68	U	9.7	U	0.68	U	0.68	U	0.68	U	0.97	UJ	0.97	U	0.97	UJ	4.8	U	48	U	-	
Chlorobenzene	5	5	U	0.5	U	0.5	U	2.8	U	0.5	U	0.5	U	0.5	U	0.28	U	0.28	U	0.28	UJ	1.4	U	14	U	-	
Ethyl Benzene	5	140		10		1.7		0.5	U	0.5	U	0.5	U	0.5	U	0.05	U	0.05	U	0.05	UJ	0.25	U	2.5	U	-	
m/p-Xylenes	NA	9.7	U	38		2.1		4.7	U	0.97	U	0.97	U	0.97	U	1.2	J	0.47	U	0.47	UJ	2.4	U	24	U		
o-Xylene	NA	170		1.8		2.8		1.6	U	0.51	U	1.3		0.51	U	0.16	U	0.16	U	0.16	UJ	0.8	U	8	U		
Styrene	5	4.8	U	0.48	U	0.48	U	1.9	U	0.48	U	0.48	U	0.48	U	0.19	U	0.19	U	0.19	UJ	0.95	U	9.5	U		
Bromoform	50	4.2	U	0.42	U	0.42	U	4.4	U	0.42	U	0.42	U	0.42	U	0.44	U	0.44	U	0.44	UJ	2.2	U	22	U		
Isopropylbenzene	5	92		40		32		54		37		3.6		0.67	J	0.37	U	0.37	U	0.37	UJ	70		18	U	-	
1,1,2,2-Tetrachloroethane	5	4.9	U	0.49	U	0.49	U	3.7	U	0.49	U	0.49	U	0.49	U	0.37	U	0.37	U	0.37	UJ	1.8	U	18	U	3.7	U
1,3-Dichlorobenzene	3	4.5	U	0.45	U	0.45	U	2.8	U	0.45	U	0.45	U	0.45	U	0.28	U	0.28	U	0.28	UJ	1.4	U	14	U	2.8	U
1,4-Dichlorobenzene	3	4.3	U	0.43	U	0.43	U	2.2	U	0.43	U	0.43	U	0.43	U	0.22	U	0.22	U	0.22	UJ	1.1	U	11	U	2.2	U
1,2-Dichlorobenzene	3	4.8	U	0.48	U	0.48	U	4	U	0.48	U	0.48	U	0.48	U	0.4	U	0.4	U	0.4	UJ	2	U	20	U	4	U
1,2-Dibromo-3-Chloropropane	0.04	4.5	U	0.45	U	0.45	U	5.8	U	0.45	U	0.45	U	0.45	U	0.58	U	0.58	U	0.58	UJ	2.9	U	29	U	5.8	U
1,2,4-Trichlorobenzene	5	4.1	U	0.41	U	0.41	U	3.9	U	0.41	U	0.41	U	0.41	U	0.39	U	0.39	U	0.39	UJ	2	U	20	U	3.9	U
CYANIDE																											
Cyanide	200	17		10	U	10		179		690		57		52		10	U	10	U	41		24		22		13	

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5th Street Mixed-Use Housing
EWMA Project No. 205490

Table 4: Ground-Water Sampling Results Results for Perched-Water Zone/Shallow wells
Volatile Organic Compounds and Cyanide

Sample ID	NYS	FD-8 (MW-01)		MW-01		FIELD DUP-4-1-08		MW-3S		MW-04-S		FD-7 (MW-4S)		MW-05-S		MW-6S		MW-07-S	
Lab Sample Number	TOGS	Z1850-14		Z2238-01		Z2238-02		Z1753-01		Z1850-06		Z1850-07		Z1850-02		Z1850-17		Z1850-15	
Sampling Date	1.1.1	3/4/08		4/1/2008		4/1/2008		2/29/08		3/3/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	10		1		1		1		20		5		1		1		20	
VO+10	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Dichlorodifluoromethane	5	8.8	U	0.88	U	0.88	U	0.88	U	18	U	4.4	U	0.88	U	0.88	UJ	18	U
Chloromethane	5	3.7	U	0.37	U	0.37	U	0.37	U	7.4	U	1.8	U	0.37	U	0.37	UJ	7.4	U
Vinyl Chloride	2	3	U	0.3	U	0.3	U	0.3	U	6	U	1.5	U	0.3	U	0.3	UJ	6	U
Bromomethane	5	14	U	1.4	U	1.4	U	1.4	U	27	U	6.8	U	1.4	U	1.4	UJ	27	U
Chloroethane	5	8	U	0.8	U	0.8	U	0.8	U	16	U	4	U	0.8	U	0.8	UJ	16	U
Trichlorofluoromethane	5	5.3	U	0.53	U	0.53	U	0.53	U	11	U	2.6	U	0.53	U	0.53	UJ	11	U
1,1,2-Trichlorotrifluoroethane	5	6.1	U	0.61	U	0.61	U	0.61	U	12	U	3	U	0.61	U	0.61	UJ	12	U
1,1-Dichloroethene	5	6.7	U	0.67	U	0.67	U	0.67	U	13	U	3.4	U	0.67	U	0.67	UJ	13	U
Acetone	50	22	U	3.8	J	4.2	J	53		43	U	11	U	7.1	J	2.2	UJ	43	U
Carbon Disulfide	NA	2	U	0.2	U	0.2	U	0.2	U	4	U	1	U	0.2	U	0.2	UJ	4	U
Methyl tert-butyl Ether	NA	15	J	1.7	J	1.5	J	0.23	U	4.6	U	1.2	U	0.23	U	0.23	UJ	4.6	U
Methyl Acetate	NA	4.5	U	0.45	U	0.45	U	0.45	U	9	U	2.2	U	0.45	U	0.45	UJ	9	U
Methylene Chloride	5	3.8	U	0.38	U	0.38	U	0.38	U	7.6	U	1.9	U	0.38	U	0.38	UJ	7.6	U
trans-1,2-Dichloroethene	5	4.4	U	0.44	U	0.44	U	0.44	U	8.8	U	2.2	U	0.44	U	0.44	UJ	8.8	U
1,1-Dichloroethane	5	6.7	U	0.67	U	0.67	U	0.67	U	13	U	3.4	U	0.67	U	0.67	UJ	13	U
Cyclohexane	NA	5.7	U	0.57	U	0.57	U	3.8	J	11	U	2.8	U	0.57	U	2.88	J	11	U
2-Butanone	50	19	U	1.9	U	1.9	U	1.9	U	39	U	9.7	U	1.9	U	1.9	UJ	39	U
Carbon Tetrachloride	5	2.7	U	0.27	U	0.27	U	0.27	U	5.4	U	1.4	U	0.27	U	0.27	UJ	5.4	U
cis-1,2-Dichloroethene	5	7.2	U	0.72	U	0.72	U	0.72	U	58	J	3.6	U	0.72	U	0.72	UJ	14	U
Chloroform	7	4.5	UJ	0.45	U	0.45	U	0.45	U	9	UJ	2.2	UJ	0.45	UJ	0.45	UJ	9	UJ
1,1,1-Trichloroethane	5	3.9	U	0.39	U	0.39	U	0.39	U	7.8	U	2	U	0.39	U	0.39	UJ	7.8	U
Methylcyclohexane	NA	4.7	U	0.47	U	0.47	U	11		9.4	U	5	J	0.47	U	3.36	J	9.4	U
Benzene	1	3.5	U	0.35	U	0.35	U	0.35	U	7	U	1.8	U	0.35	U	0.35	UJ	85	J
1,2-Dichloroethane	0.6	4.1	U	0.41	U	0.41	U	0.41	U	8.2	U	2	U	0.41	U	0.41	UJ	8.2	U
Trichloroethene	5	3.4	U	0.34	U	0.34	U	0.34	U	6.8	U	1.7	U	0.34	U	0.34	UJ	6.8	U
1,2-Dichloropropane	1	4.6	U	0.46	U	0.46	U	0.46	U	9.2	U	2.3	U	0.46	U	0.46	UJ	9.2	U
Bromodichloromethane	50	2.3	U	0.23	U	0.23	U	0.23	U	4.6	U	1.2	U	0.23	U	0.23	UJ	4.6	U
4-Methyl-2-Pentanone	NA	18	U	1.8	U	1.8	U	1.8	U	35	U	8.8	U	1.8	U	1.8	UJ	35	U
Toluene	5	1.6	U	0.16	U	0.16	U	0.16	U	3.2	U	0.8	U	1.8	J	0.16	UJ	22	J
t-1,3-Dichloropropene	0.4	3.1	U	0.31	U	0.31	U	0.31	U	6.2	U	1.6	U	0.31	U	0.31	UJ	6.2	U
cis-1,3-Dichloropropene	0.4	2.9	U	0.29	U	0.29	U	0.29	U	5.8	U	1.4	U	0.29	U	0.29	UJ	5.8	U
1,1,2-Trichloroethane	1	3.2	U	0.32	U	0.32	U	0.32	U	6.4	U	1.6	U	0.32	U	0.32	UJ	6.4	U
2-Hexanone	50	18	U	1.8	U	1.8	U	1.8	U	35	U	8.8	U	1.8	U	1.8	UJ	35	U
Dibromochloromethane	50	2.3	U	0.23	U	0.23	U	0.23	U	4.6	U	1.2	U	0.23	U	0.23	UJ	4.6	U
1,2-Dibromoethane	0.0006	2.6	U	0.26	U	0.26	U	0.26	U	5.2	U	1.3	U	0.26	U	0.26	UJ	5.2	U
Tetrachloroethene	5	9.7	UJ	0.97	U	0.97	U	0.97	U	19	UJ	4.8	UJ	0.97	UJ	0.97	UJ	19	UJ
Chlorobenzene	5	2.8	U	0.28	U	0.28	U	0.28	U	5.6	U	1.4	U	0.28	U	0.28	UJ	5.6	U
Ethyl Benzene	5	0.5	U	0.05	U	0.05	U	0.05	U	150		0.25	U	3.1	J	0.05	UJ	1	U
m/p-Xylenes	NA	16	J	0.53	U	0.47	U	0.47	U	400		5.2	J	5.2	J	3.11	J	31	J
o-Xylene	NA	1.6	U	0.16	U	0.16	U	0.16	U	140		5.2	J	3.7	J	0.9	J	23	J
Styrene	5	1.9	U	0.19	U	0.19	U	0.19	U	3.8	U	0.95	U	0.19	U	0.19	UJ	3.8	U
Bromoform	50	4.4	U	0.44	U	0.44	U	0.44	U	8.8	U	2.2	U	0.44	U	0.44	UJ	8.8	U
Isopropylbenzene	5	12	J	14		14		8.7		98	J	1.8	U	1	J	0.37	UJ	79	J
1,1,2,2-Tetrachloroethane	5	0.37	U	0.37	U	0.37	U	7.4	U	1.8	U	0.37	U	37	U	0.37	U	0.49	U
1,3-Dichlorobenzene	3	0.28	U	0.28	U	0.28	U	5.6	U	1.4	U	0.28	U	28	U	0.28	U	0.45	U
1,4-Dichlorobenzene	3	0.22	U	0.22	U	0.22	U	4.4	U	1.1	U	0.22	U	22	U	0.22	U	0.43	U
1,2-Dichlorobenzene	3	0.4	U	0.4	U	0.4	U	8	U	2	U	0.4	U	40	U	0.4	U	0.48	U
1,2-Dibromo-3-Chloropropane	0.04	0.58	U	0.58	U	0.58	U	12	U	2.9	U	0.58	U	58	U	0.58	U	0.45	U
1,2,4-Trichlorobenzene	5	0.39	U	0.39	U	0.39	U	7.8	U	2	U	0.39	U	39	U	0.39	U	0.41	U
CYANIDE																			
Cyanide	200	10	U	~		~		33		10	U	10	U	13		21		22	

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Table 4: Ground-Water Sampling Results for Perched-Water Zone/Shallow Wells
Semi-Volatile Organic Compounds (Unfiltered and Filtered)

Sample ID	NYS	TW-2		TW-3		FD3 (TW3)		TW-4		MS-TW4		TW-8		TW-9		TW-11		TW-12		TW-15		FD2 (TW15)		TW-16		TW-17		TW-18		TW-19		RCRA-1	
Lab Sample Number	TOGS	Z1679-04		Z1645-09		Z1645-11		Z1679-13		Z1679-14		Z1645-05		Z1645-10		Z1645-03		Z1645-04		Z1645-02		Z1645-06		Z1590-06		Z1637-01		Z1637-02		Z1637-06		Z1645-01	
Sampling Date	1.1.1.	2/26/08		2/22/08		2/22/08		2/25/08		2/25/08		2/21/08		2/22/08		2/21/08		2/21/08		2/21/08		2/21/08		2/15/08		2/19/08		2/19/08		2/20/08		2/21/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
SEMIVOLATILES																																	
Benzaldehyde	NA	0.28	U	0.3	U	0.3	U	0.29	U	0.3	U	0.28	U	0.29	U	0.3	U	0.31	U	0.3	U	0.3	U	0.3	U	0.4	U	0.31	U	~		0.34	U
Phenol	1	0.58	U	0.61	U	0.61	U	0.6	U	0.61	U	0.58	U	0.59	U	0.61	U	0.62	U	0.61	U	0.61	U	0.61	U	0.81	U	0.62	U	~		0.69	U
bis(2-Chloroethyl)ether	1	0.29	U	0.31	U	0.31	U	0.3	U	0.31	U	0.29	U	0.3	U	0.31	U	0.32	U	0.31	U	0.31	U	0.31	U	0.41	U	0.32	U	~		0.35	U
2-Chlorophenol	NA	0.35	U	0.37	U	0.37	U	0.36	U	0.37	U	0.35	U	0.35	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.49	U	0.38	U	~		0.41	U
2-Methylphenol	NA	0.38	U	0.4	U	0.4	U	0.39	U	0.4	U	0.38	U	0.39	U	0.4	U	0.41	U	0.4	U	0.4	U	0.4	U	0.53	U	0.41	U	~		0.45	U
2,2-oxybis(1-Chloropropane)	NA	0.28	U	0.3	U	0.3	U	0.29	U	0.3	U	0.28	U	0.29	U	0.3	U	0.31	U	0.3	U	0.3	U	0.3	U	0.4	U	0.31	U	~		0.34	U
Acetophenone	NA	0.39	U	0.41	U	0.41	U	0.4	U	0.41	U	0.39	U	0.4	U	0.41	U	0.42	U	0.41	U	0.41	U	0.41	U	0.54	U	0.42	U	~		0.46	U
3+4-Methylphenols	NA	0.41	U	0.43	U	0.43	U	0.42	U	0.43	U	0.41	U	0.42	U	0.43	U	0.44	U	0.43	U	0.43	U	0.43	U	0.57	U	0.44	U	~		0.49	U
N-Nitroso-di-n-propylamine	NA	0.36	U	0.38	U	0.38	U	0.37	U	0.38	U	0.36	U	0.37	U	0.38	U	0.39	U	0.38	U	0.38	U	0.38	U	0.5	U	0.39	U	~		0.42	U
Hexachloroethane	5	0.24	U	0.26	U	0.26	U	0.25	U	0.26	U	0.24	U	0.25	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.34	U	0.26	U	~		0.29	U
Nitrobenzene	0.4	0.35	U	0.37	U	0.37	U	0.36	U	0.37	U	0.35	U	0.35	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.49	U	0.38	U	~		0.41	U
Isophorone	50	0.27	U	0.29	U	0.29	U	0.28	U	0.29	U	0.27	U	0.28	U	0.29	U	0.3	U	0.29	U	0.29	U	0.29	U	0.38	U	0.3	U	~		0.32	U
2-Nitrophenol	NA	0.29	U	0.31	U	0.31	U	0.3	U	0.31	U	0.29	U	0.3	U	0.31	U	0.32	U	0.31	U	0.31	U	0.31	U	0.41	U	0.32	U	~		0.35	U
2,4-Dimethylphenol	1	0.8	U	0.84	U	0.84	U	0.83	U	0.84	U	0.8	U	0.82	U	0.84	U	0.86	U	0.84	U	0.84	U	0.84	U	1.1	U	0.86	U	~		0.95	U
bis(2-Chloroethoxy)methane	5	0.35	U	0.37	U	0.37	U	0.36	U	0.37	U	0.35	U	0.35	U	0.37	U	0.38	U	0.37	U	0.37	U	0.37	U	0.49	U	0.38	U	~		0.41	U
2,4-Dichlorophenol	1	0.36	U	0.38	U	0.38	U	0.37	U	0.38	U	0.36	U	0.37	U	0.38	U	0.39	U	0.38	U	0.38	U	0.38	U	0.5	U	0.39	U	~		0.42	U
Naphthalene	10	2.6	J	6.5	J	4.9	J	1.3	J	1.5	J	0.29	U	2.5	J	12		530	E	1.2	J	0.31	U	0.31	U	12	J	3.4	J	~		35	
4-Chloroaniline	5	0.97	U	1	U	1	U	1	U	1	U	0.97	U	0.99	U	1	U	1	U	1	U	1	U	1	U	1.4	U	1	U	~		1.2	U
Hexachlorobutadiene	NA	0.41	U	0.43	U	0.43	U	0.42	U	0.43	U	0.41	U	0.42	U	0.43	U	0.44	U	0.43	U	0.43	U	0.43	U	0.57	U	0.44	U	~		0.49	U
Caprolactam	NA	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	1.7	U	1.6	U	1.6	U	1.6	U	2.2	U	1.7	U	~		1.8	U
4-Chloro-3-methylphenol	NA	0.23	U	0.24	U	0.24	U	0.24	U	0.24	U	0.23	U	0.24	U	0.24	U	0.25	U	0.24	U	0.24	U	0.24	U	0.32	U	0.25	U	~		0.28	U
2-Methylnaphthalene	NA	2.1	J	5.7	J	4.7	J	0.4	U	0.41	U	0.39	U	1.7	J	18		240	E	1.3	J	0.41	U	0.41	U	0.54	U	34		~		110	E
Hexachlorocyclopentadiene	5	0.59	U	0.62	U	0.62	U	0.61	U	0.62	U	0.59	U	0.6	U	0.62	U	0.64	U	0.62	U	0.62	U	0.62	U	0.82	U	0.64	U	~		0.7	U
2,4,6-Trichlorophenol	NA	0.37	U	0.39	U	0.39	U	0.38	U	0.39	U	0.37	U	0.38	U	0.39	U	0.4	U	0.39	U	0.39	U	0.39	U	0.51	U	0.4	U	~		0.44	U
2,4,5-Trichlorophenol	NA	0.4	U	0.42	U	0.42	U	0.41	U	0.42	U	0.4	U	0.41	U	0.42	U	0.43	U	0.42	U	0.42	U	0.42	U	0.56	U	0.43	U	~		0.48	U
1,1-Biphenyl	5	0.34	U	0.36	U	0.36	U	0.35	U	0.36	U	0.34	U	0.34	U	0.36	U	0.35	U	0.36	U	0.36	U	0.36	U	0.47	U	0.36	U	~		0.4	U
2-Chloronaphthalene	10	0.24	U	0.26	U	0.26	U	0.25	U	0.26	U	0.24	U	0.25	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.34	U	0.26	U	~		0.29	U
2-Nitroaniline	5	0.26	U	0.28	U	0.28	U	0.27	U	0.28	U	0.26	U	0.27	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.37	U	0.28	U	~		0.31	U
Dimethylphthalate	50	0.28	U	0.3	U	0.3	U	0.29	U	0.3	U	0.28	U	0.29	U	0.3	U	0.31	U	0.3	U	0.3	U	0.3	U	0.4	U	0.31	U	~		0.34	U
Acenaphthylene	20	0.37	U	0.39	U	0.39	U	0.38	U	0.39	U	0.37	U	0.38	U	0.39	U	0.4	U	0.39	U	0.39	U	0.39	U	0.51	U	0.4	U	~		0.44	U
2,6-Dinitrotoluene	5	0.37	U	0.39	U	0.39	U	0.38	U	0.39	U	0.37	U	0.38	U	0.39	U	0.4	U	0.39	U	0.39	U	0.39	U	0.51	U	0.4	U	~		0.44	U
3-Nitroaniline	5	0.37	U	0.39	U	0.39	U	0.38	U	0.39	U	0.37	U	0.38	U	0.39	U	0.4	U	0.39	U	0.39	U	0.39	U	0.51	U	0.4	U	~		0.44	U
2,4-Dinitrophenol	1	0.67	U	0.71	U	0.71	U	0.7	U	0.71	U	0.67	U	0.69	U	0.71	U	0.73	U	0.71	U	0.71	U	0.71	U	0.94	U	0.73	U	~		0.8	U
4-Nitrophenol	NA	1.8	U	1.9	U	1.9	U	1.9	U	1.9	U	1.8	U	1.9	U	1.9	U	2	U	1.9	U	1.9	U	1.9	U	2.5	U	2	U	~		2.2	U
Dibenzofuran	NA	0.33	U	2.1	J	1.9	J	0.34	U	0.34	U	0.33	U	0.33	U	180	E	67		1.9	J	0.34	U	0.34	U	0.46	U	14		~		130	E
2,4-Dinitrotoluene	5	0.36	U	0.38	U	0.38	U	0.37	U	0.38	U	0.36	U	0.37	U	0.38	U	0.39	U	0.38	U	0.38	U	0.38	U	0.5	U	0.39	U	~		0.42	U
Diethylphthalate	50	0.34	U	0.36	U	0.36	U	0.35	U	0.36	U	0.34	U	0.34	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	3	J	0.36	U	~		0.4	U
4-Chlorophenyl-phenylether	NA	0.31	U	0.32	U	0.32	U	0.32	U	0.32	U	0.31	U	0.31	U	0.32	U	0.33	U	0.32	U	0.32	U	0.32	U	0.43	U	0.33	U	~		0.36	U
Fluorene	50	0.29	U	3.5	J	3.3	J	0.3	U	0.31	U	1.3	J	1.1	J	190	D	110	D	7.5	J	5.6	J	0.31	U	0.41	U	13		~		110	D
4-Nitroaniline	5	0.38	U	0.4	U	0.4	U	0.39	U	0.4	U	0.38	U	0.39	U	0.4	U	0.41	U	0.4	U	0.4	U	0.4	U	0.53	U	0.41	U	~		0.45	U
4,6-Dinitro-2-methylphenol	NA	0.31	U	0.32	U	0.32	U	0.32	U	0.32	U	0.31	U	0.31	U	0.32	U	0.33	U	0.32	U	0.32	U	0.32	U	0.43	U	0.33	U	~		0.36	U
N-Nitrosodiphenylamine	50	0.37	U	0.39	U	0.39	U	0.38	U	0.39	U	0.37	U	0.38	U	0.39	U	0.4	U	0.39	U	0.39	U	0.39	U	0.51	U	0.4	U	~		0.44	U
4-Bromophenyl-phenylether	NA	1.5	U	1.6	U	1.6	U	1.5	U	1.6	U	1.5	U	1.5	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U	2.1	U	1.6	U	~		1.8	U
Hexachlorobenzene	0.04	0.28	U	0.3	U	0.3	U	0.29	U	0.3	U	0.28	U	0.29	U	0.3	U	0.31	U	0.3	U	0.3	U	0.3	U	0.4	U	0.31	U	~		0.34	U
Atrazine	7.5	0.39	U	0.41	U	0.41	U	0.4	U	0.41	U	0.39	U	0.4	U	0.41	U	0.42	U	0.41	U	0.41	U	0.41	U	0.54	U	0.42	U	~		0.46	U
Pentachlorophenol	1	0.55	U	0.58	U	0.58	U	0.57	U	0.58	U	0.55	U	0.56	U	0.58	U	0.59	U	0.58	U	0.58	U	0.58	U	0.76	U	0.59	U	~		0.65	U
Phenanthrene	50	1.4	U	11	J	12		1.5	U	1.5	U	1.9	J	1.6	J	150	D	190	D	3.3	J	1.6	J	39		2	J	26		~		120	D
Anthracene	50	1.5	U	2.3	J	2.7	J	1.5	U	1.6	U	1.5	U	1.5	U	28		31		3.1	J	1.8	J	8.6	J	2.1	U	6.7	J	~		23	
Carbazole	NA	0.25	U	1.8	J	1.7	J	0.26	U	0.27	U	0.25	U	0.26	U	6.3	J	22		0.27	U	0.27	U	0.27	U	0.35	U	0.27	U	~		43	
Di-n-butylphthalate	50	6.2	U	6.5	U	6.5	U	6.4	U	6.5	U	6.2	U	6.3	U	6.5	U	6.7	U	6.5	U	6.5	U	6.5	U	8.6	U	6.7	U	~		7.3	U
Fluoranthene	50	0.21	U	11		13		0.22	U	0.22	U	0.21	U	1.5	J	14		51	JD	5.4	J	2.6	J	0.22	U	0.29	U	9.6	J	~		16	
Pyrene	50	1.5	U	8.1	J	9.4	J	1.5	U	1.6	U	1.5	U	1.5	U	8.7	J	30		3.9	J	1.8	J	1.6	U	2.1	U	6.7	J	~		9.7	J
Butylbenzylphthalate	50	0.44	U	0.47	U	0.47	U	0.46	U	0.47	U	0.44	U	0.45	U	0.47	U	0.48	U	0.47	U	0.47	U	0.47	U	0.62	U	0.48	U	~		0.52	U
3,3-Dichlorobenzidine	5	1.1	U	1.2	U	1.2	U	1.2	U	1.2	U	1.1	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.6	U	1.2	U	~		1.4	U
Benzo(a)anthracene	0.002	1.4	U	4.4	J	5.3	J	1.4	U	1.4	U	1.4	U	1.4	U	2.3	J	11	J	1.8	J	1.4	U	8.9	J	1.9	U	2.4	J	~		1.8	J
Chrysene	0.002	0.27	U	4.3	J	5.3	J	0.28	U	0.29	U	0.27	U	0.28	U	2.2	J	9.9	JD	1.6	J	0.29	U	9.2	J	0.38	U	2	J	~		1.6	J
bis(2-Ethylhexyl)phthalate	5	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U	8.4	J	1.9	U	12		~		1.6	U
Di-n-octyl phthalate	50	0.27	U	0.29	U	0.29	U	0.28	U	0.29	U	0.27	U	0.28	U	0.29	U	0.3	U	0.29	U	0.29	U	0.29	U	0.38	U	0.3	U	~		0.32	U
Benzo(b)fluoranthene	0.002	0.45	U	5	J	6.6	J	0.47	U	0.48	U	0.45	U	1.4	J	2.9	J	8.5	J	2.3	J	0.48	U	12		0.63	U	2	J	~		0.54	U
Benzo(k)fluoranthene	0.002	0.32	U	2	J	1.5	J	0.33	U	0.33	U	0.32	U	0.32	U	1.2	J	3.9	J	0.33	U	0.33	U	3.6	J	0.44	U	0.34	U	~		0.38	U
Benzo(a)pyrene	NA	0.23	U	3.9	J	4.6	J	0.24	U	0.24	U	0.23	U	1.3	J	2.7	J	7.9	J	2.1	J	0.24	U	12		0.32	U	1.9	J	~		0.28	U
Indeno(1,2,3-cd)pyrene	0.002	0.69	U	2.2	J	2.9	J	0.72	U	0.73	U	0.69	U	0.71	U	1.5	J	4.1	J	1.2	J	0.73	U	10	J	0.97	U	0.75	U	~		0.82	U
Dibenz(a,h)anthracene	NA	0.57	U	0.6	U	0.6	U	0.59	U	0.6	U	0.57	U	0.58	U	0.6	U	1.1	J	0.6	U	0.6	U	2.1	J	0.79	U	0.61	U	~		0.68	U
Benzo(g,h,i)perylene	NA	0.41	U	2.3	J	3	J	0.42	U	0.43	U	0.41	U	0.42	U	1.5	J	4.1	J	1.2	J	0.43	U	7.6	J	0.57	U	0.44	U	~		0.49	U

Table 4: Ground-Water Sampling Results for Perched-Water Zone/Shallow Wells
Semi-Volatile Organic Compounds (Unfiltered and Filtered)

Sample ID	NYS	RCRA-2		RCRA-4		FD1(RCR4)		GW-01		GW-02		GW-03		MW-01		FD8 (MW1)		GW-05-MW-02		MW-3S		MW-04S		FD7 (MW4S)		MW-05-S		MW-6S		MW-07-S	
Lab Sample Number	TOGS	Z1637-07		Z1637-08		Z1637-09		Z1850-11		Z1850-16		Z1850-18		Z1850-12		Z1850-14		Z2238-03		Z1753-08		Z1850-06		Z1850-07		Z1850-02		Z1850-17		Z1850-15	
Sampling Date	1.1.1.	2/20/08		2/20/08		2/20/08		3/4/08		3/4/08		3/4/08		3/4/08		3/4/08		4/1/2008		2/29/08		3/3/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
SEMIVOLATILES																																	
Benzaldehyde	NA	~		0.32	U	0.33	U	0.31	U	0.3	U	1.7	U	0.3	U	0.3	U	26	U	0.3	U	0.28	U	0.31	U	0.27	U	0.34	U	0.31	U
Phenol	1	~		0.65	U	0.66	U	0.62	U	0.62	U	3.4	U	0.61	U	0.61	U	54	U	0.61	U	0.57	U	0.62	U	0.55	U	0.69	U	0.62	U
bis(2-Chloroethyl)ether	1	~		0.33	U	0.34	U	0.32	U	0.31	U	1.8	U	0.31	U	0.31	U	27	U	0.31	U	0.29	U	0.32	U	0.28	U	0.35	U	0.32	U
2-Chlorophenol	NA	~		0.39	U	0.4	U	0.38	U	0.37	U	2.1	U	0.37	U	0.37	U	32	U	0.37	U	0.34	U	0.38	U	0.33	U	0.41	U	0.38	U
2-Methylphenol	NA	~		0.43	U	0.43	U	0.41	U	0.4	U	2.2	U	0.4	U	0.4	U	35	U	0.4	U	0.37	U	0.41	U	0.36	U	0.45	U	0.41	U
2,2-oxybis(1-Chloropropane)	NA	~		0.32	U	0.33	U	0.31	U	0.3	U	1.7	U	0.3	U	0.3	U	26	U	0.3	U	0.28	U	0.31	U	0.27	U	0.34	U	0.31	U
Acetophenone	NA	~		0.44	U	0.45	U	0.42	U	0.42	U	2.3	U	0.41	U	0.41	U	36	U	0.41	U	0.38	U	1.6	J	0.37	U	0.46	U	0.42	U
3+4-Methylphenols	NA	~		0.46	U	0.47	U	0.44	U	0.44	U	2.4	U	0.43	U	0.43	U	38	U	0.43	U	0.4	U	0.44	U	0.39	U	0.49	U	0.44	U
N-Nitroso-di-n-propylamine	NA	~		0.4	U	0.41	U	0.39	U	0.38	U	2.1	U	0.38	U	0.38	U	33	U	0.38	U	0.35	U	0.39	U	0.34	U	0.42	U	0.39	U
Hexachloroethane	5	~		0.27	U	0.28	U	0.26	U	0.26	U	1.4	U	0.26	U	0.26	U	23	U	0.26	U	0.24	U	0.26	U	0.23	U	0.29	U	0.26	U
Nitrobenzene	0.4	~		0.39	U	0.4	U	0.38	U	0.37	U	2.1	U	0.37	U	0.37	U	32	U	0.37	U	0.34	U	0.38	U	0.33	U	0.41	U	0.38	U
Isophorone	50	~		0.31	U	0.31	U	0.3	U	0.29	U	1.6	U	0.29	U	0.29	U	25	U	0.29	U	0.27	U	0.3	U	0.26	U	0.32	U	0.3	U
2-Nitrophenol	NA	~		0.33	U	0.34	U	0.32	U	0.31	U	1.8	U	0.31	U	0.31	U	27	U	0.31	U	0.29	U	0.32	U	0.28	U	0.35	U	0.32	U
2,4-Dimethylphenol	1	~		0.9	U	0.92	U	0.86	U	0.85	U	4.8	U	0.84	U	0.84	U	75	U	0.84	U	0.78	U	0.86	U	0.76	U	0.95	U	0.86	U
bis(2-Chloroethoxy)methane	5	~		0.39	U	0.4	U	0.38	U	0.37	U	2.1	U	0.37	U	0.37	U	32	U	0.37	U	0.34	U	0.38	U	0.33	U	0.41	U	0.38	U
2,4-Dichlorophenol	1	~		0.4	U	0.41	U	0.39	U	0.38	U	2.1	U	0.38	U	0.38	U	33	U	0.38	U	0.35	U	0.39	U	0.34	U	0.42	U	0.39	U
Naphthalene	10	~		0.33	U	1.2	J	0.32	U	0.31	U	1.8	U	0.31	U	0.31	U	27	U	0.31	U	89	E	0.32	U	0.28	U	0.35	U	25	
4-Chloroaniline	5	~		1.1	U	1.1	U	1	U	1	U	5.8	U	1	U	1	U	90	U	1	U	0.95	U	1	U	0.92	U	1.2	U	1	U
Hexachlorobutadiene	NA	~		0.46	U	0.47	U	0.44	U	0.44	U	2.4	U	0.43	U	0.43	U	38	U	0.43	U	0.4	U	0.44	U	0.39	U	0.49	U	0.44	U
Caprolactam	NA	~		1.8	U	1.8	U	1.7	U	1.7	U	9.2	U	1.6	U	1.6	U	150	U	1.6	U	1.5	U	1.7	U	1.5	U	1.8	U	1.7	U
4-Chloro-3-methylphenol	NA	~		0.26	U	0.27	U	0.25	U	0.25	U	1.4	U	0.24	U	0.24	U	22	U	0.24	U	0.23	U	0.25	U	0.22	U	0.28	U	0.25	U
2-Methylnaphthalene	NA	~		0.44	U	0.45	U	0.42	U	0.42	U	2.3	U	0.41	U	0.41	U	230	J	0.41	U	16		0.42	U	0.37	U	0.46	U	220	E
Hexachlorocyclopentadiene	5	~		0.67	U	0.67	U	0.64	U	0.63	U	3.5	U	0.62	U	0.62	U	55	U	0.62	U	0.58	U	0.64	U	0.56	U	0.7	U	0.64	U
2,4,6-Trichlorophenol	NA	~		0.42	U	0.42	U	0.4	U	0.39	U	2.2	U	0.39	U	0.39	U	34	U	0.39	U	0.36	U	0.4	U	0.35	U	0.44	U	0.4	U
2,4,5-Trichlorophenol	NA	~		0.45	U	0.46	U	0.43	U	0.43	U	2.4	U	0.42	U	0.42	U	37	U	0.42	U	0.39	U	0.43	U	0.38	U	0.48	U	0.43	U
1,1-Biphenyl	5	~		0.38	U	0.39	U	0.36	U	0.36	U	2	U	0.36	U	0.36	U	31	U	0.36	U	0.33	U	0.36	U	0.32	U	0.4	U	0.36	U
2-Chloronaphthalene	10	~		0.27	U	0.28	U	0.26	U	0.26	U	1.4	U	0.26	U	0.26	U	23	U	0.26	U	0.24	U	0.26	U	0.23	U	0.29	U	0.26	U
2-Nitroaniline	5	~		0.3	U	0.3	U	0.28	U	0.28	U	1.6	U	0.28	U	0.28	U	25	U	0.28	U	0.26	U	0.28	U	0.25	U	0.31	U	0.28	U
Dimethylphthalate	50	~		0.32	U	0.33	U	0.31	U	0.3	U	1.7	U	0.3	U	0.3	U	26	U	0.3	U	0.28	U	0.31	U	0.27	U	0.34	U	0.31	U
Acenaphthylene	20	~		0.42	U	0.42	U	0.4	U	0.39	U	2.2	U	0.39	U	0.39	U	34	U	0.39	U	0.36	U	0.4	U	0.35	U	0.44	U	0.4	U
2,6-Dinitrotoluene	5	~		0.42	U	0.42	U	0.4	U	0.39	U	2.2	U	0.39	U	0.39	U	34	U	0.39	U	0.36	U	0.4	U	0.35	U	0.44	U	0.4	U
3-Nitroaniline	5	~		0.42	U	0.42	U	0.4	U	0.39	U	2.2	U	0.39	U	0.39	U	34	U	0.39	U	0.36	U	0.4	U	0.35	U	0.44	U	0.4	U
2,4-Dinitrophenol	1	~		0.76	U	0.77	U	0.73	U	0.72	U	4	U	0.71	U	0.71	U	63	U	0.71	U	0.66	U	0.73	U	0.64	U	0.8	U	0.73	U
4-Nitrophenol	NA	~		2.1	U	2.1	U	2	U	1.9	U	11	U	1.9	U	1.9	U	170	U	1.9	U	1.8	U	2	U	1.7	U	2.2	U	2	U
Dibenzofuran	NA	~		0.37	U	0.37	U	0.35	U	0.35	U	1.9	U	0.34	U	0.34	U	30	U	0.34	U	4.1	J	0.35	U	1.1	J	4.4	J	360	E
2,4-Dinitrotoluene	5	~		0.4	U	0.41	U	0.39	U	0.38	U	2.1	U	0.38	U	0.38	U	33	U	0.38	U	0.35	U	0.39	U	0.34	U	0.42	U	0.39	U
Diethylphthalate	50	~		0.38	U	0.39	U	0.36	U	0.36	U	2	U	0.36	U	0.36	U	31	U	1.7	J	0.33	U	0.36	U	0.32	U	0.4	U	0.36	U
4-Chlorophenyl-phenylether	NA	~		0.35	U	0.35	U	0.33	U	0.33	U	1.8	U	0.32	U	0.32	U	28	U	0.32	U	0.3	U	0.33	U	0.29	U	0.36	U	0.33	U
Fluorene	50	~		0.33	U	1.2	J	0.32	U	0.31	U	16	J	0.31	U	0.31	U	27	U	0.31	U	4	J	0.32	U	0.28	U	10	J	250	D
4-Nitroaniline	5	~		0.43	U	0.43	U	0.41	U	0.4	U	2.2	U	0.4	U	0.4	U	35	U	0.4	U	0.37	U	0.41	U	0.36	U	0.45	U	0.41	U
4,6-Dinitro-2-methylphenol	NA	~		0.35	U	0.35	U	0.33	U	0.33	U	1.8	U	0.32	U	0.32	U	28	U	0.32	U	0.3	U	0.33	U	0.29	U	0.36	U	0.33	U
N-Nitrosodiphenylamine	50	~		0.42	U	0.42	U	0.4	U	0.39	U	2.2	U	0.39	U	0.39	U	34	U	0.39	U	0.36	U	0.4	U	0.35	U	0.44	U	0.4	U
4-Bromophenyl-phenylether	NA	~		1.7	U	1.7	U	1.6	U	1.6	U	8.8	U	1.6	U	1.6	U	140	U	1.6	U	1.4	U	1.6	U	1.4	U	1.8	U	1.6	U
Hexachlorobenzene	0.04	~		0.32	U	0.33	U	0.31	U	0.3	U	1.7	U	0.3	U	0.3	U	26	U	0.3	U	0.28	U	0.31	U	0.27	U	0.34	U	0.31	U
Atrazine	7.5	~		0.44	U	0.45	U	0.42	U	0.42	U	2.3	U	0.41	U	0.41	U	36	U	0.41	U	0.38	U	0.42	U	0.37	U	0.46	U	0.42	U
Pentachlorophenol	1	~		0.62	U	0.63	U	0.59	U	0.58	U	3.2	U	0.58	U	0.58	U	51	U	0.58	U	0.54	U	0.59	U	0.52	U	0.65	U	0.59	U
Phenanthrene	50	~		1.6	U	1.6	U	1.5	U	1.5	U	32	J	1.5	U	1.5	U	350	JB	1.5	U	8.8	J	1.5	U	1.4	U	17		540	D
Anthracene	50	~		1.7	U	1.7	U	1.6	U	1.6	U	8.9	J	1.6	U	1.6	U	140	U	1.6	U	1.8	J	1.6	U	1.4	U	6	J	110	D
Carbazole	NA	~		0.29	U	0.29	U	0.27	U	0.27	U	1.5	U	0.27	U	0.27	U	24	U	0.27	U	3.7	J	0.27	U	0.24	U	0.3	U	23	
Di-n-butylphthalate	50	~		7	U	7.1	U	6.7	U	6.6	U	37	U	6.5	U	6.5	U	570	U	6.5	U	6	U	6.7	U	5.9	U	7.3	U	6.7	U
Fluoranthene	50	~		0.24	U	0.24	U	0.23	U	0.22	U	15	J	0.22	U	0.22	U	280	JB	0.22	U	3.4	J	0.23	U	0.2	U	11	J	190	D
Pyrene	50	~		1.7	U	1.7	U	1.6	U	1.6	U	18	J	1.6	U	1.6	U	160	JB	1.6	U	2.7	J	1.6	U	1.4	U	10	J	140	D
Butylbenzylphthalate	50	~		0.5	U	0.51	U	0.48	U	0.47	U	2.6	U	0.47	U	0.47	U	41	U	0.47	U	0.43	U	0.48	U	0.42	U	0.52	U	0.48	U
3,3-Dichlorobenzidine	5	~		1.3	U	1.3	U	1.2	U	1.2	U	6.8	U	1.2	U	1.2	U	110	U	1.2	U	1.1	U	1.2	U	1.1	U	1.4	U	1.2	U
Benzo(a)anthracene	0.002	~		1.5	U	1.6	U	1.5	U	1.5	U	8.1	U	1.4	U	1.4	U	130	U	1.4	U	1.3	U	1.5	U	1.3	U	3.9	J	24	
Chrysene	0.002	~		0.31	U	0.31	U	0.3	U	0.29	U	11	J	0.29	U	0.29	U	25	U	0.29	U	0.27	U	0.3	U	0.26	U	4	J	20	JD
bis(2-Ethylhexyl)phthalate	5	~		1.5	U	1.6	U	1.5	U	1.5	U	8.1	U	1.4	U	1.4	U	490	JB	1.4	U	5.1	J	1.5	U	1.3	U	1.6	U	5.5	J
Di-n-octyl phthalate	50	~		0.31	U	0.31	U	0.3	U	0.29	U	1.6	U	0.29	U	0.29	U	25	U	0.29	U	0.27	U	0.3	U	0.26	U	0.32	U	0.3	U
Benzo(b)fluoranthene	0.002	~		0.51	U	0.52	U	0.49	U	0.48	U	2.7	U	0.48	U	0.48	U	110	J	0.48	U	0.44	U	0.49	U	0.43	U	3.1	J	21	
Benzo(k)fluoranthene	0.002	~		0.36	U	0.36	U	0.34	U	0.34	U	1.9	U	0.33	U	0.33	U	29	U	0.33	U	0.31	U	0.34	U	0.3	U	0.38	U	8	JD
Benzo(a)pyrene	NA	~		0.26	U	0.27	U	0.25	U	0.25	U	1.4	U	0.24	U	0.24	U	22	U	0.24	U	0.23	U	0.25	U	0.22	U	2.6	J	17	
Indeno(1,2,3-cd)pyrene	0.002	~		0.79	U	0.8	U	0.75	U	0.74	U	4.1	U	0.73	U	0.73	U	65	U	0.73	U	0.68	U	0.75	U	0.66	U	0.82	U	12	JD
Dibenz(a,h)anthracene	NA	~		0.64	U	0.65	U	0.61	U	0.61	U	3.4	U	0.6	U	0.6	U	53	U	0.6	U	0.56	U	0.61	U	0.54	U	0.68	U	3.5	J
Benzo(g,h,i)perylene	NA	~		0.46	U	0.47	U	0.44	U	0.44	U	2.4	U	0.43	U	0.43	U	38	U	0.43	U	0.4	U	0.44	U	0.39	U	0.49	U	10	J

OCA LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Table 4: Ground-Water Sampling Results for Perched-Water Zone/Shallow Wells
Semi-Volatile Organic Compounds (Unfiltered and Filtered)

Sample ID	NYS	TW-2		TW-3		FD3 (TW3)		TW-4		MS-TW4		TW-8		TW-9		TW-11		TW-12		TW-15		FD2 (TW15)		TW-16		TW-17		TW-18		TW-19		RCRA-1	
Lab Sample Number	TOGS	Z1679-04		Z1645-09		Z1645-11		Z1679-13		Z1679-14		Z1645-05		Z1645-10		Z1645-03		Z1645-04		Z1645-02		Z1645-06		Z1590-06		Z1637-01		Z1637-02		Z1637-06		Z1645-01	
Sampling Date	1.1.1.	2/26/08		2/22/08		2/22/08		2/25/08		2/25/08		2/21/08		2/22/08		2/21/08		2/21/08		2/21/08		2/21/08		2/15/08		2/19/08		2/19/08		2/20/08		2/21/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
LAB FILTERED SEMIVOLATILES																																	
Lab SampleID Number		Z1680-04		~		~		Z1680-06		Z1680-07		~		~		Z1645-16.		~		Z1645-15		Z1645-19		Z1637-05		~		~		Z1637-06		~	
Benzaldehyde	NA	0.28	U	~		~		0.27	U	0.3	U	~		~		0.28	U	~		0.3	U	0.3	U	0.32	U	~		~		0.34	U	~	
Phenol	1	0.57	U	~		~		0.56	U	0.62	U	~		~		0.58	U	~		0.61	U	0.61	U	0.65	U	~		~		0.69	U	~	
bis(2-Chloroethyl)ether	1	0.29	U	~		~		0.28	U	0.31	U	~		~		0.29	U	~		0.31	U	0.31	U	0.33	U	~		~		0.35	U	~	
2-Chlorophenol	NA	0.34	U	~		~		0.33	U	0.37	U	~		~		0.35	U	~		0.37	U	0.37	U	0.39	U	~		~		0.41	U	~	
2-Methylphenol	NA	0.38	U	~		~		0.36	U	0.4	U	~		~		0.38	U	~		0.4	U	0.4	U	0.42	U	~		~		0.45	U	~	
2,2-oxybis(1-Chloropropane)	NA	0.28	U	~		~		0.27	U	0.3	U	~		~		0.28	U	~		0.3	U	0.3	U	0.32	U	~		~		0.34	U	~	
Acetophenone	NA	0.39	U	~		~		0.37	U	0.42	U	~		~		0.39	U	~		0.41	U	0.41	U	0.44	U	~		~		0.46	U	~	
3+4-Methylphenols	NA	0.41	U	~		~		0.39	U	0.44	U	~		~		0.41	U	~		0.43	U	0.43	U	0.46	U	~		~		0.49	U	~	
N-Nitroso-di-n-propylamine	NA	0.35	U	~		~		0.34	U	0.38	U	~		~		0.36	U	~		0.38	U	0.38	U	0.4	U	~		~		0.42	U	~	
Hexachloroethane	5	0.24	U	~		~		0.23	U	0.26	U	~		~		0.24	U	~		0.26	U	0.26	U	0.27	U	~		~		0.29	U	~	
Nitrobenzene	0.4	0.34	U	~		~		0.33	U	0.37	U	~		~		0.35	U	~		0.37	U	0.37	U	0.39	U	~		~		0.41	U	~	
Isophorone	50	0.27	U	~		~		0.26	U	0.29	U	~		~		0.27	U	~		0.29	U	0.29	U	0.31	U	~		~		0.32	U	~	
2-Nitrophenol	NA	0.29	U	~		~		0.28	U	0.31	U	~		~		0.29	U	~		0.31	U	0.31	U	0.33	U	~		~		0.35	U	~	
2,4-Dimethylphenol	1	0.79	U	~		~		0.77	U	0.85	U	~		~		0.8	U	~		0.84	U	0.84	U	0.89	U	~		~		0.95	U	~	
bis(2-Chloroethoxy)methane	5	0.34	U	~		~		0.33	U	0.37	U	~		~		0.35	U	~		0.37	U	0.37	U	0.39	U	~		~		0.41	U	~	
2,4-Dichlorophenol	1	0.35	U	~		~		0.34	U	0.38	U	~		~		0.36	U	~		0.38	U	0.38	U	0.4	U	~		~		0.42	U	~	
Naphthalene	NA	1.1	J	~		~		1.2	J	1.1	J	~		~		7.5	J	~		0.31	U	0.31	U	0.33	U	~		~		0.35	U	~	
4-Chloroaniline	5	0.96	U	~		~		0.93	U	1	U	~		~		0.97	U	~		1	U	1	U	1.1	U	~		~		1.2	U	~	
Hexachlorobutadiene	NA	0.41	U	~		~		0.39	U	0.44	U	~		~		0.41	U	~		0.43	U	0.43	U	0.46	U	~		~		0.49	U	~	
Caprolactam	NA	1.5	U	~		~		1.5	U	1.7	U	~		~		1.6	U	~		1.6	U	1.6	U	1.7	U	~		~		1.8	U	~	
4-Chloro-3-methylphenol	NA	0.23	U	~		~		0.22	U	0.25	U	~		~		0.23	U	~		0.24	U	0.24	U	0.26	U	~		~		0.28	U	~	
2-Methylnaphthalene	NA	1.1	J	~		~		0.37	U	0.42	U	~		~		15		~		0.41	U	0.41	U	0.44	U	~		~		0.46	U	~	
Hexachlorocyclopentadiene	5	0.58	U	~		~		0.57	U	0.63	U	~		~		0.59	U	~		0.62	U	0.62	U	0.66	U	~		~		0.7	U	~	
2,4,6-Trichlorophenol	NA	0.36	U	~		~		0.35	U	0.39	U	~		~		0.37	U	~		0.39	U	0.39	U	0.41	U	~		~		0.44	U	~	
2,4,5-Trichlorophenol	NA	0.4	U	~		~		0.38	U	0.43	U	~		~		0.4	U	~		0.42	U	0.42	U	0.45	U	~		~		0.48	U	~	
1,1-Biphenyl	5	0.33	U	~		~		0.32	U	0.36	U	~		~		0.34	U	~		0.36	U	0.36	U	0.38	U	~		~		0.4	U	~	
2-Chloronaphthalene	10	0.24	U	~		~		0.23	U	0.26	U	~		~		0.24	U	~		0.26	U	0.26	U	0.27	U	~		~		0.29	U	~	
2-Nitroaniline	5	0.26	U	~		~		0.25	U	0.28	U	~		~		0.26	U	~		0.28	U	0.28	U	0.29	U	~		~		0.31	U	~	
Dimethylphthalate	50	0.28	U	~		~		0.27	U	0.3	U	~		~		0.28	U	~		0.3	U	0.3	U	0.32	U	~		~		0.34	U	~	
Acenaphthylene	NA	0.36	U	~		~		0.35	U	0.39	U	~		~		0.37	U	~		0.39	U	0.39	U	0.41	U	~		~		0.44	U	~	
2,6-Dinitrotoluene	5	0.36	U	~		~		0.35	U	0.39	U	~		~		0.37	U	~		0.39	U	0.39	U	0.41	U	~		~		0.44	U	~	
3-Nitroaniline	5	0.36	U	~		~		0.35	U	0.39	U	~		~		0.37	U	~		0.39	U	0.39	U	0.41	U	~		~		0.44	U	~	
Acenaphthene	20	0.33	U	~		~		0.32	U	0.36	U	~		~		290	D	~		12		11	J	3.5	J	~		~		33		~	
2,4-Dinitrophenol	1	0.67	U	~		~		0.65	U	0.72	U	~		~		0.67	U	~		0.71	U	0.71	U	0.75	U	~		~		0.8	U	~	
4-Nitrophenol	NA	1.8	U	~		~		1.7	U	1.9	U	~		~		1.8	U	~		1.9	U	1.9	U	2	U	~		~		2.2	U	~	
Dibenzofuran	NA	0.32	U	~		~		0.31	U	0.35	U	~		~		150	E	~		1.4	J	1.3	J	0.36	U	~		~		0.39	U	~	
2,4-Dinitrotoluene	5	0.35	U	~		~		0.34	U	0.38	U	~		~		0.36	U	~		0.38	U	0.38	U	0.4	U	~		~		0.42	U	~	
Diethylphthalate	50	0.33	U	~		~		0.32	U	0.36	U	~		~		0.34	U	~		0.36	U	0.36	U	0.38	U	~		~		0.4	U	~	
4-Chlorophenyl-phenylether	NA	0.3	U	~		~		0.29	U	0.33	U	~		~		0.31	U	~		0.32	U	0.32	U	0.34	U	~		~		0.36	U	~	
Fluorene	50	0.29	U	~		~		0.28	U	0.31	U	~		~		150	D	~		4.5	J	4.4	J	0.33	U	~		~		10	J	~	
4-Nitroaniline	5	0.38	U	~		~		0.36	U	0.4	U	~		~		0.38	U	~		0.4	U	0.4	U	0.42	U	~		~		0.45	U	~	
4,6-Dinitro-2-methylphenol	NA	0.3	U	~		~		0.29	U	0.33	U	~		~		0.31	U	~		0.32	U	0.32	U	0.34	U	~		~		0.36	U	~	
N-Nitrosodiphenylamine	50	0.36	U	~		~		0.35	U	0.39	U	~		~		0.37	U	~		0.39	U	0.39	U	0.41	U	~		~		0.44	U	~	
4-Bromophenyl-phenylether	NA	1.5	U	~		~		1.4	U	1.6	U	~		~		1.5	U	~		1.6	U	1.6	U	1.6	U	~		~		1.8	U	~	
Hexachlorobenzene	0.04	0.28	U	~		~		0.27	U	0.3	U	~		~		0.28	U	~		0.3	U	0.3	U	0.32	U	~		~		0.34	U	~	
Atrazine	7.5	0.39	U	~		~		0.37	U	0.42	U	~		~		0.39	U	~		0.41	U	0.41	U	0.44	U	~		~		0.46	U	~	
Pentachlorophenol	1	0.54	U	~		~		0.53	U	0.58	U	~		~		0.55	U	~		0.58	U	0.58	U	0.61	U	~		~		0.65	U	~	
Phenanthrene	50	1.4	U	~		~		1.4	U	1.5	U	~		~		100	D	~		1.5	U	1.5	U	4.3	J	~		~		4.2	J	~	
Anthracene	50	1.5	U	~		~		1.4	U	1.6	U	~		~		16		~		1.6	U	1.6	U	1.7	U	~		~		1.8	U	~	
Carbazole	NA	0.25	U	~		~		0.24	U	0.27	U	~		~		4.2	J	~		0.27	U	0.27	U	0.28	U	~		~		0.3	U	~	
Di-n-butylphthalate	50	6.1	U	~		~		5.9	U	6.6	U	~		~		6.2	U	~		6.5	U	6.5	U	6.9	U	~		~		7.3	U	~	
Fluoranthene	50	0.21	U	~		~		0.2	U	0.22	U	~		~		5.4	J	~		0.22	U	0.22	U	0.24	U	~		~		1.8	J	~	
Pyrene	50	1.5	U	~		~		1.4	U	1.6	U	~		~		2.7	J	~		1.6	U	1.6	U	1.7	U	~		~		1.8	U	~	
Butylbenzylphthalate	50	0.44	U	~		~		0.42	U	0.47	U	~		~		0.44	U	~		0.47	U	0.47	U	0.49	U	~		~		0.52	U	~	
3,3-Dichlorobenzidine	5	1.1	U	~		~		1.1	U	1.2	U	~		~		1.1	U	~		1.2	U	1.2	U	1.3	U	~		~		1.4	U	~	
Benzo(a)anthracene	0.002	1.4	U	~		~		1.3	U	1.5	U	~		~		1.4	U	~		1.4	U	1.4	U	1.5	U	~		~		1.6	U	~	
Chrysene	0.002	0.27	U	~		~		0.26	U	0.29	U	~		~		0.27	U	~		0.29	U	0.29	U	0.31	U	~		~		0.32	U	~	
bis(2-Ethylhexyl)phthalate	5	1.4	U	~		~		1.3	U	1.5	U	~		~		1.4	U	~		1.4	U	1.4	U	1.5	U	~		~		1.6	U	~	
Di-n-octyl phthalate	50	0.27	U	~		~		0.26	U	0.29	U	~		~		0.27	U	~		0.29	U	0.29	U	0.31	U	~		~		0.32	U	~	
Benzo(b)fluoranthene	0.002	0.45	U	~		~		0.43	U	0.48	U	~		~		0.45	U	~		0.48	U	0.48	U	0.51	U	~		~		0.54	U	~	
Benzo(k)fluoranthene	0.002	0.31	U	~		~		0.3	U	0.34	U	~		~		0.32	U	~		0.33	U	0.33	U	0.35	U	~		~		0.38	U	~	
Benzo(a)pyrene	NA	0.23	U	~		~		0.22	U	0.25	U	~		~		0.23	U	~		0.24	U	0.24	U	0.26	U	~		~		0.28	U	~	
Indeno(1,2,3-cd)pyrene	0.002	0.69	U	~		~		0.67	U	0.74	U	~		~		0.69	U	~		0.73	U	0.73	U	0.78	U	~		~		0.82	U	~	
Dibenz(a,h)anthracene	NA	0.58	U	~		~		0.55	U	0.61	U	~		~		0.57	U	~		0.6	U	0.6	U	0.64	U	~		~		0.68	U	~	
Benzo(g,h,i)perylene	NA	0.41	U	~		~		0.39	U	0.44	U	~		~		0.41	U	~		0.43	U	0.43	U	0.46	U	~		~		0.49	U	~	

Table 4: Ground-Water Sampling Results for Perched-Water Zone/Shallow Wells
Semi-Volatile Organic Compounds (Unfiltered and Filtered)

Sample ID	NYS	RCRA-2		RCRA-4		FD1(RCR4)		GW-01		GW-02		GW-03		MW-01		FD8 (MW1)		GW-05-MW-02		MW-3S		MW-04S		FD7 (MW4S)		MW-05-S		MW-6S		MW-07-S	
Lab Sample Number	TOGS	Z1637-07		Z1637-08		Z1637-09		Z1850-11		Z1850-16		Z1850-18		Z1850-12		Z1850-14		Z2238-03		Z1753-08		Z1850-06		Z1850-07		Z1850-02		Z1850-17		Z1850-15	
Sampling Date	1.1.1.	2/20/08		2/20/08		2/20/08		3/4/08		3/4/08		3/4/08		3/4/08		3/4/08		4/1/2008		2/29/08		3/3/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
LAB FILTERED SEMIVOLATILES																															
Lab SampleID Number		Z1637-07		~		~		Z1851-15		~		~		Z1851-11		Z1851-10				~		Z1851-06				Z1851-02		~		~	
Benzaldehyde	NA	0.28	U	~		~		0.31	U	~		~		0.32	U	0.3	U	~		~		0.3	U	0.28	U	0.3	U	~		~	
Phenol	1	0.57	U	~		~		0.62	U	~		~		0.65	U	0.61	U	~		~		0.61	U	0.57	U	0.61	U	~		~	
bis(2-Chloroethyl)ether	1	0.29	U	~		~		0.32	U	~		~		0.33	U	0.31	U	~		~		0.31	U	0.29	U	0.31	U	~		~	
2-Chlorophenol	NA	0.34	U	~		~		0.38	U	~		~		0.39	U	0.37	U	~		~		0.37	U	0.34	U	0.37	U	~		~	
2-Methylphenol	NA	0.38	U	~		~		0.41	U	~		~		0.42	U	0.4	U	~		~		0.4	U	0.37	U	0.4	U	~		~	
2,2-oxybis(1-Chloropropane)	NA	0.28	U	~		~		0.31	U	~		~		0.32	U	0.3	U	~		~		0.3	U	0.28	U	0.3	U	~		~	
Acetophenone	NA	0.39	U	~		~		0.42	U	~		~		0.44	U	0.41	U	~		~		0.41	U	0.38	U	0.41	U	~		~	
3+4-Methylphenols	NA	0.41	U	~		~		0.44	U	~		~		0.46	U	0.43	U	~		~		0.43	U	0.4	U	0.43	U	~		~	
N-Nitroso-di-n-propylamine	NA	0.35	U	~		~		0.39	U	~		~		0.4	U	0.38	U	~		~		0.38	U	0.35	U	0.38	U	~		~	
Hexachloroethane	5	0.24	U	~		~		0.26	U	~		~		0.27	U	0.26	U	~		~		0.26	U	0.24	U	0.26	U	~		~	
Nitrobenzene	0.4	0.34	U	~		~		0.38	U	~		~		0.39	U	0.37	U	~		~		0.37	U	0.34	U	0.37	U	~		~	
Isophorone	50	0.27	U	~		~		0.3	U	~		~		0.31	U	0.29	U	~		~		0.29	U	0.27	U	0.29	U	~		~	
2-Nitrophenol	NA	0.29	U	~		~		0.32	U	~		~		0.33	U	0.31	U	~		~		0.31	U	0.29	U	0.31	U	~		~	
2,4-Dimethylphenol	1	0.79	U	~		~		0.86	U	~		~		0.89	U	0.84	U	~		~		0.84	U	0.78	U	0.84	U	~		~	
bis(2-Chloroethoxy)methane	5	0.34	U	~		~		0.38	U	~		~		0.39	U	0.37	U	~		~		0.37	U	0.34	U	0.37	U	~		~	
2,4-Dichlorophenol	1	0.35	U	~		~		0.39	U	~		~		0.4	U	0.38	U	~		~		0.38	U	0.35	U	0.38	U	~		~	
Naphthalene	NA	0.29	U	~		~		0.32	U	~		~		0.33	U	0.31	U	~		~		5.6	J	0.29	U	0.31	U	~		~	
4-Chloroaniline	5	0.96	U	~		~		1	U	~		~		1.1	U	1	U	~		~		1	U	0.95	U	1	U	~		~	
Hexachlorobutadiene	NA	0.41	U	~		~		0.44	U	~		~		0.46	U	0.43	U	~		~		0.43	U	0.4	U	0.43	U	~		~	
Caprolactam	NA	1.5	U	~		~		1.7	U	~		~		1.7	U	1.6	U	~		~		1.6	U	1.5	U	1.6	U	~		~	
4-Chloro-3-methylphenol	NA	0.23	U	~		~		0.25	U	~		~		0.26	U	0.24	U	~		~		0.24	U	0.23	U	0.24	U	~		~	
2-Methylnaphthalene	NA	0.39	U	~		~		0.42	U	~		~		0.44	U	0.41	U	~		~		0.41	U	0.38	U	0.41	U	~		~	
Hexachlorocyclopentadiene	5	0.58	U	~		~		0.64	U	~		~		0.66	U	0.62	U	~		~		0.62	U	0.58	U	0.62	U	~		~	
2,4,6-Trichlorophenol	NA	0.36	U	~		~		0.4	U	~		~		0.41	U	0.39	U	~		~		0.39	U	0.36	U	0.39	U	~		~	
2,4,5-Trichlorophenol	NA	0.4	U	~		~		0.43	U	~		~		0.45	U	0.42	U	~		~		0.42	U	0.39	U	0.42	U	~		~	
1,1-Biphenyl	5	0.33	U	~		~		0.36	U	~		~		0.38	U	0.36	U	~		~		0.36	U	0.33	U	0.36	U	~		~	
2-Chloronaphthalene	10	0.24	U	~		~		0.26	U	~		~		0.27	U	0.26	U	~		~		0.26	U	0.24	U	0.26	U	~		~	
2-Nitroaniline	5	0.26	U	~		~		0.28	U	~		~		0.29	U	0.28	U	~		~		0.28	U	0.26	U	0.28	U	~		~	
Dimethylphthalate	50	0.28	U	~		~		0.31	U	~		~		0.32	U	0.3	U	~		~		0.3	U	0.28	U	0.3	U	~		~	
Acenaphthylene	NA	0.36	U	~		~		0.4	U	~		~		0.41	U	0.39	U	~		~		0.39	U	0.36	U	0.39	U	~		~	
2,6-Dinitrotoluene	5	0.36	U	~		~		0.4	U	~		~		0.41	U	0.39	U	~		~		0.39	U	0.36	U	0.39	U	~		~	
3-Nitroaniline	5	0.36	U	~		~		0.4	U	~		~		0.41	U	0.39	U	~		~		0.39	U	0.36	U	0.39	U	~		~	
Acenaphthene	20	4.2	J	~		~		1.3	J	~		~		2.7	J	0.36	U	~		~		1.7	J	5.6	J	4.9	J	~		~	
2,4-Dinitrophenol	1	0.67	U	~		~		0.73	U	~		~		0.75	U	0.71	U	~		~		0.71	U	0.66	U	0.71	U	~		~	
4-Nitrophenol	NA	1.8	U	~		~		2	U	~		~		2	U	1.9	U	~		~		1.9	U	1.8	U	1.9	U	~		~	
Dibenzofuran	NA	0.32	U	~		~		0.35	U	~		~		2	J	0.34	U	~		~		0.34	U	0.32	U	1.3	J	~		~	
2,4-Dinitrotoluene	5	0.35	U	~		~		0.39	U	~		~		0.4	U	0.38	U	~		~		0.38	U	0.35	U	0.38	U	~		~	
Diethylphthalate	50	0.33	U	~		~		0.36	U	~		~		0.38	U	0.36	U	~		~		0.36	U	0.33	U	0.36	U	~		~	
4-Chlorophenyl-phenylether	NA	0.3	U	~		~		0.33	U	~		~		0.34	U	0.32	U	~		~		0.32	U	0.3	U	0.32	U	~		~	
Fluorene	50	2.9	J	~		~		0.32	U	~		~		1.2	J	0.31	U	~		~		0.31	U	1.7	J	1.3	J	~		~	
4-Nitroaniline	5	0.38	U	~		~		0.41	U	~		~		0.42	U	0.4	U	~		~		0.4	U	0.37	U	0.4	U	~		~	
4,6-Dinitro-2-methylphenol	NA	0.3	U	~		~		0.33	U	~		~		0.34	U	0.32	U	~		~		0.32	U	0.3	U	0.32	U	~		~	
N-Nitrosodiphenylamine	50	0.36	U	~		~		0.4	U	~		~		0.41	U	0.39	U	~		~		0.39	U	0.36	U	0.39	U	~		~	
4-Bromophenyl-phenylether	NA	1.5	U	~		~		1.6	U	~		~		1.6	U	1.6	U	~		~		1.6	U	1.4	U	1.6	U	~		~	
Hexachlorobenzene	0.04	0.28	U	~		~		0.31	U	~		~		0.32	U	0.3	U	~		~		0.3	U	0.28	U	0.3	U	~		~	
Atrazine	7.5	0.39	U	~		~		0.42	U	~		~		0.44	U	0.41	U	~		~		0.41	U	0.38	U	0.41	U	~		~	
Pentachlorophenol	1	0.54	U	~		~		0.59	U	~		~		0.61	U	0.58	U	~		~		7.3	J	0.54	U	0.58	U	~		~	
Phenanthrene	50	5.9	J	~		~		1.5	U	~		~		1.6	U	1.5	U	~		~		1.5	U	1.4	U	1.5	U	~		~	
Anthracene	50	2	J	~		~		1.6	U	~		~		1.7	U	1.6	U	~		~		1.6	U	1.5	U	1.6	U	~		~	
Carbazole	NA	0.25	U	~		~		0.27	U	~		~		0.28	U	0.27	U	~		~		1.3	J	0.25	U	0.27	U	~		~	
Di-n-butylphthalate	50	6.1	U	~		~		6.7	U	~		~		6.9	U	6.5	U	~		~		6.5	U	6	U	6.5	U	~		~	
Fluoranthene	50	2.9	J	~		~		0.23	U	~		~		0.24	U	0.22	U	~		~		0.22	U	0.21	U	0.22	U	~		~	
Pyrene	50	3.1	J	~		~		1.6	U	~		~		1.7	U	1.6	U	~		~		1.6	U	1.5	U	1.6	U	~		~	
Butylbenzylphthalate	50	0.44	U	~		~		0.48	U	~		~		0.49	U	0.47	U	~		~		0.47	U	0.43	U	0.47	U	~		~	
3,3-Dichlorobenzidine	5	2.1	J	~		~		1.2	U	~		~		1.3	U	1.2	U	~		~		1.2	U	1.1	U	1.2	U	~		~	
Benzo(a)anthracene	0.002	1.4	U	~		~		1.5	U	~		~		1.5	U	1.4	U	~		~		1.4	U	1.3	U	1.4	U	~		~	
Chrysene	0.002	1.2	J	~		~		0.3	U	~		~		0.31	U	0.29	U	~		~		0.29	U	0.27	U	0.29	U	~		~	
bis(2-Ethylhexyl)phthalate	5	1.4	U	~		~		1.5	U	~		~		1.5	U	2.2	J	~		~		1.4	U	1.3	U	1.4	U	~		~	
Di-n-octyl phthalate	50	0.27	U	~		~		0.3	U	~		~		0.31	U	0.29	U	~		~		0.29	U	0.27	U	0.29	U	~		~	
Benzo(b)fluoranthene	0.002	1.5	J	~		~		0.49	U	~		~		0.51	U	0.48	U	~		~		0.48	U	0.44	U	0.48	U	~		~	
Benzo(k)fluoranthene	0.002	0.31	U	~		~		0.34	U	~		~		0.35	U	0.33	U	~		~		0.33	U	0.31	U	0.33	U	~		~	
Benzo(a)pyrene	NA	1.2	J	~		~		0.25	U	~		~		0.26	U	0.24	U	~		~		0.24	U	0.23	U	0.24	U	~		~	
Indeno(1,2,3-cd)pyrene	0.002	0.69	U	~		~		0.75	U	~		~		0.78	U	0.73	U	~		~		0.73	U	0.68	U	0.73	U	~		~	
Dibenz(a,h)anthracene	NA	0.56	U	~		~		0.61	U	~		~		0.64	U	0.6	U	~		~		0.6	U	0.56	U	0.6	U	~		~	
Benzo(g,h,i)perylene	NA	0.41	U	~		~		0.44	U	~		~		0.46	U	0.43	U	~		~		0.43	U	0.4	U	0.43	U	~		~	

OCA LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Table 4: Ground-Water Sampling Results for Perched-Water Zone/Shallow Wells
Metals (Filtered and Unfiltered)

Sample ID	NYS	TW-2		TW-3		FD-3 (TW-3)		TW-4		MS-TW4		TW-8		TW-9		TW-11		TW-12		TW-15		FD-2 (TW-15)		TW-16		TW-17	
Lab Sample ID	TOGS	Z1679-04		Z1645-09		Z1645-11		Z1679-13		Z1679-14		Z1645-05		Z1645-10		Z1645-03		Z1645-04		Z1645-02		Z1645-06		Z1590-06		Z1637-01	
Sampling Date	1.1.1.	2/26/08		2/22/08		2/22/08		2/25/08		2/25/08		2/21/08		2/22/08		2/21/08		2/21/08		2/21/08		2/21/08		2/15/08		2/19/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	1		1		1		1		1		1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
METALS																											
Aluminum	NA	13300		3090		2490		9850		4800		2140		5570		8210		26800		793		528		6690		248	
Antimony	3	8.1	U	40.8		8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	61.6		0.81	J	8.1	U
Arsenic	25	2.8	U	2.8	U	11.6		3.8	J	2.8	U	2.8	U	2.8	U	5	J	23.3		2.8	U	2.8	U	6.9		10.8	
Barium	1000	214		1370		1040		209		141		254		176		502		709		301		277		215		257	
Beryllium	3	0.6	J	0.5	U	0.5	U	1.1	J	0.5	U	0.5	U	0.5	U	0.77	J	2.1	J	0.5	U	0.72	J	0.49	J	0.5	U
Cadmium	5	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.7	J	3.6	J	0.17	J	1.2	U
Calcium	NA	174000		224000		202000		219000		184000		124000		182000		257000		287000		236000		236000		112000		297000	
Chromium	50	19.7		26.8		13.5		33.4		19.6		3.3	J	24.4		15.3		53.7		11.1		18.2		26.4		8.8	
Cobalt	NA	7.1	J	16.6		4.4	J	21.1		10.8	J	2	U	6.7	J	10	J	21.4		5.8	J	16.3		6.6		3.3	J
Copper	200	53		336		297		142		81.6		28.9		234		22.1		154		13.5		21.9		33.7		13.1	
Iron	300	24900		12100		9770		34500		18400		16300		20900		22600		49200		3490		2810		24400		5010	
Lead	25	266		390		305		806		496		115		347		173		1100		33.6		19.9		142		20.6	
Magnesium	35000	16900		26800		24900		19900		15900		25500		26800		66000		47100		63100		63800		38000		70400	
Manganese	300	2100		823		695		831		553		1090		1590		819		1920		761		758		1030		560	
Mercury	0.7	5.53		7.39		6.13		1.46		1.14		0.27		2.26		0.28		3.95		0.19	J	0.14	J	18.4		0.08	U
Nickel	100	20.5		19.3	J	9.3	J	42.7		22.8		3.6	U	14.2	J	28.2		57.5		9.3	J	15.3	J	0.48		12.9	J
Potassium	NA	33800		33000		39500		16200		16600		69000		26700		33800		28600		24900		29600		15200		45600	
Selenium	10	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	1.4	J	3.6	U
Silver	50	2.2	U	14.9		2.3	J	19.8		14		2.2	U	2.2	U	2.2	U	2.2	U	8.3		24.2		0.17	J	2.8	J
Sodium	20000	126000		70400		74900		39900		36800		58200		96400		159000		82300		95600		116000		61900		146000	
Thallium	0.5	8.1	U	8.1	U	49.2		8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	17	J	8.1	U	8.1	U	0.22	J	8.1	U
Vanadium	NA	30.3		27.8		11.5	J	42.7		24.5		5.3	J	22.3		21.3		73.3		11.2	J	19.2	J	18.4		7.1	J
Zinc	2000	223		1490		1110		202		240		76.8		608		205		556		156		121		144		120	
FIELD FILTERED																											
Lab SampleID		Z1680-04		Z1645-21		Z1645-23		Z1680-06		Z1680-07		Z1645-18		Z1645-22		Z1645-16		Z1645-17		Z1645-15		Z1645-19		Z1637-05		Z1637-12	
Aluminum	NA	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U	25	U
Antimony	3	8.1	U	22.9	J	36.8		8.1	U	8.1	U	8.1	U	8.1	U	24.1	J	13.3	J	8.1	U	19.9	J	10.2	J	54.3	
Arsenic	25	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	5.9	J	2.8	U
Barium	1000	67.4		124		125		65.2		60		240		26.7	J	459		225		289		294		126		183	
Beryllium	3	0.5	U	0.5	U	0.5	U	0.66	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cadmium	5	1.2	U	1.2	U	1.5	J	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
Calcium	NA	142000		260000		255000		161000		152000		132000		195000		248000		235000		215000		242000		116000		247000	
Chromium	50	1.1	U	5.5		9.8		19.6		1.1	U	4.1	J	1.1	U	4.9	J	3.2	J	4	J	141		1.1	U	7.1	
Cobalt	NA	2	U	5	J	7.2	J	18.8		2	U	2.5	J	2	U	6.4	J	2	U	2	U	3.8	J	2	U	4.4	J
Copper	200	3.4	U	3.4	U	5.5	J	34.1		3.4	U	3.4	U	3.4	U	3.4	U	3.4	U	3.4	U	3.4	U	3.4	U	9	J
Iron	300	3410		3980		3790		2480		2270		11800		2040		1540		1950		416		875		15500		18.8	U
Lead	25	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Magnesium	35000	11400		31200		30500		14000		13200		27700		31300		59300		30300		52800		61500		47600		56600	
Manganese	300	1700		742		729		343		324		1060		1390		699		992		761		825		1000		421	
Mercury	0.7	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U
Nickel	100	3.6	U	4.1	J	5.8	J	15	J	3.6	U	3.6	U	3.6	U	4.1	J	3.6	U	3.6	U	82.8		7.3	J	10.2	J
Potassium	NA	22000		26700		26700		13200		13000		73000		29900		27100		14200		17800		19900		25000		34800	
Selenium	10	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U
Silver	50	2.2	U	5.2		10.2		15.4		2.2	U	2.2	U	2.2	U	7.1		2.2	U	2.2	U	2.8	J	2.2	U	8.7	
Sodium	20000	83400		71700		72900		33700		27700		67000		125000		119000		45200		57400		68700		112000		99400	
Thallium	0.5	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	9.5	J	12.3	J	8.1	U	11.8	J	8.1	U	8.1	U	13.4	J	8.1	U
Vanadium	NA	2.3	U	5.6	J	8	J	24.6		2.3	U	2.3	U	2.3	U	6	J	3.2	J	2.3	U	4.2	J	2.3	U	7.9	J
Zinc	2000	45.5		158		155		23.9		27.2		37.7		45.4		34.6		39.8		49.4		46.8		69.5		40.6	

Table 4: Ground-Water Sampling Results for Perched-Water Zone/Shallow Wells
Metals (Filtered and Unfiltered)

Sample ID	NYS	TW-18		TW-19		TW-RCRA-1		TW-RCRA-2		TW-RCRA-4		FD-1 (RCRA-4)		GW-01		GW-02		GW-03		GW-4		FD-6 (GW-4)		MW-01	
Lab Sample ID	TOGS	Z1637-02		Z1637-06		Z1645-01		Z1637-07		Z1637-08		Z1637-09		Z1850-11		Z1850-16		Z1850-18		Z1753-04		Z1753-05		Z1850-12	
Sampling Date	1.1.1.	2/19/08		2/20/08		2/21/08		2/20/08		2/20/08		2/20/08		3/4/08		3/4/08		3/4/08		2/29/08		2/29/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	1		1		1		1		1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
METALS																											
Aluminum	NA	5070		284		27200		36200		10700		8760		532		200	U	734		632		620		25	R
Antimony	3	314		8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	4.8	U	4.8	U	8.1	U
Arsenic	25	9.1	J	2.8	U	52.1		129		11.7		15.3		3.1	J	2.8	UJ	2.8	UJ	4.1	U	4.1	U	2.8	UJ
Barium	1000	152		79.6		1260		1470		96.2		87.6		78.1	J	154	J	315	J	145	J	155	J	64.1	J
Beryllium	3	6.4	J	0.5	U	2.4	J	2.8	J	0.86	J	0.77	J	0.5	U	0.5	U	0.5	U	0.23	U	0.26	J	0.5	U
Cadmium	5	15.8	J	1.2	U	1.2	U	2.3	J	1.2	U	1.2	U	1.2	UJ	1.2	UJ	1.2	UJ	0.52	U	0.52	U	1.2	UJ
Calcium	NA	32200		43600		229000		232000		69300		68000		77900		172000		239000		116000		125000		115000	
Chromium	50	71.4		5.9		65		112		15.6		13		2.8	J	3.4	J	4.4	J	4.7	J	3.2	J	2.8	J
Cobalt	NA	61.4		13.5	J	44.9		65.8		14.2	J	13.5	J	2	U	2	U	2	U	1.1	U	1.1	U	2	U
Copper	200	17.5		3.4	U	104		457		20.1		19.2		4.4	J	3.4	U	3.4	U	3	J	3	J	3.4	U
Iron	300	13400		18400		81300		90600		40000		35600		3010		4800		7090		19500		20800		5160	J
Lead	25	17.2		2.2	U	685		4820		39.7		34.9		16.7	J	8.6	R	12.2	J	12.4		9.5	J	6.1	R
Magnesium	35000	17300		14500		83100		91100		20900		20000		4830		14000		69600		44500		47000		16600	J
Manganese	300	1090		1420		4090		1620		2220		1870		680		394		1170		1240		1340		702	J
Mercury	0.7	0.12	J	0.08	U	1.45		103		0.08	U	0.14	J	0.08	UJ	0.08	UJ	0.08	UJ	0.08	U	0.08	U	0.08	UJ
Nickel	100	25.4		9.9	J	88.2		132		27.7		26.1		3.6	U	3.6	U	3.6	U	0.54	U	0.54	U	3.6	U
Potassium	NA	240943.1	OR	21400		52700		115000		22100		22000		18300	J	18100	J	26600	J	18800		19600		11400	J
Selenium	10	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	1.5	U	1.5	U	3.6	U
Silver	50	113		2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	0.67	J	0.61	U	2.2	U
Sodium	20000	1200000		531000		290000		588000		239000		236000		349000	J	129000	J	102000	J	71400		76300		38300	R
Thallium	0.5	8.1	U	17.5	J	19.2	J	8.1	U	19.3	J	13.5	J	8.1	U	10	U	8.1	U	4.9	U	4.9	U	10.0	U
Vanadium	NA	16.9	J	4.9	J	84		114		19.9	J	16.4	J	3.6	J	2.3	UJ	2.3	UJ	3.7	J	5	J	2.3	UJ
Zinc	2000	135		55.4		1000		1900		209		202		34.5	J	27.9	J	42.8	J	50		46.9		46.4	J
FIELD FILTERED																											
Lab SampleID		Z1637-13		Z1637-15		Z1645-14		Z1637-16		Z1637-17		Z1637-18		Z1851-10		Z1851-15		Z1851-17		Z1753-11		Z1753-12		Z1851-11	
Aluminum	NA	25	U	25	U	33	J	25	U	25	U	25	U	25	U	25	U	25	U	7.5	U	7.5	U	25	U
Antimony	3	30.1		18.4	J	8.1	U	9.4	J	12.9	J	8.1	U	8.1	U	8.1	U	9	J	4.8	U	4.8	U	9.1	J
Arsenic	25	2.8	U	2.8	U	3.9	J	22.8		7.5	J	4.9	J	2.8	U	2.8	U	7.8	J	4.1	U	4.1	U	2.8	U
Barium	1000	6.3	U	46.9	J	715		249		25.8	J	26.3	J	62		130		301		127	J	127	J	78.7	
Beryllium	3	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.63	J	0.65	J	0.35	J	0.5	J	0.5	U
Cadmium	5	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	3.7	J	3.8	J	4.1	J	0.52	U	0.52	U	4.4	J
Calcium	NA	13000		38400		171000		124000		58000		58900		68100		161000		231000		114000		114000		111000	
Chromium	50	5.7		1.6	J	72.9		1.8	J	1.5	J	1.1	U	5.8		6.4		5.2		3.1	J	1.9	J	5.5	
Cobalt	NA	28.6		11.2	J	8	J	29.7		5.9	J	4.7	J	6.5	J	6	J	7.9	J	1.1	U	1.1	U	7.7	J
Copper	200	8	J	3.4	U	3.4	U	3.4	U	3.4	U	3.4	U	3.4	U	3.4	U	3.4	U	1.3	U	1.3	U	3.4	U
Iron	300	18.8	U	20100		13200		6130		17300		17600		832		1410		3600		17300		17400		1410	
Lead	25	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	17.1		16.1		18.9		7.9	J	8.2	J	14.5	
Magnesium	35000	6560		10600		56000		59700		13400		13600		4890		14000		71800		42700		42600		17500	
Manganese	300	164		1600		1640		487		1060		1080		612		366		1110		1220		1210		434	
Mercury	0.7	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.16	J	0.16	J	0.16	J	0.08	U	0.08	U	0.15	J
Nickel	100	8.2	J	8.4	J	48.6		33.1		14.2	J	12.1	J	4.5	J	5	J	5	J	0.54	U	0.54	U	5.8	J
Potassium	NA	84700		14300		38000		85000		14300		14500		20600		19100		28300		18000		18200		13200	
Selenium	10	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U	1.5	U	1.5	U	3.6	U
Silver	50	8.1		2.2	U	2.2	U	2.4	J	2.7	J	2.2	U	2.2	U	2.2	U	2.2	U	1	J	0.61	U	2.2	U
Sodium	20000	371000		347000		202000		416000		149000		151000		364000		127000		102000		69300		69500		42100	
Thallium	0.5	8.1	U	8.8	J	10.2	J	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U	4.9	U	4.9	U	8.1	U
Vanadium	NA	7.3	J	2.3	U	3.2	J	2.4	J	2.3	U	2.3	U	7.7	J	8	J	15.6	J	1.1	U	1.1	U	7.4	J
Zinc	2000	22.8		47.2		47.9		64.8		83.9		86.7		46.5		61.5		56		44.6		46.1		39.4	

Table 4: Ground-Water Sampling Results for Perched-Water Zone/Shallow Wells
Metals (Filtered and Unfiltered)

Sample ID	NYS	FD-8 (MW-01)		GW-05/ MW-02		MW-3S		MW-04S		FD-7 (MW-4S)		MW-05S		MW-06S		MW-07S	
Lab Sample ID	TOGS	Z1850-14		Z2238-08		Z1753-01		Z1850-06		Z1850-07		Z1850-02		Z1850-17		Z1850-15	
Sampling Date	1.1.1.	3/4/08		4/1/2008		2/29/08		3/3/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
METALS																	
Aluminum	NA	1160	J	337		21300		2740		2560		1390		866		69800	
Antimony	3	8.1	U	8.1	U	4.8	U	8.1	U	8.1	U	40.5	U	8.1	U	18.5	J
Arsenic	25	2.8	UJ	2.8	U	5.1	J	2.8	UJ	2.8	UJ	20.1	J	2.8	UJ	77.1	J
Barium	1000	128	J	215		403		199	J	204	J	219	J	283	J	1690	J
Beryllium	3	0.5	U	0.5	U	1.8	J	0.5	U	0.5	U	2.5	U	0.5	U	4.5	
Cadmium	5	1.2	UJ	1.2	U	0.52	U	1.2	UJ	1.2	UJ	6	UJ	1.2	UJ	1.2	UJ
Calcium	NA	108000		133000		80900		46200		47800		494000		241000		297000	
Chromium	50	6.1		19.1		76.9		10.1		10.7		59.8		4.3	J	155	
Cobalt	NA	4.1	J	13.1	J	12.5	J	7.8	J	8	J	25.4	J	2	U	58.5	
Copper	200	5.6	J	21.2		104		14.2		14.6		42.3	J	4.8	J	438	
Iron	300	3720	J	1690		42400		24500		24800		25600		17000		195000	
Lead	25	8.9	R	21.6		434		12.2		14.2	J	28.4	J	35.4	J	2950	
Magnesium	35000	48100		16400		22600		32200		33100		43700		85200		48300	
Manganese	300	508	J	381		791		527		535		9550	UJ	998		3830	
Mercury	0.7	0.08	UJ	0.13	U	1.66		0.08	UJ	0.08	UJ	0.08	U	0.08	UJ	4.54	J
Nickel	100	6.5	J	12.1	J	49.4		8.2	J	6.5	J	677		3.6	U	138	
Potassium	NA	48200	J	17600		25400		24900	J	25700	J	79700	J	30900	J	30200	J
Selenium	10	3.6	U	3.6	U	8.7	J	3.6	U	4.5	J	18	U	3.6	U	25.4	
Silver	50	2.2	U	23.2		0.61	U	2.2	U	2.2	U	11	U	2.2	U	4.8	J
Sodium	20000	281000	R	73600		134000		154000	J	157000	J	285000	J	98400	J	51600	J
Thallium	0.5	8.1	U	8.1	U	4.9	U	8.1	U	8.1	U	40.5	U	8.1	U	8.1	U
Vanadium	NA	6.3	J	34		59.8		13.9	J	14.4	J	11.5	UJ	2.4	J	209	J
Zinc	2000	90	J	73.8		195		41	J	43.4	J	3150		50	J	968	
FIELD FILTERED																	
Lab SampleID		Z1851-13				Z1753-08		Z1851-06		Z1851-07		Z1851-02		Z1851-16		Z1851-14	
Aluminum	NA	25	U	~		7.5	U	25	U	25	U	25	U	25	U	25	U
Antimony	3	8.1	U	~		4.9	J	9.9	J	8.3	J	8.1	U	9.4	J	12.4	J
Arsenic	25	2.8	U	~		4.1	U	13.4		15.1		2.8	U	3.1	J	8.1	J
Barium	1000	116		~		30.1	J	57.4		161		40.8	J	242		174	
Beryllium	3	0.66	J	~		0.23	U	0.5	U	0.5	U	0.5	U	0.63	J	0.68	J
Cadmium	5	4.2	J	~		0.52	U	4.2	J	4	J	1.2	U	3.2	J	3.4	J
Calcium	NA	96700		~		57500		73200		39600		114000		227000		165000	
Chromium	50	7.6		~		1.9	J	5.5		6.2		3	J	6.2		6.8	
Cobalt	NA	6.8	J	~		1.1	U	6.5	J	9	J	4.7	J	6.8	J	6.7	J
Copper	200	3.4	U	~		1.3	U	3.4	U	3.4	U	3.4	U	3.4	U	3.4	U
Iron	300	1000		~		30.4	U	2450		13800		4670		12700		11800	
Lead	25	15.4		~		5.5	J	16.8		14.9		6.4	J	16.6		17.3	
Magnesium	35000	49200		~		18700		4930		29400		8930		85900		25700	
Manganese	300	400		~		126		383		388		2070		916		1130	
Mercury	0.7	0.15	J	~		0.08	U	0.15	J	0.16	J	0.16	J	0.17	J	0.16	J
Nickel	100	3.6	J	~		0.54	U	3.6	U	5.4	J	161		4.3	J	3.6	U
Potassium	NA	54200		~		18600		12300		25100		16200		32500		15800	
Selenium	10	3.6	U	~		1.5	U	3.6	U	3.6	U	3.6	U	3.6	U	3.6	U
Silver	50	2.2	U	~		0.61	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Sodium	20000	289000		~		146000		68300		148000		56600		97000		44000	
Thallium	0.5	8.1	U	~		4.9	U	8.1	U	8.1	U	8.1	U	8.1	U	8.1	U
Vanadium	NA	8	J	~		3.9	J	13.5	J	19.1	J	2.3	U	13.7	J	12.8	J
Zinc	2000	41		~		53		40.4		45.5		817		55		46	

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Table 4: Ground-Water Sampling Results for the Perched Water Zone/Shallow Wells
Pesticides and PCBs

Sample ID	NYS	**TW-2**		**TW-3**		**FD-3 (TW-3)**		**TW-4**		**MS-TW4**		**TW-8**		**TW-9**		**TW-11**		**TW-12**		**TW-15**		**FD-2 (TW-15)**	
Lab Sample Number	TOGS	**Z1679-04**		**Z1645-09**		**Z1645-11**		**Z1679-13**		**Z1679-14**		**Z1645-05**		**Z1645-10**		**Z1645-03**		**Z1645-04**		**Z1645-02**		**Z1645-06**	
Sampling Date	1.1.1.	**2/26/08**		**2/22/08**		**2/22/08**		**2/25/08**		**2/25/08**		**2/21/08**		**2/22/08**		**2/21/08**		**2/21/08**		**2/21/08**		**2/21/08**	
Matrix	Ambient	**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**	
Dilution Factor	GW	**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**	
Units	ug/L	**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**	
PCBs																							
Aroclor-1016	**0.09**	0.153	U	0.156	U	0.151	U	0.159	U	0.179	U	0.153	U	0.156	U	0.148	U	0.169	U	0.158	U	0.159	U
Aroclor-1221	**0.09**	0.179	U	0.183	U	0.177	U	0.187	U	0.21	U	0.179	U	0.183	U	0.173	U	0.198	U	0.185	U	0.187	U
Aroclor-1232	**0.09**	0.115	U	0.117	U	0.114	U	0.12	U	0.135	U	0.115	U	0.117	U	0.111	U	0.127	U	0.118	U	0.12	U
Aroclor-1242	**0.09**	0.087	U	0.089	U	0.087	U	0.091	U	0.102	U	0.087	U	0.089	U	0.085	U	0.097	U	0.09	U	0.091	U
Aroclor-1248	**0.09**	0.044	U	0.045	U	0.044	U	0.046	U	0.052	U	0.044	U	0.045	U	0.043	U	0.049	U	0.046	U	0.046	U
Aroclor-1254	**0.09**	0.039	U	0.04	U	0.039	U	0.041	U	0.046	U	0.039	U	0.04	U	0.038	U	0.043	U	0.04	U	0.041	U
Aroclor-1260	**0.09**	0.16	U	0.17	U	0.16	U	0.17	U	0.19	U	0.16	U	0.17	U	0.16	U	0.18	U	0.17	U	0.17	U
TOTAl PCBs	**0.09**		U		U		U		U		U		U		U		U		U		U		U
PESTICIDES																							
alpha-BHC	**NA**	0.0066	U	0.0069	U	0.0072	U	0.007	U	0.0071	U	0.007	U	0.0072	U	0.0066	U	0.007	U	0.0072	U	0.007	U
beta-BHC	**NA**	0.0073	U	0.0077	U	0.0081	U	0.0078	U	0.0079	U	0.0078	U	0.008	U	0.0073	U	0.0078	U	0.0081	U	0.0078	U
delta-BHC	**NA**	0.0521	U	0.055	U	0.0575	U	0.0556	U	0.0562	U	0.0556	U	0.0568	U	0.0521	U	0.0556	U	0.0575	U	0.0556	U
gamma-BHC	**NA**	0.0074	U	0.0078	U	0.0082	U	0.0079	U	0.008	U	0.0079	U	0.0081	U	0.0074	U	0.0079	U	0.0082	U	0.0079	U
Heptachlor	**0.04**	0.0236	U	0.0249	U	0.0261	U	0.0252	U	0.0255	U	0.0252	U	0.0258	U	0.0236	U	0.0252	U	0.0261	U	0.0252	U
Aldrin	**NA**	0.0312	U	0.0329	U	0.0344	U	0.0332	U	0.0336	U	0.0332	U	0.034	U	0.0312	U	0.0332	U	0.0344	U	0.0332	U
Heptachlor epoxide	**0.03**	0.0126	U	0.0133	U	0.0139	U	0.0134	U	0.0136	U	0.0134	U	0.0138	U	0.0126	U	0.0134	U	0.0139	U	0.0134	U
Endosulfan I	**NA**	0.0079	U	0.0083	U	0.0087	U	0.0084	U	0.0085	U	0.0084	U	0.0086	U	0.0079	U	0.0084	U	0.0087	U	0.0084	U
Dieldrin	**0.004**	0.0076	U	0.0081	U	0.0084	U	0.0082	U	0.0082	U	0.0082	U	0.0083	U	0.0076	U	0.0082	U	0.0084	U	0.0082	U
4,4-DDE	**0.2**	0.0075	U	0.0079	U	0.0082	U	0.008	U	0.0081	U	0.008	U	0.0081	U	0.0075	U	0.008	U	0.0082	U	0.008	U
Endrin	**NA**	0.0072	U	0.0076	U	0.0079	U	0.0077	U	0.0078	U	0.0077	U	0.0079	U	0.0072	U	0.0077	U	0.0079	U	0.0077	U
Endosulfan II	**NA**	0.0076	U	0.008	U	0.0083	U	0.0081	U	0.0081	U	0.0081	U	0.0082	U	0.0076	U	0.0081	U	0.0083	U	0.0081	U
4,4-DDD	**0.3**	0.0073	U	0.0077	U	0.0081	U	0.0078	U	0.0079	U	0.0078	U	0.008	U	0.0073	U	0.0078	U	0.0081	U	0.0078	U

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Table 4: Ground-Water Sampling Results for the Perched Water Zone/Shallow Wells
Pesticides and PCBs

Sample ID	**NYS**	**TW-16**		**TW-17**		**TW-18**		**TW-19**		**TW-RCRA-1**		**TW-RCRA-2**		**TW-RCRA-4**		**FD-1 (RCRA-4)**		**GW-01**		**GW-02**		**GW-03**	
Lab Sample Number	**TOGS**	**Z1590-06**		**Z1637-01**		**Z1637-02**		**Z1637-06**		**Z1645-01**		**Z1637-07**		**Z1637-08**		**Z1637-09**		**Z1850-11**		**Z1850-16**		**Z1850-18**	
Sampling Date	**1.1.1.**	**2/15/08**		**2/19/08**		**2/19/08**		**2/20/08**		**2/21/08**		**2/20/08**		**2/20/08**		**2/20/08**		**3/4/08**		**3/4/08**		**3/4/08**	
Matrix	**Ambient**	**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**	
Dilution Factor	**GW**	**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**	
Units	**ug/L**	**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**	
PCBs																									
Aroclor-1016	**0.09**	0.156	U	7.88	U	14.8	U	0.156	U	0.175	U	0.165	U	0.161	U	0.207	U	0.207	U	0.167	U	0.167	U
Aroclor-1221	**0.09**	0.183	U	9.24	U	17.3	U	0.183	U	0.205	U	0.193	U	0.189	U	0.243	U	0.243	U	0.195	U	0.195	U
Aroclor-1232	**0.09**	0.117	U	5.92	U	11.1	U	0.117	U	0.131	U	0.124	U	0.121	U	0.156	U	0.156	U	0.125	U	0.125	U
Aroclor-1242	**0.09**	0.089	U	4.51	U	8.47	U	0.089	U	0.1	U	0.094	U	0.092	U	0.119	U	0.119	U	0.095	U	0.095	U
Aroclor-1248	**0.09**	0.045	U	2.28	U	4.29	U	0.045	U	0.051	U	0.048	U	0.047	U	0.06	U	0.06	U	0.048	U	0.048	U
Aroclor-1254	**0.09**	0.04	U	2.01	U	3.78	U	0.04	U	0.045	U	0.042	U	0.041	U	0.053	U	0.053	U	0.043	U	0.043	U
Aroclor-1260	**0.09**	0.17	U	8.5	U	16	U	0.17	U	0.19	U	0.18	U	0.17	U	0.22	U	0.22	U	0.18	U	0.18	U
TOTAl PCBs	**0.09**		U		U		U		U		U		U		U		U		U		U		U
PESTICIDES																									
alpha-BHC	**NA**	0.0068	U	0.0137	U	0.0067	U	0.0068	U	0.0073	U	0.0066	U	0.007	U	0.007	U	0.009	U	0.0072	U	0.0362	U
beta-BHC	**NA**	0.0076	U	0.0153	U	0.0075	U	0.0076	U	0.0082	U	0.0074	U	0.0078	U	0.0078	U	0.01	U	0.0081	U	0.0403	U
delta-BHC	**NA**	0.0544	U	0.1087	U	0.0532	U	0.0544	U	0.0581	U	0.0526	U	0.0556	U	0.0556	U	0.0714	U	0.0575	U	0.2874	U
gamma-BHC	**NA**	0.0077	U	0.0154	U	0.0076	U	0.0077	U	0.0083	U	0.0075	U	0.0079	U	0.0079	U	0.0101	U	0.0082	U	0.0408	U
Heptachlor	**0.04**	0.0247	U	0.0493	U	0.0241	U	0.0247	U	0.0264	U	0.0239	U	0.0252	U	0.0252	U	0.0324	U	0.0261	U	0.1304	U
Aldrin	**NA**	0.0325	U	0.065	U	0.0318	U	0.0325	U	0.0348	U	0.0315	U	0.0332	U	0.0332	U	0.0427	U	0.0344	U	0.1719	U
Heptachlor epoxide	**0.03**	0.0132	U	0.0263	U	0.0129	U	0.0132	U	0.0141	U	0.0127	U	0.0134	U	0.0134	U	0.0173	U	0.0139	U	0.0695	U
Endosulfan I	**NA**	0.0082	U	0.0165	U	0.0081	U	0.0082	U	0.0088	U	0.008	U	0.0084	U	0.0084	U	0.0108	U	0.0087	U	0.0435	U
Dieldrin	**0.004**	0.008	U	0.016	U	0.0078	U	0.008	U	0.0085	U	0.0077	U	0.0082	U	0.0082	U	0.0105	U	0.0084	U	0.0422	U
4,4-DDE	**0.2**	0.0078	U	0.0156	U	0.0076	U	0.0078	U	0.0083	U	0.0075	U	0.008	U	0.008	U	0.0102	U	0.0082	U	0.0412	U
Endrin	**NA**	0.0075	U	0.015	U	0.0074	U	0.0075	U	0.008	U	0.0073	U	0.0077	U	0.0077	U	0.0099	U	0.0079	U	0.0397	U
Endosulfan II	**NA**	0.0079	U	0.0158	U	0.0077	U	0.0079	U	0.0084	U	0.0076	U	0.0081	U	0.0081	U	0.0104	U	0.0083	U	0.0417	U
4,4-DDD	**0.3**	2.3	D	0.0153	U	0.0075	U	0.0076	U	0.0082	U	0.0074	U	0.0078	U	0.0078	U	0.01	U	0.0081	U	0.0404	U

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Table 4: Ground-Water Sampling Results for the Perched Water Zone/Shallow Wells
Pesticides and PCBs

Sample ID	**NYS**	**GW-4**		**FD-6 (GW-4)**		**MW-01**		**FD-8 (MW-01)**		**MW-3S**		**MW-04S**		**FD-7 (MW-4S)**		**MW-05-S**		**MW-6S**		**MW-07-S**	
Lab Sample Number	**TOGS**	**Z1753-04**		**Z1753-05**		**Z1850-12**		**Z1850-14**		**Z1753-01**		**Z1850-06**		**Z1850-07**		**Z1850-02**		**Z1850-17**		**Z1850-15**	
Sampling Date	**1.1.1.**	**2/29/08**		**2/29/08**		**3/4/08**		**3/4/08**		**2/29/08**		**3/3/08**		**3/3/08**		**3/3/08**		**3/4/08**		**3/4/08**	
Matrix	**Ambient**	**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**	
Dilution Factor	**GW**	**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**	
Units	**ug/L**	**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**	
PCBs																					
Aroclor-1016	**0.09**	0.161	U	0.161	U	0.163	U	0.161	U	0.181	U	0.161	U	0.145	U	0.161	U	0.181	U	0.171	U
Aroclor-1221	**0.09**	0.189	U	0.189	U	0.191	U	0.189	U	0.212	U	0.189	U	0.17	U	0.189	U	0.212	U	0.2	U
Aroclor-1232	**0.09**	0.121	U	0.121	U	0.122	U	0.121	U	0.136	U	0.121	U	0.109	U	0.121	U	0.136	U	0.128	U
Aroclor-1242	**0.09**	0.092	U	0.092	U	0.093	U	0.092	U	0.104	U	0.092	U	0.083	U	0.092	U	0.104	U	0.098	U
Aroclor-1248	**0.09**	0.047	U	0.047	U	0.047	U	0.047	U	0.053	U	0.047	U	0.042	U	0.047	U	0.053	U	0.049	U
Aroclor-1254	**0.09**	0.041	U	0.041	U	0.042	U	0.041	U	0.046	U	0.041	U	0.037	U	0.041	U	0.046	U	0.044	U
Aroclor-1260	**0.09**	0.17	U	0.17	U	0.18	U	0.17	U	0.2	U	0.17	U	0.16	U	0.17	U	0.2	U	0.18	U
TOTAl PCBs	**0.09**		U		U		U		U		U		U		U		U		U		U
PESTICIDES																					
alpha-BHC	**NA**	0.035	U	0.035	U	0.0071	U	0.007	U	0.007	U	0.094		0.0063	U	0.007	U	0.0394	U	0.0074	U
beta-BHC	**NA**	0.039	U	0.039	U	0.0079	U	0.0078	U	0.0078	U	0.0078	U	0.007	U	0.0078	U	0.0439	U	0.0083	U
delta-BHC	**NA**	0.2778	U	0.2778	U	0.0562	U	0.0556	U	0.0556	U	0.0556	U	0.05	U	0.0556	U	0.3125	U	0.0588	U
gamma-BHC	**NA**	0.0394	U	0.0394	U	0.008	U	0.0079	U	0.0079	U	0.0079	U	0.0071	U	0.0079	U	0.0444	U	0.0084	U
Heptachlor	**0.04**	0.1261	U	0.1261	U	0.0255	U	0.0252	U	0.0252	U	0.0252	U	0.0227	U	0.0252	U	0.1418	U	0.0267	U
Aldrin	**NA**	0.1662	U	0.1662	U	0.0336	U	0.0332	U	0.0332	U	0.0332	U	0.0299	U	0.0332	U	0.1869	U	0.0352	U
Heptachlor epoxide	**0.03**	0.0672	U	0.0672	U	0.0136	U	0.0134	U	0.0134	U	0.0134	U	0.0121	U	0.0134	U	0.0756	U	0.0142	U
Endosulfan I	**NA**	0.0421	U	0.0421	U	0.0085	U	0.0084	U	0.0084	U	0.0084	U	0.0076	U	0.0084	U	0.0473	U	0.0089	U
Dieldrin	**0.004**	0.0408	U	0.0408	U	0.0082	U	0.0082	U	0.0082	U	0.0082	U	0.0073	U	0.0082	U	0.0459	U	0.0086	U
4,4-DDE	**0.2**	0.0398	U	0.0398	U	0.0081	U	0.008	U	0.008	U	0.008	U	0.0072	U	0.008	U	0.0448	U	0.0084	U
Endrin	**NA**	0.0384	U	0.0384	U	0.0078	U	0.0077	U	0.0077	U	0.0077	U	0.0069	U	0.0077	U	0.0432	U	0.0081	U
Endosulfan II	**NA**	0.0403	U	0.0403	U	0.0081	U	0.0081	U	0.0081	U	0.0081	U	0.0073	U	0.0081	U	0.0453	U	0.0085	U
4,4-DDD	**0.3**	0.0391	U	0.0391	U	0.0079	U	0.0078	U	0.0078	U	**2.5**	D	0.007	U	0.0078	U	0.0439	U	0.0083	U

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Table 5: Ground-Water Sampling Results for the Sand Aquifer/Intermediate-Deep Wells
Volatile Organic Compounds and Cyanide

Sample ID	NYS	TW-1		TW-10		TW-14		FD-4 (TW-14)		TW-RCRA-3		MW-3I		MW-3D		MW-04-I		MW-05-I		MW-6I		MW-07I	
Lab Sample ID	TOGS	Z1679-02		Z1679-17		Z1679-15		Z1679-16		Z1679-01		Z1753-02		Z1753-03		Z1850-05		Z1850-01		Z1850-19		Z1850-10	
Sampling Date	1.1.1	2/26/08		2/25/08		2/25/08		2/25/08		2/26/08		2/29/08		2/29/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	10		1		1		1		1		5		1		20		10		20		20	
VO+10	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Dichlorodifluoromethane	5	8.8	U	0.88	U	0.88	U	0.88	U	0.88	U	4.4	U	0.88	U	18	U	8.8	U	18	U	18	U
Chloromethane	5	3.7	U	0.37	U	0.37	U	0.37	U	0.37	U	1.8	U	0.37	U	7.4	U	3.7	U	7.4	U	7.4	U
Vinyl Chloride	2	3	U	12		0.3	U	0.3	U	0.3	U	1.5	U	0.3	U	6	U	3	U	6	U	6	U
Bromomethane	5	14	U	1.4	U	1.4	U	1.4	U	1.4	U	6.8	U	1.4	U	27	U	14	U	27	U	27	U
Chloroethane	5	8	U	0.8	U	0.8	U	0.8	U	0.8	U	4	U	0.8	U	16	U	8	U	16	U	16	U
Trichlorofluoromethane	5	5.3	U	0.53	U	0.53	U	0.53	U	0.53	U	2.6	U	0.53	U	11	U	5.3	U	11	U	11	U
1,1,2-Trichlorotrifluoroethane	5	6.1	U	0.61	U	0.61	U	0.61	U	0.61	U	3	U	0.61	U	12	U	6.1	U	12	U	12	U
1,1-Dichloroethene	5	6.7	U	0.67	U	0.67	U	0.67	U	0.67	U	3.4	U	0.67	U	13	U	6.7	U	13	U	13	U
Acetone	50	22	U	36		35		35		2.2	U	11	U	40		43	U	22	U	43	U	43	U
Carbon Disulfide	NA	2	U	0.2	U	0.2	U	0.2	U	0.2	U	1	U	0.2	U	4	U	2	U	4	UJ	4	U
Methyl tert-butyl Ether	NA	25	J	5.6		46		50		26		1.2	U	13		4.6	U	2.3	U	4.6	U	4.6	U
Methyl Acetate	NA	4.5	U	0.45	U	0.45	U	0.45	U	0.45	U	2.2	U	0.45	U	9	U	4.5	U	9	U	9	U
Methylene Chloride	5	3.8	U	0.38	U	0.38	U	0.38	U	0.38	U	1.9	U	0.38	U	7.6	U	3.8	U	7.6	U	7.6	U
trans-1,2-Dichloroethene	5	4.4	U	0.44	U	0.44	U	0.44	U	0.44	U	2.2	U	0.44	U	8.8	U	4.4	U	8.8	U	8.8	U
1,1-Dichloroethane	5	6.7	U	4	J	0.67	U	0.67	U	0.67	U	3.4	U	0.67	U	13	U	6.7	U	13	U	13	U
Cyclohexane	NA	5.7	U	0.57	U	0.57	U	0.57	U	5.2		2.8	U	2.6	J	11	U	5.7	U	11	U	11	U
2-Butanone	50	19	U	1.9	U	1.9	U	1.9	U	1.9	U	9.7	U	1.9	U	39	U	19	U	39	U	39	U
cis-1,2-Dichloroethene	5	7.2	U	0.72	U	1.6	J	1.6	J	0.72	U	3.6	U	0.72	U	14	U	7.2	U	14	U	14	U
Chloroform	7	4.5	U	0.45	U	0.45	U	0.45	U	0.45	U	2.2	U	0.45	U	9	UJ	4.5	R	9	UJ	9	UJ
1,1,1-Trichloroethane	5	3.9	U	0.39	U	0.39	U	0.39	U	0.39	U	2	U	0.39	U	7.8	U	3.9	U	7.8	U	7.8	U
Methylcyclohexane	NA	17	J	0.47	U	0.47	U	0.47	U	1.7	J	2.4	U	6.5		9.4	U	20	J	9.4	U	9.4	U
Benzene	1	37	J	0.35	U	0.35	U	0.35	U	0.35	U	1.8	U	0.35	U	7	U	20	J	7	U	7	U
1,2-Dichloroethane	0.6	4.1	U	0.41	U	0.41	U	0.41	U	0.41	U	2	U	0.41	U	8.2	U	4.1	U	8.2	U	8.2	U
Trichloroethene	5	3.4	U	0.34	U	0.34	U	0.34	U	0.34	U	1.7	U	0.34	U	6.8	U	3.4	U	6.8	U	6.8	U
1,2-Dichloropropane	1	4.6	U	0.46	U	0.46	U	0.46	U	0.46	U	2.3	U	0.46	U	9.2	U	4.6	U	9.2	U	9.2	U
Bromodichloromethane	50	2.3	U	0.23	U	0.23	U	0.23	U	0.23	U	1.2	U	0.23	U	4.6	U	2.3	U	4.6	U	4.6	U
4-Methyl-2-Pentanone	NA	18	U	1.8	U	1.8	U	1.8	U	1.8	U	8.8	U	1.8	U	35	U	18	U	35	U	35	U
Toluene	5	1.6	U	0.16	U	0.16	U	0.16	U	0.16	U	0.8	U	0.16	U	3.2	U	140	J	3.2	U	3.2	U
t-1,3-Dichloropropene	0.4	3.1	U	0.31	U	0.31	U	0.31	U	0.31	U	1.6	U	0.31	U	6.2	U	3.1	U	6.2	U	6.2	U
cis-1,3-Dichloropropene	0.4	2.9	U	0.29	U	0.29	U	0.29	U	0.29	U	1.4	U	0.29	U	5.8	U	2.9	U	5.8	U	5.8	U
1,1,2-Trichloroethane	1	3.2	U	0.32	U	0.32	U	0.32	U	0.32	U	1.6	U	0.32	U	6.4	U	3.2	U	6.4	U	6.4	U
2-Hexanone	50	18	U	1.8	U	1.8	U	1.8	U	1.8	U	8.8	U	1.8	U	35	U	18	U	35	U	35	U
Dibromochloromethane	50	2.3	U	0.23	U	0.23	U	0.23	U	0.23	U	1.2	U	0.23	U	4.6	U	2.3	U	4.6	U	4.6	U
1,2-Dibromoethane	0.0006	2.6	U	0.26	U	0.26	U	0.26	U	0.26	U	1.3	U	0.26	U	5.2	U	2.6	U	5.2	U	5.2	U
Tetrachloroethene	5	9.7	U	0.97	U	0.97	U	0.97	U	0.97	U	4.8	U	0.97	U	19	UJ	9.7	UJ	19	U	19	UJ
Chlorobenzene	5	2.8	U	0.28	U	0.28	U	0.28	U	0.28	U	1.4	U	0.28	U	5.6	U	2.8	U	5.6	U	5.6	U
Ethyl Benzene	5	67		0.05	U	0.05	U	0.05	U	0.05	U	0.25	U	0.05	U	30	J	32	J	1	U	1	U
m/p-Xylenes	NA	49	J	0.47	U	0.47	U	0.47	U	0.47	U	2.4	U	2.1	J	52	J	150	J	9.4	U	28	J
o-Xylene	NA	24	J	0.16	U	0.16	U	0.16	U	0.16	U	0.8	U	0.16	U	3.2	U	50	J	3.2	U	3.2	U
Styrene	5	1.9	U	0.19	U	0.19	U	0.19	U	0.19	U	0.95	U	0.19	U	3.8	U	1.9	U	3.8	U	3.8	U
Bromoform	50	4.4	U	0.44	U	0.44	U	0.44	U	0.44	U	2.2	U	0.44	U	8.8	U	4.4	U	8.8	U	8.8	U
Isopropylbenzene	5	3.7	U	2	J	1.5	J	1.1	J	0.37	U	12	J	0.37	U	32	J	12	J	7.4	U	7.4	U
1,1,2,2-Tetrachloroethane	5	3.7	U	0.37	U	0.37	U	0.37	U	0.37	U	1.8	U	0.37	U	7.4	U	3.7	U	7.4	U	7.4	U
1,3-Dichlorobenzene	3	2.8	U	0.28	U	0.28	U	0.28	U	0.28	U	1.4	U	0.28	U	5.6	U	2.8	U	5.6	U	5.6	U
1,4-Dichlorobenzene	3	2.2	U	0.22	U	0.22	U	0.22	U	0.22	U	1.1	U	0.22	U	4.4	U	2.2	U	4.4	U	4.4	U
1,2-Dichlorobenzene	3	4	U	0.4	U	0.4	U	0.4	U	0.4	U	2	U	0.4	U	8	U	4	U	8	U	8	U
1,2-Dibromo-3-Chloropropane	0.04	5.8	U	0.58	U	0.58	U	0.58	U	0.58	U	2.9	U	0.58	U	12	U	5.8	U	12	U	12	U
1,2,4-Trichlorobenzene	5	3.9	U	0.39	U	0.39	U	0.39	U	0.39	U	2	U	0.39	U	7.8	U	3.9	U	7.8	U	7.8	U
CYANIDE																							
Cyanide	200	10	U	11		10	U	10	U	10	U	10	U	10	U	10	U	10	U	12	U	10	U

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Table 5: Ground-Water Sampling Results for the Sand Aquifer/Intermediate-Deep Wells
Semi-Volatile Organic Compounds - Unfiltered and Filtered

Sample ID	NYS	TW-1		TW-10		TW-14		FD-4 (TW-14)		TW-RCRA-3		MW-3I		MW-3D		MW-04-I		MW-05-I		Spke2 (MW05I)		DUP 2		MW-6I		MW-07I	
Lab Sample Number	TOGS	Z1679-02		Z1679-17		Z1679-15		Z1679-16		Z1679-01		Z1753-09		Z1753-10		Z1850-05		Z1851-07		Z1850-03		Z1850-04		Z1850-19		Z1850-10	
Sampling Date	1.1.1.	2/26/08		2/25/08		2/25/08		2/25/08		2/26/08		2/29/08		2/29/08		3/3/08		3/3/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	1		1		1		1		1		1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
SEMIVOLATILES																											
Benzaldehyde	NA	2.6	U	0.31	U	0.29	U	0.28	U	0.28	U	0.29	U	0.3	U	0.3	U	0.31	U	0.29	U	0.28	U	0.3	U	0.29	U
Phenol	1	5.4	U	0.63	U	0.6	U	0.57	U	0.57	U	0.59	U	0.61	U	0.61	U	0.62	U	0.6	U	0.57	U	0.61	U	0.6	U
bis(2-Chloroethyl)ether	1	2.7	U	0.32	U	0.3	U	0.29	U	0.29	U	0.3	U	0.31	U	0.31	U	0.32	U	0.3	U	0.29	U	0.31	U	0.3	U
2-Chlorophenol	NA	3.2	U	0.38	U	0.36	U	0.34	U	0.34	U	0.35	U	0.37	U	0.37	U	0.38	U	0.36	U	0.34	U	0.37	U	0.36	U
2-Methylphenol	NA	3.5	U	0.41	U	0.39	U	0.38	U	0.38	U	0.39	U	0.4	U	0.4	U	1.2	J	0.39	U	0.37	U	0.4	U	0.39	U
2,2-oxybis(1-Chloropropane)	NA	2.6	U	0.31	U	0.29	U	0.28	U	0.28	U	0.29	U	0.3	U	0.3	U	0.31	U	0.29	U	0.28	U	0.3	U	0.29	U
Acetophenone	NA	3.6	U	0.43	U	0.4	U	0.39	U	0.39	U	0.4	U	0.41	U	0.41	U	0.42	U	0.4	U	0.38	U	0.41	U	0.4	U
3+4-Methylphenols	NA	3.8	U	0.45	U	0.42	U	0.41	U	0.41	U	0.42	U	0.43	U	0.43	U	0.44	U	0.42	U	0.4	U	0.43	U	0.42	U
N-Nitroso-di-n-propylamine	NA	3.3	U	0.39	U	0.37	U	0.35	U	0.35	U	0.37	U	0.38	U	0.38	U	0.39	U	0.37	U	0.35	U	0.38	U	0.37	U
Hexachloroethane	5	2.3	U	0.26	U	0.25	U	0.24	U	0.24	U	0.25	U	0.26	U	0.26	U	0.26	U	0.25	U	0.24	U	0.26	U	0.25	U
Nitrobenzene	0.4	3.2	U	0.38	U	0.36	U	0.34	U	0.34	U	0.35	U	0.37	U	0.37	U	0.38	U	0.36	U	0.34	U	0.37	U	0.36	U
Isophorone	50	2.5	U	0.3	U	0.28	U	0.27	U	0.27	U	0.28	U	0.29	U	0.29	U	0.3	U	0.28	U	0.27	U	0.29	U	0.28	U
2-Nitrophenol	NA	2.7	U	0.32	U	0.3	U	0.29	U	0.29	U	0.3	U	0.31	U	0.31	U	0.32	U	0.3	U	0.29	U	0.31	U	0.3	U
2,4-Dimethylphenol	1	7.5	U	0.87	U	0.83	U	0.79	U	0.79	U	0.82	U	0.84	U	0.84	U	20		8	J	13	JD	0.84	U	0.83	U
bis(2-Chloroethoxy)methane	5	3.2	U	0.38	U	0.36	U	0.34	U	0.34	U	0.35	U	0.37	U	0.37	U	0.38	U	0.36	U	0.34	U	0.37	U	0.36	U
2,4-Dichlorophenol	1	3.3	U	0.39	U	0.37	U	0.35	U	0.35	U	0.37	U	0.38	U	0.38	U	0.39	U	0.37	U	0.35	U	0.38	U	0.37	U
4-Chloroaniline	5	9	U	1.1	U	1	U	0.96	U	0.96	U	0.99	U	1	U	1	U	1	U	1	U	0.95	U	1	U	1	U
Hexachlorobutadiene	NA	3.8	U	0.45	U	0.42	U	0.41	U	0.41	U	0.42	U	0.43	U	0.43	U	0.44	U	0.42	U	0.4	U	0.43	U	0.42	U
Caprolactam	NA	15	U	1.7	U	1.6	U	1.5	U	1.5	U	1.6	U	1.6	U	1.6	U	1.7	U	1.6	U	1.5	U	1.6	U	1.6	U
4-Chloro-3-methylphenol	NA	2.2	U	0.25	U	0.24	U	0.23	U	0.23	U	0.24	U	0.24	U	0.24	U	0.25	U	0.24	U	0.23	U	0.24	U	0.24	U
2-Methylnaphthalene	NA	7800	E	1.4	J	2.1	J	2.3	J	0.39	U	0.4	U	3.5	J	0.41	U	4.4	J	1.2	J	11		0.41	U	0.4	U
Hexachlorocyclopentadiene	5	5.5	U	0.64	U	0.61	U	0.58	U	0.58	U	0.6	U	0.62	U	0.62	U	0.64	U	0.61	U	0.58	U	0.62	U	0.61	U
2,4,6-Trichlorophenol	NA	3.4	U	0.4	U	0.38	U	0.36	U	0.36	U	0.38	U	0.39	U	0.39	U	0.4	U	0.38	U	0.36	U	0.39	U	0.38	U
2,4,5-Trichlorophenol	NA	3.7	U	0.44	U	0.41	U	0.4	U	0.4	U	0.41	U	0.42	U	0.42	U	0.43	U	0.41	U	0.39	U	0.42	U	0.41	U
1,1-Biphenyl	5	3.1	U	0.37	U	0.35	U	0.33	U	0.33	U	0.34	U	0.36	U	0.36	U	12		2.1	J	12		0.36	U	0.35	U
2-Chloronaphthalene	10	2.3	U	0.26	U	0.25	U	0.24	U	0.24	U	0.25	U	0.26	U	0.26	U	0.26	U	0.25	U	0.24	U	0.26	U	0.25	U
2-Nitroaniline	5	2.5	U	0.29	U	0.27	U	0.26	U	0.26	U	0.27	U	0.28	U	0.28	U	0.28	U	0.27	U	0.26	U	0.28	U	0.27	U
Dimethylphthalate	50	2.6	U	0.31	U	0.29	U	0.28	U	0.28	U	0.29	U	0.3	U	0.3	U	0.31	U	0.29	U	0.28	U	0.3	U	0.29	U
Acenaphthylene	20	3.4	U	0.4	U	0.38	U	0.36	U	0.36	U	0.38	U	1.2	J	0.39	U	4.6	J	3	J	3	J	0.39	U	0.38	U
2,6-Dinitrotoluene	5	3.4	U	0.4	U	0.38	U	0.36	U	0.36	U	0.38	U	0.39	U	0.39	U	0.4	U	0.38	U	0.36	U	0.39	U	0.38	U
3-Nitroaniline	5	3.4	U	0.4	U	0.38	U	0.36	U	0.36	U	0.38	U	0.39	U	0.39	U	0.4	U	0.38	U	0.36	U	0.39	U	0.38	U
Acenaphthene	20	330		4.6	J	4.1	J	11		0.33	U	3.6	J	8.8	J	0.36	U	140	E	130	E	170	E	0.36	U	0.35	U
2,4-Dinitrophenol	1	6.3	U	0.74	U	0.7	U	0.67	U	0.67	U	0.69	U	0.71	U	0.71	U	0.73	U	0.7	U	0.66	U	0.71	U	0.7	U
4-Nitrophenol	NA	17	U	2	U	1.9	U	1.8	U	1.8	U	1.9	U	1.9	U	1.9	U	2	U	1.9	U	1.8	U	1.9	U	1.9	U
Dibenzofuran	NA	3	U	2.5	J	0.34	U	2.3	J	0.32	U	1.4	J	0.34	U	0.34	U	50		36		59		0.34	U	0.34	U
2,4-Dinitrotoluene	5	3.3	U	0.39	U	0.37	U	0.35	U	0.35	U	0.37	U	0.38	U	0.38	U	0.39	U	0.37	U	0.35	U	0.38	U	0.37	U
Diethylphthalate	50	3.1	U	0.37	U	0.35	U	0.33	U	0.33	U	0.34	U	0.36	U	0.36	U	0.36	U	0.35	U	0.33	U	0.36	U	0.35	U
4-Chlorophenyl-phenylether	NA	2.8	U	0.33	U	0.32	U	0.3	U	0.3	U	0.31	U	0.32	U	0.32	U	0.33	U	0.32	U	0.3	U	0.32	U	0.32	U
Fluorene	50	950	JD	4	J	1.8	J	2.7	J	0.29	U	0.3	U	1.5	J	0.31	U	63		45		74		0.31	U	0.3	U
4-Nitroaniline	5	3.5	U	0.41	U	0.39	U	0.38	U	0.38	U	0.39	U	0.4	U	0.4	U	0.41	U	0.39	U	0.37	U	0.4	U	0.39	U
4,6-Dinitro-2-methylphenol	NA	2.8	U	0.33	U	0.32	U	0.3	U	0.3	U	0.31	U	0.32	U	0.32	U	0.33	U	0.32	U	0.3	U	0.32	U	0.32	U
N-Nitrosodiphenylamine	50	3.4	U	0.4	U	0.38	U	0.36	U	0.36	U	0.38	U	0.39	U	0.39	U	1.6	J	0.38	U	0.36	U	0.39	U	0.38	U
4-Bromophenyl-phenylether	NA	14	U	1.6	U	1.5	U	1.5	U	1.5	U	1.5	U	1.6	U	1.6	U	1.6	U	1.5	U	1.4	U	1.6	U	1.5	U
Hexachlorobenzene	0.04	2.6	U	0.31	U	0.29	U	0.28	U	0.28	U	0.29	U	0.3	U	0.3	U	0.31	U	0.29	U	0.28	U	0.3	U	0.29	U
Atrazine	7.5	3.6	U	0.43	U	0.4	U	0.39	U	0.39	U	0.4	U	0.41	U	0.41	U	0.42	U	0.4	U	0.38	U	0.41	U	0.4	U
Pentachlorophenol	1	5.1	U	0.6	U	0.57	U	0.54	U	0.54	U	0.56	U	0.58	U	0.58	U	10	J	0.57	U	0.54	U	0.58	U	0.57	U
Phenanthrene	50	2100	D	11	J	2.1	J	2.2	J	1.8	J	1.5	U	1.5	U	1.5	U	14		1.8	J	20		1.5	U	1.5	U
Anthracene	50	260	JD	1.6	U	1.5	U	1.5	U	1.5	U	1.5	U	1.6	U	1.6	U	11	J	7.2	J	12		1.6	U	1.5	U
Carbazole	NA	2.4	U	0.28	U	0.26	U	0.25	U	0.25	U	0.26	U	0.27	U	0.27	U	56		40		62		0.27	U	0.26	U
Di-n-butylphthalate	50	57	U	6.7	U	6.4	U	6.1	U	6.1	U	6.3	U	6.5	U	6.5	U	6.7	U	6.4	U	6	U	6.5	U	6.4	U
Fluoranthene	50	98	J	1.4	J	0.22	U	0.21	U	0.21	U	0.22	U	0.22	U	0.22	U	14		14		19		0.22	U	0.22	U
Pyrene	50	210	JD	1.6	U	1.5	U	1.5	U	1.5	U	1.5	U	1.6	U	1.6	U	7.1	J	8.3	J	10		1.6	U	1.5	U
Butylbenzylphthalate	50	4.1	U	0.48	U	0.46	U	0.44	U	0.44	U	0.45	U	0.47	U	0.47	U	0.48	U	0.46	U	0.43	U	0.47	U	0.46	U
3,3-Dichlorobenzidine	5	11	U	1.2	U	1.2	U	1.1	U	1.1	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.1	U	1.2	U	1.2	U
Benzo(a)anthracene	0.002	18	J	1.5	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.5	U	1.4	U	1.3	U	1.4	U	1.4	U
Chrysene	0.002	35	J	0.3	U	0.28	U	0.27	U	0.27	U	0.28	U	0.29	U	0.29	U	0.3	U	0.28	U	0.27	U	0.29	U	0.28	U
bis(2-Ethylhexyl)phthalate	5	13	U	3.1	JB	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.5	U	1.4	U	1.3	U	1.4	U	1.4	U
Di-n-octyl phthalate	50	2.5	U	0.3	U	0.28	U	0.27	U	0.27	U	0.28	U	0.29	U	0.29	U	0.3	U	0.28	U	0.27	U	0.29	U	0.28	U
Benzo(b)fluoranthene	0.002	4.2	U	0.49	U	0.47	U	0.45	U	0.45	U	0.46	U	0.48	U	0.48	U	0.49	U	0.47	U	0.44	U	0.48	U	0.47	U
Benzo(k)fluoranthene	0.002	2.9	U	0.34	U	0.33	U	0.31	U	0.31	U	0.32	U	0.33	U	0.33	U	0.34	U	0.33	U	0.31	U	0.33	U	0.33	U
Benzo(a)pyrene	NA	2.2	U	0.25	U	0.24	U	0.23	U	0.23	U	0.24	U	0.24	U	0.24	U	0.25	U	0.24	U	0.23	U	0.24	U	0.24	U
Indeno(1,2,3-cd)pyrene	0.002	6.5	U	0.76	U	0.72	U	0.69	U	0.69	U	0.71	U	0.73	U	0.73	U	0.75	U	0.72	U	0.68	U	0.73	U	0.72	U
Dibenz(a,h)anthracene	NA	5.3	U	0.62	U	0.59	U	0.56	U	0.56	U	0.58	U	0.6	U	0.6	U	0.61	U	0.59	U	0.56	U	0.6	U	0.59	U
Benzo(g,h,i)perylene	NA	3.8	U	0.45	U	0.42	U	0.41	U	0.41	U	0.42	U	0.43	U	0.43	U	0.44	U	0.42	U	0.4	U	0.43	U	0.42	U

OCA LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Table 5: Ground-Water Sampling Results for the Sand Aquifer/Intermediate-Deep Wells
Semi-Volatile Organic Compounds - Unfiltered and Filtered

Sample ID	NYS	TW-1		TW-10		TW-14		FD-4 (TW-14)		TW-RCRA-3		MW-3I		MW-3D		MW-04-I		MW-05-I		Spke2 (MW05I)		DUP 2		MW-6I		MW-07I	
Lab Sample Number	TOGS	Z1679-02		Z1679-17		Z1679-15		Z1679-16		Z1679-01		Z1753-09		Z1753-10		Z1850-05		Z1851-07		Z1850-03		Z1850-04		Z1850-19		Z1850-10	
Sampling Date	1.1.1.	2/26/08		2/25/08		2/25/08		2/25/08		2/26/08		2/29/08		2/29/08		3/3/08		3/3/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	1		1		1		1		1		1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
LAB FILTERED SEMIVOLATILES																											
Lab SampleID Number		Z1680-02		~		Z1680-08		–		~		~		~		Z1851-05		Z1851-01		~		–		–		Z1851-09	
Benzaldehyde	NA	2.6	U	~		0.29	U	~		~		~		~		0.28	U	0.3	U	~		~		~		0.3	U
Phenol	1	5.4	U	~		0.59	U	~		~		~		~		0.58	U	0.62	U	~		~		~		0.6	U
bis(2-Chloroethyl)ether	1	2.7	U	~		0.3	U	~		~		~		~		0.29	U	0.31	U	~		~		~		0.31	U
2-Chlorophenol	NA	3.2	U	~		0.35	U	~		~		~		~		0.35	U	0.37	U	~		~		~		0.36	U
2-Methylphenol	NA	3.5	U	~		0.39	U	~		~		~		~		0.38	U	0.4	U	~		~		~		0.4	U
2,2-oxybis(1-Chloropropane)	NA	2.6	U	~		0.29	U	~		~		~		~		0.28	U	0.3	U	~		~		~		0.3	U
Acetophenone	NA	3.6	U	~		0.4	U	~		~		~		~		0.39	U	0.42	U	~		~		~		0.41	U
3+4-Methylphenols	NA	3.8	U	~		0.42	U	~		~		~		~		0.41	U	0.44	U	~		~		~		0.43	U
N-Nitroso-di-n-propylamine	NA	3.3	U	~		0.37	U	~		~		~		~		0.36	U	0.38	U	~		~		~		0.37	U
Hexachloroethane	5	2.3	U	~		0.25	U	~		~		~		~		0.24	U	0.26	U	~		~		~		0.25	U
Nitrobenzene	0.4	3.2	U	~		0.35	U	~		~		~		~		0.35	U	0.37	U	~		~		~		0.36	U
Isophorone	50	2.5	U	~		0.28	U	~		~		~		~		0.27	U	0.29	U	~		~		~		0.29	U
2-Nitrophenol	NA	2.7	U	~		0.3	U	~		~		~		~		0.29	U	0.31	U	~		~		~		0.31	U
2,4-Dimethylphenol	1	7.5	U	~		0.82	U	~		~		~		~		0.8	U	22		~		~		~		0.84	U
bis(2-Chloroethoxy)methane	5	3.2	U	~		0.35	U	~		~		~		~		0.35	U	0.37	U	~		~		~		0.36	U
2,4-Dichlorophenol	1	3.3	U	~		0.37	U	~		~		~		~		0.36	U	0.38	U	~		~		~		0.37	U
Naphthalene	NA	1200	E	~		2.3	J	~		~		~		~		0.29	U	0.31	U	~		~		~		0.31	U
4-Chloroaniline	5	9	U	~		0.99	U	~		~		~		~		0.97	U	1	U	~		~		~		1	U
Hexachlorobutadiene	NA	3.8	U	~		0.42	U	~		~		~		~		0.41	U	0.44	U	~		~		~		0.43	U
Caprolactam	NA	15	U	~		1.6	U	~		~		~		~		1.6	U	1.7	U	~		~		~		1.6	U
4-Chloro-3-methylphenol	NA	2.2	U	~		0.24	U	~		~		~		~		0.23	U	0.25	U	~		~		~		0.24	U
2-Methylnaphthalene	NA	7800	E	~		2.1	J	~		~		~		~		0.39	U	3.8	J	~		~		~		0.41	U
Hexachlorocyclopentadiene	5	5.5	U	~		0.6	U	~		~		~		~		0.59	U	0.63	U	~		~		~		0.62	U
2,4,6-Trichlorophenol	NA	3.4	U	~		0.38	U	~		~		~		~		0.37	U	0.39	U	~		~		~		0.38	U
2,4,5-Trichlorophenol	NA	3.7	U	~		0.41	U	~		~		~		~		0.4	U	0.43	U	~		~		~		0.42	U
1,1-Biphenyl	5	100	JD	~		0.34	U	~		~		~		~		0.34	U	5.7	J	~		~		~		0.35	U
2-Chloronaphthalene	10	2.3	U	~		0.25	U	~		~		~		~		0.24	U	0.26	U	~		~		~		0.25	U
2-Nitroaniline	5	2.5	U	~		0.27	U	~		~		~		~		0.26	U	0.28	U	~		~		~		0.27	U
Dimethylphthalate	50	2.6	U	~		0.29	U	~		~		~		~		0.28	U	0.3	U	~		~		~		0.3	U
Acenaphthylene	NA	3.4	U	~		0.38	U	~		~		~		~		0.37	U	3.4	J	~		~		~		0.38	U
2,6-Dinitrotoluene	5	3.4	U	~		0.38	U	~		~		~		~		0.37	U	0.39	U	~		~		~		0.38	U
3-Nitroaniline	5	3.4	U	~		0.38	U	~		~		~		~		0.37	U	0.39	U	~		~		~		0.38	U
Acenaphthene	20	420	JD	~		7.1	J	~		~		~		~		5.7	J	140	D	~		~		~		0.35	U
2,4-Dinitrophenol	1	6.3	U	~		0.69	U	~		~		~		~		0.67	U	0.72	U	~		~		~		0.7	U
4-Nitrophenol	NA	17	U	~		1.9	U	~		~		~		~		1.8	U	1.9	U	~		~		~		1.9	U
Dibenzofuran	NA	180		~		1.8	J	~		~		~		~		0.33	U	44		~		~		~		1.1	J
2,4-Dinitrotoluene	5	3.3	U	~		0.37	U	~		~		~		~		0.36	U	0.38	U	~		~		~		0.37	U
Diethylphthalate	50	3.1	U	~		0.34	U	~		~		~		~		0.34	U	0.36	U	~		~		~		0.35	U
4-Chlorophenyl-phenylether	NA	2.8	U	~		0.31	U	~		~		~		~		0.31	U	0.33	U	~		~		~		0.32	U
Fluorene	50	690	JD	~		2.6	J	~		~		~		~		2	J	55		~		~		~		0.31	U
4-Nitroaniline	5	3.5	U	~		0.39	U	~		~		~		~		0.38	U	0.4	U	~		~		~		0.4	U
4,6-Dinitro-2-methylphenol	NA	2.8	U	~		0.31	U	~		~		~		~		0.31	U	0.33	U	~		~		~		0.32	U
N-Nitrosodiphenylamine	50	3.4	U	~		0.38	U	~		~		~		~		0.37	U	0.39	U	~		~		~		0.38	U
4-Bromophenyl-phenylether	NA	14	U	~		1.5	U	~		~		~		~		1.5	U	1.6	U	~		~		~		1.5	U
Hexachlorobenzene	0.04	2.6	U	~		0.29	U	~		~		~		~		0.28	U	0.3	U	~		~		~		0.3	U
Atrazine	7.5	3.6	U	~		0.4	U	~		~		~		~		0.39	U	0.42	U	~		~		~		0.41	U
Pentachlorophenol	1	5.1	U	~		0.56	U	~		~		~		~		0.55	U	0.58	U	~		~		~		0.57	U
Phenanthrene	50	1700	D	~		2.8	J	~		~		~		~		1.8	J	3.6	J	~		~		~		1.5	U
Anthracene	50	190		~		1.5	U	~		~		~		~		1.5	U	9.2	J	~		~		~		1.6	U
Carbazole	NA	90	J	~		0.26	U	~		~		~		~		0.25	U	50		~		~		~		0.26	U
Di-n-butylphthalate	50	57	U	~		6.3	U	~		~		~		~		6.2	U	6.6	U	~		~		~		11	J
Fluoranthene	50	82	J	~		0.22	U	~		~		~		~		0.21	U	15		~		~		~		0.22	U
Pyrene	50	300		~		1.5	U	~		~		~		~		1.5	U	7.9	J	~		~		~		1.5	U
Butylbenzylphthalate	50	4.1	U	~		0.45	U	~		~		~		~		0.44	U	0.47	U	~		~		~		0.46	U
3,3-Dichlorobenzidine	5	11	U	~		1.2	U	~		~		~		~		1.1	U	1.2	U	~		~		~		1.2	U
Benzo(a)anthracene	0.002	16	J	~		1.4	U	~		~		~		~		1.4	U	1.5	U	~		~		~		1.4	U
Chrysene	0.002	32	J	~		0.28	U	~		~		~		~		0.27	U	0.29	U	~		~		~		0.29	U
bis(2-Ethylhexyl)phthalate	5	13	U	~		1.4	U	1.5		~		~		~		1.4	U	1.5	U	~		~		~		1.4	U
Di-n-octyl phthalate	50	2.5	U	~		0.28	U	0.29		~		~		~		0.27	U	0.29	U	~		~		~		0.29	U
Benzo(b)fluoranthene	0.002	4.2	U	~		0.46	U	0.48		~		~		~		0.45	U	0.48	U	~		~		~		0.47	U
Benzo(k)fluoranthene	0.002	2.9	U	~		0.32	U	0.34		~		~		~		0.32	U	0.34	U	~		~		~		0.33	U
Benzo(a)pyrene	NA	2.2	U	~		0.24	U	0.25		~		~		~		0.23	U	0.25	U	~		~		~		0.24	U
Indeno(1,2,3-cd)pyrene	0.002	6.5	U	~		0.71	U	0.74		~		~		~		0.69	U	0.74	U	~		~		~		0.73	U
Dibenz(a,h)anthracene	NA	5.3	U	~		0.58	U	0.61		~		~		~		0.57	U	0.61	U	~		~		~		0.59	U
Benzo(g,h,i)perylene	NA	3.8	U	~		0.42	U	0.44		~		~		~		0.41	U	0.44	U	~		~		~		0.43	U

Table 5: Ground-Water Sampling Results for the Sand Aquifer/Intermediate and Deep Wells
Metals - Unfiltered and Filtered

Sample ID	NYS	TW-1		TW-14		FD-4 (TW-14)		TW-RCRA-3		MW-3I		MW-3D		MW-04-I		MW-05-I		MW-6I		MW-07I	
Lab Sample ID	TOGS	Z1679-02		Z1679-15		Z1679-16		Z1679-01		Z1753-02		Z1753-03		Z1850-05		Z1850-01		Z1850-19		Z1850-10	
Sampling Date	1.1.1.	2/26/08		2/25/08		2/25/08		2/26/08		2/29/08		2/29/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	1		1		1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
METALS																					
Aluminum	NA	5950		17800		19900		32100		13500		31900		36700		839		1550		777	
Antimony	3	8.1	U	8.1	U	8.1	U	8.1	U	4.8	U	7.2	J	8.1	U	8.1	U	8.1	U	8.1	U
Arsenic	25	2.8	U	15.8		9.2	J	19.4		4.1	U	15.7		34	J	2.8	UJ	2.8	UJ	2.8	UJ
Barium	1000	41.2	J	605		617		898		75.8	J	839		301	J	146	J	265	J	129	J
Beryllium	3	0.57	J	2.7	J	3.2		5.5		1	J	3.6	J	2.2	J	0.5	U	0.5	U	0.5	U
Cadmium	5	1.2	U	1.2	U	1.2	U	1.2	U	0.52	U	10.1		1.2	UJ	1.2	UJ	1.2	UJ	1.2	UJ
Calcium	NA	57300		135000		131000		118000		159000		212000		84200		68900		214000		108000	
Chromium	50	23.9		131		144		133		24.2		95.9		63.6		5.2		7.7		5.9	
Cobalt	NA	9.7	J	35.2		48.8		99.6		7.8	J	51.4		31.6		3	J	2.1	J	3.1	J
Copper	200	20.9		151		172		240		62.1		180		79.7		6.2	J	8	J	4.5	J
Iron	300	24000		192000		212000		402000		15900		109000		65900		27900		4450		2650	
Lead	25	2.2	J	236		257		313		22.2		171		79.8		7.9	J	14.7	J	9.9	J
Magnesium	35000	6990		82000		77600		29200		37300		96500		12800		19100		74100		49200	
Manganese	300	989		11300		12600		21600		465		2010		1150		2250		1450		497	
Mercury	0.7	0.08	U	1.04		1.09		1.01		0.09	J	0.74		0.48	J	0.08	UJ	1.1	J	0.08	UJ
Nickel	100	15.8	J	96.8		112		197		25.8	J	91.9		58.4		8.8	J	4.2	J	3.6	U
Selenium	10	3.6	U	3.6	U	3.6	U	3.6	U	2.3	J	1.5	U	8.8	J	3.6	U	3.6	U	3.6	U
Silver	50	7.9		2.2	U	2.2	U	2.2	U	0.61	U	4.5	J	2.2	U	2.2	U	2.2	U	2.2	U
Sodium	20000	398000		426000		411000		165000		516000		815000		60400	J	170000	J	129000	J	293000	J
Thallium	0.5	8.1	U	8.1	U	8.1	U	22.6		5.8	J	4.9	U	8.1	U	8.1	U	8.1	U	8.1	U
Vanadium	NA	25.3		124		143		236		21.2	J	186		76	J	2.7	J	7.5	J	3.2	J
Zinc	2000	58.1		551		586		980		111		1130		236		94.8	J	90	J	118	J
FIELD FILTERED																					
Lab SampleID		Z1680-02		Z1680-08		Z1680-09		Z1680-01		Z1753-09		Z1753-10		Z1851-05		Z1851-01		Z1851-18		Z1851-09	
Aluminum	NA	25	U	25	U	25	U	25	U	7.5	U	7.5	U	25	U	25	U	25	U	25	U
Antimony	3	8.1	U	8.1	U	8.1	U	8.1	U	4.8	U	4.8	U	10.5	J	8.1	U	8.3	J	8.1	U
Arsenic	25	2.8	U	2.8	U	2.8	U	3.2	J	4.1	U	4.1	U	13.1		5.1	J	6.7	J	2.8	U
Barium	1000	6.3	U	241		183		325		48.2	J	468		134		142		217		116	
Beryllium	3	0.5	U	0.5	U	0.5	U	0.5	U	0.29	J	0.29	J	0.5	U	0.5	U	0.7	J	0.5	U
Cadmium	5	1.2	U	1.2	U	1.2	U	1.2	U	0.52	U	0.52	U	3.5	J	1.2	U	4.4	J	4.8	J
Calcium	NA	57700		92200		65700		70000		161000		191000		34100		80500		188000		95700	
Chromium	50	4	J	1.1	U	3.6	J	1.1	U	3.9	J	2	J	7.5		4.6	J	5.7		6	
Cobalt	NA	2	U	2	U	2	U	2	U	1.1	U	1.1	U	7	J	6.1	J	5.9	J	5.1	J
Copper	200	3.4	U	3.4	U	5.5	J	3.4	U	1.3	U	1.3	U	3.4	U	3.4	U	3.4	U	3.4	U
Iron	300	15800		16600		12600		11200		30.4	U	200		12000		29200		209		984	
Lead	25	2.2	U	2.2	U	2.2	U	2.2	U	7	J	4.8	J	16.6		3.6	J	17.2		15.1	
Magnesium	35000	5480		60100		43200		15300		32500		76900		23400		18900		68500		50000	
Manganese	300	997		1150		859		524		339		226		355		2650		1210		400	
Mercury	0.7	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.08	U	0.16	J	0.16	J	0.15	J	0.16	J
Nickel	100	3.6	U	3.6	U	4.2	J	5.8	J	0.54	U	0.54	U	3.6	U	8.8	J	5.8	J	3.6	U
Potassium	NA	24300		33500		29300		53300		39400		64200		21700		21600		32000		54200	
Selenium	10	3.6	U	3.6	U	3.6	U	3.6	U	1.5	U	1.5	U	3.6	U	3.6	U	3.6	U	3.6	U
Silver	50	3.9	J	2.2	U	2.2	U	2.2	U	0.65	J	0.64	J	2.2	U	2.2	U	2.2	U	2.2	U
Sodium	20000	294000		358000		283000		124000		566000		743000		129000		151000		119000		295000	
Thallium	0.5	8.1	U	8.1	U	8.1	U	8.1	U	4.9	U	4.9	U	8.1	U	8.1	U	8.1	U	8.1	U
Vanadium	NA	5.8	J	2.3	U	3.5	J	2.3	U	1.1	U	7	J	17	J	2.3	U	16.3	J	8.4	J
Zinc	2000	29.3		133		106		70.8		51.5		157		47		78.7		52.5		42	

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Table 5: Ground-Water Sampling Results for the Sand Aquifier/Intermediate-Deep Wells - Pesticides and PCBs

Sample ID	NYS	TW-1		TW-10		TW-14		FD-4 (TW-14)		TW-RCRA-3		MW-3I		MW-3D		MW-04-I		MW-05-I		MW-6-I		MW-07-I	
Lab Sample Number	TOGS	**Z1679-02**		**Z1679-17**		**Z1679-15**		**Z1679-16**		**Z1679-01**		**Z1753-02**		**Z1753-03**		**Z1850-05**		**Z1850-01**		**Z1850-19**		**Z1850-10**	
Sampling Date	**1.1.1.**	**2/26/08**		**2/25/08**		**2/25/08**		**2/25/08**		**2/26/08**		**2/29/08**		**2/29/08**		**3/3/08**		**3/3/08**		**3/4/08**		**3/4/08**	
Matrix	Ambient	**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**		**WATER**	
Dilution Factor	**GW**	**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**		**1**	
Units	**ug/L**	**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**		**ug/l**	
PCBs																							
Aroclor-1016	**0.09**	139	U	0.175	U	0.156	U	0.156	U	0.153	U	0.161	U	0.161	U	0.161	U	0.161	U	0.159	U	0.145	U
Aroclor-1221	**0.09**	163	U	0.205	U	0.183	U	0.183	U	0.179	U	0.189	U	0.189	U	0.189	U	0.189	U	0.187	U	0.17	U
Aroclor-1232	**0.09**	105	U	0.131	U	0.117	U	0.117	U	0.115	U	0.121	U	0.121	U	0.121	U	0.121	U	0.12	U	0.109	U
Aroclor-1242	**0.09**	79.8	U	0.1	U	0.089	U	0.089	U	0.087	U	0.092	U	0.092	U	0.092	U	0.092	U	0.091	U	0.083	U
Aroclor-1248	**0.09**	40.4	U	0.051	U	0.045	U	0.045	U	0.044	U	0.047	U	0.047	U	0.047	U	0.047	U	0.046	U	0.042	U
Aroclor-1254	**0.09**	35.6	U	0.045	U	0.04	U	0.04	U	0.039	U	0.041	U	0.041	U	0.041	U	0.041	U	0.041	U	0.037	U
Aroclor-1260	**0.09**	**1400**		0.19	U	0.17	U	0.17	U	0.16	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.16	U
TOTAL PCBs	**0.09**	**1400**			U		U		U		U		U		U		U		U		U		U
PESTICIDES																							
4,4-DDE	**0.2**	35.15	U	0.0077	U	0.0075	U	0.0079	U	0.0076	U	0.008	U	0.0078	U	0.008	U	0.008	U	0.0079	U	0.0072	U
4,4-DDD	**0.3**	34.46	U	0.0076	U	0.0073	U	0.0077	U	0.0075	U	0.0078	U	0.0076	U	0.0078	U	0.0078	U	0.0077	U	0.007	U
Endosulfan Sulfate	**NA**	42.35	U	0.0093	U	0.009	U	0.0095	U	0.0092	U	0.0096	U	0.0094	U	0.0096	U	0.0096	U	0.0095	U	0.0086	U
4,4-DDT	**0.2**	31.42	U	0.0069	U	0.0067	U	0.007	U	0.0068	U	0.0071	U	0.007	U	0.0071	U	0.0071	U	0.007	U	0.0064	U
Methoxychlor	**35**	35.05	U	0.0077	U	0.0074	U	0.0079	U	0.0076	U	0.0079	U	0.0078	U	0.0079	U	0.0079	U	0.0079	U	0.0072	U
Endrin ketone	**5**	38.09	U	0.0084	U	0.0081	U	0.0085	U	0.0083	U	0.0086	U	0.0084	U	0.0086	U	0.0086	U	0.0085	U	0.0078	U
Endrin aldehyde	**5**	43.24	U	0.0095	U	0.0092	U	0.0097	U	0.0094	U	0.0098	U	0.0096	U	0.0098	U	0.0098	U	0.0097	U	0.0088	U
gamma-Chlordane	**NA**	38.14	U	0.0084	U	0.0081	U	0.0085	U	0.0083	U	0.0086	U	0.0085	U	0.0086	U	0.0086	U	0.0085	U	0.0078	U
Toxaphene	**0.06**	441.2	U	0.0968	U	0.0938	U	0.0989	U	0.0957	U	0.1	U	0.0978	U	0.1	U	0.1	U	0.0989	U	0.09	U

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Table 6: Ground-Water Sampling Results for the Perched-Water Zone, July, 2008
Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-1	MW-5S	MW-8S	MW-9S	MW-11S	MW-12S	MW-D3 (MW-12S)	MW-13S	GW-1	GW-2	FB-1	FB-2	FB-3	TB-1	TB-2
Lab Sample Number		Z3830-02	Z3783-02	Z3830-03	Z3830-09	Z3830-04	Z3830-06	Z3830-01	Z3830-05	Z3830-07	Z3830-08	Z3783-05	Z3830-15	Z3830-16	Z3783-06	Z3830-14
Sampling Date		7/22/2008	7/18/2008	7/22/2008	7/21/2008	7/22/2008	7/22/2008	7/22/2008	7/22/2008	7/21/2008	7/21/2008	7/18/2008	7/21/2008	7/22/2008	7/15/2008	7/21/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VO's																
Dichlorodifluoromethane	5	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
Chloromethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Vinyl Chloride	2	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromomethane	5	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Chloroethane	5	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Trichlorofluoromethane	5	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
1,1,2-Trichlorotrifluoroethane	5	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1,1-Dichloroethene	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Acetone	50	2.2 U	2.2 U	12 J	2.2 U	2.2 U	2.2 U	2.2 U	18 J	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Carbon Disulfide	NA	4.3 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Methyl tert-butyl Ether	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methyl Acetate	NA	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Methylene Chloride	5	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
trans-1,2-Dichloroethene	5	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1-Dichloroethane	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Cyclohexane	NA	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	13	0.57 U	8.2	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-Butanone	50	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Carbon Tetrachloride	5	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
cis-1,2-Dichloroethene	5	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Chloroform	7	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,1,1-Trichloroethane	5	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
Methylcyclohexane	NA	0.47 U	0.47 U	2.3 J	0.47 U	0.47 U	4.3 J	0.47 U	9.1	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
Benzene	1	0.35 U	0.35 U	100	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	2.3 J	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2-Dichloroethane	0.6	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Trichloroethene	5	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2-Dichloropropane	1	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Bromodichloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
4-Methyl-2-Pentanone	NA	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Toluene	5	0.16 U	0.16 U	9.8	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
t-1,3-Dichloropropene	0.4	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
cis-1,3-Dichloropropene	0.4	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
1,1,2-Trichloroethane	1	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
2-Hexanone	50	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Dibromochloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dibromoethane	0.0006	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Tetrachloroethene	5	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
Chlorobenzene	5	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Ethyl Benzene	5	0.05 U	0.05 U	30	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m/p-Xylenes	NA	0.47 U	3.8 J	44	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
o-Xylene	NA	0.16 U	2.9 J	23	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Styrene	5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bromoform	50	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Isopropylbenzene	5	11	0.37 U	30	0.37 U	0.37 U	6.6	24	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,1,2,2-Tetrachloroethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,3-Dichlorobenzene	3	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,4-Dichlorobenzene	3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichlorobenzene	3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dibromo-3-Chloropropane	0.04	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
1,2,4-Trichlorobenzene	5	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U

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Table 6: Ground-Water Sampling Results for the Perched-Water Zone, July, 2008

Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-1		MW-5S		MW-8S		MW-9S		MW-11S_		MW-11S (Filtered)		MW-12S	
Lab Sample Number		Z3830-02		Z3783-02		Z3830-03		Z3830-09		Z3830-04		Z3830-19		Z3830-06	
Sampling Date		7/22/2008		7/18/2008		7/22/2008		7/21/2008		7/22/2008		7/22/2008		7/22/2008	
Matrix		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Base Neutrals															
Benzaldehyde	NA	0.3	U	0.31	U	0.27	U	0.3	U	0.33	U	0.45	U	0.27	U
Phenol	1	0.6	U	0.63	U	0.55	U	0.6	U	0.68	U	0.92	U	0.55	U
bis(2-Chloroethyl)ether	1	0.31	U	0.32	U	0.28	U	0.31	U	0.35	U	0.47	U	0.28	U
2-Chlorophenol	NA	0.36	U	0.38	U	0.33	U	0.36	U	0.41	U	0.55	U	0.33	U
2-Methylphenol	NA	0.4	U	0.41	U	0.36	U	0.4	U	0.44	U	0.6	U	0.36	U
2,2-oxybis(1-Chloropropane)	NA	0.3	U	0.31	U	0.27	U	0.3	U	0.33	U	0.45	U	0.27	U
Acetophenone	NA	0.41	U	0.43	U	0.37	U	0.41	U	0.46	U	0.62	U	0.37	U
3+4-Methylphenols	NA	0.43	U	0.45	U	1.2	J	0.43	U	0.48	U	0.65	U	0.39	U
N-Nitroso-di-n-propylamine	NA	0.37	U	0.39	U	0.34	U	0.37	U	0.42	U	0.57	U	0.34	U
Hexachloroethane	5	0.25	U	0.26	U	0.23	U	0.25	U	0.28	U	0.38	U	0.23	U
Nitrobenzene	0.4	0.36	U	0.38	U	0.33	U	0.36	U	0.41	U	0.55	U	0.33	U
Isophorone	50	0.29	U	0.3	U	0.26	U	0.29	U	0.32	U	0.43	U	0.26	U
2-Nitrophenol	NA	0.31	U	0.32	U	0.28	U	0.31	U	0.35	U	0.47	U	0.28	U
2,4-Dimethylphenol	1	0.84	U	0.87	U	0.76	U	0.84	U	0.94	U	1.3	U	0.76	U
bis(2-Chloroethoxy)methane	5	0.36	U	0.38	U	0.33	U	0.36	U	0.41	U	0.55	U	0.33	U
2,4-Dichlorophenol	1	0.37	U	0.39	U	0.34	U	0.37	U	0.42	U	0.57	U	0.34	U
Naphthalene	10	0.31	U	0.32	U	**3400**	D	0.31	U	0.35	U	0.47	U	0.28	U
4-Chloroaniline	5	1	U	1.1	U	0.92	U	1	U	1.1	U	1.5	U	0.92	U
Hexachlorobutadiene	NA	0.43	U	0.45	U	0.39	U	0.43	U	0.48	U	0.65	U	0.39	U
Caprolactam	NA	1.6	U	1.7	U	1.5	U	1.6	U	1.8	U	2.5	U	1.5	U
4-Chloro-3-methylphenol	NA	0.24	U	0.25	U	0.22	U	0.24	U	0.27	U	0.37	U	0.22	U
2-Methylnaphthalene	NA	0.41	U	0.43	U	820	D	0.41	U	0.46	U	0.62	U	0.37	U
Hexachlorocyclopentadiene	5	0.62	U	0.64	U	0.56	U	0.62	U	0.69	U	0.93	U	0.56	U
2,4,6-Trichlorophenol	NA	0.38	U	0.4	U	0.35	U	0.38	U	0.43	U	0.58	U	0.35	U
2,4,5-Trichlorophenol	NA	0.42	U	0.44	U	0.38	U	0.42	U	0.47	U	0.63	U	0.38	U
1,1-Biphenyl	5	0.35	U	0.37	U	**66**	D	0.35	U	0.4	U	0.53	U	0.32	U
2-Chloronaphthalene	10	0.25	U	0.26	U	0.23	U	0.25	U	0.28	U	0.38	U	0.23	U
2-Nitroaniline	5	0.27	U	0.29	U	0.25	U	0.27	U	0.31	U	0.42	U	0.25	U
Dimethylphthalate	50	0.3	U	0.31	U	0.27	U	0.3	U	0.33	U	0.45	U	0.27	U
Acenaphthylene	NA	0.38	U	0.4	U	0.35	U	0.38	U	0.43	U	0.58	U	0.35	U
2,6-Dinitrotoluene	5	0.38	U	0.4	U	0.35	U	0.38	U	0.43	U	0.58	U	0.35	U
3-Nitroaniline	5	0.38	U	0.4	U	0.35	U	0.38	U	0.43	U	0.58	U	0.35	U
Acenaphthene	20	0.35	U	2.8	J	**420**	D	2.5	J	0.4	U	0.53	U	2.2	J
2,4-Dinitrophenol	1	0.7	U	0.74	U	0.64	U	0.7	U	0.79	U	1.1	U	0.64	U
4-Nitrophenol	NA	1.9	U	2	U	1.7	U	1.9	U	2.1	U	2.9	U	1.7	U
Dibenzofuran	NA	0.34	U	0.36	U	310	D	0.34	U	0.38	U	0.52	U	0.31	U
2,4-Dinitrotoluene	5	0.37	U	0.39	U	0.34	U	0.37	U	0.42	U	0.57	U	0.34	U
Diethylphthalate	50	0.35	U	0.37	U	0.32	U	0.35	U	1.6	J	0.53	U	0.32	U
4-Chlorophenyl-phenylether	NA	0.32	U	0.33	U	0.29	U	0.32	U	0.36	U	0.48	U	0.29	U
Fluorene	50	0.31	U	0.32	U	**210**	D	0.31	U	0.35	U	0.47	U	1.7	J
4-Nitroaniline	5	0.4	U	0.41	U	0.36	U	0.4	U	0.44	U	0.6	U	0.36	U
4,6-Dinitro-2-methylphenol	NA	0.32	U	0.33	U	0.29	U	0.32	U	0.36	U	0.48	U	0.29	U
N-Nitrosodiphenylamine	50	0.38	U	0.4	U	0.35	U	0.38	U	0.43	U	0.58	U	0.35	U
4-Bromophenyl-phenylether	NA	1.5	U	1.6	U	1.4	U	1.5	U	1.7	U	2.3	U	1.4	U
Hexachlorobenzene	0.04	0.3	U	0.31	U	0.27	U	0.3	U	0.33	U	0.45	U	0.27	U
Atrazine	7.5	0.41	U	0.43	U	0.37	U	0.41	U	0.46	U	0.62	U	0.37	U
Pentachlorophenol	1	0.57	U	0.6	U	0.52	U	0.57	U	0.64	U	0.87	U	0.52	U
Phenanthrene	50	1.5	U	1.6	U	**210**	JD	1.5	U	1.7	U	2.3	U	1.4	U
Anthracene	50	1.6	U	1.6	U	30		1.6	U	1.8	U	2.4	U	1.4	U
Carbazole	NA	0.26	U	13		83	D	0.26	U	0.3	U	0.4	U	0.24	U
Di-n-butylphthalate	50	6.4	U	6.7	U	5.9	U	6.4	U	7.2	U	9.8	U	5.9	U
Fluoranthene	50	0.22	U	0.23	U	20	JD	0.22	U	0.25	U	0.33	U	1.6	J
Pyrene	50	1.5	U	1.6	U	11		1.5	U	1.7	U	2.4	U	3.9	J
Butylbenzylphthalate	50	0.46	U	0.48	U	0.42	U	0.46	U	0.52	U	0.7	U	0.42	U
3,3-Dichlorobenzidine	5	1.2	U	1.2	U	1.1	U	1.2	U	1.3	U	1.8	U	1.1	U
Benzo(a)anthracene	0.002	1.4	U	1.5	U	**1.7**	J	1.4	U	1.6	U	2.2	U	**3**	J
Chrysene	0.002	0.29	U	0.3	U	**1.3**	J	0.29	U	0.32	U	0.43	U	**3.7**	J
bis(2-Ethylhexyl)phthalate	5	1.4	U	1.5	U	1.3	U	1.4	U	1.6	U	2.2	U	1.3	U
Di-n-octyl phthalate	50	0.29	U	0.3	U	0.26	U	0.29	U	0.32	U	0.43	U	0.26	U
Benzo(b)fluoranthene	0.002	0.47	U	0.49	U	0.43	U	0.47	U	0.53	U	0.72	U	**1.5**	J
Benzo(k)fluoranthene	0.002	0.33	U	0.34	U	0.3	U	0.33	U	0.37	U	0.5	U	0.3	U
Benzo(a)pyrene	NA	0.24	U	0.25	U	0.22	U	0.24	U	0.27	U	0.37	U	2.3	J
Indeno(1,2,3-cd)pyrene	0.002	0.73	U	0.76	U	0.66	U	0.73	U	0.81	U	1.1	U	0.66	U
Dibenz(a,h)anthracene	NA	0.59	U	0.62	U	0.54	U	0.59	U	0.67	U	0.9	U	0.54	U
Benzo(g,h,i)perylene	NA	0.43	U	0.45	U	0.39	U	0.43	U	0.48	U	0.65	U	1.6	J

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Table 6: Ground-Water Sampling Results for the Perched-Water Zone, July, 2008

Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-D3 (MW-12S)		MW-13S		GW-1		GW-2		FB-1		FB-2		FB-3	
Lab Sample Number		Z3830-01		Z3830-05		Z3830-07		Z3830-08		Z3783-05		Z3830-15		Z3830-16	
Sampling Date		7/22/2008		7/22/2008		7/21/2008		7/21/2008		7/18/2008		7/21/2008		7/22/2008	
Matrix		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Base Neutrals															
Benzaldehyde	NA	0.3	U	0.33	U	0.27	U	0.28	U	0.27	U	0.27	U	0.28	U
Phenol	1	0.61	U	0.66	U	0.55	U	0.57	U	0.56	U	0.56	U	0.58	U
bis(2-Chloroethyl)ether	1	0.31	U	0.34	U	0.28	U	0.29	U	0.28	U	0.28	U	0.29	U
2-Chlorophenol	NA	0.37	U	0.4	U	0.33	U	0.34	U	0.33	U	0.33	U	0.35	U
2-Methylphenol	NA	0.4	U	0.43	U	0.36	U	0.38	U	0.36	U	0.36	U	0.38	U
2,2-oxybis(1-Chloropropane)	NA	0.3	U	0.33	U	0.27	U	0.28	U	0.27	U	0.27	U	0.28	U
Acetophenone	NA	0.41	U	0.45	U	0.37	U	0.39	U	0.37	U	0.37	U	0.39	U
3+4-Methylphenols	NA	0.43	U	0.47	U	0.39	U	0.41	U	0.39	U	0.39	U	0.41	U
N-Nitroso-di-n-propylamine	NA	0.38	U	0.41	U	0.34	U	0.35	U	0.34	U	0.34	U	0.36	U
Hexachloroethane	5	0.26	U	0.28	U	0.23	U	0.24	U	0.23	U	0.23	U	0.24	U
Nitrobenzene	0.4	0.37	U	0.4	U	0.33	U	0.34	U	0.33	U	0.33	U	0.35	U
Isophorone	50	0.29	U	0.31	U	0.26	U	0.27	U	0.26	U	0.26	U	0.27	U
2-Nitrophenol	NA	0.31	U	0.34	U	0.28	U	0.29	U	0.28	U	0.28	U	0.29	U
2,4-Dimethylphenol	1	0.84	U	0.92	U	0.76	U	0.79	U	0.77	U	0.77	U	0.8	U
bis(2-Chloroethoxy)methane	5	0.37	U	0.4	U	0.33	U	0.34	U	0.33	U	0.33	U	0.35	U
2,4-Dichlorophenol	1	0.38	U	0.41	U	0.34	U	0.35	U	0.34	U	0.34	U	0.36	U
Naphthalene	10	1.6	J	0.34	U	0.28	U	0.29	U	0.28	U	0.28	U	0.29	U
4-Chloroaniline	5	1	U	1.1	U	0.92	U	0.96	U	0.93	U	0.93	U	0.97	U
Hexachlorobutadiene	NA	0.43	U	0.47	U	0.39	U	0.41	U	0.39	U	0.39	U	0.41	U
Caprolactam	NA	1.6	U	1.8	U	1.5	U	1.5	U	1.5	U	1.5	U	1.6	U
4-Chloro-3-methylphenol	NA	0.24	U	0.27	U	0.22	U	0.23	U	0.22	U	0.22	U	0.23	U
2-Methylnaphthalene	NA	0.41	U	0.45	U	0.37	U	0.39	U	0.37	U	0.37	U	0.39	U
Hexachlorocyclopentadiene	5	0.62	U	0.67	U	0.56	U	0.58	U	0.57	U	0.57	U	0.59	U
2,4,6-Trichlorophenol	NA	0.39	U	0.42	U	0.35	U	0.36	U	0.35	U	0.35	U	0.37	U
2,4,5-Trichlorophenol	NA	0.42	U	0.46	U	0.38	U	0.4	U	0.38	U	0.38	U	0.4	U
1,1-Biphenyl	5	0.36	U	0.39	U	0.32	U	0.33	U	0.32	U	0.32	U	0.34	U
2-Chloronaphthalene	10	0.26	U	0.28	U	0.23	U	0.24	U	0.23	U	0.23	U	0.24	U
2-Nitroaniline	5	0.28	U	0.3	U	0.25	U	0.26	U	0.25	U	0.25	U	0.26	U
Dimethylphthalate	50	0.3	U	0.33	U	0.27	U	0.28	U	0.27	U	0.27	U	0.28	U
Acenaphthylene	NA	0.39	U	0.42	U	0.35	U	0.36	U	0.35	U	0.35	U	0.37	U
2,6-Dinitrotoluene	5	0.39	U	0.42	U	0.35	U	0.36	U	0.35	U	0.35	U	0.37	U
3-Nitroaniline	5	0.39	U	0.42	U	0.35	U	0.36	U	0.35	U	0.35	U	0.37	U
Acenaphthene	20	0.36	U	0.39	U	0.32	U	0.33	U	0.32	U	0.32	U	0.34	U
2,4-Dinitrophenol	1	0.71	U	0.77	U	0.64	U	0.67	U	0.65	U	0.65	U	0.67	U
4-Nitrophenol	NA	1.9	U	2.1	U	1.7	U	1.8	U	1.7	U	1.7	U	1.8	U
Dibenzofuran	NA	0.34	U	0.37	U	0.31	U	0.32	U	0.31	U	0.31	U	0.33	U
2,4-Dinitrotoluene	5	0.38	U	0.41	U	0.34	U	0.35	U	0.34	U	0.34	U	0.36	U
Diethylphthalate	50	0.36	U	0.39	U	0.32	U	0.33	U	0.32	U	0.32	U	0.34	U
4-Chlorophenyl-phenylether	NA	0.32	U	0.35	U	0.29	U	0.3	U	0.29	U	0.29	U	0.31	U
Fluorene	50	0.31	U	0.34	U	0.28	U	0.29	U	0.28	U	0.28	U	0.29	U
4-Nitroaniline	5	0.4	U	0.43	U	0.36	U	0.38	U	0.36	U	0.36	U	0.38	U
4,6-Dinitro-2-methylphenol	NA	0.32	U	0.35	U	0.29	U	0.3	U	0.29	U	0.29	U	0.31	U
N-Nitrosodiphenylamine	50	0.39	U	0.42	U	0.35	U	0.36	U	0.35	U	0.35	U	0.37	U
4-Bromophenyl-phenylether	NA	1.6	U	1.7	U	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U
Hexachlorobenzene	0.04	0.3	U	0.33	U	0.27	U	0.28	U	0.27	U	0.27	U	0.28	U
Atrazine	7.5	0.41	U	0.45	U	0.37	U	0.39	U	0.37	U	0.37	U	0.39	U
Pentachlorophenol	1	0.58	U	0.63	U	0.52	U	0.54	U	0.53	U	0.53	U	0.55	U
Phenanthrene	50	1.5	U	1.6	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
Anthracene	50	1.6	U	1.7	U	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U
Carbazole	NA	0.27	U	0.29	U	0.24	U	0.25	U	0.24	U	0.24	U	0.25	U
Di-n-butylphthalate	50	6.5	U	7.1	U	5.9	U	6.1	U	5.9	U	5.9	U	6.2	U
Fluoranthene	50	0.22	U	0.24	U	0.2	U	0.21	U	0.2	U	0.2	U	0.21	U
Pyrene	50	1.6	U	1.7	U	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U
Butylbenzylphthalate	50	0.47	U	0.51	U	0.42	U	0.44	U	0.42	U	0.42	U	0.44	U
3,3-Dichlorobenzidine	5	1.2	U	1.3	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Benzo(a)anthracene	0.002	1.4	U	1.6	U	1.3	U	1.4	U	1.3	U	1.3	U	1.4	U
Chrysene	0.002	0.29	U	0.31	U	0.26	U	0.27	U	0.26	U	0.26	U	0.27	U
bis(2-Ethylhexyl)phthalate	5	1.4	U	1.6	U	1.3	U	1.4	U	1.3	U	1.3	U	1.4	U
Di-n-octyl phthalate	50	0.29	U	0.31	U	0.26	U	0.27	U	0.26	U	0.26	U	0.27	U
Benzo(b)fluoranthene	0.002	0.48	U	0.52	U	0.43	U	0.45	U	0.43	U	0.43	U	0.45	U
Benzo(k)fluoranthene	0.002	0.33	U	0.36	U	0.3	U	0.31	U	0.3	U	0.3	U	0.32	U
Benzo(a)pyrene	NA	0.24	U	0.27	U	0.22	U	0.23	U	0.22	U	0.22	U	0.23	U
Indeno(1,2,3-cd)pyrene	0.002	0.73	U	0.8	U	0.66	U	0.69	U	0.67	U	0.67	U	0.69	U
Dibenz(a,h)anthracene	NA	0.6	U	0.65	U	0.54	U	0.56	U	0.55	U	0.55	U	0.57	U
Benzo(g,h,i)perylene	NA	0.43	U	0.47	U	0.39	U	0.41	U	0.39	U	0.39	U	0.41	U

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Table 6: Ground-Water Sampling Results for the Perched-Water Zone, July, 2008

Metals

Sample ID	NYS Ambient	MW-1		MW-5S		MW-5S (filtered)		MW-8S		MW-9S		MW-11S		MW-11S (Filtered)		MW-12S		MW-D3 (MW-12S)		MW-13S		GW-1		GW-2		FB-1		FB-2		FB-3	
Lab Sample Number	Ground Water	Z3830-02		Z3783-02		Z3783-10		Z3830-03		Z3830-09		Z3830-04		Z3830-19		Z3830-06		Z3830-01		Z3830-05		Z3830-07		Z3830-08		Z3783-05		Z3830-15		Z3830-16	
Sampling Date		7/22/2008		7/18/2008		7/18/2008		7/22/2008		7/21/2008		7/22/2008		7/22/2008		7/22/2008		7/22/2008		7/22/2008		7/21/2008		7/21/2008		7/18/2008		7/21/2008		7/22/2008	
Matrix		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor		1		1		1		1		1		1		1		1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
TAL METALS																															
Aluminum	NA	19.3	U	2380		19.3	U	55400		537		9020		1540		883		681		542		160		112		19.3	U	19.3	U	19.3	U
Antimony	3	0.39	J	**3.6**		2.4		0.19	U	0.5	J	0.49	J	0.84	J	0.26	J	0.3	J	0.2	J	0.43	J	0.28	J	0.19	U	0.19	U	0.19	U
Arsenic	25	5.4	U	**33.6**		5.4	U	5.4	U	5.4	U	8.97	J	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U
Barium	1000	100		101		29.4	J	**2060**		226		378		163		198		199		337		98.8		220		11.2	U	11.2	U	11.2	U
Beryllium	3	0.3	U	0.3	U	0.3	U	**5.74**		0.3	U	1.02	J	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Cadmium	5	0.9	U	0.9	U	0.9	U	**4.19**	J	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U	0.9	U
Calcium	NA	149000		55100		55500		388000		174000		149000		129000		101000		103000		135000		73700		203000		457	J	282	U	282	U
Chromium	50	1.4	U	9.16		1.4	U	**92.3**		1.4	U	16.6		1.77	J	1.47	J	1.4	U	1.4	U	3.1	J	1.4	U	1.4	U	1.4	U	1.4	U
Cobalt	NA	2.5	U	4.6	J	2.5	U	23.5		2.5	U	8.5	J	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Copper	200	3.7	U	76		20.4		10		10.2		55.7		9.8	J	6.52	J	6.16	J	7.15	J	4.21	J	3.7	U	3.7	U	3.7	U	3.7	U
Iron	300	**15100**		**5260**		96.8	J	**334000**		**9640**		**31500**		**3210**		**2820**		**2320**		**11400**		**16200**		**4040**		122		33.1	J	27	U
Lead	25	4.16	J	**34.1**		3.1	U	**740**		**36.4**		**388**		**40.6**		**30.5**		**26.2**		18.1		10.9		9.21	J	3.1	U	3.1	U	3.1	U
Magnesium	35000	18900		5210		3830		**47000**		27000		14500		13900		32300		33700		34100		4520		15000		291	U	291	U	291	U
Manganese	300	**1010**		**658**		**951**		**5850**		**963**		**2230**		**943**		**385**		**391**		**834**		**762**		**430**		9.43	J	0.9	U	0.9	U
Mercury	0.7	0.06	U	0.12	J	0.06	U	**17.7**		0.06	U	**0.91**		0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U	0.06	U
Nickel	100	4.9	U	**123**		76.3		56.4		4.9	U	14.4	J	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U	4.9	U
Potassium	NA	17900		13400		14400		35900		34700		29900		33200		31000		31700		19700		18300		20500		260	J	196	J	113	J
Selenium	10	4.5	U	5.13	J	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U
Thallium	0.5	0.1	U	0.14	J	0.1	U	0.27	J	0.13	J	0.17	J	0.1	U	0.15	J	0.28	J	0.1	U	0.1	U	**0.53**	J	0.1	U	0.1	U	0.1	U
Silver	50	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Sodium	20000	**58800**		**32700**		**31800**		**155000**		104000		**353000**		**389000**		**162000**		**174000**		**66700**		**286000**		**139000**		1600		1220		886	J
Vanadium	NA	4.1	U	10.9	J	4.1	U	216		4.1	U	37.5		5.69	J	4.1	U	4.1	U	4.1	U	4.1	U	4.1	U	4.1	U	4.1	U	4.1	U
Zinc	2000	46.2		988		488		1280		39.6		138		46.3		45.4		53		38.5		38.7		35.8		33.3		41.2		21.6	

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Table 7: Ground-Water Sampling Results for the Sand Aquifier, July 2008

Volatile Organic Compounds

Sample ID	NYS Ambient	MW-3I		MW-3D		MW-4I		MW-5I-1		MW-D1 (MW-5I-2)		MW-6I		MW-D2 (MW-6I)		MW-D2RE (MW-6I)		MW-7I		FB-1		FB-2		FB-3		TB-1		TB-2	
Lab Sample Number	Ground Water	Z3830-13		Z3783-01		Z3783-03		Z3783-04		Z3783-07		Z3830-11		Z3830-10		Z3830-10RE		Z3830-12		Z3783-05		Z3830-15		Z3830-16		Z3783-06		Z3830-14	
Sampling Date		7/21/2008		7/18/2008		7/18/2008		7/18/2008		7/18/2008		7/21/2008		7/21/2008		7/21/2008		7/21/2008		7/18/2008		7/21/2008		7/22/2008		7/15/2008		7/21/2008	
Matrix		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor		1		1		1		1		1		1		1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
VO's																													
Dichlorodifluoromethane	5	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U	0.88	U
Chloromethane	5	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U
Vinyl Chloride	2	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U
Bromomethane	5	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
Chloroethane	5	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U
Trichlorofluoromethane	5	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U	0.53	U
1,1,2-Trichlorotrifluoroethane	5	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U	0.61	U
1,1-Dichloroethene	5	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U
Acetone	50	39		2.2	U	17	J	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U
Carbon Disulfide	NA	0.2	U	10		0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Methyl tert-butyl Ether	NA	0.23	U	4.9	J	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	16		0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
Methyl Acetate	NA	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U
Methylene Chloride	5	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U
trans-1,2-Dichloroethene	5	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U
1,1-Dichloroethane	5	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U	0.67	U
Cyclohexane	NA	4.3	J	0.57	U	9.6		0.57	U	0.57	U	0.57	U	0.57	U	0.57	U	0.57	U	0.57	U	0.57	U	0.57	U	0.57	U	0.57	U
2-Butanone	50	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U
Carbon Tetrachloride	5	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U
cis-1,2-Dichloroethene	5	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U	0.72	U
Chloroform	7	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U	0.45	U
1,1,1-Trichloroethane	5	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U
Methylcyclohexane	NA	4.8	J	0.47	U	8.3		0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U
Benzene	1	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	4.4	J	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U
1,2-Dichloroethane	0.6	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U
Trichloroethene	5	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
1,2-Dichloropropane	1	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U
Bromodichloromethane	50	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
4-Methyl-2-Pentanone	NA	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Toluene	5	2.5	J	0.16	U	0.16	U	2.7	J	2.6	J	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
t-1,3-Dichloropropene	0.4	0.31	U	11		0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U
cis-1,3-Dichloropropene	0.4	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U	0.29	U
1,1,2-Trichloroethane	1	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U
2-Hexanone	50	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Dibromochloromethane	50	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U	0.23	U
1,2-Dibromoethane	0.0006	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U
Tetrachloroethene	5	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U	0.97	U
Chlorobenzene	5	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U
Ethyl Benzene	5	0.05	U	0.05	U	2.6	J	5.3		5.4		0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
m/p-Xylenes	NA	7.2	J	0.47	U	3.5	J	1.8	J	2	J	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U	0.47	U
o-Xylene	NA	3.4	J	0.16	U	0.16	U	6.5		6.1		0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
Styrene	5	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
Bromoform	50	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U
Isopropylbenzene	5	49		0.37	U	8.2		1	J	1.2	J	4.5	J	6		4.6	J	3.6	J	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U
1,1,2,2-Tetrachloroethane	5	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U
1,3-Dichlorobenzene	3	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U	0.28	U
1,4-Dichlorobenzene	3	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1,2-Dichlorobenzene	3	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
1,2-Dibromo-3-Chloropropane	0.04	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U	0.58	U
1,2,4-Trichlorobenzene	5	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U	0.39	U

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5th St. Mixed Use Housing
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Table 7: Ground-Water Sampling Results for the Sand Aquifier, July 2008

Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-3I		MW-3IRE		MW-3D		MW-4I		MW-5I-1		MW-D1 (MW-5I-2)	
Lab Sample Number		Z3830-13		Z3830-13RE		Z3783-01		Z3783-03		Z3783-04		Z3783-07	
Sampling Date		7/21/2008		7/21/2008		7/18/2008		7/18/2008		7/18/2008		7/18/2008	
Matrix		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Base Neutrals													
Benzaldehyde	NA	0.27	U	0.27	U	0.28	U	0.28	U	0.27	U	0.3	U
Phenol	1	0.55	U	0.55	U	0.56	U	0.57	U	0.55	U	0.62	U
bis(2-Chloroethyl)ether	1	0.28	U	0.28	U	0.29	U	0.29	U	0.28	U	0.31	U
2-Chlorophenol	NA	0.33	U	0.33	U	0.34	U	0.34	U	0.33	U	0.37	U
2-Methylphenol	NA	0.36	U	0.36	U	0.37	U	0.37	U	0.36	U	0.4	U
2,2-oxybis(1-Chloropropane)	NA	0.27	U	0.27	U	0.28	U	0.28	U	0.27	U	0.3	U
Acetophenone	NA	0.37	U	0.37	U	0.38	U	0.38	U	0.37	U	0.42	U
3+4-Methylphenols	NA	0.39	U	0.39	U	0.4	U	0.4	U	0.39	U	0.44	U
N-Nitroso-di-n-propylamine	NA	0.34	U	0.34	U	0.35	U	0.35	U	0.34	U	0.38	U
Hexachloroethane	5	0.23	U	0.23	U	0.23	U	0.24	U	0.23	U	0.26	U
Nitrobenzene	0.4	0.33	U	0.33	U	0.34	U	0.34	U	0.33	U	0.37	U
Isophorone	50	0.26	U	0.26	U	0.27	U	0.27	U	0.26	U	0.29	U
2-Nitrophenol	NA	0.28	U	0.28	U	0.29	U	0.29	U	0.28	U	0.31	U
2,4-Dimethylphenol	1	0.76	U	0.76	U	0.78	U	0.78	U	0.76	U	0.85	U
bis(2-Chloroethoxy)methane	5	0.33	U	0.33	U	0.34	U	0.34	U	0.33	U	0.37	U
2,4-Dichlorophenol	1	0.34	U	0.34	U	0.35	U	0.35	U	0.34	U	0.38	U
Naphthalene	10	0.28	U	0.28	U	0.29	U	0.29	U	83	D	65	
4-Chloroaniline	5	0.92	U	0.92	U	0.94	U	0.95	U	0.92	U	1	U
Hexachlorobutadiene	NA	0.39	U	0.39	U	0.4	U	0.4	U	0.39	U	0.44	U
Caprolactam	NA	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.7	U
4-Chloro-3-methylphenol	NA	0.22	U	0.22	U	0.22	U	0.23	U	0.22	U	0.25	U
2-Methylnaphthalene	NA	0.37	U	0.37	U	0.38	U	0.38	U	6.2	J	4.8	J
Hexachlorocyclopentadiene	5	0.56	U	0.56	U	0.57	U	0.58	U	0.56	U	0.63	U
2,4,6-Trichlorophenol	NA	0.35	U	0.35	U	0.36	U	0.36	U	0.35	U	0.39	U
2,4,5-Trichlorophenol	NA	0.38	U	0.38	U	0.39	U	0.39	U	0.38	U	0.43	U
1,1-Biphenyl	5	0.32	U	0.32	U	0.33	U	0.33	U	8.7	J	7.4	J
2-Chloronaphthalene	10	0.23	U	0.23	U	0.23	U	0.24	U	0.23	U	0.26	U
2-Nitroaniline	5	0.25	U	0.25	U	0.26	U	0.26	U	0.25	U	0.28	U
Dimethylphthalate	50	0.27	U	0.27	U	0.28	U	0.28	U	0.27	U	0.3	U
Acenaphthylene	NA	0.35	U	0.35	U	0.36	U	0.36	U	2.7	J	2.4	J
2,6-Dinitrotoluene	5	0.35	U	0.35	U	0.36	U	0.36	U	0.35	U	0.39	U
3-Nitroaniline	5	0.35	U	0.35	U	0.36	U	0.36	U	0.35	U	0.39	U
Acenaphthene	20	0.32	U	0.32	U	2.6	J	6.3	J	110	D	95	D
2,4-Dinitrophenol	1	0.64	U	0.64	U	0.65	U	0.66	U	0.64	U	0.72	U
4-Nitrophenol	NA	1.7	U	1.7	U	1.8	U	1.8	U	1.7	U	1.9	U
Dibenzofuran	NA	0.31	U	0.31	U	0.32	U	0.32	U	58		52	
2,4-Dinitrotoluene	5	0.34	U	0.34	U	0.35	U	0.35	U	0.34	U	0.38	U
Diethylphthalate	50	0.32	U	0.32	U	8.6	J	0.33	U	0.32	U	0.36	U
4-Chlorophenyl-phenylether	NA	0.29	U	0.29	U	0.3	U	0.3	U	0.29	U	0.33	U
Fluorene	50	0.28	U	0.28	U	0.29	U	1.8	J	59	D	59	
4-Nitroaniline	5	0.36	U	0.36	U	0.37	U	0.37	U	0.36	U	0.4	U
4,6-Dinitro-2-methylphenol	NA	0.29	U	0.29	U	0.3	U	0.3	U	0.29	U	0.33	U
N-Nitrosodiphenylamine	50	0.35	U	0.35	U	0.36	U	0.36	U	0.35	U	0.39	U
4-Bromophenyl-phenylether	NA	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.6	U
Hexachlorobenzene	0.04	0.27	U	0.27	U	0.28	U	0.28	U	0.27	U	0.3	U
Atrazine	7.5	0.37	U	0.37	U	0.38	U	0.38	U	0.37	U	0.42	U
Pentachlorophenol	1	0.52	U	0.52	U	0.53	U	0.54	U	0.52	U	0.58	U
Phenanthrene	50	1.4	U	1.4	U	1.4	U	1.4	U	43		34	
Anthracene	50	1.4	U	1.4	U	1.4	U	1.5	U	6	J	5	J
Carbazole	NA	0.24	U	0.24	U	0.24	U	0.25	U	22		21	
Di-n-butylphthalate	50	5.9	U	5.9	U	6	U	6	U	5.9	U	6.6	U
Fluoranthene	50	0.2	U	0.2	U	0.2	U	0.21	U	14		12	
Pyrene	50	1.4	U	1.4	U	1.4	U	1.5	U	7	J	5.9	J
Butylbenzylphthalate	50	0.42	U	0.42	U	0.43	U	0.43	U	0.42	U	0.47	U
3,3-Dichlorobenzidine	5	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.2	U
Benzo(a)anthracene	0.002	1.3	U	1.3	U	1.3	U	1.3	U	1.3	U	1.5	U
Chrysene	0.002	0.26	U	0.26	U	0.27	U	0.27	U	0.26	U	0.29	U
bis(2-Ethylhexyl)phthalate	5	1.3	U	1.3	U	1.4	J	1.3	U	1.3	U	1.5	U
Di-n-octyl phthalate	50	0.26	U	0.26	U	0.27	U	0.27	U	0.26	U	0.29	U
Benzo(b)fluoranthene	0.002	0.43	U	0.43	U	0.44	U	0.44	U	0.43	U	0.48	U
Benzo(k)fluoranthene	0.002	0.3	U	0.3	U	0.31	U	0.31	U	0.3	U	0.34	U
Benzo(a)pyrene	NA	0.22	U	0.22	U	0.22	U	0.23	U	0.22	U	0.25	U
Indeno(1,2,3-cd)pyrene	0.002	0.66	U	0.66	U	0.67	U	0.68	U	0.66	U	0.74	U
Dibenz(a,h)anthracene	NA	0.54	U	0.54	U	0.55	U	0.56	U	0.54	U	0.61	U
Benzo(g,h,i)perylene	NA	0.39	U	0.39	U	0.4	U	0.4	U	0.39	U	0.44	U

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Table 7: Ground-Water Sampling Results for the Sand Aquifier, July 2008

Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-6I		MW-D2 (MW-6I)		MW-7I		FB-1		FB-2		FB-3	
Lab Sample Number		Z3830-11		Z3830-10		Z3830-12		Z3783-05		Z3830-15		Z3830-16	
Sampling Date		7/21/2008		7/21/2008		7/21/2008		7/18/2008		7/21/2008		7/22/2008	
Matrix		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Base Neutrals													
Benzaldehyde	NA	0.27	U	0.28	U	0.27	U	0.27	U	0.27	U	0.28	U
Phenol	1	0.55	U	0.57	U	0.55	U	0.56	U	0.56	U	0.58	U
bis(2-Chloroethyl)ether	1	0.28	U	0.29	U	0.28	U	0.28	U	0.28	U	0.29	U
2-Chlorophenol	NA	0.33	U	0.34	U	0.33	U	0.33	U	0.33	U	0.35	U
2-Methylphenol	NA	0.36	U	0.38	U	0.36	U	0.36	U	0.36	U	0.38	U
2,2-oxybis(1-Chloropropane)	NA	0.27	U	0.28	U	0.27	U	0.27	U	0.27	U	0.28	U
Acetophenone	NA	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.39	U
3+4-Methylphenols	NA	0.39	U	0.41	U	0.39	U	0.39	U	0.39	U	0.41	U
N-Nitroso-di-n-propylamine	NA	0.34	U	0.35	U	0.34	U	0.34	U	0.34	U	0.36	U
Hexachloroethane	5	0.23	U	0.24	U	0.23	U	0.23	U	0.23	U	0.24	U
Nitrobenzene	0.4	0.33	U	0.34	U	0.33	U	0.33	U	0.33	U	0.35	U
Isophorone	50	0.26	U	0.27	U	0.26	U	0.26	U	0.26	U	0.27	U
2-Nitrophenol	NA	0.28	U	0.29	U	0.28	U	0.28	U	0.28	U	0.29	U
2,4-Dimethylphenol	1	0.76	U	0.79	U	0.76	U	0.77	U	0.77	U	0.8	U
bis(2-Chloroethoxy)methane	5	0.33	U	0.34	U	0.33	U	0.33	U	0.33	U	0.35	U
2,4-Dichlorophenol	1	0.34	U	0.35	U	0.34	U	0.34	U	0.34	U	0.36	U
Naphthalene	10	0.28	U	0.29	U	86	D	0.28	U	0.28	U	0.29	U
4-Chloroaniline	5	0.92	U	0.96	U	0.92	U	0.93	U	0.93	U	0.97	U
Hexachlorobutadiene	NA	0.39	U	0.41	U	0.39	U	0.39	U	0.39	U	0.41	U
Caprolactam	NA	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.6	U
4-Chloro-3-methylphenol	NA	0.22	U	0.23	U	0.22	U	0.22	U	0.22	U	0.23	U
2-Methylnaphthalene	NA	0.37	U	0.39	U	5.8	J	0.37	U	0.37	U	0.39	U
Hexachlorocyclopentadiene	5	0.56	U	0.58	U	0.56	U	0.57	U	0.57	U	0.59	U
2,4,6-Trichlorophenol	NA	0.35	U	0.36	U	0.35	U	0.35	U	0.35	U	0.37	U
2,4,5-Trichlorophenol	NA	0.38	U	0.4	U	0.38	U	0.38	U	0.38	U	0.4	U
1,1-Biphenyl	5	0.32	U	0.33	U	1.7	J	0.32	U	0.32	U	0.34	U
2-Chloronaphthalene	10	0.23	U	0.24	U	0.23	U	0.23	U	0.23	U	0.24	U
2-Nitroaniline	5	0.25	U	0.26	U	0.25	U	0.25	U	0.25	U	0.26	U
Dimethylphthalate	50	0.27	U	0.28	U	0.27	U	0.27	U	0.27	U	0.28	U
Acenaphthylene	NA	0.35	U	0.36	U	0.35	U	0.35	U	0.35	U	0.37	U
2,6-Dinitrotoluene	5	0.35	U	0.36	U	0.35	U	0.35	U	0.35	U	0.37	U
3-Nitroaniline	5	0.35	U	0.36	U	0.35	U	0.35	U	0.35	U	0.37	U
Acenaphthene	20	9	J	9.5	J	40		0.32	U	0.32	U	0.34	U
2,4-Dinitrophenol	1	0.64	U	0.67	U	0.64	U	0.65	U	0.65	U	0.67	U
4-Nitrophenol	NA	1.7	U	1.8	U	1.7	U	1.7	U	1.7	U	1.8	U
Dibenzofuran	NA	0.31	U	0.32	U	14		0.31	U	0.31	U	0.33	U
2,4-Dinitrotoluene	5	0.34	U	0.35	U	0.34	U	0.34	U	0.34	U	0.36	U
Diethylphthalate	50	0.32	U	0.33	U	0.32	U	0.32	U	0.32	U	0.34	U
4-Chlorophenyl-phenylether	NA	0.29	U	0.3	U	0.29	U	0.29	U	0.29	U	0.31	U
Fluorene	50	2	J	1.7	J	12		0.28	U	0.28	U	0.29	U
4-Nitroaniline	5	0.36	U	0.38	U	0.36	U	0.36	U	0.36	U	0.38	U
4,6-Dinitro-2-methylphenol	NA	0.29	U	0.3	U	0.29	U	0.29	U	0.29	U	0.31	U
N-Nitrosodiphenylamine	50	0.35	U	0.36	U	0.35	U	0.35	U	0.35	U	0.37	U
4-Bromophenyl-phenylether	NA	1.4	U	1.5	U	1.4	U	1.4	U	1.4	U	1.5	U
Hexachlorobenzene	0.04	0.27	U	0.28	U	0.27	U	0.27	U	0.27	U	0.28	U
Atrazine	7.5	0.37	U	0.39	U	0.37	U	0.37	U	0.37	U	0.39	U
Pentachlorophenol	1	0.52	U	0.54	U	0.52	U	0.53	U	0.53	U	0.55	U
Phenanthrene	50	1.4	U	1.4	U	9.4	J	1.4	U	1.4	U	1.4	U
Anthracene	50	1.4	U	1.5	U	2.5	J	1.4	U	1.4	U	1.5	U
Carbazole	NA	0.24	U	0.25	U	4.4	J	0.24	U	0.24	U	0.25	U
Di-n-butylphthalate	50	5.9	U	6.1	U	5.9	U	5.9	U	5.9	U	6.2	U
Fluoranthene	50	0.2	U	0.21	U	1.4	J	0.2	U	0.2	U	0.21	U
Pyrene	50	1.4	U	1.5	U	1.4	U	1.4	U	1.4	U	1.5	U
Butylbenzylphthalate	50	0.42	U	0.44	U	0.42	U	0.42	U	0.42	U	0.44	U
3,3-Dichlorobenzidine	5	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U	1.1	U
Benzo(a)anthracene	0.002	1.3	U	1.4	U	1.3	U	1.3	U	1.3	U	1.4	U
Chrysene	0.002	0.26	U	0.27	U	0.26	U	0.26	U	0.26	U	0.27	U
bis(2-Ethylhexyl)phthalate	5	1.3	U	1.4	U	1.3	U	1.3	U	1.3	U	1.4	U
Di-n-octyl phthalate	50	0.26	U	0.27	U	0.26	U	0.26	U	0.26	U	0.27	U
Benzo(b)fluoranthene	0.002	0.43	U	0.45	U	0.43	U	0.43	U	0.43	U	0.45	U
Benzo(k)fluoranthene	0.002	0.3	U	0.31	U	0.3	U	0.3	U	0.3	U	0.32	U
Benzo(a)pyrene	NA	0.22	U	0.23	U	0.22	U	0.22	U	0.22	U	0.23	U
Indeno(1,2,3-cd)pyrene	0.002	0.66	U	0.69	U	0.66	U	0.67	U	0.67	U	0.69	U
Dibenz(a,h)anthracene	NA	0.54	U	0.56	U	0.54	U	0.55	U	0.55	U	0.57	U
Benzo(g,h,i)perylene	NA	0.39	U	0.41	U	0.39	U	0.39	U	0.39	U	0.41	U

OCA LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Table 7: Ground-Water Sampling Results for the Sand Aquifer, July 2008

Metals

Sample ID	NYS Ambient Ground Water	MW-3I	MW-3D	MW-4I	MW-5I-1	MW-D1(MW-5I-2)	MW-6I	MW-D2 (MW-6I)	MW-7I	FB-1	FB-2	FB-3
Lab Sample Number		Z3830-13	Z3783-01	Z3783-03	Z3783-04	Z3783-07	Z3830-11	Z3830-10	Z3830-12	Z3783-05	Z3830-15	Z3830-16
Sampling Date		7/21/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008	7/21/2008	7/21/2008	7/21/2008	7/18/2008	7/21/2008	7/22/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
TAL METALS												
Aluminum	NA	130	2070	250	223	131	495	222	132	19.3 U	19.3 U	19.3 U
Antimony	3	0.4 J	0.25 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Arsenic	25	5.4 U	5.4 U	6.15 J	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
Barium	1000	109	403	132	95.6	92.3	148	138	112	11.2 U	11.2 U	11.2 U
Beryllium	3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Cadmium	5	0.9 U	1.27 J	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
Calcium	NA	104000	196000	63600	70300	64100	183000	172000	87800	457 J	282 U	282 U
Chromium	50	1.4 U	7.38	1.62 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Cobalt	NA	2.5 U	2.54 J	14.2 J	3.27 J	3.03 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Copper	200	4.13 J	13.1	3.7 U	4.02 J	3.7 U	4.41 J	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U
Iron	300	6610	7300	27300	26600	24400	3160	2770	3330	122	33.1 J	27 U
Lead	25	6.64 J	14.3	6.96 J	5.24 J	3.1 U	6.89 J	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Magnesium	35000	26000	65900	27800	15900	13200	56500	53300	51000	291 U	291 U	291 U
Manganese	300	575	333	700	2460	2280	1040	942	336	9.43 J	0.9 U	0.9 U
Mercury	0.7	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Nickel	100	4.9 U	4.9 U	4.9 U	9.17 J	6.43 J	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Potassium	NA	18700	35000	23900	14800	14500	25300	25300	45100	260 J	196 J	113 J
Selenium	10	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Thallium	0.5	0.1 U	0.23 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Silver	50	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Sodium	20000	110000	424000	271000	112000	110000	106000	108000	229000	1600	1220	886 J
Vanadium	NA	4.1 U	16.9 J	4.79 J	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U
Zinc	2000	35.3	101	38.8	39.6	31.6	41.9	36	20.8	33.3	41.2	21.6

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5th St. Mixed Use Housing
EWMA Project # 205490

Table 7: Ground-Water Sampling Results for the Sand Aquifer, July 2008
Analytical Table Qualifiers

Qualifiers
U - The compound was not detected at the indicated concentration.
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
E (Inorganics) - The reported value is estimated because of the presence of interference.
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
NR - Not analyzed

OCA LIC
5th ST. Mixed Use Housing
EWMA Project # 205490

Table 8: Vapor Sampling & Analysis Summary Table (ug/m3) - Soil Gas (SG) and Subslab (SS)

Compound	CAS #	Background E08-00859-03 ug/m3	SG-1 E08-00859-08 ug/m3	SG-2 E08-00859-05 ug/m3	SG-3 E08-00859-01 ug/m3	SS-1 E08-00859-07 ug/m3	SS-2 E08-00859-06 ug/m3	SS-3 E08-00859-04 ug/m3	SS-4 E08-00859-02 ug/m3
Acetone	67-64-1	14	86	59	192	ND	80	56	204
Benzene	71-43-2	1.9	3.8	9.1	ND	11	3.7	5.6	3
1,3-Butadiene	106-99-0	ND	5.1	5.3	ND	2.2	ND	0.73	ND
Carbon disulfide	75-15-0	ND	7.9	1.3	ND	18	16	7.4	1.3
Chloroform	67-66-3	ND	ND	28	ND	1.4	ND	9.5	ND
Cyclohexane	110-82-7	ND	1.6	7.3	ND	31	27	34	1.7
Dichlorodifluoromethane	75-71-8	4.8	3.4	5.1	ND	4.6	4.7	4.8	4.6
cis-1,2-Dichloroethylene	156-59-2	ND	ND	ND	ND	ND	ND	2.8	ND
Ethylbenzene	100-41-4	1.4	ND	2.8	ND	1.7	3.2	3.2	1.7
Heptane	142-82-5	0.86	5.5	6.3	ND	5.4	62	69	7.3
Hexane	110-54-3	0.95	6.6	3.7	ND	11	17	17	2.6
Isopropyl alcohol	67-63-0	1.3	ND	ND	ND	ND	ND	2.1	14
Methyl ethyl ketone	78-93-3	1.1	10	3	ND	6.3	26	9.4	4.3
Methyl isobutyl ketone	108-10-1	ND	ND	ND	ND	ND	11	7.8	1.7
Methylene chloride	75-09-2	4.9	0.7	63	274	1.3	7.4	23	247
Methyl-t-butyl ether	1634-04-4	ND	ND	ND	ND	6.9	6.5	ND	ND
Styrene	100-42-5	ND	ND	ND	ND	ND	ND	ND	1.2
Tetrachloroethylene	127-18-4	1.5	2.4	34	136	6.9	6	9.8	2.8
Toluene	108-88-3	3.3	3.8	16	ND	6.1	67	47	21
1,1,1-Trichloroethane	71-55-6	ND	7.4	ND	ND	3.1	ND	ND	ND
Trichloroethylene	79-01-6	ND	ND	0.43	ND	ND	ND	0.43	0.43
Trichlorofluoromethane	75-69-4	2.1	1.4	4.7	ND	1.3	1.7	3.4	7.1
1,2,4-Trimethylbenzene	95-63-6	1.5	1.2	3.8	ND	2.2	3.8	4.2	1.6
1,3,5-Trimethylbenzene	108-67-8	ND	ND	1.8	ND	ND	1.5	1.6	ND
Vinyl chloride	75-01-4	ND	ND	ND	ND	0.59	ND	ND	ND
m or p-Xylene	1330-20-7	5	2.7	7.9	ND	5.3	13	12	4.8
o-Xylene	95-47-6	2.2	1	3.2	ND	1.6	6.2	5.6	2.5

Notes

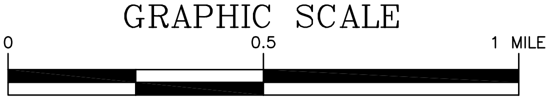
10 - result exceeds background level

63 - result exceeds NYSDOH air guideline value (table 3.1)

NYSDOH Air Guidelines

PCE	100 ug/m3
Methylene Chloride	60 ug/m3

Figures



SOURCE: USGS CENTRAL PARK & BROOKLYN, N.Y. 7.5 MIN. QUADS.

Environmental Waste Management Associates, LLC
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Parsippany, NJ 07054
Tel: (973) 560-1400

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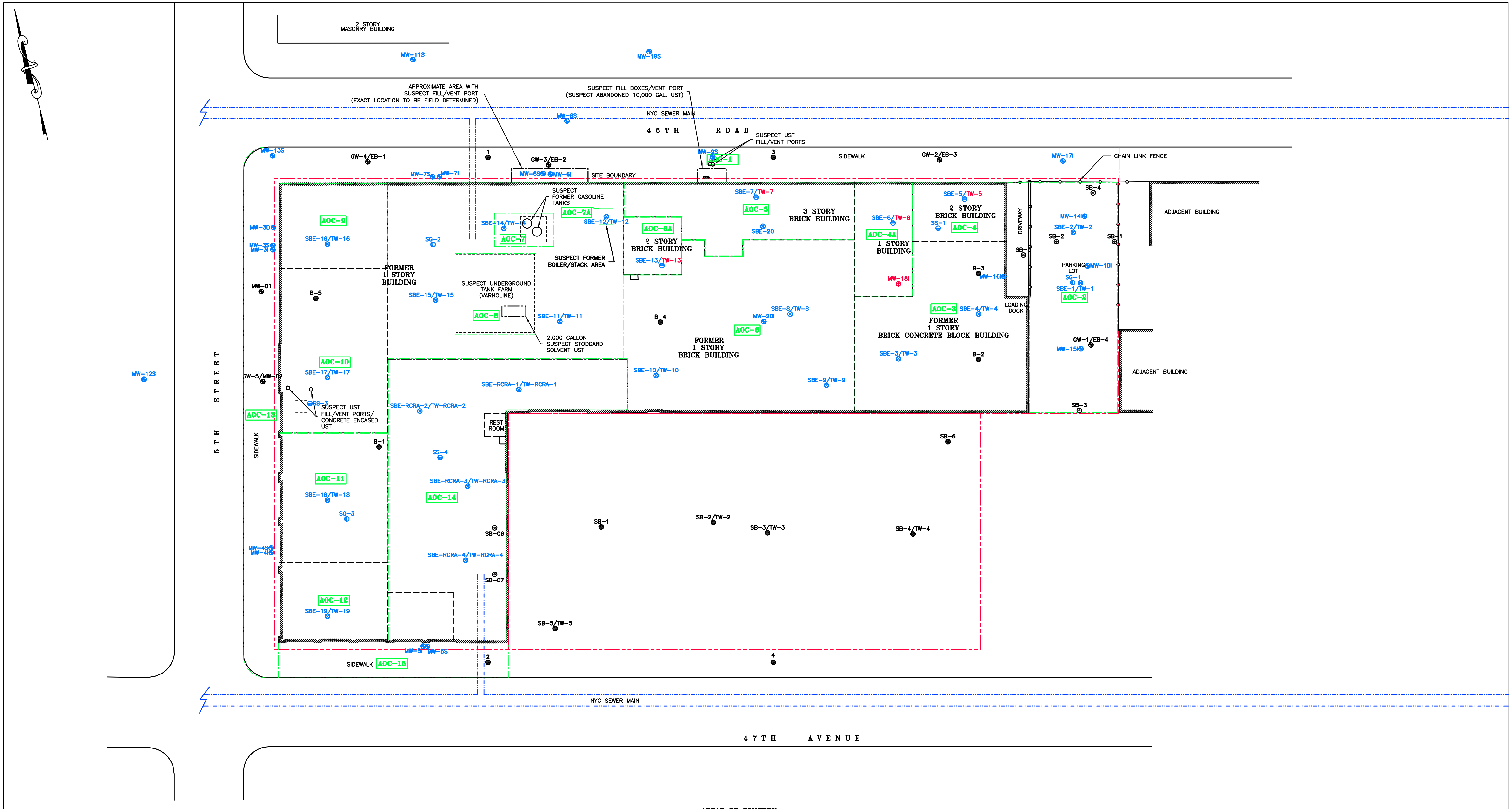
SITE LOCATION

OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 1



LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
B-1 ●	EEA, INC. SOIL BORING LOCATION – 2005
1 ●	CA RICH CONSULTANTS SAMPLE LOCATION – 1992
SB-1 ⊙	J.C. BRODERICK & ASSOCIATES SAMPLE LOCATION – 2005
SBE-7/TW-7 ⊗	EWMA SOIL BORING OR SOIL BORING/TEMPORARY WATER SAMPLE LOCATION – 2008
SBE-6/TW-6 ⊖	EWMA HAND AUGER SAMPLE LOCATION – 2008 (PROPOSED TEMPORARY WATER SAMPLE NOT COLLECTED)
☐	CONCRETE REMOVAL AREA
MW-3S ⊕	EWMA MONITORING WELL LOCATION (SHALLOW) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (INTERMEDIATE) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (DEEP) – 2008
SS-1 ⊖	EWMA SUB-SLAB AIR SAMPLE LOCATION FOR VAPOR INTRUSION INVESTIGATION – 2008
SG-1 ◐	EWMA SOIL GAS SAMPLE LOCATION FOR VAPOR INTRUSION INVESTIGATION – 2008
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
▨	ENCAPSULATED AREA
— - - —	SITE BOUNDARY
//////////	BUILDING OUTER WALL
— — — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · — · —	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK	AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-2	EASTERN PARKING LOT	AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)	AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)	AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-4A	1-STORY BUILDING	AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)	AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)	AOC-13	5TH STREET SIDEWALK
AOC-6A	2-STORY BRICK BUILDING	AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS	AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE

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P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

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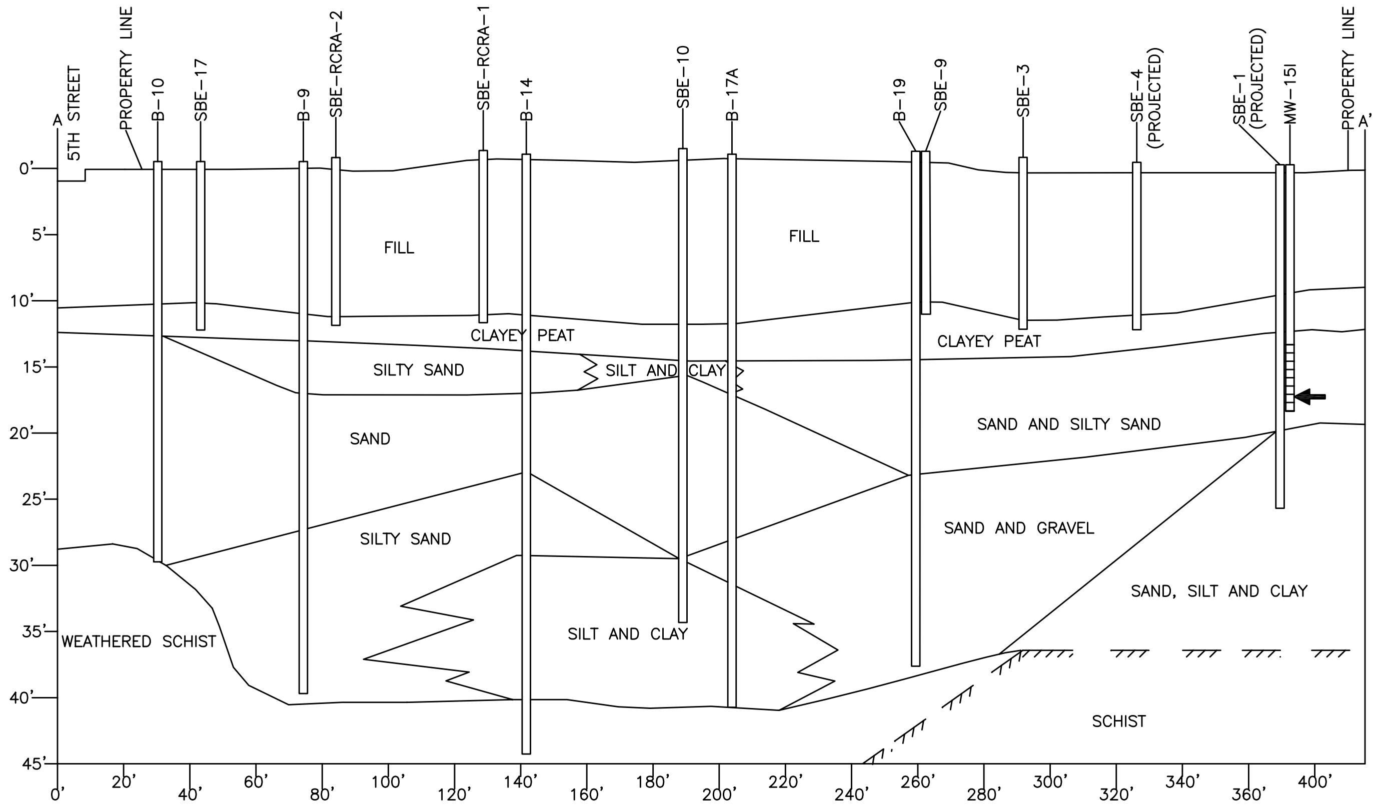
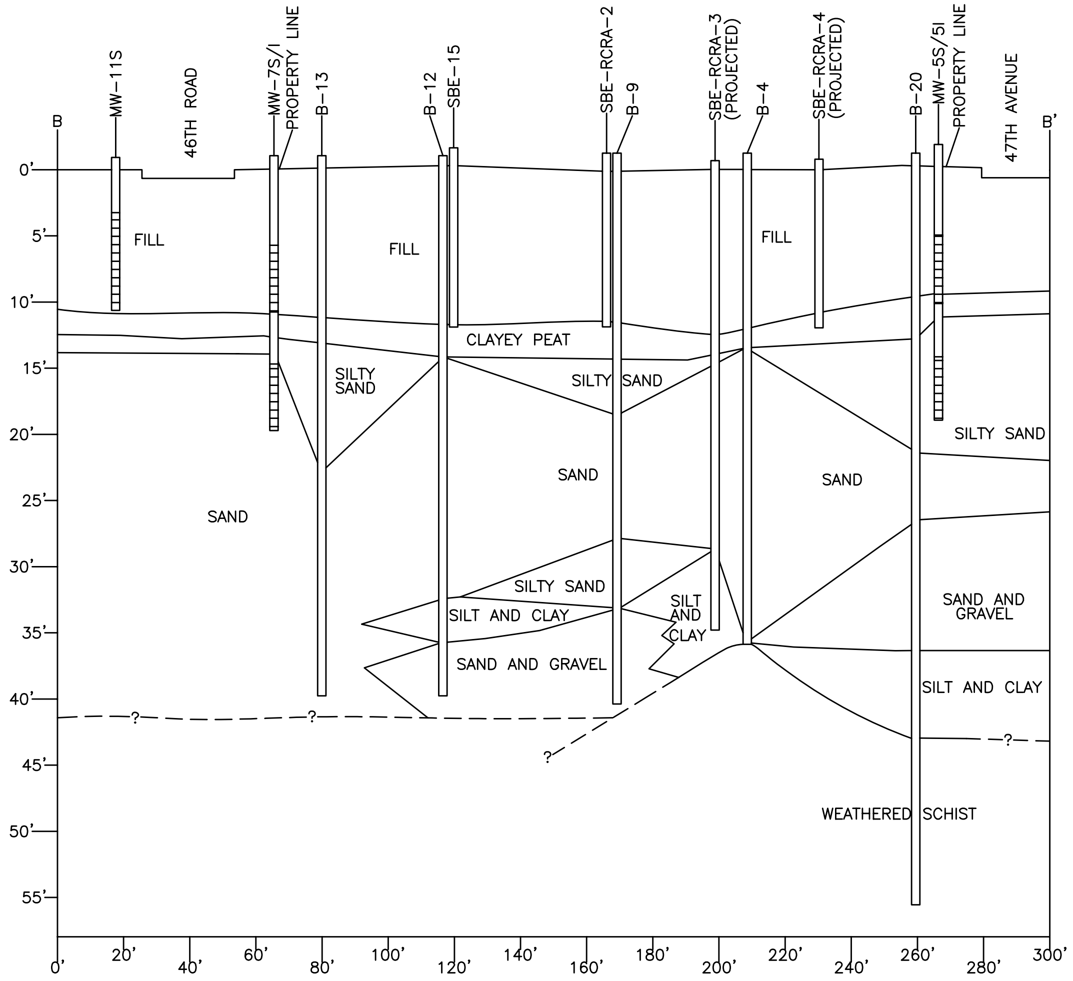
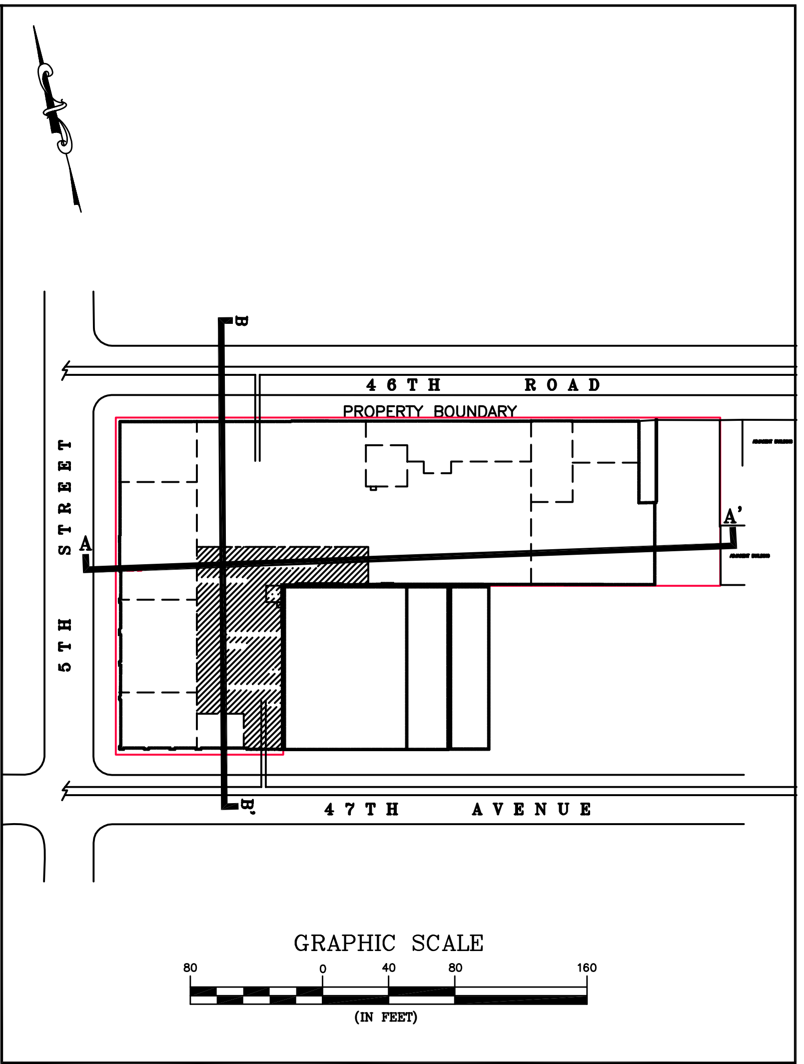
SITE PLAN WITH SAMPLE LOCATION PLAN
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 2







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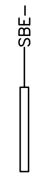
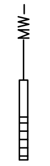
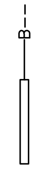


EWMA SOIL BORING LOCATION

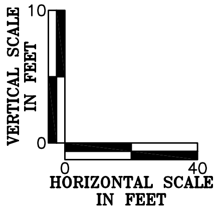


MONITORING WELL LOCATION WITH SCREENED INTERVAL



DEWBERRY GEOTECHNICAL BORING LOCATION

← HYDROCARBON SHEEN ENCOUNTERED AT THIS DEPTH



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Parsippany, NJ 07054
Tel: (973) 560-1400

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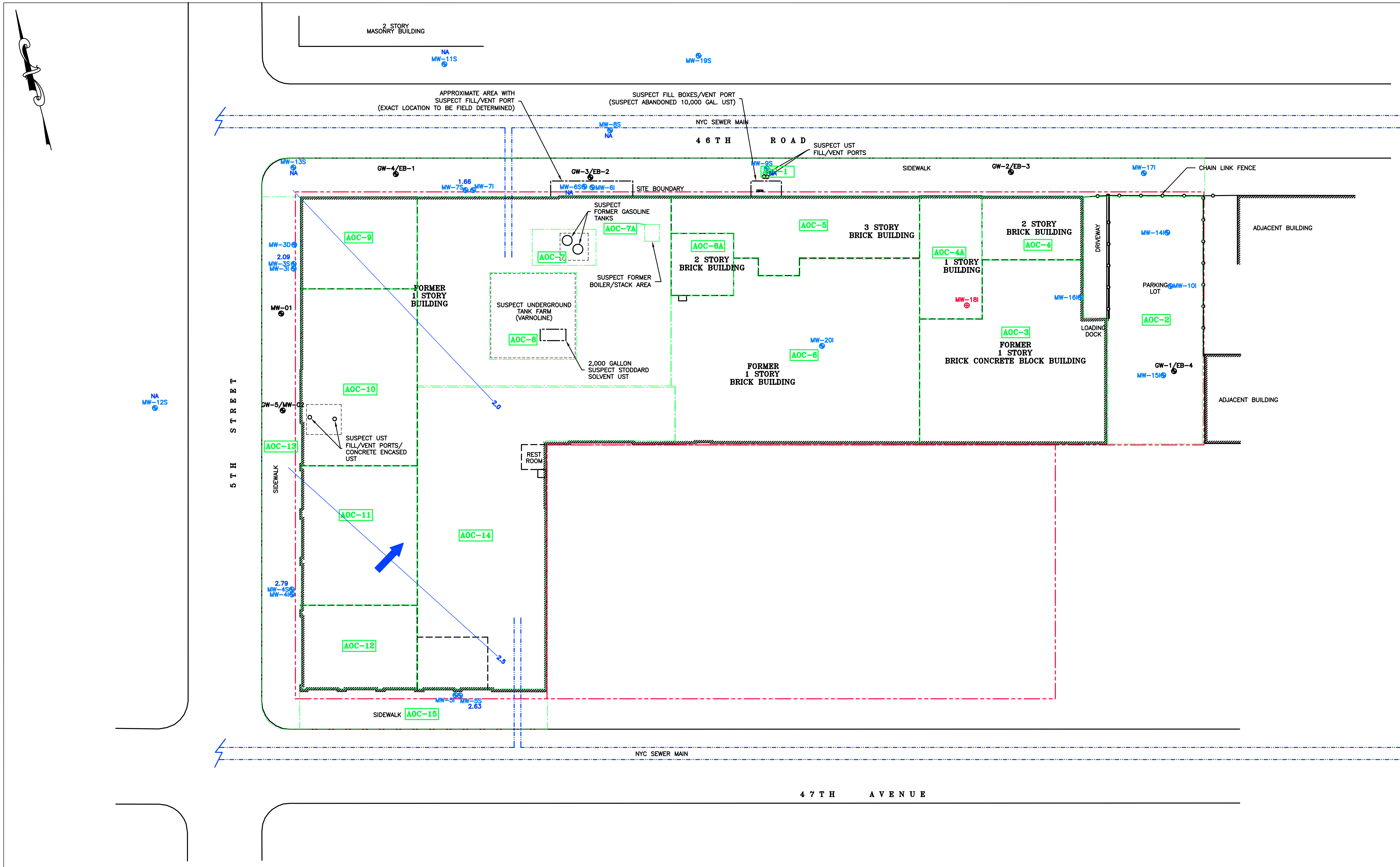
SUBSURFACE CROSS-SECTIONS A-A' & B-B'
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 3



LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
MW-13S ⊕ 2.09	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) WITH WATER LEVEL ELEVATION IN FEET BASED ON ASSUMED SURVEYOR ELEVATION DATUM (ASED) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
2.5 ↗	GROUND WATER CONTOUR WITH ELEVATION IN FEET BASED ON (ASED) WITH FLOW DIRECTION
NA	WATER LEVEL NOT AVAILABLE
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
– - –	SITE BOUNDARY
//////	BUILDING OUTER WALL
– – –	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
– · –	AOC BOUNDARY

NOTE: J.C. BRODERICK AND EEA INSTALLED WELLS WERE NOT USED IN CONSTRUCTING WATER LEVEL CONTOURS, DUE TO UNCERTAINTIES IN WELL CONSTRUCTION
SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK	AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-2	EASTERN PARKING LOT	AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)	AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)	AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-4A	1-STORY BUILDING	AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)	AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)	AOC-13	5TH STREET SIDEWALK
AOC-6A	2-STORY BRICK BUILDING	AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS	AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE
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(IN FEET)

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P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

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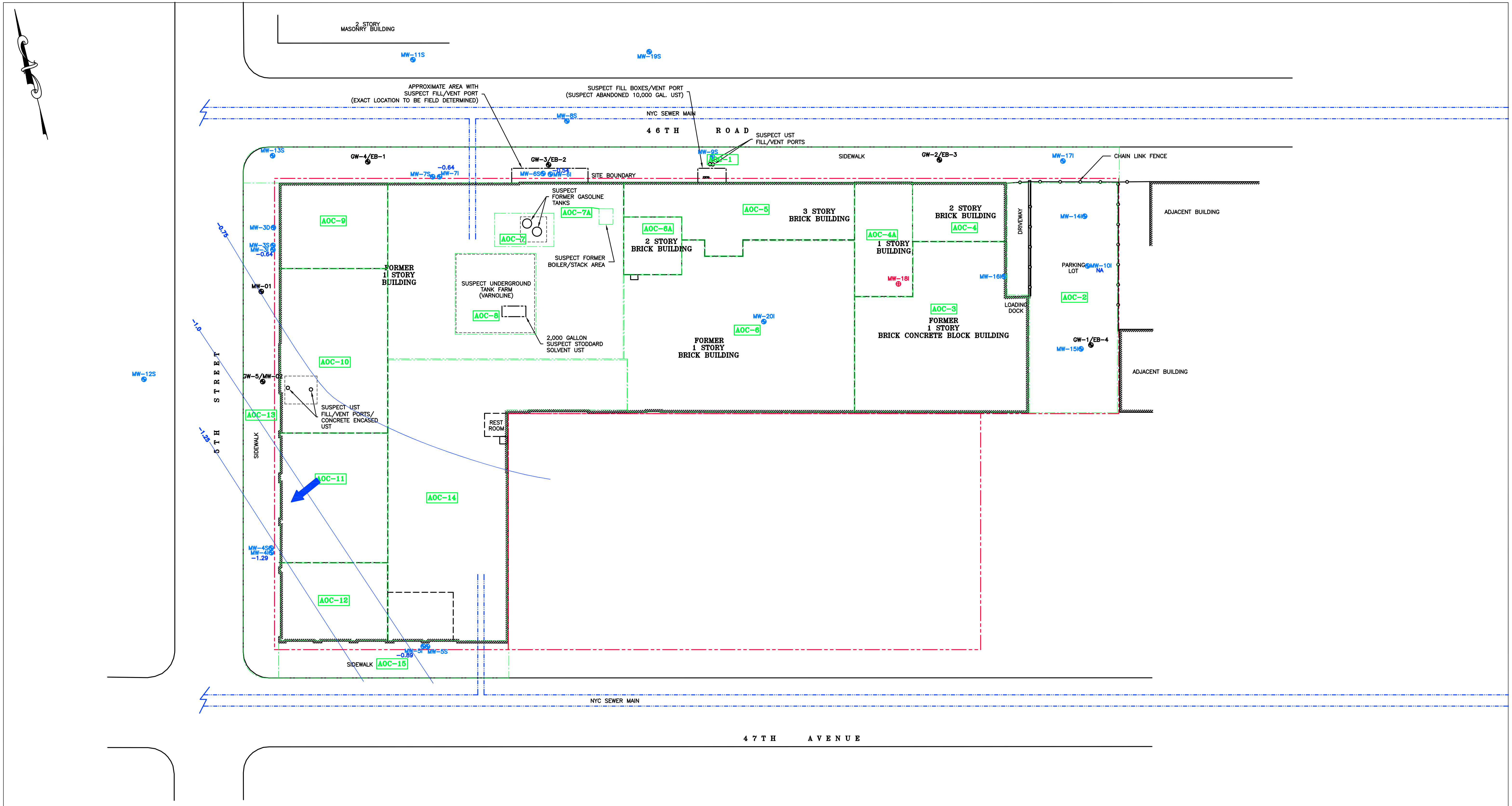
WATER LEVEL ELEVATION CONTOUR PERCHED WATER ZONE – 3/11/08
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 4



LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
MW-3S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I ⊕ -0.45	EWMA MONITORING WELL LOCATION (SAND AQUIFER) WITH WATER LEVEL ELEVATION IN FEET BASED ON ASSUMED SURVEYOR ELEVATION DATUM (ASED) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
-1.0 ↑	GROUND WATER CONTOUR WITH ELEVATION IN FEET BASED ON (ASED) WITH FLOW DIRECTION
NA	WATER LEVEL NOT AVAILABLE
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
— - - —	SITE BOUNDARY
//////////	BUILDING OUTER WALL
— — — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · — ·	AOC BOUNDARY

NOTE: J.C. BRODERICK AND EEA INSTALLED WELLS WERE NOT USED IN CONSTRUCTING WATER LEVEL CONTOURS, DUE TO UNCERTAINTIES IN WELL CONSTRUCTION
SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK	AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-2	EASTERN PARKING LOT	AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)	AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)	AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-4A	1-STORY BUILDING	AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)	AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)	AOC-13	5TH STREET SIDEWALK
AOC-6A	2-STORY BRICK BUILDING	AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS	AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE

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(IN FEET)

Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

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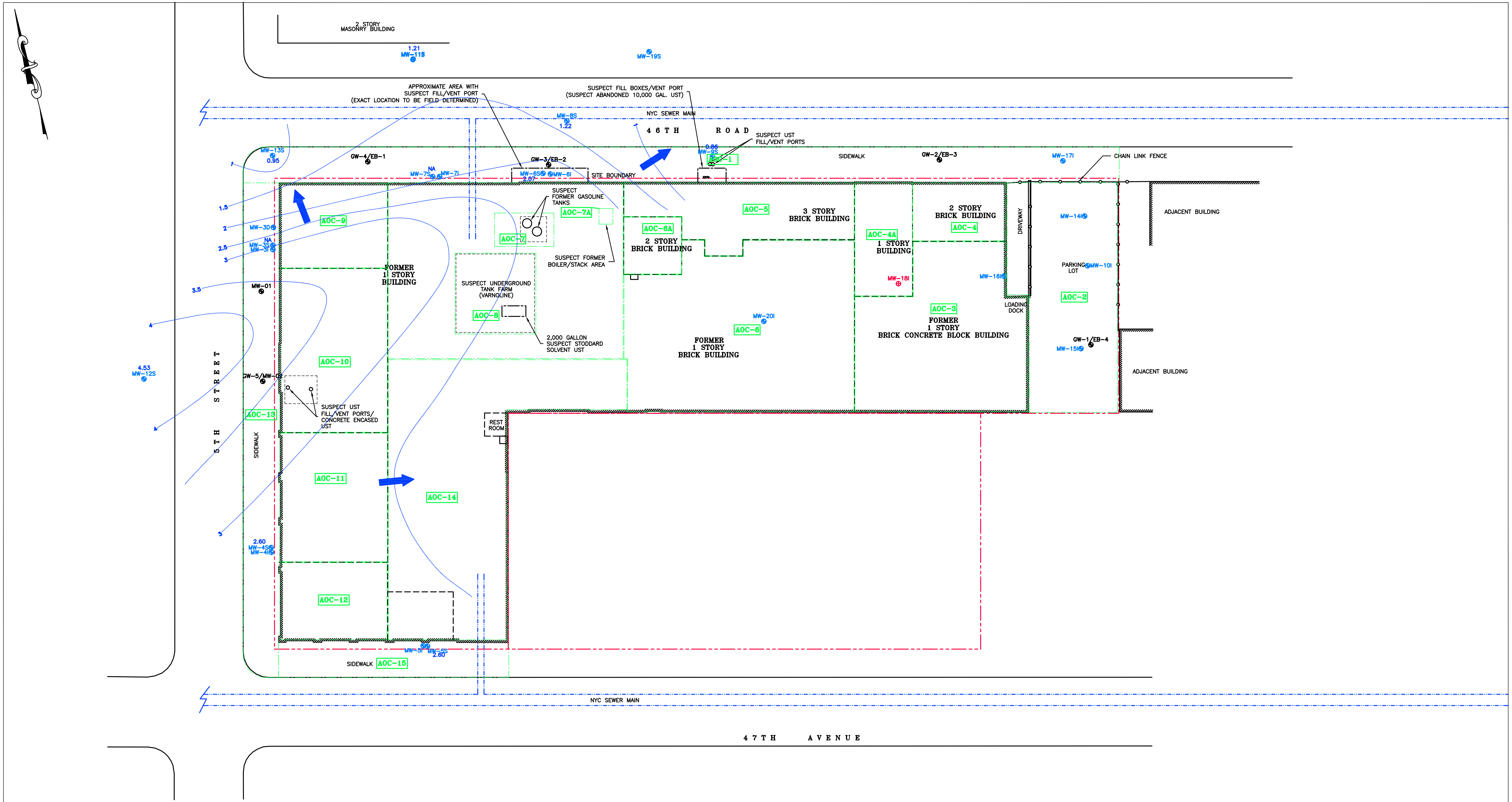
WATER LEVEL ELEVATION CONTOUR - SAND AQUIFER - 3/11/08
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 5



AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK	AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-2	EASTERN PARKING LOT	AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)	AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)	AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-4A	1-STORY BUILDING	AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)	AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)	AOC-13	5TH STREET SIDEWALK
AOC-6A	2-STORY BRICK BUILDING	AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS	AOC-15	47TH AVENUE SIDEWALK

LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005	MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006	┆	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
MW-13S ⊕ 0.95	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) WITH WATER LEVEL ELEVATION IN FEET BASED ON ASSUMED SURVEYOR ELEVATION DATUM (ASED) – 2008	▨	ENCAPSULATED AREA
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008	— - - —	SITE BOUNDARY
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008	//////	BUILDING OUTER WALL
3 ↖	GROUND WATER CONTOUR WITH ELEVATION IN FEET BASED ON (ASED) WITH FLOW DIRECTION	– – – –	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
NA	WATER LEVEL NOT AVAILABLE	—·—·—	AOC BOUNDARY

NOTE: J.C. BRODERICK AND EEA INSTALLED WELLS WERE NOT USED IN CONSTRUCTING WATER LEVEL CONTOURS, DUE TO UNCERTAINTIES IN WELL CONSTRUCTION
SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

GRAPHIC SCALE
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(IN FEET)

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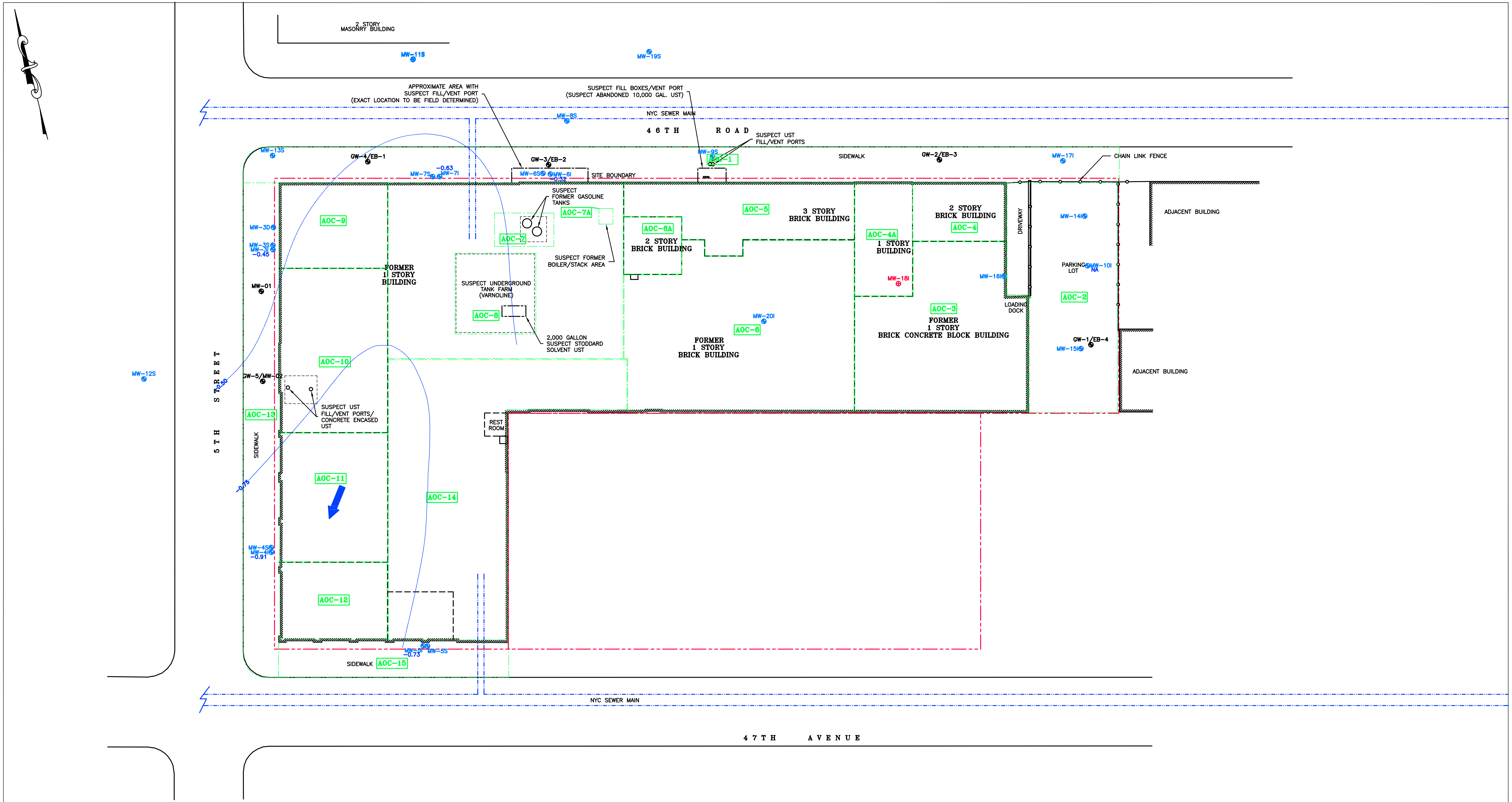
WATER LEVEL ELEVATION CONTOUR -PERCHED WATER ZONE - 7/17/08
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 6



LEGEND

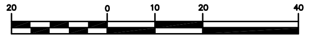
MW-01	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1	EEA, INC. MONITORING WELL LOCATION – 2006
MW-3S	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I -0.45	EWMA MONITORING WELL LOCATION (SAND AQUIFER) WITH WATER LEVEL ELEVATION IN FEET BASED ON ASSUMED SURVEYOR ELEVATION DATUM (ASED) – 2008
MW-3D	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
0.75 ↗	GROUND WATER CONTOUR WITH ELEVATION IN FEET BASED ON (ASED) WITH FLOW DIRECTION
NA	WATER LEVEL ELEVATION NOT AVAILABLE
MW-18I	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
— - - —	SITE BOUNDARY
//////////	BUILDING OUTER WALL
– – – – –	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · — · —	AOC BOUNDARY

NOTE: J.C. BRODERICK AND EEA INSTALLED WELLS WERE NOT USED IN CONSTRUCTING WATER LEVEL CONTOURS, DUE TO UNCERTAINTIES IN WELL CONSTRUCTION
SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)
AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE



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Parsippany, NJ 07054
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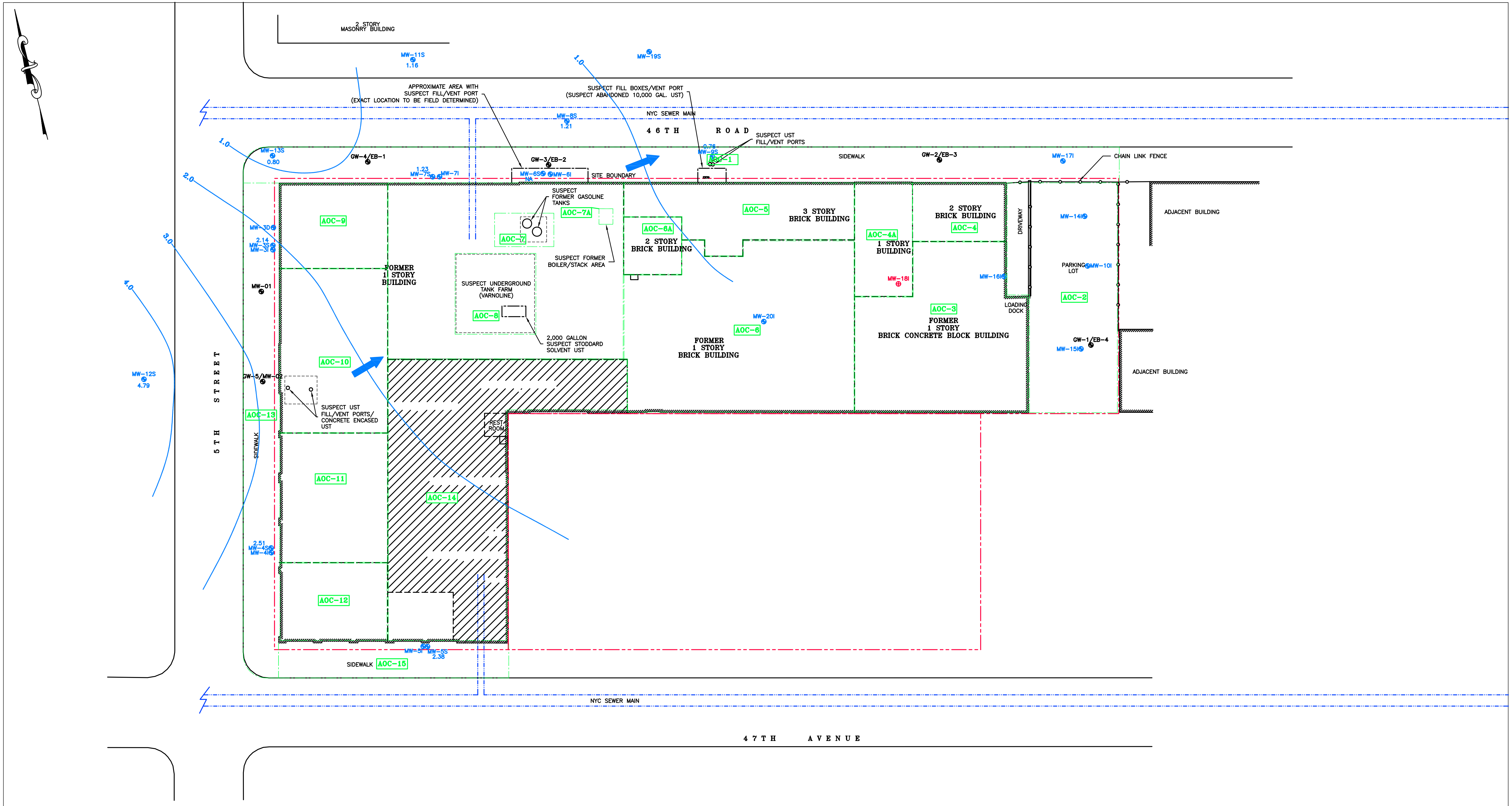
WATER LEVEL ELEVATION CONTOUR -SAND AQUIFER – 7/17/08
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 7



AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)
AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-9	1-STORY BUILDING (AMN RENOVATION)
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AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
MW-3S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
2.0 ↗	GROUND WATER CONTOUR WITH ELEVATION IN FEET BASED ON (ASED) WITH FLOW DIRECTION
NA	WATER LEVEL NOT AVAILABLE
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
– - –	SITE BOUNDARY
//////	BUILDING OUTER WALL
– – – –	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · —	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

GRAPHIC SCALE
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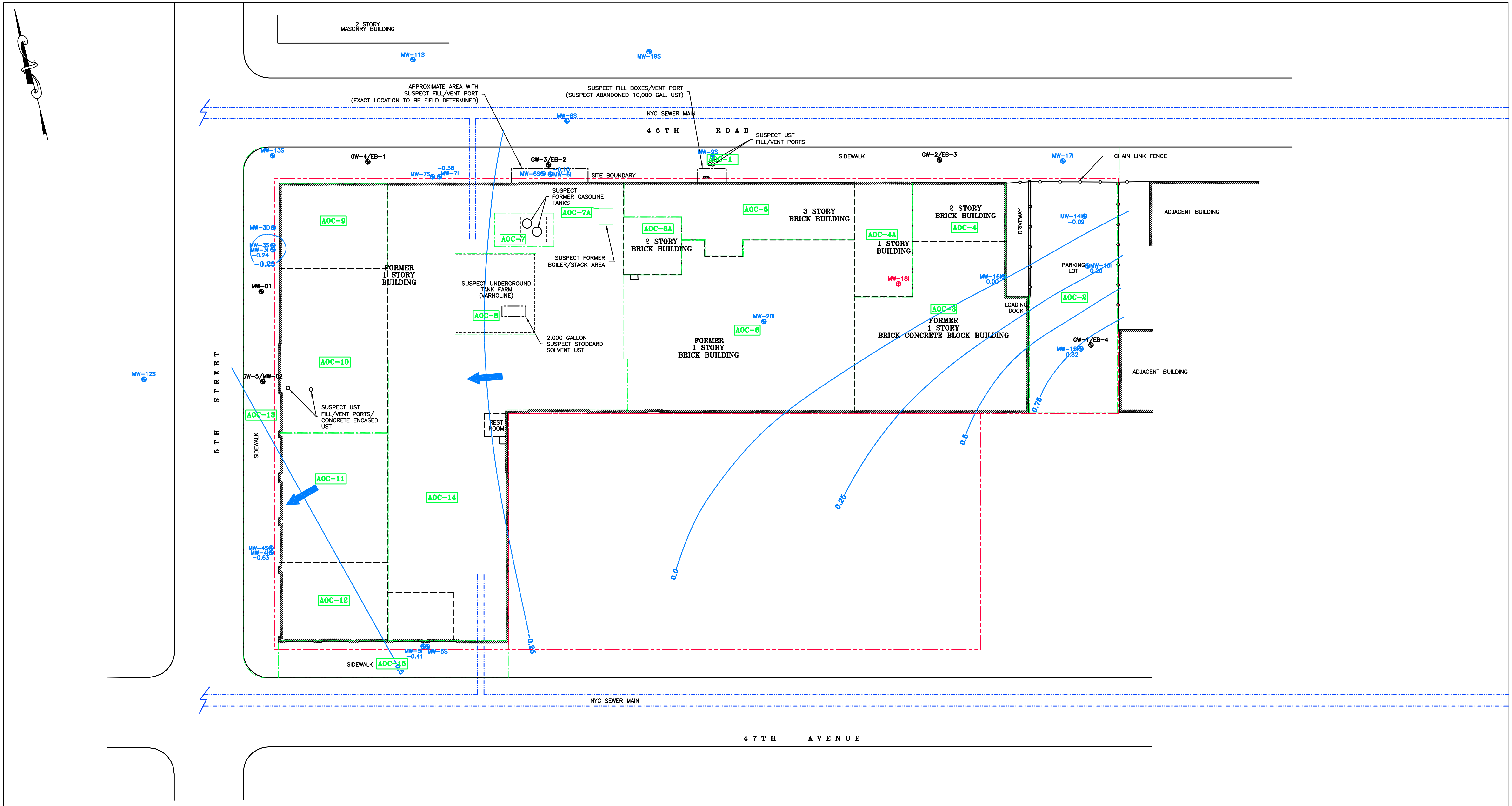
WATER LEVEL ELEVATION CONTOURS – PERCHED WATER ZONE – 11/13/08
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 8



AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
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AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
MW-3S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
0.25 ↗	GROUND WATER CONTOUR WITH ELEVATION IN FEET BASED ON (ASED) WITH FLOW DIRECTION
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
— - - —	SITE BOUNDARY
//////	BUILDING OUTER WALL
— — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · —	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

GRAPHIC SCALE
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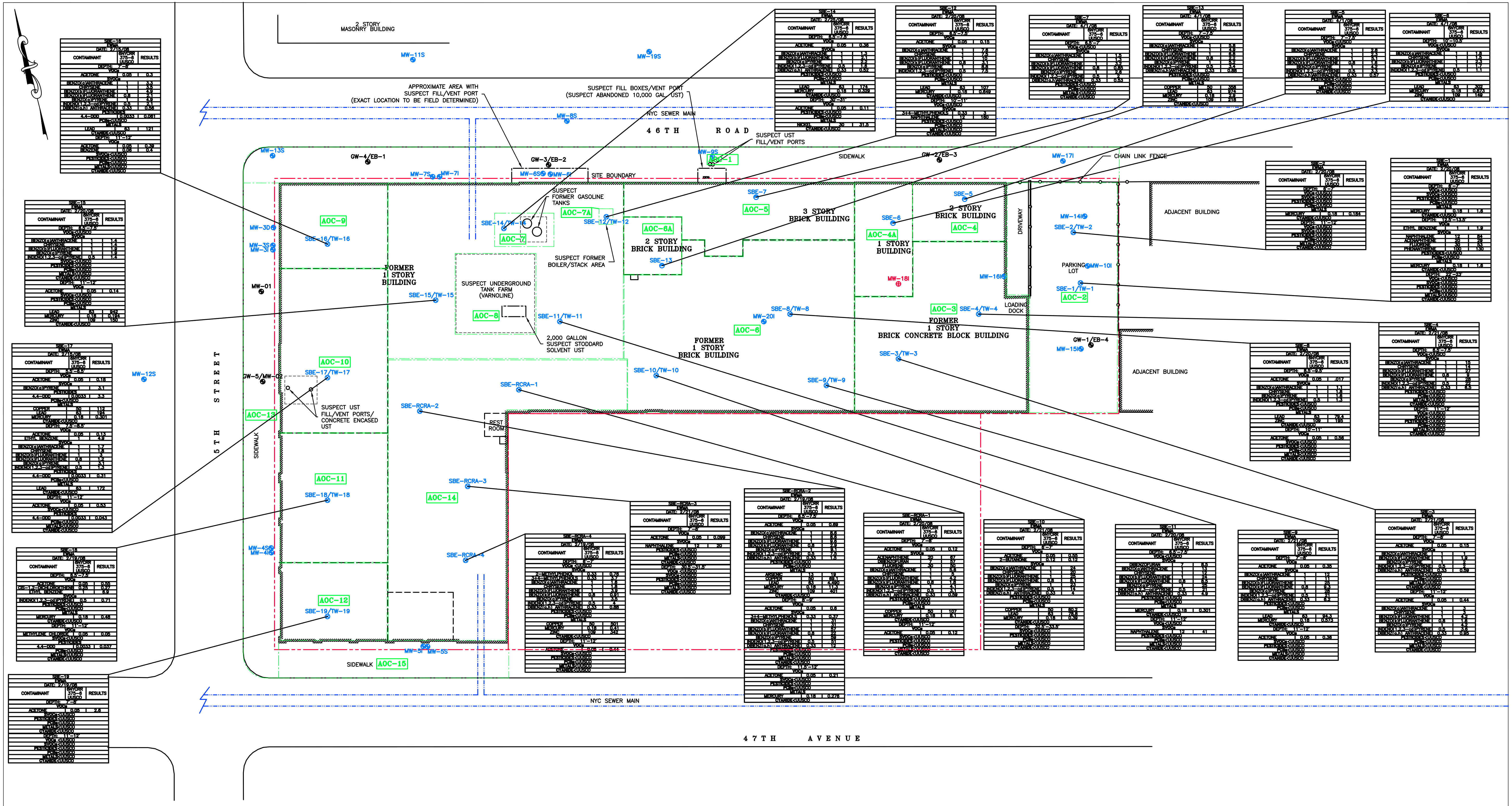
WATER LEVEL ELEVATION CONTOURS – SAND AQUIFER – 11/13/08
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 9



LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
MW-13S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
SBE-6 ⊖	EWMA HAND AUGER SAMPLE LOCATION – 2008
SBE-8/TW-8 ⊗	EWMA SOIL BORING OR SOIL BORING/TEMPORARY WELL POINT SAMPLE LOCATION – 2008
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
— - —	SITE BOUNDARY
//////	BUILDING OUTER WALL
– – – –	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · —	AOC BOUNDARY

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
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AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
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AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
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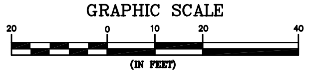
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK



NOTES: NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL AND ADMINISTRATIVE GUIDANCE MEMORANDUMS RESIDENTIAL SOIL CLEAN-UP OBJECTIVES (NYDEC TAGM RSCO); TITLE SIX OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULE AND REGULATIONS SUBPART 375-6 UNRESTRICTED USE SOIL CLEAN-UP OBJECTIVES (6NYCRR SUBPART 375-6)
SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

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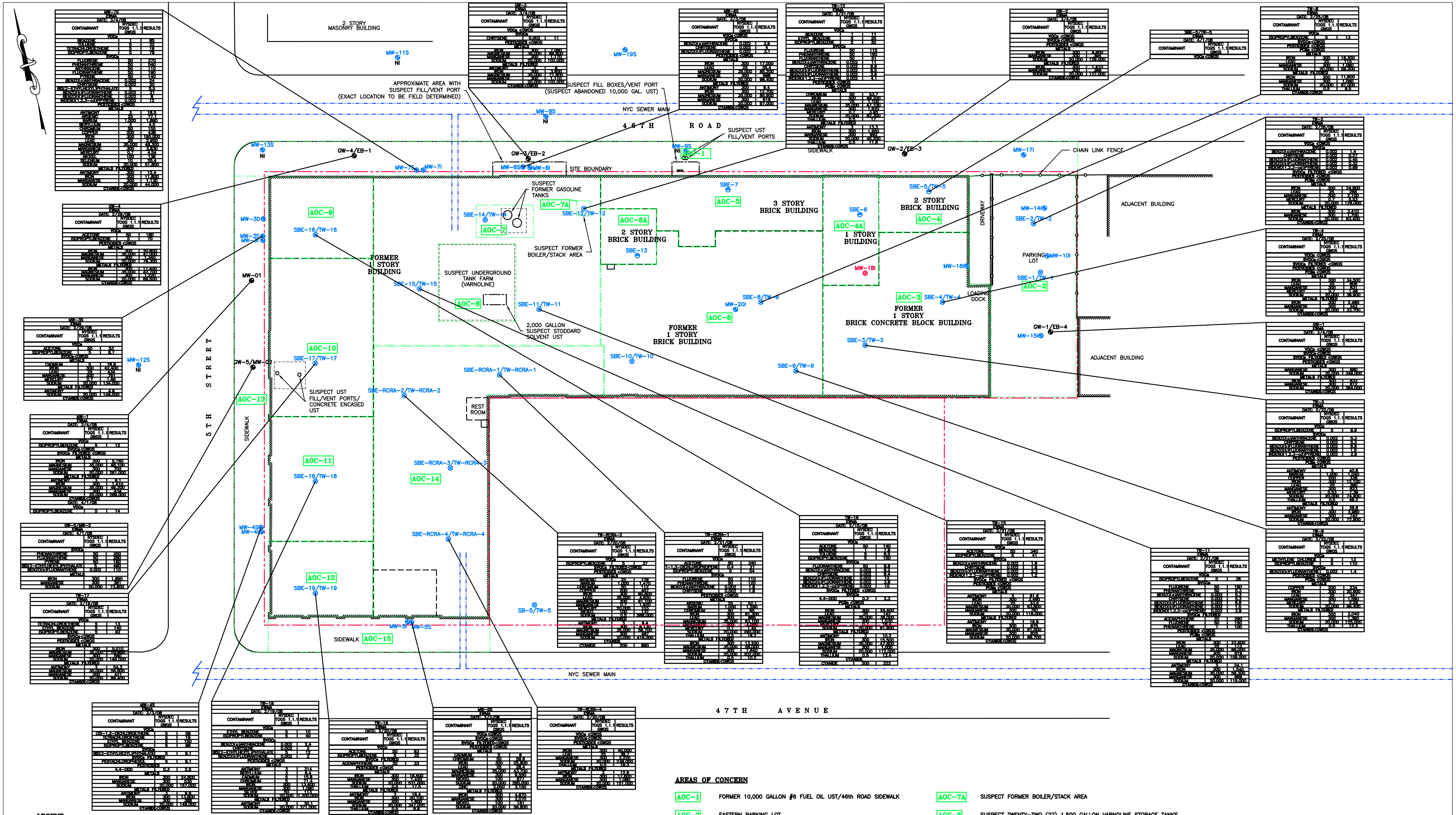
SOIL EXCEEDANCE PLAN -FEBRUARY/MARCH 2008
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 10



LEGEND

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SBE-7/TW-7 ⊗	EWMA SOIL BORING OR SOIL BORING/TEMPORARY WATER SAMPLE LOCATION – 2008
SBE-6 ⊖	EWMA HAND AUGER SAMPLE LOCATION – 2008
MW-3S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
NI	WELL NOT INSTALLED
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
– – –	SITE BOUNDARY
//////	BUILDING OUTER WALL
— — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
– · – · –	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
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AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
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AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE

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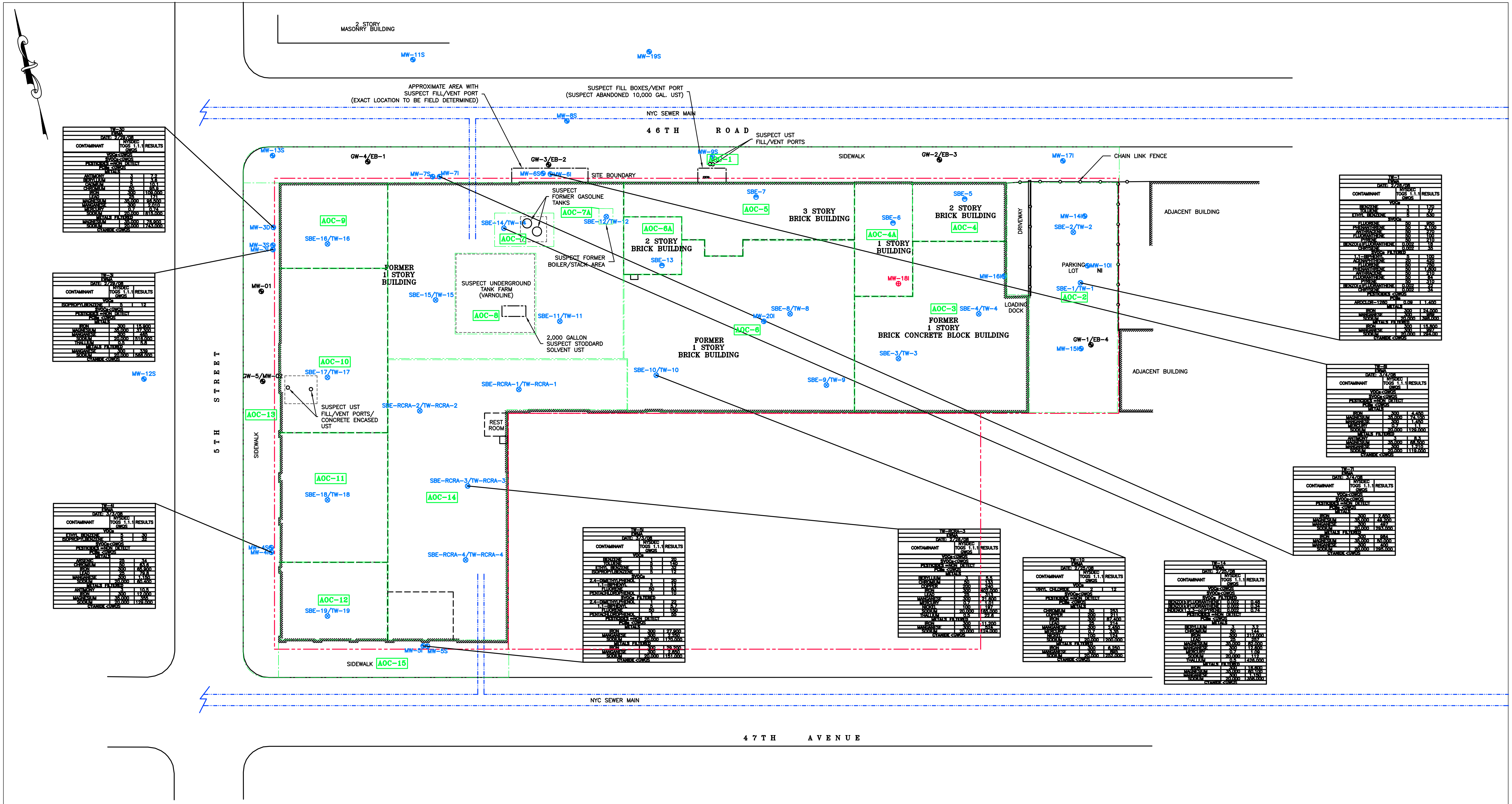
(IN FEET)

Environmental Waste Management Associates, LLC P.O. Box 5430 Parsippany, NJ 07054 Tel: (973) 560-1400	SCALE: AS SHOWN DATE: 12/19/08 DRAWN BY: RR CHECKED BY: CV FILE: k:\drawings\205000\205490\2009 RIR\205490f2.dwg	PROJECT# 205490
GROUNDWATER EXCEEDANCE PLAN PERCHED ZONE – FEBRUARY/MARCH 2008 OCA LIC FIFTH STREET MIXED-USE HOUSING 5-20 46TH ROAD LONG ISLAND CITY, NEW YORK		FIGURE# 11



TW-3D
EWMA
DATE: 2/29/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs<GWQS		
SVOCs<GWQS		
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
ANTIMONY	3	7.2
BERYLLIUM	3	3.6
CADMIUM	5	10.1
CHROMIUM	50	95.9
IRON	300	109,000
LEAD	25	171
MAGNESIUM	35,000	96,500
MANGANESE	300	2,010
MERCURY	0.7	0.74
SODIUM	20,000	815,000
METALS FILTERED		
MAGNESIUM	35,000	76,900
SODIUM	20,000	743,000
CYANIDE <GWQS		

TW-3I
EWMA
DATE: 2/29/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs		
ISOPROPYLBENZENE	5	12
SVOCs<GWQS		
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
IRON	300	15,900
MAGNESIUM	35,000	37,300
MANGANESE	300	465
SODIUM	20,000	516,000
THALLIUM	0.5	5.8
METALS FILTERED		
MANGANESE	300	339
SODIUM	20,000	566,000
CYANIDE <GWQS		

TW-4I
EWMA
DATE: 3/3/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs		
ETHYL BENZENE	5	30
ISOPROPYLBENZENE	5	32
SVOCs<GWQS		
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
ARSENIC	25	34
CHROMIUM	50	63.6
IRON	300	65,900
LEAD	25	79.8
MANGANESE	300	1,150
SODIUM	20,000	60,400
METALS FILTERED		
ANTIMONY	3	10.5
IRON	300	12,000
MAGNESIUM	35,000	355
SODIUM	20,000	129,000
CYANIDE <GWQS		

TW-5I
EWMA
DATE: 3/3/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs		
BENZENE	1	20
TOLUENE	5	140
ETHYL BENZENE	5	32
ISOPROPYLBENZENE	5	12
SVOCs		
2,4-DIMETHYLPHENOL	1	20
1,1-BIPHENYL	5	12
FLUORENE	50	63
PENTACHLOROPHENOL	1	10
SVOCs FILTERED		
2,4-DIMETHYLPHENOL	1	22
1,1-BIPHENYL	5	5.7
FLUORENE	50	150
PENTACHLOROPHENOL	1	55
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
IRON	300	27,900
MANGANESE	300	2,250
SODIUM	20,000	170,000
METALS FILTERED		
IRON	300	29,200
MANGANESE	300	2,850
SODIUM	20,000	151,000
CYANIDE <GWQS		

TW-RCRA-3
EWMA
DATE: 2/26/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs<GWQS		
SVOCs<GWQS		
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
BERYLLIUM	3	5.5
CHROMIUM	50	133
COPPER	200	240
IRON	300	402,000
LEAD	25	313
MANGANESE	300	21,600
MERCURY	0.7	1.01
NICKEL	100	197
SODIUM	20,000	165,000
THALLIUM	0.5	22.6
METALS FILTERED		
IRON	300	11,200
MANGANESE	300	524
SODIUM	20,000	124,000
CYANIDE <GWQS		

TW-10
EWMA
DATE: 2/25/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs		
VINYL CHLORIDE	2	12
SVOCs<GWQS		
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
CHROMIUM	50	253
COPPER	200	211
IRON	300	87,400
LEAD	25	214
MANGANESE	300	2,450
MERCURY	0.7	3.35
NICKEL	100	124
SODIUM	20,000	200,000
METALS FILTERED		
IRON	300	6,250
MANGANESE	300	895
SODIUM	20,000	252,000
CYANIDE <GWQS		

TW-14
EWMA
DATE: 2/25/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs<GWQS		
SVOCs<GWQS		
SVOCs FILTERED		
BENZO(b)FLUORANTHENE	0.002	0.48
BENZO(k)FLUORANTHENE	0.002	0.34
INDENO(1,2,3-cd)PYRENE	0.002	0.74
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
BERYLLIUM	3	3.2
CHROMIUM	50	144
IRON	300	212,000
LEAD	25	257
MAGNESIUM	35,000	82,000
MANGANESE	300	12,600
MERCURY	0.7	1.09
SODIUM	20,000	112
THALLIUM	0.5	426,000
METALS FILTERED		
IRON	300	16,600
MAGNESIUM	35,000	60,100
MANGANESE	300	1,150
SODIUM	20,000	358,000
CYANIDE <GWQS		

TW-1
EWMA
DATE: 2/26/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs		
BENZENE	1	170
TOLUENE	5	27
ETHYL BENZENE	5	530
SVOCs		
FLUORENE	50	950
PHENANTHRENE	50	2,100
ANTHRACENE	50	270
FLUORANTHENE	50	100
PYRENE	50	210
BENZO(a)FLUORANTHENE	0.002	18
CHRYSENE	0.002	35
SVOCs FILTERED		
1,1-BIPHENYL	5	100
ACENAPHTHENE	20	420
FLUORENE	50	750
PHENANTHRENE	50	1,800
ANTHRACENE	50	210
FLUORANTHENE	50	64
PYRENE	50	310
BENZO(a)FLUORANTHENE	0.002	22
CHRYSENE	0.002	34
PESTICIDES <GWQS		
PCBs		
AROCLOR-1260	0.09	1,400
METALS		
IRON	300	24,000
MANGANESE	300	989
SODIUM	20,000	398,000
METALS FILTERED		
IRON	300	15,800
MANGANESE	300	997
SODIUM	20,000	294,00
CYANIDE <GWQS		

TW-6I
EWMA
DATE: 3/4/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs<GWQS		
SVOCs<GWQS		
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
IRON	300	4,450
MAGNESIUM	35,000	74,100
MANGANESE	300	1,450
MERCURY	0.7	1.1
SODIUM	20,000	129,000
METALS FILTERED		
ANTIMONY	3	8.3
MAGNESIUM	35,000	68,500
MANGANESE	300	1,210
SODIUM	20,000	119,000
CYANIDE <GWQS		

TW-7I
EWMA
DATE: 3/4/08

CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOCs<GWQS		
SVOCs<GWQS		
PESTICIDES =NON DETECT		
PCBs <GWQS		
METALS		
IRON	300	2,650
MAGNESIUM	35,000	49,200
MANGANESE	300	497
SODIUM	20,000	293,000
METALS FILTERED		
IRON	300	984
MAGNESIUM	35,000	50,000
MANGANESE	300	400
SODIUM	20,000	295,000
CYANIDE <GWQS		

LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
SBE-7/TW-7 ⊗	EWMA SOIL BORING OR SOIL BORING/TEMPORARY WATER SAMPLE LOCATION – 2008
SBE-6 ⊖	EWMA HAND AUGER SAMPLE LOCATION – 2008
MW-3S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
NI	WELL NOT INSTALLED
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
— - - —	SITE BOUNDARY
//////////	BUILDING OUTER WALL
— — — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · — · —	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)
AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE
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(IN FEET)

Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

SCALE: AS SHOWN
DATE: 12/19/08
PROJECT# 205490
DRAWN BY: RR
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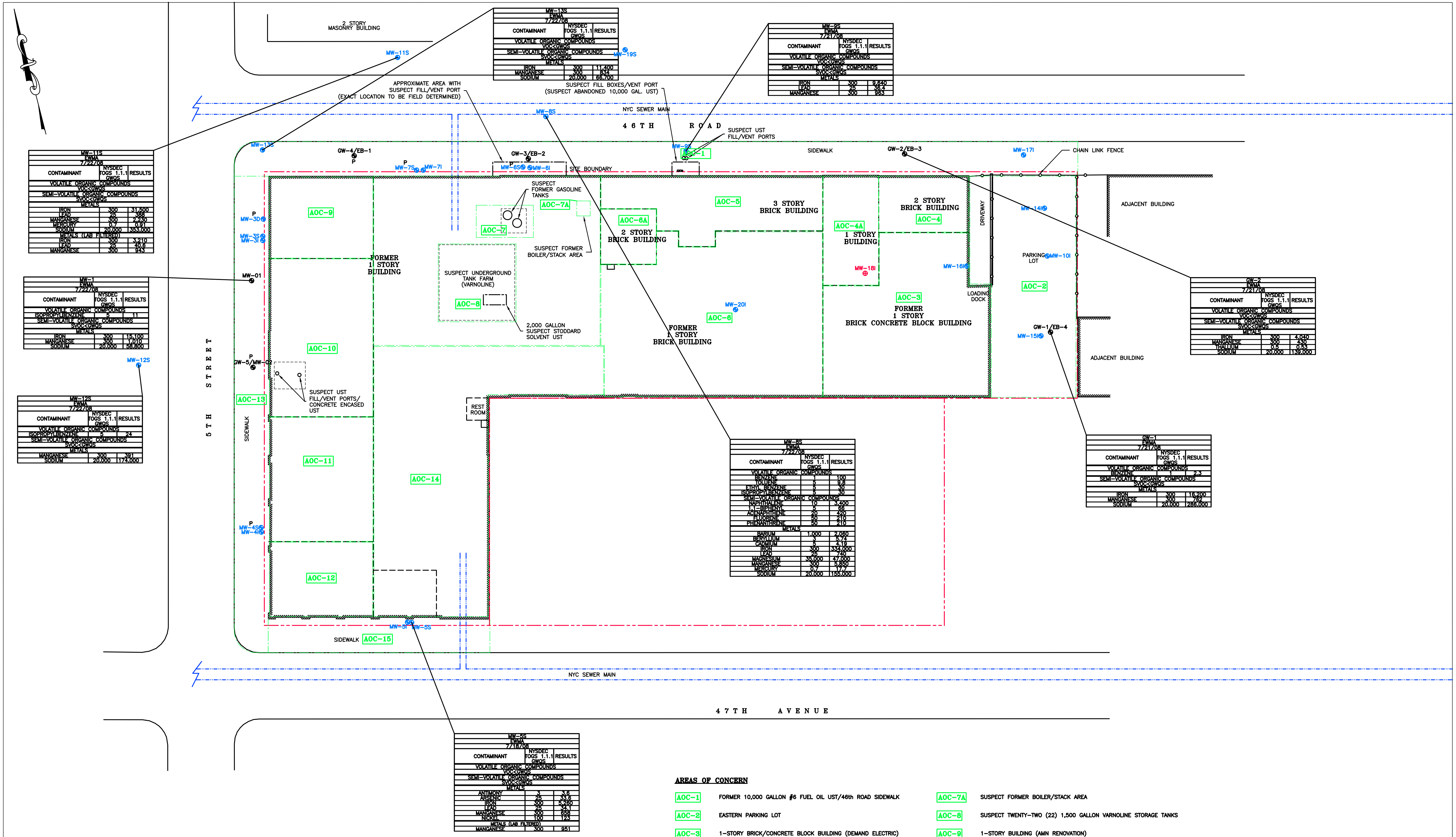
GROUND WATER EXCEEDANCE PLAN
SAND AQUIFER - FEBRUARY/MARCH 2008
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 12



MW-13S		
EWMA		
7/22/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
VOC<GWQS		
SEMI-VOLATILE ORGANIC COMPOUNDS		
SVOC<GWQS		
METALS		
IRON	300	11,400
MANGANESE	300	834
SODIUM	20,000	66,700

MW-9S		
EWMA		
7/21/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
VOC<GWQS		
SEMI-VOLATILE ORGANIC COMPOUNDS		
SVOC<GWQS		
METALS		
IRON	300	9,640
LEAD	25	36.4
MANGANESE	300	963

MW-11S		
EWMA		
7/22/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
VOC<GWQS		
SEMI-VOLATILE ORGANIC COMPOUNDS		
SVOC<GWQS		
METALS		
IRON	300	31,500
LEAD	25	388
MANGANESE	300	2,230
MERCURY	0.7	0.91
SODIUM	20,000	353,000
METALS (LAB FILTERED)		
IRON	300	3,210
LEAD	25	40.6
MANGANESE	300	943

MW-1		
EWMA		
7/22/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
ISOPROPYLBENZENE	5	11
SEMI-VOLATILE ORGANIC COMPOUNDS		
SVOC<GWQS		
METALS		
IRON	300	15,100
MANGANESE	300	1,010
SODIUM	20,000	58,800

MW-12S		
EWMA		
7/22/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
ISOPROPYLBENZENE	5	24
SEMI-VOLATILE ORGANIC COMPOUNDS		
SVOC<GWQS		
METALS		
MANGANESE	300	391
SODIUM	20,000	174,000

GW-2		
EWMA		
7/21/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
VOC<GWQS		
SEMI-VOLATILE ORGANIC COMPOUNDS		
SVOC<GWQS		
METALS		
IRON	300	4,040
MANGANESE	300	430
THALLIUM	0.5	0.53
SODIUM	20,000	139,000

MW-8S		
EWMA		
7/22/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
BENZENE	1	100
TOLUENE	5	9.8
ETHYL BENZENE	5	30
ISOPROPYLBENZENE	5	30
SEMI-VOLATILE ORGANIC COMPOUNDS		
NAPHTHALENE	10	3,400
1,1-BIPHENYL	5	66
ACENAPHTHENE	20	420
FLUORENE	50	210
PHENANTHRENE	50	210
METALS		
BARIUM	1,000	2,060
BERYLLIUM	3	5.74
CADMIUM	5	4.19
IRON	300	334,000
LEAD	25	740
MAGNESIUM	35,000	47,000
MANGANESE	300	5,850
MERCURY	0.7	17.7
SODIUM	20,000	155,000

GW-1		
EWMA		
7/21/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
BENZENE	1	2.3
SEMI-VOLATILE ORGANIC COMPOUNDS		
SVOC<GWQS		
METALS		
IRON	300	16,200
MANGANESE	300	762
SODIUM	20,000	286,000

MW-5S		
EWMA		
7/18/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
VOC<GWQS		
SEMI-VOLATILE ORGANIC COMPOUNDS		
SVOC<GWQS		
METALS		
ANTIMONY	3	3.6
ARSENIC	25	33.6
IRON	300	5,260
LEAD	25	34.1
MANGANESE	300	658
NICKEL	100	123
METALS (LAB FILTERED)		
MANGANESE	300	951

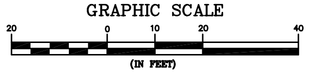
LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
MW-3S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
P	NOT SAMPLED –LNAPL PRESENT
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
— - - —	SITE BOUNDARY
//////////	BUILDING OUTER WALL
— — — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · — · —	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)
AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK



Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

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PROJECT# 205490
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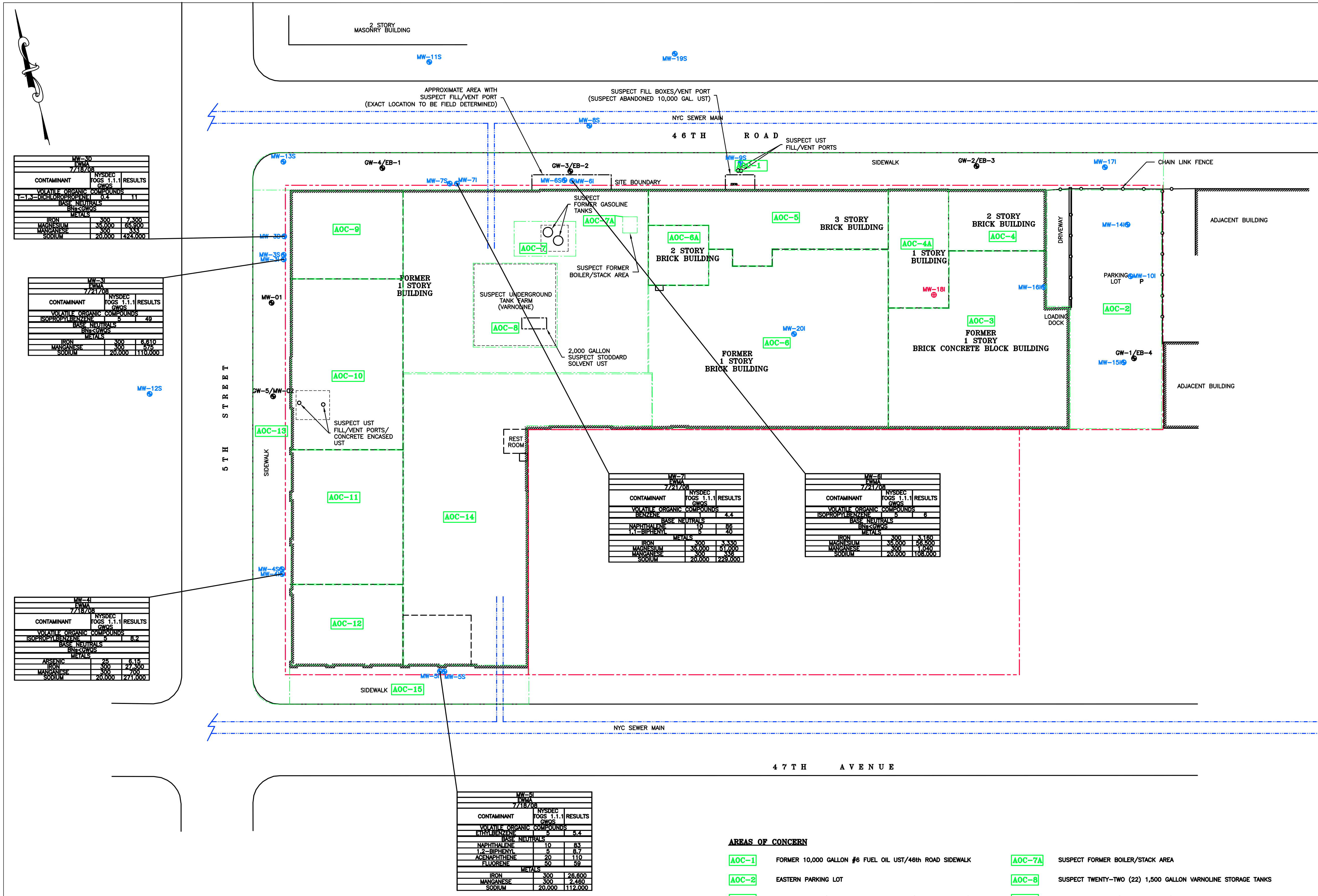
FILE: k:\drawings\205000\205490\2009 RIR\205490f2.dwg

GROUNDWATER EXCEEDANCE PLAN
PERCHED ZONE – JULY 2008
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 13



MW-3D		
EWMA		
7/18/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
T-1,3-DICHLOROPROPENE	0.4	11
BASE NEUTRALS		
BNs<GWQS		
METALS		
IRON	300	7,300
MAGNESIUM	35,000	65,900
MANGANESE	300	333
SODIUM	20,000	424,000

MW-3I		
EWMA		
7/21/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
ISOPROPYLBENZENE	5	49
BASE NEUTRALS		
BNs<GWQS		
METALS		
IRON	300	6,610
MANGANESE	300	575
SODIUM	20,000	110,000

MW-4I		
EWMA		
7/18/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
ISOPROPYLBENZENE	5	8.2
BASE NEUTRALS		
BNs<GWQS		
METALS		
ARSENIC	25	6.15
IRON	300	27,300
MANGANESE	300	700
SODIUM	20,000	271,000

MW-7I		
EWMA		
7/21/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
BENZENE	1	4.4
BASE NEUTRALS		
NAPHTHALENE	10	86
1,1-BIPHENYL	5	40
METALS		
IRON	300	3,330
MAGNESIUM	35,000	51,000
MANGANESE	300	336
SODIUM	20,000	229,000

MW-6I		
EWMA		
7/21/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
ISOPROPYLBENZENE	5	6
BASE NEUTRALS		
BNs<GWQS		
METALS		
IRON	300	3,160
MAGNESIUM	35,000	56,500
MANGANESE	300	1,040
SODIUM	20,000	108,000

MW-5I		
EWMA		
7/18/08		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
ETHYLBENZENE	5	5.4
BASE NEUTRALS		
NAPHTHALENE	10	83
1,2-BIPHENYL	5	8.7
ACENAPHTHENE	20	110
FLUORENE	50	59
METALS		
IRON	300	26,600
MANGANESE	300	2,460
SODIUM	20,000	112,000

LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
MW-3S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
P	NOT SAMPLED –LNAPL PRESENT
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
— - —	SITE BOUNDARY
▨	BUILDING OUTER WALL
- - -	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · —	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)
AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE
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Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

SCALE: AS SHOWN
DATE: 12/19/08
PROJECT# 205490
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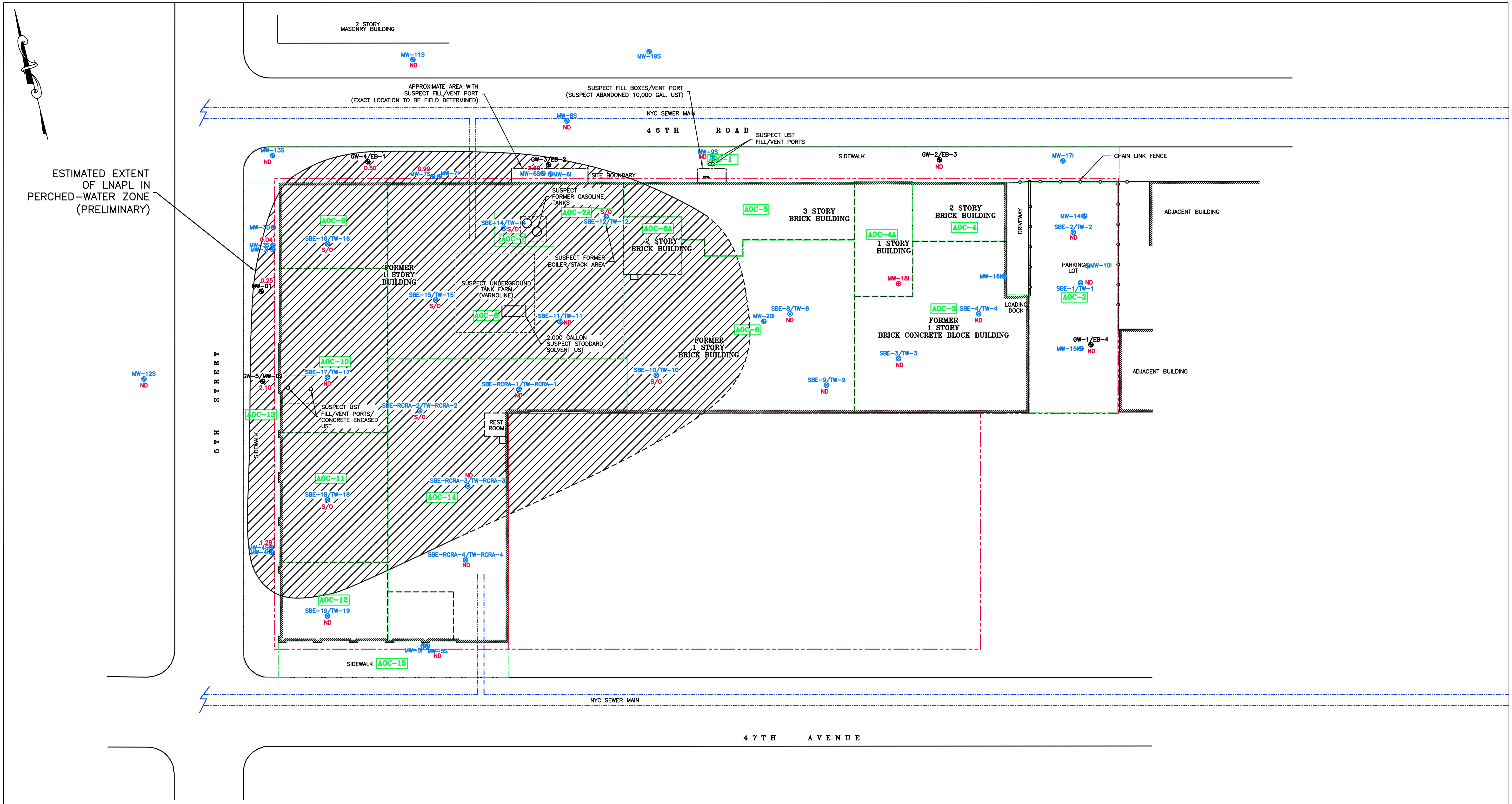
GROUND WATER EXCEEDANCE PLAN
SAND AQUIFER - JULY 2008
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 14



LEGEND

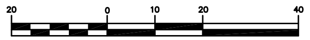
MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2008
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2008
MW-13S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) WITH MAXIMUM RECORDED LNAPL THICKNESS (FEET) DURING 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
SBE-7/TW-7 ⊗	EWMA SOIL BORING OR SOIL BORING/TEMPORARY WATER SAMPLE LOCATION – 2008 WITH INDICATORS FOR LNAPL IN PERCHED-WATER ZONE
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
S/O	HYDROCARBON SHEEN OR ODOR DETECTED IN PERCHED WATER ZONE
ND	EVIDENCE FOR LNAPL NOT DETECTED
┌ ─ ─ ┐	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	EXTIMATED EXTENT OF LNAPL, DASHED WERE INFERRED
— - —	SITE BOUNDARY
//////	BUILDING OUTER WALL
– – – –	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · —	AOC BOUNDARY

NOTE: LNAPL THICKNESS FROM MEASUREMENTS MADE ON 3/11/08, 5/5/08, 7/17/08 AND 10/13/08
SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK	AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-2	EASTERN PARKING LOT	AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)	AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)	AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-4A	1-STORY BUILDING	AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)	AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)	AOC-13	5TH STREET SIDEWALK
AOC-6A	2-STORY BRICK BUILDING	AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS	AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE



(IN FEET)

Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

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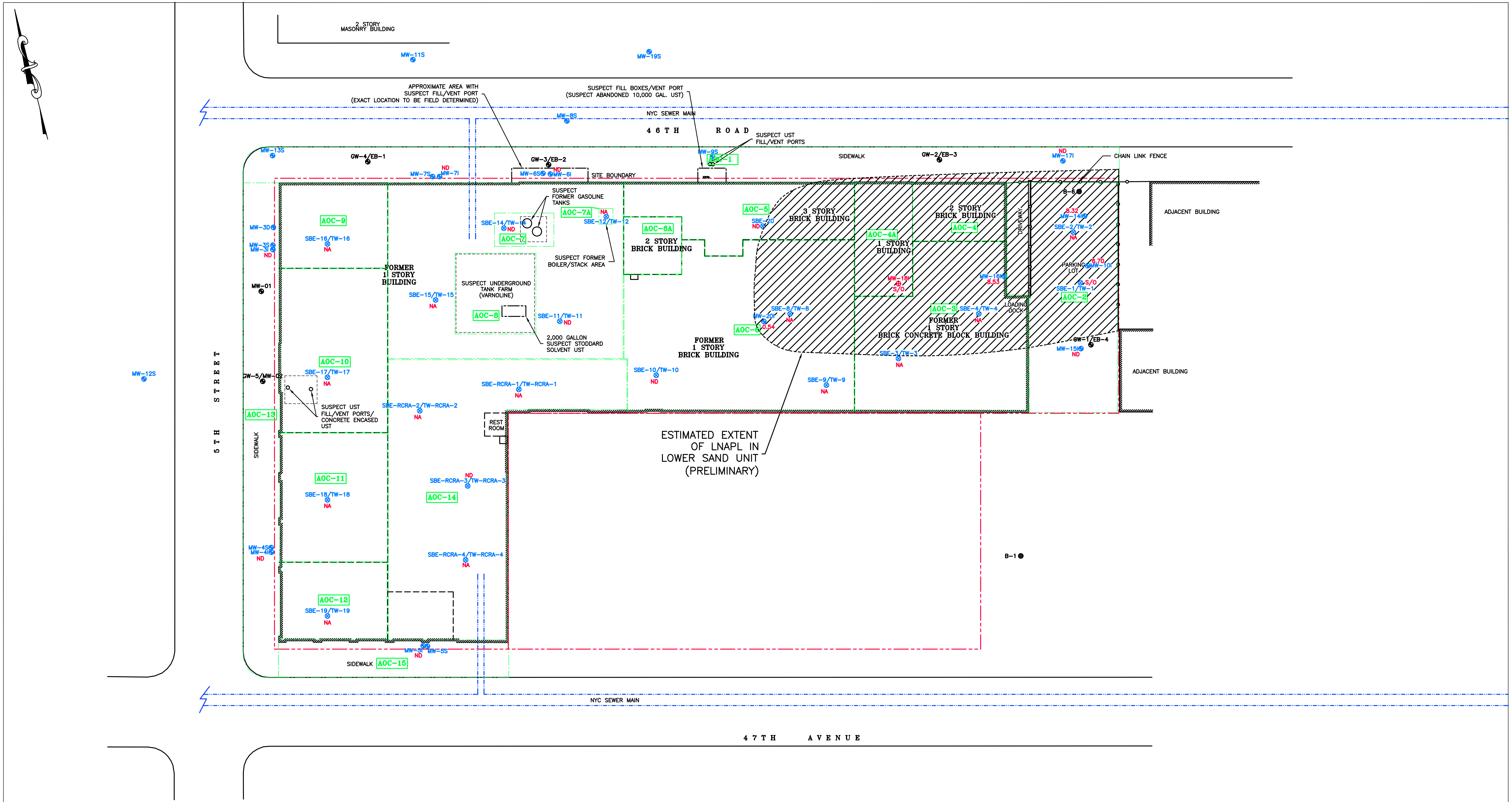
MAXIMUM THICKNESS AND ESTIMATED EXTENT OF LNAPL IN THE PERCHED WATER ZONE – 2008
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 15



LEGEND

MW-19S	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) – 2008 LOCATION APPROXIMATE
MW-18I	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE
MW-01	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2008
GW-1	EEA, INC. MONITORING WELL LOCATION – 2008
MW-13S	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE)
MW-3I	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 WITH MAXIMUM RECORDED LNAPL THICKNESS (FEET) DURING 2008
MW-3D	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008
SBE-7/TW-7	EWMA SOIL BORING OR SOIL BORING/TEMPORARY WATER SAMPLE LOCATION – 2008 WITH INDICATORS FOR LNAPL IN SAND AQUIFER
B-6	DEWBERRY GEOTECHNICAL BORING LOCATION

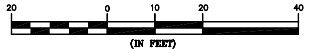
MW-18I	EWMA MONITORING WELL LOCATION (SAND AQUIFER) – 2008 LOCATION APPROXIMATE – NOT SURVEYED
NA	SOIL BORING DID NOT PENETRATE THE SAND AQUIFER
S/O	HYDROCARBON SHEEN OR ODOR DETECTED IN SAND AQUIFER
ND	EVIDENCE FOR LNAPL NOT DETECTED
▭	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	EXTIMATED EXTENT OF LNAPL
— - —	SITE BOUNDARY
////////	BUILDING OUTER WALL
— — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · —	AOC BOUNDARY

NOTE: LNAPL THICKNESS FROM MEASUREMENTS MADE ON 3/11/08, 5/5/08, 7/17/08 AND 10/13/08
SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)
AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE



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P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

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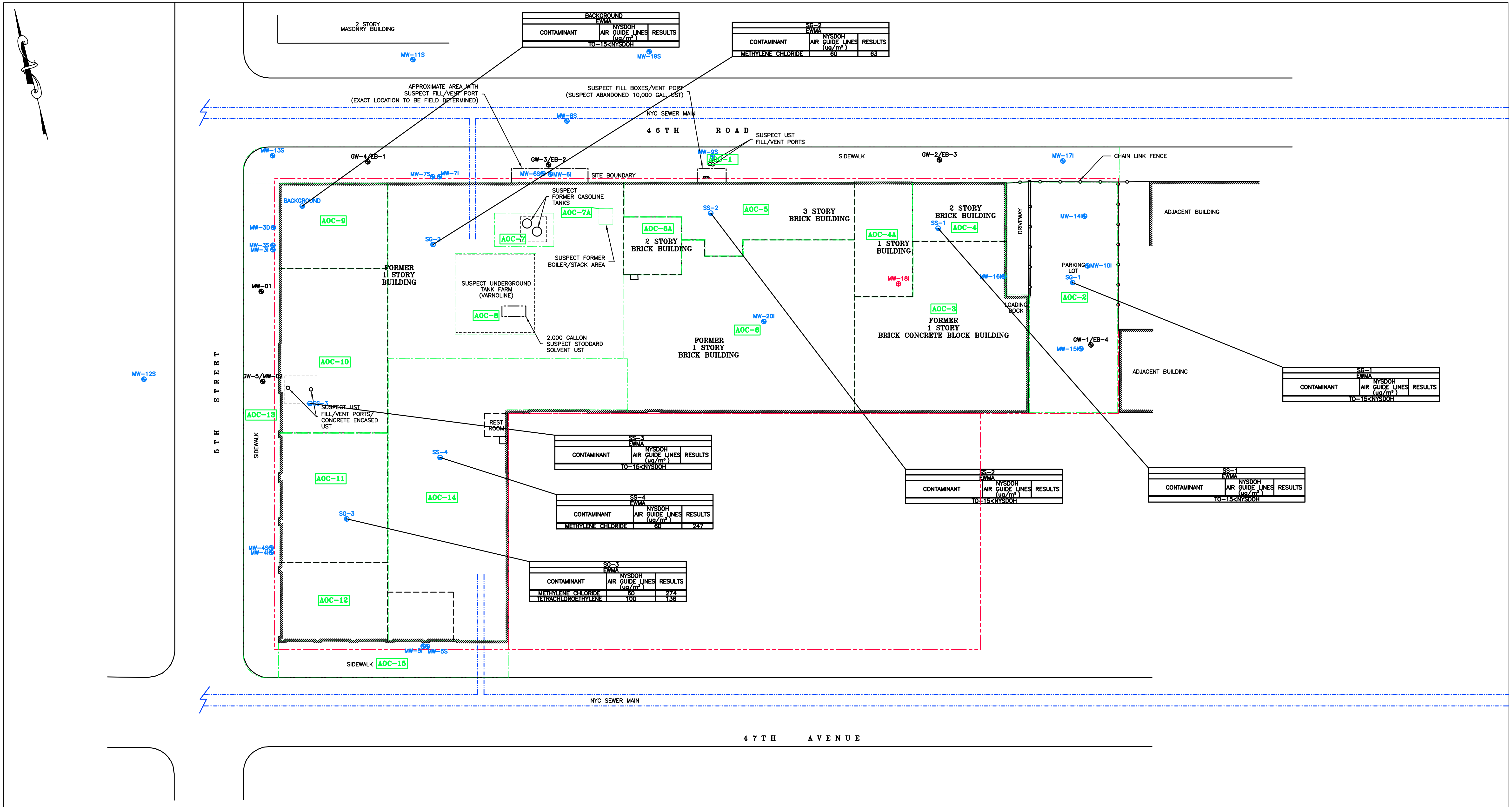
MAXIMUM THICKNESS AND ESTIMATED EXTENT OF LNAPL IN THE SAND AQUIFER - 2008
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 16



BACKGROUND		
EWMA		
CONTAMINANT	NYSDOH AIR GUIDE LINES (ug/m^3)	RESULTS
TO-15<NYSDOH		

SG-2		
EWMA		
CONTAMINANT	NYSDOH AIR GUIDE LINES (ug/m^3)	RESULTS
METHYLENE CHLORIDE	60	63

SG-1		
EWMA		
CONTAMINANT	NYSDOH AIR GUIDE LINES (ug/m^3)	RESULTS
TO-15<NYSDOH		

SS-3		
EWMA		
CONTAMINANT	NYSDOH AIR GUIDE LINES (ug/m^3)	RESULTS
TO-15<NYSDOH		

SS-2		
EWMA		
CONTAMINANT	NYSDOH AIR GUIDE LINES (ug/m^3)	RESULTS
TO-15<NYSDOH		

SS-1		
EWMA		
CONTAMINANT	NYSDOH AIR GUIDE LINES (ug/m^3)	RESULTS
TO-15<NYSDOH		

SS-4		
EWMA		
CONTAMINANT	NYSDOH AIR GUIDE LINES (ug/m^3)	RESULTS
METHYLENE CHLORIDE	60	247

SG-3		
EWMA		
CONTAMINANT	NYSDOH AIR GUIDE LINES (ug/m^3)	RESULTS
METHYLENE CHLORIDE	60	274
TETRACHLOROETHYLENE	100	136

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)
AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION - 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION - 2006
MW-13S ⊕	EWMA MONITORING WELL LOCATION (PERCHED WATER ZONE) - 2008
MW-3I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) - 2008
MW-3D ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) - 2008
SBE-6 ⊖	EWMA HAND AUGER SAMPLE LOCATION - 2008
SBE-8/TW-8 ⊗	EWMA SOIL BORING OR SOIL BORING/TEMPORARY WELL POINT SAMPLE LOCATION - 2008
SG-1 ◐	EWMA SOIL GAS SAMPLE LOCATION FOR VAPOR INTRUSION INVESTIGATION - 2008
MW-18I ⊕	EWMA MONITORING WELL LOCATION (SAND AQUIFER) - 2008 LOCATION APPROXIMATE - NOT SURVEYED
⬚	CONCRETE REMOVAL AREA/TEST PIT INVESTIGATION
▨	ENCAPSULATED AREA
— - - —	SITE BOUNDARY
//////////	BUILDING OUTER WALL
— — — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · — · —	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

Environmental Waste Management Associates, LLC
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Parsippany, NJ 07054
Tel: (973) 560-1400

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SUMMARY OF SOIL GAS DATA - JANUARY 2008
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

FIGURE# 17

Appendix – 1

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Boring #: SBE-1
Install Date: 2/20/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/20/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 26 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				42		Asphalt/sub-base.	
1		0					1
2		0					2
3		0				SAND, fine to coarse; little to some silt; trace to some gravel; dark brown. Very heterogeneous. With brick and concrete fragments. FILL.	3
4							4
5				36			5
6		0					6
7	SB-1 6-7	0				Wet below 7'.	7
8		0					8
9							9
10				42		PEAT, grading downward into dark brown silt, clay, and peat.	10
11		15					11
12		42					12
13	SB-1 12.5-13.	100					13
14							14
15				54		SAND, fine; little silt and clay; brown. Wet. Hc odor.	15
16		38					16
17		38					17
18		15					18
19		20				Sand and clay, gray brown; trace gravel; very moist.	19
20				36			20
21		0				Sand (fine to medium), silt, and clay; little coarse sand; little gravel (sed and xline rx); brown (at top) to greenish brown. Very dense. Moist. TILL.	21
22		0					22
23	SB-1 22-23	0					23
24							24
						Refusal at 26'.	

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Boring #: SBE-2
Install Date: 2/20/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/20/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				42		Asphalt/sub-base.	
1							1
		0					
2						SAND, fine to coarse; some silt; dark brown. Occ. coal fragments. FILL.	2
		0					
3							3
		0					
4							4
5							5
				36			
6		0					6
	SB-2						
7	6-7	0				Heterogenous mixture of sand, silt, and angular gravel; black to brown to reddish brown. With coal and brick fragments. FILL. Wet below 7'.	7
8		0					8
9							9
10							10
				24		Silt, clay, and peat; dark brown. Water in top of core barrel.	
11		0					11
	SB-2					SAND, fine; little silt; brown. Sparse plant fragments. Moist.	
12	11-12	42					12
						End of boring.	
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Boring #: SBE-3
Install Date: 2/21/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/21/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				18		Concrete.	
1						Brick fragments.	1
2							2
3							3
4							4
5				36			5
6		0				Heterogenous mixture of sand, silt, and gravel; black, with brown and buff-colored zones. Cinders and coal common. FILL.	6
7		0					7
8	SB-3 7-8	260					8
9							9
10				24		Wet.	10
11		24					11
12	SB-3 11-12	60				Peat, silt and clay; dark brown.	12
						End of boring.	
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Boring #: SBE-4
Install Date: 2/21/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/21/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
						Concrete.	
1							1
2						No recovery.	2
3							3
4							4
5							5
6				30		Brick and concrete fragments.	6
7	SB-4 6.5-7.5	15				Heterogenous mixture of sand, silt, and angular gravel; black. With cinders. Wet at 7.5'.	7
8							8
9							9
10							10
11		8		24		Wet.	11
12	SB-4 11-12	0				Peat, silt and clay; dark brown.	12
13						End of boring.	13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Boring #: SBE-5
Install Date: 3/18/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 3/18/08
Geologist: C.Viani
Drilling Co.: N/A
Driller:
Drill Rig: Hand auger
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: hand auger
G.W. Encountered: 8 ft
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1							1
						Boring completed in basement; basement floor is approx. 6 ft below the exterior surface grade.	
2							2
						Depths are relative to EXTERIOR surface grade.	
3							3
4							4
5							5
6						Basement floor	6
						Concrete.	
7		0					7
	SB-5					SAND, brown; little silt; little gravel, with brick and cinders.	
8	7.5-8						8
	SB-5	120				Wet below 8'.	
9	8-8.5						9
10						No recovery from 9'-12'.	10
11							11
12							12
						End of boring.	
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Boring #: SBE-6
Install Date: 3/18/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 3/18/08
Geologist: C.Viani
Drilling Co.: N/A
Driller:
Drill Rig: Hand auger
Bit:
Hammer Wt:
Drop:
Total Depth: 9 ft
Sampler Type: hand auger
G.W. Encountered: -
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1						Boring completed in basement; basement floor is approx. 6 ft below the exterior surface grade.	1
2						Depths are relative to EXTERIOR surface grade.	2
3							3
4							4
5							5
6						Basement floor Concrete.	6
7		0				SAND, brown; little silt; little gravel, with brick and cinders.	7
8	SB-6	0					8
9	8.5-9					End of boring (refusal).	9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Boring #: SBE-7
Install Date: 3/18/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 3/18/08
Geologist: C.Viani
Drilling Co.: N/A
Driller:
Drill Rig: Hand auger
Bit:
Hammer Wt:
Drop:
Total Depth: 7.5 ft
Sampler Type: hand auger
G.W. Encountered: -
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1							1
						Boring completed in basement; basement floor is approx. 6 ft below the exterior surface grade.	
2							2
						Depths are relative to EXTERIOR surface grade.	
3							3
4							4
5							5
6						Basement floor	6
	SB-7					Concrete.	
7	6.5-7	0					7
		10				SAND, brown; little silt; little gravel, with brick and cinders.	
8						End of boring (refusal).	8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

Environmental Waste Management Associates, LLC

PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490

Boring #: SBE-8

Install Date: 2/20/08

Site Name: OCA

Site Location: Long Island City, NY

Completion Date: 2/20/08

Geologist: C.Viani

Drilling Co.: Zebra

Driller:

Drill Rig: Geoprobe

Bit:

Hammer Wt:

Drop:

Total Depth: 12 ft

Sampler Type: 5-ft macrocore

G.W. Encountered:

G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				0		Concrete.	
1							1
2						No recovery.	2
3							3
4							4
5				54		Sand and fine angular gravel (incl. coal and cinders); little silt; speckled black/brown/buff. FILL.	5
6		0					6
7		0					7
8		0					8
9	SB-8 8.5-9.5	670				Fine sand and silt; trace gravel (incl. coal); black to brown. Moist.	9
10	SB-8 10-11	0		12		PEAT (wet in top of macrocore).	10
11							11
12						End of boring.	12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-9
Install Date: 2/21/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/21/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				30		Concrete.	
1		0					1
2		0				Heterogeneous mixture of sand, silt, and gravel; black, with brown and buff-colored zones. Cinders and coal common. FILL.	2
3							3
4							4
5				36			5
6		0					6
7		0				SAND, fine; some silt; some gravel. Dark gray. Moist. FILL.	7
8	SB-9 7-8	100					8
9							9
10							10
11		0		24		Peat, silt and clay; dark brown.	11
12	SB-3 11-12	0					12
13						End of boring.	13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-10
Install Date: 2/20/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/20/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 35 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1				0		Concrete and brick rubble.	1
2							2
3						No recovery.	3
4							4
5							5
6		0		30		Heterogeneous mixture of sand, silt and gravel; brown (at top) to dark gray and black. Very moist. FILL. Hc odor at 6'-7'.	6
7	SB-10 6-7	64 140					7
8							8
9							9
10							10
11		0		48		Wet below 10', with no Hc odor.	11
12		0					12
13		0					13
14		0				Peat, silt and clay; dark brown.	14
15							15
16		0		42		Silt and clay; trace fine sand; brown. Wet. SAND, fine; gray; wet.	16
17		0					17
18		0				SAND, fine to medium; purplish gray, to gray. Wet.	18
19							19
20							20
21		0		54			21
22		0					22
23		0				SAND, medium; brownish gray; trace to no silt.	23
24		0					24

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EWMA Job #: 205490
Boring #: SBE-10
Install Date: 2/20/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/20/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 35 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
26		0		42		SAND, medium; brownish gray; trace to no silt; wet.	26
27		0				Layers of gray silt (about 4" thick) at 27' and 28'.	27
28		0					28
29							29
30							30
31		0		42			31
32		0				SILT, some clay; gray, with thick (up to 1") red laminations. Very thin micaceous laminae in bottom 2 ft of core. Moist. Very dense.	32
33	SB-10 32.5- 33.5	0					33
34							34
35							35
36						End of boring.	36
37							37
38							38
39							39
40							40
41							41
42							42
43							43
44							44
45							45
46							46
47							47
48							48
49							49

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EWMA Job #: 205490
Boring #: SBE-11
Install Date: 2/20/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/20/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				12		Concrete.	
						Brick fragments.	
1							1
2							2
3							3
4							4
5						Sand and gravel, brown. FILL.	5
				36			
6		0					6
7	SB-11 6.5-7.5	0				Heterogeneous mixture of sand, silt and angular gravel, black to gray. Very moist, to wet below 7.5'. With brick fragments. FILL.	7
8		18					8
9							9
10							10
				24			
11		0				Silt, clay, and peat; dark brown.	11
12	SB-11 11-12						12
						End of boring.	
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-12
Install Date: 2/20/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/20/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				18		Concrete.	
1		4				Sand and silt; little gravel; dark brown. With brick fragments.	1
2							2
3							3
4							4
5				36		Broken concrete.	5
6		0					6
7	SB-12 6.5-7.5	25				Sand and silt; trace to little gravel (incl. brick fragments); black to dark brown. Moist. Slight Hc odor. FILL. Slightly wet below 7.5'.	7
8							8
9							9
10	SB-12 10-11	0		12		PEAT.	10
11						Silt and clay, dark brown, with abundant plant fragments.	11
12						End of boring.	12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-13
Install Date: 3/18/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 3/18/08
Geologist: C.Viani
Drilling Co.: N/A
Driller:
Drill Rig: Hand auger
Bit:
Hammer Wt:
Drop:
Total Depth: 8 ft
Sampler Type: hand auger
G.W. Encountered: -
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1							1
2						Boring completed in basement; basement floor is approx. 6 ft below the exterior surface grade.	2
3						Depths are relative to EXTERIOR surface grade.	3
4							4
5							5
6						Basement floor Concrete.	6
7	SB-13 7-7.5	0				SAND, brown; little silt; little gravel, with brick and cinders.	7
8						End of boring (refusal).	8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-14
Install Date: 2/21/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/21/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 35 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				36		Concrete.	
1		0					1
2		0				Heterogeneous mixture of sand, silt, and gravel; black, with brown and buff-colored zones. Cinders and coal common. FILL.	2
3		0					3
4							4
5				30			5
6		0					6
7	SB-14 6.5-7.5	0					7
8						Wet and black below 7', with Hc odor.	8
9							9
10				36			10
11		0					11
12		0				PEAT, grading downward into dark brown silt and clay with peat.	12
13		0				SAND, fine; some clay; gray. Moist.	13
14							14
15				30		SAND, fine; gray. Wet.	15
16		0					16
17		0					17
18							18
19							19
20		0		24			20
21		0				SAND, medium; brownish gray; trace gravel. Wet.	21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-14
Install Date: 2/21/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/21/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 35 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
26				42		SAND, medium; brownish gray; trace gravel. Wet.	26
27		0					27
28		0					28
29							29
30							30
31	SB-14 30--31	0		36		SILT; little clay; gray; trace gravel in spots. Very dense. Slightly micaceous. Moist.	31
32		0					32
33							33
34							34
35							35
36						End of boring.	36
37							37
38							38
39							39
40							40
41							41
42							42
43							43
44							44
45							45
46							46
47							47
48							48
49							49

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EWMA Job #: 205490
Boring #: SBE-15
Install Date: 2/20/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/20/08
Geologist: C.Viani | **Drilling Co.:** Zebra
Driller: | **Drill Rig:** Geoprobe
Bit: | **Hammer Wt:** | **Drop:** | **Total Depth:** 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				0		Concrete.	
1							1
2						No recovery.	2
3							3
4							4
5							5
				36		Concrete and brick fragments.	
6							6
		2				SAND, fine; some clay; brown to gray to black. FILL.	
7	SB-15	16				Sand and angular gravel; little to some silt; black. With wood fragments. Very moist, with Hc odor. FILL.	7
	6.5-7.5	120					
8							8
9							9
10							10
				24		SAND, fine; some clay; dark gray.	
11		0				Clay and silt; little sand; dark gray, with some plant fragments. Moist.	11
	SB-15					SAND, fine; little silt; brownish gray. Wet and runny.	
12	11-12					1" of peat in tip of macrocore.	12
						End of boring.	
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-16
Install Date: 2/15/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/15/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1				36		Concrete.	1
2		0				Sand, silt and gravel, black; with slag and brick fragments. FILL.	2
3							3
4						SAND, medium, brown; trace gravel. FILL.	4
5							5
6		0		36		GRAVEL, black, angular; little to some sand. Very moist, to wet in spots. Oil-like staining in some spo FILL.	6
7		0					7
8	SB-16 7-8	159					8
9							9
10							10
11		6		24		Wet below 10 ft, with slight sheen.	11
12	SB-16 11-12	9				Silt and clay, dark brown, with abundant plant fragments.	12
13						End of boring.	13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-17
Install Date: 2/15/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/15/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				36		Concrete.	
1							1
2		0				Heterogeneous mixture of sand, silt and gravel mixture, brown, to black at bottom. Occ. brick and coal. FILL.	2
3		0					3
4							4
5						GRAVEL, dark brown, angular; little to some sand. FILL.	5
				42			
6	SB-17 5.5-6.5	1				Wet, and color changes to black, below 6 ft.	6
7		380 320				Sand, silt, and angular gravel, dark gray to black; wet. Hc odor. FILL.	7
8	SB-17 7.5-8.5	640					8
9							9
10		100		24			10
11							11
12	SB-17 11-12	20				Silt and clay, dark brown, with abundant plant fragments; grades into peat at bottom.	12
						End of boring.	
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-18
Install Date: 2/19/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/19/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 15 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1				24		Concrete.	1
2		0				SAND, medium to coarse; little to some silt; little to some gravel, with brick and concrete. Wet. FILL.	2
3							3
4							4
5							5
6				30			6
7	SB-18	320				Silt and clay, dark brown; little to some sand; trace gravel, with brick fragments. FILL.	7
8	6.5-7.5	800					8
9						SAND, fine to medium, gray-brown; little silt; wet and runny.	9
10							10
11				48		Grades into fine sand. Wet, with faint sheen.	11
12	SB-18 11-12	39					12
13		18				Silt and clay, dark brown, and peat.	13
14		12					14
15							15
16						End of boring.	16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-19
Install Date: 2/19/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/19/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				30		Concrete.	
1		0				Coarse sand and angular gravel, black and cream (speckled); with coal and cinders. FILL.	1
2		0				Silt and sand, dark brown to black; trace gravel, with coal fragments. Moist. FILL.	2
3							3
4							4
5				36			5
6		175				Silt sand and gravel, dark brown. FILL. Fine sand and clay, dark brown. FILL.	6
7	SB-19					Fine sand and clay, brownish gray. Very moist to wet. Hc odor.	7
8	7-8	450					8
9							9
10		0		24		SAND, fine; little silt; grayish brown. Wet and runny.	10
11	SB-19	17				Brown silt and clay with peat, grading downward into peat.	11
12	11-12					End of boring.	12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-20
Install Date: 2/19/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/19/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 20 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1						0-15 ft: Not sampled; boring was completed to evaluate presence of LNAPL in the sand aquifer.	1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16				48		SAND, fine, gray; trace to little silt; wet. No LNAPL sheen, or Hc odor.	16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-RCRA-1
Install Date: 2/15/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/20/08
Geologist: C.Viani **Drilling Co.:** Zebra
Driller: **Drill Rig:** Geoprobe
Bit: **Hammer Wt:** **Drop:** **Total Depth:** 12 ft
Sampler Type: 5-ft macrocore **G.W. Encountered:**
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				12		Concrete.	
1		0					1
						Silt, sand, and gravel; grayish brown. FILL.	
2							2
3							3
4							4
5							5
				36			
6		12				Silt, sand and gravel, dark brown, moist to wet. FILL.	6
7	SB-R-1 6-7						7
		230				Silt, sand and gravel, black, wet. FILL.	
8							8
9							9
10							10
				24		SAND, fine, gray; little silt; wet and runny. FILL.	
11		11					11
12	SB-R-1 11-12	5				PEAT; dark brown.	12
						End of boring.	
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-RCRA-2
Install Date: 2/19/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/19/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1				24		Concrete.	1
2						Brick fragments.	2
3							3
4						Heterogenous mixture of silt, sand, and gravel; black to brown to red, with brick fragments. FILL.	4
5				48			5
6		0					6
7	SB-R-2 6.5-7.5	155				Sand and gravel, black; trace to little silt. Strong Hc odor. Wet, with black oily staining below 7'. FILL.	7
8							8
9	SB-R-2 8-9	270					9
10		0		24		SAND, fine, gray; little silt; wet and runny. FILL.	10
11	SB-R-2	0				Sand and gravel, black; wet. FILL.	11
12	11.5-12	0				Silt, clay, and peat; dark brown.	12
13						End of boring.	13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Boring #: SBE-RCRA-3
Install Date: 2/21/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/21/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 35 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				24		Concrete.	
1		0					1
						Heterogeneous mixture of sand, silt, and gravel, with cinders, coal and brick. Brown to buff to black. FILL.	
2		0					2
3							3
4							4
5							5
		10		30		SAND, medium to fine; grayish brown, grading downward to brown. Moist.	
6	SB-R-3						6
	5.5-6.5	11				Wet below 6.5'.	
7							7
		0					
8							8
9							9
10						SAND, fine; little silt; brown. Wet.	10
				48			
11		0					11
12		0					12
						SAND, medium, gray. Wet.	
13		0					13
						Peat, silt and clay; dark brown.	
14							14
		0				Fine sand and clay, gray to bluish gray; moist.	
15							15
				36			
16		0				SAND, fine, gray. Wet.	16
17		0					17
18		0					18
19							19
20							20
				36			
21		0					21
22		0					22
23		0				SAND, medium, gray. Wet.	23
24							24

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EWMA Job #: 205490
Boring #: SBE-RCRA-3
Install Date: 2/21/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/21/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 35 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				36			
26		0				SAND, medium; gray. Wet.	26
27		0				Layer of gray silt and clay, little coarse sand and fine gravel (about 4" thick) at 27'.	27
28		0					28
29							29
30							30
		0		18			
31	SB-R-3					SILT; some clay; gray with thick (up to 1") red laminations. Very dense. Moist.	31
	30.5-	0					
32	31.5						32
33							33
34							34
35							35
						End of boring-Geoprobe refusal.	
36							36
37							37
38							38
39							39
40							40
41							41
42							42
43							43
44							44
45							45
46							46
47							47
48							48
49							49

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EWMA Job #: 205490
Boring #: SBE-RCRA-4
Install Date: 2/19/08

Site Name: OCA
Site Location: Long Island City, NY
Completion Date: 2/19/08
Geologist: C.Viani
Drilling Co.: Zebra
Driller:
Drill Rig: Geoprobe
Bit:
Hammer Wt:
Drop:
Total Depth: 12 ft
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:

BORING LOCATION SKETCH (N.T.S)

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0"	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				36		Concrete.	
1		0					1
2		0				Sand and angular gravel; little silt; heterogeneous; speckled gray to brown. Abundant cinders. FILL.	2
3							3
4							4
5				24			5
6		0					6
7	SB-R-4 6-7	0				Silt and clay, gray; little sand; little gravel. Very moist. FILL.	7
8							8
9						SAND, fine; little silt; brownish gray. Wet and runny. FILL.	9
10				24			10
11		0				Brown silt, clay and peat.	11
12	SB-R-4 11-12	0					12
13						End of boring.	13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

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EWMA Job #: 205490
Well #: MW-3S
Start Date: 02/06/08

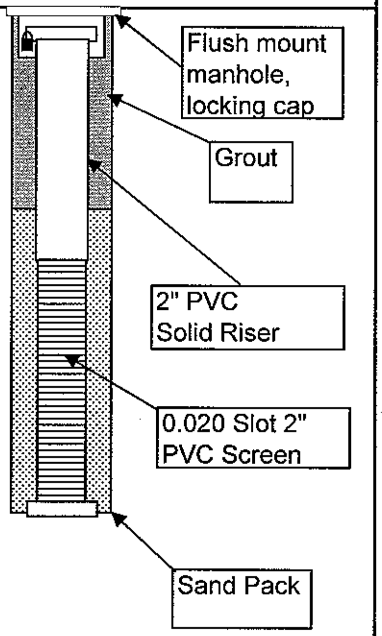
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/11/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 10'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-5'
Screen Interval/Screen Type: 5'-10'; 2" pvc; 0.020" slot
Grout: 0'-4'
Sand Pack/Open Borehole: 4' - 10'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				-		Concrete.	
1							1
2							2
3		0				Sand and gravel, brown, with brick and concrete fragments. FILL. (0 to 5 ft cleared with hand auger).	3
4							4
5							5
6		0		30		Variable mixture of sand, gravel, and silt; brown, reddish brown, black, and green. Cinders and brick fragments common. FILL.	6
7		75					7
8							8
9							9
10							10
11		2		42		Gravel, angular to rounded; little sand; abundant brick fragments Hc odor. Wet. FILL.	11
12						Silt and clay, dark brown; some peat. Moist.	12
13		0					13
14		0				SAND, fine; little silt; brown. Moist.	14
15							15
16		0		24		SAND, fine; little silt; gray. Slight rotten-egg odor. Wet.	16
17							17
18							18
19							19
20							20
21						Soil log from MW-3D	21
22							22
23							23
24							24

WELL CONSTRUCTION DIAGRAM (N.T.S)



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EWMA Job #: 205490
Well #: MW-3I
Start Date: 02/06/08

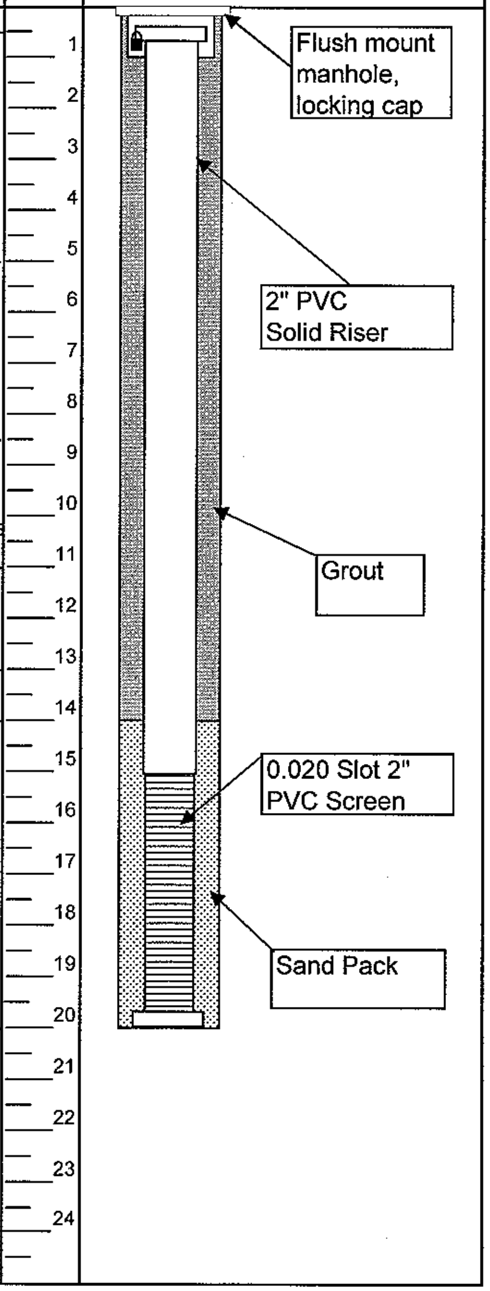
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/11/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 20'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-15'
Screen Interval/Screen Type: 15'-20'; 2" pvc; 0.020" slot
Grout: 0'-14'
Sand Pack/Open Borehole: 14' - 20'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				-		Concrete.
1						
2						Sand and gravel, brown, with brick and concrete fragments. FILL. (0 to 5 ft cleared with hand auger).
3		0				
4						
5				30		
6		0				Variable mixture of sand, gravel, and silt; brown, reddish brown, black, and green. Cinders and brick fragments common. FILL.
7		75				
8						
9						
10				42		Gravel, angular to rounded; little sand; abundant brick fragments Hc odor. Wet. FILL.
11		2				
12		0				Silt and clay, dark brown; some peat. Moist.
13		0				SAND, fine; little silt; brown. Moist.
14						
15				24		
16		0				SAND, fine; little silt; gray. Slight rotten-egg odor. Wet.
17						
18						
19						
20						End of boring at 20 ft bg.
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



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EWMA Job #: 205490
Well #: MW-3D
Start Date: 02/19/08

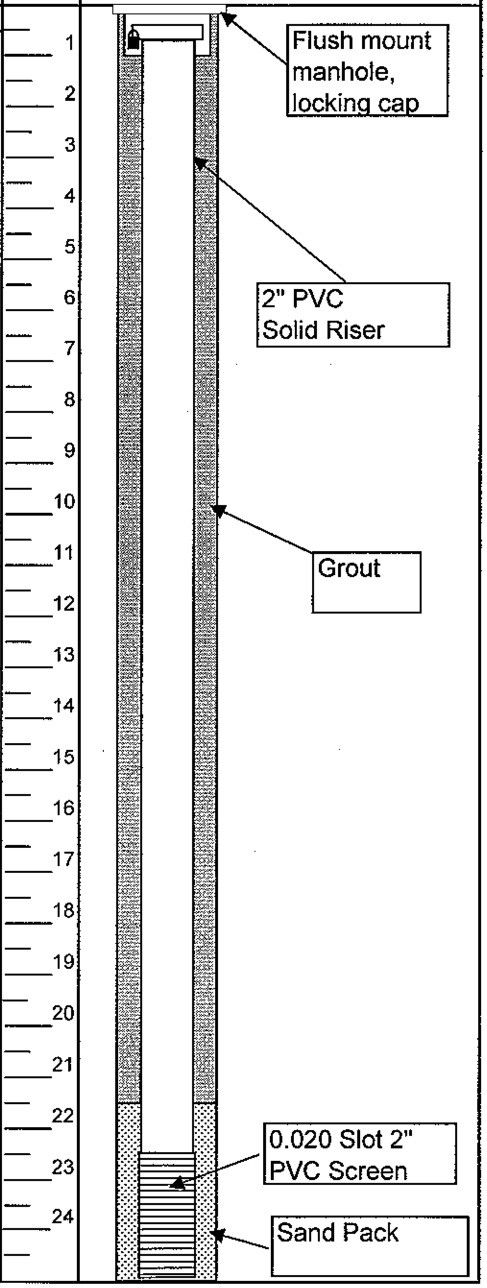
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/19/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 27.5'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-22.5'
Screen Interval/Screen Type: 22.5'-27.5'; 2" pvc; 0.020" slot
Grout: 0-21.5'
Sand Pack/Open Borehole: 21.5'-27.5'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				-		Concrete.
1 2 3 4 5		0				Sand and gravel, brown, with brick and concrete fragments. FILL. (0 to 5 ft cleared with hand auger).
6 7 8 9		0 75		30		Variable mixture of sand, gravel, and silt; brown, reddish brown, black, and green. Cinders and brick fragments common. FILL.
10						
11		2		42		Gravel, angular to rounded; little sand; abundant brick fragments Hc odor. Wet. FILL.
12 13		0				Silt and clay, dark brown; some peat. Moist.
14		0				SAND, fine; little silt; brown. Moist.
15 16 17 18 19 20 21 22 23 24		0		24		SAND, fine; little silt; gray. Slight rotten-egg odor. Wet.

WELL CONSTRUCTION DIAGRAM (N.T.S)



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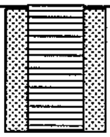
EWMA Job #: 205490
Well #: MW-3D
Start Date: 02/19/08

Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/19/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-22.5'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 27.5'
Screen Interval/Screen Type: 22.5'-27.5'; 2" pvc; 0.020" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0-21.5'
Sand Pack/Open Borehole: 21.5'-27.5'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)	WELL CONSTRUCTION DIAGRAM (N.T.S)
26				36			26	
27						SAND, medium, gray; wet. Occ. layers (1"-3" thick) of gray silt; little sand; trace gravel.	27	
28						Auger refusal at 28'.	28	
29							29	
30							30	
31						End of boring.	31	
32							32	
33							33	
34							34	
35							35	
36							36	
37							37	
38							38	
39							39	
40							40	
41							41	
42							42	
43							43	
44							44	
45							45	
46							46	
47							47	
48							48	
49							49	

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EWMA Job #: 205490
Well #: MW-4S
Start Date: 02/06/08

Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/11/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 10.5'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

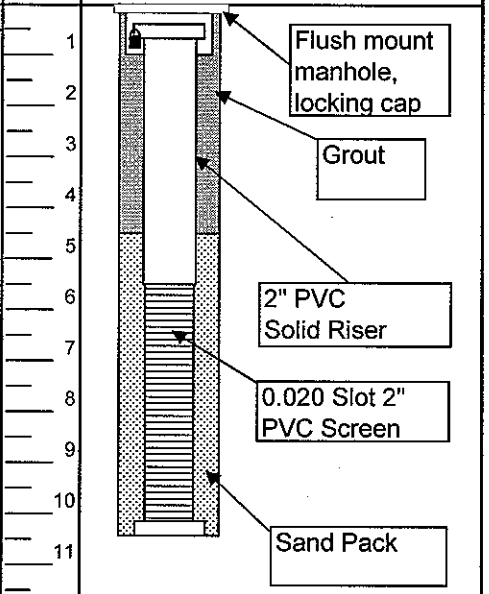
WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-5.5'
Screen Interval/Screen Type: 5.5'-10.5'; 2" pvc; 0.020" slot
Grout: 0'-4.5'
Sand Pack/Open Borehole: 4.5' - 10.5'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				-		Concrete.
1						
2						
3		0				GRAVEL, coarse, angular. FILL. (0 to 5 ft cleared with hand auger).
4						
5				36		SAND, medium to coarse, reddish brown. FILL.
6		15				GRAVEL, coarse, with slag and coal. FILL.
7						
		1018				SAND, fine, to fine and medium; gray; little silt; very moist. FILL.
8						
9						
10				42		Wet at 10' to 11'.
11		17				
12		40				Silt and clay, dark brown; some peat. Moist.
13		19				Fine sand and clay; light brown to gray. Moist.
14						
15				30		
16		0				SAND, fine and medium; purplish brown, with yellowish brown layer at 15.5'-16'. Wet.
17		1				
18						
19						
20						Soil log from MW-4I
21						
22						
23						
24						

DEPTH (FT.)

WELL CONSTRUCTION DIAGRAM (N.T.S)



12
13
14
15
16
17
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23
24

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EWMA Job #: 205490
Well #: MW-4I
Start Date: 02/06/08

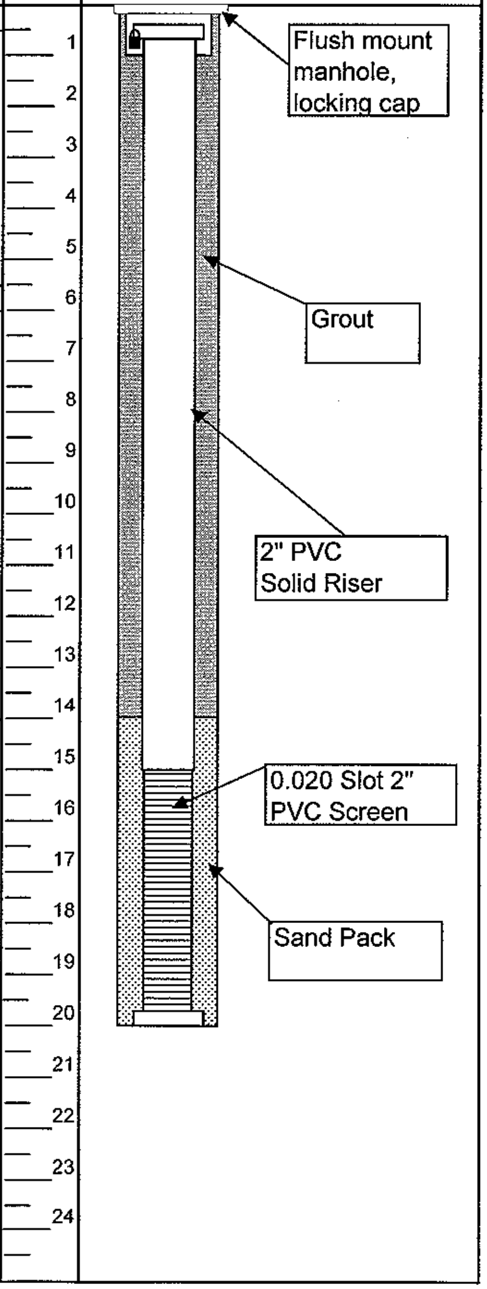
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/11/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 20'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-15'
Screen Interval/Screen Type: 15'-20'; 2" pvc; 0.020" slot
Grout: 0'-14'
Sand Pack/Open Borehole: 14' - 20'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				-		Concrete.
1						
2						
3		0				GRAVEL, coarse, angular. FILL. (0 to 5 ft cleared with hand auger).
4						
5						
				36		SAND, medium to coarse, reddish brown. FILL.
6		15				GRAVEL, coarse, with slag and coal. FILL.
7						
		1018				SAND, fine, to fine and medium; gray; little silt; very moist. FILL.
8						
9						
10						
				42		Wet at 10' to 11'.
11		17				
12		40				Silt and clay, dark brown; some peat. Moist.
13						
		19				Fine sand and clay; light brown to gray. Moist.
14						
15						
				30		
16		0				SAND, fine and medium; purplish brown, with yellowish brown layer at 15.5'-16'. Wet.
17						
		1				
18						
19						
20						
						End of boring at 20 ft bg.
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



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EWMA Job #: 205490
Well #: MW-5S
Start Date: 02/06/08

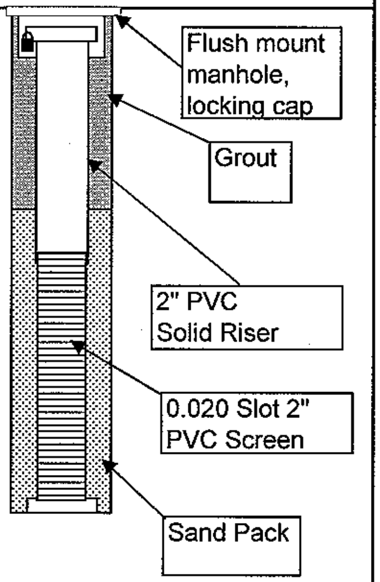
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/11/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 10'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-5'
Screen Interval/Screen Type: 5'-10'; 2" pvc; 0.020" slot
Grout: 0'-4'
Sand Pack/Open Borehole: 4'-10'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
1				-		Concrete.
2						
3		0				SAND, brown to gray, with little gravel (incl. brick fragments). FILL. (Sampled via hand auger).
4						
5						
6		0		42		Sand and silt, reddish brown; little coarse sand; little rounded gravel. Moist. Pieces of slag at 6'. FILL.
7		0				SAND, fine to medium, reddish brown. FILL.
8		0				SAND, fine to medium; layers of gray, over light brown, over brown. Faint solvent-like odor at 8'. Very moist. FILL.
9						
10						
11		0		24		Silt and clay, dark brown; some peat. Moist.
12		0				SAND, fine; some silt; light brown at top, to gray below. Moist.
13						
14						
15						
16		0		30		SAND, fine and medium; purplish brown, with yellowish brown layer at 16.5'-17'. Wet.
17						
18		0				
19						
20						
21						Soil log from MW-5I.
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-5I
Start Date: 02/06/08

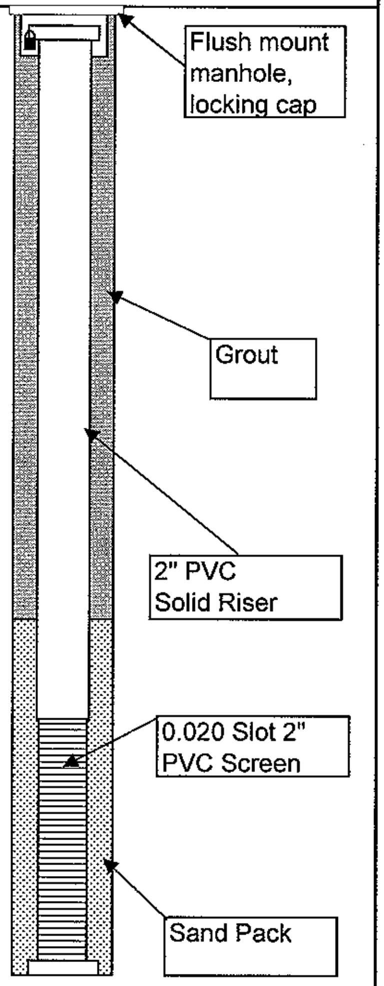
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/11/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 19'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-15'
Screen Interval/Screen Type: 14'-19'; 2" pvc; 0.020" slot
Grout: 0'-12'
Sand Pack/Open Borehole: 12'-19'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				-		Concrete.
3		0				SAND, brown to gray, with little gravel (incl. brick fragments). FILL. (Sampled via hand auger).
6		0		42		Sand and silt, reddish brown; little coarse sand; little rounded gravel. Moist. Pieces of slag at 6'. FILL.
7		0				SAND, fine to medium, reddish brown. FILL.
8		0				SAND, fine to medium; layers of gray, over light brown, over brown. Faint solvent-like odor at 8'. Very moist. FILL.
11		0		24		Silt and clay, dark brown; some peat. Moist.
12		0				SAND, fine; some silt; light brown at top, to gray below. Moist.
16		0		30		SAND, fine and medium; purplish brown, with yellowish brown layer at 16.5'-17'. Wet.
17		0				
20						End of boring at 20 ft bg.

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-6S
Start Date: 02/06/08

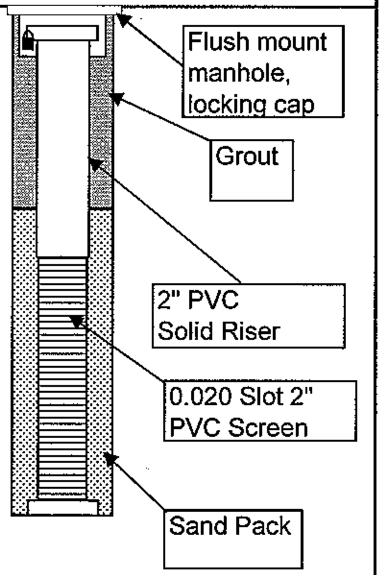
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/12/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 10'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-5'
Screen Interval/Screen Type: 5'-10'; 2" pvc; 0.020" slot
Grout: 0'-4'
Sand Pack/Open Borehole: 4'-10'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				-		Concrete.	
1							1
2						SAND, brown to gray; occaisional brick fragments. FILL. (0 to 5 ft cleared with hand auger).	2
3		0					3
4							4
5							5
		350		54		SAND, red to gray-stained; wet, with slight Hc sheen. FILL.	
6							6
7						Sand and angular gravel, black; abundant coal fragments and cinders. Hc odor. Moist. FILL.	7
		1500					
8							8
						Sand, silt and clay, trace gravel; dark gray. Moist. FILL.	
9							9
		540				Sand and angular gravel, black; with coal fragments and cinders Hc odor. Wet. Bottom 0.5' appears oil-stained. FILL.	
10							10
		0		6		SAND, fine; some silt; grayish brown. Wet.	
11							11
12							12
13							13
14							14
15							15
				48			
16		0				SAND, fine; purplish gray (in top 1') to gray; little silt. Wet.	16
17							17
18							18
		0					
19							19
20							20
						Soil log from MW-6I.	
21							21
22							22
23							23
24							24

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-6I
Start Date: 02/06/08

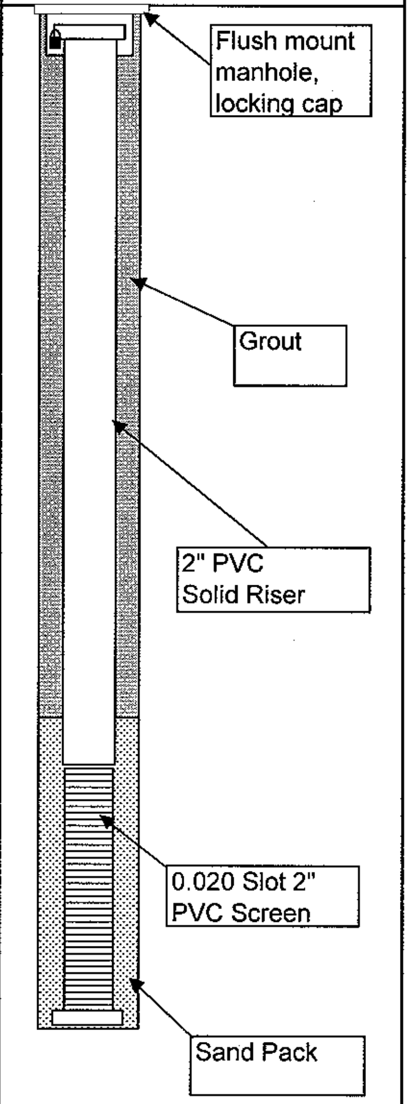
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/12/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 20'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-15'
Screen Interval/Screen Type: 15'-20'; 2" pvc; 0.020" slot
Grout: 0'-14'
Sand Pack/Open Borehole: 14'-20'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				-		Concrete.
1						
2						SAND, brown to gray; occaisional brick fragments. FILL. (0 to 5 ft cleared with hand auger).
3		0				
4						
5						
		350		54		SAND, red to gray-stained; wet, with slight Hc sheen. FILL.
6						
7						Sand and angular gravel, black; abundant coal fragments and cinders. Hc odor. Moist. FILL.
		1500				
8						Sand, silt and clay, trace gravel; dark gray. Moist. FILL.
9						
		540				Sand and angular gravel, black; with coal fragments and cinders Hc odor. Wet. Bottom 0.5' appears oil-stained. FILL.
10		0		6		SAND, fine; some silt; grayish brown. Wet.
11						
12						
13						
14						
15				48		
16		0				SAND, fine; purplish gray (in top 1') to gray; little silt. Wet.
17						
18		0				
19						
20						End of boring at 20 ft bg.
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
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Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-7S
Start Date: 02/06/08

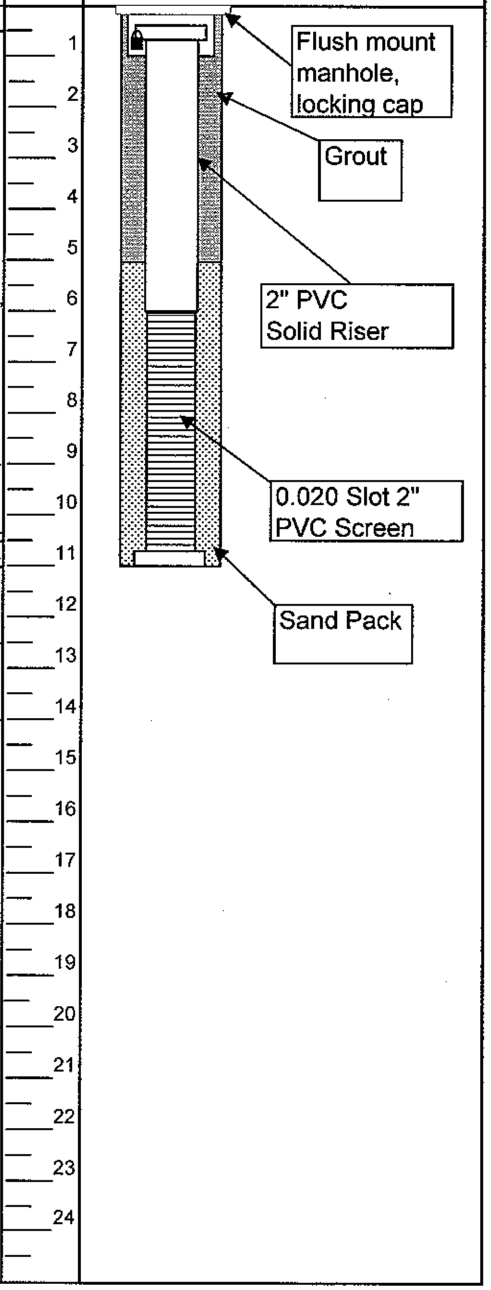
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/12/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 11'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-6'
Screen Interval/Screen Type: 6'-11'; 2" pvc; 0.020" slot
Grout: 0'-5'
Sand Pack/Open Borehole: 5'-11'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				-		Concrete.
1						Sand, silt, and gravel, with brick fragments and cinders. Dark gray to red to brown. FILL. (0 to 5 ft cleared with hand auger).
2						
3		0				
4						
5						
6		460		36		Heterogeneous mixture of silt, sand and clay, with cinders, brick and coal fragments; gray to black. Moist. Hydrocarbon odor throughout. FILL.
7		1200				
8						
9						
10		350		42		GRAVEL, coarse, angular; little sand; with coal fragments. Red to black. Wet, with faint sheen and hydrocarbon odor. FILL
11						SAND, brown; some silt; little gravel, with glass fragments. FILL
12		0				Silt and clay, dark brown; some peat. Moist.
13		0				SAND, fine; some silt and clay; brown. Moist.
14						
15						
16		0		24		SAND, fine; brownish gray to gray. Wet.
17		0				
18						
19						
20						
21						Soil log from MW-7D.
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



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PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-7I
Start Date: 02/06/08

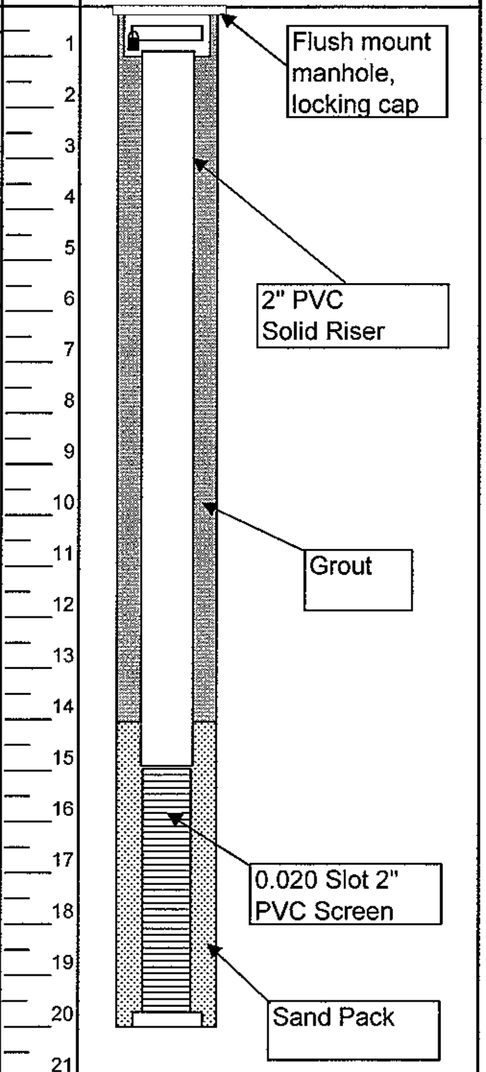
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 02/11/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 20'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-15'
Screen Interval/Screen Type: 15'-20'; 2" pvc; 0.020" slot
Grout: 0'-14'
Sand Pack/Open Borehole: 14'-20'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
0				-		Concrete.
1						Sand, silt, and gravel, with brick fragments and cinders. Dark gray to red to brown. FILL. (0 to 5 ft cleared with hand auger).
2						
3		0				
4						
5				36		Heterogeneous mixture of silt, sand and clay, with cinders, brick, and coal fragments; gray to black. Moist. Hydrocarbon odor throughout. FILL.
6		460				
7		1200				
8						
9						GRAVEL, coarse, angular; little sand; with coal fragements. Red to black. Wet, with faint sheen and hydrocarbon odor. FILL
10		350		42		
10.5						SAND, brown; some silt; little gravel, with glass fragments. FILL
11						Silt and clay, dark brown; some peat. Moist.
12		0				
12.5						SAND, fine; some silt and clay; brown. Moist.
13		0				
14						SAND, fine; brownish gray to gray. Wet.
15				24		
16		0				
17		0				
18						
19						
20						End of boring at 20 ft bg.
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-8S
Start Date: 06/30/08

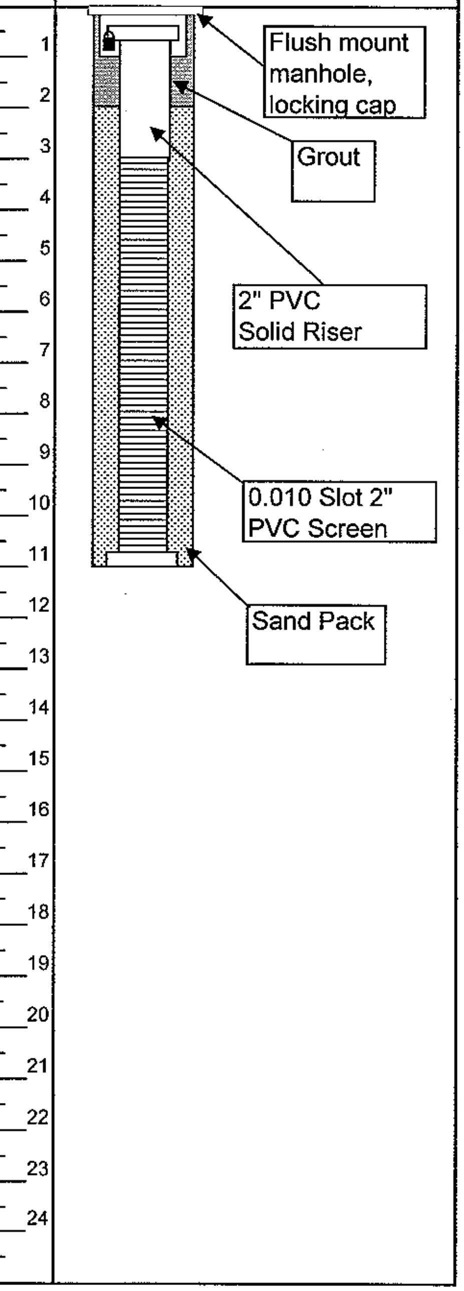
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 06/30/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -

WELL LOCATION SKETCH (N.T.S)

Sampler Type: 5-ft macrocore
Solid Riser: 0'-3'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 11'
Screen Interval/Screen Type: 3'-11'; 2" pvc; 0.010" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-2'
Sand Pack/Open Borehole: 2'-11'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				42		Cobblestones.
1		0				
2		0				SAND, medium, brownish gray; trace fine sand; trace silt; trace gravel. FILL.
3						
4						
5				54		
6		0				Heterogeneous mixture of silt and sand, with cinders, brick, and coal fragments; gray to black. FILL.
7						
8						
9		0				
10		0		12		Sand and fine gravel; black; with wood and coal fragments. Wet, with slight Hc odor, and slight sheen. FILL.
11						
12						End of boring at 12'; set well at 11'.
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-9S
Start Date: 06/27/08

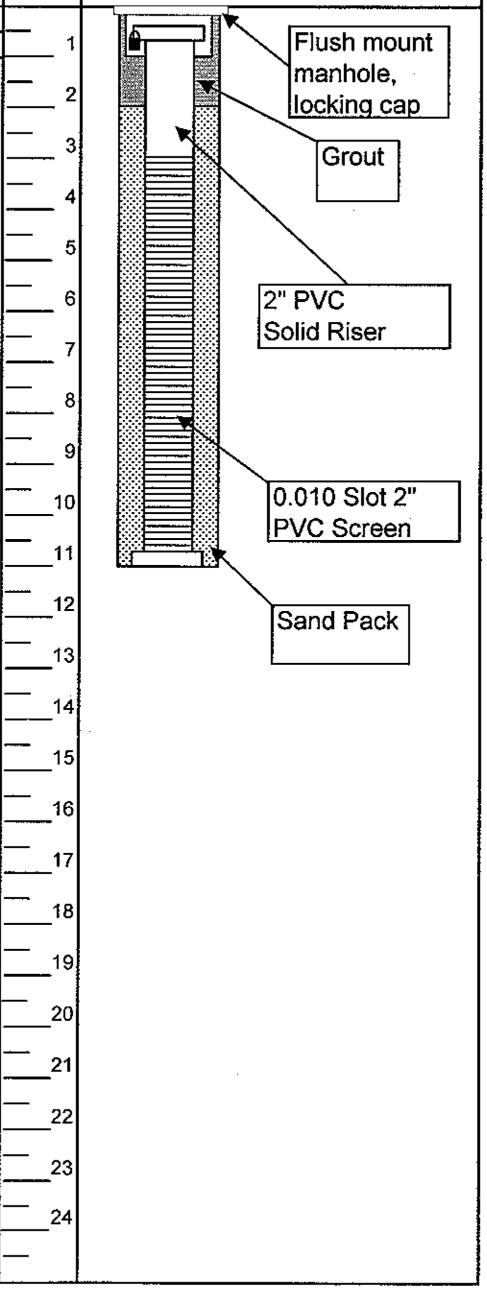
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 06/27/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-3'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 11'
Screen Interval/Screen Type: 3'-11'; 2" pvc; 0.010" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-2'
Sand Pack/Open Borehole: 2'-11'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				24		Concrete/sub-base.
1		0				Cinders.
2		0				SAND, medium, brownish red; trace gravel. Moist. FILL.
3						
4						
5						
6		0		48		
7		7				Heterogeneous mixture of silt and sand, with cinders and brick fragments; brown to gray to black. FILL.
8						
9		0				Angular gravel and sand; black. FILL.
10		0		24		Wet below 10', with very faint sheen.
11		0				PEAT; some silt and clay; brown.
12						End of boring at 12'; set well at 11'.
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-10I
Start Date: 06/30/08

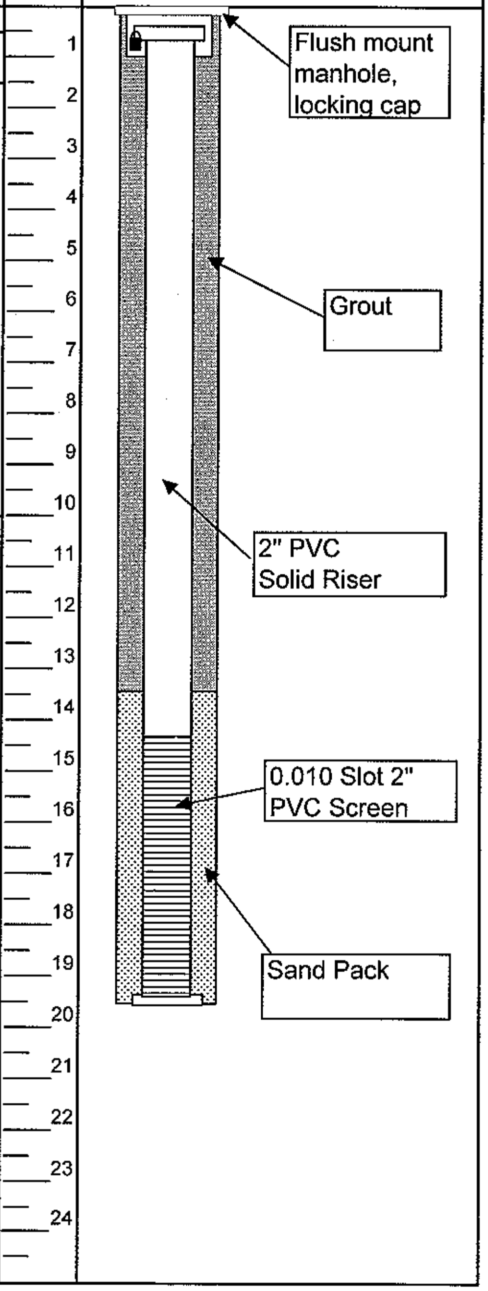
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 06/30/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 19.5'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-14.5'
Screen Interval/Screen Type: 14.5-19.5'; 2" pvc; 0.010" slot
Grout: 0'-13.5'
Sand Pack/Open Borehole: 13.5'-19.5'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OVA. (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				36		Asphalt/sub-base.
1						Sand and silt, brown; with 1' layers of silt; trace to little gravel.
		0				
2						SAND, medium, dark gray; little silt; little gravel; with coarse-gravel sized brick and concrete fragments. FILL.
3		0				
4						
5						
				24		Color variable; brown to gray to reddish brown.
6		0				
7		0				Wet at 7'.
8						
9						
10						
				24		PEAT; some clay; dark brown.
11						
12		275				
						SAND, fine to medium, brown; little silt to trace silt. Plant fragments common near top. Wet. Hc odor.
13						
14						
15						Color grades downward into gray.
				48		
16		80				Several 1-3" layers of fine sand and silt, trace gravel in 15'-20'.
17						Slight sheen at 16'.
		1				
18						
		1				
19						
20						
						End of boring. Set well at 19.5'.
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-11S
Start Date: 06/27/08

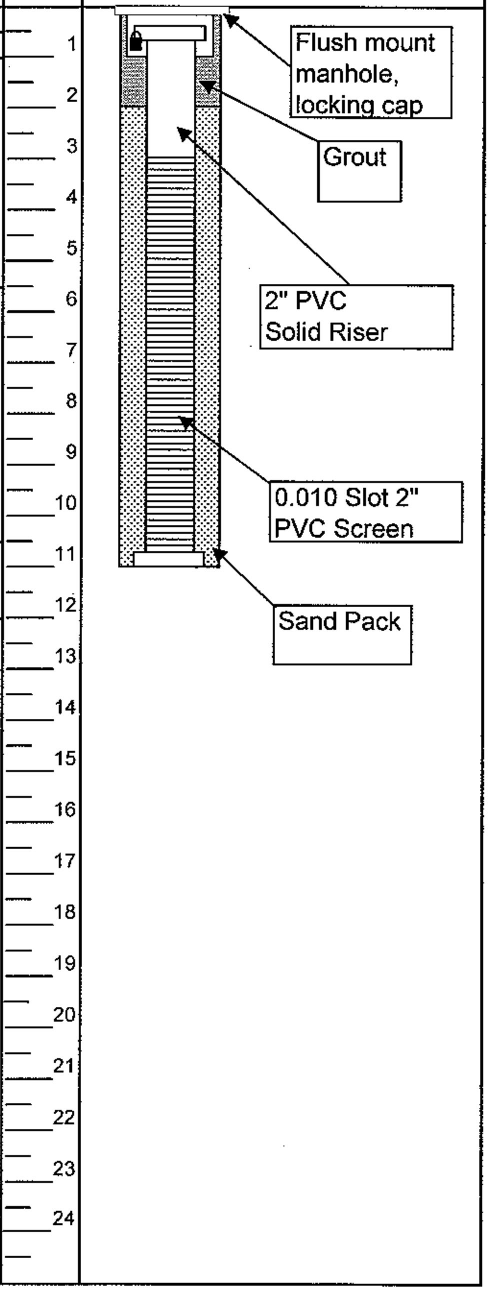
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 06/27/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-3'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 11'
Screen Interval/Screen Type: 3'-11'; 2" pvc; 0.010" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-2'
Sand Pack/Open Borehole: 2'-11'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				24		Concrete/sub-base.
1		0				Cinders.
2		0				SAND, medium, brownish red; trace gravel. Moist. FILL.
3						
4						
5		0		36		
6		0				Heterogeneous mixture of silt and sand, with cinders and brick fragments; brown to gray to black. FILL. Wet below 7.5'.
7		0				
8						
9						
10		0		24		
11		0				PEAT; some clay; dark brown.
12						End of boring at 12'; set well at 11'.
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-12S
Start Date: 06/30/08

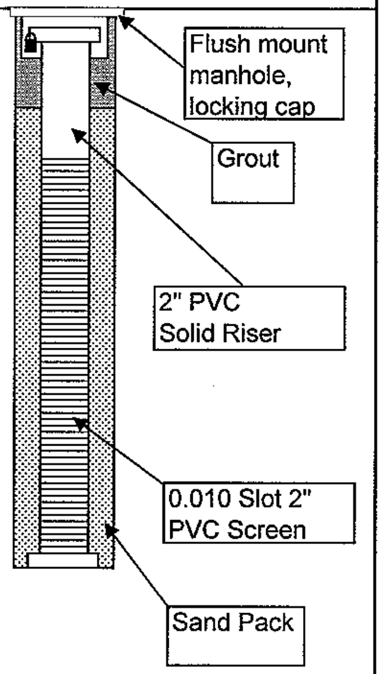
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 06/30/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-3'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 11'
Screen Interval/Screen Type: 3'-11'; 2" pvc; 0.010" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-2'
Sand Pack/Open Borehole: 2'-11'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
				36		Concrete/sub-base.	
1		0				Sand and silt, brown; with occaisional 1" layers of silt; trace to little gravel.	1
2		0				SAND, medium, brown; trace gravel. FILL.	2
3							3
4							4
5		0		36		Wet below 5'.	5
6		290					6
7		80				Heterogeneous mixture of black silt, sand, and gravel, with brick and wood fragments. FILL.	7
8							8
9							9
10		8		24		Silt and clay, gray; trace to little sand; trace to little gravel (wx'd schist frags). Occ. layers (1"-2") of sand with some silt.	10
11		0				SAND, medium, gray; little silt; wet. Sheen at 11'.	11
12						PEAT; some clay; dark brown. End of boring at 12'; set well at 11'.	12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24

WELL CONSTRUCTION DIAGRAM (N.T.S)



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Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-13S
Start Date: 06/27/08

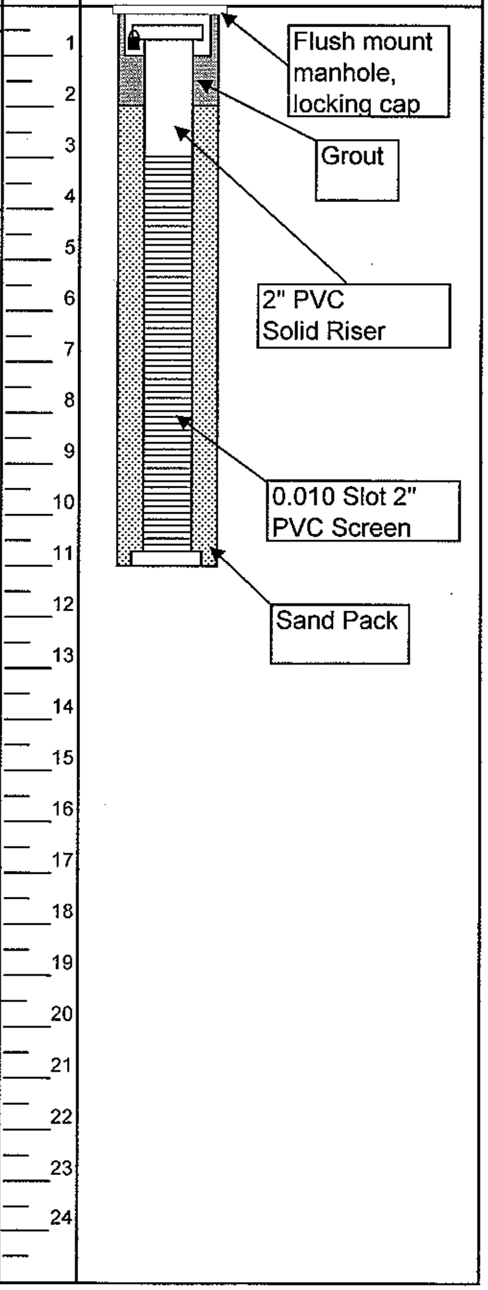
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 06/27/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper:
Drill Rig: Geoprobe
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-3'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 11'
Screen Interval/Screen Type: 3'-11'; 2" pvc; 0.010" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-2'
Sand Pack/Open Borehole: 2'-11'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				24		Concrete/sub-base.
1		0				SAND, medium, brown; trace gravel. FILL.
2		0				Irregular black staining at 1'-2'.
3						
4						
5						
6		42		24		Sand, angular gravel, and silt; dark gray to brown to black. With coal, brick, and slag fragments. Color and texture highly variable. FILL. Wet below 7'.
7						
8						
9						
10						
11		11		24		
12		0				PEAT; some clay; dark brown.
13						End of boring at 12', set well at 11'.
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-14I
Start Date: 11/05/08

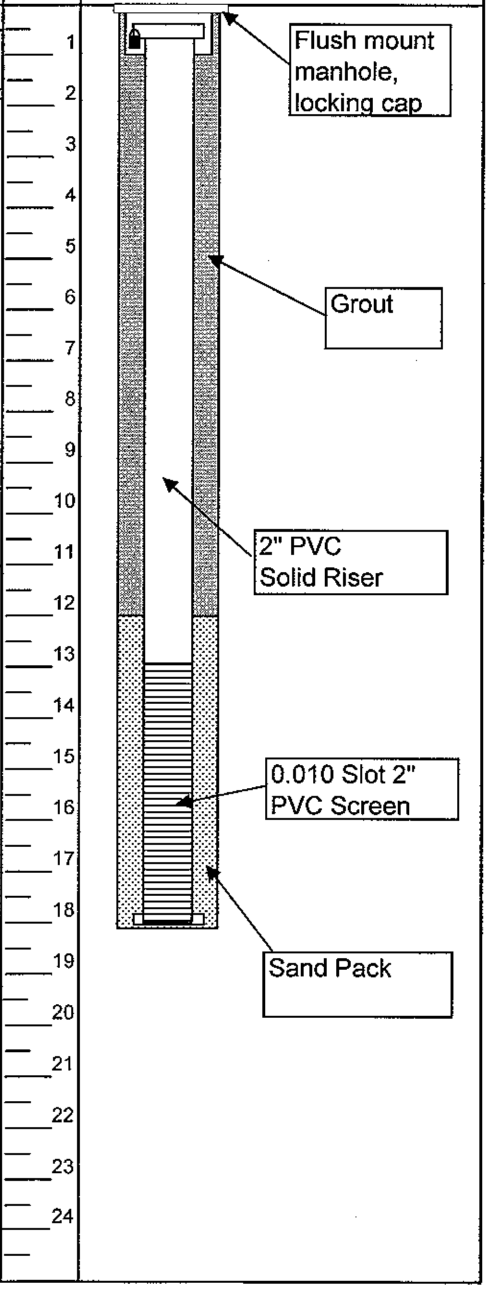
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 11/05/08
Geologist: Chris Viani
Drilling Co.: Summit
Driller/Helper: Ronnie
Drill Rig: Geoprobe 6600
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-13'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 18'
Screen Interval/Screen Type: 13'-18'; 2" pvc; 0.010" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-12'
Sand Pack/Open Borehole: 12'-18'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				36		Asphalt/sub base.
1						
2						Heterogeneous mixture of gravel, sand, and silt; brown to gray t black. With cinders and concrete fragments. FILL. No odors or sheens.
3						
4						
5				30		
6						
7						Wet below 7.5'.
8						
9						
10				36		PEAT, some clay, dark brown.
11						SAND, fine, brown; some silt and clay; grades downward to
12						SAND, fine to medium, brown; little silt and clay.
13						Strong Hc odor. Very moist.
14						
15				60		
16						SAND, fine to medium, brown; little to some silt and clay.
17						Wet below 15', with sheen and traces of dark brown LNAPL.
18						
19						
20						End of boring. PID not working. Set well at 18'.
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-15I
Start Date: 11/06/08

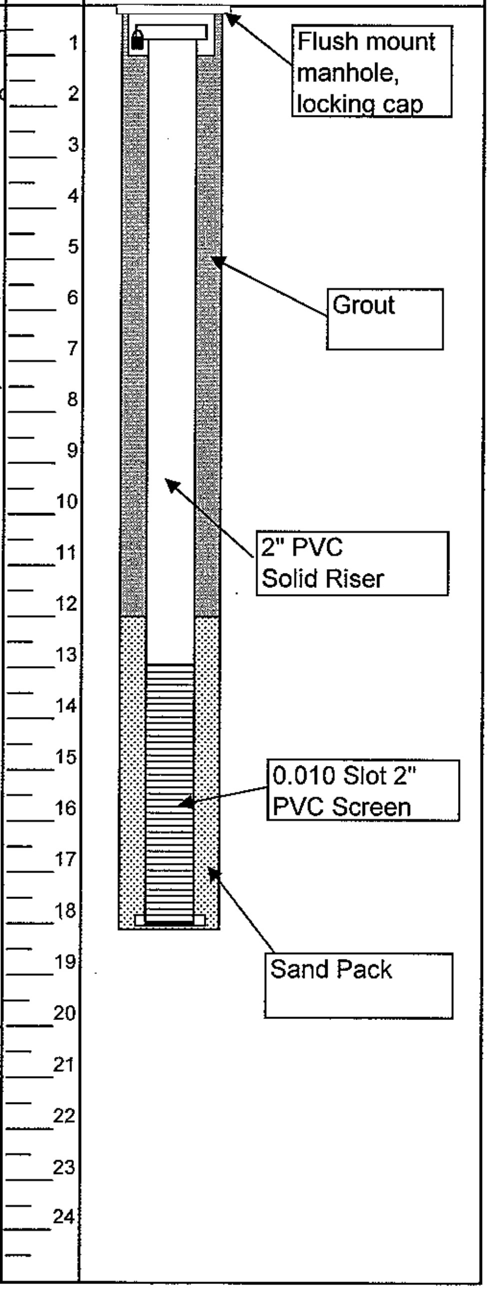
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 11/06/08
Geologist: Chris Viani
Drilling Co.: Summit
Driller/Helper: Ronnie
Drill Rig: Geoprobe 6600
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 18'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-13'
Screen Interval/Screen Type: 13'-18'; 2" pvc; 0.010" slot
Grout: 0'-12'
Sand Pack/Open Borehole: 12'-18'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
				48		Asphalt/sub base.
1						
2						Heterogeneous mixture of gravel, sand, and silt; brown to gray to offwhite. With cinders and concrete fragments. FILL.
3						
4						No odors or sheens.
5				24		
6						
7						
8						
9						
10				0		
11						
12						
13						
14						
15				60		
16						SAND, fine to medium, brownish gray to orange brown; little to some silt and clay. Wet, with a distinct sheen at 16.5'-17.5' Strong Hc odor throughout.
17						
18						
19						
20						End of boring. PID erratic; might be affected by high humidity. Set well at 18'. A second boring attempted to get 10'-15' also had no recovery.
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-16I
Start Date: 11/05/08

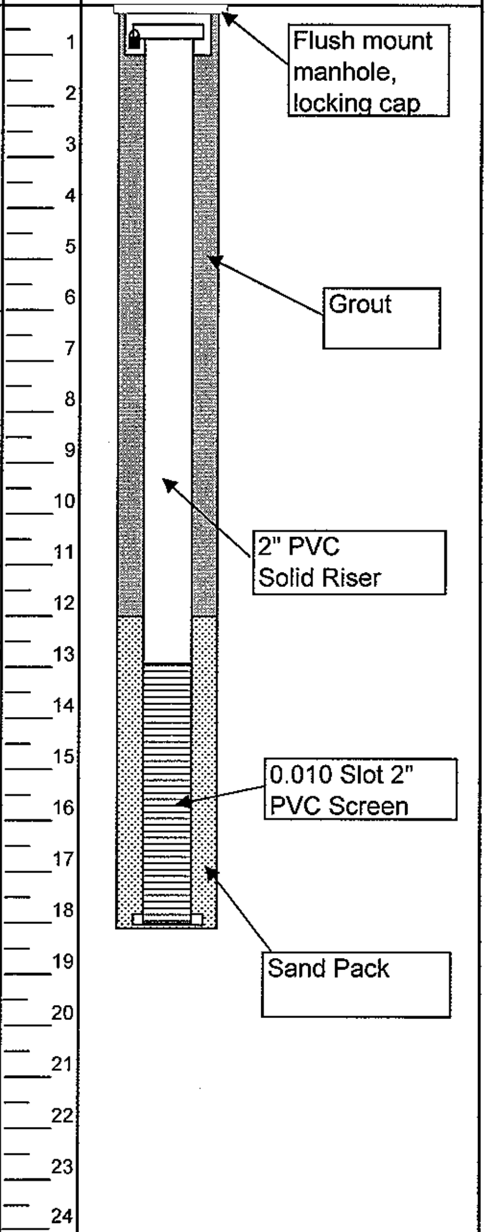
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 11/05/08
Geologist: Chris Viani
Drilling Co.: Summit
Driller/Helper: Ronnie
Drill Rig: Geoprobe 6600
Drilling Method: 6-inch OD HSA
Type of Bit: -

WELL LOCATION SKETCH (N.T.S)

Sampler Type: 5-ft macrocore
Solid Riser: 0'-13'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 18'
Screen Interval/Screen Type: 13'-18'; 2" pvc; 0.010" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-12'
Sand Pack/Open Borehole: 12'-18'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
1				24		
2						Crushed red brick and construction debris.
3						(Demo debris used to backfill the former basements).
4						
5						
6				36		
7						Heterogeneous mixture of gravel, sand, and silt, with brick fragments. Wet below 8'.
8						
9						
10						
11				42		
12						PEAT, some clay, brown.
13						SAND, fine, gray; some silt and clay. Very moist. Slight Hc odo
14						
15						
16				42		SAND, fine, gray:little to some silt and clay. Wet, with slight sheen and Hc odor.
17						
18						
19						
20						
21						End of boring. PID not working. Set well at 18'.
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-17I
Start Date: 12/16/08

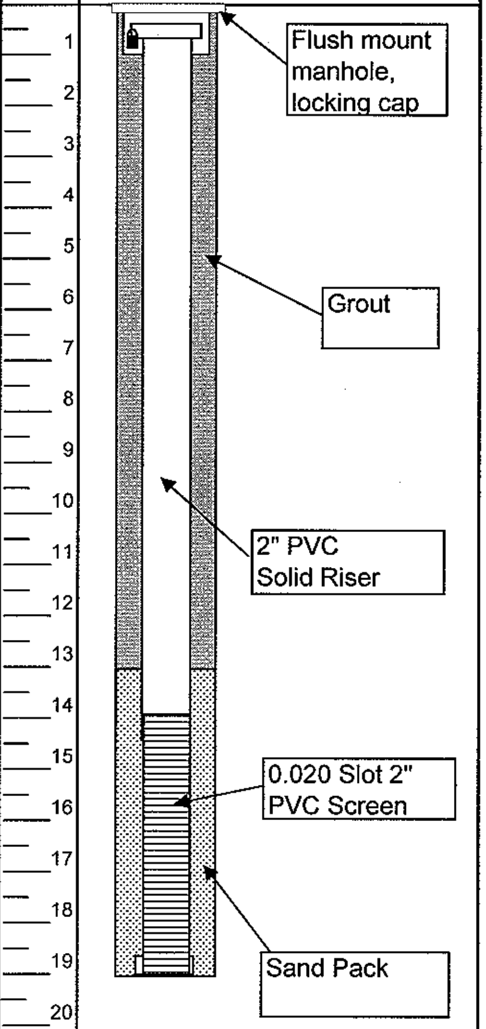
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 12/16/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper: Evan
Drill Rig: Geoprobe 6600
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 19'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-14'
Screen Interval/Screen Type: 14'-19'; 2" pvc; 0.020" slot
Grout: 0'-13'
Sand Pack/Open Borehole: 13'-19'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
1				24		SAND, medium, light reddish brown.; trace of gravel.
2		0				
3						
4						
5						
6		0		24		
7		0				
8						Sand, silt, and gravel; light to dark brown. Occ. cinders. Color and texture very highly variable. FILL. Wet.
9						
10						
11		0		42		
12		0				Peat and clay, brown.
13						
14		0				SAND, fine, gray.
15						
16		0		36		SAND, fine, pinkish gray. Wet.
17						
18		0				SAND, fine; some silt; grayish pink. Wet.
19						
20						
21						End of boring at 20'. Set well at 19'.
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-18I
Start Date: 12/16/08

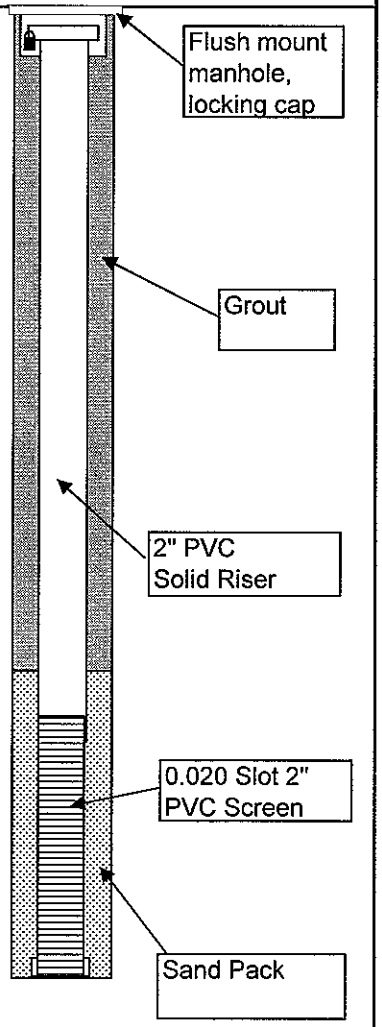
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 12/16/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper: Evan
Drill Rig: Geoprobe 6600
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-14'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 19'
Screen Interval/Screen Type: 14'-19'; 2" pvc; 0.020" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-13'
Sand Pack/Open Borehole: 13'-19'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION	DEPTH (FT.)
1		0		30		Silt, sand, and gravel; gray to red to brown; very heterogeneous. Abundant concrete and brick fragments. FILL.	1
2		0					2
3							3
4							4
5							5
6							6
7							7
8						No recovery.	8
9							9
10							10
11		0		18		FILL (as above).	11
12						Peat and clay, brown.	12
13							13
14							14
15							15
16				60		SAND, fine, gray; with some silt near top, grading down to little s Wet and soupy below 17'. Slight sheen on water at 17'.	16
17			60				17
18							18
19			18				19
20							20
21						End of boring at 20'. Set well at 19'.	21
22							22
23							23
24							24

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-19S
Start Date: 12/16/08

Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 12/16/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper: Evan
Drill Rig: Geoprobe 6600
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore
G.W. Encountered:
G.W. Stabilized:
Well Depth: 10'
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"

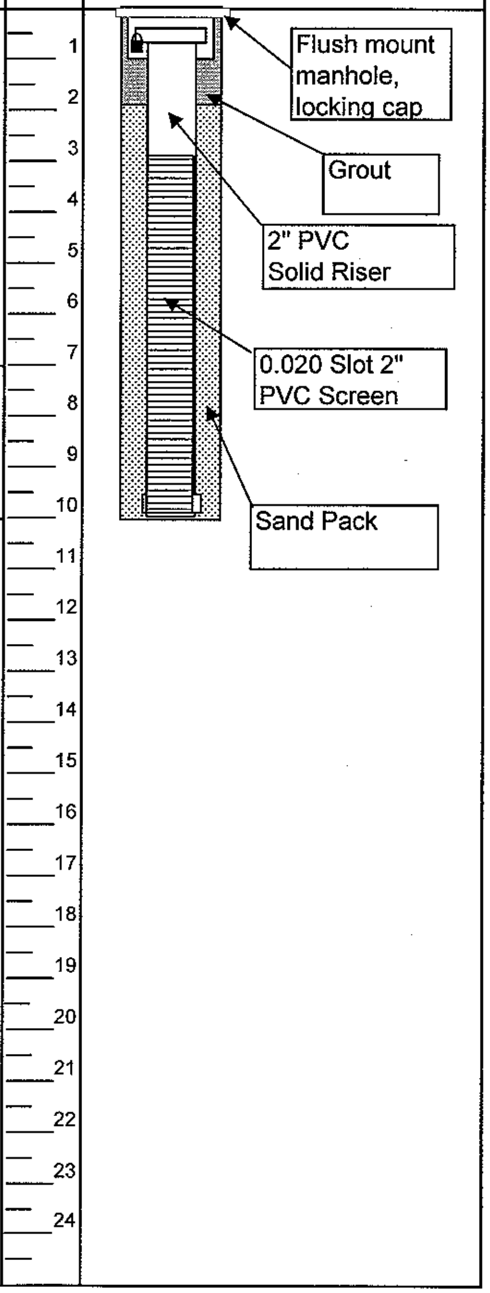
WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-3'
Screen Interval/Screen Type: 3'-7'; 2" pvc; 0.020" slot
Grout: 0'-2'
Sand Pack/Open Borehole: 2'-10'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OUA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
1		2		30		Silt and fine to medium sand; brown; trace gravel. FILL.
2						
3						
4						
5						
6		2		42		
7						
8		40				Silt and fine to medium sand, dark gray to black; little angular gravel. Strong Hc odor. Wet below 6'. FILL.
9						
10						
11						End of boring at 10'.
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

DEPTH (FT.)

WELL CONSTRUCTION DIAGRAM (N.T.S)



Environmental Waste Management Associates, LLC
PO Box 5430, Parsippany, NJ, 07054
Phone: (973) 560-1400 Fax:(973) 560-0400

EWMA Job #: 205490
Well #: MW-20I
Start Date: 12/17/08

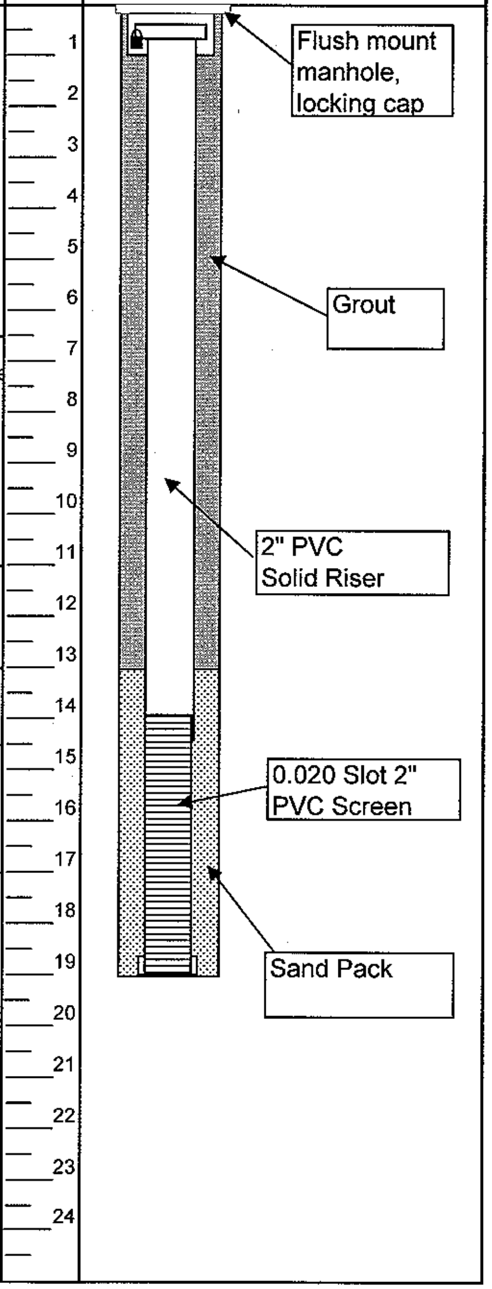
Site: 5-20 46th Road, Long Island City, NY
Well Permit #:
Completion Date: 12/17/08
Geologist: Chris Viani
Drilling Co.: Zebra
Driller/Helper: Evan
Drill Rig: Geoprobe 6600
Drilling Method: 6-inch OD HSA
Type of Bit: -
Sampler Type: 5-ft macrocore

WELL LOCATION SKETCH (N.T.S)

Solid Riser: 0'-14'
G.W. Encountered:
G.W. Stabilized:
Well Depth: 19'
Screen Interval/Screen Type: 14'-19'; 2" pvc; 0.020" slot
Depth to Rim:
Borehole Diameter: 6"
Well Diameter: 2"
Grout: 0'-13'
Sand Pack/Open Borehole: 13'-19'

DEPTH (FT.)	SAMPLE ID AND DEPTH	PID/FID/OVA (METER UNITS)	BLOWS/6.0	RECOVERY (INCHES)	SOIL TYPE	SOIL/GEOLOGICAL DESCRIPTION
1		0		36		SAND, medium to coarse; little gravel; dark brown to black to buff. Abundant cinders and brick. FILL.
2		0				
3						
4						
5						
6		0		36		
7		0				Silt and fine to medium sand; dark brown to brown to black; trace gravel. Very heterogeneous. Moist. FILL.
8						
9						
10						
11		4		48		Peat and clay, brown.
12		11				
13						
14		0				Fine sand and clay, greenish brown. Very moist.
15						SAND, fine, little silt; greenish gray
16		60		60		
17						
18						SAND, fine; little silt; pinkish gray. Wet. No sheen; slight Hc odor.
19						
20						End of boring at 20'. Set well at 19'.
21						
22						
23						
24						

WELL CONSTRUCTION DIAGRAM (N.T.S)



Appendix – 2

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 3/4/2008

Water Quality Parameters

MW-01		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	8.57	11:05	5.97	2.07	337	3.22	12.3	-107
Depth to Water (final)	8.65	11:10	5.99	2.13	147	3.27	11.7	-69
Depth of Well (ft)	13.50	11:15	6.03	2.16	136	3.31	11.7	-45
Well Diameter (in)	4.00	11:20	6.11	2.21	124	3.38	11.7	-37
Screen Length (ft)	unknown	11:25	6.11	2.23	123	3.4	11.8	-46
Casing Type	unknown							
PID (initial)	0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.08							
Purge Start Time	11:05							
Purge End / Sample Time	11:25							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2							
Depth To Product	ND							
Odor	slight							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Water Quality Parameters

GW-02		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	9.25	14:10	6.51	2.060	51.7	0.18	12.66	-16
Depth to Water (final)	9.45	14:15	6.49	2.090	50.5	0.22	12.4	-26
Depth of Well (ft)	14.90	14:20	6.51	2.110	55.4	0.26	12.21	-34
Well Diameter (in)	2.00	14:25	6.50	2.100	58.9	0.27	12.2	-38
Screen Length (ft)	9.90							
Casing Type	unknown							
PID (initial)	0.0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	12:55							
Purge End / Sample Time	13:10							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	7.85							
Odor	none							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 4/1/2008

Water Quality Parameters

MW-01		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	8.65	14:10	7.22	1.08	11	2.42	12.1	84
Depth to Water (final)	8.80	14:15	7.23	1.08	119	2.39	11.8	86
Depth of Well (ft)	13.50	14:20	7.28	1.09	122	2.33	11.7	83
Well Diameter (in)	4.00	14:25	7.27	1.10	109	2.31	11.7	81
Screen Length (ft)	unknown							
Casing Type	unknown							
PID (initial)	0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.15							
Purge Start Time	14:10							
Purge End / Sample Time	14:25							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	slight							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Water Quality Parameters

GW-5/MW-02		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	8.80	0:00	6.25	2.050	122	0.18	14.28	-26
Depth to Water (final)	8.95	13:00	6.26	2.080	127	0.23	14.27	-27
Depth of Well (ft)	14.70	13:05	6.27	2.100	119	0.22	14.25	-28
Well Diameter (in)	2.00	13:10	6.29	2.120	115	0.19	14.25	-31
Screen Length (ft)	9.70							
Casing Type	unknown							
PID (initial)	0.0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	1.40							
Purge Start Time	12:55							
Purge End / Sample Time	13:10							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	7.85							
Odor	none							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Project Name:	OCA/Long Island City
Project Location:	Long Island City, NY
Project Number:	205490
EWMA Personnel:	Ron Weissbard
Weather:	
Date:	3/4/2008

Water Quality Parameters

MW-06-S		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	8.30	10:15	8.13	1.77	768	0.33	12.9	-83
Depth to Water (final)	8.35	10:20	8.06	1.76	714	0.27	12.4	-83
Depth of Well (ft)	11.00	10:25	8.04	1.77	718	0.26	12.8	-83
Well Diameter (in)	2.00	10:30	8.03	1.74	721	0.26	12.8	-83
Screen Length (ft)	5.00							
Casing Type	sand pack							
PID (initial)	41.6ppm							
PID (final)	40.4							
Pump Type	*							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.05							
Purge Start Time	10:15							
Purge End / Sample Time	10:30							
Purge Rate (LPM)	0.2							
Purge Volume (L)	3							
Depth To Product	8.1							
Odor	strong							

Comments:
*Pump used: Marschalk Bladder

Water Quality Parameters

MW-06-I		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	11.10	11:55	7.92	1.810	158	0.18	15.2	-66
Depth to Water (final)	11.20	12:00	7.91	1.820	161	0.19	15.5	-68
Depth of Well (ft)	20.00	12:05	7.91	1.820	162	0.2	15.5	-67
Well Diameter (in)	2.00	12:10	7.91	1.820	166	0.25	15.3	-65
Screen Length (ft)	5.00	12:15	7.91	1.840	167	0.19	15.2	-64
Casing Type	sand pack							
PID (initial)	9.3							
PID (final)	9.0							
Pump Type	*							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	11:55							
Purge End / Sample Time	12:15							
Purge Rate (LPM)	0.2							
Purge Volume (L)	4							
Depth To Product	ND							
Odor	slight							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather: 50 degrees, sunny
Date: 3/3/2008

Water Quality Parameters

MW-04-S		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	6.70	15:00	6.11	4.26	673	0.02	10.8	-51
Depth to Water (final)	6.80	15:05	6.21	5.14	681	0.11	10.7	-80
Depth of Well (ft)	10.80	15:10	6.37	5.07	692	0.13	10.8	-85
Well Diameter (in)	2.00	15:15	6.47	5.10	674	0.11	10.8	-84
Screen Length (ft)	5.00	15:20	6.49	4.90	655	0.12	10.9	-87
Casing Type	sand pack	15:25	6.48	5.01	631	0.12	10.9	-90
PID (initial)	29.2	15:30	6.50	4.980	647	0.13	10.89	-88
PID (final)	29.0							
Pump Type	*							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.05							
Purge Start Time	15:00							
Purge End / Sample Time	15:30							
Purge Rate (LPM)	0.15							
Purge Volume (L)	4.5							
Depth To Product	ND							
Odor	slight							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Water Quality Parameters

MW-04-I		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	10.85	15:00	7.58	0.440	565	0.39	15.2	-110
Depth to Water (final)	10.90	15:05	7.58	0.428	561	0.31	15.2	-113
Depth of Well (ft)	18.60	15:10	7.58	0.421	574	0.35	15.1	-110
Well Diameter (in)	2.00	15:15	7.58	0.441	571	0.3	15.1	-111
Screen Length (ft)	5.00							
Casing Type	sand pack							
PID (initial)	2.6ppm							
PID (final)	2.5							
Pump Type	*							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.05							
Purge Start Time	15:00							
Purge End / Sample Time	15:15							
Purge Rate (LPM)	0.2							
Purge Volume (L)	3							
Depth To Product	ND							
Odor	slight							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather: 50 degrees, sunny
Date: 3/3/2008

Water Quality Parameters

MW- 03-S		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	6.80	11:40	7.55	0.53	256	0.39	12.8	104
Depth to Water (final)	6.90	11:45	7.42	0.50	231	0.27	12.3	89
Depth of Well (ft)	9.80	11:50	7.41	0.47	243	0.23	12.3	72
Well Diameter (in)	2.00	11:55	7.43	0.44	237	0.22	12.3	84
Screen Length (ft)	5.00	12:00	7.46	0.42	245	0.21	12.5	84
Casing Type	sand pack	12:05	7.47	0.41	247	0.20	12.5	88
PID (initial)	0	12:10	7.48	0.396	240	0.2	12.6	85
PID (final)	0.0	12:15	7.48	0.392	250	0.21	12.6	84
Pump Type	*	12:20	7.48	0.392	243	0.22	12.6	84
Tubing Type	teflon							
Max. Drawdown (ft)	0.05							
Purge Start Time	11:40							
Purge End / Sample Time	12:20							
Purge Rate (LPM)	0.1							
Purge Volume (L)	4							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder							

Water Quality Parameters

MW-03-I		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	10.90	12:00	6.24	4.900	751	0.1	16.85	55
Depth to Water (final)	11.00	12:05	6.44	4.940	767	0.11	17.41	68
Depth of Well (ft)	19.10	12:10	6.48	4.840	743	0.12	17.25	50
Well Diameter (in)	2.00	12:15	6.45	4.820	771	0.13	17.24	49
Screen Length (ft)	5.00	12:20	6.47	4.830	762	0.12	17.3	44
Casing Type	sand pack	12:25	6.46	4.830	757	0.12	17.3	48
PID (initial)	0.0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	12:00							
Purge End / Sample Time	12:25							
Purge Rate (LPM)	0.15							
Purge Volume (L)	3.75							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 2/29/2008

Water Quality Parameters

MW-3D		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	9.80	9:40	7.16	3.63	986	0	14.9	-78
Depth to Water (final)	9.90	9:45	7.42	3.86	990	0	15.2	-108
Depth of Well (ft)	28.00	9:50	7.48	3.89	996	0	15.3	-119
Well Diameter (in)	2.00	9:55	7.53	4.17	972	0	15.4	-128
Screen Length (ft)	5.00	10:00	7.54	4.22	981	0	15.3	-130
Casing Type	sand pack	10:05	7.56	4.28	975	0.00	15.0	-131
PID (initial)	0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	9:40							
Purge End / Sample Time	10:05							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2.5							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Water Quality Parameters

GW-4		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	8.20	13:05	8.19	9.990	503	1.84	11.35	-141
Depth to Water (final)	8.30	13:10	7.73	9.990	485	1.86	11.66	-153
Depth of Well (ft)	15.20	13:15	7.76	9.998	513	1.83	11.67	-150
Well Diameter (in)	2.00	13:20	7.71	9.997	525	1.81	11.67	-151
Screen Length (ft)	9.60							
Casing Type	unknown							
PID (initial)	2.3ppm							
PID (final)	2.1ppm							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	13:05							
Purge End / Sample Time	13:20							
Purge Rate (LPM)	0.2							
Purge Volume (L)	3							
Depth To Product	7.4							
Odor	slight							

Comments:
*Pump used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather: 25 degrees, sunny
Date: 2/29/2008

Water Quality Parameters

MW-5I		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	10.10	8:15	8.25	2.54	850	0.22	13.4	-154
Depth to Water (final)	10.20	8:20	8.29	2.59	855	0.24	13.3	-157
Depth of Well (ft)	21.30	8:25	8.30	2.62	840	0.26	13.5	-160
Well Diameter (in)	2.00	8:30	8.24	2.74	845	0.27	14.0	-161
Screen Length (ft)	5.00							
Casing Type	sand pack							
PID (initial)	0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	8:15							
Purge End / Sample Time	8:30							
Purge Rate (LPM)	0.2							
Purge Volume (L)	3							
Depth To Product	ND							
Odor	strong odor							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder							

Water Quality Parameters

MW-5S		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	7.40	9:30	9.53	0.550	999	0.82	7.2	
Depth to Water (final)	7.50	9:35	9.53	0.537	985	0.79	7.1	
Depth of Well (ft)	11.10	9:40	9.53	0.535	973	0.76	7.2	
Well Diameter (in)	2.00	9:45	9.54	0.533	961	0.82	7.2	
Screen Length (ft)	5.00	9:50	9.52	0.531	950	0.82	7.1	
Casing Type	sand pack							
PID (initial)	0.0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	9:30							
Purge End / Sample Time	9:50							
Purge Rate (LPM)	0.2							
Purge Volume (L)	4							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 2/26/2008

Water Quality Parameters

TW-1		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	13.50	10:25	7.18	1.79	351	0	13.8	-155
Depth to Water (final)	13.70	10:30	7.19	1.89	303	0	15.7	-166
Depth of Well (ft)	18.00	10:35	7.29	1.71	351	0	15.6	-186
Well Diameter (in)	1.00	10:40	7.31	1.81	334	0	16.1	-193
Screen Length (ft)	5.00	10:45	7.33	1.82	342	0	16.3	-195
Casing Type	stnlss stl	10:50	7.33	1.79	326	0.00	16.4	-195
PID (initial)	25ppm							
PID (final)	31ppm							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	10:25							
Purge End / Sample Time	10:50							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2.5							
Depth To Product	ND							
Odor	strong odor							
Comments:	ND = Not Detected X mechanical bladder pump							

Water Quality Parameters

TW-2		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	7.00	12:10	7.14	1.570	157	0	12.62	-40
Depth to Water (final)	7.30	12:15	7.13	1.610	163	0.00	14.45	-87
Depth of Well (ft)	11.00	12:20	7.16	1.590	148	0	14.28	-89
Well Diameter (in)	1.00	12:25	7.19	1.620	152	0	14.17	-89
Screen Length (ft)	5.00							
Casing Type	stnlss stl							
PID (initial)	13ppm							
PID (final)	9ppm							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.30							
Purge Start Time	12:10							
Purge End / Sample Time	12:25							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 2-25-08 and 2-26-08

Water Quality Parameters

TW-10		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	13.00	14:45	2.62	1.65	543	0.62	13.4	-90
Depth to Water (final)	13.20	14:50	2.63	1.62	590	0.61	13.8	-94
Depth of Well (ft)	29.00	14:55	2.64	1.62	567	0.6	13.7	-95
Well Diameter (in)	1.00	15:00	2.64	1.62	545	0.6	13.8	-97
Screen Length (ft)	5.00							
Casing Type	stnlss stl							
PID (initial)	2.4ppm							
PID (final)	1.7ppm							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	14:45							
Purge End / Sample Time	15:00							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	slight							
Comments:	ND = Not Detected X mechanical bladder pump							

Water Quality Parameters

TW-RCRA-3		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	13.00	8:40	6.57	1.640	857	0	13.4	-162
Depth to Water (final)	13.20	8:45	6.96	1.590	912	0.00	13.8	-178
Depth of Well (ft)	29.40	8:50	6.94	1.580	907	0	14.11	-181
Well Diameter (in)	1.00	8:55	6.97	1.560	923	0	14.61	-184
Screen Length (ft)	5.00	9:00	7.01	1.560	900	0	14.89	-185
Casing Type	stnlss stl							
PID (initial)	15ppm							
PID (final)	16ppm							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	8:40							
Purge End / Sample Time	9:00							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2							
Depth To Product	ND							
Odor	slight							
Comments:	ND = Not Detected X mechanical bladder pump							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 2/25/2008

Water Quality Parameters

TW-4		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	10.35	10:00	4.12	1.29	751	0.68	9.2	45
Depth to Water (final)	10.40	10:05	4.19	1.28	782	0.67	9.5	46
Depth of Well (ft)	11.00	10:10	4.21	1.29	741	0.71	9.3	44
Well Diameter (in)	1.00	10:15	4.22	1.27	750	0.71	8.9	47
Screen Length (ft)	5.00							
Casing Type	stnlss stl							
PID (initial)	11ppm							
PID (final)	7ppm							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.05							
Purge Start Time	10:00							
Purge End / Sample Time	10:15							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Water Quality Parameters

TW-14		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	12.80	12:30	6.43	4.550	985	0	14.67	-149
Depth to Water (final)	12.90	12:35	6.41	4.510	999	0.00	13.81	-150
Depth of Well (ft)	28.00	12:40	6.42	4.510	999	0	13.85	-155
Well Diameter (in)	1.00	12:45	6.51	4.400	999	0	14.16	-159
Screen Length (ft)	5.00							
Casing Type	stnlss stl							
PID (initial)	14ppm							
PID (final)	11ppm							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	12:30							
Purge End / Sample Time	12:45							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 3/4/2008

Water Quality Parameters

GW3		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	**	12:40	8.02	1.85	155	0.36	12.9	?
Depth to Water (final)	**	12:45	7.96	1.84	158	0.33	12.7	?
Depth of Well (ft)	14.40	12:50	7.97	1.83	157	0.44	12.5	?
Well Diameter (in)	2.00	12:55	7.97	1.79	157	0.38	11.9	?
Screen Length (ft)	10.00							
Casing Type	unknown							
PID (initial)	52							
PID (final)	48.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	**							
Purge Start Time	12:40							
Purge End / Sample Time	12:55							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	8.2							
Odor	strong							

Comments: ** - product in well prevented water level measurement
*Pump used: Marschalk Bladder

GW-2		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	9.25	**12:40**	**8.02**	**1.85**	**155**	**0.36**	**12.9**	**?**
Depth to Water (final)	9.40	**12:45**	**7.96**	**1.84**	**158**	**0.33**	**12.7**	**?**
Depth of Well (ft)	14.90	**12:50**	**7.97**	**1.83**	**157**	**0.44**	**12.5**	**?**
Well Diameter (in)	2.00	**12:55**	**7.97**	**1.79**	**157**	**0.38**	**11.9**	**?**
Screen Length (ft)	9.90							
Casing Type	unknown							
PID (initial)	0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.15							
Purge Start Time	**12:40**							
Purge End / Sample Time	**12:55**							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	-							
Odor	none							

Comments:
*Pump used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 2/20/2008

Water Quality Parameters

TW-RCRA-2		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	7.50	11:15	7.06	2.54	427	0.58	10.3	118
Depth to Water (final)	7.70	11:20	7.11	2.63	627	0.64	7.3	117
Depth of Well (ft)	12.00	11:25	7.04	2.42	999	0.53	11.0	115
Well Diameter (in)	1.00	11:30	7.04	2.45	999	0.59	8.8	113
Screen Length (ft)	5.00	11:35	7.02	2.46	999	0.56	9.2	116
Casing Type	stnlss stl	11:40	7.02	2.49	999	0.57	8.9	116
PID (initial)	0							
PID (final)	0.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	11:15							
Purge End / Sample Time	11:40							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Water Quality Parameters

TW-16		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	7.50	15:00	7.36	1.190	341	0.54	10	-145
Depth to Water (final)	7.70	15:05	7.18	1.200	394	0.61	9.84	-148
Depth of Well (ft)	12.50	15:10	7.16	1.230	352	0.55	9.85	-147
Well Diameter (in)	1.00	15:15	7.18	1.170	390	0.58	9.87	-151
Screen Length (ft)	5.00	15:20	7.18	1.170	376	0.54	9.84	-143
Casing Type	stnlss stl							
PID (initial)	32ppm							
PID (final)	27ppm							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	15:00							
Purge End / Sample Time	15:20							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 2/21/2008

Water Quality Parameters

TW-RCRA-1		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	6.60	10:15	6.91	1.40	999	0.71	6.6	-163
Depth to Water (final)	6.80	10:20	6.81	1.81	999	0.57	9.7	-120
Depth of Well (ft)	11.30	10:25	6.78	1.82	999	0.54	9.9	-92
Well Diameter (in)	1.00	10:30	6.77	1.80	999	0.54	9.5	-78
Screen Length (ft)	5.00	10:35	6.76	1.79	999	0.52	9.9	-78
Casing Type	stnlss stl	10:40	6.75	1.80	999	0.52	10.1	-75
PID (initial)	17ppm	10:45	6.75	1.800	999	0.51	10.2	-73
PID (final)	14.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	10:15							
Purge End / Sample Time	10:45							
Purge Rate (LPM)	0.1							
Purge Volume (L)	3							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected
X mechanical bladder pump

Water Quality Parameters

TW-8		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	6.70	2:25	7.01	1.240	384	0.74	13.51	-155
Depth to Water (final)	6.90	2:30	6.98	1.260	367	0.69	13.3	-157
Depth of Well (ft)	11.00	2:35	6.97	1.240	391	0.72	13.69	-164
Well Diameter (in)	1.00	2:40	6.96	1.220	375	0.71	13.42	-162
Screen Length (ft)	5.00							
Casing Type	stnlss stl							
PID (initial)	0.0							
PID (final)	0.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	2:25							
Purge End / Sample Time	2:40							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected
X mechanical bladder pump

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather: Sunny 65
Date: 2/15/2008 and 2/19/08

Water Quality Parameters

TW-16		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	7.60	12:25	8.50	0.26	600	0.58	9.8	188
Depth to Water (final)	7.80	12:30	8.44	0.27	150	0.63	10.0	122
Depth of Well (ft)	12.00	12:35	8.07	0.47	585	0.65	10.1	117
Well Diameter (in)	1.00	12:40	8.09	0.45	446	0.63	10.0	120
Screen Length (ft)	5.00	12:45	8.00	0.47	409	0.68	10.1	118
Casing Type	stnlss stl	12:50	7.97	0.56	445	0.67	10.0	123
PID (initial)	16ppm	12:55	7.97	0.604	396	0.64	10	120
PID (final)	14.0	13:00	8.04	0.614	509	0.61	10	117
Pump Type	X	13:05	8.07	0.615	483	0.6	10	120
Tubing Type	teflon	13:10	8.05	0.616	495	0.6	10	122
Max. Drawdown (ft)	0.20	13:15	8.03	0.611	503	0.58	10	120
Purge Start Time	12:25							
Purge End / Sample Time	13:15							
Purge Rate (LPM)	0.1							
Purge Volume (L)	5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Water Quality Parameters

TW-17		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	7.55	11:10	5.74	1.150	685	0.19	9.4	-15
Depth to Water (final)	7.65	11:15	5.88	2.130	555	0.30	9.3	-17
Depth of Well (ft)	12.55	11:20	6.18	2.140	506	0.18	9.3	-20
Well Diameter (in)	1.00	11:25	6.17	2.150	380	0.19	9	-54
Screen Length (ft)	5.00	11:30	6.32	2.170	311	0.18	9.1	-99
Casing Type	stnlss stl	11:35	6.32	2.180	274	0.19	9.3	-120
PID (initial)	4ppm	11:40	6.31	2.190	245	0.2	9.5	-134
PID (final)	7ppm	11:45	6.31	2.210	225	0.21	9.6	-137
Pump Type	X	11:50	6.29	2.210	232	0.19	9.5	-140
Tubing Type	teflon	11:55	6.30	2.210	221	0.18	9.5	-142
Max. Drawdown (ft)	0.10							
Purge Start Time	11:10							
Purge End / Sample Time	11:55							
Purge Rate (LPM)	0.1							
Purge Volume (L)	4.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Ron Weissbard
Weather:
Date: 2/19/2008 and 2/20/08

Water Quality Parameters

TW-18		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	7.13	14:40	6.04	3.40	999	0.7	10.6	95
Depth to Water (final)	7.20	14:45	6.03	3.41	999	0.79	11.5	96
Depth of Well (ft)	13.75	14:50	6.00	3.44	999	0.78	10.9	91
Well Diameter (in)	1.00	14:55	5.96	3.46	999	0.77	10.2	93
Screen Length (ft)	5.00							
Casing Type	stnlss stl							
PID (initial)	0							
PID (final)	0.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.07							
Purge Start Time	14:40							
Purge End / Sample Time	14:55							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Water Quality Parameters

TW-19		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	7.00	9:25	7.37	1.630	939	0.51	7	168
Depth to Water (final)	7.50	9:30	7.28	1.620	932	0.65	6.5	160
Depth of Well (ft)	12.50	9:35	7.19	1.590	839	0.67	6.1	156
Well Diameter (in)	1.00	9:40	7.14	1.600	718	0.7	5.4	154
Screen Length (ft)	5.00	9:45	7.11	1.600	688	0.74	4.8	153
Casing Type	stnlss stl	9:50	7.07	1.580	687	0.72	4.9	150
PID (initial)	0.0	9:55	7.04	1.580	655	0.73	5	151
PID (final)	0.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.50							
Purge Start Time	9:25							
Purge End / Sample Time	9:55							
Purge Rate (LPM)	0.1							
Purge Volume (L)	3							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Brian Healey
Weather:
Date: 3/4/2008

Water Quality Parameters

MW-01		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	8.57	11:05	5.97	2.07	337	3.22	12.3	-107
Depth to Water (final)	8.70	11:10	5.99	2.13	147	3.27	11.7	-69
Depth of Well (ft)	13.50	11:15	6.03	2.16	136	3.31	11.7	-45
Well Diameter (in)	4.00	11:20	6.11	2.21	124	3.38	11.7	-37
Screen Length (ft)	unknown	11:25	6.11	2.23	123	3.4	11.8	-46
Casing Type	unknown							
PID (initial)	0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.13							
Purge Start Time	11:05							
Purge End / Sample Time	11:25							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2							
Depth To Product	ND							
Odor	slight							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder							

Water Quality Parameters

GW-1		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	8.76	12:55	6.25	2.050	122	0.18	14.28	-26
Depth to Water (final)	8.90	13:00	6.26	2.080	127	0.23	14.27	-27
Depth of Well (ft)	14.70	13:05	6.27	2.100	119	0.22	14.25	-28
Well Diameter (in)	2.00	13:10	6.29	2.120	115	0.19	14.25	-31
Screen Length (ft)	9.70							
Casing Type	unknown							
PID (initial)	0.0							
PID (final)	0.0							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	1.40							
Purge Start Time	12:55							
Purge End / Sample Time	13:10							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Jacob Strauss
Weather:
Date: 2/21/2008

Water Quality Parameters

TW-11		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	7.20	12:25	7.29	1.78	999	0.38	9.0	-160
Depth to Water (final)	7.30	12:30	7.46	1.73	951		10.2	-175
Depth of Well (ft)	12.10	12:35	7.48	1.77	480		10.0	-176
Well Diameter (in)	1.00	12:40	7.46	1.77	506		10.2	-178
Screen Length (ft)	5.00	12:45	7.48	1.78	436		10.2	-180
Casing Type	stnlss stl	12:50	7.47	1.78	461		9.8	-182
PID (initial)	102ppm							
PID (final)	100.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	12:25							
Purge End / Sample Time	12:50							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2.5							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected
X mechanical bladder pump

Water Quality Parameters

TW-12		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	9.80	13:30	7.27	0.970	999	0.58	10.5	-556
Depth to Water (final)	10.10	13:35	7.25	1.220	999		10.1	-610
Depth of Well (ft)	12.30	13:40	7.24	1.310	999		10.1	-651
Well Diameter (in)	1.00	13:45	7.20	1.340	999		10	-740
Screen Length (ft)	5.00	13:50	7.18	1.350	999	0.55	9.7	-799
Casing Type	stnlss stl	13:55	7.17	1.370	999		9.6	-801
PID (initial)	0.0	14:00	7.17	1.380	999		9	-817
PID (final)	0.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.30							
Purge Start Time	13:30							
Purge End / Sample Time	14:00							
Purge Rate (LPM)	0.1							
Purge Volume (L)	3							
Depth To Product	ND							
Odor	sulfur odor							

Comments: ND = Not Detected
X mechanical bladder pump

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Jacob Strauss
Weather:
Date: 2/20/2008

Water Quality Parameters

TW-RCRA-4		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	7.00	14:25	7.00	1.03	999	0.56	11.3	103
Depth to Water (final)	7.10	14:30	6.91	1.02	999	0.55	11.7	98
Depth of Well (ft)	12.00	14:35	6.96	1.02	999	0.54	12.2	96
Well Diameter (in)	1.00	14:40	6.94	1.02	999	0.54	11.8	94
Screen Length (ft)	5.00							
Casing Type	stnlss stl							
PID (initial)	0							
PID (final)	0.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	14:25							
Purge End / Sample Time	14:40							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Water Quality Parameters

TW-15		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	6.90	9:15	7.02	1.660	848	0.11	8.8	-185
Depth to Water (final)	7.60	9:20	7.13	1.650	635	0.11	9.9	-213
Depth of Well (ft)	12.20	9:25	7.26	1.650	272	0.09	10.2	-246
Well Diameter (in)	1.00	9:30	7.31	1.620	199	0.08	10.7	-258
Screen Length (ft)	5.00	9:35	7.40	1.650	179	0.09	9.9	-275
Casing Type	stnlss stl	9:40	7.41	1.640	168	0.08	9.6	-280
PID (initial)	0.0	9:45	7.42	1.640	166	0.08	9.5	-283
PID (final)	0.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.70							
Purge Start Time	9:15							
Purge End / Sample Time	9:45							
Purge Rate (LPM)	0.1							
Purge Volume (L)	3							
Depth To Product	ND							
Odor	sulfer odor							
Comments:	ND = Not Detected X mechanical bladder pump							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Brian Healey
Weather:
Date: 3/4/2008

Water Quality Parameters

MW-07S		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	7.80	8:30	6.59	2.11	612	0.13	11.6	-114
Depth to Water (final)		8:35	6.63	2.09	633	0.15	11.5	-117
Depth of Well (ft)	10.70	8:40	6.78	2.10	637	0.13	11.4	-134
Well Diameter (in)		8:45	6.80	2.09	648	0.11	11.4	-132
Screen Length (ft)		8:50	6.82	2.08	618	0.1	11.4	-137
Casing Type		8:55	6.82	2.08	595	0.11	11.4	-139
PID (initial)	13ppm							
PID (final)	11.0							
Pump Type	*							
Tubing Type								
Max. Drawdown (ft)								
Purge Start Time	8:30							
Purge End / Sample Time	8:55							
Purge Rate (LPM)								
Purge Volume (L)								
Depth To Product	7.5							
Odor	None							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Water Quality Parameters

MW-07I		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	9.95	8:15	7.81	2.180	700	0.2	14.2	-48
Depth to Water (final)		8:20	7.91	2.160	707	0.18	14.8	-33
Depth of Well (ft)	19.50	8:25	7.79	2.130	713	0.17	15.2	-31
Well Diameter (in)		8:30	7.74	2.120	719	0.16	15.4	-38
Screen Length (ft)		8:35	7.72	2.120	724	0.17	15.3	-37
Casing Type								
PID (initial)	0.5ppm							
PID (final)	0.3ppm							
Pump Type	*							
Tubing Type								
Max. Drawdown (ft)								
Purge Start Time	8:15							
Purge End / Sample Time	8:35							
Purge Rate (LPM)								
Purge Volume (L)								
Depth To Product								
Odor								

Comments: ND = Not Detected
*Pump used: Marschalk Bladder

Project Name:	OCA/Long Island City
Project Location:	Long Island City, NY
Project Number:	205490
EWMA Personnel:	Ron Weissbard
Weather:	20 degrees and snowing
Date:	2/22/2008

Water Quality Parameters

TW-3		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	10.20	8:10	7.88	1.65	417	0.15	11.6	-174
Depth to Water (final)	10.30	8:15	7.84	1.59	433	0.18	11.9	-169
Depth of Well (ft)	11.80	8:20	7.81	1.58	425	0.16	11.6	-164
Well Diameter (in)	1.00	8:25	7.82	1.61	491	0.19	11.7	-170
Screen Length (ft)	5.00							
Casing Type	stnlss stl							
PID (initial)	5ppm							
PID (final)	3ppm							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	8:10							
Purge End / Sample Time	8:25							
Purge Rate (LPM)	0.1							
Purge Volume (L)	1.5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Water Quality Parameters

TW-9		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	10.00	9:35	7.13	1.260	657	0.54	10.8	-148
Depth to Water (final)	10.10	9:40	7.15	1.270	587	0.54	10.7	-118
Depth of Well (ft)	11.40	9:45	7.13	1.270	593	0.57	10.5	-122
Well Diameter (in)	1.00	9:50	7.11	1.260	600	0.55	10.4	-125
Screen Length (ft)	5.00	9:55	7.15	1.260	608	0.57	10.7	-126
Casing Type	stnlss stl							
PID (initial)	0.0							
PID (final)	0.0							
Pump Type	X							
Tubing Type	teflon							
Max. Drawdown (ft)	0.10							
Purge Start Time	9:35							
Purge End / Sample Time	9:55							
Purge Rate (LPM)	0.1							
Purge Volume (L)	2							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected X mechanical bladder pump							

Project Name:	OCA/Long Island City
Project Location:	Long Island City, NY
Project Number:	205490
EWMA Personnel:	Leeron Tagger, Dan DiRocco, Katherine Reuter
Weather:	
Date:	7/21-22/2008

Water Quality Parameters

MW-01		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (final)	9.69	14:15	6.63	1.32	*	*	21.40	-113
Depth to Water (final)	9.92	14:20	6.67	1.32	*	*	21.09	-124
Depth of Well (ft)	13.50	14:25	6.75	1.31	*	*	20.99	-132
Well Diameter (in)	4.00							
Screen Length (ft)	unknown							
Casing Type	unknown							
PID (initial)	0							
PID (final)	0.0							
Pump Type	Bladder							
Tubing Type	teflon							
Max. Drawdown (ft)	0.02							
Purge Start Time	2:10							
Purge End / Sample Time	2:25							
Purge Rate (LPM)	0.25							
Purge Volume (L)	3.75							
Depth To Product	ND							
Odor	Slight							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder
**Turbidity and DO Probe not working
* Not enough H20 in well to continue purge, sample at 14:26

Water Quality Parameters

GW-1		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	9.11	14:20	6.83	1.77	400	1.17	23.80	
Depth to Water (final)	9.32	14:25	6.78	1.77	127	0.29	25.53	
Depth of Well (ft)	14.70	14:30	6.78	1.77	135	0.31	25.66	
Well Diameter (in)	2.00	14:35	6.79	1.77	150	0.32	25.76	
Screen Length (ft)	9.70	14:40	6.79	1.77	132	0.33	25.82	
Casing Type	unknown	14:45	6.79	1.76	128	0.34	25.77	
PID (initial)	49.6	14:50	6.81	1.82	110	0.26	22.65	
PID (final)	49.6	14:55	6.82	1.80	105	0.19	22.12	
Pump Type	Bladder	15:00	6.82	1.80	75	0.19	22.12	
Tubing Type	teflon	15:05	6.82	1.80	43	0.19	22.12	
Max. Drawdown (ft)	0.03	15:10	6.82	1.75	38	0.17	22.12	
Purge Start Time	2:20							
Purge End / Sample Time	3:10							
Purge Rate (LPM)	0.25							
Purge Volume (L)	12.5							
Depth To Product	ND							
Odor	slight							

Comments: ND = Not Detected
*Pump used: Marschalk Bladder
**ORP Probe not working

Project Name:	OCA/Long Island City
Project Location:	Long Island City, NY
Project Number:	205490
EWMA Personnel:	Leeron Tagger, Dan DiRocco
Weather:	
Date:	7/21/2008

Water Quality Parameters

GW- 02		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	9.11	16:30	6.89	1.89	85.5	0.65	22.29	-98
Depth to Water (final)	9.33	16:35	6.86	1.88	53.3	0.33	22.12	-100
Depth of Well (ft)	14.40	16:40	6.85	1.87	49.0	0.28	22.04	-102
Well Diameter (in)	2.00	16:45	6.84	1.87	42.0	0.24	21.98	-103
Screen Length (ft)	10.00	16:50	6.83	1.86	34.8	0.23	21.70	-104
Casing Type	PVC							
PID (initial)	275							
PID (final)	275.0							
Pump Type	Bladder							
Tubing Type	teflon							
Max. Drawdown (ft)	0.02							
Purge Start Time	4:30							
Purge End / Sample Time	4:50							
Purge Rate (LPM)	0.25							
Purge Volume (L)	5							
Depth To Product	ND							
Odor	Yes							

Comments: *Pump used: Marshall Bladder

Water Quality Parameters

GW-03		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	NA							
Depth to Water (final)	NA							
Depth of Well (ft)	14.90							
Well Diameter (in)	2.00							
Screen Length (ft)	9.90							
Casing Type	unknown							
PID (initial)	275.0							
PID (final)	NA							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	0.20							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	6.98							
Odor	NA							

Comments: * Did not sample, product detected in well at 6.98'

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Katherine Reuter, Dan DiRocco
Weather:
Date: 7/17-18/2008

Water Quality Parameters

MW-3D		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	10.68	14:30	7.41	8.26	*	3.42	21.80	*
Depth to Water (final)	10.85	14:35	7.18	7.22	*	4.31	21.57	*
Depth of Well (ft)	26.45	14:40	7.16	3.49	*	4.48	21.25	*
Well Diameter (in)	2.00	14:45	1.18	3.48	*	4.47	21.26	*
Screen Length (ft)	5.00	14:50	7.18	3.46	*	4.46	21.25	*
Casing Type	sand pack	14:55	7.17	3.47	*	4.45	21.25	*
PID (initial)	10.8							
PID (final)	10.8							
Pump Type	Bladder							
Tubing Type	teflon							
Max. Drawdown (ft)	0.03							
Purge Start Time	2:30							
Purge End / Sample Time	2:55							
Purge Rate (LPM)	0.25							
Purge Volume (L)	6.25							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected **Turbidity and ORP Probe not working
*Pump used: Marschalk Bladder

Water Quality Parameters

GW-4		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	NA							
Depth to Water (final)	NA							
Depth of Well (ft)	15.20							
Well Diameter (in)	2.00							
Screen Length (ft)	9.60							
Casing Type	unknown							
PID (initial)	250.0							
PID (final)	NA							
Pump Type	*							
Tubing Type	teflon							
Max. Drawdown (ft)	NA							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	6.98							
Odor	slight							

Comments: *Did not sample well, product detected at 6.98'

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Dan DiRocco
Weather:
Date: 7/17/2008

Water Quality Parameters

GW-5/MW-02		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	NA							
Depth to Water (final)	ND							
Depth of Well (ft)	14.70							
Well Diameter (in)	2.00							
Screen Length (ft)	9.70							
Casing Type	unknown							
PID (initial)	1345.0							
PID (final)	NA							
Pump Type	NA							
Tubing Type	NA							
Max. Drawdown (ft)	NA							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	6.62							
Odor	Yes							
Comments:	ND- Did not sample, product detected in well. Product level could not be identified with interface probe							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Katherine Reuter
Weather:
Date: 7/18/2008

Water Quality Parameters

MW- 03-S		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	9.76	14:05	7.35	1.43	218	0.99	22.88	*
Depth to Water (final)	10.02	14:10	7.28	1.38	299	7.82	24.12	*
Depth of Well (ft)	10.40	14:15	7.27	1.38	369	5.32	25.97	*
Well Diameter (in)	2.00	14:20	7.34	1.37	365	6.54	26.87	*
Screen Length (ft)	5.00	14:25	7.48	1.36	306	6.92	27.81	*
Casing Type	sand pack	14:30	7.54	1.36	293	7.75	28.27	*
PID (initial)	4	14:35	7.61	1.340	148	7.77	29.26	*
PID (final)	4.0							
Pump Type	Bladder							
Tubing Type	teflon							
Max. Drawdown (ft)	0.04							
Purge Start Time	2:05							
Purge End / Sample Time	2:35							
Purge Rate (LPM)	0.25							
Purge Volume (L)	7.5							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected **ORP Probe not working
*Pump used: Marschalk Bladder *Not enough H20 in well to take additonal sample for filtering

Water Quality Parameters

MW-03-I		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	7.21							
Depth to Water (final)	NA							
Depth of Well (ft)	19.10							
Well Diameter (in)	2.00							
Screen Length (ft)	5.00							
Casing Type	sand pack							
PID (initial)	96.7							
PID (final)	NA							
Pump Type	*							
Tubing Type	NA							
Max. Drawdown (ft)	NA							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	unknown							
Odor								

Comments: Did not sample, product detected in well. Product level could not be identified with interface probe

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Dan DiRocco, Katherine Reuter
Weather:
Date: 7/17-18/2008

Water Quality Parameters

MW-04-S		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	7.97							
Depth to Water (final)	NA							
Depth of Well (ft)	10.80							
Well Diameter (in)	2.00							
Screen Length (ft)	5.00							
Casing Type	sand pack							
PID (initial)	743.8							
PID (final)	743.8							
Pump Type	NA							
Tubing Type	NA							
Max. Drawdown (ft)	NA							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	6.69							
Odor	Yes							

Comments: **Did not sample, product detected in well @ 6.69'**

Water Quality Parameters

MW-04-I		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	10.39	12:30	6.75	2.07	999	0.78	20.57	*
Depth to Water (final)	10.67	12:35	6.66	1.93	890.9	0.00	18.31	*
Depth of Well (ft)	18.60	12:40	6.71	1.88	45.4	0.01	18.24	*
Well Diameter (in)	2.00	12:45	6.70	1.87	44.2	0.00	18.07	*
Screen Length (ft)	5.00	12:50	6.70	1.88	46.8	0.01	18.07	*
Casing Type	sand pack							
PID (initial)	47.8							
PID (final)	47.8							
Pump Type	Bladder							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.03							
Purge Start Time	12:30							
Purge End / Sample Time	12:50							
Purge Rate (LPM)	0.25							
Purge Volume (L)	5							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected **ORP Probe not working
*Pump used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Katherine Reuter
Weather:
Date: 7/18/2008

Water Quality Parameters

MW-5I		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	10.20	10:25	6.98	0.00	66.8	7.61	30.28	*
Depth to Water (final)	10.48	10:30	6.90	0.00	67.5	8.81	23.83	*
Depth of Well (ft)	18.70	10:35	6.92	0.00	69.2	9.1	22.14	*
Well Diameter (in)	2.00	10:40	6.95	0.00	69.7	9.12	21.68	*
Screen Length (ft)	5.00	10:45	7.07	0.00	40.0	9.08	21.39	*
Casing Type	sand pack	10:50	7.05	0.00	40.2	9.02	21.17	*
PID (initial)	15							
PID (final)	15.0							
Pump Type	Bladder							
Tubing Type	teflon							
Max. Drawdown (ft)	0.05							
Purge Start Time	10:25							
Purge End / Sample Time	10:50							
Purge Rate (LPM)	0.25							
Purge Volume (L)	6.25							
Depth To Product	ND							
Odor	No							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder				**ORP Probe not working			

Water Quality Parameters

MW-5S		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	6.83	9:25	6.74	0.000	75.7	7.71	29.5	*
Depth to Water (final)	7.06	9:30	6.85	0.000	68.5	7.83	28.69	*
Depth of Well (ft)	9.45	9:35	6.93	0.000	68.2	7.87	28.37	*
Well Diameter (in)	2.00	9:40	6.97	0.000	68	7.87	28.4	*
Screen Length (ft)	5.00	9:45	6.99	0.000	67.7	7.83	28.63	*
Casing Type	sand pack							
PID (initial)	0.0							
PID (final)	0.0							
Pump Type	Blader							
Tubing Type	teflon							
Max. Drawdown (ft)	0.03							
Purge Start Time	9:25							
Purge End / Sample Time	9:45							
Purge Rate (LPM)	0.25							
Purge Volume (L)	5							
Depth To Product	ND							
Odor	none							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder		**ORP Probe not working *Not enough H20 in well to collect additional sample for filtering					

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Dan DiRocco
Weather:
Date: 7/17 & 21/2008

Water Quality Parameters

MW-06-S		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	10.40							
Depth to Water (final)	NA							
Depth of Well (ft)	11.00							
Well Diameter (in)	2.00							
Screen Length (ft)	5.00							
Casing Type	sand pack							
PID (initial)	NA							
PID (final)	NA							
Pump Type	NA							
Tubing Type	NA							
Max. Drawdown (ft)	NA							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	6.8							
Odor	strong							

Comments: *Did not sample well. Product detected at 6.8'

Water Quality Parameters

MW-06-I		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	9.79	11:55	6.77	1.76	278	1.55	21.43	*
Depth to Water (final)	10.01	12:00	6.81	2.06	56.1	0.55	22.54	*
Depth of Well (ft)	19.67	12:05	6.86	2.06	51.2	0.55	21.17	*
Well Diameter (in)	2.00	12:10	6.86	2.06	50.2	0.68	21.52	*
Screen Length (ft)	5.00	12:15	6.86	2.05	42.6	0.65	20.88	*
Casing Type	sand pack							
PID (initial)	0.6							
PID (final)	0.6							
Pump Type	Bladder							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.03							
Purge Start Time	11:55							
Purge End / Sample Time	12:11							
Purge Rate (LPM)	0.25							
Purge Volume (L)	4							
Depth To Product	ND							
Odor	slight							

Comments: ND = Not Detected **ORP Probe not working
*Pump used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Dan DiRocco
Weather:
Date: 7/21/2008

Water Quality Parameters

MW-07S		**Time** **24 Hour**	**PH**	**Cond.** **us / cm**	**Turbidity** **NTU**	**Diss. Ox** **mg / L**	**Temp.** **oC**	**ORP** **mv**
Depth to Water (initial)	NA							
Depth to Water (final)	NA							
Depth of Well (ft)	10.70							
Well Diameter (in)	2.00							
Screen Length (ft)	5.00							
Casing Type	Sand pack							
PID (initial)	860							
PID (final)	860.0							
Pump Type	NA							
Tubing Type	NA							
Max. Drawdown (ft)	NA							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	NA							
Odor	Yes							
Comments:	* Did not sample well. Product detected. Product level not identified by interface probe.							

Water Quality Parameters

MW-07I		**Time** **24 Hour**	**PH**	**Cond.** **us / cm**	**Turbidity** **NTU**	**Diss. Ox** **mg / L**	**Temp.** **oC**	**ORP** **mv**
Depth to Water (initial)	9.79	10:25	6.52	2.31	131	0.59	19.25	*
Depth to Water (final)	9.98	10:30	6.64	2.32	163	1.05	18.65	*
Depth of Well (ft)	19.50	10:35	6.64	2.34	87.5	1.15	17.50	*
Well Diameter (in)	2.00	10:40	6.56	2.34	86.9	1.03	17.00	*
Screen Length (ft)	5.00	10:45	6.60	2.35	70.5	1.23	16.95	*
Casing Type	PVC	10:50	6.61	2.35	56.7	1.33	17.02	*
PID (initial)	7.3	10:55	6.62	2.35	52.5	1.43	17.22	*
PID (final)	7.3	11:00	6.62	2.36	34.5	1.54	17.19	*
Pump Type	Bladder							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.04							
Purge Start Time	10:25							
Purge End / Sample Time	11:00							
Purge Rate (LPM)	0.25							
Purge Volume (L)	8.75							
Depth To Product	ND							
Odor	Slight							
Comments:	ND = Not Detected *Pump used: Marschalk Bladder				**ORP Probe not working			

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Katherine Reuter
Weather:
Date: 7/22/2008

Water Quality Parameters

MW-11S		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	5.49	1:00	7.28	1.79	*	*	29.1	-161
Depth to Water (final)	5.72	1:05	7.47	1.73	*	*	30.2	-172
Depth of Well (ft)	11.00	1:10	7.46	1.77	*	*	30.2	-176
Well Diameter (in)	2.00	1:15	7.48	1.78	*	*	30.0	-177
Screen Length (ft)	10.00	1:20	7.47	1.76	*	*	30.1	-177
Casing Type	Sandpack							
PID (initial)	0							
PID (final)	0.0							
Pump Type	Bladder							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.02							
Purge Start Time	1:00							
Purge End / Sample Time	1:20							
Purge Rate (LPM)	0.25							
Purge Volume (L)	5							
Depth To Product	ND							
Odor	Slight							

Comments: ND = Not Detected **Turbidity and DO Probe not working
* Pump Used: Marschalk Bladder

MW-8S		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	8.02	14:00	7.02	1.241	*	0.70	13.52	-152
Depth to Water (final)	8.25	14:05	6.98	1.260	*	0.67	13.3	-155
Depth of Well (ft)	11.00	14:10	6.96	1.250	*	0.70	13.7	-161
Well Diameter (in)	2.00	14:15	6.97	1.220	*	0.72	13.43	-160
Screen Length (ft)	10.00							
Casing Type	Sand pack							
PID (initial)	2							
PID (final)	2.0							
Pump Type	Bladder							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.03							
Purge Start Time	2:00							
Purge End / Sample Time	2:15							
Purge Rate (LPM)	0.25							
Purge Volume (L)	3.75							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected **Turbidity Probe not working
* Pump Used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Dan DiRocco
Weather:
Date: 7/21/2008

Water Quality Parameters

MW-9S		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	8.35	17:45	6.87	1.78	248	1.36	23.12	-136
Depth to Water (final)	8.60	17:50	6.85	1.74	129	0.32	21.66	-142
Depth of Well (ft)	11.00	17:55	6.83	1.71	91.2	0.41	21.36	-143
Well Diameter (in)	2.00	18:00	6.83	1.70	40.3	0.46	21.28	-108
Screen Length (ft)	10.00	18:05	6.82	1.70	40.6	0.49	21.29	-156
Casing Type	PVC	18:10	6.82	1.70	40.8	0.51	21.29	-152
PID (initial)	10.1							
PID (final)	10.1							
Pump Type	Bladder							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.03							
Purge Start Time	5:45							
Purge End / Sample Time	6:10							
Purge Rate (LPM)	0.25							
Purge Volume (L)	6.25							
Depth To Product	ND							
Odor	No							

Comments: ND = Not Detected
* Pump Used: Marschalk Bladder

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Katherine Reuter
Weather:
Date: 7/22/2008

Water Quality Parameters

MW-10I		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	NA							
Depth to Water (final)	NA							
Depth of Well (ft)	19.50							
Well Diameter (in)	2"							
Screen Length (ft)	5.00							
Casing Type	Grout							
PID (initial)	869							
PID (final)	869.0							
Pump Type	NA							
Tubing Type	NA							
Max. Drawdown (ft)	NA							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	9.3							
Odor	Yes							
Comments:	NA - Water was not encountered in the well column Water encouneterd at a depth of 15.2 feet below top of casing on 7/10/2008							

MW-3I		Time 24 Hour	PH	Cond. us / cm	Turbidity NTU	Diss. Ox mg / L	Temp. oC	ORP mv
Depth to Water (initial)	NA							
Depth to Water (final)	NA							
Depth of Well (ft)	20.0'							
Well Diameter (in)	2"							
Screen Length (ft)	5.0'							
Casing Type	Grout							
PID (initial)	NA							
PID (final)	NA							
Pump Type	NA							
Tubing Type	NA							
Max. Drawdown (ft)	NA							
Purge Start Time	NA							
Purge End / Sample Time	NA							
Purge Rate (LPM)	NA							
Purge Volume (L)	NA							
Depth To Product	7.21							
Odor	Yes							
Comments:	*Visible product in well, Water level could not be determined with interface probe.							

Project Name: OCA/Long Island City
Project Location: Long Island City, NY
Project Number: 205490
EWMA Personnel: Leeron Tagger, Katherine Reuter
Weather:
Date: 7/22/2008

Water Quality Parameters

MW-12S		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	5.49	9:20	7.13	1.78	**	**	22.35	**
Depth to Water (final)	5.47	9:25	7.04	1.77	**	**	22.26	**
Depth of Well (ft)	11.00	9:30	6.98	1.76	**	**	22.15	**
Well Diameter (in)	2.00	9:35	7.01	1.76	**	**	22.15	**
Screen Length (ft)	10.00							
Casing Type	PVC							
PID (initial)	149							
PID (final)	149.0							
Pump Type	Bladder							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.02							
Purge Start Time	9:20							
Purge End / Sample Time	9:35							
Purge Rate (LPM)	0.25							
Purge Volume (L)	3.75							
Depth To Product	ND							
Odor	slight							

Comments: ND = Not Detected **Turbidity, DO and ORP Probe not working
* Pump Used: Marschalk Bladder

MW-13S		**Time 24 Hour**	**PH**	**Cond. us / cm**	**Turbidity NTU**	**Diss. Ox mg / L**	**Temp. oC**	**ORP mv**
Depth to Water (initial)	7.64'	10:15	7.05	0.961	**	0.82	22.97	-145
Depth to Water (final)	7.89	10:20	7.20	0.000	**	9.94	25.81	-13
Depth of Well (ft)	11.00	10:25	7.21	0.898	**	0.11	23.36	-132
Well Diameter (in)	2.00		7.04	0.907	**	0.00	22.93	-126
Screen Length (ft)	10.00	10:35	7.06	0.910	**	0.00	22.98	-130
Casing Type	PVC	10:40	7.13	0.920	**	0.00	22.92	-132
PID (initial)	140							
PID (final)	140.0							
Pump Type	Bladder							
Tubing Type	Teflon							
Max. Drawdown (ft)	0.04							
Purge Start Time	10:15							
Purge End / Sample Time	10:40							
Purge Rate (LPM)	0.25							
Purge Volume (L)	6.25							
Depth To Product	ND							
Odor	none							

Comments: ND = Not Detected **Turbidity Probe not working
* Pump Used: Marschalk Bladder

Appendix – 3

pDR-1000 S/N: 06355
Tag Number: 01
Number of logged points: 345
Start time and date: 09:25:46 06-Jun
Elapsed time: 05:45:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 6.873 mg/m³
Time at maximum: 11:09:15 Jun 06
Max STEL Concentration: 0.130 mg/m³
Time at max STEL: 11:11:16 Jun 06
Overall Avg Conc: 0.015 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)	Notes
1	6-Jun	09:26:46	0.002	Concrete removal at suspect tank areas
2	6-Jun	09:27:46	0.002	
3	6-Jun	09:28:46	0.001	
4	6-Jun	09:29:46	0	
5	6-Jun	09:30:46	0.002	
6	6-Jun	09:31:46	0.001	
7	6-Jun	09:32:46	0	
8	6-Jun	09:33:46	0.001	
9	6-Jun	09:34:46	0	
10	6-Jun	09:35:46	0.001	
11	6-Jun	09:36:46	0.001	
12	6-Jun	09:37:46	0.001	
13	6-Jun	09:38:46	0.003	
14	6-Jun	09:39:46	0.001	
15	6-Jun	09:40:46	0.016	
16	6-Jun	09:41:46	0.018	
17	6-Jun	09:42:46	0.018	
18	6-Jun	09:43:46	0	
19	6-Jun	09:44:46	0.008	
20	6-Jun	09:45:46	0.01	
21	6-Jun	09:46:46	0.004	
22	6-Jun	09:47:46	0.001	
23	6-Jun	09:48:46	0.001	
24	6-Jun	09:49:46	0	
25	6-Jun	09:50:46	0	
26	6-Jun	09:51:46	0	
27	6-Jun	09:52:46	0	
28	6-Jun	09:53:46	0	
29	6-Jun	09:54:46	0	
30	6-Jun	09:55:46	0	
31	6-Jun	09:56:46	0	
32	6-Jun	09:57:46	0.002	
33	6-Jun	09:58:46	0	
34	6-Jun	09:59:46	0.006	
35	6-Jun	10:00:46	0.013	
36	6-Jun	10:01:46	0.005	
37	6-Jun	10:02:46	0.014	
38	6-Jun	10:03:46	0.024	

Point	Date	Time	Avg.(mg/m³)	Notes
39	6-Jun	10:04:46	0.003	
40	6-Jun	10:05:46	0.001	
41	6-Jun	10:06:46	0.004	
42	6-Jun	10:07:46	0.003	
43	6-Jun	10:08:46	0	
44	6-Jun	10:09:46	0.005	
45	6-Jun	10:10:46	0.014	
46	6-Jun	10:11:46	0.035	
47	6-Jun	10:12:46	0.016	
48	6-Jun	10:13:46	0.001	
49	6-Jun	10:14:46	0.035	
50	6-Jun	10:15:46	0.005	
51	6-Jun	10:16:46	0.006	
52	6-Jun	10:17:46	0.001	
53	6-Jun	10:18:46	0.001	
54	6-Jun	10:19:46	0	
55	6-Jun	10:20:46	0.011	
56	6-Jun	10:21:46	0	
57	6-Jun	10:22:46	0.001	
58	6-Jun	10:23:46	0.002	
59	6-Jun	10:24:46	0	
60	6-Jun	10:25:46	0	
61	6-Jun	10:26:46	0.001	
62	6-Jun	10:27:46	0	
63	6-Jun	10:28:46	0.007	
64	6-Jun	10:29:46	0.009	
65	6-Jun	10:30:46	0.006	
66	6-Jun	10:31:46	0.006	
67	6-Jun	10:32:46	0	
68	6-Jun	10:33:46	0.003	
69	6-Jun	10:34:46	0.001	
70	6-Jun	10:35:46	0	
71	6-Jun	10:36:46	0	
72	6-Jun	10:37:46	0.003	
73	6-Jun	10:38:46	0	
74	6-Jun	10:39:46	0.005	
75	6-Jun	10:40:46	0.043	
76	6-Jun	10:41:46	0.01	
77	6-Jun	10:42:46	0.061	
78	6-Jun	10:43:46	0.335	
79	6-Jun	10:44:46	0.021	
80	6-Jun	10:45:46	0.369	
81	6-Jun	10:46:46	0.013	
82	6-Jun	10:47:46	0.002	
83	6-Jun	10:48:46	0.121	
84	6-Jun	10:49:46	0.039	
85	6-Jun	10:50:46	0.006	
86	6-Jun	10:51:46	0.046	
87	6-Jun	10:52:46	0.171	
88	6-Jun	10:53:46	0	
89	6-Jun	10:54:46	0.008	

Point	Date	Time	Avg.(mg/m^3)	Notes
90	6-Jun	10:55:46	0.028	
91	6-Jun	10:56:46	0.002	
92	6-Jun	10:57:46	0.396	
93	6-Jun	10:58:46	0.027	
94	6-Jun	10:59:46	0.003	
95	6-Jun	11:00:46	0.002	
96	6-Jun	11:01:46	0.044	
97	6-Jun	11:02:46	0.06	
98	6-Jun	11:03:46	0.253	
99	6-Jun	11:04:46	0	
100	6-Jun	11:05:46	0.001	
101	6-Jun	11:06:46	0.003	
102	6-Jun	11:07:46	0.005	
103	6-Jun	11:08:46	0.003	
104	6-Jun	11:09:46	1.148	
105	6-Jun	11:10:46	0.002	
106	6-Jun	11:11:46	0.096	
107	6-Jun	11:12:46	0.292	
108	6-Jun	11:13:46	0.017	
109	6-Jun	11:14:46	0.002	
110	6-Jun	11:15:46	0.004	
111	6-Jun	11:16:46	0.011	
112	6-Jun	11:17:46	0	
113	6-Jun	11:18:46	0	
114	6-Jun	11:19:46	0.003	
115	6-Jun	11:20:46	0.002	
116	6-Jun	11:21:46	0.003	
117	6-Jun	11:22:46	0	
118	6-Jun	11:23:46	0	
119	6-Jun	11:24:46	0	
120	6-Jun	11:25:46	0.002	
121	6-Jun	11:26:46	0	
122	6-Jun	11:27:46	0	
123	6-Jun	11:28:46	0	
124	6-Jun	11:29:46	0.003	
125	6-Jun	11:30:46	0.002	
126	6-Jun	11:31:46	0	
127	6-Jun	11:32:46	0	
128	6-Jun	11:33:46	0.003	
129	6-Jun	11:34:46	0.006	
130	6-Jun	11:35:46	0.005	
131	6-Jun	11:36:46	0.024	
132	6-Jun	11:37:46	0.015	
133	6-Jun	11:38:46	0.005	
134	6-Jun	11:39:46	0.037	
135	6-Jun	11:40:46	0	
136	6-Jun	11:41:46	0.037	
137	6-Jun	11:42:46	0	
138	6-Jun	11:43:46	0.001	
139	6-Jun	11:44:46	0.003	
140	6-Jun	11:45:46	0	

Point	Date	Time	Avg.(mg/m³)	Notes
141	6-Jun	11:46:46	0	
142	6-Jun	11:47:46	0.001	
143	6-Jun	11:48:46	0	
144	6-Jun	11:49:46	0	
145	6-Jun	11:50:46	0.034	
146	6-Jun	11:51:46	0.003	
147	6-Jun	11:52:46	0.002	
148	6-Jun	11:53:46	0	
149	6-Jun	11:54:46	0	
150	6-Jun	11:55:46	0.002	
151	6-Jun	11:56:46	0	
152	6-Jun	11:57:46	0.005	
153	6-Jun	11:58:46	0.015	
154	6-Jun	11:59:46	0.055	
155	6-Jun	12:00:46	0.005	
156	6-Jun	12:01:46	0.002	
157	6-Jun	12:02:46	0.008	
158	6-Jun	12:03:46	0.011	
159	6-Jun	12:04:46	0	
160	6-Jun	12:05:46	0	
161	6-Jun	12:06:46	0.003	
162	6-Jun	12:07:46	0	
163	6-Jun	12:08:46	0	
164	6-Jun	12:09:46	0.004	
165	6-Jun	12:10:46	0.016	
166	6-Jun	12:11:46	0.006	
167	6-Jun	12:12:46	0.002	
168	6-Jun	12:13:46	0	
169	6-Jun	12:14:46	0.002	
170	6-Jun	12:15:46	0	
171	6-Jun	12:16:46	0	
172	6-Jun	12:17:46	0.011	
173	6-Jun	12:18:46	0.009	
174	6-Jun	12:19:46	0.016	
175	6-Jun	12:20:46	0.005	
176	6-Jun	12:21:46	0.002	
177	6-Jun	12:22:46	0.001	
178	6-Jun	12:23:46	0.002	
179	6-Jun	12:24:46	0.002	
180	6-Jun	12:25:46	0.002	
181	6-Jun	12:26:46	0	
182	6-Jun	12:27:46	0	
183	6-Jun	12:28:46	0	
184	6-Jun	12:29:46	0.008	
185	6-Jun	12:30:46	0.006	
186	6-Jun	12:31:46	0.003	
187	6-Jun	12:32:46	0.003	
188	6-Jun	12:33:46	0.001	
189	6-Jun	12:34:46	0.002	
190	6-Jun	12:35:46	0.003	
191	6-Jun	12:36:46	0.013	

Point	Date	Time	Avg.(mg/m³)	Notes
192	6-Jun	12:37:46	0.014	
193	6-Jun	12:38:46	0.033	
194	6-Jun	12:39:46	0.005	
195	6-Jun	12:40:46	0.038	
196	6-Jun	12:41:46	0.018	
197	6-Jun	12:42:46	0.008	
198	6-Jun	12:43:46	0.009	
199	6-Jun	12:44:46	0.011	
200	6-Jun	12:45:46	0.006	
201	6-Jun	12:46:46	0.001	
202	6-Jun	12:47:46	0.001	
203	6-Jun	12:48:46	0.001	
204	6-Jun	12:49:46	0.002	
205	6-Jun	12:50:46	0.002	
206	6-Jun	12:51:46	0.003	
207	6-Jun	12:52:46	0.003	
208	6-Jun	12:53:46	0.002	
209	6-Jun	12:54:46	0.006	
210	6-Jun	12:55:46	0.004	
211	6-Jun	12:56:46	0.007	
212	6-Jun	12:57:46	0.006	
213	6-Jun	12:58:46	0.008	
214	6-Jun	12:59:46	0.015	
215	6-Jun	13:00:46	0.006	
216	6-Jun	13:01:46	0.006	
217	6-Jun	13:02:46	0.006	
218	6-Jun	13:03:46	0.004	
219	6-Jun	13:04:46	0.001	
220	6-Jun	13:05:46	0.002	
221	6-Jun	13:06:46	0.003	
222	6-Jun	13:07:46	0.001	
223	6-Jun	13:08:46	0.006	
224	6-Jun	13:09:46	0.004	
225	6-Jun	13:10:46	0.006	
226	6-Jun	13:11:46	0.005	
227	6-Jun	13:12:46	0.008	
228	6-Jun	13:13:46	0.006	
229	6-Jun	13:14:46	0.007	
230	6-Jun	13:15:46	0.007	
231	6-Jun	13:16:46	0.016	
232	6-Jun	13:17:46	0.013	
233	6-Jun	13:18:46	0.009	
234	6-Jun	13:19:46	0.008	
235	6-Jun	13:20:46	0.014	
236	6-Jun	13:21:46	0.026	
237	6-Jun	13:22:46	0.007	
238	6-Jun	13:23:46	0.006	
239	6-Jun	13:24:46	0.005	
240	6-Jun	13:25:46	0.011	
241	6-Jun	13:26:46	0.007	
242	6-Jun	13:27:46	0.009	

Point	**Date**	**Time**	**Avg.(mg/m^3)**	**Notes**
243	6-Jun	13:28:46	0.009	
244	6-Jun	13:29:46	0.01	
245	6-Jun	13:30:46	0.005	
246	6-Jun	13:31:46	0.01	
247	6-Jun	13:32:46	0.004	
248	6-Jun	13:33:46	0.008	
249	6-Jun	13:34:46	0.005	
250	6-Jun	13:35:46	0.033	
251	6-Jun	13:36:46	0.012	
252	6-Jun	13:37:46	0.008	
253	6-Jun	13:38:46	0.014	
254	6-Jun	13:39:46	0.011	
255	6-Jun	13:40:46	0.013	
256	6-Jun	13:41:46	0.005	
257	6-Jun	13:42:46	0.007	
258	6-Jun	13:43:46	0.007	
259	6-Jun	13:44:46	0.088	
260	6-Jun	13:45:46	0.047	
261	6-Jun	13:46:46	0.017	
262	6-Jun	13:47:46	0.004	
263	6-Jun	13:48:46	0.009	
264	6-Jun	13:49:46	0.003	
265	6-Jun	13:50:46	0.005	
266	6-Jun	13:51:46	0.012	
267	6-Jun	13:52:46	0.003	
268	6-Jun	13:53:46	0.004	
269	6-Jun	13:54:46	0.005	
270	6-Jun	13:55:46	0.006	
271	6-Jun	13:56:46	0.004	
272	6-Jun	13:57:46	0.003	
273	6-Jun	13:58:46	0.05	
274	6-Jun	13:59:46	0.008	
275	6-Jun	14:00:46	0.011	
276	6-Jun	14:01:46	0.039	
277	6-Jun	14:02:46	0.038	
278	6-Jun	14:03:46	0.026	
279	6-Jun	14:04:46	0.044	
280	6-Jun	14:05:46	0.017	
281	6-Jun	14:06:46	0.04	
282	6-Jun	14:07:46	0.013	
283	6-Jun	14:08:46	0.008	
284	6-Jun	14:09:46	0.02	
285	6-Jun	14:10:46	0.008	
286	6-Jun	14:11:46	0.003	
287	6-Jun	14:12:46	0.016	
288	6-Jun	14:13:46	0.012	
289	6-Jun	14:14:46	0.019	
290	6-Jun	14:15:46	0.014	
291	6-Jun	14:16:46	0.015	
292	6-Jun	14:17:46	0.027	
293	6-Jun	14:18:46	0.07	

Point	Date	Time	Avg.(mg/m³)	Notes
294	6-Jun	14:19:46	0.102	
295	6-Jun	14:20:46	0.024	
296	6-Jun	14:21:46	0.007	
297	6-Jun	14:22:46	0.01	
298	6-Jun	14:23:46	0.023	
299	6-Jun	14:24:46	0.001	
300	6-Jun	14:25:46	0.004	
301	6-Jun	14:26:46	0.005	
302	6-Jun	14:27:46	0.005	
303	6-Jun	14:28:46	0.016	
304	6-Jun	14:29:46	0.003	
305	6-Jun	14:30:46	0.051	
306	6-Jun	14:31:46	0.018	
307	6-Jun	14:32:46	0.004	
308	6-Jun	14:33:46	0.001	
309	6-Jun	14:34:46	0.006	
310	6-Jun	14:35:46	0.009	
311	6-Jun	14:36:46	0.035	
312	6-Jun	14:37:46	0.026	
313	6-Jun	14:38:46	0.012	
314	6-Jun	14:39:46	0.002	
315	6-Jun	14:40:46	0.008	
316	6-Jun	14:41:46	0.005	
317	6-Jun	14:42:46	0.013	
318	6-Jun	14:43:46	0.009	
319	6-Jun	14:44:46	0.006	
320	6-Jun	14:45:46	0.016	
321	6-Jun	14:46:46	0.015	
322	6-Jun	14:47:46	0.016	
323	6-Jun	14:48:46	0.013	
324	6-Jun	14:49:46	0.006	
325	6-Jun	14:50:46	0.004	
326	6-Jun	14:51:46	0.01	
327	6-Jun	14:52:46	0.004	
328	6-Jun	14:53:46	0.003	
329	6-Jun	14:54:46	0.021	
330	6-Jun	14:55:46	0.023	
331	6-Jun	14:56:46	0.019	
332	6-Jun	14:57:46	0.016	
333	6-Jun	14:58:46	0.016	
334	6-Jun	14:59:46	0.012	
335	6-Jun	15:00:46	0.006	
336	6-Jun	15:01:46	0.041	
337	6-Jun	15:02:46	0.042	
338	6-Jun	15:03:46	0.01	
339	6-Jun	15:04:46	0.056	
340	6-Jun	15:05:46	0.015	
341	6-Jun	15:06:46	0.005	
342	6-Jun	15:07:46	0.005	
343	6-Jun	15:08:46	0.012	
344	6-Jun	15:09:46	0.015	

Point	Date	Time	Avg.(mg/m³)	Notes
345	6-Jun	15:10:46	0.009	

00083230300006030505}

pDR-1000 S/N: 06355
Tag Number: 02
Number of logged points: 364
Start time and date: 08:37:59 09-Jun
Elapsed time: 06:04:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 1.697 mg/m^3
Time at maximum: 10:49:13 Jun 09
Max STEL Concentration: 0.075 mg/m^3
Time at max STEL: 10:59:59 Jun 09
Overall Avg Conc: 0.005 mg/m^3
Logged Data:

Point	Date	Time	Avg.(mg/m^3)	Notes
1	9-Jun	08:38:59	0.012	Concrete Removal at suspect tank areas
2	9-Jun	08:39:59	0.097	
3	9-Jun	08:40:59	0.141	
4	9-Jun	08:41:59	0.058	
5	9-Jun	08:42:59	0.013	
6	9-Jun	08:43:59	0.025	
7	9-Jun	08:44:59	0.022	
8	9-Jun	08:45:59	0.008	
9	9-Jun	08:46:59	0.004	
10	9-Jun	08:47:59	0.07	
11	9-Jun	08:48:59	0.092	
12	9-Jun	08:49:59	0.092	
13	9-Jun	08:50:59	0.003	
14	9-Jun	08:51:59	0.048	
15	9-Jun	08:52:59	0.005	
16	9-Jun	08:53:59	0.004	
17	9-Jun	08:54:59	0.008	
18	9-Jun	08:55:59	0.002	
19	9-Jun	08:56:59	0.001	
20	9-Jun	08:57:59	0	
21	9-Jun	08:58:59	0	
22	9-Jun	08:59:59	0.007	
23	9-Jun	09:00:59	0	
24	9-Jun	09:01:59	0.008	
25	9-Jun	09:02:59	0.02	
26	9-Jun	09:03:59	0.012	
27	9-Jun	09:04:59	0.023	
28	9-Jun	09:05:59	0.011	
29	9-Jun	09:06:59	0.011	
30	9-Jun	09:07:59	0.009	
31	9-Jun	09:08:59	0.001	
32	9-Jun	09:09:59	0	
33	9-Jun	09:10:59	0.064	
34	9-Jun	09:11:59	0.071	
35	9-Jun	09:12:59	0.001	
36	9-Jun	09:13:59	0.018	
37	9-Jun	09:14:59	0.018	
38	9-Jun	09:15:59	0.013	

Point	Date	Time	Avg.(mg/m³)	Notes
39	9-Jun	09:16:59	0.003	
40	9-Jun	09:17:59	0	
41	9-Jun	09:18:59	0.005	
42	9-Jun	09:19:59	0.046	
43	9-Jun	09:20:59	0	
44	9-Jun	09:21:59	0.001	
45	9-Jun	09:22:59	0.024	
46	9-Jun	09:23:59	0	
47	9-Jun	09:24:59	0.012	
48	9-Jun	09:25:59	0	
49	9-Jun	09:26:59	0	
50	9-Jun	09:27:59	0.002	
51	9-Jun	09:28:59	0.006	
52	9-Jun	09:29:59	0.01	
53	9-Jun	09:30:59	0.017	
54	9-Jun	09:31:59	0.013	
55	9-Jun	09:32:59	0.255	
56	9-Jun	09:33:59	0.024	
57	9-Jun	09:34:59	0.005	
58	9-Jun	09:35:59	0.011	
59	9-Jun	09:36:59	0.013	
60	9-Jun	09:37:59	0.006	
61	9-Jun	09:38:59	0.033	
62	9-Jun	09:39:59	0.096	
63	9-Jun	09:40:59	0.007	
64	9-Jun	09:41:59	0.003	
65	9-Jun	09:42:59	0.054	
66	9-Jun	09:43:59	0	
67	9-Jun	09:44:59	0	
68	9-Jun	09:45:59	0.009	
69	9-Jun	09:46:59	0.001	
70	9-Jun	09:47:59	0.025	
71	9-Jun	09:48:59	0.001	
72	9-Jun	09:49:59	0.026	
73	9-Jun	09:50:59	0.035	
74	9-Jun	09:51:59	0.001	
75	9-Jun	09:52:59	0.02	
76	9-Jun	09:53:59	0.012	
77	9-Jun	09:54:59	0.007	
78	9-Jun	09:55:59	0.031	
79	9-Jun	09:56:59	0.024	
80	9-Jun	09:57:59	0.017	
81	9-Jun	09:58:59	0.016	
82	9-Jun	09:59:59	0.056	
83	9-Jun	10:00:59	0.051	
84	9-Jun	10:01:59	0.067	
85	9-Jun	10:02:59	0.07	
86	9-Jun	10:03:59	0.016	
87	9-Jun	10:04:59	0.002	
88	9-Jun	10:05:59	0	
89	9-Jun	10:06:59	0.002	

Point	Date	Time	Avg.(mg/m³)	Notes
90	9-Jun	10:07:59	0.002	
91	9-Jun	10:08:59	0.001	
92	9-Jun	10:09:59	0.006	
93	9-Jun	10:10:59	0.028	
94	9-Jun	10:11:59	0	
95	9-Jun	10:12:59	0.001	
96	9-Jun	10:13:59	0.008	
97	9-Jun	10:14:59	0.005	
98	9-Jun	10:15:59	0.001	
99	9-Jun	10:16:59	0.002	
100	9-Jun	10:17:59	0.025	
101	9-Jun	10:18:59	0.014	
102	9-Jun	10:19:59	0.022	
103	9-Jun	10:20:59	0.001	
104	9-Jun	10:21:59	0.002	
105	9-Jun	10:22:59	0	
106	9-Jun	10:23:59	0.001	
107	9-Jun	10:24:59	0	
108	9-Jun	10:25:59	0	
109	9-Jun	10:26:59	0	
110	9-Jun	10:27:59	0.001	
111	9-Jun	10:28:59	0.001	
112	9-Jun	10:29:59	0.014	
113	9-Jun	10:30:59	0.005	
114	9-Jun	10:31:59	0	
115	9-Jun	10:32:59	0	
116	9-Jun	10:33:59	0.001	
117	9-Jun	10:34:59	0.016	
118	9-Jun	10:35:59	0.021	
119	9-Jun	10:36:59	0.018	
120	9-Jun	10:37:59	0.025	
121	9-Jun	10:38:59	0.003	
122	9-Jun	10:39:59	0	
123	9-Jun	10:40:59	0.005	
124	9-Jun	10:41:59	0.013	
125	9-Jun	10:42:59	0.027	
126	9-Jun	10:43:59	0.024	
127	9-Jun	10:44:59	0.072	
128	9-Jun	10:45:59	0.274	
129	9-Jun	10:46:59	0.087	
130	9-Jun	10:47:59	0.207	
131	9-Jun	10:48:59	0.107	
132	9-Jun	10:49:59	0.319	
133	9-Jun	10:50:59	0	
134	9-Jun	10:51:59	0.002	
135	9-Jun	10:52:59	0.006	
136	9-Jun	10:53:59	0.007	
137	9-Jun	10:54:59	0.014	
138	9-Jun	10:55:59	0.005	
139	9-Jun	10:56:59	0.007	
140	9-Jun	10:57:59	0.002	

Point	Date	Time	Avg.(mg/m³)	Notes
141	9-Jun	10:58:59	0.001	
142	9-Jun	10:59:59	0.204	
143	9-Jun	11:00:59	0.009	
144	9-Jun	11:01:59	0.136	
145	9-Jun	11:02:59	0.177	
146	9-Jun	11:03:59	0.005	
147	9-Jun	11:04:59	0.042	
148	9-Jun	11:05:59	0.071	
149	9-Jun	11:06:59	0.054	
150	9-Jun	11:07:59	0.003	
151	9-Jun	11:08:59	0.018	
152	9-Jun	11:09:59	0.008	
153	9-Jun	11:10:59	0.006	
154	9-Jun	11:11:59	0.003	
155	9-Jun	11:12:59	0.002	
156	9-Jun	11:13:59	0.002	
157	9-Jun	11:14:59	0.002	
158	9-Jun	11:15:59	0	
159	9-Jun	11:16:59	0.003	
160	9-Jun	11:17:59	0.003	
161	9-Jun	11:18:59	0.005	
162	9-Jun	11:19:59	0.05	
163	9-Jun	11:20:59	0	
164	9-Jun	11:21:59	0.006	
165	9-Jun	11:22:59	0.005	
166	9-Jun	11:23:59	0.004	
167	9-Jun	11:24:59	0.002	
168	9-Jun	11:25:59	0.001	
169	9-Jun	11:26:59	0.037	
170	9-Jun	11:27:59	0.021	
171	9-Jun	11:28:59	0.021	
172	9-Jun	11:29:59	0	
173	9-Jun	11:30:59	0	
174	9-Jun	11:31:59	0	
175	9-Jun	11:32:59	0.006	
176	9-Jun	11:33:59	0.046	
177	9-Jun	11:34:59	0.146	
178	9-Jun	11:35:59	0.093	
179	9-Jun	11:36:59	0.078	
180	9-Jun	11:37:59	0.153	
181	9-Jun	11:38:59	0.031	
182	9-Jun	11:39:59	0.05	
183	9-Jun	11:40:59	0.081	
184	9-Jun	11:41:59	0.181	
185	9-Jun	11:42:59	0.183	
186	9-Jun	11:43:59	0.002	
187	9-Jun	11:44:59	0.001	
188	9-Jun	11:45:59	0.002	
189	9-Jun	11:46:59	0	
190	9-Jun	11:47:59	0	
191	9-Jun	11:48:59	0	

Point	Date	Time	Avg.(mg/m^3)	Notes
192	9-Jun	11:49:59	0.008	
193	9-Jun	11:50:59	0.043	
194	9-Jun	11:51:59	0.387	
195	9-Jun	11:52:59	0.016	
196	9-Jun	11:53:59	0.008	
197	9-Jun	11:54:59	0.122	
198	9-Jun	11:55:59	0	
199	9-Jun	11:56:59	0.003	
200	9-Jun	11:57:59	0.001	
201	9-Jun	11:58:59	0	
202	9-Jun	11:59:59	0	
203	9-Jun	12:00:59	0	
204	9-Jun	12:01:59	0	
205	9-Jun	12:02:59	0	
206	9-Jun	12:03:59	0	
207	9-Jun	12:04:59	0	
208	9-Jun	12:05:59	0.006	
209	9-Jun	12:06:59	0	
210	9-Jun	12:07:59	0	
211	9-Jun	12:08:59	0	
212	9-Jun	12:09:59	0.003	
213	9-Jun	12:10:59	0	
214	9-Jun	12:11:59	0	
215	9-Jun	12:12:59	0	
216	9-Jun	12:13:59	0	
217	9-Jun	12:14:59	0	
218	9-Jun	12:15:59	0	
219	9-Jun	12:16:59	0	
220	9-Jun	12:17:59	0.003	
221	9-Jun	12:18:59	0	
222	9-Jun	12:19:59	0	
223	9-Jun	12:20:59	0	
224	9-Jun	12:21:59	0	
225	9-Jun	12:22:59	0	
226	9-Jun	12:23:59	0	
227	9-Jun	12:24:59	0	
228	9-Jun	12:25:59	0	
229	9-Jun	12:26:59	0	
230	9-Jun	12:27:59	0	
231	9-Jun	12:28:59	0	
232	9-Jun	12:29:59	0	
233	9-Jun	12:30:59	0	
234	9-Jun	12:31:59	0	
235	9-Jun	12:32:59	0	
236	9-Jun	12:33:59	0	
237	9-Jun	12:34:59	0	
238	9-Jun	12:35:59	0	
239	9-Jun	12:36:59	0	
240	9-Jun	12:37:59	0	
241	9-Jun	12:38:59	0	
242	9-Jun	12:39:59	0	

Point	Date	Time	Avg.(mg/m³)	Notes
243	9-Jun	12:40:59	0	
244	9-Jun	12:41:59	0	
245	9-Jun	12:42:59	0	
246	9-Jun	12:43:59	0	
247	9-Jun	12:44:59	0	
248	9-Jun	12:45:59	0	
249	9-Jun	12:46:59	0	
250	9-Jun	12:47:59	0	
251	9-Jun	12:48:59	0	
252	9-Jun	12:49:59	0	
253	9-Jun	12:50:59	0	
254	9-Jun	12:51:59	0	
255	9-Jun	12:52:59	0	
256	9-Jun	12:53:59	0	
257	9-Jun	12:54:59	0	
258	9-Jun	12:55:59	0	
259	9-Jun	12:56:59	0	
260	9-Jun	12:57:59	0	
261	9-Jun	12:58:59	0	
262	9-Jun	12:59:59	0	
263	9-Jun	13:00:59	0	
264	9-Jun	13:01:59	0	
265	9-Jun	13:02:59	0	
266	9-Jun	13:03:59	0.002	
267	9-Jun	13:04:59	0	
268	9-Jun	13:05:59	0	
269	9-Jun	13:06:59	0	
270	9-Jun	13:07:59	0	
271	9-Jun	13:08:59	0	
272	9-Jun	13:09:59	0	
273	9-Jun	13:10:59	0	
274	9-Jun	13:11:59	0.004	
275	9-Jun	13:12:59	0	
276	9-Jun	13:13:59	0.015	
277	9-Jun	13:14:59	0.003	
278	9-Jun	13:15:59	0	
279	9-Jun	13:16:59	0.02	
280	9-Jun	13:17:59	0.019	
281	9-Jun	13:18:59	0.006	
282	9-Jun	13:19:59	0.001	
283	9-Jun	13:20:59	0.005	
284	9-Jun	13:21:59	0.009	
285	9-Jun	13:22:59	0.002	
286	9-Jun	13:23:59	0	
287	9-Jun	13:24:59	0.009	
288	9-Jun	13:25:59	0.001	
289	9-Jun	13:26:59	0	
290	9-Jun	13:27:59	0.001	
291	9-Jun	13:28:59	0.002	
292	9-Jun	13:29:59	0.003	
293	9-Jun	13:30:59	0.002	

Point	Date	Time	Avg.(mg/m³)	Notes
294	9-Jun	13:31:59	0.004	
295	9-Jun	13:32:59	0	
296	9-Jun	13:33:59	0.002	
297	9-Jun	13:34:59	0	
298	9-Jun	13:35:59	0.001	
299	9-Jun	13:36:59	0	
300	9-Jun	13:37:59	0.037	
301	9-Jun	13:38:59	0.012	
302	9-Jun	13:39:59	0.001	
303	9-Jun	13:40:59	0.003	
304	9-Jun	13:41:59	0.005	
305	9-Jun	13:42:59	0.001	
306	9-Jun	13:43:59	0	
307	9-Jun	13:44:59	0.013	
308	9-Jun	13:45:59	0.066	
309	9-Jun	13:46:59	0.03	
310	9-Jun	13:47:59	0.042	
311	9-Jun	13:48:59	0.001	
312	9-Jun	13:49:59	0	
313	9-Jun	13:50:59	0.002	
314	9-Jun	13:51:59	0.003	
315	9-Jun	13:52:59	0.023	
316	9-Jun	13:53:59	0.004	
317	9-Jun	13:54:59	0.001	
318	9-Jun	13:55:59	0.014	
319	9-Jun	13:56:59	0.007	
320	9-Jun	13:57:59	0	
321	9-Jun	13:58:59	0.001	
322	9-Jun	13:59:59	0.002	
323	9-Jun	14:00:59	0.003	
324	9-Jun	14:01:59	0	
325	9-Jun	14:02:59	0	
326	9-Jun	14:03:59	0.062	
327	9-Jun	14:04:59	0.031	
328	9-Jun	14:05:59	0.003	
329	9-Jun	14:06:59	0.003	
330	9-Jun	14:07:59	0.002	
331	9-Jun	14:08:59	0.036	
332	9-Jun	14:09:59	0.025	
333	9-Jun	14:10:59	0.092	
334	9-Jun	14:11:59	0.087	
335	9-Jun	14:12:59	0.036	
336	9-Jun	14:13:59	0.004	
337	9-Jun	14:14:59	0.001	
338	9-Jun	14:15:59	0.074	
339	9-Jun	14:16:59	0.015	
340	9-Jun	14:17:59	0.029	
341	9-Jun	14:18:59	0.051	
342	9-Jun	14:19:59	0.003	
343	9-Jun	14:20:59	0.04	
344	9-Jun	14:21:59	0.014	

Point	Date	Time	Avg.(mg/m³)	Notes
345	9-Jun	14:22:59	0.002	
346	9-Jun	14:23:59	0.001	
347	9-Jun	14:24:59	0.001	
348	9-Jun	14:25:59	0	
349	9-Jun	14:26:59	0	
350	9-Jun	14:27:59	0.003	
351	9-Jun	14:28:59	0.002	
352	9-Jun	14:29:59	0.015	
353	9-Jun	14:30:59	0.001	
354	9-Jun	14:31:59	0.001	
355	9-Jun	14:32:59	0.001	
356	9-Jun	14:33:59	0.003	
357	9-Jun	14:34:59	0.021	
358	9-Jun	14:35:59	0.043	
359	9-Jun	14:36:59	0.004	
360	9-Jun	14:37:59	0	
361	9-Jun	14:38:59	0.004	
362	9-Jun	14:39:59	0	
363	9-Jun	14:40:59	0	
364	9-Jun	14:41:59	0	

00083230300006030505}

pDR-1000 S/N: 06355
Tag Number: 05
Number of logged points: 78
Start time and date: 13:53:26 20-Jun
Elapsed time: 01:18:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 2.068 mg/m³
Time at maximum: 14:33:13 Jun 20
Max STEL Concentration: 0.067 mg/m³
Time at max STEL: 14:35:26 Jun 20
Overall Avg Conc: 0.011 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)	Notes
1	20-Jun	13:54:26	0.017	Pile Installation with drill rig
2	20-Jun	13:55:26	0.036	
3	20-Jun	13:56:26	0	
4	20-Jun	13:57:26	0.001	
5	20-Jun	13:58:26	0.003	
6	20-Jun	13:59:26	0.011	
7	20-Jun	14:00:26	0.014	
8	20-Jun	14:01:26	0.038	
9	20-Jun	14:02:26	0.001	
10	20-Jun	14:03:26	0.001	
11	20-Jun	14:04:26	0.001	
12	20-Jun	14:05:26	0.001	
13	20-Jun	14:06:26	0	
14	20-Jun	14:07:26	0.001	
15	20-Jun	14:08:26	0	
16	20-Jun	14:09:26	0	
17	20-Jun	14:10:26	0.001	
18	20-Jun	14:11:26	0.002	
19	20-Jun	14:12:26	0.002	
20	20-Jun	14:13:26	0.014	
21	20-Jun	14:14:26	0.009	
22	20-Jun	14:15:26	0.003	
23	20-Jun	14:16:26	0.007	
24	20-Jun	14:17:26	0.011	
25	20-Jun	14:18:26	0.006	
26	20-Jun	14:19:26	0.002	
27	20-Jun	14:20:26	0.004	
28	20-Jun	14:21:26	0.425	
29	20-Jun	14:22:26	0.004	
30	20-Jun	14:23:26	0	
31	20-Jun	14:24:26	0.028	
32	20-Jun	14:25:26	0	
33	20-Jun	14:26:26	0.004	
34	20-Jun	14:27:26	0.094	
35	20-Jun	14:28:26	0.024	
36	20-Jun	14:29:26	0.03	
37	20-Jun	14:30:26	0.003	
38	20-Jun	14:31:26	0.005	

39	20-Jun	14:32:26	0.001
40	20-Jun	14:33:26	0.462
41	20-Jun	14:34:26	0.044
42	20-Jun	14:35:26	0.032
43	20-Jun	14:36:26	0
44	20-Jun	14:37:26	0.007
45	20-Jun	14:38:26	0
46	20-Jun	14:39:26	0
47	20-Jun	14:40:26	0
48	20-Jun	14:41:26	0.001
49	20-Jun	14:42:26	0
50	20-Jun	14:43:26	0.005
51	20-Jun	14:44:26	0.016
52	20-Jun	14:45:26	0.01
53	20-Jun	14:46:26	0.002
54	20-Jun	14:47:26	0.038
55	20-Jun	14:48:26	0.02
56	20-Jun	14:49:26	0.002
57	20-Jun	14:50:26	0.008
58	20-Jun	14:51:26	0.003
59	20-Jun	14:52:26	0
60	20-Jun	14:53:26	0.007
61	20-Jun	14:54:26	0
62	20-Jun	14:55:26	0.083
63	20-Jun	14:56:26	0.001
64	20-Jun	14:57:26	0.003
65	20-Jun	14:58:26	0
66	20-Jun	14:59:26	0
67	20-Jun	15:00:26	0
68	20-Jun	15:01:26	0
69	20-Jun	15:02:26	0.001
70	20-Jun	15:03:26	0
71	20-Jun	15:04:26	0.015
72	20-Jun	15:05:26	0.003
73	20-Jun	15:06:26	0.002
74	20-Jun	15:07:26	0.003
75	20-Jun	15:08:26	0
76	20-Jun	15:09:26	0
77	20-Jun	15:10:26	0.001
78	20-Jun	15:11:26	0.011

pDR-1000 S/N: 06355
Tag Number: 06
Number of logged points: 122
Start time and date: 07:13:30 23-Jun
Elapsed time: 02:02:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 2.067 mg/m³
Time at maximum: 08:45:42 Jun 23
Max STEL Concentration: 0.133 mg/m³
Time at max STEL: 08:57:01 Jun 23
Overall Avg Conc: 0.102 mg/m³
Logged Data:

Point	Date	Time	Avg.(mg/m³)	Notes
1	23-Jun	07:14:30	0.123	Pile Installation with drill rig
2	23-Jun	07:15:30	0.117	
3	23-Jun	07:16:30	0.113	
4	23-Jun	07:17:30	0.11	
5	23-Jun	07:18:30	0.104	
6	23-Jun	07:19:30	0.108	
7	23-Jun	07:20:30	0.105	
8	23-Jun	07:21:30	0.105	
9	23-Jun	07:22:30	0.105	
10	23-Jun	07:23:30	0.102	
11	23-Jun	07:24:30	0.11	
12	23-Jun	07:25:30	0.103	
13	23-Jun	07:26:30	0.103	
14	23-Jun	07:27:30	0.103	
15	23-Jun	07:28:30	0.104	
16	23-Jun	07:29:30	0.106	
17	23-Jun	07:30:30	0.103	
18	23-Jun	07:31:30	0.096	
19	23-Jun	07:32:30	0.098	
20	23-Jun	07:33:30	0.087	
21	23-Jun	07:34:30	0.085	
22	23-Jun	07:35:30	0.086	
23	23-Jun	07:36:30	0.085	
24	23-Jun	07:37:30	0.081	
25	23-Jun	07:38:30	0.073	
26	23-Jun	07:39:30	0.074	
27	23-Jun	07:40:30	0.073	
28	23-Jun	07:41:30	0.077	
29	23-Jun	07:42:30	0.07	
30	23-Jun	07:43:30	0.064	
31	23-Jun	07:44:30	0.072	
32	23-Jun	07:45:30	0.067	
33	23-Jun	07:46:30	0.068	
34	23-Jun	07:47:30	0.062	
35	23-Jun	07:48:30	0.068	
36	23-Jun	07:49:30	0.07	
37	23-Jun	07:50:30	0.1	
38	23-Jun	07:51:30	0.073	

Point	Date	Time	Avg.(mg/m³)	Notes
39	23-Jun	07:52:30	0.091	
40	23-Jun	07:53:30	0.079	
41	23-Jun	07:54:30	0.074	
42	23-Jun	07:55:30	0.076	
43	23-Jun	07:56:30	0.08	
44	23-Jun	07:57:30	0.083	
45	23-Jun	07:58:30	0.088	
46	23-Jun	07:59:30	0.09	
47	23-Jun	08:00:30	0.097	
48	23-Jun	08:01:30	0.099	
49	23-Jun	08:02:30	0.116	
50	23-Jun	08:03:30	0.112	
51	23-Jun	08:04:30	0.112	
52	23-Jun	08:05:30	0.11	
53	23-Jun	08:06:30	0.116	
54	23-Jun	08:07:30	0.114	
55	23-Jun	08:08:30	0.115	
56	23-Jun	08:09:30	0.113	
57	23-Jun	08:10:30	0.115	
58	23-Jun	08:11:30	0.112	
59	23-Jun	08:12:30	0.116	
60	23-Jun	08:13:30	0.12	
61	23-Jun	08:14:30	0.118	
62	23-Jun	08:15:30	0.114	
63	23-Jun	08:16:30	0.114	
64	23-Jun	08:17:30	0.103	
65	23-Jun	08:18:30	0.099	
66	23-Jun	08:19:30	0.101	
67	23-Jun	08:20:30	0.105	
68	23-Jun	08:21:30	0.101	
69	23-Jun	08:22:30	0.102	
70	23-Jun	08:23:30	0.102	
71	23-Jun	08:24:30	0.102	
72	23-Jun	08:25:30	0.096	
73	23-Jun	08:26:30	0.095	
74	23-Jun	08:27:30	0.103	
75	23-Jun	08:28:30	0.112	
76	23-Jun	08:29:30	0.101	
77	23-Jun	08:30:30	0.1	
78	23-Jun	08:31:30	0.105	
79	23-Jun	08:32:30	0.104	
80	23-Jun	08:33:30	0.101	
81	23-Jun	08:34:30	0.113	
82	23-Jun	08:35:30	0.104	
83	23-Jun	08:36:30	0.101	
84	23-Jun	08:37:30	0.087	
85	23-Jun	08:38:30	0.087	
86	23-Jun	08:39:30	0.087	
87	23-Jun	08:40:30	0.097	
88	23-Jun	08:41:30	0.099	
89	23-Jun	08:42:30	0.095	

Point	Date	Time	Avg.(mg/m³)	Notes
90	23-Jun	08:43:30	0.107	
91	23-Jun	08:44:30	0.102	
92	23-Jun	08:45:30	0.151	
93	23-Jun	08:46:30	0.492	
94	23-Jun	08:47:30	0.106	
95	23-Jun	08:48:30	0.103	
96	23-Jun	08:49:30	0.1	
97	23-Jun	08:50:30	0.098	
98	23-Jun	08:51:30	0.098	
99	23-Jun	08:52:30	0.095	
100	23-Jun	08:53:30	0.102	
101	23-Jun	08:54:30	0.11	
102	23-Jun	08:55:30	0.104	
103	23-Jun	08:56:30	0.12	
104	23-Jun	08:57:30	0.104	
105	23-Jun	08:58:30	0.096	
106	23-Jun	08:59:30	0.094	
107	23-Jun	09:00:30	0.104	
108	23-Jun	09:01:30	0.1	
109	23-Jun	09:02:30	0.1	
110	23-Jun	09:03:30	0.096	
111	23-Jun	09:04:30	0.098	
112	23-Jun	09:05:30	0.095	
113	23-Jun	09:06:30	0.095	
114	23-Jun	09:07:30	0.097	
115	23-Jun	09:08:30	0.101	
116	23-Jun	09:09:30	0.098	
117	23-Jun	09:10:30	0.094	
118	23-Jun	09:11:30	0.095	
119	23-Jun	09:12:30	0.093	
120	23-Jun	09:13:30	0.11	
121	23-Jun	09:14:30	0.123	
122	23-Jun	09:15:30	0.11	

pDR-1000 S/N: 06355
Tag Number: 07
Number of logged points: 353
Start time and date: 08:52:25 24-Jun
Elapsed time: 05:53:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 3.160 mg/m^3
Time at maximum: 08:54:26 Jun 24
Max STEL Concentration: 0.112 mg/m^3
Time at max STEL: 08:56:25 Jun 24
Overall Avg Conc: 0.000 mg/m^3
Logged Data:

Point	**Date**	**Time**	**Avg.(mg/m^3)**	**Notes**
1	24-Jun	08:53:25	0.348	Cut Concrete for Pile collar instllation
2	24-Jun	08:54:25	0.893	
3	24-Jun	08:55:25	0.103	
4	24-Jun	08:56:25	0.338	
5	24-Jun	08:57:25	0.011	
6	24-Jun	08:58:25	0	
7	24-Jun	08:59:25	0.003	
8	24-Jun	09:00:25	0.012	
9	24-Jun	09:01:25	0.001	
10	24-Jun	09:02:25	0.002	
11	24-Jun	09:03:25	0	
12	24-Jun	09:04:25	0	
13	24-Jun	09:05:25	0.001	
14	24-Jun	09:06:25	0	
15	24-Jun	09:07:25	0	
16	24-Jun	09:08:25	0	
17	24-Jun	09:09:25	0	
18	24-Jun	09:10:25	0	
19	24-Jun	09:11:25	0	
20	24-Jun	09:12:25	0	
21	24-Jun	09:13:25	0	
22	24-Jun	09:14:25	0.002	
23	24-Jun	09:15:25	0.001	
24	24-Jun	09:16:25	0.002	
25	24-Jun	09:17:25	0.001	
26	24-Jun	09:18:25	0	
27	24-Jun	09:19:25	0	
28	24-Jun	09:20:25	0.001	
29	24-Jun	09:21:25	0	
30	24-Jun	09:22:25	0	
31	24-Jun	09:23:25	0	
32	24-Jun	09:24:25	0	
33	24-Jun	09:25:25	0	
34	24-Jun	09:26:25	0	
35	24-Jun	09:27:25	0	
36	24-Jun	09:28:25	0.004	
37	24-Jun	09:29:25	0	
38	24-Jun	09:30:25	0	

Point	**Date**	**Time**	**Avg.(mg/m³)**	**Notes**
39	24-Jun	09:31:25	0	
40	24-Jun	09:32:25	0	
41	24-Jun	09:33:25	0	
42	24-Jun	09:34:25	0	
43	24-Jun	09:35:25	0	
44	24-Jun	09:36:25	0	
45	24-Jun	09:37:25	0.008	
46	24-Jun	09:38:25	0.001	
47	24-Jun	09:39:25	0	
48	24-Jun	09:40:25	0	
49	24-Jun	09:41:25	0.001	
50	24-Jun	09:42:25	0	
51	24-Jun	09:43:25	0.002	
52	24-Jun	09:44:25	0	
53	24-Jun	09:45:25	0.004	
54	24-Jun	09:46:25	0.002	
55	24-Jun	09:47:25	0	
56	24-Jun	09:48:25	0.05	
57	24-Jun	09:49:25	0.012	
58	24-Jun	09:50:25	0.009	
59	24-Jun	09:51:25	0.004	
60	24-Jun	09:52:25	0.003	
61	24-Jun	09:53:25	0.001	
62	24-Jun	09:54:25	0	
63	24-Jun	09:55:25	0	
64	24-Jun	09:56:25	0	
65	24-Jun	09:57:25	0.002	
66	24-Jun	09:58:25	0.097	
67	24-Jun	09:59:25	0.012	
68	24-Jun	10:00:25	0.023	
69	24-Jun	10:01:25	0.04	
70	24-Jun	10:02:25	0.033	
71	24-Jun	10:03:25	0.047	
72	24-Jun	10:04:25	0.053	
73	24-Jun	10:05:25	0.033	
74	24-Jun	10:06:25	0.003	
75	24-Jun	10:07:25	0	
76	24-Jun	10:08:25	0.01	
77	24-Jun	10:09:25	0.01	
78	24-Jun	10:10:25	0.003	
79	24-Jun	10:11:25	0	
80	24-Jun	10:12:25	0.005	
81	24-Jun	10:13:25	0.001	
82	24-Jun	10:14:25	0	
83	24-Jun	10:15:25	0	
84	24-Jun	10:16:25	0.007	
85	24-Jun	10:17:25	0	
86	24-Jun	10:18:25	0	
87	24-Jun	10:19:25	0	
88	24-Jun	10:20:25	0	
89	24-Jun	10:21:25	0	

Point	Date	Time	Avg.(mg/m^3)	Notes
90	24-Jun	10:22:25	0	
91	24-Jun	10:23:25	0	
92	24-Jun	10:24:25	0	
93	24-Jun	10:25:25	0.001	
94	24-Jun	10:26:25	0	
95	24-Jun	10:27:25	0	
96	24-Jun	10:28:25	0	
97	24-Jun	10:29:25	0	
98	24-Jun	10:30:25	0	
99	24-Jun	10:31:25	0.001	
100	24-Jun	10:32:25	0	
101	24-Jun	10:33:25	0.003	
102	24-Jun	10:34:25	0	
103	24-Jun	10:35:25	0.001	
104	24-Jun	10:36:25	0.004	
105	24-Jun	10:37:25	0.011	
106	24-Jun	10:38:25	0	
107	24-Jun	10:39:25	0.005	
108	24-Jun	10:40:25	0	
109	24-Jun	10:41:25	0.006	
110	24-Jun	10:42:25	0.022	
111	24-Jun	10:43:25	0.005	
112	24-Jun	10:44:25	0	
113	24-Jun	10:45:25	0	
114	24-Jun	10:46:25	0	
115	24-Jun	10:47:25	0	
116	24-Jun	10:48:25	0.001	
117	24-Jun	10:49:25	0	
118	24-Jun	10:50:25	0	
119	24-Jun	10:51:25	0	
120	24-Jun	10:52:25	0.001	
121	24-Jun	10:53:25	0	
122	24-Jun	10:54:25	0	
123	24-Jun	10:55:25	0	
124	24-Jun	10:56:25	0.001	
125	24-Jun	10:57:25	0	
126	24-Jun	10:58:25	0.002	
127	24-Jun	10:59:25	0.001	
128	24-Jun	11:00:25	0	
129	24-Jun	11:01:25	0.001	
130	24-Jun	11:02:25	0	
131	24-Jun	11:03:25	0.003	
132	24-Jun	11:04:25	0	
133	24-Jun	11:05:25	0	
134	24-Jun	11:06:25	0	
135	24-Jun	11:07:25	0	
136	24-Jun	11:08:25	0	
137	24-Jun	11:09:25	0.003	
138	24-Jun	11:10:25	0.001	
139	24-Jun	11:11:25	0.001	
140	24-Jun	11:12:25	0.003	

Point	Date	Time	Avg.(mg/m³)	Notes
141	24-Jun	11:13:25	0.002	
142	24-Jun	11:14:25	0	
143	24-Jun	11:15:25	0	
144	24-Jun	11:16:25	0	
145	24-Jun	11:17:25	0	
146	24-Jun	11:18:25	0	
147	24-Jun	11:19:25	0.001	
148	24-Jun	11:20:25	0	
149	24-Jun	11:21:25	0	
150	24-Jun	11:22:25	0	
151	24-Jun	11:23:25	0	
152	24-Jun	11:24:25	0.002	
153	24-Jun	11:25:25	0.001	
154	24-Jun	11:26:25	0	
155	24-Jun	11:27:25	0.012	
156	24-Jun	11:28:25	0	
157	24-Jun	11:29:25	0.001	
158	24-Jun	11:30:25	0	
159	24-Jun	11:31:25	0	
160	24-Jun	11:32:25	0.005	
161	24-Jun	11:33:25	0.002	
162	24-Jun	11:34:25	0.001	
163	24-Jun	11:35:25	0.014	
164	24-Jun	11:36:25	0	
165	24-Jun	11:37:25	0.001	
166	24-Jun	11:38:25	0.005	
167	24-Jun	11:39:25	0	
168	24-Jun	11:40:25	0	
169	24-Jun	11:41:25	0	
170	24-Jun	11:42:25	0	
171	24-Jun	11:43:25	0.003	
172	24-Jun	11:44:25	0.024	
173	24-Jun	11:45:25	0.002	
174	24-Jun	11:46:25	0	
175	24-Jun	11:47:25	0	
176	24-Jun	11:48:25	0	
177	24-Jun	11:49:25	0	
178	24-Jun	11:50:25	0	
179	24-Jun	11:51:25	0	
180	24-Jun	11:52:25	0	
181	24-Jun	11:53:25	0.001	
182	24-Jun	11:54:25	0.008	
183	24-Jun	11:55:25	0.139	
184	24-Jun	11:56:25	0.035	
185	24-Jun	11:57:25	0.006	
186	24-Jun	11:58:25	0.002	
187	24-Jun	11:59:25	0.041	
188	24-Jun	12:00:25	0	
189	24-Jun	12:01:25	0	
190	24-Jun	12:02:25	0	
191	24-Jun	12:03:25	0.001	

Point	Date	Time	Avg.(mg/m³)	Notes
192	24-Jun	12:04:25	0.025	
193	24-Jun	12:05:25	0.008	
194	24-Jun	12:06:25	0	
195	24-Jun	12:07:25	0	
196	24-Jun	12:08:25	0.004	
197	24-Jun	12:09:25	0	
198	24-Jun	12:10:25	0.001	
199	24-Jun	12:11:25	0.003	
200	24-Jun	12:12:25	0	
201	24-Jun	12:13:25	0	
202	24-Jun	12:14:25	0.004	
203	24-Jun	12:15:25	0.004	
204	24-Jun	12:16:25	0.022	
205	24-Jun	12:17:25	0	
206	24-Jun	12:18:25	0	
207	24-Jun	12:19:25	0.001	
208	24-Jun	12:20:25	0.013	
209	24-Jun	12:21:25	0.031	
210	24-Jun	12:22:25	0	
211	24-Jun	12:23:25	0	
212	24-Jun	12:24:25	0.003	
213	24-Jun	12:25:25	0.002	
214	24-Jun	12:26:25	0	
215	24-Jun	12:27:25	0	
216	24-Jun	12:28:25	0.001	
217	24-Jun	12:29:25	0.005	
218	24-Jun	12:30:25	0.004	
219	24-Jun	12:31:25	0.001	
220	24-Jun	12:32:25	0	
221	24-Jun	12:33:25	0	
222	24-Jun	12:34:25	0.002	
223	24-Jun	12:35:25	0.001	
224	24-Jun	12:36:25	0.003	
225	24-Jun	12:37:25	0.011	
226	24-Jun	12:38:25	0.003	
227	24-Jun	12:39:25	0	
228	24-Jun	12:40:25	0	
229	24-Jun	12:41:25	0.004	
230	24-Jun	12:42:25	0.004	
231	24-Jun	12:43:25	0.027	
232	24-Jun	12:44:25	0	
233	24-Jun	12:45:25	0.003	
234	24-Jun	12:46:25	0.024	
235	24-Jun	12:47:25	0.015	
236	24-Jun	12:48:25	0.003	
237	24-Jun	12:49:25	0.004	
238	24-Jun	12:50:25	0.013	
239	24-Jun	12:51:25	0.004	
240	24-Jun	12:52:25	0.03	
241	24-Jun	12:53:25	0.05	
242	24-Jun	12:54:25	0.011	

Point	Date	Time	Avg.(mg/m³)	Notes
243	24-Jun	12:55:25	0.001	
244	24-Jun	12:56:25	0.006	
245	24-Jun	12:57:25	0.018	
246	24-Jun	12:58:25	0.197	
247	24-Jun	12:59:25	0.042	
248	24-Jun	13:00:25	0.013	
249	24-Jun	13:01:25	0.012	
250	24-Jun	13:02:25	0.005	
251	24-Jun	13:03:25	0.009	
252	24-Jun	13:04:25	0.032	
253	24-Jun	13:05:25	0.024	
254	24-Jun	13:06:25	0.041	
255	24-Jun	13:07:25	0.002	
256	24-Jun	13:08:25	0.012	
257	24-Jun	13:09:25	0.007	
258	24-Jun	13:10:25	0	
259	24-Jun	13:11:25	0	
260	24-Jun	13:12:25	0.003	
261	24-Jun	13:13:25	0.002	
262	24-Jun	13:14:25	0.001	
263	24-Jun	13:15:25	0	
264	24-Jun	13:16:25	0.001	
265	24-Jun	13:17:25	0.002	
266	24-Jun	13:18:25	0.01	
267	24-Jun	13:19:25	0.076	
268	24-Jun	13:20:25	0.007	
269	24-Jun	13:21:25	0.002	
270	24-Jun	13:22:25	0	
271	24-Jun	13:23:25	0.065	
272	24-Jun	13:24:25	0.044	
273	24-Jun	13:25:25	0	
274	24-Jun	13:26:25	0.009	
275	24-Jun	13:27:25	0.002	
276	24-Jun	13:28:25	0.01	
277	24-Jun	13:29:25	0.005	
278	24-Jun	13:30:25	0.001	
279	24-Jun	13:31:25	0.011	
280	24-Jun	13:32:25	0.011	
281	24-Jun	13:33:25	0.019	
282	24-Jun	13:34:25	0.004	
283	24-Jun	13:35:25	0.105	
284	24-Jun	13:36:25	0.052	
285	24-Jun	13:37:25	0.025	
286	24-Jun	13:38:25	0.005	
287	24-Jun	13:39:25	0.003	
288	24-Jun	13:40:25	0.004	
289	24-Jun	13:41:25	0.009	
290	24-Jun	13:42:25	0.006	
291	24-Jun	13:43:25	0.12	
292	24-Jun	13:44:25	0.062	
293	24-Jun	13:45:25	0.015	

Point	Date	Time	Avg.(mg/m³)	Notes
294	24-Jun	13:46:25	0.003	
295	24-Jun	13:47:25	0.001	
296	24-Jun	13:48:25	0.002	
297	24-Jun	13:49:25	0	
298	24-Jun	13:50:25	0.041	
299	24-Jun	13:51:25	0.002	
300	24-Jun	13:52:25	0.071	
301	24-Jun	13:53:25	0.036	
302	24-Jun	13:54:25	0	
303	24-Jun	13:55:25	0.002	
304	24-Jun	13:56:25	0	
305	24-Jun	13:57:25	0.001	
306	24-Jun	13:58:25	0.016	
307	24-Jun	13:59:25	0.005	
308	24-Jun	14:00:25	0	
309	24-Jun	14:01:25	0	
310	24-Jun	14:02:25	0.003	
311	24-Jun	14:03:25	0.004	
312	24-Jun	14:04:25	0.007	
313	24-Jun	14:05:25	0.008	
314	24-Jun	14:06:25	0.015	
315	24-Jun	14:07:25	0.001	
316	24-Jun	14:08:25	0.001	
317	24-Jun	14:09:25	0.002	
318	24-Jun	14:10:25	0	
319	24-Jun	14:11:25	0	
320	24-Jun	14:12:25	0.084	
321	24-Jun	14:13:25	0.041	
322	24-Jun	14:14:25	0.003	
323	24-Jun	14:15:25	0	
324	24-Jun	14:16:25	0	
325	24-Jun	14:17:25	0	
326	24-Jun	14:18:25	0.004	
327	24-Jun	14:19:25	0.01	
328	24-Jun	14:20:25	0	
329	24-Jun	14:21:25	0	
330	24-Jun	14:22:25	0	
331	24-Jun	14:23:25	0	
332	24-Jun	14:24:25	0	
333	24-Jun	14:25:25	0.003	
334	24-Jun	14:26:25	0	
335	24-Jun	14:27:25	0	
336	24-Jun	14:28:25	0	
337	24-Jun	14:29:25	0	
338	24-Jun	14:30:25	0	
339	24-Jun	14:31:25	0.008	
340	24-Jun	14:32:25	0.02	
341	24-Jun	14:33:25	0.003	
342	24-Jun	14:34:25	0	
343	24-Jun	14:35:25	0	
344	24-Jun	14:36:25	0	

Point	Date	Time	Avg.(mg/m³)	Notes
345	24-Jun	14:37:25	0	
346	24-Jun	14:38:25	0.012	
347	24-Jun	14:39:25	0.015	
348	24-Jun	14:40:25	0.012	
349	24-Jun	14:41:25	0	
350	24-Jun	14:42:25	0.003	
351	24-Jun	14:43:25	0.002	
352	24-Jun	14:44:25	0	
353	24-Jun	14:45:25	0.1	

pDR-1000 S/N: 06355
Tag Number: 01
Number of logged points: 379
Start time and date: 09:12:41 10-Jul
Elapsed time: 06:19:00
Logging period (sec): 60
Calibration Factor (%): 100
Max Display Concentration: 2.100 mg/m³
Time at maximum: 11:34:56 Jul 10
Max STEL Concentration: 0.095 mg/m³
Time at max STEL: 11:35:12 Jul 10
Overall Avg Conc: 0.037 mg/m³
Logged Data:

Point	**Date**	**Time**	**Avg.(mg/m³)**	**Notes**
1	10-Jul	09:13:41	0.042	Test Pits of the three suspect tank areas
2	10-Jul	09:14:41	0.035	
3	10-Jul	09:15:41	0.041	
4	10-Jul	09:16:41	0.048	
5	10-Jul	09:17:41	0.017	
6	10-Jul	09:18:41	0.014	
7	10-Jul	09:19:41	0.037	
8	10-Jul	09:20:41	0.115	
9	10-Jul	09:21:41	0.004	
10	10-Jul	09:22:41	0.01	
11	10-Jul	09:23:41	0.03	
12	10-Jul	09:24:41	0.017	
13	10-Jul	09:25:41	0.015	
14	10-Jul	09:26:41	0.114	
15	10-Jul	09:27:41	0.006	
16	10-Jul	09:28:41	0.064	
17	10-Jul	09:29:41	0.107	
18	10-Jul	09:30:41	0.014	
19	10-Jul	09:31:41	0.015	
20	10-Jul	09:32:41	0.044	
21	10-Jul	09:33:41	0.032	
22	10-Jul	09:34:41	0.035	
23	10-Jul	09:35:41	0.005	
24	10-Jul	09:36:41	0.037	
25	10-Jul	09:37:41	0.011	
26	10-Jul	09:38:41	0.02	
27	10-Jul	09:39:41	0.009	
28	10-Jul	09:40:41	0.022	
29	10-Jul	09:41:41	0.057	
30	10-Jul	09:42:41	0.062	
31	10-Jul	09:43:41	0.025	
32	10-Jul	09:44:41	0.028	
33	10-Jul	09:45:41	0.025	
34	10-Jul	09:46:41	0.066	
35	10-Jul	09:47:41	0.081	
36	10-Jul	09:48:41	0.025	
37	10-Jul	09:49:41	0.064	
38	10-Jul	09:50:41	0.038	

Point	Date	Time	Avg.(mg/m³)	Notes
39	10-Jul	09:51:41	0.018	
40	10-Jul	09:52:41	0.048	
41	10-Jul	09:53:41	0.014	
42	10-Jul	09:54:41	0.004	
43	10-Jul	09:55:41	0.041	
44	10-Jul	09:56:41	0.051	
45	10-Jul	09:57:41	0.197	
46	10-Jul	09:58:41	0.04	
47	10-Jul	09:59:41	0.025	
48	10-Jul	10:00:41	0.006	
49	10-Jul	10:01:41	0.053	
50	10-Jul	10:02:41	0.147	
51	10-Jul	10:03:41	0.07	
52	10-Jul	10:04:41	0.019	
53	10-Jul	10:05:41	0.072	
54	10-Jul	10:06:41	0.023	
55	10-Jul	10:07:41	0.002	
56	10-Jul	10:08:41	0.034	
57	10-Jul	10:09:41	0.014	
58	10-Jul	10:10:41	0.012	
59	10-Jul	10:11:41	0.01	
60	10-Jul	10:12:41	0.019	
61	10-Jul	10:13:41	0.005	
62	10-Jul	10:14:41	0.043	
63	10-Jul	10:15:41	0.017	
64	10-Jul	10:16:41	0.055	
65	10-Jul	10:17:41	0.047	
66	10-Jul	10:18:41	0.103	
67	10-Jul	10:19:41	0.097	
68	10-Jul	10:20:41	0.162	
69	10-Jul	10:21:41	0.136	
70	10-Jul	10:22:41	0.084	
71	10-Jul	10:23:41	0.069	
72	10-Jul	10:24:41	0.091	
73	10-Jul	10:25:41	0.026	
74	10-Jul	10:26:41	0.045	
75	10-Jul	10:27:41	0.047	
76	10-Jul	10:28:41	0.034	
77	10-Jul	10:29:41	0.108	
78	10-Jul	10:30:41	0.154	
79	10-Jul	10:31:41	0.057	
80	10-Jul	10:32:41	0.019	
81	10-Jul	10:33:41	0.009	
82	10-Jul	10:34:41	0.031	
83	10-Jul	10:35:41	0.004	
84	10-Jul	10:36:41	0.013	
85	10-Jul	10:37:41	0.092	
86	10-Jul	10:38:41	0.035	
87	10-Jul	10:39:41	0.006	
88	10-Jul	10:40:41	0.009	
89	10-Jul	10:41:41	0.001	

Point	Date	Time	Avg.(mg/m³)	Notes
90	10-Jul	10:42:41	0.018	
91	10-Jul	10:43:41	0.192	
92	10-Jul	10:44:41	0.02	
93	10-Jul	10:45:41	0.007	
94	10-Jul	10:46:41	0.163	
95	10-Jul	10:47:41	0.012	
96	10-Jul	10:48:41	0.009	
97	10-Jul	10:49:41	0.006	
98	10-Jul	10:50:41	0.042	
99	10-Jul	10:51:41	0.028	
100	10-Jul	10:52:41	0.056	
101	10-Jul	10:53:41	0.014	
102	10-Jul	10:54:41	0.089	
103	10-Jul	10:55:41	0.105	
104	10-Jul	10:56:41	0.01	
105	10-Jul	10:57:41	0.006	
106	10-Jul	10:58:41	0.113	
107	10-Jul	10:59:41	0.012	
108	10-Jul	11:00:41	0.017	
109	10-Jul	11:01:41	0.117	
110	10-Jul	11:02:41	0.089	
111	10-Jul	11:03:41	0.005	
112	10-Jul	11:04:41	0.006	
113	10-Jul	11:05:41	0.074	
114	10-Jul	11:06:41	0.015	
115	10-Jul	11:07:41	0.008	
116	10-Jul	11:08:41	0.022	
117	10-Jul	11:09:41	0.015	
118	10-Jul	11:10:41	0.064	
119	10-Jul	11:11:41	0.023	
120	10-Jul	11:12:41	0.02	
121	10-Jul	11:13:41	0.023	
122	10-Jul	11:14:41	0.005	
123	10-Jul	11:15:41	0.008	
124	10-Jul	11:16:41	0.004	
125	10-Jul	11:17:41	0.185	
126	10-Jul	11:18:41	0.036	
127	10-Jul	11:19:41	0.233	
128	10-Jul	11:20:41	0.045	
129	10-Jul	11:21:41	0.45	
130	10-Jul	11:22:41	0.027	
131	10-Jul	11:23:41	0.017	
132	10-Jul	11:24:41	0.004	
133	10-Jul	11:25:41	0.002	
134	10-Jul	11:26:41	0.061	
135	10-Jul	11:27:41	0.011	
136	10-Jul	11:28:41	0.001	
137	10-Jul	11:29:41	0.05	
138	10-Jul	11:30:41	0.105	
139	10-Jul	11:31:41	0.009	
140	10-Jul	11:32:41	0.093	

Point	Date	Time	Avg.(mg/m³)	Notes
141	10-Jul	11:33:41	0.008	
142	10-Jul	11:34:41	0.103	
143	10-Jul	11:35:41	0.505	
144	10-Jul	11:36:41	0.003	
145	10-Jul	11:37:41	0.014	
146	10-Jul	11:38:41	0.026	
147	10-Jul	11:39:41	0.011	
148	10-Jul	11:40:41	0.005	
149	10-Jul	11:41:41	0.014	
150	10-Jul	11:42:41	0.004	
151	10-Jul	11:43:41	0.081	
152	10-Jul	11:44:41	0.042	
153	10-Jul	11:45:41	0.092	
154	10-Jul	11:46:41	0.045	
155	10-Jul	11:47:41	0.061	
156	10-Jul	11:48:41	0.12	
157	10-Jul	11:49:41	0.051	
158	10-Jul	11:50:41	0.006	
159	10-Jul	11:51:41	0.137	
160	10-Jul	11:52:41	0.057	
161	10-Jul	11:53:41	0.027	
162	10-Jul	11:54:41	0.005	
163	10-Jul	11:55:41	0.001	
164	10-Jul	11:56:41	0.017	
165	10-Jul	11:57:41	0.026	
166	10-Jul	11:58:41	0.03	
167	10-Jul	11:59:41	0.047	
168	10-Jul	12:00:41	0.043	
169	10-Jul	12:01:41	0.007	
170	10-Jul	12:02:41	0.007	
171	10-Jul	12:03:41	0.019	
172	10-Jul	12:04:41	0.002	
173	10-Jul	12:05:41	0.006	
174	10-Jul	12:06:41	0.07	
175	10-Jul	12:07:41	0.002	
176	10-Jul	12:08:41	0.008	
177	10-Jul	12:09:41	0.007	
178	10-Jul	12:10:41	0.102	
179	10-Jul	12:11:41	0.042	
180	10-Jul	12:12:41	0.049	
181	10-Jul	12:13:41	0.04	
182	10-Jul	12:14:41	0.028	
183	10-Jul	12:15:41	0.062	
184	10-Jul	12:16:41	0.012	
185	10-Jul	12:17:41	0	
186	10-Jul	12:18:41	0.019	
187	10-Jul	12:19:41	0.003	
188	10-Jul	12:20:41	0	
189	10-Jul	12:21:41	0.018	
190	10-Jul	12:22:41	0.025	
191	10-Jul	12:23:41	0.015	

Point	Date	Time	Avg.(mg/m³)	Notes
192	10-Jul	12:24:41	0.002	
193	10-Jul	12:25:41	0	
194	10-Jul	12:26:41	0	
195	10-Jul	12:27:41	0.002	
196	10-Jul	12:28:41	0.004	
197	10-Jul	12:29:41	0.001	
198	10-Jul	12:30:41	0.004	
199	10-Jul	12:31:41	0.007	
200	10-Jul	12:32:41	0	
201	10-Jul	12:33:41	0.007	
202	10-Jul	12:34:41	0.01	
203	10-Jul	12:35:41	0.032	
204	10-Jul	12:36:41	0.011	
205	10-Jul	12:37:41	0.006	
206	10-Jul	12:38:41	0.038	
207	10-Jul	12:39:41	0.022	
208	10-Jul	12:40:41	0.018	
209	10-Jul	12:41:41	0.173	
210	10-Jul	12:42:41	0.12	
211	10-Jul	12:43:41	0.133	
212	10-Jul	12:44:41	0.007	
213	10-Jul	12:45:41	0.015	
214	10-Jul	12:46:41	0.01	
215	10-Jul	12:47:41	0.171	
216	10-Jul	12:48:41	0.087	
217	10-Jul	12:49:41	0.018	
218	10-Jul	12:50:41	0.041	
219	10-Jul	12:51:41	0.191	
220	10-Jul	12:52:41	0.12	
221	10-Jul	12:53:41	0.07	
222	10-Jul	12:54:41	0.075	
223	10-Jul	12:55:41	0.055	
224	10-Jul	12:56:41	0.001	
225	10-Jul	12:57:41	0.022	
226	10-Jul	12:58:41	0.034	
227	10-Jul	12:59:41	0.035	
228	10-Jul	13:00:41	0.015	
229	10-Jul	13:01:41	0.012	
230	10-Jul	13:02:41	0.016	
231	10-Jul	13:03:41	0.003	
232	10-Jul	13:04:41	0.005	
233	10-Jul	13:05:41	0.139	
234	10-Jul	13:06:41	0.039	
235	10-Jul	13:07:41	0.062	
236	10-Jul	13:08:41	0.079	
237	10-Jul	13:09:41	0.079	
238	10-Jul	13:10:41	0.091	
239	10-Jul	13:11:41	0.005	
240	10-Jul	13:12:41	0.013	
241	10-Jul	13:13:41	0.048	
242	10-Jul	13:14:41	0.038	

Point	Date	Time	Avg.(mg/m^3)	Notes
243	10-Jul	13:15:41	0.104	
244	10-Jul	13:16:41	0.031	
245	10-Jul	13:17:41	0.04	
246	10-Jul	13:18:41	0.018	
247	10-Jul	13:19:41	0.036	
248	10-Jul	13:20:41	0.144	
249	10-Jul	13:21:41	0.063	
250	10-Jul	13:22:41	0.074	
251	10-Jul	13:23:41	0.021	
252	10-Jul	13:24:41	0.028	
253	10-Jul	13:25:41	0.006	
254	10-Jul	13:26:41	0.009	
255	10-Jul	13:27:41	0.055	
256	10-Jul	13:28:41	0.013	
257	10-Jul	13:29:41	0.008	
258	10-Jul	13:30:41	0.015	
259	10-Jul	13:31:41	0.154	
260	10-Jul	13:32:41	0.206	
261	10-Jul	13:33:41	0.021	
262	10-Jul	13:34:41	0.047	
263	10-Jul	13:35:41	0.054	
264	10-Jul	13:36:41	0.054	
265	10-Jul	13:37:41	0.052	
266	10-Jul	13:38:41	0.028	
267	10-Jul	13:39:41	0.047	
268	10-Jul	13:40:41	0.079	
269	10-Jul	13:41:41	0.106	
270	10-Jul	13:42:41	0.084	
271	10-Jul	13:43:41	0.067	
272	10-Jul	13:44:41	0.021	
273	10-Jul	13:45:41	0.028	
274	10-Jul	13:46:41	0.019	
275	10-Jul	13:47:41	0.01	
276	10-Jul	13:48:41	0.038	
277	10-Jul	13:49:41	0.013	
278	10-Jul	13:50:41	0.023	
279	10-Jul	13:51:41	0	
280	10-Jul	13:52:41	0.018	
281	10-Jul	13:53:41	0.019	
282	10-Jul	13:54:41	0.019	
283	10-Jul	13:55:41	0.003	
284	10-Jul	13:56:41	0.013	
285	10-Jul	13:57:41	0.03	
286	10-Jul	13:58:41	0.005	
287	10-Jul	13:59:41	0.005	
288	10-Jul	14:00:41	0.026	
289	10-Jul	14:01:41	0.022	
290	10-Jul	14:02:41	0.005	
291	10-Jul	14:03:41	0.009	
292	10-Jul	14:04:41	0.007	
293	10-Jul	14:05:41	0.019	

Point	Date	Time	Avg.(mg/m^3)	Notes
294	10-Jul	14:06:41	0.001	
295	10-Jul	14:07:41	0.036	
296	10-Jul	14:08:41	0.027	
297	10-Jul	14:09:41	0.01	
298	10-Jul	14:10:41	0.006	
299	10-Jul	14:11:41	0.04	
300	10-Jul	14:12:41	0.008	
301	10-Jul	14:13:41	0.006	
302	10-Jul	14:14:41	0.037	
303	10-Jul	14:15:41	0.027	
304	10-Jul	14:16:41	0.01	
305	10-Jul	14:17:41	0	
306	10-Jul	14:18:41	0.011	
307	10-Jul	14:19:41	0.004	
308	10-Jul	14:20:41	0.016	
309	10-Jul	14:21:41	0.009	
310	10-Jul	14:22:41	0.015	
311	10-Jul	14:23:41	0.001	
312	10-Jul	14:24:41	0.005	
313	10-Jul	14:25:41	0.001	
314	10-Jul	14:26:41	0.013	
315	10-Jul	14:27:41	0.017	
316	10-Jul	14:28:41	0.01	
317	10-Jul	14:29:41	0.017	
318	10-Jul	14:30:41	0	
319	10-Jul	14:31:41	0.019	
320	10-Jul	14:32:41	0.016	
321	10-Jul	14:33:41	0	
322	10-Jul	14:34:41	0.002	
323	10-Jul	14:35:41	0.004	
324	10-Jul	14:36:41	0.004	
325	10-Jul	14:37:41	0.005	
326	10-Jul	14:38:41	0.008	
327	10-Jul	14:39:41	0.005	
328	10-Jul	14:40:41	0.001	
329	10-Jul	14:41:41	0	
330	10-Jul	14:42:41	0	
331	10-Jul	14:43:41	0	
332	10-Jul	14:44:41	0.012	
333	10-Jul	14:45:41	0.043	
334	10-Jul	14:46:41	0.007	
335	10-Jul	14:47:41	0.005	
336	10-Jul	14:48:41	0.007	
337	10-Jul	14:49:41	0.022	
338	10-Jul	14:50:41	0.041	
339	10-Jul	14:51:41	0.006	
340	10-Jul	14:52:41	0.047	
341	10-Jul	14:53:41	0.093	
342	10-Jul	14:54:41	0.066	
343	10-Jul	14:55:41	0.011	
344	10-Jul	14:56:41	0.008	

Point	Date	Time	Avg.(mg/m³)	Notes
345	10-Jul	14:57:41	0.004	
346	10-Jul	14:58:41	0.039	
347	10-Jul	14:59:41	0.116	
348	10-Jul	15:00:41	0.037	
349	10-Jul	15:01:41	0.005	
350	10-Jul	15:02:41	0	
351	10-Jul	15:03:41	0.005	
352	10-Jul	15:04:41	0.006	
353	10-Jul	15:05:41	0.04	
354	10-Jul	15:06:41	0.171	
355	10-Jul	15:07:41	0.032	
356	10-Jul	15:08:41	0.001	
357	10-Jul	15:09:41	0.002	
358	10-Jul	15:10:41	0.021	
359	10-Jul	15:11:41	0.004	
360	10-Jul	15:12:41	0.011	
361	10-Jul	15:13:41	0.038	
362	10-Jul	15:14:41	0.018	
363	10-Jul	15:15:41	0.035	
364	10-Jul	15:16:41	0.012	
365	10-Jul	15:17:41	0.008	
366	10-Jul	15:18:41	0.01	
367	10-Jul	15:19:41	0	
368	10-Jul	15:20:41	0.02	
369	10-Jul	15:21:41	0.014	
370	10-Jul	15:22:41	0.023	
371	10-Jul	15:23:41	0.109	
372	10-Jul	15:24:41	0.098	
373	10-Jul	15:25:41	0.078	
374	10-Jul	15:26:41	0.026	
375	10-Jul	15:27:41	0.021	
376	10-Jul	15:28:41	0.009	
377	10-Jul	15:29:41	0.018	
378	10-Jul	15:30:41	0.004	
379	10-Jul	15:31:41	0.041	

"Model Number"	"DataRAM 4 "	104	
"Serial no. "	"D543 "		
"Device no. "	1		
"Tag Number "	1		
"Start Time "	10:49:30		
"Start Date "	06-Jun-2008		
"Log Period "	00:01:00		
"Number "	252		
"CalFactor "	1		
"Unit "	0		
"Unit Name "	"(MASS)ug/m3"		
"SIZE_CORRECT"	"DISABLED"		
"TEMPUNITS "	C		
"Max MASS "	103.8288		
"Max MASS @ "	2	10:51:30	6-Jun-08
"Avg MASS "	41.42045		
"Max Diam "	0.336663		
"Max Diam @ "	3	10:52:30	6-Jun-08
"Avg Diam "	0.232988		
"ALARM "	"DISABLED"		
"ALARM_LEVEL "	0		
"AUTO_ZERO "	"DISABLED"		
"AZ INTERVAL "	1		
"Errors "	0		

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
1	35.3	24.2	44	0.2774	10:50:30	6-Jun-08
2	103.8	24.2	45	0.3337	10:51:30	6-Jun-08
3	36.1	24.2	46	0.3367	10:52:30	6-Jun-08
4	26.2	24.2	47	0.1761	10:53:30	6-Jun-08
5	29.8	24.3	47	0.1805	10:54:30	6-Jun-08
6	27.4	24.3	48	0.1713	10:55:30	6-Jun-08
7	30.5	24.3	48	0.1685	10:56:30	6-Jun-08
8	27.3	24.3	48	0.1772	10:57:30	6-Jun-08
9	29.6	24.3	49	0.176	10:58:30	6-Jun-08
10	29.3	24.3	49	0.1847	10:59:30	6-Jun-08
11	29.2	24.3	49	0.1789	11:00:30	6-Jun-08
12	29	24.3	50	0.1789	11:01:30	6-Jun-08
13	29.1	24.3	50	0.1869	11:02:30	6-Jun-08
14	28.9	24.3	50	0.1701	11:03:30	6-Jun-08
15	31.4	24.4	50	0.1973	11:04:30	6-Jun-08
16	30.7	24.3	50	0.1902	11:05:30	6-Jun-08
17	31.3	24.4	50	0.1934	11:06:30	6-Jun-08
18	27.9	24.4	50	0.1852	11:07:30	6-Jun-08
19	28.1	24.4	51	0.1691	11:08:30	6-Jun-08
20	30.8	24.4	51	0.2053	11:09:30	6-Jun-08
21	29.2	24.4	51	0.1816	11:10:30	6-Jun-08
22	25.9	24.4	51	0.1745	11:11:30	6-Jun-08
23	26.7	24.4	51	0.1604	11:12:30	6-Jun-08
24	36	24.4	51	0.2016	11:13:30	6-Jun-08
25	29.3	24.4	51	0.1863	11:14:30	6-Jun-08
26	26.3	24.4	51	0.1869	11:15:30	6-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
27	25.4	24.4	51	0.1676	11:16:30	6-Jun-08
28	22.1	24.4	51	0.1596	11:17:30	6-Jun-08
29	22.7	24.4	51	0.1439	11:18:30	6-Jun-08
30	22.2	24.4	51	0.1619	11:19:30	6-Jun-08
31	21.8	24.4	51	0.1505	11:20:30	6-Jun-08
32	21.1	24.4	51	0.1341	11:21:30	6-Jun-08
33	22	24.4	51	0.1556	11:22:30	6-Jun-08
34	20.8	24.4	51	0.1561	11:23:30	6-Jun-08
35	22.3	24.4	52	0.1685	11:24:30	6-Jun-08
36	22.7	24.4	52	0.1664	11:25:30	6-Jun-08
37	23.3	24.4	52	0.1611	11:26:30	6-Jun-08
38	22	24.4	52	0.158	11:27:30	6-Jun-08
39	21.5	24.4	52	0.1585	11:28:30	6-Jun-08
40	26	24.4	52	0.1435	11:29:30	6-Jun-08
41	27.1	24.4	52	0.1589	11:30:30	6-Jun-08
42	21.8	24.4	52	0.1353	11:31:30	6-Jun-08
43	24.1	24.4	52	0.1407	11:32:30	6-Jun-08
44	25.7	24.4	52	0.1422	11:33:30	6-Jun-08
45	24.8	24.4	52	0.1708	11:34:30	6-Jun-08
46	24.8	24.4	52	0.1702	11:35:30	6-Jun-08
47	28.8	24.4	52	0.1603	11:36:30	6-Jun-08
48	31	24.4	52	0.2088	11:37:30	6-Jun-08
49	26.7	24.4	52	0.1866	11:38:30	6-Jun-08
50	38.1	24.4	52	0.208	11:39:30	6-Jun-08
51	29.7	24.5	52	0.1841	11:40:30	6-Jun-08
52	34.6	24.5	52	0.2184	11:41:30	6-Jun-08
53	27.9	24.5	52	0.1946	11:42:30	6-Jun-08
54	27.2	24.5	52	0.1859	11:43:30	6-Jun-08
55	27	24.5	52	0.1849	11:44:30	6-Jun-08
56	28.8	24.6	52	0.1732	11:45:30	6-Jun-08
57	28.1	24.6	52	0.1678	11:46:30	6-Jun-08
58	27.8	24.7	52	0.172	11:47:30	6-Jun-08
59	27.6	24.7	52	0.1756	11:48:30	6-Jun-08
60	27.7	24.7	52	0.1697	11:49:30	6-Jun-08
61	30.6	24.7	52	0.2004	11:50:30	6-Jun-08
62	31.1	24.8	52	0.2064	11:51:30	6-Jun-08
63	31.2	24.9	52	0.2007	11:52:30	6-Jun-08
64	28.2	24.9	52	0.1846	11:53:30	6-Jun-08
65	30.6	24.9	52	0.1958	11:54:30	6-Jun-08
66	30.7	25	52	0.1876	11:55:30	6-Jun-08
67	31.6	25	52	0.1797	11:56:30	6-Jun-08
68	32.3	25.1	52	0.1812	11:57:30	6-Jun-08
69	36.4	25.1	51	0.2125	11:58:30	6-Jun-08
70	35.4	25.2	51	0.217	11:59:30	6-Jun-08
71	32.9	25.2	51	0.2129	12:00:30	6-Jun-08
72	34.2	25.3	51	0.1972	12:01:30	6-Jun-08
73	33.5	25.3	51	0.2101	12:02:30	6-Jun-08
74	34	25.4	51	0.2261	12:03:30	6-Jun-08
75	34.1	25.4	51	0.2566	12:04:30	6-Jun-08
76	33.5	25.5	51	0.2439	12:05:30	6-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
77	35.7	25.5	51	0.2366	12:06:30	6-Jun-08
78	35.5	25.5	51	0.2333	12:07:30	6-Jun-08
79	33.8	25.6	51	0.2171	12:08:30	6-Jun-08
80	37.1	25.7	51	0.2633	12:09:30	6-Jun-08
81	40.5	25.7	51	0.2655	12:10:30	6-Jun-08
82	40.3	25.7	51	0.2813	12:11:30	6-Jun-08
83	37.1	25.8	51	0.2565	12:12:30	6-Jun-08
84	36.8	25.9	50	0.2292	12:13:30	6-Jun-08
85	38	25.9	50	0.2323	12:14:30	6-Jun-08
86	35.5	26	50	0.2319	12:15:30	6-Jun-08
87	37.6	26	50	0.2356	12:16:30	6-Jun-08
88	37.6	26.1	50	0.2526	12:17:30	6-Jun-08
89	37.5	26.1	50	0.2301	12:18:30	6-Jun-08
90	42.1	26.1	50	0.239	12:19:30	6-Jun-08
91	38	26.2	50	0.2234	12:20:30	6-Jun-08
92	39.3	26.2	50	0.2379	12:21:30	6-Jun-08
93	40	26.3	49	0.2577	12:22:30	6-Jun-08
94	36.4	26.3	49	0.2429	12:23:30	6-Jun-08
95	38.4	26.4	49	0.2319	12:24:30	6-Jun-08
96	36.5	26.4	49	0.2377	12:25:30	6-Jun-08
97	37.5	26.5	49	0.2301	12:26:30	6-Jun-08
98	42.6	26.5	49	0.2462	12:27:30	6-Jun-08
99	42.3	26.6	49	0.2663	12:28:30	6-Jun-08
100	42.5	26.6	49	0.2698	12:29:30	6-Jun-08
101	41.2	26.6	49	0.2568	12:30:30	6-Jun-08
102	40.8	26.6	49	0.2404	12:31:30	6-Jun-08
103	38.9	26.7	49	0.2215	12:32:30	6-Jun-08
104	40.4	26.7	49	0.2428	12:33:30	6-Jun-08
105	42.1	26.7	49	0.2757	12:34:30	6-Jun-08
106	43.6	26.8	49	0.2742	12:35:30	6-Jun-08
107	41.4	26.8	49	0.2607	12:36:30	6-Jun-08
108	42.4	26.8	48	0.2639	12:37:30	6-Jun-08
109	45.2	26.9	48	0.2725	12:38:30	6-Jun-08
110	42.9	26.9	48	0.2411	12:39:30	6-Jun-08
111	43.3	26.9	48	0.2428	12:40:30	6-Jun-08
112	41.6	27	48	0.2428	12:41:30	6-Jun-08
113	43.3	27	48	0.2523	12:42:30	6-Jun-08
114	44.7	27	48	0.2579	12:43:30	6-Jun-08
115	45.6	27	48	0.2797	12:44:30	6-Jun-08
116	41.5	27	48	0.2533	12:45:30	6-Jun-08
117	41.5	27	48	0.2355	12:46:30	6-Jun-08
118	40.2	27	48	0.2433	12:47:30	6-Jun-08
119	39	27.1	48	0.2397	12:48:30	6-Jun-08
120	42.4	27.1	48	0.2402	12:49:30	6-Jun-08
121	42.7	27.1	48	0.2697	12:50:30	6-Jun-08
122	44.1	27.1	48	0.2693	12:51:30	6-Jun-08
123	43.9	27.1	48	0.2681	12:52:30	6-Jun-08
124	44.4	27.1	48	0.261	12:53:30	6-Jun-08
125	46	27.2	48	0.2606	12:54:30	6-Jun-08
126	44.8	27.1	48	0.2716	12:55:30	6-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
127	47.4	27.2	48	0.2592	12:56:30	6-Jun-08
128	45.8	27.2	48	0.2593	12:57:30	6-Jun-08
129	46.5	27.2	48	0.2584	12:58:30	6-Jun-08
130	45.2	27.2	48	0.2504	12:59:30	6-Jun-08
131	45.6	27.2	48	0.2574	13:00:30	6-Jun-08
132	45	27.2	48	0.2552	13:01:30	6-Jun-08
133	44	27.3	48	0.2646	13:02:30	6-Jun-08
134	43.5	27.3	48	0.2557	13:03:30	6-Jun-08
135	42.6	27.3	48	0.2648	13:04:30	6-Jun-08
136	43.6	27.4	48	0.2636	13:05:30	6-Jun-08
137	44.9	27.4	48	0.2792	13:06:30	6-Jun-08
138	45.4	27.4	47	0.2746	13:07:30	6-Jun-08
139	45.3	27.5	48	0.2531	13:08:30	6-Jun-08
140	46.7	27.5	48	0.2595	13:09:30	6-Jun-08
141	44.3	27.5	47	0.251	13:10:30	6-Jun-08
142	44.9	27.5	47	0.2459	13:11:30	6-Jun-08
143	46	27.5	47	0.2532	13:12:30	6-Jun-08
144	48	27.6	47	0.2731	13:13:30	6-Jun-08
145	49.4	27.6	47	0.2692	13:14:30	6-Jun-08
146	48	27.6	47	0.2519	13:15:30	6-Jun-08
147	53.8	27.7	47	0.2787	13:16:30	6-Jun-08
148	52.9	27.7	47	0.2726	13:17:30	6-Jun-08
149	49.1	27.7	47	0.255	13:18:30	6-Jun-08
150	47.7	27.8	47	0.2551	13:19:30	6-Jun-08
151	50	27.8	47	0.2545	13:20:30	6-Jun-08
152	50.7	27.9	47	0.2496	13:21:30	6-Jun-08
153	49.2	27.9	47	0.2616	13:22:30	6-Jun-08
154	48.4	27.9	47	0.2727	13:23:30	6-Jun-08
155	49.5	28	47	0.265	13:24:30	6-Jun-08
156	50.8	28	47	0.2715	13:25:30	6-Jun-08
157	47.7	28	47	0.2427	13:26:30	6-Jun-08
158	47	28.1	47	0.2516	13:27:30	6-Jun-08
159	48	28.1	47	0.2421	13:28:30	6-Jun-08
160	48.1	28.1	47	0.2453	13:29:30	6-Jun-08
161	46.5	28.2	47	0.2513	13:30:30	6-Jun-08
162	48.4	28.2	47	0.2578	13:31:30	6-Jun-08
163	47.8	28.3	46	0.2491	13:32:30	6-Jun-08
164	48.1	28.3	46	0.2498	13:33:30	6-Jun-08
165	49.3	28.4	46	0.2762	13:34:30	6-Jun-08
166	47.2	28.4	46	0.2579	13:35:30	6-Jun-08
167	48.4	28.5	46	0.2394	13:36:30	6-Jun-08
168	48.4	28.5	46	0.2357	13:37:30	6-Jun-08
169	49.7	28.6	46	0.2527	13:38:30	6-Jun-08
170	50.4	28.6	46	0.2486	13:39:30	6-Jun-08
171	51.8	28.6	46	0.2573	13:40:30	6-Jun-08
172	48.8	28.6	46	0.2391	13:41:30	6-Jun-08
173	49.6	28.7	46	0.2421	13:42:30	6-Jun-08
174	49.1	28.7	46	0.2404	13:43:30	6-Jun-08
175	53.1	28.7	46	0.264	13:44:30	6-Jun-08
176	60.7	28.8	46	0.2744	13:45:30	6-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
177	53.9	28.8	46	0.271	13:46:30	6-Jun-08
178	49.1	28.8	46	0.2725	13:47:30	6-Jun-08
179	49.6	28.9	46	0.2471	13:48:30	6-Jun-08
180	48.7	28.9	45	0.2307	13:49:30	6-Jun-08
181	47.8	28.9	46	0.2373	13:50:30	6-Jun-08
182	49	29	45	0.2573	13:51:30	6-Jun-08
183	48.8	29	45	0.2531	13:52:30	6-Jun-08
184	48.2	29	45	0.2358	13:53:30	6-Jun-08
185	48.8	29.1	45	0.2462	13:54:30	6-Jun-08
186	49.6	29.1	45	0.2572	13:55:30	6-Jun-08
187	48.3	29.1	45	0.2548	13:56:30	6-Jun-08
188	46.2	29.1	45	0.2391	13:57:30	6-Jun-08
189	47.5	29.1	45	0.2335	13:58:30	6-Jun-08
190	46.6	29.2	45	0.2209	13:59:30	6-Jun-08
191	46.1	29.2	45	0.2439	14:00:30	6-Jun-08
192	48.2	29.2	45	0.2214	14:01:30	6-Jun-08
193	49.6	29.2	45	0.2451	14:02:30	6-Jun-08
194	49.2	29.3	45	0.2471	14:03:30	6-Jun-08
195	49.7	29.3	45	0.2384	14:04:30	6-Jun-08
196	52	29.3	45	0.2428	14:05:30	6-Jun-08
197	50	29.3	45	0.2297	14:06:30	6-Jun-08
198	54.1	29.3	45	0.2406	14:07:30	6-Jun-08
199	52.6	29.4	45	0.2522	14:08:30	6-Jun-08
200	51.9	29.4	45	0.2511	14:09:30	6-Jun-08
201	49.8	29.4	45	0.2516	14:10:30	6-Jun-08
202	49.7	29.4	45	0.2467	14:11:30	6-Jun-08
203	49.2	29.5	45	0.242	14:12:30	6-Jun-08
204	51.5	29.5	44	0.2341	14:13:30	6-Jun-08
205	50.5	29.5	45	0.2578	14:14:30	6-Jun-08
206	54.7	29.5	44	0.2578	14:15:30	6-Jun-08
207	54.7	29.5	45	0.2848	14:16:30	6-Jun-08
208	51.2	29.6	45	0.2684	14:17:30	6-Jun-08
209	51.4	29.6	45	0.2544	14:18:30	6-Jun-08
210	55.4	29.6	45	0.2987	14:19:30	6-Jun-08
211	46.3	29.6	44	0.2534	14:20:30	6-Jun-08
212	46.6	29.6	44	0.225	14:21:30	6-Jun-08
213	49.5	29.7	45	0.2494	14:22:30	6-Jun-08
214	47.7	29.7	44	0.2483	14:23:30	6-Jun-08
215	48	29.7	44	0.2418	14:24:30	6-Jun-08
216	45.8	29.8	44	0.2442	14:25:30	6-Jun-08
217	45.1	29.8	44	0.2358	14:26:30	6-Jun-08
218	45.8	29.8	44	0.2164	14:27:30	6-Jun-08
219	49.9	29.9	44	0.2216	14:28:30	6-Jun-08
220	45.5	29.9	44	0.2233	14:29:30	6-Jun-08
221	48.5	30	44	0.2383	14:30:30	6-Jun-08
222	49.2	30	44	0.2521	14:31:30	6-Jun-08
223	48.9	30	44	0.2392	14:32:30	6-Jun-08
224	46.4	30.1	44	0.2274	14:33:30	6-Jun-08
225	46.8	30.1	44	0.2247	14:34:30	6-Jun-08
226	46.8	30.1	44	0.2485	14:35:30	6-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
227	47.3	30.1	44	0.2185	14:36:30	6-Jun-08
228	48.9	30.2	44	0.2384	14:37:30	6-Jun-08
229	47	30.2	44	0.2305	14:38:30	6-Jun-08
230	47.4	30.2	44	0.2391	14:39:30	6-Jun-08
231	50	30.2	44	0.2582	14:40:30	6-Jun-08
232	51.6	30.3	43	0.2448	14:41:30	6-Jun-08
233	53.4	30.3	43	0.2422	14:42:30	6-Jun-08
234	53	30.3	43	0.2827	14:43:30	6-Jun-08
235	51.6	30.3	43	0.2555	14:44:30	6-Jun-08
236	53.5	30.4	43	0.2597	14:45:30	6-Jun-08
237	52	30.4	43	0.2909	14:46:30	6-Jun-08
238	54.4	30.4	43	0.2762	14:47:30	6-Jun-08
239	50.6	30.5	43	0.269	14:48:30	6-Jun-08
240	52.9	30.5	43	0.2836	14:49:30	6-Jun-08
241	52.1	30.5	43	0.2913	14:50:30	6-Jun-08
242	50.7	30.5	43	0.2556	14:51:30	6-Jun-08
243	47.2	30.5	43	0.2631	14:52:30	6-Jun-08
244	47.6	30.6	43	0.3081	14:53:30	6-Jun-08
245	53.7	30.6	42	0.2984	14:54:30	6-Jun-08
246	50.9	30.6	42	0.2801	14:55:30	6-Jun-08
247	50.7	30.6	42	0.2944	14:56:30	6-Jun-08
248	49.5	30.6	42	0.2643	14:57:30	6-Jun-08
249	50.1	30.6	42	0.298	14:58:30	6-Jun-08
250	47.6	30.7	42	0.2874	14:59:30	6-Jun-08
251	46.5	30.6	42	0.262	15:00:30	6-Jun-08
252	48.7	30.7	42	0.2933	15:01:30	6-Jun-08

"Model Number"	"DataRAM 4 "		104	
"Serial no. "	"D312 "			
"Device no. "		1		
"Tag Number "		2		
"Start Time "	08:33:41			
"Start Date "	09-Jun-2008			
"Log Period "	00:01:00			
"Number "		314		
"CalFactor "		1		
"Unit "		0		
"Unit Name "	"(MASS)ug/m3"			
"SIZE_CORRECT"	"DISABLED"			
"TEMPUNITS "	C			
"Max MASS "		0.584561		
"Max MASS @ "		1	8:34:41	9-Jun-08
"Avg MASS "		0.005677		
"Max Diam "		0.33749		
"Max Diam @ "		2	8:35:41	9-Jun-08
"Avg Diam "		0.337331		
"ALARM "	"DISABLED"			
"ALARM_LEVEL "		0		
"AUTO_ZERO "	"DISABLED"			
"AZ INTERVAL "		1		
"Errors "		10		

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
1	0.6	26.5	55	0.3284	8:34:41	9-Jun-08
2	0	26.7	59	0.3375	8:35:41	9-Jun-08
3	0	26.9	61	0.3375	8:36:41	9-Jun-08
4	0	27	62	0.3375	8:37:41	9-Jun-08
5	0	27.2	62	0.3375	8:38:41	9-Jun-08
6	0	27.4	62	0.3375	8:39:41	9-Jun-08
7	0	27.6	62	0.3375	8:40:41	9-Jun-08
8	0	27.7	62	0.3375	8:41:41	9-Jun-08
9	0	28	62	0.3375	8:42:41	9-Jun-08
10	0	28.1	62	0.3375	8:43:41	9-Jun-08
11	0	28.3	62	0.3375	8:44:41	9-Jun-08
12	0.1	28.6	61	0.3353	8:45:41	9-Jun-08
13	0	28.7	61	0.3375	8:46:41	9-Jun-08
14	0	28.9	61	0.3375	8:47:41	9-Jun-08
15	0	29.1	60	0.3375	8:48:41	9-Jun-08
16	0	29.3	60	0.3375	8:49:41	9-Jun-08
17	0	29.5	60	0.3375	8:50:41	9-Jun-08
18	0	29.7	59	0.3375	8:51:41	9-Jun-08
19	0	29.9	59	0.3375	8:52:41	9-Jun-08
20	0.2	30.1	59	0.3329	8:53:41	9-Jun-08
21	0	30.2	59	0.3375	8:54:41	9-Jun-08
22	0	30.4	58	0.3375	8:55:41	9-Jun-08
23	0	30.6	58	0.3375	8:56:41	9-Jun-08
24	0	30.8	57	0.3375	8:57:41	9-Jun-08
25	0	31	57	0.3375	8:58:41	9-Jun-08
26	0	31.2	56	0.3375	8:59:41	9-Jun-08
27	0	31.4	56	0.3375	9:00:41	9-Jun-08
28	0	31.6	55	0.3375	9:01:41	9-Jun-08
29	0	31.8	55	0.3375	9:02:41	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
30	0	31.9	54	0.3375	9:03:41	9-Jun-08
31	0	32.1	54	0.3375	9:04:41	9-Jun-08
32	0	32.3	53	0.3375	9:05:41	9-Jun-08
33	0	32.5	53	0.3375	9:06:41	9-Jun-08
34	0	32.6	52	0.3375	9:07:41	9-Jun-08
35	0	32.8	52	0.3375	9:08:41	9-Jun-08
36	0	33	52	0.3375	9:09:41	9-Jun-08
37	0	33.2	51	0.3375	9:10:41	9-Jun-08
38	0	33.3	51	0.3375	9:11:41	9-Jun-08
39	0	33.5	51	0.3375	9:12:41	9-Jun-08
40	0	33.8	50	0.3375	9:13:41	9-Jun-08
41	0	33.9	50	0.3375	9:14:41	9-Jun-08
42	0	34	50	0.3375	9:15:41	9-Jun-08
43	0	34.3	49	0.3375	9:16:41	9-Jun-08
44	0	34.4	49	0.3375	9:17:41	9-Jun-08
45	0	34.5	48	0.3375	9:18:41	9-Jun-08
46	0	34.7	48	0.3375	9:19:41	9-Jun-08
47	0	34.9	48	0.3375	9:20:41	9-Jun-08
48	0	35.1	47	0.3375	9:21:41	9-Jun-08
49	0	35.3	47	0.3375	9:22:41	9-Jun-08
50	0	35.3	47	0.3375	9:23:41	9-Jun-08
51	0	35.5	46	0.3375	9:24:41	9-Jun-08
52	0	35.7	46	0.3375	9:25:41	9-Jun-08
53	0	35.9	46	0.3375	9:26:41	9-Jun-08
54	0	36.1	45	0.3375	9:27:41	9-Jun-08
55	0	36.2	45	0.3375	9:28:41	9-Jun-08
56	0	36.3	45	0.3375	9:29:41	9-Jun-08
57	0	36.4	44	0.3375	9:30:41	9-Jun-08
58	0	36.6	44	0.3375	9:31:41	9-Jun-08
59	0	36.7	44	0.3375	9:32:41	9-Jun-08
60	0	36.9	43	0.3375	9:33:41	9-Jun-08
61	0	37.1	43	0.3375	9:34:41	9-Jun-08
62	0	37.2	43	0.3375	9:35:41	9-Jun-08
63	0	37.3	43	0.3375	9:36:41	9-Jun-08
64	0	37.5	42	0.3375	9:37:41	9-Jun-08
65	0	37.6	42	0.3375	9:38:41	9-Jun-08
66	0	37.7	42	0.3375	9:39:41	9-Jun-08
67	0	37.9	41	0.3375	9:40:41	9-Jun-08
68	0	38	41	0.3375	9:41:41	9-Jun-08
69	0	38.1	41	0.3375	9:42:41	9-Jun-08
70	0	38.3	41	0.3375	9:43:41	9-Jun-08
71	0	38.4	41	0.3375	9:44:41	9-Jun-08
72	0	38.6	40	0.3375	9:45:41	9-Jun-08
73	0	38.7	40	0.3375	9:46:41	9-Jun-08
74	0	38.9	40	0.3375	9:47:41	9-Jun-08
75	0	38.9	40	0.3375	9:48:41	9-Jun-08
76	0	39.1	39	0.3375	9:49:41	9-Jun-08
77	0	39.2	39	0.3375	9:50:41	9-Jun-08
78	0	39.3	39	0.3375	9:51:41	9-Jun-08
79	0	39.5	39	0.3375	9:52:41	9-Jun-08
80	0	39.6	38	0.3375	9:53:41	9-Jun-08
81	0	39.7	38	0.3375	9:54:41	9-Jun-08
82	0	39.9	38	0.3375	9:55:41	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
83	0	40	38	0.3375	9:56:41	9-Jun-08
84	0	40.2	38	0.3375	9:57:41	9-Jun-08
85	0	40.3	37	0.3375	9:58:41	9-Jun-08
86	0	40.4	37	0.3375	9:59:41	9-Jun-08
87	0	40.5	37	0.3375	10:00:41	9-Jun-08
88	0	40.6	36	0.3375	10:01:41	9-Jun-08
89	0	40.7	36	0.3375	10:02:41	9-Jun-08
90	0	40.9	36	0.3375	10:03:41	9-Jun-08
91	0	41	36	0.3375	10:04:41	9-Jun-08
92	0	41.1	35	0.3375	10:05:41	9-Jun-08
93	0	41.2	35	0.3375	10:06:41	9-Jun-08
94	0	41.3	35	0.3375	10:07:41	9-Jun-08
95	0	41.4	35	0.3375	10:08:41	9-Jun-08
96	0	41.6	35	0.3375	10:09:41	9-Jun-08
97	0	41.6	35	0.3375	10:10:41	9-Jun-08
98	0	41.7	34	0.3375	10:11:41	9-Jun-08
99	0	41.8	34	0.3375	10:12:41	9-Jun-08
100	0	41.9	34	0.3375	10:13:41	9-Jun-08
101	0	42	34	0.3375	10:14:41	9-Jun-08
102	0	42.1	34	0.3375	10:15:41	9-Jun-08
103	0	42.2	33	0.3375	10:16:41	9-Jun-08
104	0	42.3	34	0.3375	10:17:41	9-Jun-08
105	0	42.4	33	0.3375	10:18:41	9-Jun-08
106	0	42.4	33	0.3375	10:19:41	9-Jun-08
107	0.1	42.6	33	0.3305	10:20:41	9-Jun-08
108	0	42.6	33	0.3375	10:21:41	9-Jun-08
109	0	42.7	33	0.3375	10:22:41	9-Jun-08
110	0	42.8	33	0.3375	10:23:41	9-Jun-08
111	0	42.9	33	0.3375	10:24:41	9-Jun-08
112	0	43	33	0.3375	10:25:41	9-Jun-08
113	0	43.1	32	0.3375	10:26:41	9-Jun-08
114	0	43.3	32	0.3375	10:27:41	9-Jun-08
115	0	43.3	32	0.3375	10:28:41	9-Jun-08
116	0	43.4	32	0.3375	10:29:41	9-Jun-08
117	0	43.4	32	0.3375	10:30:41	9-Jun-08
118	0	43.6	32	0.3375	10:31:41	9-Jun-08
119	0	43.7	32	0.3375	10:32:41	9-Jun-08
120	0	43.8	31	0.3375	10:33:41	9-Jun-08
121	0	43.9	31	0.3375	10:34:41	9-Jun-08
122	0	44	31	0.3375	10:35:41	9-Jun-08
123	0	44.1	31	0.3375	10:36:41	9-Jun-08
124	0	44.2	31	0.3375	10:37:41	9-Jun-08
125	0	44.2	31	0.3375	10:38:41	9-Jun-08
126	0	44.3	31	0.3375	10:39:41	9-Jun-08
127	0	44.4	30	0.3375	10:40:41	9-Jun-08
128	0	44.5	30	0.3375	10:41:41	9-Jun-08
129	0	44.6	30	0.3375	10:42:41	9-Jun-08
130	0	44.7	30	0.3375	10:43:41	9-Jun-08
131	0	44.8	30	0.3375	10:44:41	9-Jun-08
132	0	44.8	30	0.3375	10:45:41	9-Jun-08
133	0	44.9	30	0.3375	10:46:41	9-Jun-08
134	0	45	30	0.3375	10:47:41	9-Jun-08
135	0	45.1	30	0.3375	10:48:41	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
136	0	45.2	29	0.3375	10:49:41	9-Jun-08
137	0	45.3	29	0.3375	10:50:41	9-Jun-08
138	0	45.4	29	0.3375	10:51:41	9-Jun-08
139	0	45.5	29	0.3375	10:52:41	9-Jun-08
140	0	45.6	29	0.3375	10:53:41	9-Jun-08
141	0	45.7	29	0.3375	10:54:41	9-Jun-08
142	0	45.7	29	0.3375	10:55:41	9-Jun-08
143	0	45.8	29	0.3375	10:56:41	9-Jun-08
144	0	46	29	0.3375	10:57:41	9-Jun-08
145	0	46	28	0.3375	10:58:41	9-Jun-08
146	0	46.1	28	0.3375	10:59:41	9-Jun-08
147	0	46.2	28	0.3375	11:00:41	9-Jun-08
148	0.2	46.3	28	0.3294	11:01:41	9-Jun-08
149	0	46.3	28	0.3375	11:02:41	9-Jun-08
150	0	46.4	28	0.3375	11:03:41	9-Jun-08
151	0	46.5	28	0.3375	11:04:41	9-Jun-08
152	0	46.6	28	0.3375	11:05:41	9-Jun-08
153	0	46.6	28	0.3375	11:06:41	9-Jun-08
154	0	46.7	28	0.3375	11:07:41	9-Jun-08
155	0	46.8	27	0.3375	11:08:41	9-Jun-08
156	0	46.9	27	0.3375	11:09:41	9-Jun-08
157	0	46.9	27	0.3375	11:10:41	9-Jun-08
158	0	46.9	27	0.3375	11:11:41	9-Jun-08
159	0	47	27	0.3375	11:12:41	9-Jun-08
160	0	47.1	27	0.3375	11:13:41	9-Jun-08
161	0	47.1	27	0.3375	11:14:41	9-Jun-08
162	0	47.2	27	0.3375	11:15:41	9-Jun-08
163	0	47.2	27	0.3375	11:16:41	9-Jun-08
164	0	47.3	27	0.3375	11:17:41	9-Jun-08
165	0	47.3	27	0.3375	11:18:41	9-Jun-08
166	0	47.4	27	0.3375	11:19:41	9-Jun-08
167	0	47.4	26	0.3375	11:20:41	9-Jun-08
168	0	47.5	27	0.3375	11:21:41	9-Jun-08
169	0	47.6	27	0.3375	11:22:41	9-Jun-08
170	0	47.6	26	0.3375	11:23:41	9-Jun-08
171	0	47.7	26	0.3375	11:24:41	9-Jun-08
172	0	47.7	26	0.3375	11:25:41	9-Jun-08
173	0	47.8	26	0.3375	11:26:41	9-Jun-08
174	0	47.9	26	0.3375	11:27:41	9-Jun-08
175	0	47.9	26	0.3375	11:28:41	9-Jun-08
176	0	47.9	26	0.3375	11:29:41	9-Jun-08
177	0	48	26	0.3375	11:30:41	9-Jun-08
178	0	48.1	26	0.3375	11:31:41	9-Jun-08
179	0	48.1	26	0.3375	11:32:41	9-Jun-08
180	0	48.2	26	0.3375	11:33:41	9-Jun-08
181	0	48.2	26	0.3375	11:34:41	9-Jun-08
182	0	48.3	26	0.3375	11:35:41	9-Jun-08
183	0	48.3	26	0.3375	11:36:41	9-Jun-08
184	0	48.4	26	0.3375	11:37:41	9-Jun-08
185	0	48.4	26	0.3375	11:38:41	9-Jun-08
186	0	48.5	26	0.3375	11:39:41	9-Jun-08
187	0	48.5	25	0.3375	11:40:41	9-Jun-08
188	0	48.6	25	0.3375	11:41:41	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
189	0	48.7	25	0.3375	11:42:41	9-Jun-08
190	0	48.7	25	0.3375	11:43:41	9-Jun-08
191	0	48.7	25	0.3375	11:44:41	9-Jun-08
192	0	48.8	25	0.3375	11:45:41	9-Jun-08
193	0	48.8	25	0.3375	11:46:41	9-Jun-08
194	0	48.9	25	0.3375	11:47:41	9-Jun-08
195	0	48.9	25	0.3375	11:48:41	9-Jun-08
196	0	48.9	25	0.3375	11:49:41	9-Jun-08
197	0	49	24	0.3375	11:50:41	9-Jun-08
198	0	49	25	0.3369	11:51:41	9-Jun-08
199	0	49.1	24	0.3375	11:52:41	9-Jun-08
200	0	49.1	24	0.3375	11:53:41	9-Jun-08
201	0	49.2	24	0.3375	11:54:41	9-Jun-08
202	0	49.2	24	0.3375	11:55:41	9-Jun-08
203	0	49.2	24	0.3375	11:56:41	9-Jun-08
204	0	49.3	24	0.3375	11:57:41	9-Jun-08
205	0	49.3	24	0.3375	11:58:41	9-Jun-08
206	0	49.4	24	0.3375	11:59:41	9-Jun-08
207	0	49.4	24	0.3375	12:00:41	9-Jun-08
208	0	49.4	24	0.3375	12:01:41	9-Jun-08
209	0	49.5	24	0.3375	12:02:41	9-Jun-08
210	0	49.5	24	0.3375	12:03:41	9-Jun-08
211	0	49.6	24	0.3375	12:04:41	9-Jun-08
212	0	49.6	24	0.3375	12:05:41	9-Jun-08
213	0	49.6	23	0.3375	12:06:41	9-Jun-08
214	0	49.7	23	0.3375	12:07:41	9-Jun-08
215	0	49.7	23	0.3375	12:08:41	9-Jun-08
216	0	49.7	23	0.3375	12:09:41	9-Jun-08
217	0	49.8	23	0.3375	12:10:41	9-Jun-08
218	0	49.8	23	0.3375	12:11:41	9-Jun-08
219	0	49.9	23	0.3375	12:12:41	9-Jun-08
220	0	49.8	23	0.3375	12:13:41	9-Jun-08
221	0	49.8	23	0.3375	12:14:41	9-Jun-08
222	0	49.9	23	0.3375	12:15:41	9-Jun-08
223	0	50	23	0.3375	12:16:41	9-Jun-08
224	0	50	23	0.3375	12:17:41	9-Jun-08
225	0	50	23	0.3375	12:18:41	9-Jun-08
226	0	50.1	23	0.3375	12:19:41	9-Jun-08
227	0	50.1	23	0.3375	12:20:41	9-Jun-08
228	0	50.1	23	0.3375	12:21:41	9-Jun-08
229	0	50.2	23	0.3375	12:22:41	9-Jun-08
230	0	50.3	23	0.3375	12:23:41	9-Jun-08
231	0	50.3	23	0.3375	12:24:41	9-Jun-08
232	0	50.4	23	0.3375	12:25:41	9-Jun-08
233	0	50.4	23	0.3375	12:26:41	9-Jun-08
234	0	50.4	23	0.3375	12:27:41	9-Jun-08
235	0	50.5	22	0.3375	12:28:41	9-Jun-08
236	0	50.5	23	0.3375	12:29:41	9-Jun-08
237	0	50.7	23	0.3375	12:30:41	9-Jun-08
238	0	50.6	22	0.3375	12:31:41	9-Jun-08
239	0	50.7	23	0.3375	12:32:41	9-Jun-08
240	0	50.7	22	0.3375	12:33:41	9-Jun-08
241	0	50.8	22	0.3375	12:34:41	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
242	0	50.8	22	0.3375	12:35:41	9-Jun-08
243	0	50.8	22	0.3375	12:36:41	9-Jun-08
244	0	50.9	22	0.3375	12:37:41	9-Jun-08
245	0	50.9	22	0.3375	12:38:41	9-Jun-08
246	0	51	21	0.3375	12:39:41	9-Jun-08
247	0	51.1	22	0.3375	12:40:41	9-Jun-08
248	0	51.1	22	0.3375	12:41:41	9-Jun-08
249	0	51.1	22	0.3375	12:42:41	9-Jun-08
250	0	51.2	22	0.3375	12:43:41	9-Jun-08
251	0	51.2	21	0.3375	12:44:41	9-Jun-08
252	0	51.2	22	0.3375	12:45:41	9-Jun-08
253	0	51.2	21	0.3375	12:46:41	9-Jun-08
254	0	51.2	21	0.3375	12:47:41	9-Jun-08
255	0	51.3	21	0.3375	12:48:41	9-Jun-08
256	0	51.3	21	0.3375	12:49:41	9-Jun-08
257	0	51.4	21	0.3375	12:50:41	9-Jun-08
258	0	51.4	21	0.3375	12:51:41	9-Jun-08
259	0	51.4	21	0.3375	12:52:41	9-Jun-08
260	0	51.4	21	0.3375	12:53:41	9-Jun-08
261	0	51.4	21	0.3375	12:54:41	9-Jun-08
262	0	51.5	21	0.3375	12:55:41	9-Jun-08
263	0	51.5	21	0.3375	12:56:41	9-Jun-08
264	0	51.5	21	0.3375	12:57:41	9-Jun-08
265	0	51.5	21	0.3375	12:58:41	9-Jun-08
266	0	51.5	21	0.3375	12:59:41	9-Jun-08
267	0	51.6	21	0.3375	13:00:41	9-Jun-08
268	0	51.5	21	0.3375	13:01:41	9-Jun-08
269	0	51.5	21	0.3375	13:02:41	9-Jun-08
270	0	51.6	21	0.3375	13:03:41	9-Jun-08
271	0	51.6	21	0.3375	13:04:41	9-Jun-08
272	0	51.6	21	0.3375	13:05:41	9-Jun-08
273	0	51.6	21	0.3375	13:06:41	9-Jun-08
274	0	51.6	21	0.3375	13:07:41	9-Jun-08
275	0	51.6	20	0.3375	13:08:41	9-Jun-08
276	0	51.6	21	0.3375	13:09:41	9-Jun-08
277	0.5	51.6	21	0.3264	13:10:41	9-Jun-08
278	0	51.7	20	0.3375	13:11:41	9-Jun-08
279	0	51.7	20	0.3375	13:12:41	9-Jun-08
280	0	51.7	21	0.3375	13:13:41	9-Jun-08
281	0	51.7	20	0.3375	13:14:41	9-Jun-08
282	0	51.8	20	0.3375	13:15:41	9-Jun-08
283	0	51.7	21	0.3375	13:16:41	9-Jun-08
284	0	51.8	21	0.3375	13:17:41	9-Jun-08
285	0	51.7	21	0.3375	13:18:41	9-Jun-08
286	0	51.8	20	0.3375	13:19:41	9-Jun-08
287	0	51.8	20	0.3375	13:20:41	9-Jun-08
288	0	51.8	20	0.3375	13:21:41	9-Jun-08
289	0	51.8	20	0.3375	13:22:41	9-Jun-08
290	0	51.8	20	0.3375	13:23:41	9-Jun-08
291	0	51.8	20	0.3375	13:24:41	9-Jun-08
292	0	51.9	20	0.3375	13:25:41	9-Jun-08
293	0	51.9	20	0.3375	13:26:41	9-Jun-08
294	0	51.9	20	0.3375	13:27:41	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
295	0	51.9	20	0.3375	13:28:41	9-Jun-08
296	0	52	20	0.3375	13:29:41	9-Jun-08
297	0	52	20	0.3375	13:30:41	9-Jun-08
298	0	52.1	20	0.3375	13:31:41	9-Jun-08
299	0	52	20	0.3375	13:32:41	9-Jun-08
300	0	52.1	20	0.3375	13:33:41	9-Jun-08
301	0	52.1	20	0.3375	13:34:41	9-Jun-08
302	0	52.2	20	0.3375	13:35:41	9-Jun-08
303	0	52.2	20	0.3375	13:36:41	9-Jun-08
304	0.1	52.2	20	0.3337	13:37:41	9-Jun-08
305	0	52.2	20	0.3375	13:38:41	9-Jun-08
306	0	52.3	20	0.3375	13:39:41	9-Jun-08
307	0	52.3	20	0.3375	13:40:41	9-Jun-08
308	0	52.3	20	0.3365	13:41:41	9-Jun-08
309	0	52.3	20	0.3375	13:42:41	9-Jun-08
310	0	52.4	20	0.3375	13:43:41	9-Jun-08
311	0	52.4	20	0.3375	13:44:41	9-Jun-08
312	0	52.3	20	0.3375	13:45:41	9-Jun-08
313	0.1	52.4	20	0.3344	13:46:41	9-Jun-08
314	0	52.4	20	0.3375	13:47:41	9-Jun-08

"Model Number"	"DataRAM 4 "	104	
"Serial no. "	"D536 "		
"Device no. "	1		
"Tag Number "	3		
"Start Time "	08:55:56		
"Start Date "	09-Jun-2008		
"Log Period "	00:01:00		
"Number "	300		
"CalFactor "	1		
"Unit "	0		
"Unit Name "	"(MASS)ug/m3"		
"SIZE_CORRECT"	"DISABLED"		
"TEMPUNITS "	C		
"Max MASS "	414.1166		
"Max MASS @ "	162	11:37:56	9-Jun-08
"Avg MASS "	38.75223		
"Max Diam "	0.731807		
"Max Diam @ "	161	11:36:56	9-Jun-08
"Avg Diam "	0.24253		
"ALARM "	"DISABLED"		
"ALARM_LEVEL "	0		
"AUTO_ZERO "	"DISABLED"		
"AZ INTERVAL "	1		
"Errors "	100		

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
1	37.1	25.7	62	0.2641	8:56:56	9-Jun-08
2	38.8	25.9	63	0.2747	8:57:56	9-Jun-08
3	34.8	26.1	63	0.2463	8:58:56	9-Jun-08
4	39.5	26.2	64	0.2856	8:59:56	9-Jun-08
5	34.6	26.4	64	0.2704	9:00:56	9-Jun-08
6	30.8	26.6	64	0.2678	9:01:56	9-Jun-08
7	32.8	26.8	64	0.2862	9:02:56	9-Jun-08
8	29.3	27	64	0.2683	9:03:56	9-Jun-08
9	34.2	27.1	64	0.2498	9:04:56	9-Jun-08
10	32.3	27.3	64	0.2991	9:05:56	9-Jun-08
11	38.1	27.5	64	0.3344	9:06:56	9-Jun-08
12	23.9	27.7	63	0.2984	9:07:56	9-Jun-08
13	19.1	27.8	63	0.2238	9:08:56	9-Jun-08
14	20.2	28	63	0.2597	9:09:56	9-Jun-08
15	32.1	28.2	63	0.3743	9:10:56	9-Jun-08
16	30.9	28.4	63	0.4407	9:11:56	9-Jun-08
17	18.2	28.5	62	0.241	9:12:56	9-Jun-08
18	20.2	28.7	62	0.328	9:13:56	9-Jun-08
19	18.3	28.9	62	0.3119	9:14:56	9-Jun-08
20	15.3	29.1	61	0.2592	9:15:56	9-Jun-08
21	14.7	29.3	61	0.233	9:16:56	9-Jun-08
22	12.9	29.5	61	0.1932	9:17:56	9-Jun-08
23	14.1	29.6	60	0.2122	9:18:56	9-Jun-08
24	18	29.8	60	0.2375	9:19:56	9-Jun-08
25	14.3	30	59	0.2388	9:20:56	9-Jun-08
26	13.1	30.2	59	0.1719	9:21:56	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
27	31.7	30.3	59	0.2043	9:22:56	9-Jun-08
28	37.6	30.5	59	0.2703	9:23:56	9-Jun-08
29	26.8	30.7	58	0.1989	9:24:56	9-Jun-08
30	28.1	30.9	58	0.2215	9:25:56	9-Jun-08
31	27.1	31.1	57	0.26	9:26:56	9-Jun-08
32	27.2	31.2	57	0.2434	9:27:56	9-Jun-08
33	25.1	31.4	57	0.2052	9:28:56	9-Jun-08
34	28.5	31.6	57	0.2384	9:29:56	9-Jun-08
35	28.6	31.8	56	0.2628	9:30:56	9-Jun-08
36	23.2	32	56	0.2109	9:31:56	9-Jun-08
37	22.1	32.2	55	0.196	9:32:56	9-Jun-08
38	27	32.3	55	0.2529	9:33:56	9-Jun-08
39	21.2	32.5	55	0.237	9:34:56	9-Jun-08
40	29.1	32.7	54	0.2202	9:35:56	9-Jun-08
41	22.5	32.8	54	0.2341	9:36:56	9-Jun-08
42	34.3	33	53	0.3095	9:37:56	9-Jun-08
43	46.3	33.2	53	0.3467	9:38:56	9-Jun-08
44	42.3	33.3	53	0.3613	9:39:56	9-Jun-08
45	27	33.5	53	0.2754	9:40:56	9-Jun-08
46	30.9	33.7	52	0.2784	9:41:56	9-Jun-08
47	33.2	33.8	52	0.3052	9:42:56	9-Jun-08
48	25.2	34	52	0.2546	9:43:56	9-Jun-08
49	24.9	34.1	51	0.2192	9:44:56	9-Jun-08
50	22.9	34.3	51	0.2233	9:45:56	9-Jun-08
51	24.1	34.5	51	0.2153	9:46:56	9-Jun-08
52	24.6	34.6	50	0.2535	9:47:56	9-Jun-08
53	23.6	34.7	50	0.2336	9:48:56	9-Jun-08
54	26.3	34.9	50	0.2478	9:49:56	9-Jun-08
55	24.1	35	49	0.249	9:50:56	9-Jun-08
56	24.2	35.2	49	0.2085	9:51:56	9-Jun-08
57	21.8	35.3	49	0.2082	9:52:56	9-Jun-08
58	20.6	35.5	48	0.184	9:53:56	9-Jun-08
59	24.9	35.6	48	0.2372	9:54:56	9-Jun-08
60	22.5	35.7	48	0.2127	9:55:56	9-Jun-08
61	23.9	35.9	47	0.2338	9:56:56	9-Jun-08
62	21.9	36	47	0.2198	9:57:56	9-Jun-08
63	26.6	36.2	46	0.2359	9:58:56	9-Jun-08
64	33.1	36.3	46	0.2854	9:59:56	9-Jun-08
65	32.6	36.4	46	0.3069	10:00:56	9-Jun-08
66	23.9	36.6	46	0.2355	10:01:56	9-Jun-08
67	37.2	36.7	45	0.2925	10:02:56	9-Jun-08
68	33	36.8	45	0.2659	10:03:56	9-Jun-08
69	33.5	37	45	0.2728	10:04:56	9-Jun-08
70	25.6	37.1	45	0.2268	10:05:56	9-Jun-08
71	22.7	37.2	44	0.2199	10:06:56	9-Jun-08
72	22.7	37.3	44	0.1925	10:07:56	9-Jun-08
73	24.5	37.4	44	0.2107	10:08:56	9-Jun-08
74	26.6	37.6	43	0.1995	10:09:56	9-Jun-08
75	32.1	37.7	43	0.2486	10:10:56	9-Jun-08
76	23.1	37.8	43	0.2225	10:11:56	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
77	20.6	37.9	43	0.1903	10:12:56	9-Jun-08
78	22.8	38	42	0.1996	10:13:56	9-Jun-08
79	22.7	38.1	42	0.171	10:14:56	9-Jun-08
80	26.3	38.2	42	0.2009	10:15:56	9-Jun-08
81	25.4	38.3	42	0.2146	10:16:56	9-Jun-08
82	24.5	38.5	42	0.1937	10:17:56	9-Jun-08
83	32.8	38.6	42	0.2423	10:18:56	9-Jun-08
84	24	38.7	41	0.2054	10:19:56	9-Jun-08
85	29.2	38.8	41	0.2211	10:20:56	9-Jun-08
86	25.1	38.9	41	0.2013	10:21:56	9-Jun-08
87	22.2	39	41	0.181	10:22:56	9-Jun-08
88	23.8	39.1	41	0.1921	10:23:56	9-Jun-08
89	28.1	39.2	41	0.2126	10:24:56	9-Jun-08
90	41.5	39.3	41	0.2682	10:25:56	9-Jun-08
91	29.4	39.4	40	0.2914	10:26:56	9-Jun-08
92	21.3	39.5	40	0.1789	10:27:56	9-Jun-08
93	25.6	39.6	40	0.1985	10:28:56	9-Jun-08
94	22.2	39.7	39	0.1887	10:29:56	9-Jun-08
95	23.6	39.9	39	0.19	10:30:56	9-Jun-08
96	21.9	40	39	0.1699	10:31:56	9-Jun-08
97	21.5	40.1	39	0.1622	10:32:56	9-Jun-08
98	23.7	40.2	39	0.1773	10:33:56	9-Jun-08
99	31.3	40.3	39	0.2149	10:34:56	9-Jun-08
100	28.4	40.4	38	0.2347	10:35:56	9-Jun-08
101	28.3	40.5	38	0.2187	10:36:56	9-Jun-08
102	23.2	40.6	38	0.1807	10:37:56	9-Jun-08
103	22.8	40.7	38	0.1753	10:38:56	9-Jun-08
104	27.7	40.9	37	0.2264	10:39:56	9-Jun-08
105	25.6	41	37	0.1876	10:40:56	9-Jun-08
106	34	41.1	37	0.2424	10:41:56	9-Jun-08
107	23	41.2	37	0.1764	10:42:56	9-Jun-08
108	25.7	41.2	37	0.1751	10:43:56	9-Jun-08
109	38.6	41.4	37	0.2347	10:44:56	9-Jun-08
110	49.8	41.5	36	0.2541	10:45:56	9-Jun-08
111	31.7	41.6	36	0.2547	10:46:56	9-Jun-08
112	125.7	41.6	36	0.2855	10:47:56	9-Jun-08
113	36.8	41.7	36	0.2965	10:48:56	9-Jun-08
114	45.2	41.8	36	0.3055	10:49:56	9-Jun-08
115	47.4	42	36	0.3582	10:50:56	9-Jun-08
116	36.2	42	36	0.2887	10:51:56	9-Jun-08
117	47.9	42.1	36	0.3131	10:52:56	9-Jun-08
118	61.7	42.2	36	0.4524	10:53:56	9-Jun-08
119	47.4	42.3	36	0.3769	10:54:56	9-Jun-08
120	34.7	42.4	36	0.2497	10:55:56	9-Jun-08
121	28.1	42.5	35	0.2207	10:56:56	9-Jun-08
122	27.5	42.6	35	0.1989	10:57:56	9-Jun-08
123	27.8	42.7	35	0.2067	10:58:56	9-Jun-08
124	28.5	42.8	35	0.2295	10:59:56	9-Jun-08
125	38.4	42.9	35	0.2537	11:00:56	9-Jun-08
126	40.1	43	34	0.3469	11:01:56	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
127	29.3	43.1	34	0.2451	11:02:56	9-Jun-08
128	99.4	43.1	34	0.2981	11:03:56	9-Jun-08
129	87.7	43.2	34	0.475	11:04:56	9-Jun-08
130	52.7	43.3	34	0.3611	11:05:56	9-Jun-08
131	40.1	43.4	34	0.3614	11:06:56	9-Jun-08
132	66.4	43.5	34	0.3246	11:07:56	9-Jun-08
133	51	43.5	33	0.3558	11:08:56	9-Jun-08
134	55.3	43.6	34	0.3021	11:09:56	9-Jun-08
135	83.4	43.7	33	0.378	11:10:56	9-Jun-08
136	140.9	43.7	33	0.5725	11:11:56	9-Jun-08
137	69.8	43.8	33	0.2649	11:12:56	9-Jun-08
138	33.1	43.9	33	0.2754	11:13:56	9-Jun-08
139	27.4	44	33	0.1968	11:14:56	9-Jun-08
140	26.8	44.1	33	0.1798	11:15:56	9-Jun-08
141	27.2	44.1	33	0.179	11:16:56	9-Jun-08
142	28.8	44.2	33	0.1906	11:17:56	9-Jun-08
143	32.6	44.3	33	0.2143	11:18:56	9-Jun-08
144	35.3	44.4	33	0.2457	11:19:56	9-Jun-08
145	34	44.4	32	0.227	11:20:56	9-Jun-08
146	28.3	44.5	32	0.1844	11:21:56	9-Jun-08
147	45.1	44.6	32	0.2617	11:22:56	9-Jun-08
148	29	44.6	32	0.2294	11:23:56	9-Jun-08
149	31.4	44.7	32	0.2241	11:24:56	9-Jun-08
150	27.1	44.8	32	0.2021	11:25:56	9-Jun-08
151	36.5	44.9	32	0.2015	11:26:56	9-Jun-08
152	42.2	45	32	0.3048	11:27:56	9-Jun-08
153	35.4	45.1	32	0.2336	11:28:56	9-Jun-08
154	33.1	45.1	32	0.2103	11:29:56	9-Jun-08
155	31.3	45.2	32	0.2197	11:30:56	9-Jun-08
156	26	45.3	31	0.1674	11:31:56	9-Jun-08
157	33.8	45.4	31	0.1902	11:32:56	9-Jun-08
158	35.8	45.4	31	0.2574	11:33:56	9-Jun-08
159	47.6	45.5	31	0.3166	11:34:56	9-Jun-08
160	254.6	45.6	31	0.4737	11:35:56	9-Jun-08
161	218.6	45.6	31	0.7318	11:36:56	9-Jun-08
162	414.1	45.7	31	0.6657	11:37:56	9-Jun-08
163	60.7	45.8	31	0.4338	11:38:56	9-Jun-08
164	115.3	45.9	31	0.5141	11:39:56	9-Jun-08
165	74.6	46	31	0.4873	11:40:56	9-Jun-08
166	67.5	46	31	0.4612	11:41:56	9-Jun-08
167	209.1	46.1	30	0.4857	11:42:56	9-Jun-08
168	110.1	46.1	30	0.6087	11:43:56	9-Jun-08
169	34.2	46.2	30	0.2686	11:44:56	9-Jun-08
170	34.4	46.2	30	0.2197	11:45:56	9-Jun-08
171	47.5	46.3	30	0.2255	11:46:56	9-Jun-08
172	40.7	46.4	30	0.2619	11:47:56	9-Jun-08
173	36.9	46.4	30	0.2443	11:48:56	9-Jun-08
174	34.7	46.5	30	0.2355	11:49:56	9-Jun-08
175	53.4	46.6	30	0.2282	11:50:56	9-Jun-08
176	158.3	46.6	29	0.6328	11:51:56	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
177	36.1	46.7	29	0.3773	11:52:56	9-Jun-08
178	32.6	46.7	29	0.2221	11:53:56	9-Jun-08
179	29.1	46.8	29	0.2051	11:54:56	9-Jun-08
180	34.8	46.9	29	0.239	11:55:56	9-Jun-08
181	30.1	47	29	0.2204	11:56:56	9-Jun-08
182	26.9	47	29	0.1728	11:57:56	9-Jun-08
183	26.4	47.1	28	0.1705	11:58:56	9-Jun-08
184	26.8	47.1	28	0.164	11:59:56	9-Jun-08
185	27.3	47.2	28	0.1904	12:00:56	9-Jun-08
186	27.9	47.2	28	0.1801	12:01:56	9-Jun-08
187	30.7	47.3	28	0.1987	12:02:56	9-Jun-08
188	26.4	47.4	28	0.184	12:03:56	9-Jun-08
189	27.4	47.4	28	0.1741	12:04:56	9-Jun-08
190	25.1	47.5	28	0.1629	12:05:56	9-Jun-08
191	26.5	47.6	28	0.1844	12:06:56	9-Jun-08
192	26.5	47.6	28	0.1822	12:07:56	9-Jun-08
193	23.3	47.7	28	0.1554	12:08:56	9-Jun-08
194	24.1	47.7	28	0.1535	12:09:56	9-Jun-08
195	27.6	47.8	28	0.175	12:10:56	9-Jun-08
196	31.9	47.8	27	0.1926	12:11:56	9-Jun-08
197	26.1	47.9	28	0.1809	12:12:56	9-Jun-08
198	25.8	48	28	0.1568	12:13:56	9-Jun-08
199	26.6	48	27	0.1672	12:14:56	9-Jun-08
200	26.2	48	27	0.173	12:15:56	9-Jun-08
201	28.4	48.1	27	0.1851	12:16:56	9-Jun-08
202	28	48.1	27	0.1768	12:17:56	9-Jun-08
203	26.9	48.2	27	0.1739	12:18:56	9-Jun-08
204	27.7	48.3	27	0.174	12:19:56	9-Jun-08
205	24.6	48.3	27	0.1556	12:20:56	9-Jun-08
206	28.4	48.4	27	0.1691	12:21:56	9-Jun-08
207	30.7	48.5	27	0.1932	12:22:56	9-Jun-08
208	30.6	48.5	27	0.208	12:23:56	9-Jun-08
209	27.3	48.6	27	0.1681	12:24:56	9-Jun-08
210	24.7	48.6	27	0.1631	12:25:56	9-Jun-08
211	27.6	48.7	27	0.1803	12:26:56	9-Jun-08
212	26.4	48.7	26	0.1582	12:27:56	9-Jun-08
213	26	48.8	26	0.1657	12:28:56	9-Jun-08
214	26.2	48.9	26	0.1573	12:29:56	9-Jun-08
215	24.4	48.9	26	0.1489	12:30:56	9-Jun-08
216	25.1	49	26	0.165	12:31:56	9-Jun-08
217	25.7	49	26	0.1673	12:32:56	9-Jun-08
218	30.5	49.1	26	0.181	12:33:56	9-Jun-08
219	40.2	49.2	26	0.2542	12:34:56	9-Jun-08
220	32.3	49.2	26	0.2538	12:35:56	9-Jun-08
221	25.5	49.2	26	0.156	12:36:56	9-Jun-08
222	24.7	49.3	26	0.1599	12:37:56	9-Jun-08
223	25.8	49.4	25	0.1643	12:38:56	9-Jun-08
224	42.8	49.4	25	0.2055	12:39:56	9-Jun-08
225	83.9	49.5	26	0.3837	12:40:56	9-Jun-08
226	28.1	49.5	25	0.2078	12:41:56	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
227	27	49.6	25	0.1496	12:42:56	9-Jun-08
228	27	49.6	25	0.1583	12:43:56	9-Jun-08
229	29	49.6	25	0.1813	12:44:56	9-Jun-08
230	28.4	49.7	25	0.1645	12:45:56	9-Jun-08
231	35.4	49.7	25	0.1961	12:46:56	9-Jun-08
232	27.4	49.8	25	0.1838	12:47:56	9-Jun-08
233	29.4	49.8	25	0.1964	12:48:56	9-Jun-08
234	82.7	49.9	25	0.2978	12:49:56	9-Jun-08
235	113.2	49.9	25	0.4583	12:50:56	9-Jun-08
236	44.7	50	25	0.2792	12:51:56	9-Jun-08
237	26.1	50	25	0.1718	12:52:56	9-Jun-08
238	28.8	50.1	25	0.1698	12:53:56	9-Jun-08
239	27.6	50.1	25	0.1521	12:54:56	9-Jun-08
240	28.5	50.2	24	0.1652	12:55:56	9-Jun-08
241	28.1	50.2	25	0.1688	12:56:56	9-Jun-08
242	26.4	50.2	24	0.1596	12:57:56	9-Jun-08
243	28.5	50.3	24	0.1699	12:58:56	9-Jun-08
244	46.4	50.3	24	0.2625	12:59:56	9-Jun-08
245	25.9	50.4	24	0.1666	13:00:56	9-Jun-08
246	28.5	50.4	24	0.1832	13:01:56	9-Jun-08
247	28.2	50.5	24	0.177	13:02:56	9-Jun-08
248	31.1	50.5	24	0.1909	13:03:56	9-Jun-08
249	37.5	50.5	24	0.2487	13:04:56	9-Jun-08
250	28.6	50.6	24	0.2037	13:05:56	9-Jun-08
251	28.1	50.6	24	0.1703	13:06:56	9-Jun-08
252	32.3	50.6	24	0.2069	13:07:56	9-Jun-08
253	33.2	50.7	24	0.2052	13:08:56	9-Jun-08
254	27.6	50.7	24	0.1797	13:09:56	9-Jun-08
255	32.8	50.7	23	0.205	13:10:56	9-Jun-08
256	27.1	50.8	23	0.1894	13:11:56	9-Jun-08
257	27.3	50.8	23	0.1729	13:12:56	9-Jun-08
258	29.2	50.9	23	0.1853	13:13:56	9-Jun-08
259	26.1	50.9	23	0.1779	13:14:56	9-Jun-08
260	30.8	50.9	23	0.2021	13:15:56	9-Jun-08
261	30.1	51	23	0.2029	13:16:56	9-Jun-08
262	38.1	51	23	0.2125	13:17:56	9-Jun-08
263	36.4	51	23	0.2234	13:18:56	9-Jun-08
264	42.7	51.1	23	0.2169	13:19:56	9-Jun-08
265	32.5	51.1	23	0.1847	13:20:56	9-Jun-08
266	30.6	51.1	23	0.1957	13:21:56	9-Jun-08
267	41.4	51.2	23	0.2174	13:22:56	9-Jun-08
268	79.2	51.2	23	0.3006	13:23:56	9-Jun-08
269	61.1	51.2	23	0.3834	13:24:56	9-Jun-08
270	57.4	51.3	23	0.2871	13:25:56	9-Jun-08
271	32.1	51.3	23	0.2058	13:26:56	9-Jun-08
272	126	51.4	23	0.2638	13:27:56	9-Jun-08
273	80.2	51.4	23	0.2956	13:28:56	9-Jun-08
274	58	51.5	23	0.253	13:29:56	9-Jun-08
275	66.7	51.5	23	0.2883	13:30:56	9-Jun-08
276	81.9	51.5	23	0.3435	13:31:56	9-Jun-08

Activity: Concrete Removal

record	(MASS)ug/m3	Temp	RHumidity	Diameter	Time	Date
277	34.6	51.6	23	0.2706	13:32:56	9-Jun-08
278	30.9	51.6	23	0.201	13:33:56	9-Jun-08
279	30.5	51.6	23	0.1913	13:34:56	9-Jun-08
280	29.4	51.7	22	0.1796	13:35:56	9-Jun-08
281	39.2	51.7	22	0.2178	13:36:56	9-Jun-08
282	41	51.8	23	0.2459	13:37:56	9-Jun-08
283	47.2	51.8	23	0.2704	13:38:56	9-Jun-08
284	34.7	51.8	22	0.2443	13:39:56	9-Jun-08
285	36.9	51.9	23	0.2039	13:40:56	9-Jun-08
286	35.2	52	22	0.203	13:41:56	9-Jun-08
287	36.9	52	22	0.1963	13:42:56	9-Jun-08
288	57.7	52	22	0.2198	13:43:56	9-Jun-08
289	89.3	52.1	22	0.3821	13:44:56	9-Jun-08
290	50.8	52.1	22	0.3717	13:45:56	9-Jun-08
291	46.3	52.1	22	0.3061	13:46:56	9-Jun-08
292	37.1	52.2	22	0.2557	13:47:56	9-Jun-08
293	49.1	52.2	22	0.223	13:48:56	9-Jun-08
294	34.5	52.2	22	0.2049	13:49:56	9-Jun-08
295	33.8	52.3	22	0.1708	13:50:56	9-Jun-08
296	41.1	52.3	22	0.2374	13:51:56	9-Jun-08
297	36.2	52.3	22	0.2302	13:52:56	9-Jun-08
298	35.8	52.4	22	0.2121	13:53:56	9-Jun-08
299	32.3	52.4	22	0.1784	13:54:56	9-Jun-08
300	37	52.5	22	0.2037	13:55:56	9-Jun-08

Date: June 9, 2008
Activity: Concrete Removal

Station	Time	Conc (µg/m3)	TWA (µg/m3)	PID (ppm)
Upwind Station #1	9:19	0.0	0.0	0.0
Downwind Station #2	9:22	30.2	25.9	0.0
Upwind Station #1	9:35	0.0	0.0	0.0
Downwind Station #2	9:38	48.6	26.5	0.0
Downwind Station #2	10:02	45.6	26.8	0.0
Upwind Station #1	10:05	0.0	0.0	0.0
Downwind Station #2	10:41	36.2	26.6	0.0
Upwind Station #1	10:51	0.0	0.0	0.0
Upwind Station #1	11:41	0.0	0.0	0.0
Downwind Station #2	11:42	96.8	39.8	0.0
Downwind Station #2	13:07	29.0	37.8	0.0
Upwind Station #1	13:10	0.0	0.0	0.0
Downwind Station #2	13:40	40.9	38.5	0.0
Upwind Station #1	13:42	0.0	0.0	0.0

Notes: Wind changed direction this day, so the area designated station #1 became upwind from concrete cutting and the area designated station #2 was downwind

Date: June 20, 2008
Activity: Pile Installation

Station	Time	PID (ppm)	Peak
Downwind Station #1	9:20	0.0	
Upwind Station #2	10:30	0.0	
Downwind Station #1	10:53	0.0	
Upwind Station #2	10:57	0.0	
Downwind Station #1	11:09	0.0	
Upwind Station #2	11:13	0.0	
Downwind Station #1	11:39	0.0	
Upwind Station #2	11:41	0.0	
Downwind Station #1	12:38	0.0	
Upwind Station #2	12:47	0.0	
Downwind Station #1	13:16	0.0	
Upwind Station #2	13:19	0.0	
Downwind Station #1	13:33	0.0	
Upwind Station #2	13:35	0.0	
Downwind Station #1	13:47	0.0	
Upwind Station #2	13:48	0.0	
Downwind Station #1	14:08	0.0	
Upwind Station #2	14:10	0.0	
Downwind Station #1	14:33	0.0	
Upwind Station #2	14:36	0.0	
Downwind Station #1	14:55	0.0	
Upwind Station #2	14:53	0.0	

TWA= Time weighted average

Appendix - 4

SB-1			
JCB			
DATE: 5/18/05			
DEPTH: 4'-7'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
SEMI-VOLATILE ORGANIC COMPOUNDS			
BENZO(a)ANTHRACENE	0.224	1	1.599
BENZO(a)PYRENE	0.061	1	2.791
BENZO(b)FLUORANTHENE	1.1	1	2.759
BENZO(k)FLUORANTHENE	1.1	0.8	0.897
CHRYSENE	0.4	1	1.472
DIBENZ(a,h)ANTHRACENE	0.014	0.33	0.5
INDEO(1,2,3-cd)PYRENE	3.2	0.5	2.332
METALS			
COPPER	25 OR SB	50	151
LEAD	SB	63	1,595
ZINC	13 OR SB	173	173
DEPTH: 7'-8'			
SEMI-VOLITALE ORGANIC COMPOUNDS			
BENZO(a)ANTHRACENE	0.224	1	1.389
BENZO(a)PYRENE	0.061	1	1.958
BENZO(b)FLUORANTHENE	1.1	1	2.059
CHRYSENE	0.4	1	1.254

SB-5			
JCB			
DATE: 5/18/05			
DEPTH: 0'-4'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
SEMI-VOLATILE ORGANIC COMPOUNDS			
BENZO(a)ANTHRACENE	0.224	1	5.225
BENZO(a)PYRENE	0.061	1	6.475
BENZO(b)FLUORANTHENE	1.1	1	6.161
BENZO(k)FLUORANTHENE	1.1	0.8	2.286
CHRYSENE	0.4	1	4.026
DIBENZ(a,h)ANTHRACENE	0.014	0.33	0.861
INDEO(1,2,3-cd)PYRENE	3.2	0.5	3.134
METALS			
COPPER	25 OR SB	50	84.5
LEAD	SB	63	698
ZINC	13 OR SB	173	166

B-4			
EEA			
DATE: 1/17/06			
DEPTH: 2'-6'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
METALS			
ARSENIC	7.5 OR SB	13	39.3
COPPER	25 OR SB	50	901
DATE: 4/12/06			
DEPTH: 7'-8'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
SEMI-VOLATILE ORGANIC COMPOUNDS			
BENZO(a)ANTHRACENE	0.224	1	6.5
BENZO(a)PYRENE	0.061	1	11
BENZO(b)FLUORANTHENE	1.1	1	8.8
BENZO(k)FLUORANTHENE	1.1	0.8	8.6
CHRYSENE	0.4	1	5.9
DIBENZ(a,h)ANTHRACENE	0.014	0.33	0.96
INDENO(1,2,3-cd)PYRENE	3.2	0.5	4
METALS			
COPPER	25 OR SB	50	110
LEAD	SB	63	620
MERCURY	0.1	0.18	0.36
ZINC	20 OR SB	109	120

B-2			
EEA			
DATE: 1/17/06			
DEPTH: 2'-4'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
METALS			
COPPER	25 OR SB	50	132
LEAD	SB	63	305
MERCURY	0.1	0.18	1.03
ZINC	20 OR SB	109	195
DATE: 4/12/06			
DEPTH: 5'-7'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
VOLATILE ORGANIC COMPOUNDS			
N-PROPYLBENZENE	3.7	3.9	6.1
SEMI-VOLATILE ORGANIC COMPOUNDS			
BENZO(a)ANTHRACENE	0.224	1	7.8
BENZO(a)PYRENE	0.061	1	13
BENZO(b)FLUORANTHENE	1.1	1	10
BENZO(k)FLUORANTHENE	1.1	0.8	10
CHRYSENE	0.4	1	7.1
DIBENZ(a,h)ANTHRACENE	0.014	0.33	1.2
INDENO(1,2,3-cd)PYRENE	3.2	0.5	5.7
METALS			
LEAD	SB	63	90
MERCURY	0.1	0.18	0.21

B-3			
EEA			
DATE: 1/17/06			
DEPTH: 2'-6'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
VOLATILE ORGANIC COMPOUNDS			
1,2-DICHLOROETHANE	0.1	0.02	0.0286
METALS			
COPPER	25 OR SB	50	236
LEAD	SB	63	299
MERCURY	0.1	0.18	1.3
ZINC	20 OR SB	109	443
DATE: 4/12/06			
DEPTH: 5'-7'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
VOLATILE ORGANIC COMPOUNDS			
ACETONE	0.20	0.05	1.1
BENZENE	0.06	0.06	0.15
SEC-BUTYLBENZENE	10	11	21
M+P XYLENE	1.2	0.26	1.8
SEMI-VOLATILE ORGANIC COMPOUNDS			
BENZO(a)ANTHRACENE	0.224	1	9.1
BENZO(a)PYRENE	0.061	1	20
BENZO(b)FLUORANTHENE	1.1	1	16
BENZO(k)FLUORANTHENE	1.1	0.8	16
CHRYSENE	0.4	1	8.5
DIBENZ(a,h)ANTHRACENE	0.014	0.33	1.9
INDENO(1,2,3-cd)PYRENE	3.2	0.5	9.2
METALS			
LEAD	SB	63	67

B-1			
EEA			
DATE: 1/17/06			
DEPTH: 2'-6'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
VOLATILE ORGANIC COMPOUNDS			
ACETONE	0.20	0.05	0.0919
METALS			
ARSENIC	7.5 OR SB	13	35.4
COPPER	25 OR SB	50	685
LEAD	SB	63	72.5
NICKEL	13 OR SB	30	30
DATE: 4/12/06			
DEPTH: 7'-9'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
SEMI-VOLATILE ORGANIC COMPOUNDS			
BENZO(a)PYRENE	0.061	1	1.5
INDENO(1,2,3-cd)PYRENE	3.2	0.5	0.88

2			
CA RICH			
DATE: 4/12/06			
DEPTH: 5'-7'			
CONTAMINANT	NYSDEC TAGM RSCO	6NYCRR 375-6 UUSCO	RESULTS
METALS			
LEAD	SB	63	78.4

LEGEND

MW-01 ◉	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ◉	EEA, INC. MONITORING WELL LOCATION – 2006
B-1 ●	EEA, INC. SOIL BORING LOCATION – 2005
1 ●	CA RICH CONSULTANTS SAMPLE LOCATION – 1992
SB-1 ◉	J.C. BRODERICK & ASSOCIATES SAMPLE LOCATION – 2005
▨	ENCAPSULATED AREA
— - —	SITE BOUNDARY
//////	BUILDING OUTER WALL
— — —	BUILDING INTERIOR WALL/MULTIPLE STORY WALL
— · —	AOC BOUNDARY

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
AOC-6	1-STORY BRICK BUILDING (KNOSSOS CUSTOM DESIGN FURNITURE)
AOC-6A	2-STORY BRICK BUILDING
AOC-7	TWO (2) FORMER GASOLINE STORAGE TANKS
AOC-7A	SUSPECT FORMER BOILER/STACK AREA
AOC-8	SUSPECT TWENTY-TWO (22) 1,500 GALLON VARNOLINE STORAGE TANKS
AOC-9	1-STORY BUILDING (AMN RENOVATION)
AOC-10	1-STORY BUILDING (JMJ ELECTRICAL)/SUSPECT UST AND FILL/VENT PORTS
AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)

Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

SCALE: AS SHOWN
DATE: 12/22/08
PROJECT# 205490
DRAWN BY: RR
CHECKED BY: CV
FILE: k:\drawings\205000\205490\2008 DEC RIR\205490A4.dw

SOIL EXEEDANCE PLAN OF INVESTIGATION BY OTHERS
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

APPENDIX: 4-1

NOTES: NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL AND ADMINISTRATIVE GUIDANCE MEMORANDUMS RESIDENTIAL SOIL CLEAN-UP OBJECTIVES (NYDEC TAGM RSCO); TITLE SIX OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULE AND REGULATIONS SUBPART 375-6 UNRESTRICTED USE SOIL CLEAN-UP OBJECTIVES (6NYCRR SUBPART 375-6)
SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

APPROXIMATE AREA WITH SUSPECT FILL/VENT PORT (EXACT LOCATION TO BE FIELD DETERMINED)

SUSPECT FILL BOXES/VENT PORT (SUSPECT ABANDONED 10,000 GAL. UST)

GW-4		
EEA		
DATE: 4/20/06		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
MTBE	10	20.1
ISOPROPYLBENZENE	5	49.1
N-PROPYLBENZENE	5	6.82
1,2,4-TRIMETHYLBENZENE	5	9.2
METALS		
ANTIMONY	0.003	0.013
IRON	0.3	51.8
LEAD	0.025	0.086
MANGENESE	0.3	1.87
MERCURY	0.007	2.9
SODIUM	20	54.2

GW-3		
EEA		
DATE: 4/20/06		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
TOLUENE	5	1,180
N-BUTYLBENZENE	5	31,800
SEC-BUTYLBENZENE	5	35,200
ISOPROPYLBENZENE	5	25,300
N-PROPYLBENZENE	5	34,700

GW-2		
EEA		
DATE: 4/20/06		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
TERT-BUTYLBENZENE	5	5.36
SEMI-VOLATILE ORGANIC COMPOUNDS		
2-METHYLNAPHTHALENE	4.2	18.5
METALS		
BERYLLIUM	0.003	0.005
IRON	0.3	53.9
LEAD	0.025	0.418
MANGENESE	0.3	1.83
MERCURY	0.007	6.83
SODIUM	20	108

MW-2		
JCB		
DATE: 8/8/05		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
BENZENE	1	17.97
1,2-DICHLOROETHANE	0.6	123
M+PXYLENE	5	235
N-BUTYLBENZENE	5	95
SEC-BUTYLBENZENE	5	99
ISOPROPYLBENZENE	5	123
P-ISOPROPYLTOLUENE	5	50
N-PROPYLBENZENE	5	194
1,2,4-TRIMETHYLBENZENE	5	2,421
1,3,5-TRIMETHYLBENZENE	5	824
SEMI-VOLITALE ORGANIC COMPOUNDS		
ACENAPHTHENE	20	52
BENZO(a)ANTHRACENE	0.002	18
BENZO(a)PYRENE	ND	15
BENZO(b)FLUOROANTHENE	0.002	17
BENZO(k)FLUOROANTHENE	0.002	8
BIS(2-ETHYLEXYL)PHTALATE	5	200
CHRYSENE	0.002	21
2-METHYLNAPHTHALENE	4.2	118
NAPTHALENE	10	77
PHENANTHRENE	50	119

GW-1		
EEA		
DATE: 4/20/06		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
N-BUTYLBENZENE	5	62.4
SEC-BUTYLBENZENE	5	45.2
ISOPROPYLBENZENE	5	31.2
N-PROPYLBENZENE	5	65
METALS		
ANTIMONY	0.003	0.01
BERYLLIUM	0.003	0.006
IRON	0.3	26.9
LEAD	0.025	0.581
MANGENESE	0.3	1.75
MERCURY	0.007	5.68
SODIUM	20	179

SB-1		
JCB		
DATE: 5/19/05		
CONTAMINANT	NYSDEC TOGS 1.1.1 GWQS	RESULTS
VOLATILE ORGANIC COMPOUNDS		
ACETONE	50	107
BENZENE	1	38.5
ETHYLBENZENE	5	21
M+PXYLENE	5	34
O-XYLENE	5	20
N-BUTYLBENZENE	5	10
SEC-BUTYLBENZENE	5	7
ISOPROPYLBENZENE	5	7
P-ISOPROPYLTOLUENE	5	5
N-PROPYLBENZENE	5	12
1,2,4-TRIMETHYLBENZENE	5	76
1,3,5-TRIMETHYLBENZENE	5	20
SEMI-VOLITALE ORGANIC COMPOUNDS		
2-METHYLNAPHTHALENE	4.2	80
NAPTHALENE	10	49

AREAS OF CONCERN

AOC-1	FORMER 10,000 GALLON #6 FUEL OIL UST/46th ROAD SIDEWALK
AOC-2	EASTERN PARKING LOT
AOC-3	1-STORY BRICK/CONCRETE BLOCK BUILDING (DEMAND ELECTRIC)
AOC-4	MOTORCYCLE REPAIR SHOP (BASEMENT 2-STORY BRICK BUILDING)
AOC-4A	1-STORY BUILDING
AOC-5	3-STORY BRICK BUILDING (ART STUDIOS)
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AOC-11	FORMER WOHL, INC. CLEANERS AND DYERS (DIRECT AIR)
AOC-12	FORMER WOHL, INC. CLEANERS AND DYERS (LIBERTY CONTRACTING)
AOC-13	5TH STREET SIDEWALK
AOC-14	FORMER ACCURATE ASSOCIATES RCRA AREA
AOC-15	47TH AVENUE SIDEWALK

LEGEND

MW-01 ⊕	J.C. BRODERICK & ASSOCIATES MONITORING WELL LOCATION – 2005
GW-1 ⊕	EEA, INC. MONITORING WELL LOCATION – 2006
B-1 ●	EEA, INC. SOIL BORING LOCATION – 2005
1 ●	CA RICH CONSULTANTS SAMPLE LOCATION – 1992
SB-1 ⊙	J.C. BRODERICK & ASSOCIATES SAMPLE LOCATION – 2005
▨	ENCAPSULATED AREA
— – – —	SITE BOUNDARY
▨	BUILDING OUTER WALL
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— - — - —	AOC BOUNDARY

SOURCE: "ARCHITECTURAL SURVEY" MONTROSE SURVEYING CO., LLP., RICHMOND HILL, N.Y. 4/2/07

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

Environmental Waste Management Associates, LLC
P.O. Box 5430
Parsippany, NJ 07054
Tel: (973) 560-1400

SCALE: AS SHOWN
DATE: 12/22/08
PROJECT# 205490
DRAWN BY: RR
CHECKED BY: CV
FILE: k:\drawings\205000\205490\2008 DEC RIR\205490A4.dw

GROUND WATER EXEEDANCE PLAN
OF INVESTIGATION BY OTHERS
OCA LIC FIFTH STREET MIXED-USE HOUSING
5-20 46TH ROAD
LONG ISLAND CITY, NEW YORK

APPENDIX: 4-2

Appendix – 5

DATA USABILITY SUMMARY REPORT
PROJECT: OCA – LONG ISLAND
DATE SAMPLES COLLECTED: FEBRUARY 15, 2008 THROUGH APRIL 1, 2008
EWMA JOB NO.: 205490

LAB REPORT NOs: Z1590, Z1635, Z1636, Z1644, Z1645, Z1679, Z1680, Z1753, Z1850, Z1851, AND Z2238

1.0 INTRODUCTION

This Data Usability Summary Report (DUSR) has been performed in accordance with the requirements specified in the standard operating procedures (SOP) for the validation of volatile organic, semi-volatile organic, and inorganic data using USEPA Region II SW-846 Method 8260B, SOP HW-24, Rev. 2, dated October 2006; Method 8270D, SOP HW-22, Rev. 3, dated October 2006; Method 8081B, SOP HW-44 Rev 1, dated October 2006; Method 8082A SOP HW-45, Rev. 1, dated October 2006; and Methods 6000/7000, Statement of Work SOW-ILMO5.3, SOP HW-2, Rev. 13, dated September 2006, and SW-846 methodologies. The data usability review requirements are applied such that specifications of the methods take precedence over the specifications of USEPA Region II SW-846 Method SOP Data Review guidelines in those instances where the specifications differ.

The objective of the review was to assess data usability and compliance with the New York State Department of Environmental Conservation (NYSDEC) Analytical Service Protocol (ASP) Category B (2005) data deliverable requirements. The DUSR provides an interpretation of data usability based on the reported quality control parameters. Soil samples, groundwater samples, blind field duplicate soil and groundwater samples, field-blank samples, and trip-blank samples were collected by Environmental Waste Management Associates, LLC (EWMA) and submitted to Chemtech of Mountainside, New Jersey (NYSDOH Certification No. 11376). Groundwater samples, soil samples, blind field duplicate samples, and field blank and trip blank samples from the referenced Data Sets were subject to quality assurance review to assess the overall data quality. Section 2.0 of this report summarizes the samples included in this preliminary data review and the analyses performed. The samples were analyzed following USEPA SW-846 methodologies. The laboratory analytical data set contained herein was prepared following NYSDEC ASP Category B Data Deliverable Format.

The organic data quality review is based on the following parameters:

- Hold Times
- Blank Contamination
- GC/MS Performance Check (Tuning) Summaries
- System Monitoring Compound (Surrogate) Recoveries
- Internal Standard Area Performance
- Initial and Continuing Calibration Results
- Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Summaries
- * Target Compound Identification and Quantitation
- * Tentatively Identified Compounds

The inorganic and conventional parameters data quality review is based on the following parameters:

- * Hold Times
- Blank Contamination
- * Instrument Calibration and Verifications
- * Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Analysis Results
- * Laboratory Control Sample (LCS) Results
- Matrix Spike (MS) and Duplicate (DU) Summaries
- ICP Serial Dilution and Post Digestion Spike (PDS) Results
- * Target Analyte Identification and Quantitation

* All criteria were met for this parameter.

This report was prepared to provide a critical review of the laboratory analysis and reported chemical results. Overall, the data quality is fair. The results of the DUSR are presented in Section 3.0. Data qualifiers, when applicable, are placed next to the results on the laboratory summary pages so that the data user can assess the qualitative and/or quantitative reliability of the reported result.

2.0 SAMPLES/ANALYSES INCLUDED IN REVIEW

Laboratory Report No. Z1590

SB-16 (7-8)	Z1590-01	2/15/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-16 (11-12)	Z1590-02	2/15/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-17 (5.5-6.5)	Z1590-03	2/15/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-17 (7.5-8.5)	Z1590-04	2/15/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-17 (11-12)	Z1590-05	2/15/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
TW-16 (12')	Z1590-06	2/15/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN

Laboratory Report No. Z1635

SB-18 (6.5-7.5)	Z1635-01	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-18 (11-12)	Z1635-02	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-19 (7-8)	Z1635-03	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-19 (11-12)	Z1635-04	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-R-4 (6-7)	Z1635-05	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN

SB-R-4 (11-12)	Z1635-06	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-R-2 (6.5-7.5)	Z1635-07	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-R-2 (8-9)	Z1635-08	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-R-2 (11.5-12)	Z1635-09	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-R-1 (6-7)	Z1635-10	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-R-1 (11-12)	Z1635-11	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-11 (6.5-7.5)	Z1635-12	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-11 (11-12)	Z1635-13	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-15 (6.5-7.5)	Z1635-14	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-15 (11-12)	Z1635-15	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-2 (6-7)	Z1635-16	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-2 (11-12)	Z1635-17	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-1 (6-7)	Z1635-18	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-19 (12.5-13.5)	Z1635-19	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN

Laboratory Report No. Z1636

SB-1 (22-23)	Z1636-01	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-12 (6.5-7.5)	Z1636-02	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-12 (10-11)	Z1636-03	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-8 (8.5-9.5)	Z1636-04	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-8 (10-11)	Z1636-05	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
FD-1	Z1636-06	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-8 (8.5-9.5)MS	Z1636-07	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-8 (8.5-9.5)MSD	Z1636-08	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN

Laboratory Report No. Z1637

TW-17	Z1637-01	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
TW-18	Z1637-02	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
FB	Z1637-03	2/19/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
TB	Z1637-04	2/19/08	TCL VOA+10

TW-1	Z1637-05	2/20/08	TCL BNA (filtered), TAL Metals (dissolved)
TW-19	Z1637-06	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
TW-RCRA-2	Z1637-07	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
TW-RCRA-4	Z1637-08	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
FD-1	Z1637-09	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
TB-2	Z1637-10	2/20/08	TCL VOA+10
FB-2	Z1637-11	2/20/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN

Laboratory Report No. Z1644

SB-10 (6-7)	Z1644-01	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-10 (32.5-33.5)	Z1644-02	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-R-3(5.5-6.5)	Z1644-03	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-R-3 (30.5-31.5)	Z1644-04	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-4 (6.5-7.5)	Z1644-05	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-4 (11-12)	Z1644-06	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-3 (7-8)	Z1644-07	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-3 (11-12)	Z1644-08	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-9 (7-8)	Z1644-09	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-9 (11-12)	Z1644-10	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
SB-9 (11-12) MS/MSD	Z1644-11 Z1644-12	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
FD-2	Z1644-13	2/21/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total) & CN
Trip Blank	Z1644-14	2/21/08	TCL VOA+10

Laboratory Report No. Z1645

TW-RCRA-1	Z1645-01	2/21/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-15	Z1645-02	2/21/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-11	Z1645-03	2/21/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-12	Z1645-04	2/21/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-8	Z1645-05	2/21/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
FD-2	Z1645-06	2/21/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TB-2	Z1645-07	2/21/08	TCL VOA+10

FB-2	Z1645-08	2/21/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-3	Z1645-09	2/22/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-9	Z1645-10	2/22/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
FD-3	Z1645-11	2/22/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
FB-3	Z1645-12	2/22/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TB-3	Z1645-13	2/22/08	TCL VOA+10
TW-RCRA-14	Z1645-14	2/21/08	TAL Metals (dissolved)
TW-15	Z1645-15	2/21/08	TAL Metals (dissolved)
TW-11	Z1645-16	2/21/08	TAL Metals (dissolved)
TW-12	Z1645-17	2/21/08	TAL Metals (dissolved)
TW-8	Z1645-18	2/21/08	TAL Metals (dissolved)
FD-2	Z1645-19	2/21/08	TAL Metals (dissolved)
FB-2	Z1645-20	2/21/08	TAL Metals (dissolved)
TW-3	Z1645-21	2/22/08	TAL Metals (dissolved)
TW-9	Z1645-22	2/22/08	TAL Metals (dissolved)
FD-3	Z1645-23	2/22/08	TAL Metals (dissolved)
FB-3	Z1645-24	2/22/08	TAL Metals (dissolved)

Laboratory Report No. Z1679

TW-RCRA-2	Z1679-01	2/26/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-1	Z1679-02	2/26/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
FD-5	Z1679-03	2/26/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-2	Z1679-04	2/26/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
FB-5	Z1679-05	2/26/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TB-5	Z1679-06	2/26/08	TCL VOA+10
TB-4	Z1679-08	2/25/08	TCL VOA+10
SB-14 (6.5-7.5)	Z1679-09	2/25/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
SB-14 (30-31)	Z1679-10	2/25/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-4	Z1679-13	2/25/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
MS-TW-4	Z1679-14	2/25/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-14	Z1679-15	2/25/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
FD-4	Z1679-16	2/25/08	TCL VOA+10, PEST, PCBs, TAL Metals (total) & CN
TW-10	Z1679-17	2/25/08	TCL VOA+10, PEST, PCBs, TAL Metals (total)
FB-4	Z1679-18	2/25/08	TCL VOA+10, PEST, PCBs, TAL Metals (total)

Laboratory Report No. Z1680

TW-RCRA-2	Z1680-01	2/26/08	TCL BNA (filtered), TAL Metals (total)
TW-1	Z1680-02	2/26/08	TCL BNA (filtered), TAL Metals (total)

FD-5	Z1680-03	2/26/08	TCL BNA (filtered), TAL Metals (total)
TW-2	Z1680-04	2/26/08	TCL BNA (filtered), TAL Metals (total)
FB-5	Z1680-05	2/26/08	TCL BNA (filtered), TAL Metals (total)
TW-4	Z1680-06	2/25/08	TCL BNA (filtered), TAL Metals (total)
MS-TW-4	Z1680-0-7	2/25/08	TCL BNA (filtered), TAL Metals (total)
TW-14	Z1680-08	2/25/08	TCL BNA (filtered), TAL Metals (total)
FD-4	Z1680-09	2/25/08	TCL BNA (filtered), TAL Metals (total)
FB-4	Z1680-10	2/25/08	TCL BNA (filtered), TAL Metals (total)

Laboratory Report No. Z1753

MW-3S	Z1753-01	2/29/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
MW-3I	Z1753-02	2/29/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
MW-3D	Z1753-03	2/29/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
GW-4	Z1753-04	2/29/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
FD-6	Z1753-05	2/29/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
FB-6	Z1753-06	2/29/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
TB-6	Z1753-07	2/29/08	TCL VOA+10
MW-3S	Z1753-08	2/29/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
MW-3I	Z1753-09	2/29/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
MW-3D	Z1753-10	2/29/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
GW-4	Z1753-11	2/29/08	TAL Metals (dissolved)
FD-6	Z1753-12	2/29/08	TAL Metals (dissolved)
FB-6	Z1753-13	2/29/08	TCL BNA+20 (filtered), TAL Metals (dissolved)

Laboratory Report No. Z1850

MW-05I	Z1850-01	3/3/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
MW-05-S	Z1850-02	3/3/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
Matrix Spike 2	Z1850-03	3/3/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
Matrix Duplicate 2	Z1850-04	3/3/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
MW-04-I	Z1850-05	3/3/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
MW-04-S	Z1850-06	3/3/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
FD-7	Z1850-07	3/3/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
Field Blank-7	Z1850-08	3/3/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
TB-7	Z1850-09	3/3/08	TCL VOA+10

MW-07I	Z1850-10	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
GW-01	Z1850-11	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
FB-8	Z1850-13	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
FD-8	Z1850-14	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
MW-07-S	Z1850-15	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
GW-02	Z1850-16	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
MW-06S	Z1850-17	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
GW-03	Z1850-18	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
MW-6I	Z1850-19	3/4/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
TB-8	Z1850-20	3/4/08	TCL VOA+10

Laboratory Report No. Z1851

MW-05I	Z1851-01	3/3/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
MW-05-S	Z1851-02	3/3/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
Matrix Spike 2	Z1851-03	3/3/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
Matrix Duplicate 2	Z1851-04	3/3/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
MW-04-I	Z1851-05	3/3/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
MW-04-S	Z1851-06	3/3/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
FD-7	Z1851-07	3/3/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
Field Blank-7	Z1851-08	3/3/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
MW-07I	Z1851-09	3/4/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
GW-01	Z1851-10	3/4/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
MW-01	Z1851-11	3/4/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
FB-8	Z1851-12	3/4/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
FD-8	Z1851-13	3/4/08	TCL BNA+20 (filtered), TAL Metals (dissolved)
MW-07-S	Z1851-14	3/4/08	TAL Metals (dissolved)
GW-02	Z1851-15	3/4/08	TAL Metals (dissolved)
MW-06S	Z1851-16	3/4/08	TAL Metals (dissolved)
GW-03	Z1851-17	3/4/08	TAL Metals (dissolved)
MW-6I	Z1851-18	3/4/08	TAL Metals (dissolved)

Laboratory Report No. Z2238

MW-01	Z2238-01	4/1/08	TCL VOA+10
Field Dup 4-1-08	Z2238-02	4/1/08	TCL VOA+10
GW-05/MW-02	Z2238-03	4/1/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
Field Blank 4-1-08	Z2238-06	4/1/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
Trip Blank 4-1-08	Z2238-07	4/1/08	TCL VOA+10
GW-05/MW-02	Z2238-08	4/1/08	(filtered) TAL Metals
Field Blank 4-1-08	Z2238-09	4/1/08	(filtered) TAL Metals
TW-5	Z2238-11	4/1/08	TCL VOA+10
SB-5 (7-7.5)	Z2238-12	4/1/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
SB-6 (10-10.5)	Z2238-13	4/1/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN
SB-7 (6.5-7)	Z2238-14	4/1/08	TCL VOA+10, TCL BNA+20, PEST, PCBs,

			TAL Metals (total), & CN
SB-13 (7-7.5)	Z2238-15	4/1/08	TCL VOA+10, TCL BNA+20, PEST, PCBs, TAL Metals (total), & CN

Legend:

TCL VOA+10:	Target Compound List Volatile Organic Compounds including forward library searches following USEPA SW-846 8260B.
TCL BNA+ 20:	Target Compound List Base Neutral/Acid Extractable (BNA) Semi-Volatile Organic Compounds including forward library searches following USEPA SW-846 8270C.
PCB:	Polychlorinated Biphenyls following USEPA SW-846 8082.
PEST:	Target Compound List Pesticides following USEPA SW-846 8081A.
TAL Metals (total & diss):	Target Analyte List Metals following USEPA SW-846 Method 6010B and Mercury following USEPA SW-846 Method 7471B.
CN:	Total Cyanide following USEPA SW-846 9014.

3.0 RESULTS

3.1 GENERAL COMMENTS

With regard to the data package deliverables, most of the modified NYSDEC ASP Category B Data Deliverable Format requirements were met, with the exception of the following correctable deficiencies. Please note that these deficiencies do not impact data usability.

- In Data Sets Z1636, Z1645, Z1753, and Z1851, the percent difference results fell outside control limits for several of the reported metal analytes reported on the Form 9, Serial Dilution Sample Summary. The reported percent difference (%D) outside control limits (greater than 50 times the Method Detection Limit (MDL)) were not flagged (E) on the laboratory summary forms. This data reviewer has corrected and initialed this transcription error and no further action is required from the laboratory.

- The Reports of Analysis, quantitation reports, ion chromatograms, and area percent reports for the laboratory method blank VBLK02, Laboratory Control Sample (LCS) VLCS03, and the project sample TB-2 were omitted from Data Set Z1637. The Form 5A Bromofluorobenzene VOA Instrument Performance Check raw data for instrument MSVOAG dated 2/29/08 @1126 also were omitted from Data Set Z1637. The laboratory was contacted and the missing pages were requested and provided for review. This data reviewer has inserted the missing pages into the laboratory data package. No further action is required from the laboratory.

- The date collected for the total metals samples TW-19, TW-RCRA-2, TW-RCRA-4, FD-1, and FB-2 in Data Set Z1637 were incorrectly reported on the associated Report of Analysis as 2/19/08. Based on a review of the Chain-of-Custody Record, the actual date collected for the referenced samples is 2/20/08. This data reviewer has corrected and initialed this transcription error and no further action is required from the laboratory.

- In the metals analysis of Data Set Z1637, the Contract Required Quantitation Limit (CRQL) for sodium was incorrectly reported as 2,000 µg/L in the continuing calibration blanks dated 3/3/08. Based on a review of the continuing calibration blanks dated 2/27/08 also included in Data Set Z1637, the correct CRQL for sodium is 1,000 µg/L. This data reviewer has corrected and initialed this transcription error and no further action is required from the laboratory.

- The date collected for dissolved metals samples TW-3, TW-9, FD-3, and FB-3 in Data Set Z1645 were incorrectly reported on the Report of Analysis as 2/21/08. Based on a review of the Chain-of-Custody Record, the actual date collected for the referenced samples is 2/22/08. This data reviewer has corrected and initialed this transcription error and no further action is required from the laboratory.

- The recovery of the pesticide/PCB surrogate decachlorobiphenyl fell outside the upper control limits in the pesticide laboratory method blank sample PIBLK02 of Data Set Z1679. This recovery exceedance was not marked with an asterisk (*) on the Surrogate Summary form in the Data Set submitted for review. This data reviewer has corrected and initialed this transcription error and no further action is required from the laboratory.

- The date collected for samples TW-4, MS-TW-4, TW-14, FD-4, TW-10, and FB-4 in Data Set Z1680 was reported incorrectly as 2/26/08. Additionally, the date the samples were received by the laboratory was reported incorrectly as 2/27/08. Based on a review of the Chain-of-Custody included in the data package, the actual date collected for the referenced samples is 2/25/08 and the date the samples were received at the laboratory is 2/26/08. This data reviewer has corrected and initialed these transcription errors and no further action is required from the laboratory.

- The concentrations for the VOA compounds listed below in the ground water sample MW-6SRE of Date Set Z1850 were reported incorrectly on the Form I Report of Analysis prepared for the sample. Based on a review of the associated quantitation report, the correct compound concentrations for the referenced compounds are:

Compound	Reported Concentration (µg/L)	Correct Concentration (µg/L)
Cyclohexane	0.57 U	2.88 J
Methylcyclohexane	0.47 U	3.36 J
m/p-Xylenes	0.47 U	3.11 J
o-Xylene	0.16 U	0.9 J

  This data reviewer has corrected and initialed these transcription errors and no further action is required from the laboratory.

- In the BNA analysis of Data Set Z1850, a ground water matrix spike and matrix spike duplicate (MS/MSD) pair (Matrix Spike-2, Matrix Spike Duplicate-2) was collected and submitted to the laboratory as part of Data Set Z1850. However, the laboratory did not spike the referenced samples. This data reviewer contacted the laboratory to explain the missing QC. The bench analyst reportedly erred and the referenced ground water samples were handled and analyzed similar to the other project samples submitted in the Data Set. As a result, a MS/MSD was not analyzed with Data Set Z1850. There is no impact on the data quality due to this missing QC since a LCS was analyzed and reported with the Data Set.

3.2 ORGANIC QUALIFIERS

Hold Times: Technical hold times were assessed by comparing the sampling dates with that of the preparation date and/or analysis date.

- Ground water samples FD-1, TW-19RE, TW-RCRA-4RE, and FB-2RE of Data Set Z1637 were analyzed one day outside the required VOA hold time from the laboratory Verified Time of Sample Receipt (VTSR). The non-detected VOA results in samples FD-1, TW-19RE, TW-RCRA-4RE, and FB-2RE are regarded as unreliable [compound may or may not be present] and are **flagged (R)** on the laboratory summary pages. The positive VOA results reported in the ground water samples FD-1, TW-19RE, TW-RCRA-4RE, and FB-2RE may be biased low and are **flagged (J)** on the laboratory summary pages.

- Ground water sample TB-4 of Data Set Z1679 was analyzed two days outside the required VOA hold time from the laboratory VTSR. No VOA target compounds were detected in sample TB-4. The non-detected VOA results in sample TB-4 are regarded as unreliable [compound may or may not be present] and are **flagged (R)** on the laboratory summary pages.

- Ground water samples MW-6SRE, GW-03, GW-03RE, TB-8RE, and MW-6IRE of Data Set Z1850 were analyzed two [all samples except MW-6IRE] and three days [MW-6IRE only] outside the required VOA hold time from the laboratory VTSR. The non-detected VOA results in samples MW-6SRE, GW-03, GW-03RE, TB-8RE, and MW-6IRE are regarded as unreliable [compound may or may not be present] and are **flagged (R)** on the laboratory summary pages. The positive VOA results reported in the ground water samples MW-6SRE, GW-03, GW-03RE, TB-8RE, and MW-6IRE may be biased low and are **flagged (J)** on the laboratory summary pages.

- The soil and/or ground water samples of Data Sets Z1590, Z1635, Z1636, Z1644, Z1645, Z1753, and Z2238 were analyzed within the required hold time for TCL VOA (aqueous preserved to pH<2). No qualifier is required.

- The soil and/or groundwater samples of Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z1645, Z1679, Z1680, Z1753, Z1850, Z1851, and Z2238 were extracted and analyzed within the required hold time for TCL BNA analyses. No qualifier is required.

- The soil and/or groundwater samples of Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z1645, Z1753, Z1679, Z1850, and Z2238 were extracted and/or analyzed within the required hold time for PEST and PCB analyses. No qualifier is required.

- The laboratory cooler receipt temperature associated with the reviewed project samples of Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z1645, Z1679, Z1753, Z1850, Z1851, and Z2238 fell within the 4°C (±2°C) requirement. No qualifier is required.

Blank Contamination: Laboratory method blanks are clean liquid and/or solid matrix samples prepared by the analytical laboratory and analyzed in the same manner as the investigative samples. Water laboratory method blanks are used to identify whether the investigative samples have been contaminated during sample preparation, sample analysis or from a previous sample (instrument carry-over).

Field-blanks consist of deionized water poured over or through decontaminated sampling equipment and collected into the sample bottles. Field-blanks measure contamination potentially caused by inadequate decontamination of sampling equipment. Trip-blanks are carbon-free deionized water samples that accompany volatile investigative samples during each stage of shipment, storage, and analysis. Trip-blanks are used to assess the potential for artificial introduction of volatile compounds into the investigative samples during the transportation and sample handling processes.

VOA

- No TCL VOA contaminants were identified in the laboratory method blanks, field blanks, and/or trip blanks associated with the reviewed Data Sets Z1590(Aq), Z1636, Z1753, and Z1850. No qualifier is required.

- Due to the presence of tentatively identified compounds (TICs) in the volatile laboratory method blanks in the referenced Data Sets, the positive TIC results in the associated project samples eluting at similar retention times are qualitatively questionable. These TICs are **flagged (B)** on the laboratory summary pages and negated from the reported total estimated VOA TIC concentration for the referenced samples. Additionally, the target compounds chloromethane, bromoethane, and 1,2,4-trichlorobenzene were identified in the laboratory method blank associated with soil sample SB-19 (7-8)RE of Data Set Z1635. No qualifier is required since these compounds were not detected in sample SB-19 (7-8) RE.

Data Set	Retention Time	Associated Samples
Z1635	9.24 min 10.45 min 10.66 min	SB-15 (6.5-7.5)
Z2238	3.10 min	SB-5 (7-7.5), SB-6 (10-10.5)

- Methylene chloride, a common VOA contaminant, was detected in the field blank and trip blank samples of Data Set Z1637. No qualifier is required since methylene chloride was not detected in the associated project samples.

- Acetone was detected in the field blank sample Field Blank 4-1-08 associated with the project samples of Data Set Z2238. The positive acetone result in the ground water samples MW-01 and Field Duplicate 4-1-08 less than ten times the laboratory method blank concentration is qualitatively questionable and **flagged Reporting Limit [RL] (U)** on the laboratory summary pages. There is no impact on the data quality of the non-detected acetone results in the other soil and ground water samples of Data Set Z2238 and no qualifier is required.

- Although there is no reason to question the positive acetone, methylene chloride or 2-butanone results in samples of the following Data Sets, it should be noted that acetone, methylene chloride, and 2-butanone are common VOA laboratory and/or field contaminants. No qualifier is required.

Acetone

Data Set	Associated Samples
Z1590	SB-16 (7-8), SB-16 (11-12), SB-17 (5.5-6.5), SB-17 (5.5-6.5)RE, SB-17 (7.5-8.5), SB-17 (11-12), TW-16 (12)
Z1635	SB-18 (6.5-7.5), SB-19 (7-8), SB-19 (7-8)RE, SB-R-4 (11-12), SB-R-2 (6.5-7.5), SB-R-2 (6.5-7.5)RE, SB-R-2 (8-9), SB-R-1 (6-7), SB-15 (11-12)
Z1636	SB-12 (6.5-7.5), SB-8 (8.5-9.5), SB-8 (8.5-9.5)RE, SB-8 (10-11), FD-1, FD-1RE
Z1637	TW-18, TW-19, TW-19RE, TW-RCRA-2, TW-RCRA-4
Z1644	SB-10 (6-7), SB-3 (7-8), SB-3 (11-12), SB-9 (7-8), SB-9 (11-12)
Z1645	TW-RCRA-1, TW-15, TW-11, TW-12, TW-8, FD-3
Z1679	SB-14 (6.5-7.5), SB-14 (6.5-7.5)RE, TW-14, FD-4, TW-10
Z1753	MW-3S, MW-3D, and GW-4
Z1850	MW-05-S

Methylene Chloride

Data Set	Associated Samples
Z1635	SB-18 (11-12)RE, SB-11 (11-12), SB-R-2 (6-7)
Z1644	SB-9 (7-8)
Z1645	TW-3

2-Butanone

Data Set	Associated Samples
Z1590	TW-16 (12)
Z1644	SB-10 (6-7)
Z1645	FD-3

BNA

- The BNA target compound acetophenone was detected in the laboratory method blank associated with Data Set Z1637. No qualifier is required, since acetophenone was not detected in the associated ground water project samples.

- Bis(2-ethyl hexyl)phthalate was detected in the laboratory method blank associated with soil samples SB-14 (6.5-7.5) and SB-14 (30-31) of Data Set Z1679. The positive bis(2-ethyl hexyl)phthalate result in soil sample SB-14 (30-31) less than ten times the laboratory method blank concentration is qualitatively questionable and **flagged Reporting Limit [RL] (U)** on the laboratory summary page. There is no impact on the data quality for the bis(2-ethyl hexyl)phthalate result in SB-14 (6.5-7.5) and no qualifier is required.

- The BNA target compound caprolactam was detected in the laboratory method blank associated with some of the ground water samples of Data Set Z1679. No qualifier is required since caprolactam was not detected in the associated ground water project samples.

- Naphthalene and 2-methylnaphthalene were detected in the field blank sample FB-5 of Data Set Z1679. The positive naphthalene and 2-methylnaphthalene results in sample TW-2 and TW-2RE less than the RL are qualitatively questionable and **flagged RL (U)** on the laboratory summary pages.

- Naphthalene was detected in the field blank sample FB-5 of Data Set Z1680. The positive naphthalene result in samples TW-2 and TW-2RE less than the RL is qualitatively questionable and **flagged RL (U)** on the laboratory summary pages.

- Naphthalene and 2-methylnaphthalene were detected in the field blank sample FB-6 of Data Set Z1753. The positive naphthalene and 2-methylnaphthalene results in sample MW-3D less than the RL are qualitatively questionable and **flagged RL (U)** on the laboratory summary pages.

- The BNA target compounds phenanthrene, fluoranthene, pyrene, and bis(2-ethyl hexyl)phthalate were detected in the laboratory method blank associated with the soil samples of Data Set Z2238. The positive phenanthrene, fluoranthene, and pyrene, results in samples SB-5 (7-7.5) and SB-7 (7-7.5) and the positive pyrene result in SB-6 (10-10.5), less than the RL are qualitatively questionable and **flagged RL (U)** on the laboratory summary pages. There is no impact on the data quality of the positive phenanthrene, fluoranthene, and/or pyrene results greater than the RL and no qualifiers are required. Similarly, no qualifier is required for bis(2-ethyl hexyl)phthalate since this compound was not detected in the associated soil samples.

- Due to the presence of unknown aldol condensation products (ACP) tentatively identified compounds (TICs) or other TICs in the semi-volatile laboratory method blanks and/or field blank samples in the Data Sets noted below, the positive TIC results in the associated project samples eluting at similar retention times are qualitatively questionable. Additionally, although not detected in an associated method blank or field blank sample, ACP TICs were identified in project samples

MW-3I of Data Set Z1753 and MW-07I, MW-01, and MW-6S of Data Set Z1860 eluting at retention time 3.08 and 2.70/2.71 minutes, respectively, and ACP TICs were identified in the associated samples. These TIC results are **flagged (B)** on the laboratory summary pages and negated from the reported total estimated BNA TIC concentration in the referenced samples.

Data Set	Retention Time	Associated Samples
Z1590	4.1 min	All project soil samples
	2.91 min	TW-16 (12)
Z1635	2.89 min	SB-18 (11-12), SB-19 (11-12), SB-R-4 (6-7), SB-R-4 (11-12), SB-R-2 (11.5-12), SB-R-1 (11-12), SB-11 (6.5-7.5), SB-11 (11-12), SB-15 (11-12), & SB-2 (6-7)
Z1636	3.70 min	SB-1 (22-23), SB-12 (10-11), SB-8 (8.5-9.5) & SB-8 (10-11)
	2.88 min	SB-12 (10-11) DL, SB-12 (6.5-7.5) & FD-1
Z1637	2.86 min	All project samples
Z1644	2.59 min 4.64 min 4.75 min	All project samples
Z1645	2.84-2.87 min	FD-2
Z1679	3.76-3.79 min	TW-RCRA-2, TW-2, TW-4, MS-TW4, FD-4, TW-10
	3.78/3.84 min	TW-14
	3.80 16.90 min	SB-14 (30-31)
Z1680	3.99/4.00 min	TW-2, TW-4, MS-TW-4, TW-14, FD-4
Z1753	3.64 min	MW-3S & MW-3D
Z1850	3.62/3.63 min	Matrix Spike 2, MW-04-I, FD-7, MW-07I, GW-01, MW-01, FD-8, GW-02 & MW-6S
Z1851	3.53 min	MW-05I, MW-05-S, MW-04I, MW-04S, FD-7, MW-07I, GW-01, MW-01 & FD-8

- Twenty TICs were identified in the field blank sample FB-4 of Data Set Z1679 collected 2/25/08. The TICs consisted mostly of fatty acids, siloxanes, and unknowns. These TICs were not detected in the associated soil and ground water samples. No qualifiers are required.

- Although there is no reason to question the positive bis(2-ethylhexyl)phthalate, diethyl phthalate or di-n-butyl phthalate results in samples of the following Data Sets, it should be noted that phthalate esters are common BNA laboratory and/or field contaminants. No qualifier is required.

Bis(2-ethylhexyl)phthalate

Data Set	Associated Samples
Z1590	SB-16 (7-8)RE, SB-17 (5.5-6.5), SB-17 (7.5-8.5), TW-16 (12)
Z1635	SB-18 (6.5-7.5), SB-18 (11-12), SB-19 (7-8), SB-19 (7-8)RE, SB-R-4 (6-7)
Z1636	SB-12 (10-11) only
Z1637	TW-18 only
Z1644	SB-3 (7-8), SB-3 (11-12)
Z1679	TW-10 only
Z1850	MW-04-S & MW-07-S
Z1851	FD-8 only
Z2238	GW-05-MW-02, GW-05-MW-02RE

Diethyl phthalate

Data Set	Associated Samples
Z1637	TW-17 only
Z1753	MW-3S only

Di-n-butyl phthalate

Data Set	Associated Samples
Z1851	MW-07I only

PEST/PCB

- No PCB or PEST contaminants were identified in the laboratory method blanks and/or field blank samples associated with the reviewed Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z6145, Z1679, Z1753, Z1850, and Z2238. No qualifier is required.

GC/MS Performance Check (Tuning) Summary: Gas chromatograph/mass spectrometer (GC/MS) instrument tuning and performance checks are performed to ensure the instrument's ability to provide appropriate mass-resolution, identification and sensitivity.

- The bromofluorobenzene percent mass-ion relative abundance criteria for m/z 50 fell outside the lower control limits (14.9% reported; criteria = 15.0 – 40.0%) in the continuing calibration of instrument MSVOAK on 2/28/09 @ 0904 (Data Set Z1635). No qualifier is required since the critical ion abundance criteria m/z 95/96, 174/175, 17/176, and 176/177 ratios fell within control limits.

- Except where noted, the bromofluorobenzene (BFB) tuning compound mass-ion abundance criteria for the volatile organic compound analyses and the decafluorotriphenylphosphine (DFTPP) tuning compound mass-ion abundance criteria for the semi-volatile (base/neutral [BN] and acid-extractable) organic compound analyses were reported within control limits for the reviewed data sets. No qualifier is required.

System Monitoring Compound (Surrogate) Recoveries: System monitoring compounds (surrogates) are those compounds which are not expected to be detected in the investigative samples but are chemically similar to the analytes of interest. Surrogate compound percent recoveries are used to assess extraction efficiencies, possible matrix effects and overall analytical accuracy.

VOA

- The VOA surrogate, 4-bromofluorobenzene (BFB), fell outside the upper control limits for the following soil samples of Data Set Z1590:

Associated Samples	
SB-16 (7-8)	
SB-17 (5.5-6.5)	SB-17 (5.5-6.5)RE
SB-17 (7.5-8.5)	SB-17 (7.5-8.5)DL

Soil sample SB-17 (5.5-6.5) was reanalyzed [SB-17 (5.5-6.5)RE] and BFB again fell outside the upper control limits. Soil sample SB-17 (7.5-8.5) was analyzed on dilution [SB-17 (7.5-8.5)DL] and BFB again fell outside the upper control limit. Soil sample SB-16 (7-8) was reanalyzed at a 1:5 dilution and surrogate recoveries fell within control limits. The positive VOA target compounds in the referenced project samples of Data Set Z1590 are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected VOA target compounds in the listed soil samples of Data Set Z1590 and no qualifiers are required.

- In the VOA analysis of Data Set Z1635, the surrogates toluene-d8 (TOL) and 4-bromofluorobenzene (BFB), fell outside the lower and upper control limits, respectively, in soil sample SB-18 (6.5-7.5). The VOA surrogates 1,2-dichloroethane (DCA), dibromofluoromethane (DBFM), TOL, and BFB fell outside the upper control limits for sample SB-18 (6.5-7.5)DL. Additionally, BFB fell outside the upper control limits for the following soil samples of Data Set Z1635:

Associated Samples		
SB-R-2 (6.5-7.5)	SB-R-2 (6.5-7.5)RE	SB-19 (7-8)
SB-R-2 (8-9)	SB-R-2 (8-9)DL	SB-19 (7-8)RE
SB-2 (11-12)	SB-2 (11-12)RE	

Samples SB-R-2 (6.5-7.5), SB-2 (11-12), and SB-19 (7-8) were reanalyzed [SB-R-2 (6.5-7.5)RE, SB-2 (11-12)RE, and SB-19(7-8)RE] and BFB again fell outside the upper control limits, which suggests matrix effects. The positive and non-detected VOA results in sample SB-18 (6.5-7.5) are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. The positive VOA results in

SB-18 (6.5-7.5)DL and the remaining listed samples also are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- In the VOA analysis of Data Set Z1636, the surrogate BFB, fell outside the upper control limits for project samples SB-8 (8.5-9.5), FD-1, and the matrix spike/matrix spike duplicate samples SB-8 (8.5-9.5)MS/MSD. Samples SB-8 (8.5-9.5) and FD-1 were reanalyzed [SB-8 (8.5-9.5)RE and FD-1RE] and BFB again fell outside control limits (high), which suggests matrix effects. The positive target compound results in SB-8 (8.5-9.5) and FD-1 are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- In the VOA analysis of Data Set Z1637, the surrogates DCA and DBFM fell outside the upper control limits for the re-analysis of ground water samples TW-19RE, TW-RCRA-4RE, and FB-2RE. The surrogate recoveries in the initial analysis of TW-19, TW-RCRA-4, and FB-2 fell within control limits. The positive target compound results in samples TW-19RE, TW-RCRA-4RE, and FB-2RE are regarded as estimated and **flagged (J)** on the laboratory summary pages. Note that samples TW-19RE, TW-RCRA-4RE, and FB-2RE also were qualified previously due to hold time violations. Refer to the **Hold Time** section of this report for more information. .

- The VOA surrogate BFB, fell outside the upper control limits for the following project samples of Data Set Z1644:

Sample ID	
SB-10 (6-7)	SB-10 (6-7)DL
SB-4 (6.5-7.5)	SB-4 (6.5-7.5)RE
SB-3 (7-8)	SB-3 (7-8)DL
SB-9 (7-8)	SB-9 (7-8)DL

The samples were either reanalyzed (RE) or analyzed on dilution (DL) and BFB again fell outside the upper control limits, which suggests matrix effects. The VOA surrogate TOL also fell outside the upper control limit for SB-9 (7-8)DL. The positive target compound results in the referenced project samples are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- The VOA surrogate, DBFM, fell outside the upper control limits for sample TB-3 in data Set Z1645. No qualifier is required since the VOA target compounds were not detected in sample TB-3.

- The VOA surrogates DCA and/or BFB, fell outside the upper control limits for the following project samples of Data Set Z1679:

Sample ID	
DCA	
FD-5	FD-5RE
BFB	
SB-14 (6.5-7.5)	SB-14 (6.5-7.5)RE

The samples were reanalyzed [FD-5RE and SB-14 (6.5-7.5)RE] and DCA and BFB again fell outside the upper control limits, which suggests matrix effects. The positive target compound results in the project samples FD-5, FD-5RE, SB-14 (6.5-7.5) and SB-14 (6.5-7.5)RE are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- The VOA surrogate recoveries fell within control limits for the reviewed project samples of Data Set Z1753. No qualifier is required.
- The VOA BFB surrogate recovery fell outside the lower control limit in the ground water sample MW-6SRE of Data Set Z1850. Additionally, the recovery of DCA fell outside the upper control limits in samples GW-03RE, MW-6IRE, and TB-8RE and the recovery of DBFM fell outside the upper control limit in TB-8RE. Samples MW-6SRE, GW-03RE, MW-6IRE, and TB-8RE were qualified previously due to hold time violations. Refer to the **Hold Time** section of this report for more information. No additional qualifiers are required.
- The VOA BFB surrogate recovery fell outside the lower control limit in the soil sample SB-5 (7-7.5) of Data Set Z2238. The sample was reanalyzed [SB-5(7-7.5)RE] and BFB again fell outside the lower control limit, which suggest matrix effects. Additionally, DBFM fell outside the lower control limit for the non-project MS/MSD also associated with Data Set Z2238. The positive and non-detected VOA target compounds in SB-5 (7-7.5) and SB-5 (7-7.5)RE are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

BNA

- In the BNA analysis of Data Set Z1590, the acid extractable and/or base neutral surrogate recoveries for following project samples fell outside control limits:

Surrogate	Recovery	Sample ID
2-Fluorophenol (FPH), 2-Fluorobiphenyl (FBP) & 2,4,6-Tribromophenol (TBP)	High	SB-16 (7-8)
FBP & TBP	High	SB-16 (7-8) MS/MSD
FBP	High	SB-16 (7-8)RE, TW-16 (12)
FPH & FBP	High	SB-17 (5.5-6.5)
FPH	High	SB-17 (7.5-8.5)

The positive acid extractable compounds in soil sample SB-16 (7-8) are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the base neutral target compounds in soil sample SB-16 (7-8) since only one base neutral surrogate fell outside control limits. No qualifiers are required for the base neutral target compounds in the unspiked soil sample SB-16 (7-8) since only one base neutral surrogate fell outside control limits in the matrix spike/matrix spike duplicate SB-16 (7-8) MS/MSD. Similarly, no qualifiers are required for samples SB-16 (7-8)RE, TW-16 (12), SB-17 (5.5-6.5), and SB-17 (7.5-8.5) since only one acid extractable or base neutral surrogate fell outside control limits.

- In the BNA analysis of Data Set Z1635, the surrogate recoveries for following project samples fell outside control limits:

Surrogate	Recovery	Sample ID
FPH	High	SB-18 (6.5-7.5)
FPH & Phenol-d5 (PHE)	High	SB-19 (7-8), SB-19 (7-8)RE, & SB-R-1 (6-7)
FPH, PHE & FBP	High	SB-R-2 (8-9) & SB-R-2 (8-9)RE
PHE, FBP, & Nitrobenzene-d5 (NBZ)	High	SB-1 (12.5-13.5)
FBP & NBZ	High	SB-1 (12.5-13.5)DL

Samples SB-19 (7-8) and SB-R-2 (8-9) were reanalyzed (SB-19 (7-8)RE and SB-R-2 (8-9)RE, respectively) and the recovery of surrogates FPH and PHE again fell outside the upper control limits, which suggests matrix effects. The results of the initial analysis are reported by the laboratory and deemed usable. No qualifier is required for samples SB-19 (7-8), SB-R-2 (8-9), and SB-R-1 (6-7) since there were no acid extractable target compounds detected in these samples. Similarly, there is no qualifier required for sample SB-18 (6.5-7.5), since only one surrogate for the acid extractable fraction fell outside control limits. The positive base neutral compounds reported in samples SB-1 (12.5-13.5) and SB-1 (12.5-13.5)DL are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected base neutral target compounds in samples SB-1 (12.5-13.5) and SB-1 (12.5-13.5)DL and no qualifier is required.

- In the BNA analysis of sample FD-1, Data Set Z1636, the surrogate recoveries for acid fraction surrogates FPH, PHE, and FBP, fell outside the upper control limits. The sample was reanalyzed [FD-1RE] and the recovery of surrogates FPH, PHE, and 2-FBP again as well as the surrogate nitrobenzene-d5 (NBZ) fell outside the upper control limits, which suggests matrix effects. The results of the initial analysis are reported by the laboratory and deemed usable. The positive acid extractable target compounds in sample FD-1 are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected acid extractable target compounds in sample FD-1 and no qualifier is required.

- In the BNA analysis of Data Set Z1637, the surrogate recoveries for following project samples fell outside control limits:

Surrogate	Recovery	Sample ID
PHE	Low	TW-17, TW-18, and TW-RCRA-2
NBZ, FBP & TPH	Low	FB and FBRE

FPH, PHE & TBP	Low (<10%)	
All 6	Low (<10%)	TW-RCRA-4 and TW-RCRA-4RE

TPH = Terphenyl-d14

No qualifier is required for samples TW-17, TW-18, and TW-RCRA-2 since only one acid extractable surrogate fell outside control limits and the base neutral surrogates fell within control limits.

The positive acid extractable and base neutral compounds in samples FB and FBRE are regarded as estimated and **flagged (J)** on the laboratory summary pages. The non-detected base neutral compounds also are regarded as estimated and **flagged (UJ)** on the laboratory summary pages. The non-detected acid extractable compounds in FB and FBRE are regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary pages.

Similarly, the positive acid extractable and base neutral compounds in samples TW-RCRA-4 and TW-RCRA-4RE are regarded as estimated and **flagged (J)** on the laboratory summary pages. The non-detected acid extractable and base neutral compounds in samples TW-RCRA-4 and TW-RCRA-4RE are regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary pages.

- In the BNA analysis of soil sample SB-9 (7-8) Data Set Z1644, the NBZ surrogate recovery fell outside the upper control limit. No qualifier is required since only one base neutral surrogate fell outside the control limits.

- In the BNA analysis of samples TW-11DL and TW-11DL (filtered), Data Set Z1645, the surrogate recovery for 2-fluorobiphenyl (FBP) fell outside the upper control limit. No qualifier is required since only one base neutral surrogate fell outside the control limits.

- In the BNA analysis of Data Set Z1679, the surrogate recoveries for following project samples fell outside control limits:

Surrogate	Recovery	Sample ID
PHE	Low	TW-RCRA-2, FB-5, TW-4, MS-TW4, TW-10
PHE & FPH	Low	TW-2, TW-2RE, TW-14, TW-14RE
PHE & FPH	Low (<10%)	FD-4, FD-4RE
FBP, TBP, TPH	High	FB-4
PHE	Low (<10%)	FB-4
NBZ, FBP, TBP	High	FB-4RE
PHE	Low (<10%)	FB-4RE

TPH	Low (0%)	FB-4RE
FPH, PHE & NBZ	High	TW-1
FPH, PHE, NBZ, FBP & TPH	High	TW-1DL
PHE, NBZ, FBP, TBP & TBP	High	TW-1DL2
FPH, PHE, NBZ, FBP	High	FD-5
FPH, PHE, FBP	High	FD-5DL
FPH, NBZ, FBP	High	FD-5DL2

Samples TW-2, TW-14, FD-4, and FB-4 were reanalyzed [TW-2RE, TW-14RE, FD-4RE, and FB-4RE] and surrogate recoveries again fell outside the lower and/or upper control limits, which suggests matrix effects. Similarly, samples TW-1 and FD-5 were analyzed at 1:10 and 1:50 dilutions and surrogate recoveries again fell outside the upper control limits, which also suggests matrix effects.

No qualifier is required for samples TW-RCRA-2, FB-5, TW-4, MS-TW4, and TW-10 since only one acid extractable surrogate fell outside control limits and the base neutral surrogates fell within control limits.

The positive and non-detected acid extractable compounds in samples TW-2, TW-2RE, TW-14, and TW-14RE are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. The positive acid extractable compounds in samples FD-4 and FD-4RE also are regarded as estimated and **flagged (J)** on the laboratory summary pages. The non-detected acid extractable compounds in samples FD-4 and FD-4RE are regarded as unreliable [compounds may or may not be present] and **flagged (R)** on the laboratory summary pages.

The positive base neutral compounds in the field blank sample FB-4 are regarded as estimated and **flagged (J)** on the laboratory summary pages. The non-detected acid extractable compounds in samples FB-4 and FB-4RE, as well as the non-detected base neutral compounds in FB-4RE, are regarded as unreliable [compounds may or may not be present] and **flagged (R)** on the laboratory summary pages.

The positive acid extractable compounds in the ground water samples TW-1, TW-1DL, TW-1DL2, FD-5, and FD-5DL and the positive base neutral compounds in TW-1DL, TW-1DL2, FD-5, and FD-5DL2 are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected acid extractable compounds in the ground water samples TW-1, TW-1DL, TW-1DL2, FD-5, and FD-5DL or the non-detected base neutral compounds in the ground water samples TW-1DL, TW-1DL2, FD-5, and FD-5DL2 and no qualifiers are required.

- In the BNA analysis of Data Set Z1680, the surrogate recoveries for following project samples fell outside control limits:

Surrogate	Recovery	Sample ID
FPH & PHE	Low (<10%)	TW-2, TW-2RE
FPH & PHE	Low	TW-14, TW-14RE FD-4, FD-4RE
FPH, PHE & NBZ	High	TW-1, TW-1DL, TW-1DL2 FD-5, FD-5DL, FD-5DL2

Samples TW-2, TW-14, and FD-4 were reanalyzed [TW-2RE, TW-14RE, and FD-4RE, respectively] and the recovery of surrogates FPH and PHE again fell outside the lower control limits, which suggests matrix effects. The results of the initial analysis are reported by the laboratory and deemed usable.

The positive acid extractable target compounds in samples TW-2 and TW-2RE are regarded as estimated and **flagged (J)** on the laboratory summary pages. The non-detected acid extractable compounds in TW-2 and TW-2RE are regarded as unreliable and **flagged (R)** on the laboratory summary pages.

The positive and non-detected acid extractable compounds in TW-14 and TW-14RE and FD-4 and FD-4RE are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

The positive acid extractable target compounds in samples TW-1, TW-1DL, and TW-1DL2 and FD-5, FD-5DL, and FD-5DL2 are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected acid extractable target compounds in samples TW-1, TW-1DL, and TW-1DL2 and FD-5, FD-5DL, and FD-5DL2 and no qualifier is required. Similarly, there is no impact on the positive or non-detected base neutral results in samples TW-1, TW-1DL, and TW-1DL2 and FD-5, FD-5DL, and FD-5DL2. No qualifier is required since only one surrogate for the base neutral fraction fell outside control limits.

- In the BNA analysis of the field blank sample FB-6, Data Set Z1753, the surrogate recovery for FBP fell outside the upper control limits. The sample was reanalyzed [FB-6RE] and the recovery of surrogate FBP again fell outside the upper control limits, which suggests matrix effects. No qualifier is required since only one acid surrogate for this sample fell outside control limits.

- In the BNA analysis of Data Set Z1850, the surrogate recoveries for following project samples fell outside control limits:

Surrogate	Recovery	Sample ID
All six	Low (<10%)	GW-03, GW-03RE
FPH & PHE	Low	MW-05-I, MW-05-IDL, Matrix Spike-2, Matrix Spike-2D, Matrix Spike Duplicate, Matrix Spike Duplicate-2, MW-04-SDL, MW-07-SDL, MW-07-SDL2, GW-02, GW-02RE

PHE only	Low	MW-05-S, MW-04-S, GW-01, MW-01, FB-8, MW-07-S, MW-06S

The three acid extractable surrogates were not recovered and the recovery of the three base neutral surrogates was <10% in ground water sample GW-03. Sample GW-03 was reanalyzed [GW-03RE] and again the recovery of the acid extractable surrogates and base neutral surrogates either were not recovered or reported at <10%. The non-detected acid extractable and base neutral target compounds are regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary pages. The positive acid extractable and base neutral target compounds reported in GW-03 and GW-03RE may be biased low and are **flagged (J)** on the laboratory summary pages.

Sample GW-02 was reanalyzed [GW-02RE] and the recovery of surrogates FPH and PHE again fell outside the lower control limits, which suggests matrix effects. The positive and non-detected acid extractable compounds in MW-05-I, MW-05-IDL, Matrix Spike-2, Matrix Spike-2D, Matrix Spike Duplicate, Matrix Spike Duplicate-2, MW-04-SDL, MW-07-SDL, MW-07-SDL2, GW-02, and GW-02RE are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. There is no impact on the positive or non-detected base neutral sample results in samples MW-05-S, MW-04-S, GW-01, MW-01, FB-8, MW-07-S, and MW-06S and no qualifier is required since only one surrogate for the acid extractable fraction fell outside control limits.

- In the BNA analysis of sample MW-05I, Data Set Z1851, the surrogate recoveries of FPH and PHE fell outside the lower control limits. A 1:5 dilution of sample MW-05I was analyzed and the recovery of surrogates FPH and PHE also fell outside the lower control limits, which suggests matrix effects. Additionally, PHE fell outside the lower control limits in MW-05-S and FBP fell outside the upper control limits in the spiked sample MW-05-S/MSD. The positive and non-detected acid fraction target compounds in samples MW-05I and MW-05-S are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. There is no impact on the data quality of the MW-05-S sample results and no qualifier is required since only one surrogate fell outside control limits.

- In the BNA analysis of Data Set Z2238, the surrogate recoveries for following project samples fell outside control limits:

Surrogate	Recovery	Sample ID
FPH, NBZ & FBP	High	GW-05-MW-02, GW-05-MW-02RE

Sample GW-05-MW-02 was reanalyzed [GW-05-MW-02RE] and again FPH, NBZ and FBP fell outside the upper control limits, which suggest matrix effects. Additionally, the surrogate recoveries of FPH, NBZ, and FBP fell outside the upper control limits for the matrix spike of aqueous sample GW-05-MW-02MS and the BNA surrogates PHE and NBZ fell outside the upper control limits in the matrix spike duplicate of GW-05-MW-02MSD. The positive base neutral target compounds in samples GW-05-MW-02 and GW-05-MW-02RE are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected acid extractable target compounds in samples GW-05-MW-02 and GW-05-MW-02RE and no qualifiers are required.

PCB

- The pesticide/PCB surrogate decachlorobiphenyl (DCB) fell outside the upper control limits in the PCB analysis of soil sample SB-17 (7.5-8.5) in Data Set Z1590. PCB surrogate retention time shifts fell within control limits. No qualifier is required since PCBs were not detected in SB-17 (7.5-8.5).

- The pesticide/PCB surrogate DCB was spiked but not recovered for the primary column and fell outside the lower control limit in the confirmatory column in the PCB analysis of soil sample SB-11 (11-12) in Data Set Z1635. DCB recovery also fell outside the lower control limits in the primary and confirmatory columns of samples SB-18 (11-12), SB-19 (11-12), and SB-R-4 (11-12) and outside the upper control limits in SB-18(11-12) MS/MSD. Soil samples SB-18 (11-12), SB-19 (11-12), and SB-11 (11-12) were reanalyzed [SB-18 (11-12)RE, SB-19 (11-12)RE, and SB-11 (11-12)RE, respectively] and DCB again fell outside the lower control limits, which suggests matrix effects. PCB surrogate retention time shifts fell within control limits. The non-detected PCB results in soil sample SB-11 (11-12) are regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary pages. There were no positive PCB results reported in soil samples SB-18 (11-2), SB-19 (11-12), and SB-R-4 (11-12) or soil samples SB-18 (11-12)RE, SB-19 (11-12)RE, and SB-11 (11-12)RE. The non-detected PCB results in samples SB-18 (11-2), SB-19 (11-12), SB-R-4 (11-12), SB-18 (11-12)RE, SB-19 (11-12)RE, and SB-11 (11-12)RE are regarded as estimated and **flagged (UJ)** on the laboratory summary sheets.

- The recovery of the pesticide/PCB surrogate tetrachloro-m-xylene (TCMX) fell outside the lower control limits in the primary and confirmatory columns for the PCB analysis of soil sample SB-1 (12.5-13.5) in Data Set Z1635. DCB recovery was reported within control limits. PCB surrogate retention time shifts also fell within control limits. No qualifier is required since only one surrogate per sample fell outside control limits.

- The recovery of the pesticide/PCB surrogates TCMX and DCB fell outside the upper control limits in the primary and confirmatory columns for the PCB analysis of the ground water samples TW-19, TW-RCRA-2, TW-17, and TW-18 of Data Set Z1637. Samples TW-19 and TW-RCRA-2 were reanalyzed [TW-19RE and TW-RCRA-2RE, respectively] and TCMX and DCB again fell outside control limits, which suggests matrix effects. PCB surrogate retention time shifts fell within control limits. No qualifier is required since PCBs were not detected in samples TW-19, TW-RCRA-2, TW-17, TW-18, TW-19RE, and TW-RCRA-2RE.

- The recovery of the pesticide/PCB surrogate DCB fell outside the upper control limits for the primary and confirmatory columns in the PCB analysis of soil samples SB-4 (6.5-7.5) and SB-9 (7-8) in Data Set Z1644. The samples were reanalyzed [SB-4 (6.5-7.5)RE and SB-9 (7-8)RE] and DCB again fell outside the upper control limits, which suggests matrix effects. Additionally, DCB fell outside the lower control limits for the primary and confirmatory columns in the PCB analysis of soil sample SB-9 (11-12). The sample was re-analyzed [SB-9 (11-12)RE] and again DCB fell outside the lower control limits. PCB surrogate retention time shifts fell within control limits. No qualifier is required for soil samples SB-4 (6.5-7.5), SB-9 (7-8), SB-4 (6.5-7.5)RE, and SB-9 (7-8)RE since PCBs were not detected in these samples. Similarly, there were no PCBs detected in soil sample SB-9 (11-12). The non-detected PCB results in samples SB-9 (11-12) and SB-9 (11-12)RE are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- The recovery of the pesticide/PCB surrogate DCB fell outside the upper control limits for the primary and confirmatory columns in the PCB analysis of soil sample SB-R-1 (6-7) in Data Set Z1635. The sample was reanalyzed [SB-R-1 (6-7)RE] and DCB again fell outside the upper control limits, which suggests matrix effects. PCB surrogate retention time shifts fell within control limits. No qualifier is required since PCBs were not detected in either sample.

- The recovery of the pesticide/PCB surrogate TCMX fell outside the lower control limits for the primary column in the PCB analysis of soil sample SB-14 (6.5-7.5) in Data Set Z1679. DCB recovery was reported within control limits. PCB surrogate retention time shifts also fell within control limits. No qualifier is required since only one surrogate per sample fell outside control limits.

- The recovery of the pesticide/PCB surrogate TCMX fell outside the lower control limits for the primary columns in the PCB analysis of soil samples Matrix Spike-2 and Matrix Duplicate-2 in Data Set Z1850. DCB recovery was reported within control limits. PCB surrogate retention time shifts also fell within control limits. No qualifier is required since only one surrogate per sample fell outside control limits.

- The recovery of the pesticide/PCB surrogate TCMX fell outside the upper control limit in the primary columns for the PCB analysis of soil sample GW-05-MW-02 and the spiked soil samples GW-05-MW-02 MS/MSD of Data Set Z2238. Additionally, the recovery of the surrogate DCB fell outside control limits for GW-05-MW-02 MS/MSD. PCB surrogate retention time shifts fell within control limits. No qualifier is required since PCBs were not detected in the unspiked soil sample GW-05-MW-02.

- Except as noted, the recoveries of the PCB surrogates, TCMX and DCB were reported within control limits for the reviewed project samples associated with Data Sets Z1636, Z1645, and Z1753. Additionally, the surrogate retention time shifts fell within control limits. No qualifier is required.

PEST

- With the exception of the dilution analysis of soil samples SB-17 (5.5-6.5) and SB-17 (7.5-8.5), and the dilution analysis of ground water sample TW-16 (12), the pesticide surrogate recoveries fell within control limits for the soil and ground water samples of Data Set Z1590. The surrogates DCB and TCMX were diluted out of samples SB-17 (5.5-6.5)DL, SB-17 (7.5-8.5)DL, and TW-16 (12)DL. Therefore no comments can be offered regarding the extraction efficiency and overall analytical accuracy associated with this analysis.

- The recovery of the pesticide/PCB surrogate DCB fell outside the upper control limits for the primary and confirmatory columns in the pesticide analysis of soil sample SB-R-1 (6-7) in Data Set Z1635. The sample was reanalyzed [SB-R-1 (6-7)RE] and DCB again fell outside the upper control limits, which suggests matrix effects. The PEST surrogate retention time shifts fell within control limits. No qualifier is required since pesticides were not detected in either sample.

- The recovery of the pesticide/PCB surrogate DCB fell outside the upper control limits for the primary column in the pesticide analysis of the matrix spike duplicate soil sample SB-8 (8.5-9.5)MSD in Data Set Z1636. The PEST surrogate retention time shifts fell within control limits. No qualifier is required since only one surrogate per sample fell outside control limits.

- The recovery of the pesticide/PCB surrogate DCB fell outside the lower control limits for the ground water samples TW-RCRA-2, TW-17, TW-18, and TW-RCRA-4 in the pesticide analysis of Data Set Z1637. Samples TW-RCRA-2, TW-17 and TW-18 were reanalyzed [TW-RCRA-2RE, TW-17RE, and TE-18RE] and again DCB fell outside the lower control limit, which suggests matrix effects. TW-RCRA-4 was not reanalyzed, however, the DCB recovery (Rec = 44.2%) was just outside the lower control limit (Rec > 45% but < 131%). TCMX fell within control limits for all associated project samples of Data Set Z1637. The PEST surrogate retention time shifts also fell within control limits. No qualifier is required since only one surrogate per sample fell outside control limits.

- The recovery of the pesticide/PCB surrogate DCB fell outside the lower control limits for the soil samples SB-9 (11-12) and SB-4 (11-12) in the pesticide analysis of Data Set Z1644. Sample SB-9 (11-12) was reanalyzed [SB-9 (11-12)RE] and again DCB fell outside the lower control limits, which suggests matrix effects. TCMX fell within control limits. The PEST surrogate retention time shifts also fell within control limits. No qualifier is required since only one surrogate per sample fell outside control limits.

- The recovery of the pesticide/PCB surrogate DCB fell outside the lower control limits for the ground water samples MW-3S and MW-3D in the pesticide analysis of Data Set Z1753. The samples were reanalyzed [MW-3SRE and MW-3DRE] and again DCB fell outside the lower control limits, which suggests matrix effects. The PEST surrogate retention time shifts fell within control limits. No qualifier is required since only one surrogate per sample fell outside control limits.

- The recoveries of the pesticide surrogate, TCMX, fell outside the upper control limits on the primary column in the pesticide analysis of ground water samples TW-15, TW-11, and FD-2 of Data Set Z1645. Additionally, the pesticide/PCB surrogates, TCMX and DCB, fell outside the upper and lower control limits, respectively, in the primary column analysis of sample TW-12. TW-12 was reanalyzed [TW-12RE] and TCMX and DCB again fell outside control limits, which suggest matrix effects. PEST surrogate retention time shifts fell within control limits. The TW-12 results were reported from the primary column and are deemed usable. There were no positive pesticide results reported in samples TW-15, TW-11, and FD-2 and no qualifier is required. The positive and non-detected pesticide results in samples TW-12 and TW-12RE are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The recoveries of the pesticide surrogate, TCMX, fell outside the upper control limits on the primary column in the pesticide analysis of the aqueous sample GW-05-MW-02 and the spiked samples GW-05-MW-02 MS/MSD of Data Set Z2238. Additionally, the pesticide surrogates, TCMX and DCB, were diluted out of the 1:100 dilution analysis of GW-05-MW-02DL. The PEST surrogate retention time shifts fell within control limits. Only 4,4'-DDE was detected in the aqueous sample GW-05-MW-02. The positive 4,4'-DDE result in samples GW-05-MW-02 and GW-05-MW-02DL are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- Except as noted, the recoveries of the PEST surrogates, TCMX and DCB fell within control limits for the reviewed project samples of Data Sets Z1636, Z1645, Z1679, Z1753, and Z1850. Additionally, the PEST surrogate retention time shifts fell within control limits. No qualifier is required.

Internal Standards Area Performance: Internal standards are analytes of interest, which are added to the investigative samples prior to analysis to ensure that GC/MS sensitivity and responses remain stable. Internal standards are reported with the VOA and BNA analyses.

VOA

- The area count for the VOA internal standards listed below fell outside the lower control limits for the soil and/or ground water samples of the following Data Sets:

Data Set	Internal Standard	Associated Samples
Z1590	Chlorobenzene-d5 (CBZ) 1,4-dichlorobenzene-d4 (DCB)	SB-17 (5.5-6.5), SB-17 (7.5-8.5), SB-17 (5.5-6.5)RE
Z1635	CBZ	SB-18 (11-12), SB-18 (6.5-7.5), SB-R-2 (8-9), SB-R-2 (6.5-7.5)RE
	DCB	SB-18 (11-12), SB-18 (6.5-7.5), SB-R-2 (8-9), SB-R-2 (6.5-7.5)RE, SB-19 (11-12), SB-19 (11-12)RE, SB-18 (11-12)RE
Z1637	Pentafluorobenzene (PFB), 1,4-Difluorobenzene (DFB), CBZ & DCB	TW-19, TW-RCRA-4
	PFB, CBZ & DCB	FB-2RE only
Z1644	DCB	SB-4 (11-12), SB-3 (11-12), SB-4 (11-12)RE, SB-3 (11-12)RE, SB-3 (7-8), SB-9 (7-8)
	CBZ	SB-3 (7-8), SB-9 (7-8)

Z1679	DCB	FD-5RE, SB-14 (6.5-7.5)
Z2238	CBZ & DCB	SB-5 (7-7.5)
	DCB	SB-7 (6.5-7), SB-13 (7-7.5), SB-5 (7-7.5)RE, SB-7 (6.5-7)RE,
	PFB, DFB, CBZ & DCB	SB-13 (7-7.5)RE

Sample FB-2RE of Data Set Z1637 was qualified previously due to a hold time violation. Refer to the **Hold Time** section of this report for more information. The positive and non-detected target compounds in the referenced project samples quantitated using the internal standards PFB, DFB, CBZ, and/or DCB may be biased low and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The area count for the VOA internal standards, CBZ and DCB, fell outside the lower control limits for the matrix spike/matrix spike duplicate samples SB-8 (8.5-9.5) MS/MSD (Data Set Z1636). No qualifier is required since the internal standard area counts and retention times for the unspiked sample SB-8 (8.5-9.5) fell within control limits.

- The area counts for the VOA internal standards, PFB, CBZ, and/or DCB, fell outside the lower control limits for the ground water samples TB-8RE, MW-6SRE, and GW-03 of Data Set Z1850. Samples TB-8RE, MW-6SRE, and GW-03 were qualified previously due to hold time violations. Refer to the **Hold Time** section of this report for more information. No additional qualifiers are required.

- The VOA internal standard area counts and retention times fell within control limits for the reviewed project samples of Data Sets Z1645, Z1753. No qualifier is required.

BNA

- The BNA internal standard area counts and retention times fell within control limits for the reviewed project samples of Data Sets Z6135, Z1636, Z1637, Z1644, Z1645, Z1680, Z1850, Z1851, and Z2238. No qualifier is required.

- The area count for the BNA internal standard perylene-d12 (PRY) fell outside the lower control limits for the matrix spike duplicate soil sample SB-16 (7-8)MSD of data Set Z1590. No qualifier is required since the PRY area count fell within control limits for the original unspiked soil sample SB-16 (7-8), its reanalysis SB-16 (7-8)RE, and for the matrix spike soil sample SB-16 (7-8) MS.

- The area counts for the following BNA internal standards fell outside the lower control limits for the project samples of Data Set Z1679:

Internal Standard	Associated Samples
Naphthalene-d8 (NPH)	TW-1, FD-5
Acenaphthene-d10 (ANT)	FD-5, FB-4, FB-4RE

Phenanthrene-d10 (PHE)	FB-4, FB-4RE, TW-1, FD-5
Chrysene-d12 (CRY)	FB-4, FB-4RE, FD-4RE
PRY	FB-4, FB-4RE, FD-4RE

Additionally, CRY for sample FB-4RE and PRY for samples FB-4 and FB-4RE were not recovered and area counts and retention times not reported for these internal standards. The non-detected BNA target compounds quantitated using CRY [FB-4RE only] and PRY for samples FB-4 and FB-4RE are regarded as unreliable [compounds may or may not be present] and are **flagged (R)** on the laboratory summary pages.

The positive and non-detected target compounds in samples TW-1, FD-5, and FD-4RE quantitated using the internal standards NPH, ANT, PHE, and/or CRY may be biased low and are **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. The positive and non-detected BNA target compounds in FB-4 and FB-4RE quantitated using ANT and PHN and the positive BNA target compounds in FB-4 and F-4RE quantitated using CRY and PRY also may be biased low and are **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The area counts for the BNA internal standard PRY fell outside the lower control limit for sample FB-6 in Data Set Z1753. The sample was reanalyzed [FB-6RE] and again the PRY area count fell outside the lower control limits. The positive and non-detected target compounds in samples FB-6 and FB-6RE quantitated using the internal standard PRY may be biased low and are **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

Initial and Continuing Calibration Results: Control limits for initial and continuing instrument calibrations are established to ensure that the instrument is capable of producing accurate quantitative data at the beginning and throughout each of the analyses.

VOA

- The RRF for the VOA target compounds, acetone, 2-butanone, and 1,2-dibromo-3-chloropropane, were less than 0.05 in the initial calibration of instrument MSVOA_G dated 3/18/08 in Data Set Z1850. The non-detected acetone, 2-butanone, and 1,2-dibromo-3-chloropropane results in the associated project samples, MW-6SRE, GW-03, GW-03RE, MW-6IRE, and TB-8RE are regarded as unreliable [compound may or may not be present] and are **flagged (R)** on the laboratory summary pages. Note that samples MW-6SRE, GW-03, GW-03RE, MW-6IRE, and TB-8RE were qualified previously due to hold time violations. Refer to the **Hold Time** section of this report for more information.

- A high relative standard deviation (%RSD > 15% but < 90%) was reported for the following TCL VOA target compounds in the referenced Data Sets for the project samples received and reviewed:

Data Set (Date)	Compounds
Z1590, Z1635 & Z1636 (2/20/08)	Bromomethane (18.11) Chloroethane (31.50) Trichlorofluoromethane (23.15) Bromoform (29.88)
Z1590 (2/25/08)	Bromomethane (18.68) Carbon Disulfide (29.39) Dibromochloromethane (19.03) Bromoform (25.08) 1,2-Dibromo-3-chloropropane (16.14)
Z1590 (2/28/08)	Dichlorodifluoromethane (25.84) Chloromethane (17.81) Acetone (17.17) Carbon Disulfide (19.81) Methyl Acetate (19.63) Cyclohexane (16.30) Cis-1,3-dichloropropene (15.94) Trans-1,3-dichloropropene (19.86) Bromoform (20.98)
Z1635, Z1636 & Z1644 (2/26/08)	Bromomethane (20.63) Chloroethane (23.82) Trichlorofluoromethane (18.47) 1,1,2-Trichlorotrifluoroethane (15.44) 1,1-Dichloroethene (22.67)* Methyl Acetate (15.37) Carbon Disulfide (15.36) 1,2-Dichloroethane (15.10) 1,2,4-Trichlorobenzene (20.57)
Z1635 & Z1644 (2/28/08)	Bromomethane (39.32) Methyl Tertiary Butyl Ether (27.77) Cyclohexane (20.72) Carbon Tetrachloride (17.65) Trichloroethene (17.25) 1,2-Dichloropropane (22.74) Bromodichloromethane (21.06) Trans-1,3-dichloropropene (17.06) Cis-1,3-dichloropropene (20.26) Dibromochloromethane (21.98) Bromoform (33.02) 1,2-Dibromo-3-chloropropane (26.54)
Z1635 (3/4/08)	Chloromethane (18.51) Bromomethane (24.79) 1,2-Dibromo-3-chloropropane (17.14)
Z1637 (2/28/08)	Dichlorodifluoromethane (25.84) Bromoform (20.98)

Z1637 (3/4/08)	Acetone (29.76) Methyl Acetate (31.70) m/p-Xylenes (29.70) 1,2-Dibromo-3-chloropropane (39.87)
Z1644 & Z1645 (2/28/08)	Dichlorodifluoromethane (25.84) Chloromethane (17.81) Acetone (17.17) Carbon Disulfide (19.81) Methyl Acetate (19.63) Cyclohexane (16.30) Trans-1,3-dichloropropene (19.86) Cis-1,3-dichloropropene (15.94) Bromoform (20.98)
Z1679 (2/26/08)	Bromomethane (20.63) Chloroethane (23.82) Trichlorofluoromethane (18.47) 1,1,2-Trichlorofluoromethane (15.44) 1,1-Dichloroethene (22.67) Methyl Acetate (15.37) Carbon Disulfide (15.36) 1,2-Dichloroethane (15.10) 1,2,4-Trichlorobenzene (20.57)
Z1679 (2/28/08)	Dichlorodifluoromethane (27.86) Chloromethane (23.80) Vinyl chloride (19.48) Bromomethane (31.04) Chloroethane (22.40) Trichlorofluoromethane (26.75) 1,1,2-Trichlorofluoromethane (16.89) 1,1-Dichloroethene (17.47) Carbon disulfide (20.54) Methylene chloride (22.90) Cyclohexane (15.74) Methylcyclohexane (19.76)
Z1645, Z1679 & Z1753 (3/5/08)	Acetone (20.86) 1,2-Dichloropropane (15.20) Bromodichloromethane (15.67) 1,1,2-Trichloroethane (16.70) Dibromochloromethane (21.60) Bromoform (26.13) 1,2-Dibromo-3-chloropropane (19.75)
Z1679 (3/10/08)	Dichlorodifluoromethane (17.47) Bromomethane (18.72) 1,1,2-Trichlorofluoromethane (21.01) 1,1-Dichloroethene (19.73) Acetone (15.51) Methyl Acetate (23.88) Chloroform (45.14)* [RRF > 0.010] Cyclohexane (17.18)

	1,2,4-Trichlorobenzene (21.93) Methylcyclohexane (27.09) 1,2-Dichloropropane (15.65) Toluene (17.89) Tetrachloroethene (15.53) Ethyl benzene (19.51) m/p-Xylenes (18.46) o-Xylene (20.89) Isopropylbenzene (18.99) 1,3-Dichlorobenzene (15.95) 1,4-Dichlorobenzene (17.99) 1,2-Dichlorobenzene (17.92)
Z1850 (3/10/08)	Chloroform (45.14)* [RRF > 0.010]
Z1850 (3/18/08)	Acetone (61.8) 2-Butanone (30.0) 1,2-Dibromo-3-chloropropane (33.30)
Z2238 (G4/1/08)	Dichlorodifluoromethane (23.98) Chloromethane (26.82) Vinyl chloride (16.57) Bromomethane (21.90) Chloroethane (17.72) Trichlorofluoromethane (16.59) 1,1,2-Trichlorofluoromethane (31.10) 1,1-Dichloroethene (16.36) Acetone (30.08) Carbon disulfide (17.78) Methyl Acetate (50.09) Methylene chloride (28.92) Trans-1,2-dichloroethene (31.30) Cis-1,2-dichloroethene (18.17) 1,1,2-Trichloroethane (23.48) Tetrachloroethene (17.88)
Z2238 (K4/1/08)	Dichlorodifluoromethane (24.15) Methyl Acetate (17.49) Methylene chloride (17.06)
Z2238 (G4/7/08)	Dichlorodifluoromethane (52.04) Chloromethane (29.05) Vinyl chloride (20.35) Bromomethane (17.34) Chloroethane (17.75) Acetone (19.32) Carbon disulfide (25.33) Methyl Acetate (33.26) Methylene chloride (27.98) Trans-1,2-dichloroethene (19.38) Cyclohexane (17.77) Carbon Tetrachloride (19.61) Methylcyclohexane (19.13)

	Trichloroethene (21.70) 1,2-Dichloropropane (28.72) Trans-1,3-dichloropropene (15.45)
Z2238 (K4/7/08)	Dichlorodifluoromethane (23.10) 1,2-Dibromoethane(15.48) Styrene (15.52) 1,2-Dibromo-3-chloropropane (17.18) 1,2,4-Trichlorobenzene (21.24)
Z2238 (H4/3/08)	Dichlorodifluoromethane (16.03) Acetone (22.66)+ Tetrachloroethene (23.99) Bromoform (17.21) 1,2-Dibromo-3-chloropropane (18.10)

* Calibration Check Compound
\+ Correlation coefficient r^2 < 0.990 (based on quadratic equation)

The average %RSD for the target compounds was < 15%. With the exception of acetone in Data Set Z2238, corresponding compound correlation coefficients fell within control limits (r^2 > 0.990). The non-detected acetone result in soil sample GW-05-MW-02 of Data Set Z2238 is regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary page. The positive listed target compound results in the project samples of the referenced Data Sets are regarded as estimated values and are **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected results for the referenced target compounds and no qualifier is required.

- Due to the high percent difference (%D > 25 but < 90) between the initial and continuing calibration response factors of the following VOA target compounds in the referenced Data Sets, the positive and non-detected target compound results, unless previously qualified, are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. Note that samples TW-19RE, TW-RCRA-4RE, and FB-2RE were qualified previously due to a hold time violation. Refer to the **Hold Time** section of this report for more information.

Data Set	Compound	Associated Samples
Z1635	Chloromethane Carbon Disulfide Bromoform	SB-18 (11-12)RE, SB-19 (11-12)RE, SB-R-1 (6-7)
Z1636	Chloromethane Carbon Disulfide Bromoform	SB-1 (22-23), SB-12 (6.5-7.5), SB-12 (10-11)
Z1637	Acetone Methyl Acetate 1,2-Dibromo-3-chloropropane	FD-1, TW-19RE, TW-RCRA-4RE, FB-2RE
Z1645	Trichlorofluoromethane	FD-2, TB-2, FB-2, TW-9, FB-3,

	Carbon Disulfide Tetrachloroethene	TB-3
	Carbon Tetrachloride	TW-11, TW-12, TW-8, TW-3
Z1753	Carbon Tetrachloride	All Project Samples
Z1850	Dichlorodifluoromethane Acetone 2-Butanone Methyl isobutyl ketone (aka 4-Methyl-2-Pentanone) 2-Hexanone Bromoform 1,2-Dibromo-3-chloropropane	GW-03RE, MW-6IRE
	Chloroform Tetrachloroethene	MW-05-I, MW-05-S, MW-04-I, MW-04-S, FD-7, MW-07I, GW-01, FD-8, MW-07-S
	Carbon Disulfide Chloroform	GW-02, MW-6S, MW-6I, TB-8
Z2238	Dichlorodifluoromethane Chloromethane Acetone 2-Butanone 4-Methyl-2-pentanone 2-Hexanone	Trip Blank, Field Duplicate 4-1-08, Field Blank 4-1-08, MW-01
Z2238	Dichlorodifluoromethane Chloromethane Vinyl chloride Bromomethane Trichlorofluoromethane Carbon disulfide	TW-5
Z2238	Trichlorofluoromethane Acetone Carbon tetrachloride	SB-5 (7-7.5), SB-7 (6.5-7), SB-13 (7-7.5)
Z2238	Dichlorodifluoromethane Chloromethane Bromomethane Chloroethane [%D > 90%] Trichlorofluoromethane [%D > 90%] 1,1-Dichloroethene 1,1,2-Trichlorotrifluoroethane Methyl tertiary butyl ether Methylene chloride 1,1-Dichloroethane Chloroform [%D > 40%, RRF > 0.010]* 1,1,1-Trichloroethane 1,2-Dichloroethane	GW-05-MW-02

Methylcyclohexane
Cis-1,3-dichloropropene
1,2-Dibromoethane
Tetrachloroethene
1,2-Dibromo-3-chloropropane

* Calibration Check Compound

Due to the very high %D [%D > 90] for the VOA target compounds chloroethane and trichlorofluoromethane, the non-detected chloroethane and trichlorofluoromethane results in sample GW-05-MW-02 of Data Set Z2238 are regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary page.

BNA

- The RRF for the BNA target compound, pentachlorophenol, were less than 0.05 in the initial and/or continuing calibrations of Data Set Z1680. There were no positive results reported for pentachlorophenol in the project samples of Data Set Z1680. The non-detected pentachlorophenol results in the associated project samples are regarded as unreliable (compound may or may not be present) and are **flagged (R)** on the laboratory summary pages.

- The RRF for the BNA target compound, 2,4-dinitrophenol, were less than 0.05 in the initial and/or continuing calibrations of Data Sets Z1645 [2/29/08 initial calibration of instrument BNA_E only]; Z1679 [3/6/08 initial calibration of instrument BNA_F only]; Z1850 [3/20/08 initial calibration of instrument BNA_B only]; Z1851; and Z2238. There were no positive results reported for 2,4-dinitrophenol in the project samples of Data Sets Z1645, Z1850, Z1851, and Z2238. The non-detected 2,4-dinitrophenol results in field blank sample FB-3 of Data Set Z1645, MW-04-I, FD-7, FIELD BLANK-7, GW-01, FB-8FD-8, and GW-02 of Data Set Z1850, the project samples of Z1851, and the project samples of Data Set Z2238 are regarded as unreliable [compound may or may not be present] and are **flagged (R)** on the laboratory summary pages.

- A high relative standard deviation (%RSD > 15% but < 90%) was reported for the following TCL BNA target compounds for the project samples received and reviewed:

Data Set/Date	Compounds
Z1590, Z1636 & Z1645 (2/12/08)	Benzaldehyde (23.23) 2,4-Dinitrophenol (26.98)
Z1590 (2/14/08)	Benzaldehyde (25.46) 2,4-Dinitrophenol (21.40) 4-Nitrophenol (16.54) Fluorene (15.83)
Z1635 & Z1637 (2/25/08)	Benzaldehyde (23.23) 2,4-Dinitrophenol (26.98)
Z1636	Benzaldehyde (22.87)

(2/21/08)	2,4-Dinitrophenol (22.34) 4-Nitrophenol (35.71) Pentachlorophenol (24.12)*
Z1644 (2/21/08)	Benzaldehyde (24.56) 2,4-Dinitrophenol (18.08)
Z1645 (2/29/08)	4,6-Dinitro-2-methylphenol (15.89) Pentachlorophenol (16.05)*
Z1679 & Z1680 (2/27/08)	Benzaldehyde (23.75) Hexachlorocyclopentadiene (15.54) 2,4-Dinitrophenol (29.90) 4-Nitrophenol (22.56) Pentachlorophenol (27.41)*
Z1679 (3/3/08)	Hexachlorocyclopentadiene (17.91) 2,4-Dinitrophenol (32.53) 4,6-Dinitro-2-methylphenol (17.84) Pentachlorophenol (29.32)*
Z1679 (3/6/08)	Benzaldehyde (19.76) Hexachlorocyclopentadiene (15.24) 2,4-Dinitrophenol (42.17) 4-Nitrophenol (16.15) 4,6-Dinitro-2-methylphenol (16.68)
Z1680 (3/9/08)	Benzaldehyde (19.68) Hexachlorocyclopentadiene (15.82) 2,4-Dinitrophenol (36.85) 4,6-Dinitro-2-methylphenol (16.75)
Z1753 (3/16/08)	Benzaldehyde (19.16)
Z1850 (3/19/08)	Hexachlorocyclopentadiene (30.52) 2,4-Dinitrophenol (39.32) Benzaldehyde (22.17) 4,6-Dinitro-2-methylphenol (18.23)
Z1850 & Z1851 (3/20/08)	2,4-Dinitrophenol (49.4) 4,6-Dinitro-2-methylphenol (28.2) Pentachlorophenol (21.8)*
Z2238 (4/10/08)	Benzaldehyde (30.14) 2,4-Dinitrophenol (33.23) 4,6-Dinitro-2-methylphenol (30.48)
Z2238 (4/15/08)	Benzaldehyde (29.47) 2,4-Dinitrophenol (47.90) 4-Nitrophenol (22.70) 4,6-Dinitro-2-methylphenol (24.52)

*Calibration Check Compound

The positive listed target compound results in the project samples of the referenced Data Sets are regarded as estimated values and are **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected results for the referenced target compounds and no qualifier is required. Additionally, the average %RSD for all target compounds was < 15% in the referenced Data Sets.

- A high percent difference (%D > 25 but < 90) was reported between the initial and continuing calibration response factors of the following BNA target compounds in the referenced Data Sets. No qualifier is required since up to four compounds from the continuing calibration can fail to meet RRF and maximum %D criteria [except those compounds with a minimum RRF of 0.010 and maximum %D of 40%], but they must meet the minimum requirements of RRF ≥ 0.010 and a %D ≤ 40%.

Data Set	Compounds	Associated Samples
Z1635	Hexachlorocyclopentadiene	SB-19 (7-8)RE, SB-R-2 (8-9)RE, SB-R-1 (6-7) DL, SB-1 (12.5-13.5), SB-1 (12.5-13.5)DL
Z1636	Hexachlorocyclopentadiene	SB-12 (10-11)DL, SB-12 (6.5-7.5), FD-1
	Hexachlorocyclopentadiene	FD-1RE
Z1637	Hexachlorocyclopentadiene Indeno(1,2,3-cd)pyrene	TW-17, TW-18, TW-16, TW-19, TW-RCRA-2
	Hexachlorocyclopentadiene	FB, TW-RCRA-4, FB-2
	Hexachlorocyclopentadiene	FBRE, TW-RCRA-4RE
Z1645	Hexachlorocyclopentadiene	TW-RCRA-1, TW-15, TW-11, TW-12, TW-8, FD-2, TW-3, TW-9, FD-3, TW-15 (filtered), FD-2 (filtered)
Z1679	Hexachlorocyclopentadiene 4-Nitroaniline 2,4-Dinitrophenol	TW-1, FD-5,
	4-Nitrophenol	TW-1DL, TW-1DL2, FD-5DL, FD-5DL2, SB-14 (6.5-7.5), SB-14 (30-31)
	2,4-Dinitrophenol	TW-RCRA-2, TW-2, FB-5, MS-TW4, TW-14, FD-4, TW-10, TW-4
	Benzaldehyde	TW-2RE, TW-14RE, FD-4RE, FB-4, FB-4RE
Z1753	4,6-Dinitro-2-Methylphenol	All project samples
Z1850	4-Nitrophenol	FD-7 only
	Hexachlorocyclopentadiene	MW-05-IDL, GW-03REMW-07-SDL,

		MW-07-SDL2, MW-01DL, Matrix Spike-2DL, and Matrix Spike Duplicate-2DL
Z1851	4-Nitrophenol	All project samples except MW-05IDL
Z2238	4-Nitrophenol	Field Blank 4-1-08
	2,4-Dinitrophenol 4,6-Dinitro-2-methylphenol	All project samples except GW-05-MW-02 and Field Blank 4-1-08
	2,4-Dinitrophenol 4-Nitrphenol 4,6-Dinitro-2-methylphenol Pentachlorophenol	GW-05-MW-02RE

- The continuing calibration response factors and %D fell within control limits for Data Sets Z1590 and Z1644. No qualifier is required.

PCB

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for Aroclor 1016 and Aroclor 1260 in soil samples SB-16 (11-12) and SB-17 (5.5-6.5) and the ground water sample TW-16 of Data Set Z1590. PCBs were not detected in the referenced samples. The non-detected PCB results in SB-16 (11-12), SB-17 (5.5-6.5), and TW-16 are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for PCB Aroclor 1016 and/or Aroclor 1260 associated with the following soil samples of Data Set Z1635:

  Associated Samples
  SB-R-2 (6.5-7.5)
  SB-R-2-(8-9)
  SB-R-2 (11.5-12)
  SB-R-1 (6-7)
  SB-R-1 (11-12)
  SB-11 (6.5-7.5)
  SB-15 (6.5-7.5)
  SB-15 (11-12)
  SB-R-1 (6-7)RE

  PCBs were not detected in the referenced samples. The non-detected PCB results in the samples noted above are regarded as estimated and **flagged (UJ)** on the laboratory summary page.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for PCB Aroclor 1260 associated with the ground water samples TW-19RE, FD-1, and TW-RCRA-2RE of Data Set Z1637. PCBs were not detected in samples TW-19RE, FD-1, and TW-RCRA-2RE. The non-detected PCB results in referenced project samples of Data Set Z1637 are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for PCB Aroclor 1016 associated with soil samples SB-10 (6-7), SB-R-3 (5.5-6.5), SB-3 (7-8), SB-3 (11-12) and SB-9 (7-8) of Data Set Z1644. Additionally, a high percent difference was reported for Aroclor 1016 and 1260 associated with soil samples SB-04 (6.5-7.5)RE and SB-9 (11-12)RE. PCBs were not detected in the samples. The non-detected PCB results in referenced project samples of Data Set Z1644 are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for PCB Aroclor 1260 associated with samples TW-15 and FD-2 of Data Set Z1645. PCBs were not detected in samples TW-15 and FD-2. The non-detected PCB results in samples TW-15 and FD-2 are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary columns between the initial and continuing calibration factors for PCB Aroclor 1260 associated with the ground water samples TW-1 and FD-5 and soil samples SB-14 (6.5-7.5) and SB-14 (30-31) of Data Set Z1679. PCBs were detected in samples TW-1 and FD-5, but not detected in SB-14 (6.5-7.5) and SB-14 (30-31). The positive and non-detected PCB results in the project samples TW-1 and FD-5 and SB-14 (6.5-7.5) and SB-14 (30-31) are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for PCB Aroclor 1016 associated with sample MW-3I of Data Set Z1753. PCBs were not detected in sample MW-3I. The non-detected PCB results in sample MW-3I are regarded as estimated and **flagged (UJ)** on the laboratory summary page.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for PCB Aroclor 1016 associated with soil samples SB-5 (7-7.5), SB-6 (10-10.5), SB-7 (6.5-7), and SB-13 (7-7.5) of Data Set Z2238. Similarly, a high percent difference was reported for the primary column for PCB Aroclors 1016 and 1260 for ground water sample GW-05-MW-02. PCBs were not detected in the referenced samples. The non-detected PCB results in soil samples SB-5 (7-7.5), SB-6 (10-10.5), SB-7 (6.5-7), and SB-13 (7-7.5) and the ground water sample GW-05-MW-02 of Data Set Z2238 are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- The PCB target compound initial and continuing calibrations, response factors, percent difference (%D), and retention time shifts fell within the acceptable limits for Data Sets Z1636, Z1645, Z1753, and Z1850. No qualifier is required.

PEST

- A high percent difference (%D > 15 but < 90) was reported for the secondary column between the initial and continuing calibration factors for the pesticide heptachlor associated with soil sample SB-17 (11-12) of Data Set Z1590. Similarly, a high percent difference was reported for the secondary column between the initial and continuing calibration factors of endrin for the ground water sample TW-16 (12)DL. Results were reported from the secondary columns for both samples. Heptachlor and endrin were not detected in either sample. The Endrin/DDT breakdown %D fell within control limits. The non-detected heptachlor result in sample SB-17 (11-12) and endrin in sample TW-16 (12)DL are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for the pesticide 4,4'-DDT associated with the following samples of Data Set Z1635:

  Associated Samples
  SB-18 (11-12)
  SB-R-1 (11-12)
  SB-15 (11-12)
  SB-2 (6-7)
  SB-2 (11-12)
  SB-11 (11-12)
  SB-19 (11-12)
  SB-18 (11-2) RE
  SB-R-1 (11-12)RE
  SB-15 (11-12) RE
  SB-2 (6-7)RE
  SB-2 (11-12)RE
  SB-11 (11-12)RE
  SB-19 (11-12)RE

  There are no positive 4,4'-DDT results reported in the referenced samples. The Endrin/DDT breakdown %D fell within control limits. The non-detected 4,4'-DDT results in the referenced project samples are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for the pesticides heptachlor, endrin, 4,4'-DDT, and methoxychlor associated with the ground water samples TW-17, TW-18, and TW-RCRA-4 and 4,4'-DDT and methoxychlor for samples TW-RCRA-2RE, TW-17RE, TW-18RE, and FD-1 of Data Set Z1637. Pesticides were not detected in the referenced samples. The non-detected heptachlor, endrin, 4,4'-DDT, and/or methoxychlor results in the ground water samples TW-17, TW-18, TW-RCRA-4, TW-RCRA-2RE, TW-17RE, TW-18RE, and FD-1 are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for the pesticide methoxychlor associated with soil samples SB-9 (11-12), SB-4 (11-12), SB-10 (32.5-33.5), SB-R-3 (30.5-31.5), and FD-2 of Data Set Z1644. There were no positive methoxychlor results reported in the referenced samples. The Endrin/DDT breakdown %D fell within control limits. The non-detected methoxychlor results in the referenced project samples are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for the pesticides heptachlor, and 4,4'-DDT for soil sample SB-14 (30-31) of Data Set Z1679. Pesticides were not detected in sample SB-14 (30-31). The Endrin/DDT breakdown %D fell within control limits. The non-detected heptachlor and 4,4'-DDT in soil sample SB-14 (30-31) are regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- A high percent difference (%D > 15 but < 90) was reported for the primary column between the initial and continuing calibration factors for the pesticide delta-BHC for the aqueous sample GW-05-MW-02 of Data Set Z2238. Delta-BHC was not detected in sample GW-05-MW-02. The Endrin/DDT breakdown %D fell within control limits. The non-detected delta-BHC result in aqueous sample GW-05-MW-02 is estimated and **flagged (UJ)** on the laboratory summary page.

- The PEST target compound initial and continuing calibrations, response factors, percent difference (%D), and retention time shifts fell within the acceptable limits for Data Sets Z1636, Z1645, Z1753, and Z1850. Additionally, the Endrin/DDT breakdown %D fell within control limits. No qualifier is required.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Summaries: Matrix spikes are samples spiked with known concentrations of analytes of interest. The MS/MSD percent recoveries and duplicate results are used to assess extraction efficiencies, possible matrix effects, and overall analytical accuracy and precision.

Blank spikes (BS) are fortified (spiked) with known concentrations of compounds of interest. Blank spike percent recoveries are used to assess extraction efficiencies, and overall analytical accuracy and precision.

VOA

- The soil MS and/or MSD recoveries fell outside the lower or upper control limits for the following VOA compounds of Data Sets Z1590 and Z1635: 1,1,2-trichlorofluoromethane, methyl acetate, and bromoform. The RPD also fell outside control limits for methyl acetate. Additionally, the soil MS and MSD recoveries fell outside the upper control limits for trichloroethene and tetrachloroethene and was not recovered for 1,1,2,2-tetrachloroethane of Data Set Z2238. No qualifiers are required since the spiked samples are non-project samples.

- The MS and/or MSD recoveries for the following VOA target compounds fell outside the control limits (low and/or high) for soil samples SB-8 (8.5-9.5) MS/MSD (Data Set Z1636). Additionally, the RPD fell outside control limits for numerous target compounds and the recovery of 1,2,4-trichlorobenzene was less than 10% in SB-8 (8.5-9.5) MS.

Recovery	Compound	Recovery	Compound
Low	Trichlorofluoromethane	High	Methylcyclohexane
	1,1,1-Trichloroethane		4-Methyl-2-pentanone
	Carbon Tetrachloride		1,1,2-Trichloroethane
	1,2-Dichloroethane		2-Hexanone
	Trichloroethene		Tetrachloroethene
	Toluene		Ethyl benzene
	Cis/trans-1,3-dichloropropene		Isopropylbenzene
	Dibromochloromethane		1,1,2,2-Tetrachloroethane
	o-Xylene		1,2-Dibromo-3-chloropropane
	1,2-Dibromoethane		Bromodichloromethane
	Styrene		
	1,3-Dichlorobenzene		

	1,4-Dichlorobenzene
	1,2-Dichlorobenzene
<10%/Low	1,2,4-Trichlorobenzene

The positive and non-detected 1,1,1-trichloroethane, trans-1,3-dichloropropene, dibromochloromethane, 1,2-dibromoethane, o-xylene, styrene, and 1,2,4-trichlorobenzene results in the unspiked sample SB-8 (8.5-9.5) are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. The positive methylcyclohexane, 4-methyl-2-pentanone, 1,1,2-trichloroethane, 2-hexanone, tetrachloroethene, isopropylbenzene, and 1,1,2,2-tetrachloroethane results in the unspiked sample SB-8 (8.5-9.5) also are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected methylcyclohexane, 4-methyl-2-pentanone, 1,1,2-trichloroethane, 2-hexanone, tetrachloroethene, isopropylbenzene, and 1,1,2,2-tetrachloroethane results and no qualifier is required. Similarly, there is no impact on the data quality of the trichlorofluoromethane, carbon tetrachloride, 1,2-dichloroethane, trichloroethene, bromodichloromethane, toluene, cis-1,3-dichloropropene, ethyl benzene, 1,3-dichlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene, and 1,2-dibromo-3-chloropropane results in the unspiked sample SB-8 (8.5-9.5) since either the MS or MSD percent recovery fell within control limits.

- The recoveries for the following VOA target compounds fell outside the lower control limits for the spiked soil samples SB-9 (11-12) MS/MSD of Data Set Z1644:

  Compound
  Carbon Disulfide
  Methylcyclohexane
  1,1,2-Trichloroethane*
  Bromoform*
  1,2-Dichloroethane*
  trans-1,3-Dichloropropene*
  Dibromochloromethane*
  1,2,4-Trichlorobenzene

  * MS Recovery Only

  Additionally, the MSD recovery of isopropylbenzene fell outside the upper control limits. The positive and non-detected carbon disulfide, methylcyclohexane, and 1,2,4-trichlorobenzene in the unspiked soil sample SB-9 (11-12) are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. There is no impact on the data quality of the 1,2-dichloroethane, trans-1,3-dichloropropene, 1,1,2-trichloroethane, dibromochloromethane, bromoform, and isopropylbenzene results in the unspiked sample and no qualifier is required since the MSD and MS (isopropylbenzene only) recovery fell within control limits.

- The recovery of tetrachloroethene fell outside the upper control limits for the spiked soil sample SB-14(30-31) MSD of Data Set Z1679. Additionally, the RPD fell outside control limits for methyl acetate and tetrachloroethene. No qualifier is required for tetrachloroethene in the unspiked soil sample SB-14 (30-31) since the MS recovery fell within control limits. Similarly, no qualifier is required for methyl acetate in the unspiked soil sample since both the MS and MSD recoveries fell within control limits.

- The recoveries for the following VOA target compounds fell outside the lower control limits for the spiked ground water samples MW-05-I MS/MSD of Data Set Z1850:

  Compound
  Chloroform (<10%)
  Methylcyclohexane
  Benzene
  Toluene
  Ethyl Benzene
  m/p-Xylenes
  o-Xylene
  1,2-Dichlorobenzene (MSD only)

  The non-detected chloroform result in the unspiked sample MW-05-I is regarded as unreliable, [compound may or may not be present] and **flagged (R)** on the laboratory summary page. Due to the possibility of matrix interference and with the exception of 1,2-dichlorobenzene, the other referenced positive and non-detected VOA target compounds in the unspiked sample MW-05-I are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary page. There is no impact on the non-detected 1,2-dichlorobenzene result in the unspiked sample and no qualifier is required since the MS recovery fell within control limits.

- The recoveries of the VOA Laboratory Control Sample (LCS) spiking compounds fell outside the upper or lower control limits for the soil and/or ground water samples of the following Data Sets:

Data Set	BS	Target Compound	Recovery	Associated Samples
Z1590	BSG0301W2	Carbon Tetrachloride 1,2-Dibromo-3Chloropropane	High	TW-16 (12)
	BSI0225S1	Bromoform	High	SB-16 (7-8), SB-16 (11-12), SB-17 (5.5-6.5), SB-17 (7.5-8.5), SB-17 (11-12)
Z1635	BSI0227S1	Chloromethane Bromomethane	Low High	SB-18 (11-12)RE, SB-19 (11-12)RE, SB-R-1 (11-12),
	BSK0226S1	1,2-Dichlorobenzene	Low	SB-18 (6.5-7.5), SB-R-2 (6.5-7.5), SB-R-2 (11-12) & SB-1 (6-7)
	BSK0228S1	Dibromochloromethane	Low	SB-R-2 (6.5-7.5)RE
	BSH0229M1	Methylcyclohexane	High	SB-R-2 (8-9)DL, SB-15 (6.5-7.5) & SB-1 (12.5-13.5)
Z1636	BSI0227S1	Chloromethane Bromoform	Low High	SB-1 (22-23), SB-12 (6.5-7.5) & SB-12 (10-11)
	BSK0226S1	1,2-Dichlorobenzene	Low	SB-8 (8.5-9.5), SB-8 (10-11), FD-1
Z1637	BSG0301W2	Carbon Tetrachloride 1,2-Dibromo-3Chloropropane	High	TW-18, FB, TB, TW-19, TW-RCRA-2, TW-RCRA-4, FB-2
Z1644	BSK0228S1	Dibromochloromethane	Low	SB-4 (6.5-7.5)RE, SB-4 (11-12)RE, SB-3 (7-8), SB-3 (11-12)RE, SB-9 (7-8), FD-2
	BSH0229M1	Methylcyclohexane	High	SB-3 (7-8)DL, SB-9 (7-8)DL
Z1645	BSG030601	Carbon Tetrachloride	High	All project samples

Z1679	BSG0305W3	Carbon Tetrachloride	High	TW-RCRA-2, TW-1, FD-5, TW-2, TW-14, FD-4, TW-10, FB-4
	BSG0306-01 BSG0306-02	Carbon Tetrachloride	High	FD-5RE, TW-4
	BSK0229S1	1,1,1-Trichlororethane	High	SB-14 (6.5-7.5)RE only
		Trichloroethene 1,2-Dichlorobenzene	Low	SB-14 (6.5-7.5)RE only
Z1753	BSG0307W3	Carbon Tetrachloride	High	All project samples
Z1850	BSG0318W1	Dichlorodifluoromethane	Low	MW-6SRE, GW-03, TB-8RE
		Methyl ethyl ketone (aka 2-Butanone)	High	
	BSG0319W1	Dichlorodifluoromethane 1,2-Dibromomethane Styrene Bromoform	Low	GW-03RE, MW-6IRE
Z2238	BSH0404M1	Chloromethane Carbon tetrachloride Trichloroethene Chlorobenzene M&p-Xylenes 1,2-Dichlorobenzene	High	GW-05-MW-02
	BSG0408W2	Dichlorofluoromethane	Low	TW-5
		2-Hexanone 1,2-Dibromoethane 1,2-Dibromo-3-chloropropane	High	
	BSK0405SI	Carbon tetrachloride	High	SB-5 (7-7.5), SB-7 (6.5-7), SB-13 (7-7.5)

Unless previously qualified, the positive and non-detected BS target compounds in the noted samples of the referenced Data Sets with recoveries falling outside the lower control limits may be biased low and are **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. The positive BS target compounds in the noted samples of the referenced Data Sets with recoveries falling outside the upper control limits may be biased high and are **flagged (J)** on the laboratory summary pages. There is no impact on the data quality of the non-detected referenced target compounds and no qualifiers are required.

BNA

- The recoveries for the following BNA target compounds fell outside the control limits (low and/or high) for soil samples SB-16 (7-8) MS/MSD of Data Set Z1590, which suggests matrix effects. Additionally, the RPD for naphthalene, benzo(a)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, benzo(g,h,i) perylene, and dibenz(a,h)anthracene fell outside control limits.

Recovery	Compound	Recovery	Compound
Low	2,4-Dinitrophenol	High	4-Bromophenyl-phenylether
	Acenaphthene		N-nitroso-di-n-propylamine+
	4,6-Dinitro-2-methylphenol		Acenaphthylene+
	Phenanthrene		4-Nitrophenol+
	Anthracene		2,4-Dinitrotoluene+
	Di-n-butyl phthalate		N-nitroso-diphenylamine+
	Benzo(a)anthracene		Hexachlorobenzene+
	Chrysene		Atrazine+
	Indeno(1,2,3-cd)pyrene		
	Benzo(b)fluoranthene*		
	Benzo(k)fluoranthene*		
	Benzo(a)pyrene		
	Dibenz(a,h)anthracene*		
	Benzo(g,h,i)perylene		
	Hexachlorocyclopentadiene+		

* = MS Recovery Only
+ = MSD Recovery Only

The positive and non-detected BNA target compounds in the unspiked soil sample SB-16 (7-8) where both the MS and MSD recoveries fell outside the lower control limits are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. 4-Bromophenyl-phenylether was not detected in SB-16 (7-8) and no qualifier is required. There is no impact on the data quality of the noted BNA target compounds where only the MS or MSD recovery fell outside the upper or lower control limits since either only the MS* or MSD+ fell outside control limits and no qualifier is required.

- A BNA MS/MSD duplicate pair was not prepared and analyzed for the aqueous samples of Data Sets Z1645, Z1850, and Z1851. Therefore, no comments can be offered regarding the overall accuracy and precision associated with this analysis. However, a blank spike sample was analyzed by the laboratory and the results are described in this section.

- The MS and/or MSD recoveries for the following BNA target compounds fell outside the control limits (low and/or high) for soil samples SB-18 (6.5-7.5) MS/MSD (Data Set Z1635). Additionally, the RPD for fluoranthene fell outside control limits.

Recovery	Compound	Recovery	Compound
Low (<10%)	Fluoranthene	Low	Naphthalene
			4-Chloroaniline
			2-Methylnaphthalene
			Acenaphthene
High	Benzaldehyde		2,4-Dinitrophenol*
	Hexachloroethane+		Dibenzofuran
			Fluorene
			4,6-Dinitro-2-methylphenol
			Phenanthrene
			Anthracene
			Pyrene
			Bis(2-ethylhexyl)phthalate

	Benzo(a)pyrene
* = MS only	Benzo(a)anthracene+
+ = MSD Only	Benzo(b)fluoranthene+

The positive fluoranthene result in the unspiked soil sample SB-18 (6.5-7.5) is biased very low and **flagged (J)** on the laboratory summary pages. The positive and non-detected naphthalene, 4-chloroaniline, 2-methylnaphthalene, Acenaphthene, dibenzofuran, fluorene, 4,6-dinitro-2-methylphenol, phenanthrene, anthracene, pyrene, bis(2-ethylhexyl)phthalate, and benzo(a)pyrene in the unspiked soil sample SB-18 (6.5-7.5) are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. There is no impact on the data quality of the hexachloroethane, benzo(a)anthracene, and benzo(b)fluoranthene results since the MS and/or MSD recoveries for these compounds fell within control limits and no qualifier is required.

- The recoveries for the following BNA target compounds fell outside the control limits (low and/or high) for soil samples SB-8 (8.5-9.5) MS/MSD (Data Set Z1636). Additionally, the RPD for benzo(b)fluoranthene, benzo(a)pyrene, and 4,6-dinitro-2-methylphenol fell outside control limits.

Recovery	Compound	Recovery	Compound
Low	Hexachlorocyclopentadiene Benzo(a)pyrene 4,6-dinitro-2-methylphenol	High	N-nitroso-di-n-propylamine

The non-detected hexachlorocyclopentadiene result in the unspiked soil sample SB-8 (8.5-9.5) is regarded as estimated and **flagged (UJ)** on the laboratory summary pages. There is no impact on the data quality of the benzo(a)pyrene, 4,6-nitro-2-methylphenol, and n-nitroso-di-n-propylamine since either only the MS or MSD fell outside control limits and no qualifier is required. Similarly there is no impact on the data quality of the benzo(b)fluoranthene result since the MS/MSD recoveries fell within control limits. No qualifier is required.

- The recoveries for the BNA compound benzaldehyde fell outside the lower control limits for soil sample SB-9 (11-12) MS/MSD of Data Set Z1644. The non-detected benzaldehyde result in the unspiked soil sample SB-9 (11-12) is regarded as estimated and **flagged (UJ)** on the laboratory summary pages.

- The recovery of the BNA target compound 4-chloroaniline fell outside the lower control limit for the spiked soil sample SB-14 (30-31) MSD of Data Set Z1644. Additionally, the RPD fell outside control limits for the BNA spiking compounds 4-chloroaniline and 3,3'-dichlorobenzidene. There is no impact on the data quality since the MS recovery of 4-chloroaniline fell within control limits and both 4-chloroaniline and 3,3'-dichlorobenzidene were not detected in the unspiked soil sample SB-14 (30-31). No qualifiers are required.

- With the exception of acenaphthene, pyrene, bis(2-ethylhexyl)phthalate, and benzo(b)fluoranthene in the MS and 2-methylnaphthalene in the MSD, the MS and/or MSD recoveries for the BNA target compounds fell outside control limits, were either not recovered [%Rec = 0%] or were recovered low or high, which suggests matrix effects, for the spiked ground water samples GW-05-MW-02 MS/MSD of Data Set Z2238. Additionally, the RPD for fifteen BNA target compounds fell outside control limits. The unspiked sample GW-05-MW-02 was analyzed at 1:10 dilution due to the presence of target compounds and extraneous chromatographic peaks, which warranted the dilution. With the exception of acenaphthene, pyrene, bis(2-ethylhexyl)phthalate, benzo(b)fluoranthene, and 2-methylnaphthalene, the positive and/or non-detected BNA target compounds in GW-05-MW-02 MS/MSD are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages [Refer to pages 11-14 of Data Set for list of affected compounds]. There is no impact on the data quality for the positive and/or non-detected acenaphthene, pyrene, bis(2-ethylhexyl)phthalate, benzo(b)fluoranthene, and 2-methylnaphthalene results since either the MS or MSD recovery of these compounds fell within control limits.

- The soil MS and/or MSD recoveries were either not recovered [%Rec = 0%] or were recovered outside the upper control limits, which suggests matrix effects, for numerous BNA target compounds associated with the soil samples of Data Set Z2238. No qualifiers are required since the spiked sample is a non-project sample.

- 1,1,2-trichlorofluoromethane, methyl acetate, and bromoform. The RPD also fell outside control limits for methyl acetate. Additionally, the soil MS and MSD recoveries fell outside the upper control limits for trichloroethene and tetrachloroethene and was not recovered for 1,1,2,2-tetrachloroethane of Data Set Z2238. No qualifiers are required since the spiked samples are non-project samples.

- The recovery of the BNA LCS spiking compounds, hexchlorocyclopentadiene and/or 2-nitrophenol, fell outside the upper control limits for LCS PB32316BS of Data Set Z1635 and LCS PB32298BS of Data Set Z1636. Hexchlorocyclopentadiene and 2-nitrophenol were not detected in the project samples of Data Sets Z1635 and Z1636. There is no impact on the data quality of the non-detect hexchlorocyclopentadiene and 2-nitrophenol results and no qualifier is required.

- The recoveries of the following BNA LCS spiking compounds fell outside control limits (low/high) for the following Data Sets:

Data Set	LCS	Recovery	Spiking Compound	Associated Samples
Z1590	PB32259BS (Soil)	Low	Caprolactam 2,4,6-Trichlorophenol	All soil project samples
Z1590	PB32260BS (Aqueous)	High	2-Nitrophenol 1,1-Biphenyl 2,4-Dinitrophenol Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Dibenz(a,h)anthrancene Benzo(g,h,i)perylene	TW-16 (12)
		Low	4-Chloroaniline* 3-Nitroaniline 4-Nitroaniline	TW-16 (12)

			N-nitrosodiphenylamine Atrazine Carbazole 3,3'-Dichlorobenzidine*	

* = Spiked, but 0% recovery

Z1637	PB32309BS	High	bis(2-chloroethyl)ether Nitrobenzene 2-Nitrophenol 4-Chloro-3-methylphenol	All project samples
Z1644	PB32330BS	High	Acenaphthene Hexachlorocyclopentadiene	All project samples
Z1645	PB32336BS	High	2-Chlorophenol Hexachloroethane Nitrobenzene 2-Nitrophenol 4-Chloro-3-Methylphenol 1,1-Biphenyl	All project samples
Z1679	PB32415BS (Aqueous)	Low	Dimethylphthalate	TW-RCRA-2, TW-2, TW-2RE, FB-5, TW-4, MS-TW4, TW-14, TW-14RE, FD-4, FD-4RE, TW-10, FB-4, FB-4RE
		High	2-Chlorophenol 2-Nitrophenol 4-Chloroaniline 1,1-Biphenyl Hexachlorocyclopentadiene	
Z1679	PB32585BS (Soil)	Low	Hexachloroethane 3 & 4 Methylphenols Nitrobenzene 2-Nitrophenol 2,4-Dimethylphenol Bis(2-chloroethoxy)methane 2,4-Dichlorophenol Hexchlorobutadiene 2-Methylnaphthalene 2,4,6-Trichlorophenol	SB-14 (6.5-7.5), SB-14 (30-31)
Z1679	PB32423BS (Aqueous)	Low	Benzaldehyde	TW-1, TW-1DL, TW-1DL2, FD-5, FD-5DL, FD-5DL2
		High	2-Chlorophenol Phenol 2-Methylphenol Hexachloroethane N-Nitroso-di-n-propylamine 3+4 Methylphenols Nitrobenzene Bis(2-chloroethoxy)methane Hexachlorobutadiene 2-Methylnaphthalene Hexachlorocyclopentadiene	

			2-Chloronaphthalene Acenaphthylene Acenaphthene 2,4-Dinitrophenol Dibenzofuran Fluorene Diethylphthalate 4-Chlorophenyl-phenylether Hexachloroethane Pentachlorophenol Fluoranthene	
Z1680	PB32442BS	Low	Dimethylphthalate Butylbenzylphthalate	TW-2, TW-2RE, FB-5, TW-4, MS-TW-4, TW-14, TW-14RE, FD-4, FD-4RE, FB-4
		High	2-Chlorophenol Hexachloroethane Nitrobenzene 2-Nitrophenol 2,4-Dimethylphenol 1,1-Biphenyl	
Z1680	PB32464BS	High	2-Chlorophenol Benzaldehyde Hexachloroethane 3 & 4 Methyphenols 2,2-Oxybis(1-chloropropane) Nitrobenzene Isophorone 2-Nitrophenol Hexachlorocyclopentadiene 2,4-Dinitrophenol Dibenzofuran 4-Chlorophenylphenyl ether 4,6-Dinitro-2-methylphenol Pentachlorophenol	TW-1, TW-1DL, TW-1DL2, FD-5, FD-5DL, FD-5DL2
Z1753	PB32503BS	High	2-Nitrophenol	All project samples
Z1850	PB32657BS	High	2-Chlorophenol Phenol 2,4-Dinitrophenol 4-Nitrophenol	All project samples
		Low	Dimethylphthalate Butylbenzylphthalate	All project samples
Z1851	PB32658BS	High	2-Chlorophenol Phenol 2,4-Dinitrophenol	All project samples
		Low	Dimethylphthalate	All project samples
Z2238	PB33365BS	Low (<10%)	4-Chloroaniline	Field Blank 4-1-08

			3,3'-Dichlorobenzidine	
		Low	3-Nitroaniline Atrazine	
		High	2-Nitrophenol 1,1-Biphenyl Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Dibenz(a,h)anthracene	
Z2238	PB33286BS	High	Phenol 2-Methylphenol 3+4-Methylphenols Isophorone 2-Nitrophenol Bis(2-chloroethoxy)methane 4-Chloroaniline Caprolactam 2-Methylnaphthalene Hexachlorocyclpentadiene	SB-5 (7-7.5), SB-6 (10-10.5), SB-7 (6.5-7), SB-13 (7-7.5)
Z2238	PB33291BS	Low	Carbazole Di-n-octylphthalate	GW-05-MW-02, GW-05-MW-02RE
		High	1,1-Biphenyl 2,4-Dinitrophenol 4-Nitrophenol 4,6-Dinitro-2-methylphenol	

Where the reported BS recoveries fell outside the lower control limits, the positive and non-detected BNA target compound results may be biased low and are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages in the applicable Data Sets.

Where the reported BS recoveries fell outside the upper control limits, the referenced BNA target compounds, if detected, also are regarded as estimated and **flagged (J)** on the laboratory summary pages. There is no impact on the data quality for the listed non-detected BNA target compounds and no qualifiers are required.

PCB

- The MS/MSD recovery of Aroclor 1260 fell outside the upper control limit in the spiked soil sample SB-16 (7-8) of Data Set Z1590. Additionally, the %D between the primary and confirmatory columns for Aroclor 1016 and 1260 fell outside control limits in the spiked soil samples SB-16 (7-8) MS/MSD of Data Set Z1590. There is no impact on the data quality of the PCB results in the unspiked soil sample SB-16 (7-8) since PCBs were not detected in this sample.

- The relative percent difference (RPD) between the MS/MSD recoveries of the PCB spiked soil sample SB-18 (11-12) fell outside control limits in Data Set Z1635. No qualifier is required since PCBs were not detected in the unspiked soil sample SB-18 (11-12).

- The %D between the primary and confirmatory columns for the PCB Aroclor 1260 fell outside control limits in the spiked soil samples SB-8(8.5-9.5) MS/MSD of Data Set Z1636. There is no impact on the data quality in the unspiked soil sample SB-8 (8.5-9.5) since PCBs were not detected in this sample.

- The PCB recoveries fell outside the upper control limits in the spiked soil sample SB-9 (11-12) MS/MSD of Data Set Z1644. Additionally, the %D between the primary and confirmatory columns for Aroclor 1016 fell outside control limits for SB-9 (11-12) MS/MSD. No qualifier is required since the unspiked soil sample SB-9 (11-12) was non-detected for PCBs.

- The PCB BS recovery for Aroclor 1016 fell outside the upper control limit associated with soil samples SB-14 (6.5-7.5) and SB-14 (30-31) of Data Set Z1679. Additionally, the %D between the primary and confirmatory columns for Aroclor 1016 fell outside the upper control limits for the spiked soil sample SB-14 (30-31) MS. No qualifier is required since PCBS were not detected in the referenced soil samples of Data Set Z1679.

- The PCB MS/MSD results (recoveries and MS/MSD RPD) associated with Data Sets Z1679, Z1753, and Z2238 (soil only) fell within control limits, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

- The MS/MSD recoveries of Aroclor 1016 and Aroclor 1260 fell outside the upper control limits in the spiked ground water sample GW-05-MW-02 of Data Set Z2238. Additionally, the %D between the primary and confirmatory columns for the PCB Aroclors 1016 and 1260 fell outside control limits in the spiked ground water samples GW-05-MW-02 MS/MSD. There is no impact on the data quality of the PCB results in the unspiked ground water sample GW-05-MW-02 since PCBs were not detected in this sample.

- The PCB blank spike recoveries of Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z1645, Z1753, Z1850, Z2238 fell within control limits, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

PEST

- The MS/MSD recoveries of the following pesticides either were not recovered (0%) or fell outside the lower control limits for the spiked soil sample SB-16 (7-8) of Data Set Z1590:

Compound	Recovery
Heptachlor	Low (0%)
Aldrin	Low (0%)
Beta-BHC	Low (0%)
Delta-BHC	Low (0%)

Heptachlor epoxide	Low (0%)
Endosulfan I	Low (0%)
Dieldrin	Low (0%)
Endrin	Low (0%)
Endosulfan II	Low (0%)
Endrin Aldehyde	Low (0%)
Endosulfan sulfate	Low (0%)
Methoxychlor	Low (0%)
Endrin ketone	Low (0%)
Gamma-BHC (Lindane)	Low

Due to possible matrix effects, the positive and non-detected pesticide compounds listed above in the unspiked soil sample SB-16 (7-8) are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The %D between the primary and confirmatory columns for the pesticides gamma-BHC, 4,4'-DDE, 4,4'-DDT, and gamma chlordane fell outside control limits in the spiked soil samples SB-16 (7-8) MS/MSD of Data Set Z1590. Additionally, the %D fell outside control the limit for alpha-BHC. There is no impact on the data quality of the pesticide results in the unspiked soil sample SB-16 (7-8) since gamma-BHC, 4,4'-DDE, 4,4'-DDT, gamma chlordane, and alpha-BHC were not detected in this sample.

- The %D between the primary and confirmatory columns for the PEST gamma chlordane fell outside control limits in the spiked soil samples SB-8(8.5-9.5) MS/MSD of Data Set Z1636. There is no impact on the data quality in the unspiked soil sample SB-8 (8.5-9.5) since gamma chlordane was not detected in this sample.

- The RPD between the MS/MSD recoveries for the PEST methoxychlor fell outside the control limit in Data Set Z1636. No qualifier is required since methoxychlor was not detected in the associated project samples.

- The MS recovery of the pesticide compound endrin ketone fell outside the lower control limit in the spiked soil samples SB-9 (11-12) MS/MSD of Data Set Z1644. Additionally, the %D between the primary and confirmatory columns for heptachlor and gamma chlordane fell outside control limits for SB-9 (11-12) MS/MSD. No qualifier is required for endrin ketone in the unspiked soil sample SB-9 (11-12) since the MSD recovery fell within control limits. Similarly, no qualifier is required for heptachlor and gamma chlordane since heptachlor and gamma chlordane were not detected in the unspiked soil sample SB-9 (11-12).

- The recoveries of the PEST blank spike sample PB32395BS fell outside the lower control limits for endrin aldehyde and endosulfan sulfate associated with the following aqueous samples of Data Set Z1679:

Associated Samples

TW-RCRA-2	TW-4	FD-4
TW-2	MS-TW4	TW-10
FB-5	TW-14	FB-4

Additionally, heptachlor fell outside the upper control limit in the blank spike soil sample PB32586BS. Endrin aldehyde and endosulfan sulfate were not detected in the referenced aqueous samples. The non-detected endrin aldehyde and endosulfan sulfate results in the noted project samples are regarded as estimated and **flagged (UJ)** on the laboratory summary pages. No qualifier is required for the heptachlor result in the soil samples SB-14 (6.5-7.5) and SB-14 (30-31) of Data Set Z1679 since heptachlor was not detected in these samples.

- The %D between the primary and confirmatory columns for the PEST endosulfan II fell outside control limits for the spiked soil samples SB-14 (30-31) MS/MSD of Data Set Z1679. No qualifier is required since endosulfan II was not detected in the unspiked soil sample SB-14 (30-31).

- The recoveries of the PEST blank spike sample PB32479BS fell outside the lower control limits for endosulfan I, endrin aldehyde, and endosulfan sulfate in Data Set Z1753. The positive and non-detected endosulfan I, endrin aldehyde, and endosulfan sulfate result in the associated project samples are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The %D between the primary and confirmatory columns for the PEST 4,4'-DDD fell outside control limits in the ground water sample MW-04-S of Data Set Z1850. The positive 4,4'-DDD result in the sample MW-04-S is regarded as estimated and **flagged (J)** on the laboratory summary pages.

- With the exception of 4,4'-DDD, the MS/MSD recoveries of the target pesticide compounds fell outside the lower control limits [most less than 10%] for the spiked aqueous sample GW-05-MW-02 of Data Set Z2238, which suggests matrix interference. The original sample GW-05-MW-02 was analyzed at a 1:10 dilution. With the exception of gamma-BHC, aldrin, heptachlor epoxide, dieldrin, endosulfan sulfate, 4,4'-DDT, and methoxychlor, the RPD of the target pesticides also fell outside control limits. The positive and non-detected pesticide target compounds in the unspiked aqueous sample GW-05-MW-02 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary page.

- With the exception of alpha-BHC, heptachlor, aldrin, 4,4'-DDE, and 4,4'-DDT, the MS/MSD recoveries of the target pesticide compounds either fell outside the lower control limits or were not recovered for the spiked soil sample SB-5 (7-7.5) of Data Set Z2238, which suggests matrix interference. Alpha-chlordane fell within control limits in sample SB-5 (7-7.5)MSD. Additionally, the RPD of the target pesticides beta-BHC, endosulfan I, 4,4'-DDE, and endrin aldehyde fell outside control limits. The positive and non-detected pesticide target compounds in the unspiked soil sample SB-5 (7-7.5) are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary page. There is no impact on the non-detected alpha-chlordane result in the unspiked soil sample SB-5 (7-7.5) since the MSD recovery fell within control limits.

- The %D between the primary and confirmatory columns for the PEST endosulfan I, endosulfan II, and methoxychlor fell outside control limits in the spiked aqueous samples GW-05-MW-02 MS/MSD associated with Data Set Z2238. Similarly, endosulfan I, endrin, alpha-chlordane, and gamma-chlordane fell outside control limits for the spiked soil samples SB-5 (7-7.5) MS/MSD. Additionally, the %D between the primary and confirmatory columns for the PEST endrin fell outside control limits in the BS samples PB33289BS and PB33292BS associated with the soil samples of Data Set Z2238. No qualifiers are required since endosulfan I, endosulfan II, and methoxychlor were not detected in the unspiked aqueous sample GW-05-MW-02, nor were endosulfan I, endrin, alpha-chlordane, and gamma-chlordane detected in the unspiked soil sample SB-5 (7-7.5). Finally, endrin also was not detected in the soil samples of Data Set Z2238 and no qualifier is required.

- The PEST blank spike recoveries of Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z1645, Z1850, fell within control limits, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

FIELD DUPLICATES
VOA

- Aqueous sample FD-1 of Data Set Z1637 was collected and submitted as a blind field duplicate of sample TW-RCRA-4. Due to the variability of the reported concentrations for acetone, cyclohexane, and isopropylbenzene, the positive and non-detected acetone, cyclohexane, and isopropylbenzene results in TW-RCRA-4 and FD-1 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages. Note that FD-1 was qualified previously due to a hold time violation. Refer to the **Hold Time** section of this report for more information.

- Soil sample FD-2 of Data Set Z1644 was collected and submitted as a blind field duplicate of sample SB-10 (32.5-33.5). The reproducibility of the VOA results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Aqueous samples FD-2 and FD-3 of Data Set Z1645 were collected and submitted as blind field duplicate samples of TW-15 and TW-3, respectively. With the exception of acetone in project samples FD-2/TW-15 and FD-3/TW-3 and methylcyclohexane in FD-3 and TW-3, the reproducibility of the VOA results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required. Due to the variability of the reported acetone concentrations between TW-15 and TW-3 and their associated field duplicate samples FD-2 and FD-3 and the variability of the reported methylcyclohexane concentrations between samples TW-3 and FD-3, the positive and non-detected acetone and/or methylcyclohexane results in the original and duplicate aqueous samples are regarded as estimated and **flagged (J) and (UJ)**, respectively on the laboratory summary pages.

- Aqueous samples FD-4 and FD-5 were collected and submitted as blind field duplicates of samples TW-14 and TW-1, respectively, of Data Set Z1679. The reproducibility of the VOA results between FD-4 and TW-14 is good, providing a positive indication of the overall accuracy and precision associated with this analysis. Due to the variability of the reported VOA target compound concentrations for methyl tertiary butyl ether [MTBE], methylcyclohexane, benzene, ethyl benzene, m/p-xylenes, o-xylene, cyclohexane, isopropylbenzene, and toluene between TW-1 and its field duplicate sample FD-5, the positive and non-detected MTBE, methylcyclohexane, benzene, ethyl benzene, m/p-xylenes, o-xylene, cyclohexane, isopropylbenzene, and toluene results are regarded as estimated and **flagged (J) and (UJ)**, respectively on the laboratory summary pages.

- Aqueous sample FD-6 of Data Set Z1753 was collected and submitted as a blind field duplicate of sample GW-4. The reproducibility of the VOA results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Aqueous sample FD-7 of Data Set Z1850 was collected and submitted as a blind field duplicate of sample MW-4S. Due to the variability of the reported VOA target compound concentrations for cis-1,2-dichloroethene, ethyl benzene, m/p-xylenes, o-xylene, isopropylbenzene, and methylcyclohexane between MW-4S and its field duplicate sample FD-7, the positive and non-detected cis-1,2-dichloroethene, ethyl benzene, m/p-xylenes, o-xylene, isopropylbenzene, and methylcyclohexane results are regarded as estimated and **flagged (J) and (UJ)**, respectively on the laboratory summary pages.

- Aqueous sample Field Duplicate 4-1-08 of Data Set Z2238 was collected and submitted as a blind field duplicate of sample MW-01. The reproducibility of the VOA results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

BNA

- Sample FD-1 of Data Set Z1636 was collected and submitted as a blind field duplicate of soil sample SB-12 (6.5-7.5). With the exception of the BNA compounds phenanthrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)-pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene and 2-methylnaphthalene, the reproducibility of the BNA results is good ($RPD\leq100$) providing a positive indication of the overall accuracy and precision associated with this analysis. Due to the variability of the reported phenanthrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)-pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene and 2-methylnaphthalene concentrations between samples SB-12 (6.5-7.5) and FD-1, the positive and non-detected listed BNA results in the original and duplicate soil samples are regarded as estimated and **flagged (J) and (UJ)** on the laboratory summary pages.

- Aqueous sample FD-1 was collected and submitted as a blind field duplicate of the ground water sample TW-RCRA-4 of Data Set Z1637. With the exception of acenaphthene, the reproducibility of the BNA results is good providing a positive indication of the overall accuracy and precision associated with this analysis and no qualifier is required. Due to the variability of the reported acenaphthene concentration between the original and duplicate samples, the positive acenapthene results in FD-1, TW-RCRA-4, and TW-RCRA-4RE are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- Soil sample FD-2 of Data Set Z1644 was collected and submitted as a blind field duplicate of sample SB-10 (32.5-33.5). The reproducibility of the BNA results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Samples FD-2 and FD-3 of Data Set Z1645 were collected and submitted as blind field duplicates of aqueous samples TW-15 and TW-3, respectively. The reproducibility of the BNA results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Samples FD-4 and FD-5 of Data Set Z1679 were collected and submitted as blind field duplicates of aqueous samples of TW-14 and TW-1, respectively. The reproducibility of the BNA results between FD-5 and TW-1 is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required. Due to the variability of the reported BNA target compound concentrations for acenaphthene and dibenzofuran in FD-4 and TW-14 as well as FD-4RE and TW-14RE, the positive and non-detected acenaphthene and dibenzofuran results in the original and duplicate ground water samples are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- Samples FD-4 and FD-5 of Data Set Z1680 were collected and submitted as blind field duplicates of aqueous samples of TW-14 and TW-1, respectively. The reproducibility of the BNA results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Aqueous samples FD-7 and FD-8 of Data Set Z1850 were collected and submitted as blind field duplicates of samples MW-4S and MW-01, respectively. With the exception of naphthalene in project samples FD-7/MW-04-S, the reproducibility of the BNA results is good, providing a positive indication of the overall accuracy and precision associated with this analysis and no qualifier is required. Due to the variability of the reported naphthalene concentrations between MW-4S and its associated field duplicate sample FD-7, the positive and non-detected naphthalene results in the original and duplicate aqueous sample are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- Aqueous samples FD-7 and FD-8 of Data Set Z1851 were collected and submitted as blind field duplicates of filtered samples MW-4S and MW-01, respectively. The reproducibility of the BNA results is good, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

PEST/PCB

- Soil sample FD-1 of Data Set Z1636 was collected and submitted as a blind field duplicate of sample SB-12 (6.5-7.5). Aqueous sample FD-1 of Data Set Z1637 was collected and submitted as a blind field duplicate of the ground water sample TW-RCRA-4. The reproducibility of the PEST and PCB results is good, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

- Soil sample FD-2 of Data Set Z1645 was collected and submitted as a blind field duplicate of soil sample SB-10 (32.5-33.5). The reproducibility of the PCB results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Soil sample FD-2 of Data Set Z1644 was collected and submitted as a blind field duplicate of soil sample SB-10 (32.5-33.5). Due to the variability of the 4,4'-DDE and 4,4'-DDT results between SB-10 (32.5-33.5) [both compounds non-detected] and its associated field duplicate sample FD-2 [both compounds positive], the positive and non-detected 4,4'-DDE and 4,4'-DDT results in the original and duplicate soil samples are regarded as estimated and **flagged (J) and UJ**, respectively, on the laboratory summary pages

- Samples FD-2 and FD-3 of Data Set Z1645 were collected and submitted as blind field duplicates of aqueous samples TW-15 and TW-3, respectively. The reproducibility of the PEST and PCB results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Samples FD-4 and FD-5 of Data Set Z1679 were collected and submitted as blind field duplicates of aqueous samples TW-14 and TW-1, respectively. The reproducibility of the PEST and PCB results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Aqueous sample FD-6 of Data Set Z1753 was collected and submitted as a blind field duplicate of sample GW-4. The reproducibility of the PCB and PEST results is good, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

- Aqueous samples FD-7 and FD-8 of Data Set Z1850 were collected and submitted as blind field duplicates of samples MW-4S and MW-01, respectively. The reproducibility of the PCB results is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Aqueous samples FD-7 and FD-8 of Data Set Z1850 were collected and submitted as blind field duplicates of samples MW-4S and MW-01, respectively. With the exception of alpha-BHC and 4,4'-DDD in samples FD-7/MW-04-S, the reproducibility of the PEST results is good, providing a positive indication of the overall accuracy and precision associated with this analysis and no qualifier is required. Due to the variability of the alpha-BHC and 4,4'-DDD results between MW-4S and its associated field duplicate sample FD-7, the positive and non-detected alpha-BHC and 4,4'-DDD results in the original and duplicate aqueous samples are regarded as estimated and **flagged (J) and UJ**, respectively, on the laboratory summary pages.

Target Compound Identification and Quantitation: The laboratory calculations are verified and compound identifications are assessed by the data reviewer.

- The GC/MS raw data (quantitation reports, chromatograms and mass-spectra) were provided for review. No laboratory calculation errors were noted for samples selected for verification during the quality assurance review.

VOA

- Soil sample SB-16 (7-8)DL of Data Set Z1590 was analyzed at 1:5 dilution due to VOA target compound concentrations exceeding the linear calibration range requirements. Similarly, soil sample SB-17 (7.5-8.5)DL was analyzed at a medium level dilution resulting in elevated detection limits.

- Soil samples SB-18 (6.5-7.5)DL, SB-19 (7-8), SB-19 (7-8)RE, SB-R-2 (8-9)DL, SB-15 (6.5-7.5), and SB-1 (12.5-13.5) of Data Set Z1635 and soil samples SB-10 (6-7)DL, SB-3 (7-8)DL, and SB-9 (7-8)DL of Data Set Z1644 were analyzed on dilution due to VOA target compound concentrations exceeding the linear calibration range requirements.

- The aqueous samples TW-17 of Data Set Z1637 and TW-RCRA-1, TW-15, FD-2, and TW-9 of Data Set Z1645 each were analyzed at 1:10 dilution due to VOA target compound concentrations exceeding the instrument's linear calibration range requirements.

- The aqueous samples TW-1, FD-5, and FD-5RE of Data Set Z1679 were analyzed at a 1:10 dilution due to VOA target compound concentrations exceeding the instrument's linear calibration range requirements.

- In the VOA analysis of Data Set Z1850, the following aqueous samples were analyzed on dilution due to VOA target compounds exceeding the linear calibration range requirements.

Sample	Dilutions
MW-05-I	1:10
MW-04-I	1:20
MW-04-S	1:20
FD-7	1:5
MW-07I	1:20
FD-8	1:10
MW-07S	1:20
MW-6S	1:100
MW-6I	1:20
MW-6IRE	1:20

Samples MW-6S and MW-6I were analyzed at 1:100 and 1:20 dilution, respectively, even though no target compounds were detected in the samples and no extraneous chromatographic peaks were identified to warrant such dilution. This data reviewer contacted the laboratory and was informed that samples with a strong odor or bad matrix are usually analyzed on dilution. If no target compounds are detected, the samples are then analyzed straight. These samples were analyzed at 1:1 dilution; however, the re-analysis was performed outside the required hold time and qualified accordingly. Refer to the **Hold Time** section of this report for more information.

- Soil sample GW-05-MW-02 of Data Set Z2238 was analyzed at a medium level dilution (1:2,000) resulting in elevated detection limits due to high concentrations of VOA target compounds exceeding the instrument's linear calibration range. Additionally, the aqueous sample TW-5 also was analyzed at 1:10 dilution, although neither high concentrations of VOA target compounds nor extraneous chromatographic peaks were apparent that warranted the dilution.

BNA

- In the BNA analysis of the referenced Data Sets, the following aqueous and soil samples were analyzed on dilution due to BNA target compounds exceeding the instrument's linear calibration range requirements. No qualifier is required.

Data Set	Sample	Dilution
Z1590	SB-17 (5.5-6.5)	1:5
Z1635	SB-R-2 (8-9)	1:5
	SB-R-2 (8-9)RE	1:5
	SB-R-1 (6-7)	1:1 and 1:5
	SB-11 (6.5-7.5)	1:1 and 1:5
	SB-1 (12.5-13.5)	1:10 and 1:100
Z1636	SB-12 (6.5-7.5)	1:5
	SB-12 (10-11)	1:1 and 1:5
	FD-1	1:5
	FD-1RE	1:5
Z1644	SB-10 (6-7)	1:5
	SB-R-3 (5.5-6.5)	1:1 and 1:5
	SB-4 (6.5-7.5)	1:5
	SB-9 (7-8)	1:5
Z1645	TW-RCRA-1	1:1 and 1:5
	TW-11	1:1 and 1:5
	TW-12	1:1, 1:5, and 1:25
	TW-11 (filtered)	1:1 and 1:5
Z1679	TW-1	1:1, 1:10, and 1:50
	FD-5	1:1, 1:10, and 1:50
	SB-14 (6.5-7.5)	1:5
Z1851	MW-05I	1:1 and 1:5
Z2238	GW-05-MW-02	1:10
	GW-05-MW-02RE	1:10
	SB-5 (7-7.5)	1:10
	SB-6 (10-10.5)	1:10
	SB-7 (6.5-7)	1:10
	SB-13 (7-7.5)	1:10

PEST

- Soil samples SB-17 (5.5-6.5) and SB-17 (7.5-8.5) and ground water sample TW-16 (12) of Data Set Z1590 were analyzed at 1:40, 1:5, and 1:5 dilution due to 4,4'-DDD concentrations exceeding the instrument's linear calibration range requirements. No qualifiers are required.

- In the PEST analysis of the following Data Sets, the soil and/or ground water samples were analyzed on dilution due to interfering extraneous chromatographic peaks. No qualifier is required.

Data Set	Sample	Dilution
Z1636	SB-12 (6.5-7.5)	1:10
	SB-12 (10-11)	1:5
	SB-8 (8.5-9.5)	1:5
	FD-1	1:10
Z1637	TW-17	1:50
	TW-18	1:100
Z1679	TW-1	1:5
	FD-5	1:5
	SB-14 (6.5-7.5)	1:5
Z1753	GW-4	1:5
	FD-6	1:5
Z1850	MW-6S	1:5
	GW-03	1:5
Z2238	GW-05-MW-02	1:10 and 1:100

- In the PEST analysis of Data Set Z1850, the ground water sample MW-04-S was analyzed at 1:5 dilution due to target compound concentrations exceeding the instrument's linear calibration range requirements. No qualifier is required.

Tentatively Identified Compounds (TICs): In addition to the specific target compounds identified, up to 10/20 non-target organic compounds of greatest apparent concentration were tentatively identified by a computerized search of the National Bureau of Standards (NBS) mass-spectral library. A mass-spectral interpretation specialist compares the sample mass-spectrum to the library search and assigns a tentative identification. The validity of the TICs was evaluated based upon the identifications made by the laboratory, and the following comments are offered:

VOA

- VOA TICs were reported in the soil and/or groundwater samples associated with the following Data Sets:

Data Set	TICs	Associated Samples
Z1590	Benzene isomers Alkanes Alkenes Cycloalkanes Cycloalkenes PAHs Unknowns	All project samples
Z1635	Benzene Isomers Alkanes Cycloalkanes Cycloalkenes PAHs Unknowns	All project samples except SB-19(11-12), SB-R-4 (6-7), SB-R-4 (11-12), SB-R-2 (11.5-12), SB-R-1 (11-12), SB-15 (11-12), SB-2 (6-7), SB-1 (6-7)
Z1636	Cycloalkanes Benzene Isomers Alkanes Alkenes PAHs Unknowns	All project samples except SB-1 (22-23)
Z1637	Benzene isomers Alkanes Alkenes Cycloalkenes Unknowns	All project samples except FB, TB, and FB-2
Z1644	Benzene Isomers Alkanes Alkenes Cycloalkanes PAHs Unknowns	All project samples except SB-R-3 (30.5-31.5) and SB-4 (11-12)
Z1645	Benzene isomers Alkanes Alkenes Cycloalkanes Cycloalkenes PAHs Unknowns	All project samples except FB-2, TB-2, FB-3 and TB-3
Z1679	Benzene isomers Alkanes Alkenes Cycloalkanes PAHs Unknowns	All project samples except TW-2, SB-14 (30-31), and MS-TW4
Z1753	Benzene Isomers Cycloalkanes Cycloalkenes	All project samples except FB-6 and TB-6

	PAHs Unknowns	
Z1850	Benzene Isomers Alkanes Alkenes Cycloalkanes PAHs Unknown	All project samples except MW-07I, GW-01, MW-6S and MW-6I
Z2238	Benzene isomers Alkanes Alkenes Cycloalkanes Cycloalkenes Unknowns	All project samples except TW-5

BNA

- BNA TICs were reported in the project samples of the following Data Sets:

Data Set	TICs	Associated Samples
Z1590	Benzene isomers Alkanes Aldehydes Cycloalkanes Cycloalkenes PAHs Unknowns	All project samples
Z1635	Benzene Isomers Alcohols Alkanes Alkenes Cycloalkanes PAHs Phenolic Compounds Unknowns	All project samples
Z1636	Cycloalkanes Alkanes Alkenes Cycloalkanes PAHs Unknowns	SB-12 (6.5-7.5), SB-8 (8.5-9.5), SB-8 (10-11), FD-1
	PAHs Methylated furans Phenolic Compounds Alkenes Unknowns	SB-12 (10-11) only

Z1637	Benzene isomers Alkanes Alkenes Cycloalkanes Cycloalkenes PAHs Phenolic compounds Unknowns	All project samples except TW-RCRA-4
Z1645	Benzene Isomers Alkanes Alkenes Carboxylic Acid Cycloalkanes Cycloalkenes PAHs Unknowns	All project samples
Z1679	Benzene isomers Alcohols Aldehydes Alkanes Alkenes Cycloalkanes PAHs Phenolic Compounds Unknowns	All project samples
Z1680	Benzene Isomers Alkanes Alkenes Alcohols Cycloalkanes PAHs Phenolic Compounds	All project samples
Z1753	Cycloalkanes Cycloalkenes Benzene isomers PAHs Alcohols Unknowns	All project samples
Z1850	Benzene Isomers Alkanes Alkenes Cycloalkanes PAHs Phenolic Compounds Unknowns	All project samples
Z1851	PAHs Phenolic Compounds	All project samples

	Benzene Isomers Cycloalkanes Unknowns	
Z2238	Benzene isomers Alkanes Alcohols Cycloalkanes PAHs Unknowns	All project samples

- 2-Methylnaphthalene and fluorene were tentatively identified as a semi-volatile TICs in sample SB-12 (6.5-7.5) (Data Set Z1636). 2-Methylnaphthalene and fluorene are TCL BNA target compounds. Since TCL BNA analysis was requested for this sample, these TICs are deemed acceptable and have been included in the total estimated BNA TIC concentration reported on the laboratory summary pages.

- A semi-volatile TIC eluting at retention time 1.95 minutes was misidentified as 1,3,5-cycloheptatriene in ground water sample Matrix Spike-2 of Data Set Z1850. Similarly, a semi-volatile TIC eluting at retention time 1.96 minutes also was misidentified as an unknown in the ground water sample Matrix Duplicate-2. Based on a review of the ion chromatogram, the correct identification for these TICs is toluene, a VOA target compound. Additionally, a semi-volatile TIC eluting at 7.77 minutes also was misidentified. Based on a review of the ion chromatogram, the correct identification for this TIC is 2-methylnaphthalene, a BNA target compound. Although TCL VOA analysis is requested for this Data Set, VOA analysis was not reported for samples Matrix Spike-2 and Matrix Duplicate-2. These VOA TICs are deemed acceptable and have been included in the total estimated BNA TIC concentration reported on the laboratory summary pages. Similarly, the 2-methylnaphthalene TIC is deemed acceptable and has been included in the total estimated BNA TIC concentration reported on the laboratory summary pages. This data reviewer has corrected and initialed these misidentifications and no further action is required from the laboratory.

Additional Comments:

- As per the requirements, values calculated below the RL should be considered estimated and are flagged (J) on the summary table.

3.3 Inorganic and Conventional Parameter Qualifiers

Hold Times: Technical hold times are assessed by comparing the sampling dates with that of the preparation dates and/or analysis dates.

- The reviewed project samples of Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z1645, Z1679, Z1680, Z1753, Z1850, Z1851, and Z2238 were prepared and/or analyzed within the required hold time for TAL Metals and/or (total) cyanide. No qualifier is required.

Blank Contamination: Laboratory method blanks are clean liquid and/or solid matrix samples prepared by the analytical laboratory and analyzed in the same manner as the investigative samples. Water laboratory method blanks are used to ensure that the investigative samples are not contaminated during the sample preparation, sample analysis or from previous sample (instrument carry-over).

Field-blanks consist of deionized water poured over or through decontaminated sampling equipment and collected into the sample bottles. Field-blanks measure contamination potentially caused by improper decontamination of sampling equipment

- Trace metal analytes were detected above the Method Detection Limit (MDL) but less than the Contract Required Quantitation Limit (CRQL) in the laboratory method blanks, instrument blank, and/or field blank samples associated with the project samples of the Data Sets referenced below. Concentrations of metal analytes in the associated project samples greater than the MDL but less than the CRQL are qualitatively questionable and **<u>flagged CRQL (U)</u>** on the laboratory summary pages.

Data Set	Analytes
Z1590 (Aq)	Antimony, cadmium, selenium, silver, thallium
Z1636	Lead, selenium, mercury
Z1637	Antimony, chromium, thallium, zinc
Z1644	Arsenic, barium, beryllium, calcium, cobalt, copper, lead, magnesium, mercury, nickel, potassium, sodium, vanadium, zinc
Z1645	Aluminum, antimony, calcium, iron, lead, magnesium, sodium, thallium
Z1679 (Aq)	Antimony, arsenic selenium, sodium, thallium
Z1679 (Soil)	Sodium
Z1680	Antimony, arsenic, lead, selenium, thallium
Z1753	Aluminum, beryllium, lead, silver, thallium
Z1850	Arsenic, barium, lead, thallium, vanadium
Z1851	Antimony, arsenic, beryllium, chromium, cobalt, mercury, nickel, vanadium
Z2238 (Soil)	Zinc

- Antimony, iron, mercury, and sodium were detected above the soil CRQL in the laboratory method blanks of Data Set Z1635. The positive antimony, iron, mercury, and/or sodium results in the project samples less than ten times the concentration in the associated method blank are qualitatively questionable and **<u>flagged (J)</u>** on the laboratory summary pages. There is no impact on the antimony, iron, mercury, and/or sodium results greater than ten times the concentration in the associated laboratory method blank. These results are considered "real" and no qualifier is required.

- Iron and sodium were detected above the CRQL in the laboratory method blanks of Data Set Z1637. Iron and zinc also were detected above the CRQL in the (total) field blank sample FB. Sodium and zinc were detected above the CRQL in the (total) metals field blank sample FB-2. Similarly, zinc was detected above the CRQL in both (dissolved) field blank samples FB and FB-2. The positive iron, sodium, and/or zinc results in the associated project samples less than ten times the concentration in the associated blank are qualitatively questionable and **flagged (J)** on the laboratory summary pages. There is no impact on the iron, sodium, and/or zinc results greater than ten times the concentration in the associated laboratory method blank and/or field blank sample. These results are considered "real" and no qualifier is required.

- Iron was detected above the CRQL in the laboratory method blanks of Data Set Z1645. Similarly, chromium, iron, and/or zinc were detected above the CRQL in the field blank sample FB-2 (total and dissolved) and zinc was detected above the CRQL in field blank sample FB-3 (total and dissolved). The positive chromium, iron, and/or zinc results in the project samples less than ten times the concentration in the associated method blank are qualitatively questionable and **flagged (J)** on the laboratory summary pages. There is no impact on the chromium, iron, and/or zinc results greater than ten times the concentration in the associated laboratory method blank. These results are considered "real" and no qualifier is required.

- Iron and zinc were detected above the CRQL in the field blank sample FB-4 and sodium and zinc were detected above the CRQL in field blank sample FB-5 of Data Set Z1679. The positive iron and zinc or sodium and zinc results in the associated project samples less than ten times the concentration in the associated field blank are qualitatively questionable and **flagged (J)** on the laboratory summary pages. There is no impact on the iron and zinc or sodium and zinc results greater than ten times the concentration in the associated field blank. These results are considered "real" and no qualifier is required.

- Zinc was detected above the CRQL in field blank sample FB-5 of Data Set Z1680. The positive zinc concentration in the associated project samples less than the zinc concentration in FB-5 is regarded as unreliable and **flagged (R)** on the laboratory summary pages. The positive zinc results in the project samples less than ten times the concentration in the associated field blank are qualitatively questionable and **flagged (J)** on the laboratory summary pages. There is no impact on the zinc results greater than ten times the field blank concentration. These results are considered "real" and no qualifier is required.

- Zinc was detected above the CRQL in field blank sample FB-6 (total and dissolved) of Data Set Z1753. The positive zinc results in the project samples less than ten times the concentration in the associated field blank are qualitatively questionable and **flagged (J)** on the laboratory summary pages. There is no impact on the zinc results greater than ten times the field blank concentration. These results are considered "real" and no qualifier is required.

- Zinc was detected above the CRQL in field blank samples Field Blank-7 and FB-8 of Data Set Z1850. The positive zinc concentration in sample GW-02 less than the zinc concentration in the associated field blank, FB-8, is regarded as unreliable and

flagged (R) on the laboratory summary pages. The positive zinc results in the remaining project samples less than ten times the concentration in the associated field blank are qualitatively questionable and **flagged (J)** on the laboratory summary pages. There is no impact on the zinc results greater than ten times the associated field blank concentration. These results are considered "real" and no qualifier is required.

- Lead, sodium, and zinc were detected above the CRQL in the field blank samples FIELD BLANK-7 (dissolved) and FB-8 (dissolved) in Data Set Z1851. The positive lead, sodium, and zinc results in the project samples less than the concentrations in the associated field blanks are considered unreliable [compound may or may not be present] and **flagged R** on the laboratory summary pages. The positive lead, sodium, and zinc results in the project samples less than ten times the concentrations in the associated FIELD BLANK-7 or FB-8 are qualitatively questionable and **flagged (J)** on the laboratory summary pages. There is no impact on the lead, sodium, and zinc results more than ten times the associated field blank concentrations. These results are considered "real" and no qualifier is required.

- Antimony and iron were detected above the CRQL in the field blank sample Field Blank 4-1-08 of Data Set Z2238. The positive antimony and iron results in the project soil samples less than ten times the concentration in the associated field blank are qualitatively questionable and **flagged (J)** on the laboratory summary pages. There is no impact on the antimony and iron results greater than ten times the field blank concentration. These results are considered "real" and no qualifier is required.

- Zinc was detected above the CRQL in the field blank sample Field Blank 4-1-08 of Data Set Z2238. The positive zinc result in the ground water sample GW-05-MW-02 less than ten times the concentration in the associated field blank is qualitatively questionable and **flagged (J)** on the laboratory summary pages.

- No laboratory method and instrument blank contaminants were identified that require qualification for cyanide for Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z1645, Z1679, Z1753, Z1850, and Z2238. Additionally, no cyanide contaminants were identified in the field blank samples of Data Sets Z1637, Z1753, Z1850, and Z2238. No qualifier is required.

Instrument Calibration and Verifications: Control limits for initial and continuing calibration verifications (ICV and CCV) are established to ensure that the instrument is capable of producing accurate quantitative data at the beginning and throughout each of the analyses.

- The ICV/CCV standard recoveries for the metal analytes associated with the reviewed project samples of Data Sets Z1590, Z1636, Z1637, Z1644, Z1645, Z1679, Z1680, Z1753, Z1850, Z1851, and Z2238 fell within control limits. No qualifier is required.

- The ICV/CCV standard recoveries and correlation coefficient (r) associated with the cyanide calibration of Data Sets Z1590, Z1635, Z1636, Z1637, Z1645, Z1645, Z1679, Z1753, Z1850, and Z2238 fell within control limits (>0.990). No qualifier is required.

Inductively Coupled Plasma (ICP) Interference Check Sample Results: The interference check sample (ICS) verifies the laboratory's ICP inter-element and background correction factors.

- The ICS analysis fell within control limits for Data Sets Z1590, Z1636, Z1637, Z1644, Z1645, Z1679, Z1680, Z1753, Z1850, Z1851, and Z2238. No qualifier is required.

Laboratory Control Sample Results: The Laboratory Control Sample (LCS) is a blank sample fortified (spiked) with known concentrations of analytes of interest. The percent recoveries are used to assess extraction efficiencies and overall analytical accuracy.

- The TAL Metal LCS analyses fell within control limits for Data Sets Z1590, Z1636, Z1637, Z1644, Z1645, Z1679, Z1680, Z1753, Z1850, Z1851, and Z2238. No qualifiers are required.

- The cyanide soil and/or aqueous LCS analyses fell within control limits for Data Sets Z1590, Z1635, Z1636, Z1637, Z1644, Z1645, Z1679, Z1753, Z1850, and Z2238. No qualifier is required.

Matrix Spike (MS) and Duplicate (DU) Summaries: Matrix spikes are samples spiked with known concentrations of analytes of interest. The spiked sample analysis is designed to provide information about the sample matrix effect on the sample preparation procedures and the measurement methodology. Duplicate samples are used to demonstrate acceptable method precision from the laboratory at the time of analysis. Percent recoveries and duplicate results are used to assess digestion efficiencies, possible matrix effects, and overall analytical accuracy and precision.

- The recoveries of calcium and magnesium in the spiked aqueous samples and aluminum, calcium, and iron in the spiked soil samples fell outside control limits for the MS/MSD of Data Set Z1590. No qualifier is required for the calcium and magnesium and aluminum, calcium, and iron results in the project samples of Data Set Z1590 since the concentrations in the unspiked samples are more than four times the spike added concentrations.

- The mercury DU RPD fell outside the control limit for the spiked non-project ground water sample of Data Set Z1590. Although the spiked sample was not from Data Set Z1590, the spiked sample was selected from Data Set Z1637, which is part of this sampling project. Therefore, the positive mercury result in sample TW-16 (12) is regarded as estimated and **flagged (J)** on the laboratory summary pages.

- The mercury MS and MSD recoveries fell within control limits for the spiked ground water samples TW-4 and TW-9 (Data Set Z1637), providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- The absolute difference of antimony fell outside the control limit [difference > CRQL but < 2 x CRQL) in the DU analysis of sample TW-18 (total) of Data Set Z1637. Similarly, the absolute difference of mercury fell outside the control limit in the DU analysis of TW-19 (total). The positive and non-detected antimony and mercury results in the (total) metals ground water samples of Data Set Z1637 less than five times the CRQL are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The MS and MSD recoveries of aluminum, calcium, iron, manganese, and sodium fell outside control limits for the spiked soil samples SB-9 (11-12)MS/MSD of Data Set Z1644. No qualifier is required for aluminum, calcium, iron, or manganese since the concentrations in the unspiked sample are more than four (4) times the spike added concentrations. The sodium results in the project soil samples greater than the MDL are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- The MS and MSD recoveries of potassium fell outside the upper control limits for the spiked ground water sample TW-11 [dissolved] of Data Set Z1645. Similarly, the MS and MSD recoveries of calcium, magnesium, and sodium also fell outside the upper control limits for sample TW-11. Positive potassium results greater than the MDL in the associated ground water samples are regarded as estimated and **flagged (J)** on the laboratory summary pages. No qualifier is required for the calcium, magnesium, and sodium results since the concentrations in the unspiked sample are more than four times the spike added concentrations.

- The MS and/or MSD recoveries of the following analytes fell outside the control limits for the spiked soil or ground water project samples in the referenced Data Sets.

Data Set	Spiked Sample	Affected Analytes
Z1636	SB-8 (8.5-9.5)	Aluminum, iron, magnesium, manganese, and zinc
Z1637	TW-18 (total)	Calcium, iron, manganese, potassium, and/or sodium
	TW-19 (dissolved)	Calcium, iron, and/or sodium
Z1645	TW-8 [total]	Calcium, iron, magnesium, potassium, and sodium
Z1679	TW-10	Calcium, iron, magnesium, manganese, and sodium
Z1679	SB-14 (30-31)	Aluminum, barium, calcium, iron, magnesium, manganese, potassium
Z1680	TW-10	Calcium, manganese, magnesium, and sodium
Z1850	MW-05-IS	Calcium, magnesium, and sodium

No qualifier is required since the concentrations in the unspiked sample are more than four times the spike added concentrations.

- The MS and MSD recoveries of sodium fell outside the upper control limits for the spiked soil sample SB-14 (30-31)MS/MSD of Data Set Z1679. Additionally, The absolute difference of silver fell outside the control limit [difference > CRQL but < 2 x CRQL) in the DU analysis of sample SB-14 (30-31) of Data Set Z1679. The sodium results in the project soil samples greater than the MDL are regarded as estimated and **flagged (J)** on the laboratory summary pages. Similarly, the positive and non-detected silver results in the soil samples of Data Set Z1679 less than five times the CRQL are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The recovery of mercury fell outside the upper control limits for the MSD of Data Set Z1679. No qualifier is required for the mercury results in the project samples of Data Set Z1679 since the MS fell within control limits.

- The mercury MS and MSD recoveries and RPD fell within control limits for the spiked ground water sample TW-4 of Data Set Z1680, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- The MS/MSD recoveries of selenium fell outside the lower control limits for the aqueous project sample MW-3I of Data Set Z1753. Additionally, the DU RPD fell outside control limits. The positive and non-detected selenium results in the ground water samples of Data Set Z1753 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The MS recoveries of potassium and vanadium fell outside the upper control limits for the aqueous sample MW-05I of Data Set Z1851. Additionally, the MSD recoveries of potassium and zinc fell outside the upper [Rec >150%] and lower control limits, respectively. The positive potassium results are regarded as unreliable and **flagged (R)** on the laboratory summary pages. The positive vanadium results in the ground water samples of Data Set Z1851 are regarded as estimated and **flagged (J)** on the laboratory summary pages. The positive and non-detected zinc results in the ground water project samples of Data Set Z1851 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The duplicate RPD for beryllium, cadmium, calcium, chromium, cobalt, iron, manganese, nickel, vanadium, and zinc fell outside control limits for the ground water samples of Data Set Z1851. The positive beryllium, cadmium, calcium, chromium, cobalt, iron, manganese, nickel, vanadium, and zinc results greater than the CRQL in the associated project samples of Data Set Z1851 are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- The MS/MSD recoveries for aluminum, calcium, iron, magnesium, manganese, and/or potassium fell outside the upper and/or lower control limits for the non-project spiked soil samples of Data Set Z2238. No qualifier is required since the concentrations of aluminum, calcium, iron, magnesium, manganese, and/or potassium in the unspiked samples are more than four times the spike added concentrations. Also, the recovery of nickel and silver and sodium fell outside the upper and lower control limits, respectively, for the MS/MSD. The positive nickel results in the soil samples of Data Set Z2238 are regarded as estimated and **flagged (J)** on the laboratory summary pages. The positive and non-detected silver and sodium results in the soil samples of Data Set Z2238 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The recovery of sodium fell outside the upper control limits for the MS/MSD of Data Set Z2238. No qualifier is required for the sodium result in the ground water sample GW-05-MW-02 of Data Set Z2238 since the concentration in the unspiked sample is more than four times the spike added concentration.

- The recovery of mercury fell outside the upper control limits for the MS/MSD of Data Set Z2238. No qualifier is required for the mercury result in the soil samples of Data Set Z2238 since the concentration in the unspiked sample is more than four times the spike added concentration.

- The cyanide MS recovery fell outside the lower control limits for the spiked ground water sample TW-17 of Data Set Z1637. The DU RPD fell within control limits. The positive and non-detected cyanide results in the ground water samples of Data Set Z1637 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The cyanide MS and MSD recoveries and DU RPD fell within control limits for the spiked soil samples SB-16 (7-8) of Data Set Z1590, SB-18 (6.5-7.5) of Data Set Z1635, SB-9 (11-12) of Data Set Z1644, and SB-14 (30-31) of data Set Z1679, and the spiked ground water samples TW-16 of Data Set Z1590, TW-RCRA-1 of Data Set Z1645, TW-RCRA-2 of Data Set Z1679, and Matrix Spike-2/Matrix Duplicate-2 of Data Set Z1850, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- The cyanide MS and MSD recoveries and DU RPD fell within control limits for the non-project spiked soil sample of Data Set Z2238, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

FIELD DUPLICATES / TOTAL VS. DISSOLVED COMPARISON

- Sample FD-1 was collected and submitted as a blind field duplicate of soil sample SB-12 (6.5-7.5) of Data Set Z1636. The reproducibility of the total metals and cyanide results between the original and duplicate samples is good, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

- Sample FD-1 was collected and submitted as a blind field duplicate of the ground water sample TW-RCRA-4 of Data Set Z1637. The reproducibility of the TAL Metals and cyanide results between the original and duplicate samples is good, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

- The percent difference (%D) between the total and dissolved concentrations for antimony in the ground water samples TW-17 and TW-RCRA-4 of Data Set Z1637 fell outside control limits (%D > 50%). The positive and non-detected (total and dissolved) antimony results in TW-17 and TW-RCRA-4 are regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary pages.

- Samples FD-2 (total) and FD-3 (total) were collected and submitted as blind field duplicates of ground water samples TW-15 (total) and TW-3 (total), respectively, in Data Set Z1645. The %D between the reported concentrations for antimony and silver in FD-2 (total) and TW-15 (total) and chromium, silver, and thallium in FD-3 (total) and TW-3 (total) greater than two times the CRQL are regarded as unreliable and **flagged (R)** on the laboratory summary sheets. Due to the variability between the reported metal results for aluminum, chromium, iron, lead, and zinc in samples FD-2 (total) and TW-15 (total), and the reported aluminum, antimony, barium, iron, lead, and zinc results in FD-3 (total) and TW-3 (total), positive results greater than the CRQL in the referenced samples are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- Samples FD-2 (dissolved) and FD-3 (dissolved) were collected and submitted as blind field duplicates of ground water samples TW-15 (dissolved) and TW-3 (dissolved), respectively, in Data Set Z1645. The %D between the reported concentrations for chromium and nickel in FD-2 (dissolved) and TW-15 (dissolved) greater than two (2) times the CRQL are regarded as unreliable and **flagged (R)** on the laboratory summary sheets. Due to the variability between the reported metal results for iron in samples FD-2 (dissolved) and TW-15 (dissolved), positive results greater than the CRQL in the referenced samples are regarded as estimated and **flagged (J)** on the laboratory summary pages. The reproducibility of the dissolved metals results between the FD-3 and TW-3 is good, providing a positive indication of the overall accuracy and precision associated with this analysis and no qualifier is required.

- With the exception of the total and dissolved chromium concentrations in FD-2 and the total and dissolved calcium and magnesium results in FD-3, the reproducibility between the total and dissolved metals concentrations in Data Set Z1645 is good, providing a positive indication of the overall accuracy and precision associated with these analyses and no qualifier is required. Due to the very high %D (%D > 50%) between the total and dissolved chromium concentrations in FD-2, the positive chromium results are regarded as unreliable and **flagged (R)** on the laboratory summary pages. Due to the high percent difference (%D > 20 but < 50%) between the total and dissolved calcium and magnesium results in FD-3, the positive calcium and magnesium results are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- Sample FD-2 was collected and submitted as a blind field duplicate of soil sample SB-10 (32.5-33.5) in Data Set Z1644. With the exception of magnesium, the reproducibility between the concentrations in Data Set Z1644 is good, providing a positive indication of the overall accuracy and precision associated with these analyses and no qualifier is required. Due to the variability between the reported magnesium results in samples FD-2 and SB-10 (32.5-33.5), magnesium results greater than the CRQL in the referenced samples are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- Samples FD-2 and FD-3 were collected and submitted as blind field duplicates of ground water samples TW-15 and TW-3, respectively, in Data Set Z1645. The reproducibility of the cyanide results between the original and duplicate samples is good, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

- Samples FD-4 and FD-5 were collected and submitted as blind field duplicates of ground water samples TW-14 and TW-1, respectively, in Data Set Z1679. The reproducibility of the total metals results between the original and duplicate samples FD-4 and TW-14 is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required. Due to the variability between the reported metal results for aluminum and silver in samples FD-5 and TW-1, the positive aluminum results greater than the CRQL in the referenced samples are regarded as estimated and **flagged (J)** on the laboratory summary pages. The positive and non-detected silver results in TW-1 and FD-5 also are estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- Samples FD-4 and FD-5 were collected and submitted as blind field duplicates of ground water samples TW-14 and TW-1, respectively, in Data Set Z1679. The reproducibility of the cyanide results between the original and duplicate samples is good, providing a positive indication of the overall accuracy and precision associated with these analyses. No qualifier is required.

- Samples FD-4 and FD-5 were collected and submitted as blind field duplicates of ground water samples TW-14 and TW-1, respectively, in Data Set Z1680. Due to the variability between the reported metal results for barium, calcium, iron, magnesium, manganese, sodium, and zinc in samples FD-4 and TW-14, and the reported zinc results in FD-5 and TW-1, positive results greater than the CRQL in the referenced samples are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- Samples FD-6 (total and dissolved) were collected and submitted as blind field duplicates of the groundwater samples MW-4S (total and dissolved) in Data Set Z1753. The reproducibility of the total and dissolved metals results between the original and duplicate samples is good, providing a positive indication of the overall accuracy and precision associated with this analysis. No qualifier is required.

- Samples FD-7 and FD-8 were collected and submitted as blind field duplicates of the ground water samples MW-4S and MW-01, respectively (Data Set Z1850). The reproducibility of the total metal results between the original and duplicate samples FD-7 and MW-4S is good, providing a positive indication of the overall accuracy and precision associated with these analyses. Due to the variability between the reported total metal results for aluminum, iron, magnesium, manganese, potassium, sodium, and zinc in samples MW-01 and FD-8, the positive (<5 times CRQL) and non-detected aluminum, magnesium, and potassium results and the positive sodium results greater than the CRQL in the referenced samples are regarded as unreliable and **flagged (R)** on the laboratory summary pages. The positive iron, manganese, and zinc results reported for samples MW-01 and FD-8 are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- Samples FD-7 and FD-8 were collected and submitted as blind field duplicates of the ground water samples MW-4S and MW-01, respectively (Data Set Z1851). The reproducibility of the total arsenic, chromium, lead, manganese, and zinc results between the original and duplicate samples is good, providing a positive indication of the overall accuracy and precision associated with these analyses. Due to the variability between the reported total metal results for barium, iron, and magnesium in samples MW-04S and FD-7 and sodium in samples MW-01 and FD-8, positive results greater than the CRQL in the referenced samples are regarded as unreliable and **flagged (R)** on the laboratory summary pages. The positive calcium and sodium results reported for samples MW-04S and FD-7 and positive iron and magnesium results reported for samples MW-01 and FD-8 are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- Samples FD-7 and FD-8 were collected and submitted as blind field duplicates of the groundwater samples MW-4S and MW-01, respectively (Data Set Z1850). The reproducibility of the cyanide results between the original and duplicate samples is good, providing a positive indication of the overall accuracy and precision associated with these analyses.

ICP Serial Dilution and Post Digestion Spike (PDS) Results: The ICP Serial dilution of samples demonstrates whether or not significant physical or chemical interference exist due to sample matrix. Similarly, post digestion spikes are typically evaluated to assess the ability of a method to successfully recover target metals after digestion. PDS results are used with the MS results to evaluate matrix interference.

- The ICP serial dilution analyses for the following metal analytes in the referenced Data Sets fell outside control limits (%D > 10%). The positive metal target analytes in the associated project samples greater than the MDL are regarded as estimated and **flagged (J)** on the laboratory summary pages.

Data Set	Analytes
Z1590 (Soil)	Aluminum, arsenic, barium, beryllium, calcium, magnesium, mercury, nickel & potassium
Z1636	Aluminum, calcium, copper, iron, lead, magnesium, mercury, potassium, & zinc
Z1637	Calcium, magnesium, manganese & potassium
Z1644	Aluminum, copper & magnesium
Z1645	Calcium & magnesium (dissolved only) Lead & potassium (total only)
Z1679 (Soil)	Aluminum, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, sodium, vanadium & zinc
Z1753	Aluminum, calcium, iron, magnesium, manganese, nickel, potassium & zinc
Z1850	Barium, potassium & sodium (total)
Z1851	Potassium & sodium (dissolved)

Z2238	Barium, chromium, copper, iron, mercury, vanadium & zinc (GW-05-MW-02 only) Iron, lead, manganese, mercury & zinc (all soil samples except GW-05-MW-02)

- A very high %D (%D > 100%) was reported for the ICP serial dilution analysis of lead for the non-project soil sample associated with soil sample GW-05-MW-02 of Data Set Z2238. The positive lead result in GW-05-MW-02 above the MDL is regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary pages.

- The ICP serial dilution analyses of TAL Metals associated with Data Sets Z1590 (Aqueous) Z1679, Z1680, and Z2238 (Aqueous) fell within control limits. No qualifier is required.

- The PDS recovery of sodium fell outside the lower control limit (Rec < 75 %) for sample SB-9 (11-12) of Data Set Z1644. The sodium results in the associated project samples greater than the MDL are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- The PDS recovery of potassium fell outside the upper control limit (Rec > 150%) for sample TW-11 [dissolved] (Data Set Z1645). The potassium results in the associated project samples greater than the MDL are regarded as estimated and **flagged (J)** on the laboratory summary pages.

- The PDS DU RPD of mercury fell outside the control limit for the spiked non-project ground water sample of Data Set Z1679. Additionally, the PDS recovery of sodium and vanadium fell outside the upper control limits for sample SB-14 (30-31). The mercury results in the associated ground water project samples greater than the MDL are regarded as estimated and **flagged (J)** on the laboratory summary pages. The positive sodium and vanadium results in the soil samples of Data Set Z1679 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The PDS recovery of selenium fell outside the lower control limits for sample MW-3I of Data Set Z1753. The positive and non-detected selenium results in the ground water samples of Data Set Z1753 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

- The PDS recovery of potassium fell outside the upper control limit (Rec > 150%) for sample MW-5I (Data Set Z1851). Additionally, the PDS recovery of vanadium and zinc fell outside the lower control limit. The potassium results greater than the MDL are regarded as unreliable [compound may or may not be present] and **flagged (R)** on the laboratory summary pages. The positive and non-detected vanadium and zinc results in the ground water samples of Data Set Z1851 are regarded as estimated and **flagged (J) and (UJ)**, respectively, on the laboratory summary pages.

Target Analyte Identification and Quantitation: The laboratory calculations are verified and compound identifications are assessed by the data reviewer.

- The raw data were provided for review for the metals and (total) cyanide parameters. No laboratory calculation errors were noted for samples selected for verification during the quality assurance review.

Additional Comments

- With the exception of mercury, the other metal analytes were analyzed by ICP instrument; therefore, the GFAA QC data are not required for the project samples received and reviewed. No further action is required from the laboratory.

4.0 CONCLUSIONS

Overall, the data quality is fair. This Data Usability Summary Report has identified aspects of the analytical data that require qualification. Data qualifiers, when applicable, are placed next to the results on the laboratory summary pages so that the data user can assess the qualitative and/or quantitative reliability of the reported results. No additional sampling/analysis is proposed at this time. With the exception of the rejected analytes and as noted in Section 3.1 of this report, the laboratory analytical data contained herein are deemed usable and in compliance with the NYSDEC ASP Category B Data Deliverable Format. To confidently use any of the data within the data set, the data user should understand the limitations and qualifications presented.

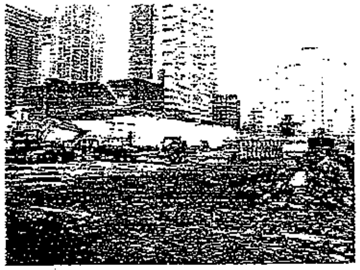
Appendix – 6

GROUND PENETRATING RADAR (GRP)
SURVEY RESULTS

FOR THE LOCATION
AND INVESTIGATION OF:

Underground storage tanks (UST's) and underground utilities (UU's)

AT THE FOLLOWING
LOCATION:



5-20 48th St.
Long Island City, NY (Queens)

PREPARED FOR:

Quotation# 1.3551.08

Environmental Waste Management Association Inc.
100 Misty Lane, P.O. Box 5430
Parsippany, NJ 07054

PREPARED BY:

Sub-Surface Informational Surveys Incorporated
143C Shaker Road, Suite 206
East Longmeadow, MA 01028-0452

"Let us Seek and Find"

June 17, 2008

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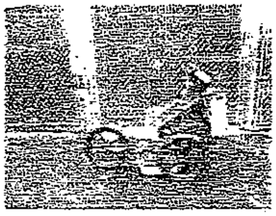
[illegible]

143C Shaker Road
Suite 206
Post Office Box 452
E Longmeadow, MA 01028-0452

Phone - 413-525-4666
Fax - 413-525-2887
Web – www.subsurfaceinc.com
Email – nbacon@subsurfaceinc.com



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SUB-SURFACE INFORMATIONAL SURVEYS, INC
SUB-SURFACE INFORMATIONAL SURVEYS, INC./GPR DIVISION
143C Shaker Road
Suite 206
Post Office Box 452
E. Longmeadow, MA 01028-0452

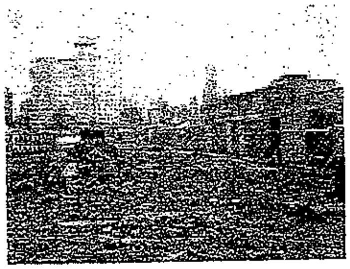
Phone - 413-525-4666
Fax - 413-525-2887
Web - www.subsurfaceinc.com
Email - pbacon@subsurfaceinc.com
Email - gordon@subsurfaceinc.com
Email - john@subsurfaceinc.com

1.0 Introduction

In accordance with your authorization, Sub-Surface Informational Surveys, Inc. (SIS) reports to you the results of the ground penetrating radar survey performed on Tuesday, June 17th at a demolition site on 5-20 48th St. Long Island City, NY. This survey was directed by your approval of SIS quotation #1.3551.08 dated May 15, 2008.

1.1 Purpose and Scope

The Purpose of the survey was to locate underground storage tanks in three (3) suspect areas, and also to clear five (5) locations in and around the standing building for future boring.



Ground Penetrating Radar Survey

2.0 Geophysical Survey

Sub-Surface Informational Surveys Incorporated performed the geophysical survey. A transducer operator/supervising GPR technician performed the survey.

2.1 Geophysical Survey Procedures

The depth setting of the GPR survey was approximately 10.0' to locate any existing underground storage tanks (UST's) and/or utilities and unknown anomalies. A traverse grid with a 3.0' minimum spacing was used to conduct the GPR survey. Typically a 5.0' – 10.0' spacing is sufficient to detect all large capacity UST's (500-gallon or greater), septic systems and underground utilities with a high degree of certainty. The spacing of 3.0' was used to better define any existing suspected anomalies.

The following is an explanation of the equipment used during our survey:

1. The equipment used to conduct the geophysical survey included GPR equipment which consists of **subsurface interface radar** (SIR-3000) computer manufactured by Geophysical Survey Systems, Inc., power supply, graphic recorder, video display unit and transmitting/receiving antenna. The equipment is known collectively as a **GPR** system. The transmitting/receiving antenna transmits electromagnetic signals into the subsurface and then detects, amplifies and displays reflections of the signal on a graphic recorder and a video display unit. As the antenna is moved slowly across the ground surface or surface of contact, a radar image of the subsurface is produced. The maximum depth of penetration of the GPR signal and the resolution of the reflections are a function of the antenna frequency and the electrical properties of the subsurface. As electrical conductivity of the subsurface increases, GPR signal penetration decreases. GPR reflections are produced by spatial changes in the physical properties of the subsurface (I.e., type of material, presence of any subsurface fluid and porosity) and related changes in the electrical properties of the subsurface material in the path of the signals. The greater the difference in the subsurface structures the stronger the GPR reflection seen in the data.

Characteristics that are considered in the interpretation of the GPR data from a given site include the size, shape and amplitude of the reflections. Metallic underground storage tanks (UST's), utilities and conduits have electrical properties uniquely different from those of the soils in which they are buried. As a result, the GPR reflections are usually of high amplitude and have distinctive shapes. For GPR profiles oriented perpendicular to the long axis of the tanks, the signature is similar to a hyperbola. The signature is also a function of the tank diameter.

SAMPLE PHOTO: above represents a sample of data collected by Sub-Surface Informational Surveys, Inc. on Sept. 15, 2004 at a site in the State of CT. It shows three (3) Underground Storage Tanks (UST's) with the centerline at the top of the parabolas. This data was taken through concrete; with rebar. NOTE: The above <u>is not</u> part of the data collected for this survey.

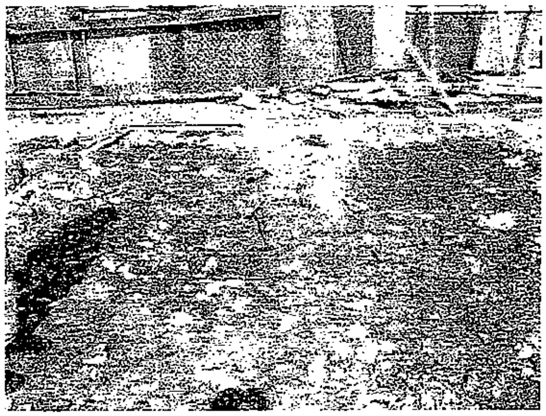
2. **Pipehorn 500 Dual-Transmitter, Dual-Frequency Locator:** This unit has two separate transmitters. One operates at the highest frequency available in sweeping an area of tracing poor conductors such as iron pipes, fiber optic cable w/tracer tape. A second, low frequency transmitter enables us to quickly isolate a single conductor in congested areas, or to trace for a long distance. **NOT IMPLEMENTED**

3. **The Subsite 75R/75T:** This unit provides digital signal processing for a variety of applications. The unit offers Active, Passive and Beacon locating modes. The unit transmits via direct line connections, induction clamp or induces broadcast signals. An 80 kHz frequency facilitates locating metallic lines with insulators that weaken or block low frequencies. In passive mode, detects signals generated by 50/60 HZ power as well as radiated radio frequencies. **NOT IMPLEMENTED**

2.2 Geophysical Survey Results

GPR Survey was conducted in multiple locations of a demolition site; three main areas of concern as well as five other locations. A ferromagnetic magnetometer and a probe were also used. The survey was conducted to locate suspect UST's and UU's. Due to the subsurface soils being mostly fill and/or moisture the GPR data had a limited view. The subsurface soils may have contained one of more of the following clays, ashes, other organics, and metals. The high conductivity of the soil presents us with difficulty. The ferromagnetic magnetometer was of little help because of the amount of metal within the soil.

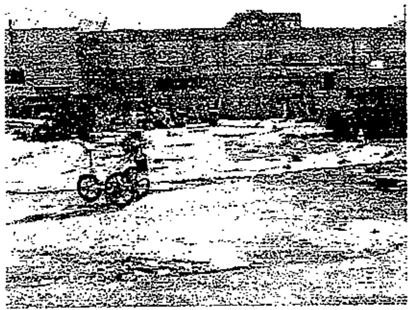
The first area was located on the western end of the site (AOC-10 see Diagram A). The area was a dig out approximately 20'x20' where the concrete was removed. Within the hole were 3 visible pipes above the ground in a vertical direction common to fill and vent pipes for a tank. Traverses were conducted in a north and south direction as well as in an east and west direction adjacent to the pipes, and between the pipes. No anomalies common to UST's were seen within the data. A probe was then driven into the ground and received refusal at approximately 18". The refusal could have been a hard surface of that of a tank or just debris within the soil. In this area it is believed to be either one tank going in an east/west direction or three tanks possibly oriented in a north/south direction.



The above photos shows AOC-10 with a probe in the ground where it receives refusal.

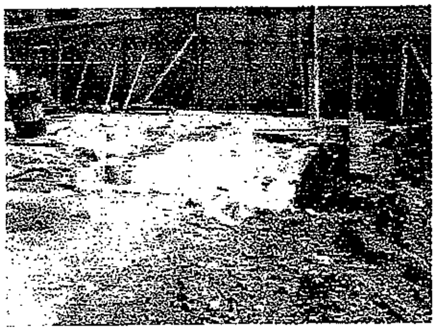
The next area was AOC-8 (see diagram B) represents a 50' X 50' dig-out where the concrete was removed. This area was south towards the building in the middle of the site. The Sanborn map shows this location was formally a two story Valvoline building. A GPR survey was conducted in this area with traverses in the north and south as well as east and west directions. Within the data there are no parabolic features common to UST's. A ferromagnetic magnetometer again was also used but was ineffective due to the amount of metal in the soil. A probe was used also to no avail.

Ground Penetrating Radar Survey



The above photo shows AOC-8

The third area of concern was located near the fence in the middle of the site towards the north. (AOC-7 see diagram C) This area was smallest area of the three approximately 10'x 10' in size. Traverses were conducted in three directions in this location; north and south, east and west, and diagonally from corner to corner. No parabolic features common to UST's were seen within the data. A ferromagnetic magnetometer and a probe were also used with limited results due to the metal in the soils.



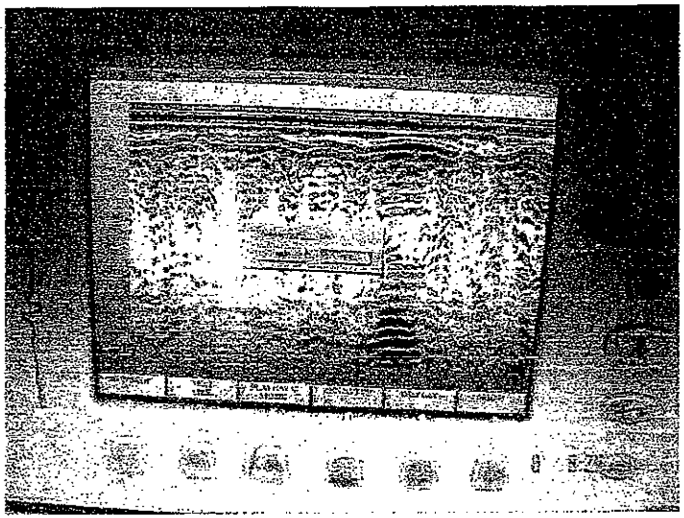
Above photo shows AOC-7

Six locations were also checked to clear proposed boring location for underground utilities. Two of the areas were inside the building located in the south west of the site. Traverses were conducted on and around the proposed boring areas in the north and south direction and an east and west direction as well as a diagonal to verify no utilities were present.

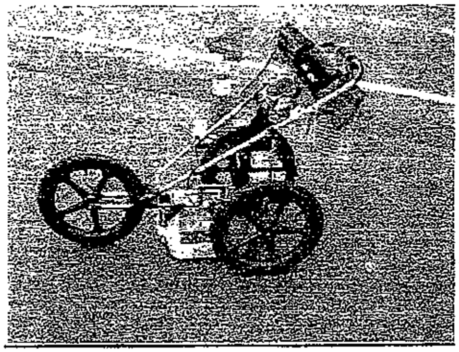
Two other areas were surveyed within the building towards the southeast of the site. Traverses were conducted also in three directions directly over and around the proposed boring locations. No utilities were seen in the data.

The last area that surveyed was in front of the construction trailer on the southeast corner of the construction site as well as at the north end of the driveway. Traverses were conducted in a north and south, east and west, and a diagonal direction directly over and around two proposed boring locations. There were no hyperbolic features in the GPR data.

Ground Penetrating Radar Survey



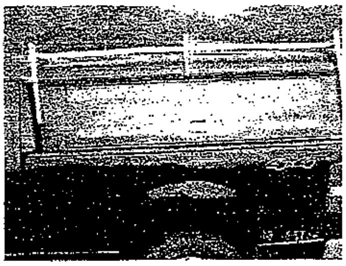
Sample: Real-time data collected



<u>SIR-3000 GPR System used in this survey</u>

NOTE: Please refer to enclosed FRC GPR Data files with annotations.

END OF REPORT



GPR ANALYTICAL RESULTS—SIR 3000

The attached analytical result are copies of GPR Data Files collected in the field and reproduced at our corporate office. After reviewing the data, selected samples are taken and duplicated for this report.

Copies are made under the following guidelines:

A. When there are distinctive differences in the collected data. NOTE: When one traverse is almost identical in characterization to another, only one copy would be reproduced.

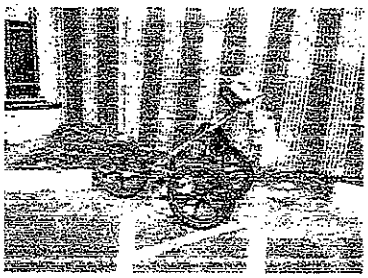
B. If there is a significant difference with suspected anomaly found within the data.

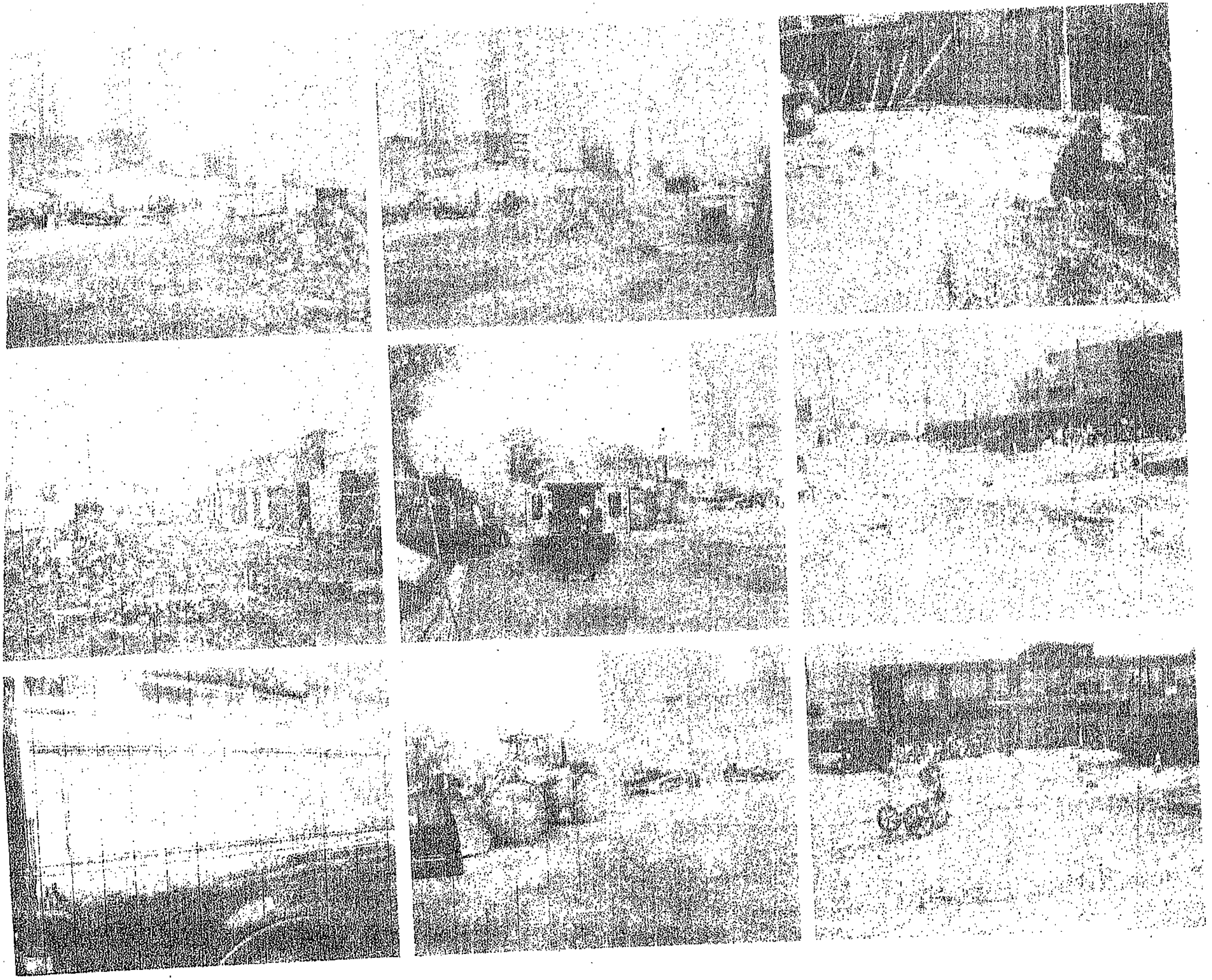
C. In the location of anomalies, such as pipes, and/or conduits, underground storage tanks or other specific characteristics important to the investigation, such data is copied and annotated.

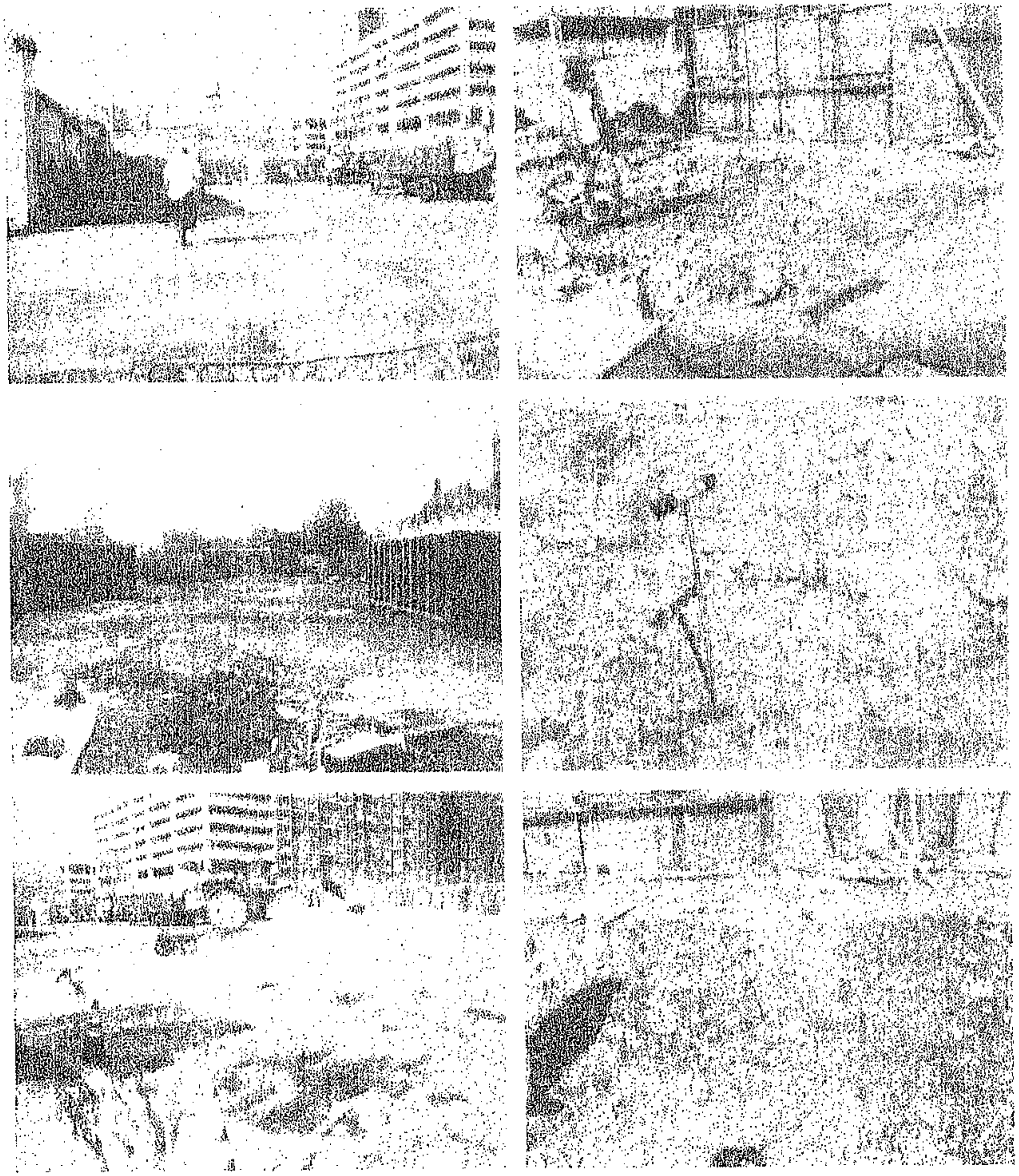
D. Samples of *signal refusal*, (water, clay, or some other highly conductive sub-surface interface).

E. Requested data.

F. Specific locations of rebar and conduits using encoder wheel with measured bench marks.

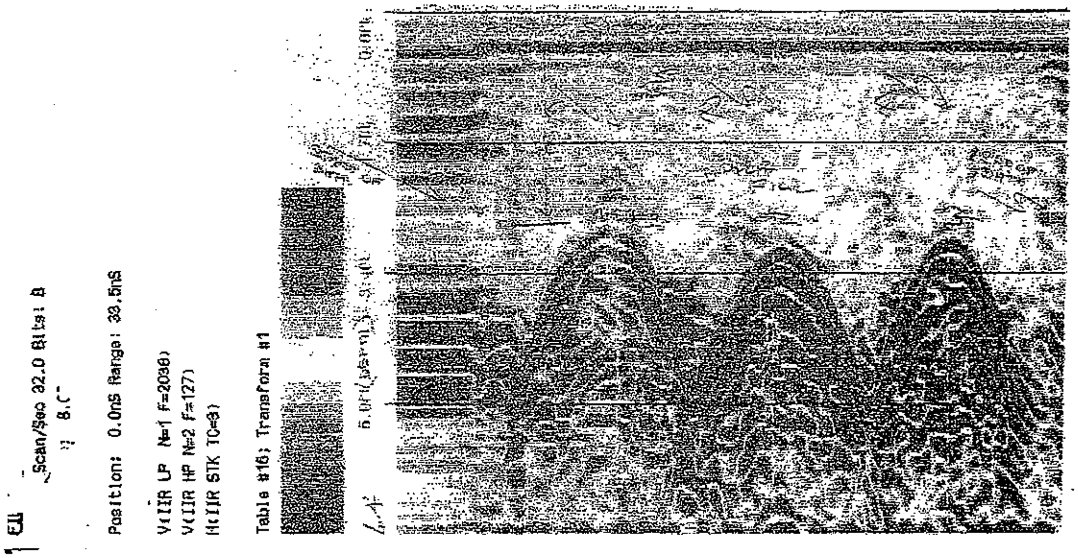


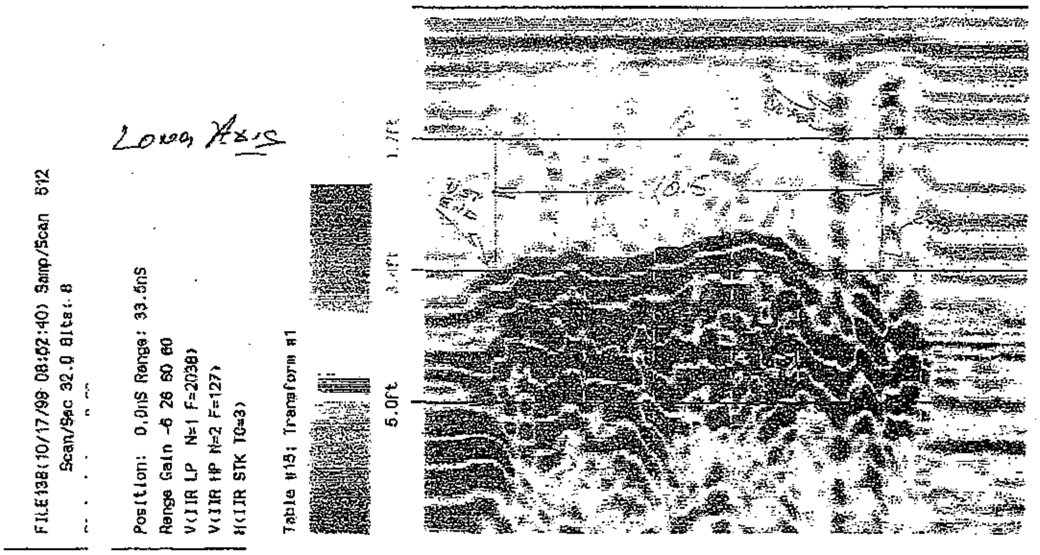




GPR REPORT

The profiles shown below represent copies of real data collected in the field. Each collected piece of data is issued a FILE# on the information tab to the left of the data. This FILE# is referenced within the report. Each piece of data is annotated from the information collected in the field such as estimated depth, length, direction or any other information that may be helpful to the subsurface investigation. The computer settings such as dielectric values, range in nanoseconds etc., is part of the information tab. The vertical benchmarks indicate points designated on the surface for the purpose of pinpointing a particular anomaly. This is used to estimate sometimes width or length or even distance between surface points such as fence posts, white lines in parking lots, centerlines of vehicles etc. The ↓⤺↓ sign indicates 180 degree change in direction such as from a northerly traverse to a southerly traverse within the same piece of data. The profile below (FILE134) represents a perpendicular traverse over three 1,000g underground storage tanks at approximately 30" below the asphalt surface. The vertical benchmarks represent the centerline of each tank which was marked with marking paint on the surface per customer request. FILE138 is traversing over the long axis of one of the tanks with the vertical benchmarks at 2' intervals. The tank shows a profile of 10.5' in length from end-to-end.

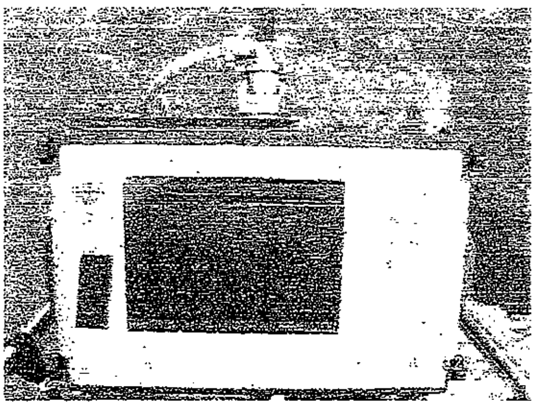




GPR PROFILES OBTAINED IN THE FIELD

The attached copies are reproductions from data acquired in the field from the GSSI, SIR 3000 Geophysical computer. The original copies are downloaded on a T-104 thermal printer and reproduced on our commercial copier. Photo's are taken by a Sony DSC-F707 Digital still camera, using a 128 MB memory stick. The camera has the ability to take pictures in a no-light environment, which is useful for inside low light or no light building interiors, or during overcast days.

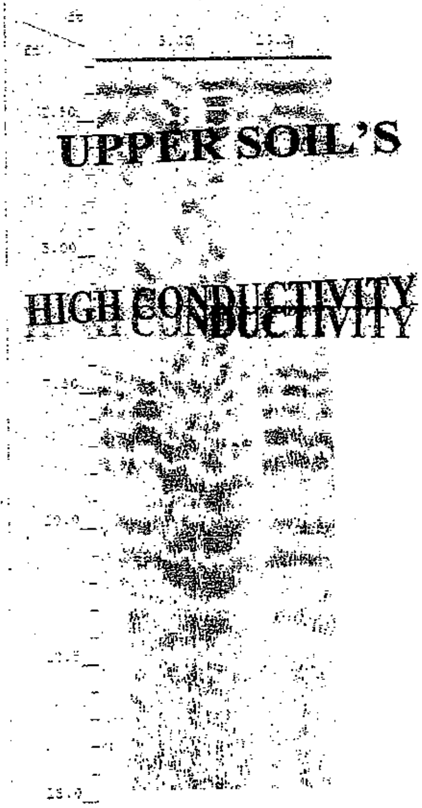
The pictures are downloaded in a Photo Suite program and reproduced at 640 X 480: 0.35 mega pixels. In addition, a disc is supplied with most reports of all the important photo's taken at the survey site. The image size duplicated makes it easy for e-mail attachments to be sent to your customer.



The data represents 12' of a notherly traverse in AOC-16.
There are no parabolic features common to UST's seen
within the data.

Created Jun, 18 2008, 07:48:14 Modified Jun, 18 2008, 07:48:30
Channel(s) 1 Samples/Scan 512 Bits/Sample 16
Scans/Second 100 Scans/Meter 59.0551 Meters/Mark 2.4384
Diel Constant 4

CHANNEL 1 400MHZ
Position 5.51 nS Range 60 nS
Range Gain (dB) -20.0 33.0 39.0
Position Correction -0.65 nS
Vert IIR LP N =1 F =800 MHz
Vert IIR HP N =1 F =100 MHz
Position Correction 5.51 nS



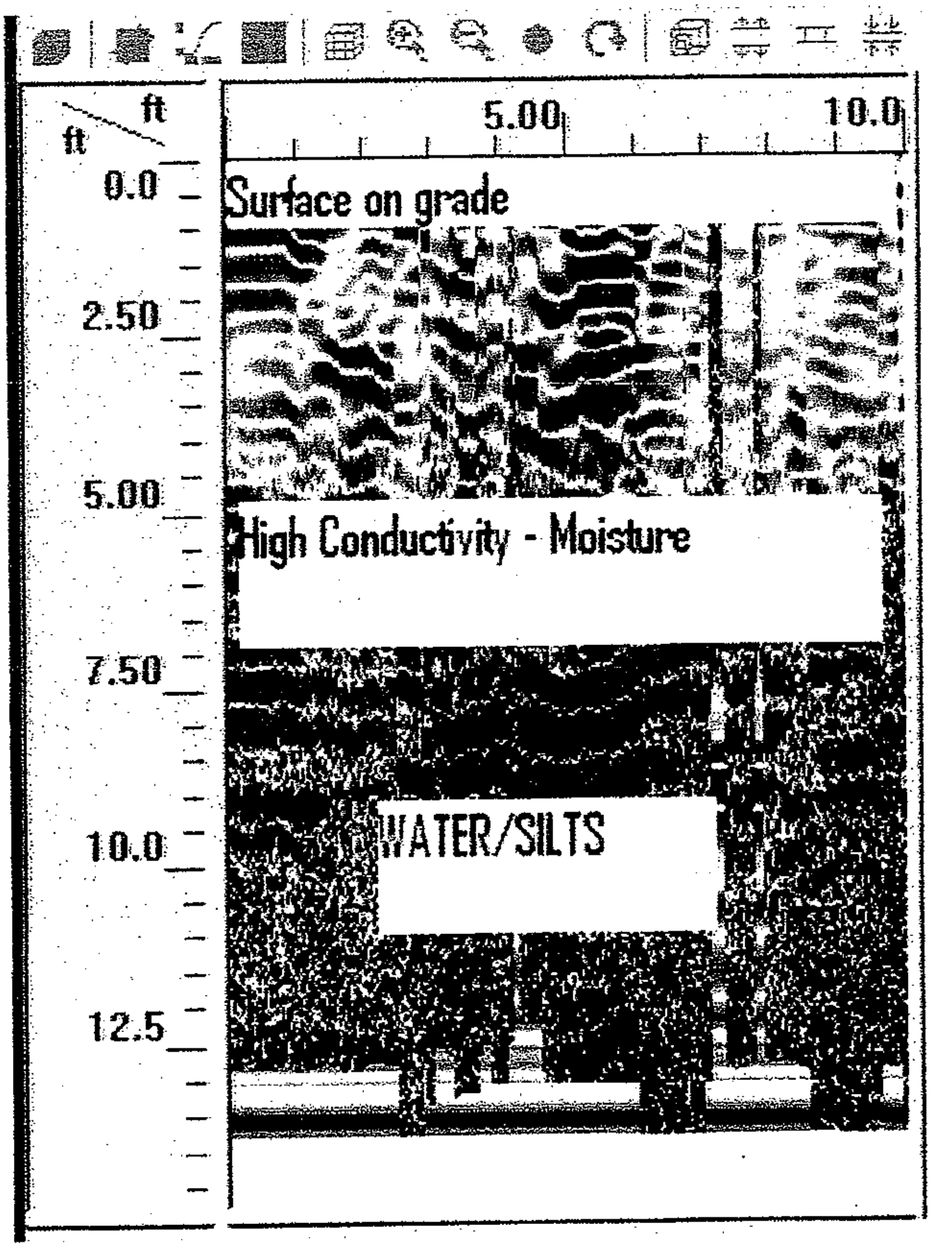

ft
ft
5.00
10.0
0.0
2.50
5.00
7.50
10.0
12.5
Surface on grade
High Conductivity - Moisture
WATER/SILTS

Diagram A

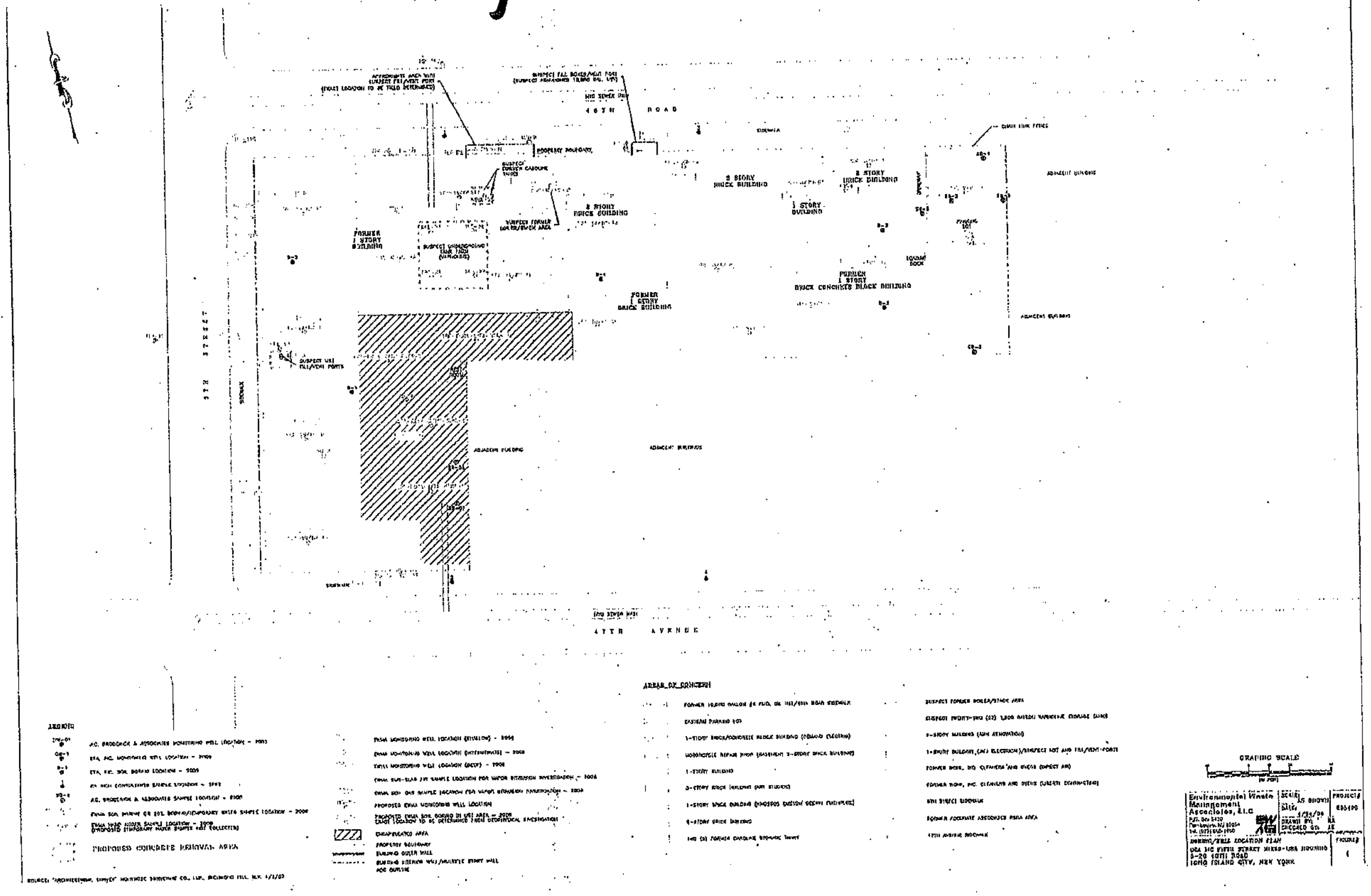

46TH ROAD
47TH AVENUE
5TH STREET
SIDEWALK
CHAIN LINK FENCE
PROPERTY BOUNDARY
FORMER 1 STORY BUILDING
2 STORY BRICK BUILDING
3 STORY BRICK BUILDING
1 STORY BUILDING
2 STORY BRICK BUILDING
FORMER 1 STORY BRICK BUILDING
FORMER 1 STORY BRICK CONCRETE BLOCK BUILDING
LOADING DOCK
ADJACENT BUILDING
ADJACENT BUILDINGS
LEGEND
PROPOSED CONCRETE REMOVAL AREA
AREAS OF CONCERN
EASTERN PARKING LOT
1-STORY BUILDING
GRAPHIC SCALE
Environmental Waste Management Associates, LLC
SCALE: AS SHOWN
PROJECT#
BORING/WELL LOCATION PLAN
LONG ISLAND CITY, NEW YORK
FIGURE#
1

Diagram B

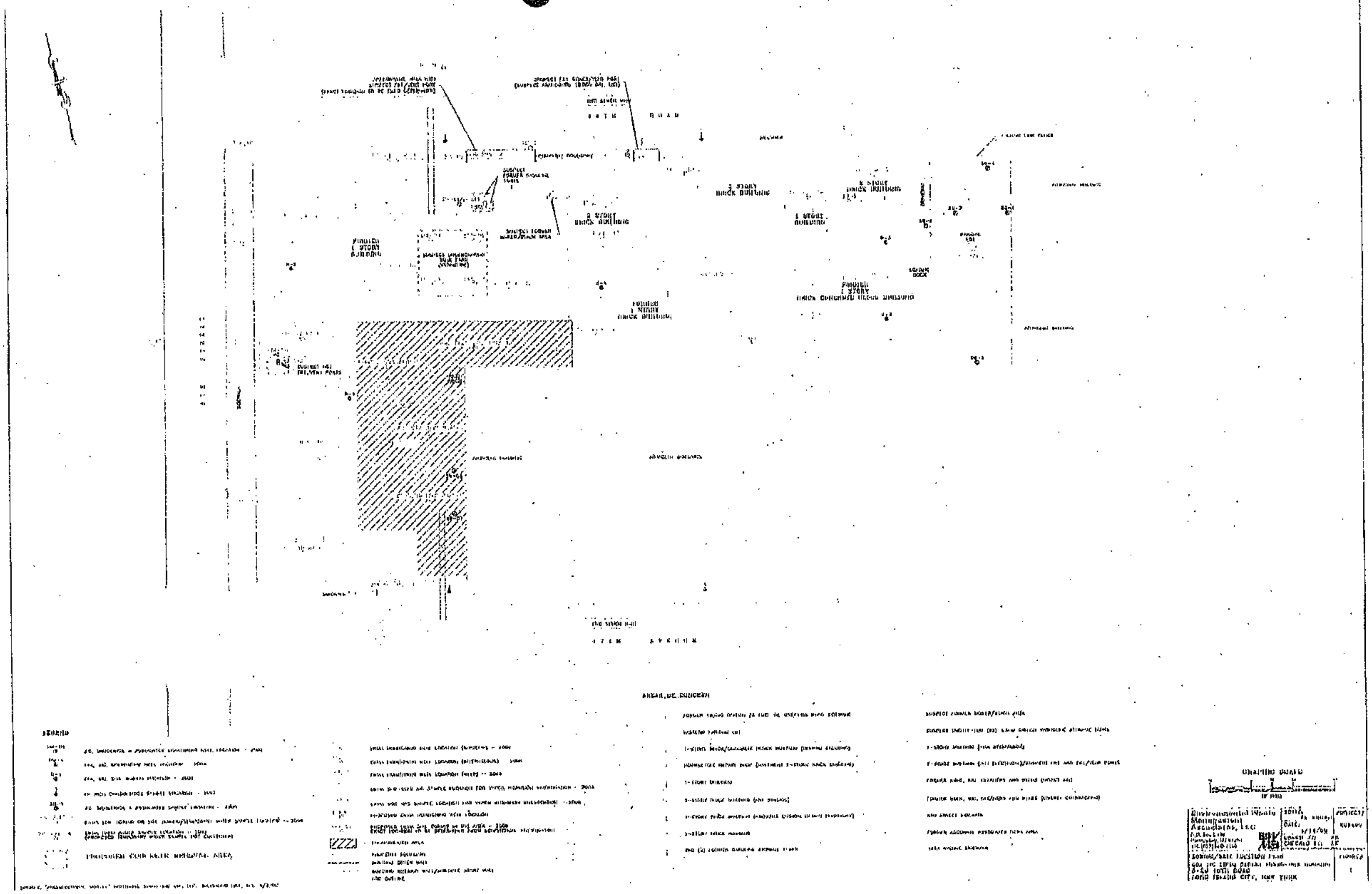
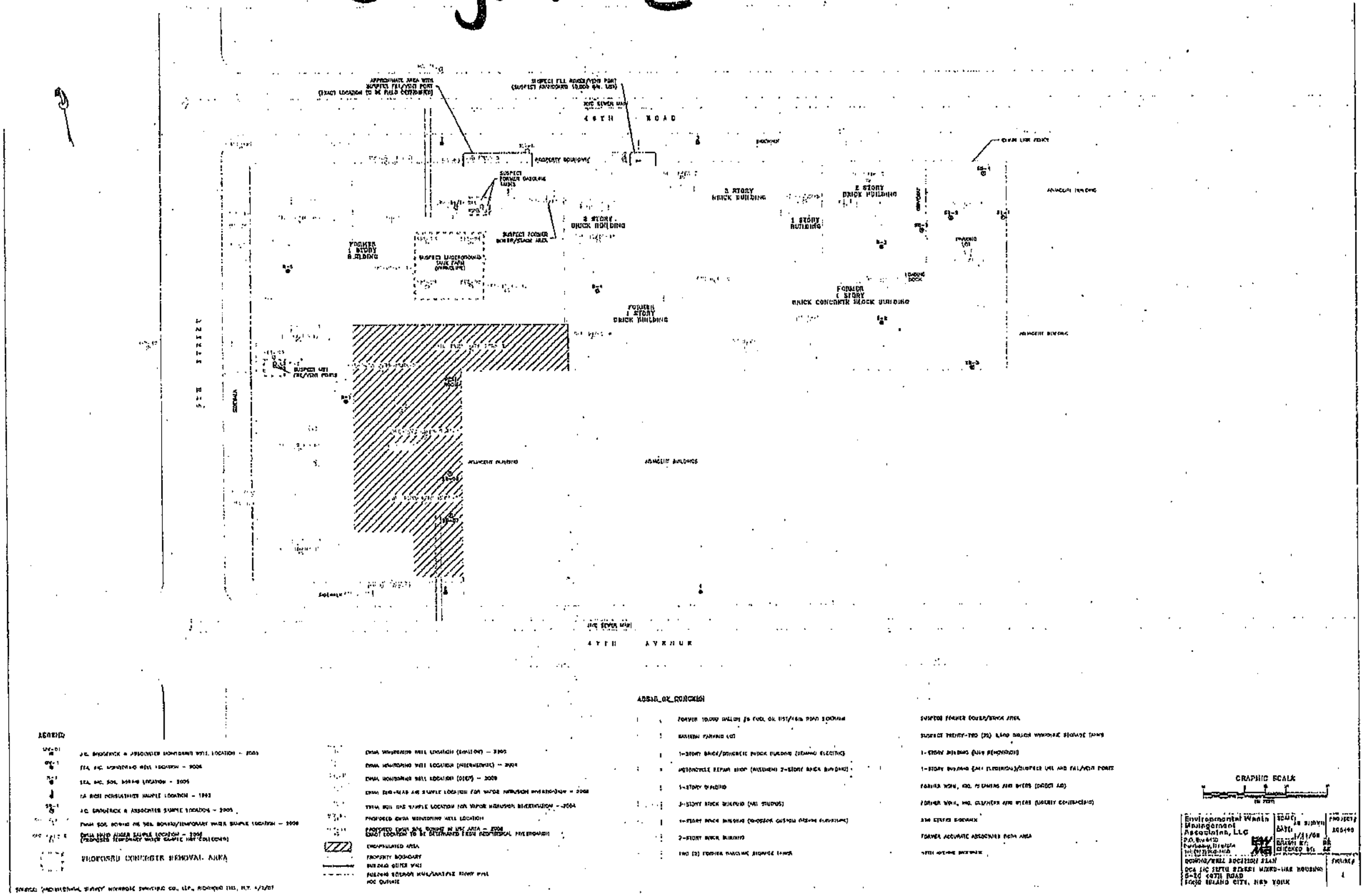

3 STORY BRICK BUILDING
2 STORY BRICK BUILDING
FORMER 1 STORY BRICK BUILDING
LEGEND
AREAS OF CONCERN
GRAPHIC SCALE
Environmental Waste Management Associates, LLC
BORING/WELL LOCATION PLAN
LONG ISLAND CITY, NEW YORK

Diagram C



ROAD
3 STORY BRICK BUILDING
2 STORY BRICK BUILDING
2 STORY BRICK BUILDING
1 STORY BUILDING
FORMER 1 STORY BUILDING
FORMER 1 STORY BRICK BUILDING
FORMER 1 STORY BRICK CONCRETE BLOCK BUILDING
SUSPECT UNDERGROUND TANK FARM
AVENUE
LEGEND
PROPOSED CONCRETE REMOVAL AREA
ENCAPSULATED AREA
PROPERTY BOUNDARY
AREAS OF CONCERN
GRAPHIC SCALE
Environmental Waste Management Associates, LLC
SCALE: AS SHOWN
PROJECT#
FIGURE#
1
LONG ISLAND CITY, NEW YORK

EMMA21

The data represents a continuous 143' traverse. The gpr data was conducted in a north and south direction over a proposed boring location within the easternmost building. No unusual acomolies were seen within the GPR data.

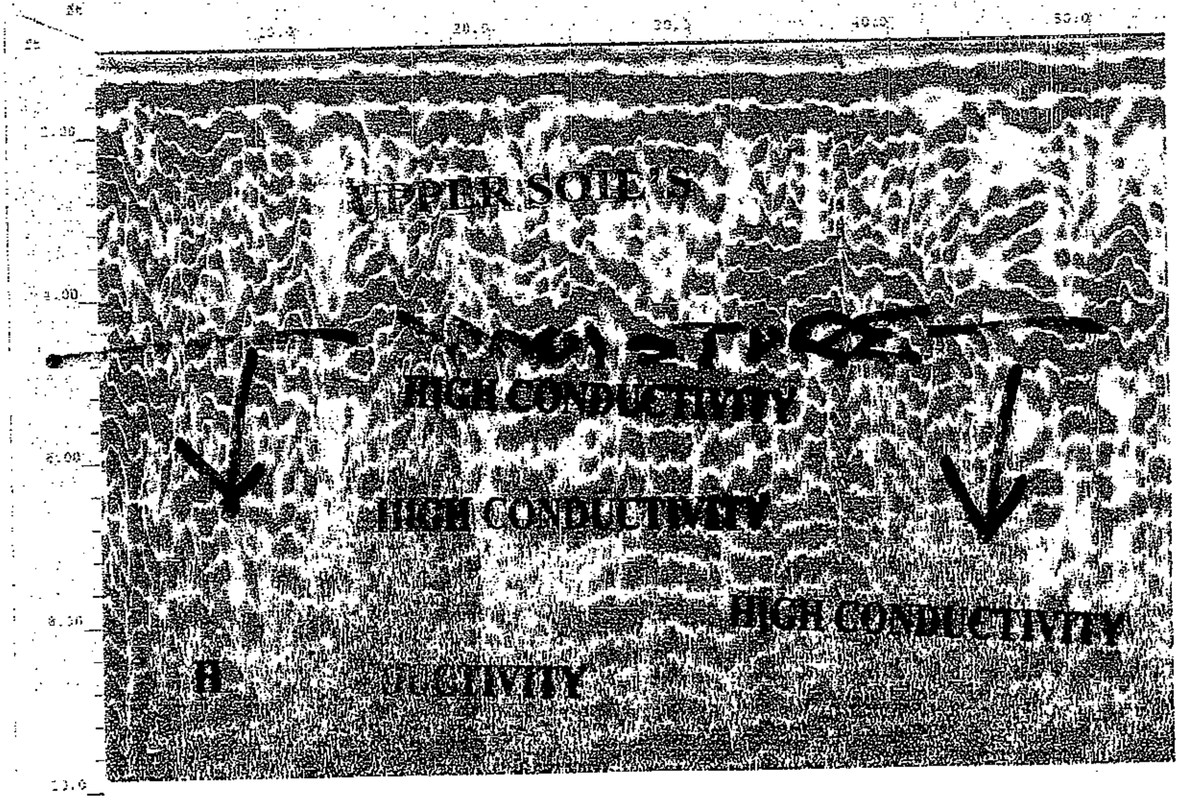
```
Created  Jun, 18 2008, 09:23:26          Modified Jun, 18 2008, 09:25:18
Channel(s)  1          Samples/Scan  512          Bits/Sample  16
Scans/Second  100          Scans/Meter  59.0551          Meters/Mark  2.4384
Diel Constant 4

CHANNEL  1  400MHZ
Position  3.75 nS  Range  40 nS
Range Gain (dB)  -19.0 25.0 44.0
Position Correction  1.1 nS
Vert IIR LP N =1 F =800 MHz
Vert IIR HP N =1 F =100 MHz
Position Correction  3.75 nS
```

-180°

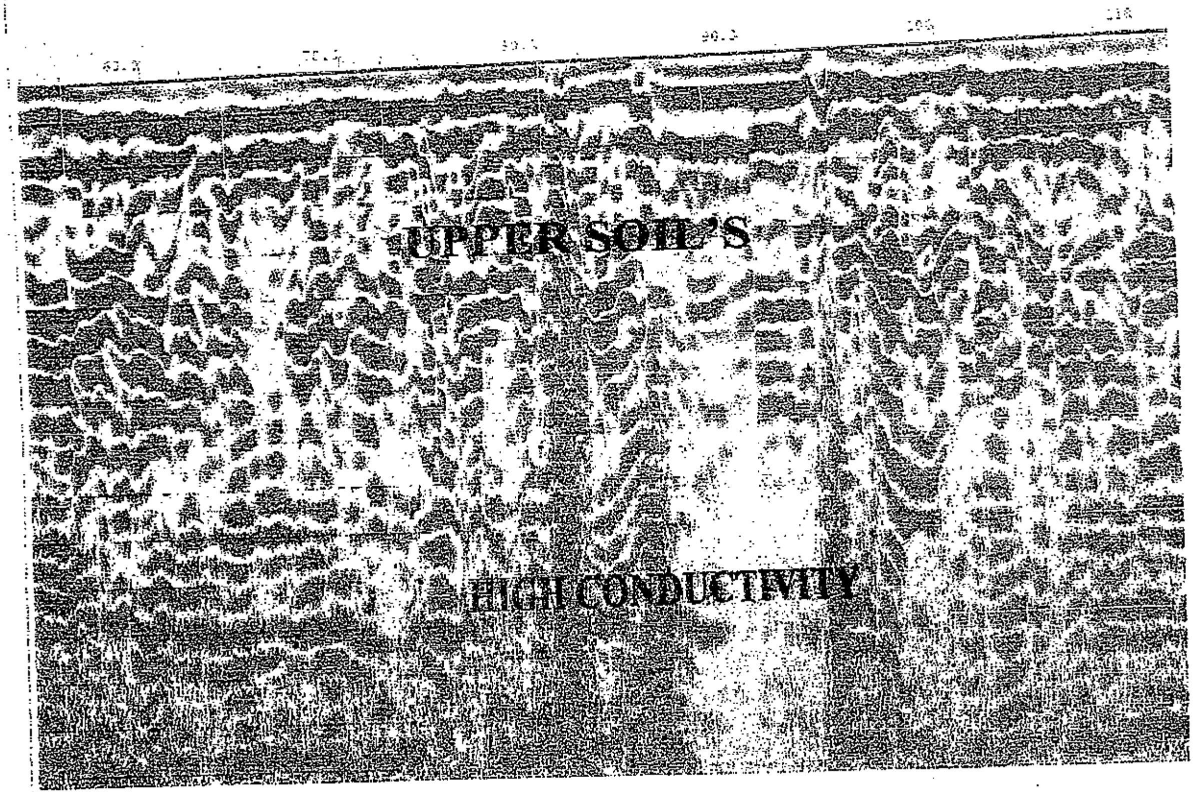
EMMA21 Jun, 18 2008, 09:25:18

2 of 4



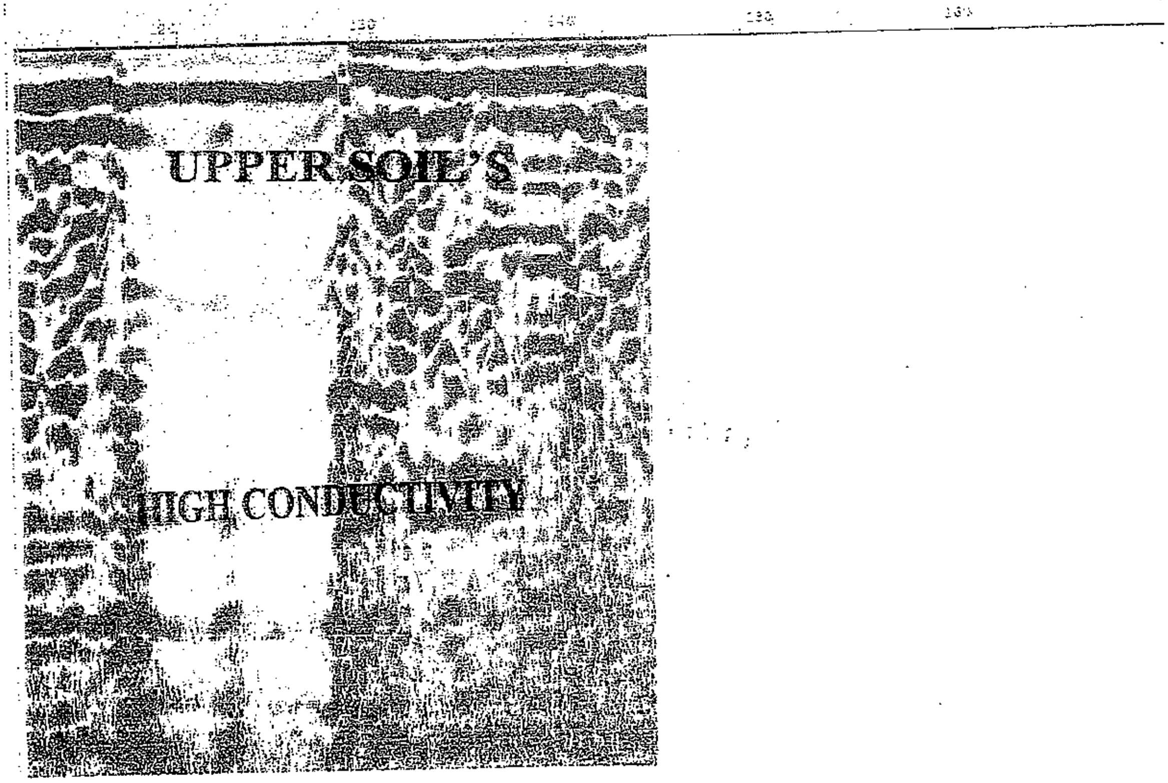
Page 3 of 4

SWMA21 Jun, 18 2008, 09:25:18



Page 4 of 4

SWMA21 Jun, 18 2008, 09:25:18

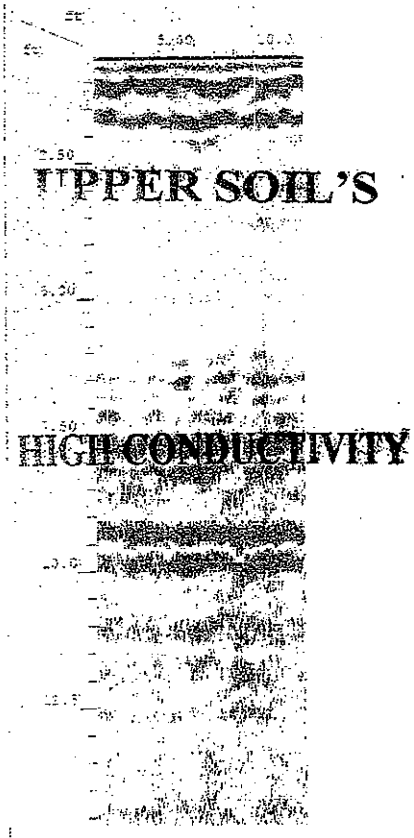


ENMA14

The data represents a 10' diagonal traverse across AGC-7.
No significant ancmolies were seen within the data.

```
Created  Jun, 16 2008, 08:35:32         Modified Jun. 18 2008, 08:35:44
Channel(s)  1         Samples/Scan  512        Bits/Sample  16
Scans/Second  100         Scans/Meter  59.0551        Meters/Mark  2.4384
Diel Constant 4

CHANNEL  1  400MHZ
Position  2.23 nS  Range  60 nS
Range Gain (dB)  -14.0 35.0 38.0
Position Correction  2.475 nS
Vert IIR LP N =1 F =800 MHz
Vert IIR HP N =1 F =100 MHz
Position Correction  2.23 nS
```



5.0 ACQUIRING PROCEDURES

The acquiring of data from the field for the location and orientation of underground storage tanks, utilities, conduits w/in slab, rebar location, grave sites and other specific anomalies has been established by the *ground penetrating radar* for many years. Since *1988*, Sub-Surface Informational Surveys, Inc. has completed a multitude of successful investigations covering most phases of the *ground penetrating radar* profession. During an investigation, a cross-section of the project will be recorded on the hard drive of our computer. The data is then transferred, copied and duplicated to be made part of this report.

We do not necessarily record every traverse in most of our investigation since most of the information viewed on our monitor is related to the previous traverse. Traverses (I.e., profiles) are monitored on a constant basis. When a traverse is collected on the hard drive, it is also played back in the field for a second look. Where there is an *out-of-place characteristic*, it may be played back a number of times to determine its location and origin. This is recorded on the hard drive for further analyzing at our office. When specific anomalies are located, *all* are documented for reporting. Anomalies are marked in the field if requested to do so. Measurements are taken to identify the exact location such as a tank or utility.

During the start of all surveys, site characteristics and features must be documented to set the standard for that particular site such as soil conditions, conductive features, etc. While the survey is being conducted, there are periodic documentations which are used as a permanent visual comparison to confirm the standard of that site.

After the completion of our survey, it must be reasonably assured that the information is a true cross-section of the project and the information obtained is accurate according to our best professional efforts.

GPR PRINCIPLES
DIELECTRIC CONSTANTS
TWO-WAY SLOWNESS

Dielectric Constant = This parameter is the value of the dielectric constant used to convert two-way travel time to depth. The value ranges from 1 to 81 and depends upon the dielectric properties of the subsurface materials being profiled. *WARNING*: Dielectric constants for various materials, and thus the resulting depth scales, are only approximations. Additional approximates of various materials are as follows:

MATERIAL	D/C	MATERIAL	D/C
Air	1	Wet Granite	6.5
Snow Firm	1.5	Travertine	8
Dry Loamy/Clayey Soils	2.5	West Limestone	8
Dry Clay	4	West Basalt	8.5
Ice	4	Tills	11
Coal	4.5	Volcanic Ash	13
Asphalt	5	Wet Sands	15
Dry Granite	5	Wet Sandy Soils	23.5
Frozen Sand & Gravel	5	Dry Bauxite	25
Dry Concrete	5.5	Saturated Sands	25
Dry Sand & Gravel	5.5	Wet Clay	27
Potash Ore	5.5	Peats	61.5
Dry Mineral/Sandy Soils	6	Organic Soils	64
Dry Salt	6	Sea Water	81
Frozen Soil/Permafrost	6	Water	81
Wet Sandstone	5	Syenite Porphyry	6
MATERIAL	**T/ns/meters/ft**	**MATERIAL**	**T/ns/meters/ft**
Snow	8/2.5	Water	59/18
Asphalt	14/4.5	Dry Concrete	15/4.5
Wet Concrete	23/7	Dry Sands	13/4
Wet Sands	25.5/7.5	Saturated Sands	33/10
Dry Sand & Gravel	15.5/4.5	Frozen Sand & Gravel	14.5/4.5
Dry Loamy/Clayey Soils	10.5/3	Dry Mineral/Sandy Soils	16/5
Organic Soils	52.5/16	Wet Sandy Soils	32/9.5
Frozen Soil/Permafrost	16/5	Tills	22/6.5
Peats	51.5/15.5	Wet Clay	34/10.5
Dry Clay	13/4	Dry Granite	14.5/4.5
Wet Granite	16.5/5	Wet Basalt	19/6
Volcanic Ash	23.5/7	Potash Ore	15/4.5
Dry Bauxite	33/10	Syenite Porphyry	16/5
Travertine	18.5/5.5	Coal	14/4
Dry Limestone	15.5/4.5	Wet Limestone	18.5/5.5
Wet Sandstone	16/5	Dry Salt	16/5

Compliments of
Sub-Surface Informational Surveys, Inc.
E. Longmeadow, MA 01028
413-525-4666 Fax 413-525-2887

Appendix – 7

ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES, LLC
FISH AND WILDLIFE IMPACT ANALYSIS: STEPS 1 AND 2

FINAL

Submitted to:

EWMA LLC.
51 Everett Drive, Suite A-10
West Windsor, NJ 08550

October 1, 2008

Submitted by:

GEE
GREAT ECOLOGY & ENVIRONMENTS

Great Ecology & Environments, Inc.
2231 Broadway, Suite 4
New York, NY 10024
ph (212) 579-6800
fax (212) 496-4034
www.GEEinc.net

DRAFT

GEE

QUALITY CONTROL SHEET

TITLE: Fish and Wildlife Impact Analysis

CLIENT: Environmental Waste Management Associates LLC.

VERSION: FINAL

DATE: October 13, 2008

JOB NO.: NY130.002

SOURCE FILE(S): NY130.002_EWMAFWIA\09_Reports (Final)\NY130.002_EWMA FWIA.docx

Prepared by:

Phoebe McMellon, M.S.

Michael Parkes, M.S.

Directed, reviewed, and approved by:

Mark Laska, Ph.D.

Limitations:

This report has been prepared for the above referenced client according to their implicit instructions, for the particular objectives described in the report. The information contained herein should not be used by anyone else, or for any other purposes.

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EXECUTIVE SUMMARY

Great Ecology and Environments, Inc. (GEE) has been retained by Environmental Waste Management Associates (EWMA) to complete a Fish and Wildlife Impact Analysis (FWIA) for the property located at 5-20 46th Rd. Long Island City, NY. This initial stage of the FWIA has been prepared in accordance with the New York State Department of Environmental Conservation (NYSDEC) Division of Fish and Wildlife's *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites.* This report contains the information required for the first step of the FWIA: site description. The report outlines the location of the site, fish and wildlife resources onsite and in the surrounding area, observations of contaminated related stress onsite, values associated with fauna and human use, and the identification of applicable fish and wildlife regulatory criteria.

Due to the variety of activities (primarily industrial) at the site, soils and ground water are contaminated with a variety of chemicals including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals.

GEE conducted an evaluation of the site in August 2008. The site is heavily developed and unlikely to provide habitat for sensitive ecological receptors. Given the urban location, sensitive wildlife are not likely to use the site, however, the site is approximately 300 ft from the East River, a resource of ecological concern.

A pathway analysis was conducted for the site evaluating ground water, stormwater, air, subsurface soil, terrestrial plants and utility lines as potential exposure to ecological receptors. The primary ecological receptor is the East River, which is located approximately 0.25 and 0.15 miles west of the site, respectively. Migration of contaminants through ground water is the only potential complete pathway for exposure to ecological receptors. All other pathways were incomplete. EWMA proposes to remove all contaminated soil and free floating product from the ground water as part of the site remediation. Proposed removal and excavation of the source of the contamination will eliminate the exposure pathways.

At this time, a criteria-specific analysis is not recommended until after the contaminant source is removed and further environmental monitoring of the ground water has occurred.

1.0 INTRODUCTION

Great Ecology and Environments, Inc. (GEE) has been retained by Environmental Waste Management Associates (EWMA) to complete a Fish and Wildlife Impact Analysis (FWIA) for the property (the site) located at 5-20 46th Road, Long Island City, New York (Figure 1). The site has been accepted in the NYSDEC's Brownfield Cleanup Program (BCP) as a "Volunteer" (BCP site C241098) and as part of the remedial investigation, a Fish and Wildlife Impact Analysis is required.

This Fish and Wildlife Impact Analysis (FWIA) has been prepared in accordance with the New York State Department of Environmental Conservation (NYSDEC) Division of Fish and Wildlife's 1994 guidelines, *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites.* A Fish and Wildlife Impact Analysis can be separated into five (5) steps:

1) The site description, habitat and resource identification and valuation;
2) Contaminant – Specific Impact Assessment, including pathway, criteria and toxicity analysis;
3) Assessment of ecological effects associated with remedial alternatives;
4) Assessment of mitigation options for the protection of ecological resources during and post-remedial activities; and
5) Development of monitoring program during and post-remediation works.

This report contains the information required for the first and second steps of the FWIA. Specifically, the report outlines the location of the site, fish and wildlife resources onsite and in the surrounding area, includes observations of contaminated related stress onsite, values associated with fauna and human use, and the identification of applicable fish and wildlife regulatory criteria in order to assess site-related contamination and to determine remedial objectives. These criteria are used to identify contaminant impacts to fish and wildlife, and to evaluate contaminant-specific and site-specific ecological effects associated with proposed remedial alternatives (NYSDEC, 1994). Furthermore, the Contaminated – Specific Impact Assessment includes a pathway analysis to determine the potential migration pathways that may adversely impact ecological receptors on and in the vicinity of the site.

1.1 Site Description

The objectives FWIA site description are to: (1) identify the fish and wildlife resources within a two-mile radius that presently exist and that might have existed before contaminant introduction, and (2) to provide information necessary for the design of a remedial investigation, including potentially contaminated areas or pathways to fish and wildlife resources. Information obtained during the site description will affect the decision making of a media of concern and potential sampling locations during subsequent steps of the FWIA (NYSDEC, 1994).

GEE visited the site on September 18, 2008, which is located at 5-20 46th Rd. Long Island City, New York (Figure 2). Historically, the entire property, except for a small parking area at the east end, was covered by buildings. As of writing of this report, the site is under construction and the only remnant structure is a concrete slab foundation, exposed to the street on the south, west, and north sides (Photos 1-6). The eastern side of the site borders industrial buildings. Across the street on the western side are a newly constructed condominium and a small open grass recreational field. The rest of the surrounding area is dominated by single-story and two-story commercial and industrial buildings, and intermittent residential dwellings. The East River is the closest water body to the site and is located approximately 0.25 miles to the west, and 0.15 miles to the north (Figure 1).

The subsurface materials beneath the site consists of 10 to 12 feet of urban fill, overlying 1 to 3 feet of clayey peat, which according to the 2008 Remedial Investigation Report (RIR) appears to be continuous across the site. At approximately 15 feet below surface grade (bsg) is a fine to coarse sand, which overlies a dense gray silt. Bedrock is present at depths 32 feet bsg and greater. Ground water was encountered at 7 – 8 feet bsg and again at 10 to 11 feet bsg. The upper water zone is perched above the lower sand water-bearing unit, which is confined by the clayey peat layer. Ground-water flow within the perched unit is towards the north and northeast, where as Ground water flow in the sand aquifer is to west towards the East River.

1.2 Site Maps

The maps included here identify local fish and wildlife resources and potential pathways of contaminant migration affecting fish and wildlife resources.

1.1.1 Topographic Map

A topographic map modified from a U.S Geological Survey Topoquad depicts the site and the surrounding area within a two-mile radius (Figure 2). In accordance with the guidelines, resource data was analyzed to identify major resources that may be affected by site-related contaminants. Resources included in the analysis included the following:

- NYSDEC Significant Habitats as defined by the NYS Natural Heritage Program (NYSDEC, 1990);
- Habitats supporting endangered, threatened, or rare species, or species of special concern;
- Regulated wetlands;
- Wild, scenic and recreational rivers;
- Significant coastal zone areas; and
- Streams and lakes.

No regulated wetlands; wild, scenic, or recreational rivers; significant coastal zones, streams, or lakes were identified within two miles of the site.

The East River, a tidal straight that connects New York Harbor with the Long Island Sound and classified as an Estuarine Cultural Resource, and several New York City Parks, classified as Terrestrial Cultural Resources, are located within this two-mile radius of the site (Figure 2). These resources are considered NYSDEC Significant Coastal and Fish Habitat as defined by the NYS Natural Heritage Program (NYDEC, 1990).

A large portion of Manhattan Island is within the two-mile resource search radius. Tall buildings and large bridges throughout the greater New York City area provide nesting and roosting habitat for the peregrine falcon (*Falco peregrines*), an endangered species. Peregrine falcons have nested within 2 miles of the site and 10 breeding pairs were recorded nesting in New York City during 2007 (Herbert and Herbert, 1965; Louks, 2007). The osprey (*Pandion halaetus*), black skimmer (*Rynchops niger*), roseate tern (*Sterna dougallii dougallii*) and Northern harrier (*Circus cyaneus*) also breed and migrate in the area (Andrele and Carroll, 1988; NYSDEC, 2008).

1.1.2 Covertype Map

Figure 3 is a covertype map of the site and the surrounding area with one-half-mile and two-mile radii. Nearly the entire one-half-mile radius study area consists of medium and high intensity developed urban areas except for the East River. No building or waterfront in the one-half-mile area is known to have documented sightings of endangered or threatened species.

1.1.3 Drainage Map

Stormwater drains located on the streets are the suspected end points for much, if not all, the surface flow from the site (Figure 4).

1.2 Description of Fish and Wildlife Resources

In accordance with the FWIA guidelines, this section describes the fish and wildlife resources found on the site and within a two mile radius.

1.2.1 Fish and Wildlife Resources and Covertypes

No fish or wildlife resources were observed at the site. Covertypes located on the site are typical of urbanized/industrial areas within New York City (Figure 3). This habitat is dominated by urban structures, paved lots, and riprap/artificial shorelines. These indicate high levels of human disturbance. The vast majority of Site contains impervious groundcover, mostly asphalt and concrete.

The upland resources identified as Terrestrial Cultural Resources in Figure 2 are park areas managed by New York City Department of Parks and Recreation Department. These parks generally contain little shrubby vegetation, limiting vegetative structural diversity to mowed grass and planted trees, many of which are non-native. Typically, tree species planted in these parks include the London plane tree (*Platanus x acerifolia*), northern red oak (*Quercus rubra*), tulip tree (*Liriodendron tulipifera*), linden trees (*Tilia sp.*), and a variety of others.

The East River is the dominant fish and wildlife resource within the study area, hence it is of primary concern. At its nearest point, the river lies approximately 300 ft. northwest of the site, where the river occupies what appears to be an abandoned relict shipping slip.

The average salinity of the East River is 23 ppt and turbidity ranges from 10 to 103 ntu (Riverkeeper, 2008). Additionally, dissolved oxygen ranges from 54-81% and depth ranges between 26 and 55 ft near the site (National Oceanic and Atmospheric Administration, 2008).

1.2.2 Fauna Expected Within Each Covertype and Aquatic Habitat

The fauna expected within the nearby terrestrial covertypes is typical of New York City parks and urban lots. Bird species found in these covertypes are numerous and vary seasonally. The most common bird species expected within these covertypes include:

House sparrow	(*Passer domesticus*)
Rock dove	(*Columba livia*)
Mourning dove	(*Zenaida macroura*)
White-throated sparrow	(*Zonotrichia atricapilla*)
European starling	(*Sturnus vulgaris*)
Downy woodpecker	(*Picoides pubescens*)
American crow	(*Corvus brachyrynchos*)
American robin	(*Turdus migratorius*)

The NYS Natural Heritage Program database indicates that the peregrine falcon (*Falco peregrinus*), a NYS endangered species, may be within the vicinity of the site. However, the site does not provide suitable habitat for peregrine falcon nesting and provides minimal habitat for foraging. Peregrine falcons typically nest on large structures that are between 50 – 200 ft tall, which are absent from the site.

Mammal species expected to be present in these covertypes include:

Eastern gray squirrel	(*Sciurus carlinensis*)
Norway rat	(Rattus norvegicus)
Eastern chipmunk	(*Tamias umbrinus*)
Common raccoon	(*Procyon lotor*)

See Table 1 for a list of typical fauna of urban lots in the New York City region.

The fauna expected and referenced to be found within the aquatic resources surrounding the study area includes a wide variety of phytoplankton, benthic marine algae, zooplankton, benthic invertebrates (gastropods, bivales, molluscs, amphipods, crustaceans), including the eastern oyster (*Crassostrea virginica*), blue crab (*Callinectes sapidus*), green crab (*Carcinus maenas*); rock crab (*Hemigrapsus edwardsi*); five species of turtles (four of which are considered either threatened or endangered under the Endangered Species Act), and a variety of vertebrate fish species, which include, but are not limited to:

Alewife	(*Alosa pseudoharengus*)
American eel	(*Anguilla rostrata*)
American shad	(*Alosa sapidissima*)
Atlantic herring	(*Clupea harengus*)
Atlantic silverside	(*Menidia menidia*)
Atlantic tomcod	(*Microgadus tomcod*)
Bay anchovy	(*Anchoa mitchilli*)
Bluefish	(*Pomatomus saltatrix*)
Butterfish	(*Peprilus triacanthus*)
Grubby	(*Myoxocephalus aenaeus*)
Mummichog	(*Fundulus heteroclitus*)
Northern searobin	(*Prionotus carolinus*)
Red Hake	(*Urophycis chuss*)
Scup	(*Stenotomus chrysops*)
Shortnose sturgeon*	(*Acipenser brevirostrum*)
Striped bass	(*Morone saxatilis*)
Summer flounder	(*Paralichthys dentatus*)
White perch	(*Morone americana*)
Winter flounder	(*Pseudopleuronectes americanus*)

* Listed under the Endangered Species Act (ESA) or classified as a species of concern.

The East River Long provides an important migratory pathway between New York Harbor and the Long Island Sound and many of the vertebrate species cited above do not inhabit the East River year round.

Most of the shoreline of the East River near the site consists of hardened break walls and riprap, which support intertidal organisms that tolerate high disturbance regimes. Wading birds typically found in the New York City region may also use the intertidal habitat located nearby the site. See Table 2 for a list of typical species that commonly utilize riprap shorelines.

1.2.3 Observations of Stress

During the site investigation, no visible signs of contaminant stress, such as stained soils, leachate seeps, exposed waste, impaired vegetation or wildlife. However, the site is an under construction and signs of contaminant stress may have been covered or removed during these activities.

1.3 Description of Fish and Wildlife Resource Value

1.3.1 Value of Habitat to Associated Fauna

The wildlife species identified in Section 1.2.2, and listed in Tables 1 and 2, are the same species likely to be found within 0.5 miles of the site's perimeter. The area surrounding the site is mixed commercial and residential use, and provides foraging, breeding and roosting habitat for those bird, mammal and invertebrate species adapted to living adjacent to areas of high human disturbance. However, due to the historic and current land use, the wildlife habitat value of the area surrounding the site is low. The site itself adds little habitat value to the area, consisting mostly of impervious materials. The terrestrial area within a half-mile surrounding the site is also low-quality habitat.

As mentioned previously, the East River is located approximately 0.25 miles west of the site, and approximately 0.15 miles northwest of the site, and as a tidal straight between New York Harbor and the Long Island Sound, provides habitat for various species. Common fish species within the East River include white perch (*Morone americana*), striped bass (*Morone saxatilis*), bluefish (*Pomatomus saltatrix*), and winter flounder (*Pleuronectes americanus*). A list of common species known to occur in the East River and along its shore is in Table 2.

The shoreline of the river is significantly altered from its natural state. Steep concrete walls and large boulders line the river, limiting potential use by shorebirds.

1.3.2 Value of Resources to Humans

The value of these fish and wildlife resources toward human use within 0.5 miles is also low. Little wildlife viewing opportunities or potential for such exists near the site. Hunting is not a viable option in an urban setting. There are no recreational rivers, scenic rivers, lakes, wetlands, parks, NYSDEC significant habitats or significant coastal zones within 0.5 miles of the site.

Limited fishing opportunities may exist close to the site. However, the nearby East River and surrounding areas provide recreational fisheries and secondary contact recreation, such as boating. The East River is classified as Class I under 6 New York Codes, Rules, and Regulations (NYCRR) Part 701. According to 6 NYCRR Part 701, the best usages of Class I waters are "secondary contact recreation and fishing. These waters shall be suitable for fish propagation and survival."

1.4 Identification of Applicable Fish and Wildlife Regulatory Criteria

The following regulatory contaminant-specific and site-specific criteria may be applicable to the remediation of fish and wildlife resources at the site:

- Ground water and Surface Water Quality
    - 6 NYCRR Part 701;
    - NYSDEC Division of Water Technical and Operational Guidance Series [TOGS] 1.1.1;
    - U.S. Environmental Protection Agency (USEPA) Region 5, RCRA Ecological Screening Levels; and
    - Oak Ridge National Laboratory Preliminary Remediation Goals for Ecological Endpoints.
- Soil Quality Criteria
    - Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046);
    - USEPA Region 5, RCRA Ecological Screening Levels; and
    - Toxicological Benchmarks for Wildlife: 1996 Revision.
- Pollution of Waters
    - ECL Article 11 Title 5;
    - 6 NYCRR Part 608; and
    - Clean Water Act (Title 33 Chapter 26 subchapter IV § 1342.

2.0 CONTAMINANT-SPECIFIC IMPACT ASSESSMENT

The objective of contaminant-specific impact assessment is to determine the impacts of site-related contaminants on fish and wildlife resources. The impacts are dependent on a number of factors such as the type of contaminant, the concentrations of contaminants in the media, exposure of biota to the contaminants, and the toxic effects of the exposures (NYSDEC 1994).

The development of the contaminant-specific impact assessment follows a stepwise process. This section presents three steps of increasing complexity (Pathway Analysis, Criteria-Specific Analysis, and Analysis of Toxic Effects) that assess the impacts of site-related contaminants on fish and wildlife. Each step relies on progressively more specific information and less conservative assumptions. Whether the impact assessment progresses through additional steps will depend on the conclusions reached at each step regarding the degree of impact. If minimal impact can be demonstrated at a specific step in the assessment, additional steps need not be undertaken.

2.1 Pathway Analysis

Four potential pathways for exposure are associated with the site: ground water, stormwater, subsurface soil and air.

For an exposure pathway to exist, five elements must be present:

1. A source of contamination;
2. Transport through an environmental medium;
3. A point of exposure;
4. A plausible manner (route) for the contaminant to get into the organism; and
5. An identifiable exposed population.

Exposure pathways are characterized as complete, incomplete, or eliminated. A completed pathway exists when the criteria for all elements of an exposure pathway are fulfilled. An incomplete pathway exists when any one of the five elements of an exposure pathway is missing, and therefore, incomplete, but may potentially change with changing conditions on the site and/or new data becomes available. Pathways can be eliminated when any one of the existing five elements are removed. For a receptor population to be exposed to a contaminant, the exposure pathway must be complete.

The exposure pathways considered for the site are summarized in Table 3.

2.1.1 Complete Pathways

Ground Water (Perched Aquifer)

Ground-water flow contours show that ground water flow is towards the north and west of the site (Figure 5). The presence of a light non-aqueous phase liquid (LNAPL) plume, and associated volatile and semi-volatile organic compounds (VOCs and SVOCs), and heavy metals in the perched water-table, above the NYSDEC Ambient Water Quality Standards and Guideline Values (AWQS), represents a complete pathway through ground water migration towards the East River, located 0.25 miles west and 0.15 miles north-northwest of the site. Summary tables of ground water sampling results are included in Appendix D.

Aquatic organisms and coastal wildlife can be exposed to contaminants leaching into the East River through ingestion of contaminated water and organisms through the food chain, and through dermal contact. Section 1.2 cites the many aquatic organisms and wildlife that inhabit the East River. Based on the above conditions, ground water represents a complete pathway for exposure. Offsite monitoring wells located to the north, west and south of the property (MW-11S, MW-12S and MW-5S, respectively) indicate that the contamination has not migrated offsite.

Proposed remedial works includes removal of contaminated soils and removal of LNAPL plume (free floating product). Successful removal of the LNAPL contaminant will eliminate this exposure pathway. This is discussed further in Section 2.1.3.

2.1.2 Incomplete Pathways

Air

The RIR documents the presence of VOCs, SVOCs and heavy metals on site, exposure of birds and terrestrial wildlife to compromised air represents an incomplete pathway due to the lack of identifiable bird and wildlife population on site. In addition, the site is currently capped by concrete, and therefore, there is not a plausible route for the contaminants to be inhaled by wildlife that may be present on the site.

Ground Water (Sand Aquifer)

Ground water flow contours show that ground water flow is to the west towards the East River (Figure 5). Free-floating product (LNAPL), along with associated VOCs and SVOCs were detected above the NYSDEC Ambient Water Quality Standards and Guideline Values (AWQS) for ground water in one deep well (MW-10I, TW-1), penetrating the sand aquifer, which was located on the eastern portion of the property. In addition, VOCs, SVOCs and heavy metals were also detected deep wells along the northern (MW_7I and MW-6I) and western property boundary (MW-3D, MW-3I, MW-4I) above the ground water AWQS. Summary tables of ground water sampling results are included in Appendix D.

In the RIR, EWMA concluded that the contamination in the sand aquifer is from an offsite contaminant source, which was determined by the presence of a one to three foot confining layer of clayey peat that extends across the entire site, the difference in the hydraulic heads between the perched and sand aquifers, and the distribution of contaminants on the site. Based on information and data presented by EWMA, at this time GEE has not considered the sand aquifer in the pathway analysis. Should future data indicate that migration of contaminants from the perched aquifer into the sand aquifer is occurring then this pathway would require further evaluation.

Stormwater

Stormwater runoff is likely discharged to the NYC sewer system, which in turn, may be discharged to the East River. Plans provided by EWMA show two NYC sewer mains that historically were connected to the site. GEE submitted a Freedom of Information Act (FOIA) request to the New York City Department of Environmental Protection (NYCDEP) for the site stormwater plans for the area. The NYDEP has advised that collected stormwater in the vicinity of the site is discharged to the Bowery Bay Water Treatment Plant (pers.comm., NYCDEP Queens Local Office). The site is currently capped with a concrete surface, and therefore, stormwater is not in contact with subsurface contaminants. Stormwater represents an an incomplete pathway because of the lack of a point of exposure, a viable route of exposure, and identifiable population.

Subsurface Soil

Contaminated subsurface soil is present on site and is currently capped by an impermeable cement surface. If the soil is exposed in the future, it will provide a complete pathway for exposure to terrestrial wildlife, invertebrates and migratory birds that may frequent the site. At present, soil invertebrates, burrowing mammalian species and migratory birds were not observed on the site, and, due to the urban environment, it is unlikely that the site supports a significant wildlife population. Therefore, this is an incomplete pathway because of the lack of a point of exposure, a route of exposure and an identifiable population.

Proposed remediation of the site includes removal of all contaminated soil to a depth of 7-8 feet. Removal of the contaminated soil will preclude further contamination of the ground water.

Terrestrial Vegetation

Due to the isolated gravel areas of the site, small amounts of vegetative cover occur on the site in the form of weeds and grasses. Uptake of metals and other contaminants by vegetation is possible and therefore, can provide a complete pathway for exposure. However, due to the high foot and vehicular traffic, and lack of evidence of the presence of wildlife habitat on site, it is highly unlikely that any soil invertebrates and/or burrowing mammalian species utilize the site, reducing the possibility of terrestrial receptors. Therefore, this is an incomplete pathway primarily due to the lack of an identifiable population for exposure.

Utility Services

Utility service lines can act as pathways for migration of contaminated ground water and air along pipe structures and more permeable gravel-lined excavation ditches. Although the RIR states that sewer lines have been disconnected and flow trenches and pits have been filled in with concrete, depending on the depth of the sewer lines, there is the potential that free-floating product and VOCs may migrate along sewer lines. If utility lines are discharged directly to the East River these pathways can represent a complete pathway of exposure of contaminants to aquatic organisms. Through a Freedom of Information Act (FOIA) request to the New York City Department of Environmental (NYCDEP) regarding the discharge of stormwater and sewer utility lines from the site, GEE received confirmation that all service lines are connected and discharged to the Bowery Bay Water Treatment Plant (pers. comm., NYCDEP, Queens Local Office). Therefore, this is an incomplete pathway of exposure.

2.1.3 Eliminated Pathways

Perched Aquifer

The proposed remediation for the site includes the excavation and removal of contaminated sources, including impacted soils and free product (LNAPL). The proposed excavation will extend to the ground water table at a depth of 7 – 8 feet bsg across the entire property. Where determined to be necessary, deeper excavation may be performed to remove additional contamination. Impacted soils will be characterized and disposed of at an appropriate offsite facility.

Removing the soil may eliminate the source of the contamination, but not the presence of free-floating product (LNAPL) in the shallow ground water. From a regulatory perspective, the product may be considered a new "source" of contamination, even though removal of contaminated sediment is likely to lead to a long-term reduction in overall ground water concentrations. As mentioned previously, EWMA proposes to remove all contaminated soil and all free-floating product via vacuum extraction and/or other methodology (i.e., skimmer pump). Removal of the product in the perched aquifer will eliminate this pathway.

Continued ground water monitoring of the shallow ground water wells, after soil has been excavated, and re-evaluation of exposure pathways will confirm that the source has been eliminated, offsite migration is not occurring, and the pathway is incomplete.

3.0 CONCLUSION

GEE conducted an evaluation of the site in August 2008. The site is heavily developed and unlikely to provide habitat for sensitive ecological receptors. However, the site is approximately 300 ft from the East River, a resource of ecological concern.

An analysis conducted for the site considered the following exposure pathways: air, ground water, stormwater, subsurface soils, terrestrial vegetation and utility services. Ground water represented the only potential complete pathway for exposure to the East River, the ecological receptor of concern. All other pathways were incomplete.

Proposed removal and excavation of the source of the contamination (i.e., contaminated subsurface soil and LNAPL in the perched ground water) will eliminate the ground water exposure pathway. Post-remediation/removal environmental monitoring of the ground water should be undertaken to ensure that pathways have been eliminated. At this time, a criteria-specific analysis is not recommended until after the contaminant source is removed and further environmental monitoring of the ground water has occurred.

CHAPTER 3. REFERENCES

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Appendix A: Figures

Figure 1. Site Location (Source: Google Earth, 2008).

Figure 2. Topographic map of the site within ½ mile and 2 mile radii.

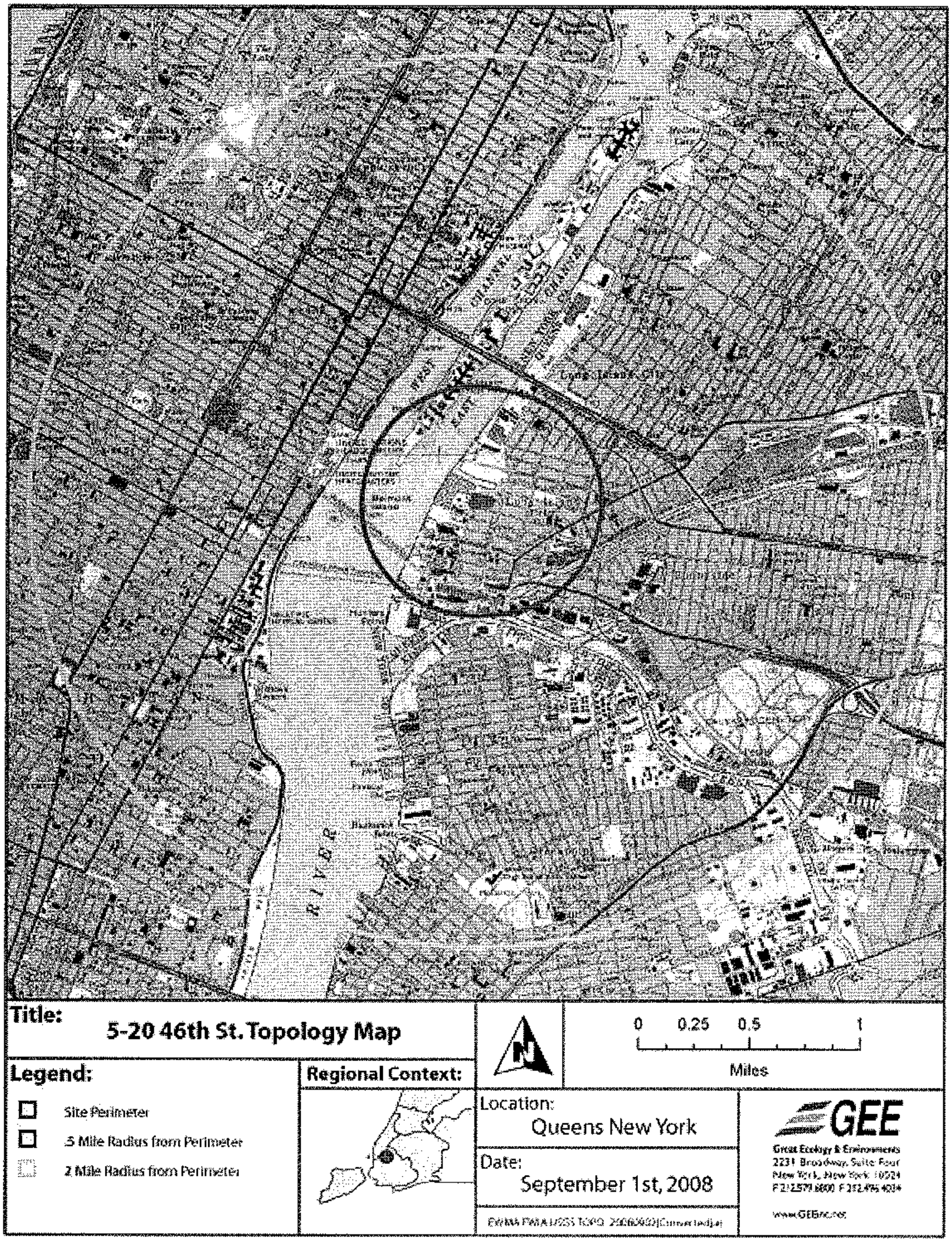


Figure 3: NYSDEC Significant Habitats as designated by the NYS Natural Heritage Program.

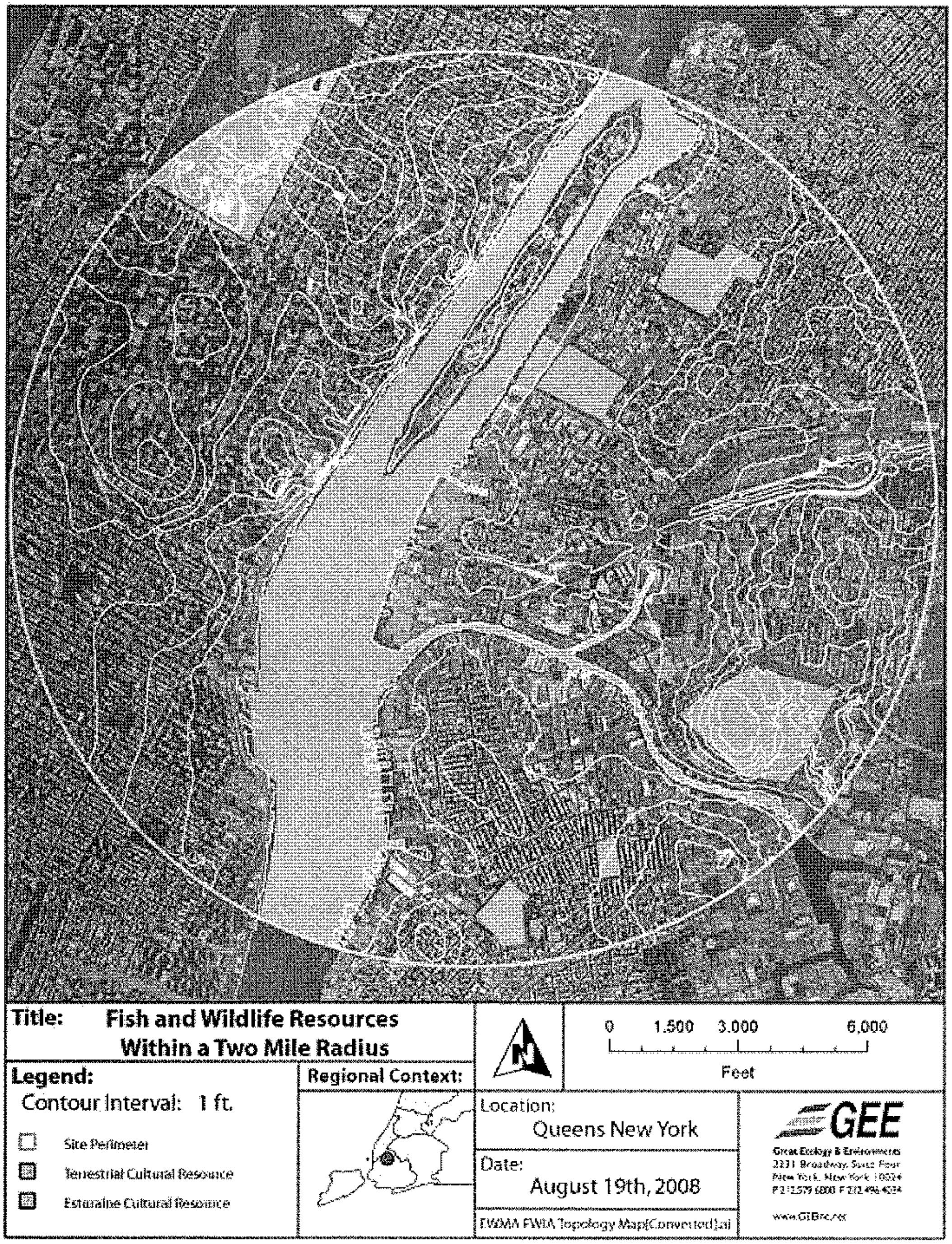


Figure 4. Land use and landcover types surrounding 5-20 46th Road, Long Island City, New York (U.S. Geological Survey, 1999).

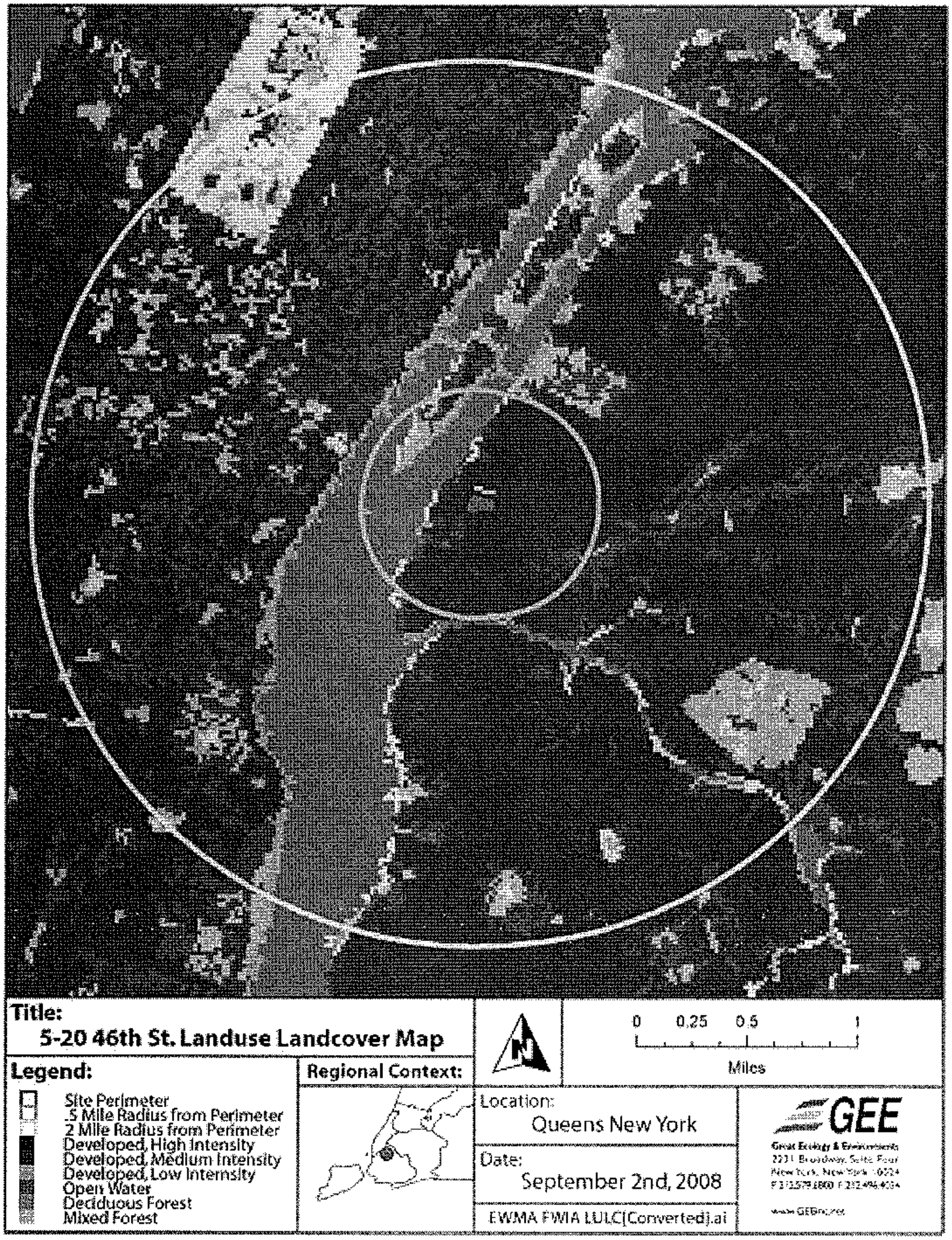


Figure 5. Ground-water Flow in Perched Aquifer (Source: EWMA, 2008)

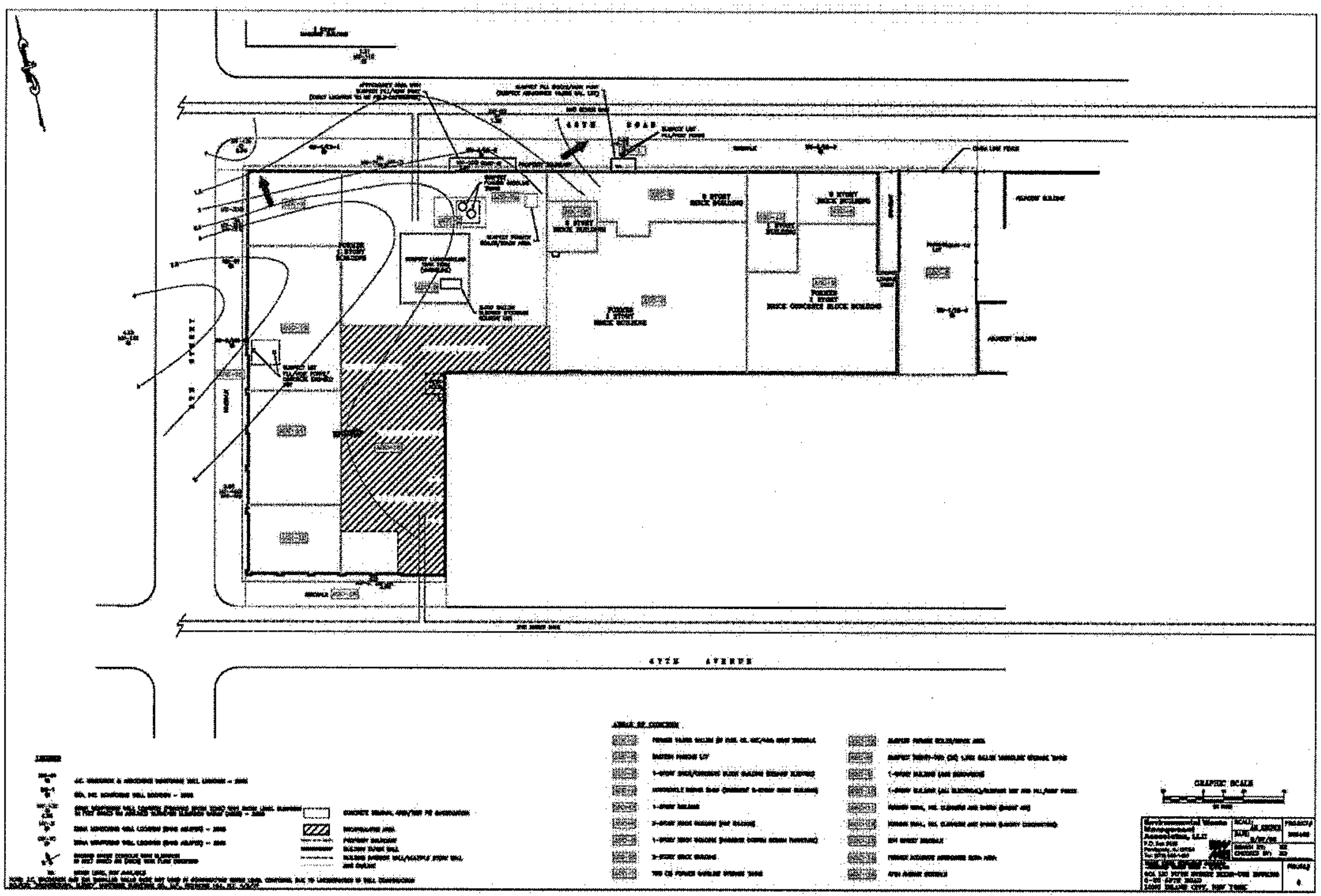
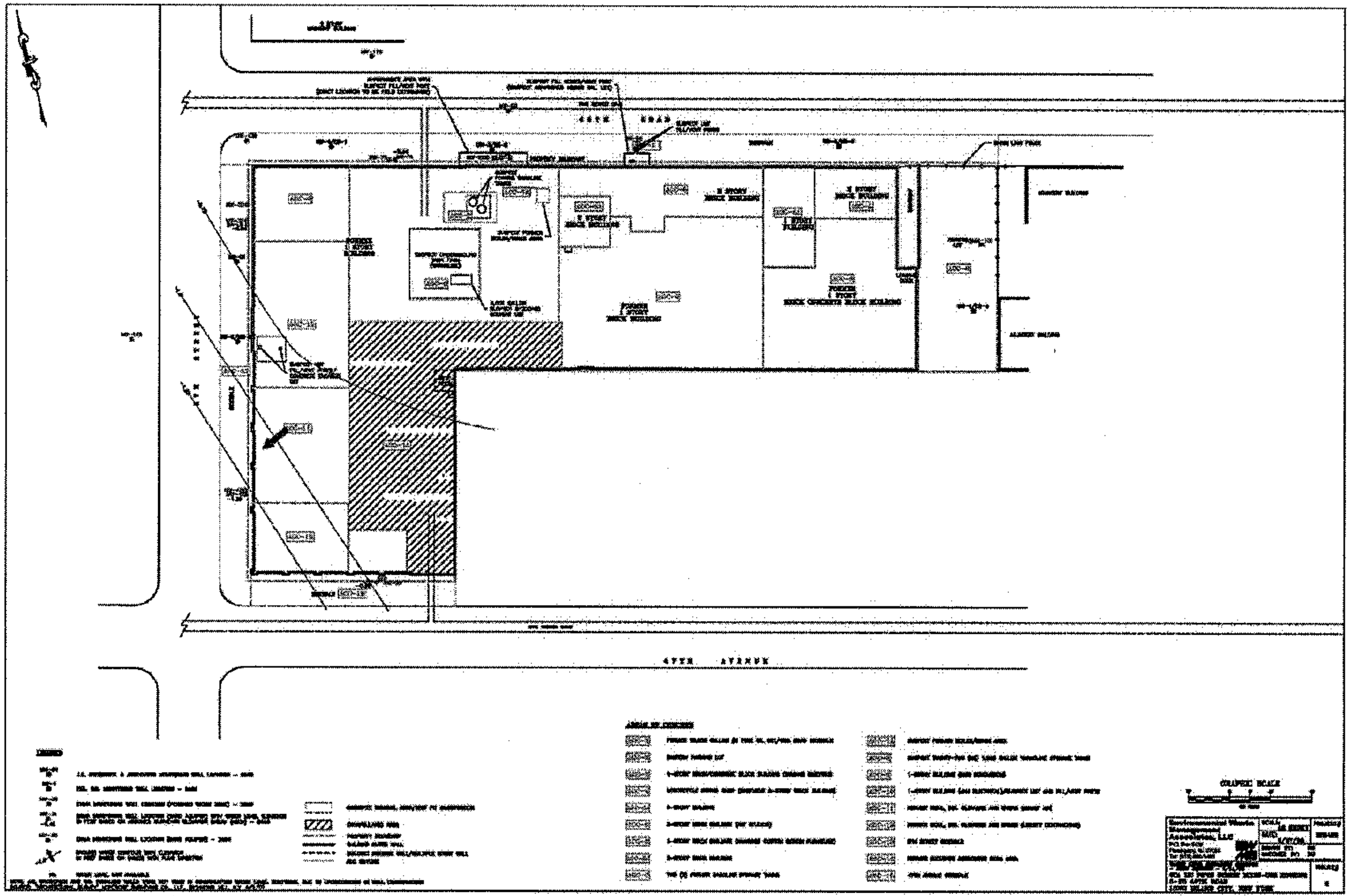


Figure 6. Ground-water Flow in Sand Aquifer (Source: EWMA, 2008)



Appendix B: Tables

Table 1. Typical species found in urban habitats and residential areas.

Common Name	Latin Name
Avian	
American crow	Corvus brachyrhynchos
American goldfinch	Cardeulis tristis
American kestrel	Falco sparverius
American robin	Turdus migratorius
Barn swallow	Hirundo rustica
Black-capped chickadee	Parus atricapitus
Bluejay	Cyanocitta cristata
Brown headed cowbird	Molothrus ater
Cedar waxwing	Bombycilla cedrorum
Chimney swift	Chaetura petagica
Common grackle	Quisalus quiscula
Common night hawk	Chordeiles minor
Common yellowthroat	Geothlypis trichas
Downy woodpecker	Picoides pubescens
Eastern phoebe	Sayomis phoebe
Eastern screech owl	Otus asio
European starling	Sturnus vulgaris
Fish crow	Corvus ossifragus
Gray catbird	Dumetella carolinensis
House finch	Carpodacus mexicanus
House sparrow	Passer domesticus
House wren	Troglodytes aedon
Killdeer	Charadrius vociferus
Mourning dove	Zenaida macroura
Northern cardinal	Cardinalis cardinalis
Northern flicker	Colaptes auratus
Northern mockingbird	Mimus polyglottos
Northern oriole	Icterus galbula
Osprey	Pandion haliaetus
Red-tailed hawk	Buteo jamaicensis
Ring-necked pheasant	Phasianus colchicus
Red-winged blackbird	Agelaius phoeniceus
Rock dove	Columba livia
Song sparrow	Melospiza melodia
Striped skunk	Mephitis mephitis
Tufted titmouse	Parus bicolor
Mammalian	
Big brown bat	Eptesicus fuscus
Eastern cottontail	Sylvilagus floridanus
Gray squirrel	Sciurus carolinensis
House mouse	Mus musculus
Norway rat	Rattus norvegicus
Raccoon	Procyon lotor
Virginia opossum	Didelphis virginana
Amphibian	
Reptilian	
Eastern garter snake	Thamnophis srtalis

Table 2. Common species utilizing riprap shorelines and the East River Estuary.

Common Name	Latin Name	Common Name	Latin Name
Avian		**Aquatic**	
Black-crowned night heron	Nycticorax nycticorax	Alewife	Alosa pseudoharengus
Canada goose	Branta canadensis	American eel	Anguilla rostrata
Double-crested cormorant	Phalocrocorax auritus	American shad	Alosa sapidissima
Great black backed gull	Larus marinus	Atlantic mackerel	Scomber scrombus
Great blue heron	Ardea herodius	Atlantic menhaden	Brevoortia tryannus
Great egret	Ardea alba	Atlantic ribbed mussel	Geukensia demissa
Herring gull	Larus argentatus	Atlantic sturgeon	Acipenser oxyrinchus
Laughing gull	Larus atricilla	Blue crab	Callinectes sapidus
Osprey	Pandion halieatus	Bluefish	Pomatomus aaltaris
Ring-billed gull	Larus delawarensis	Common mussel	Mytilus edulis
Snowy egret	Egretta thula	Fluke	Clupea harengus
Yellow-crowned night heron	Nycticorax violaceus	Horshoe crab	Limulus polyphemus
Mallard	Anas platyryncha	Japanese shore crab	Hemigrapsus sanguineus
Black skimmer	Rynchops nigra	Little gray barnacle	Chthamalus fragilis
Brant	Branta bernicla hrota	Northern rock barnacle	Balanus ballanoides
American wigeon	Anas americana	Scup	Stenatomus chrysops
Mute swan	Cygnus olor	Striped bass	Morone saxatilis
Bufflehead	Bucephata albeola	White perch	Morone americana
Common tern	Sterna hirundo	Winter flounder	Pleuronectes americanus
Least tern	Sterna antillarum	**Mammalian**	
Forster's tern	Sterna fosteri	Norway rat	Rattus norvegicus
Belted kingfisher	Coryle alcyon	Raccoon	Procyon lotor
Sharp-tailed sparrow	Ammospiza caudaculus	Virginia opossum	Didelphis virginana
Marsh wren	Cistothorus palustris		

Table 3. Pathways Analysis.

PATHWAY NAME	PRIMARY CONTAMINANTS OF CONCERN	EXPOSURE PATHWAY ELEMENTS					COMPLETE	INCOMPLETE	COMMENTS
		ENVIRONMENTAL MEDIA	POINT OF EXPOSURE	ROUTE OF EXPOSURE	EXPOSED POPULATION	TIME			
Air	VOCs SVOCs	Air	On-site	Inhalation	Birds and terrestrial wildlife	Present		√	If site remains capped, this pathway is incomplete. If contaminated soil is exposed in the pathway will be complete. If soil is removed or remediated then the pathway will be eliminated.
Ground Water	LNAPL VOCs SVOCs Heavy Metals	Ground Water	East River	Ingestion Dermal Contact	Aquatic ecosystem and coastal wildlife	Present	√		Successful removal and remediation of contaminated subsurface soil and ground water, particularly LNAPL, will be undertaken by EWMA, therefore, it is expected that this pathway will be eliminated.
Stormwater	LNAPL VOCs SVOCs Heavy Metals	Stormwater	East River	Ingestion Dermal Contact	Aquatic ecosystem and coastal wildlife	Present		√	The site is covered with impermeable surface, therefore, surface runoff is unlikely to come in contact with contaminated soil. Stormwater is not discharged into the East River, therefore,the pathway is eliminated.
Subsurface Soil	LNAPL Heavy Metals	Subsurface Soil	On-site	Ingestion Inhalation Dermal	Terrestrial wildlife and migratory birds	Present		√	If the site remains capped with an impermeable surface then pathway is incomplete. If soil is removed or remediated then the pathway will be eliminated.
Terrestrial Vegetation	Heavy Metals VOCs SVOCs	Subsurface Soil	On-site	Ingestion	Terrestrial wildlife and migratory birds	Present		√	If site remains capped then vegetation is unlikely to grow and pathway is eliminated.
Utility Lines	LNAPL Heavy Metals VOCs SVOCs	Ground water Stormwater Air	On-site Off-site	Ingestion Inhalation Dermal Contact	Aquatic ecosystem and coastal wildlife	Present		√	Stormwater and combined sewer outfall do not discharge to East River; all lines eventually discharge to Bowery Bay Water Treatment Plant.

Appendix C: Site Photos

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Photo 1.

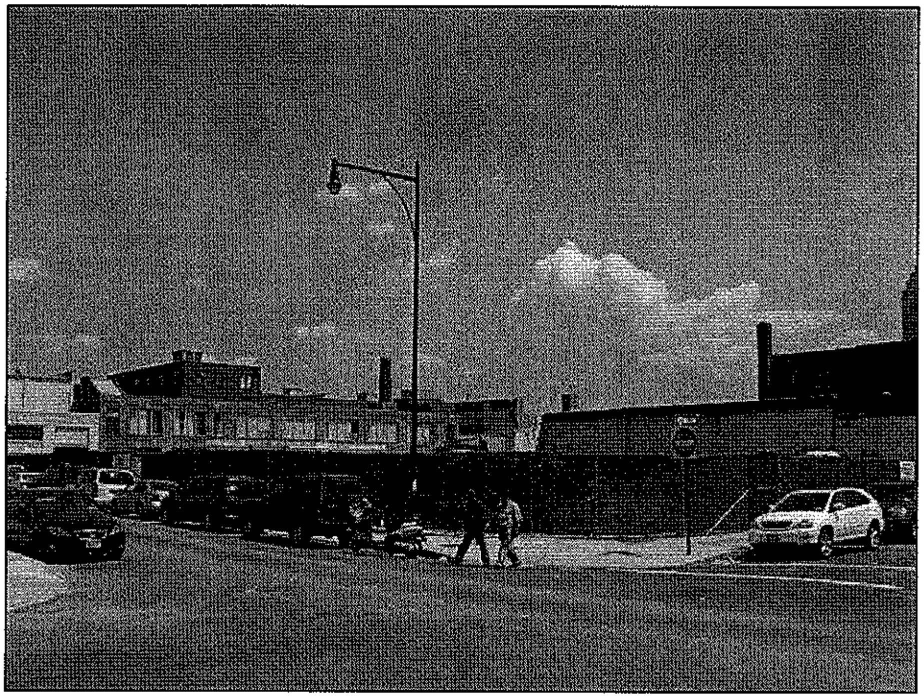


Photo 2.

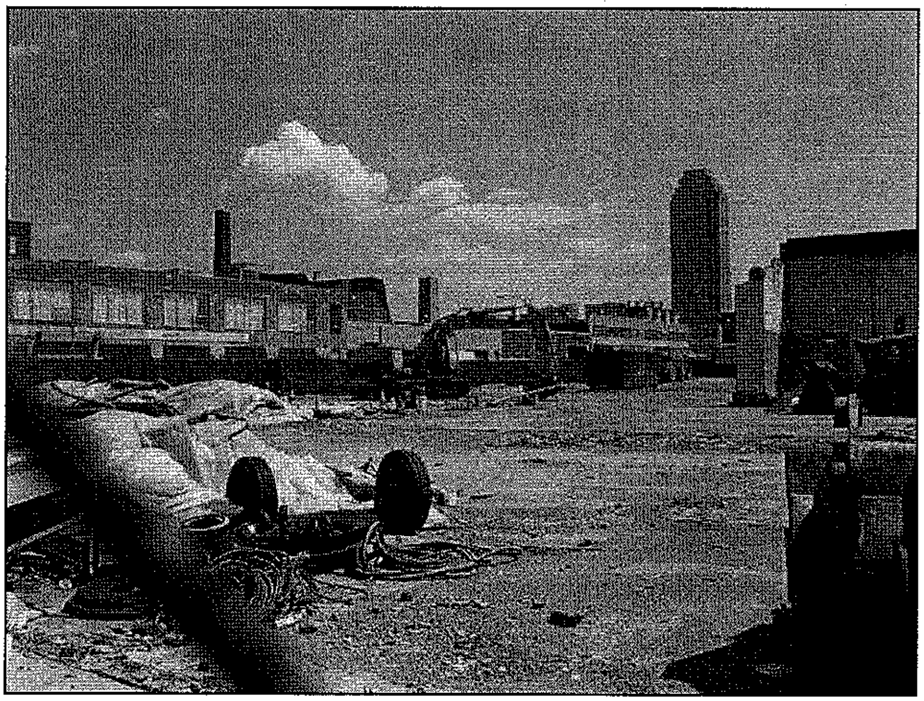


Photo 3.

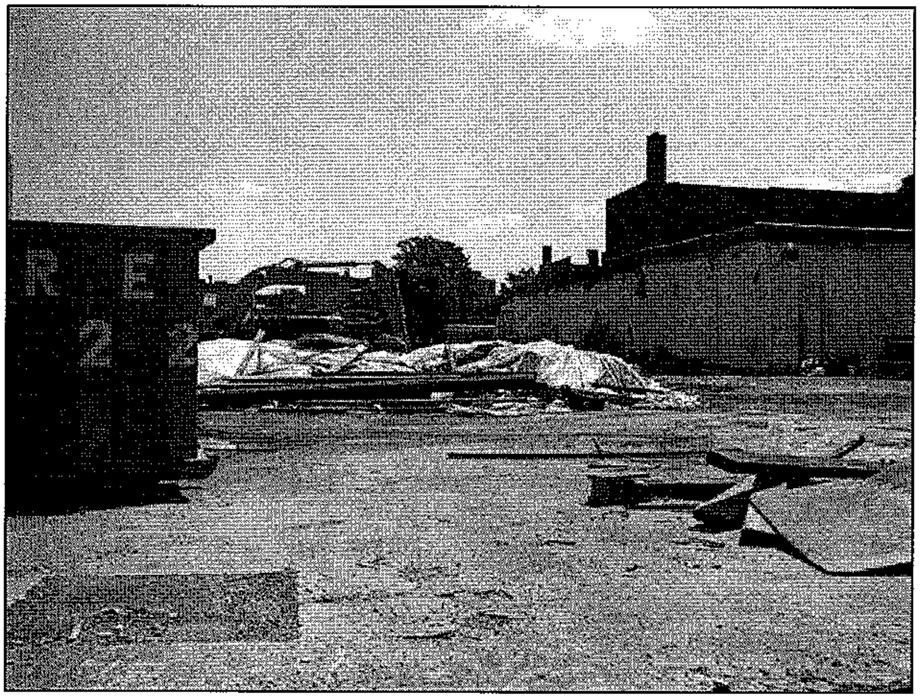


Photo 4.

Photo 5.

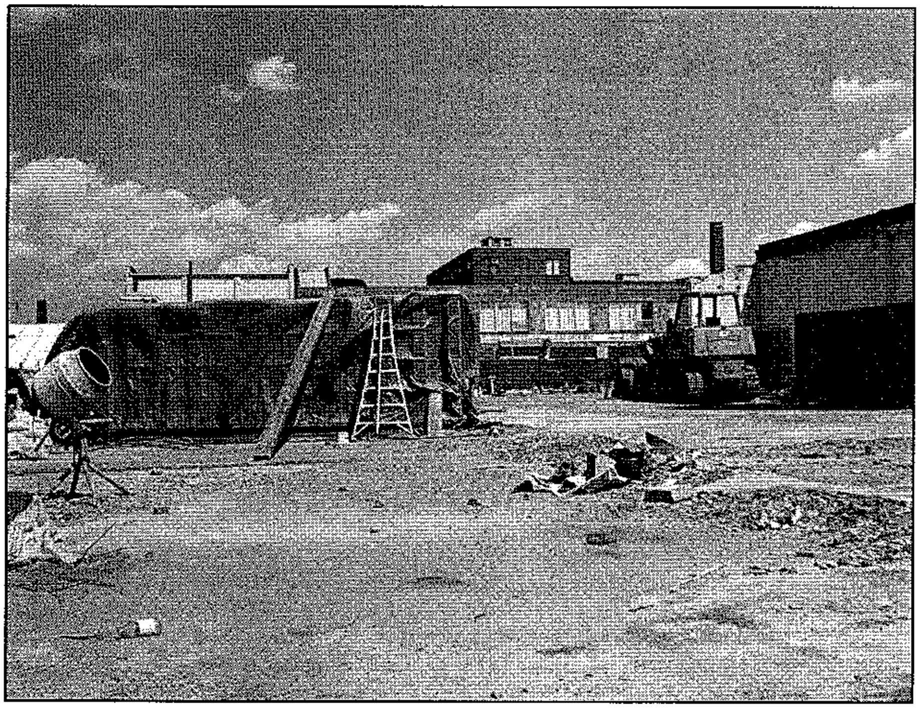
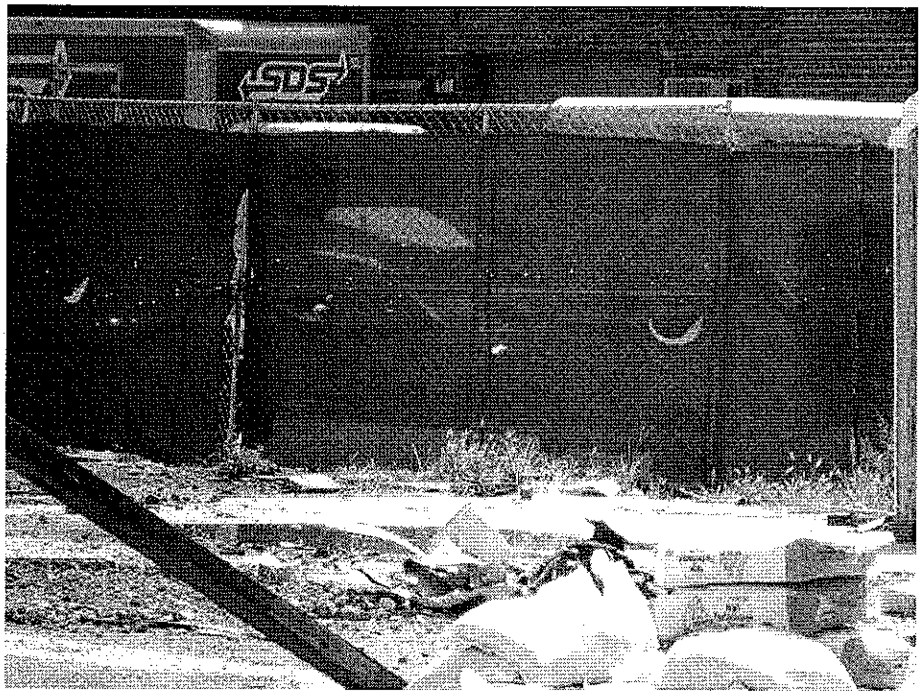


Photo 6.



Appendix D: Ground-water Sampling Results

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EWMA Project # 205490

Table 5: Ground-Water Sampling Results for the Sand Aquifer/Intermediate-Deep Wells
Volatile Organic Compounds and Cyanide

Sample ID	NYS	TW-1		FD-5 (TW-1)		TW-10		TW-14		FD-4 (TW-14)		TW-RCRA-3		MW-3I		MW-3D		MW-04-I		MW-05-I		MW-6I		MW-07I	
Lab Sample ID	TOGS	Z1679-02		Z1679-03		Z1679-17		Z1679-15		Z1679-16		Z1679-01		Z1753-02		Z1753-03		Z1850-05		Z1850-01		Z1850-19		Z1860-10	
Sampling Date	1.1.1	2/26/08		2/26/08		2/25/08		2/25/08		2/25/08		2/25/08		2/29/08		2/29/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	10		10		1		1		1		1		5		1		20		10		20		20	
VO+10	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
Dichlorodifluoromethane	5	8.8	U	8.8	U	0.88	U	0.88	U	0.88	U	0.88	U	4.4	U	0.88	U	18	U	8.8	U	18	U	18	U
Chloromethane	5	3.7	U	3.7	U	0.37	U	0.37	U	0.37	U	0.37	U	1.8	U	0.37	U	7.4	U	3.7	U	7.4	U	7.4	U
Vinyl Chloride	2	3	U	3	U	12		0.3	U	0.3	U	0.3	U	1.5	U	0.3	U	6	U	3	U	6	U	6	U
Bromomethane	5	14	U	14	U	1.4	U	1.4	U	1.4	U	1.4	U	6.8	U	1.4	U	27	U	14	U	27	U	27	U
Chloroethane	5	8	U	8	U	0.8	U	0.8	U	0.8	U	0.8	U	4	U	0.8	U	16	U	8	U	16	U	16	U
Trichlorofluoromethane	5	5.3	U	5.3	U	0.53	U	0.53	U	0.53	U	0.53	U	2.6	U	0.53	U	11	U	5.3	U	11	U	11	U
1,1,2-Trichlorotrifluoroethane	5	6.1	U	6.1	U	0.61	U	0.61	U	0.61	U	0.61	U	3	U	0.61	U	12	U	6.1	U	12	U	12	U
1,1-Dichloroethene	5	6.7	U	6.7	U	0.67	U	0.67	U	0.67	U	0.67	U	3.4	U	0.67	U	13	U	6.7	U	13	U	13	U
Acetone	50	22	U	22	U	36		35		35		2.2	U	11	U	40		43	U	22	U	43	U	43	U
Carbon Disulfide	NA	2	U	2	U	0.2	U	0.2	U	0.2	U	0.2	U	1	U	0.2	U	4	U	2	U	4	UJ	4	U
Methyl tert-butyl Ether	NA	25	J	110		5.6		46		50		26		1.2	U	13		4.6	U	2.3	U	4.6	U	4.6	U
Methyl Acetate	NA	4.5	U	4.5	U	0.45	U	0.45	U	0.45	U	0.45	U	2.2	U	0.45	U	9	U	4.5	U	9	U	9	U
Methylene Chloride	5	3.8	U	3.8	U	0.38	U	0.38	U	0.38	U	0.38	U	1.9	U	0.38	U	7.6	U	3.8	U	7.6	U	7.6	U
trans-1,2-Dichloroethene	5	4.4	U	4.4	U	0.44	U	0.44	U	0.44	U	0.44	U	2.2	U	0.44	U	8.8	U	4.4	U	8.8	U	8.8	U
1,1-Dichloroethane	5	6.7	U	6.7	U	4	J	0.67	U	0.67	U	0.67	U	3.4	U	0.67	U	13	U	6.7	U	13	U	13	U
Cyclohexane	NA	5.7	U	69		0.57	U	0.57	U	0.57	U	5.2		2.8	U	2.6	J	11	U	5.7	U	11	U	11	U
2-Butanone	50	19	U	19	U	1.9	U	1.9	U	1.9	U	1.9	U	9.7	U	1.9	U	39	U	19	U	39	U	39	U
Carbon Tetrachloride	5	2.7	U	2.7	U	0.27	U	0.27	U	0.27	U	0.27	U	1.4	U	0.27	U	5.4	U	2.7	U	5.4	U	5.4	U
cis-1,2-Dichloroethene	5	7.2	U	7.2	U	0.72	U	1.6	J	1.6	J	0.72	U	3.6	U	0.72	U	14	U	7.2	U	14	U	14	U
Chloroform	7	4.5	U	4.5	U	0.45	U	0.45	U	0.45	U	0.45	U	2.2	U	0.45	U	9	UJ	4.5	[redacted]	9	UJ	9	UJ
1,1,1-Trichloroethane	5	3.9	U	3.9	U	0.39	U	0.39	U	0.39	U	0.39	U	2	U	0.39	U	7.8	U	3.9	U	7.8	U	7.8	U
Methylcyclohexane	NA	17	J	130		0.47	U	0.47	U	0.47	U	1.7	J	2.4	U	6.5		9.4	U	20	J	9.4	U	9.4	U
Benzene	1	37	J	170		0.35	U	0.35	U	0.35	U	0.35	U	1.8	U	0.35	U	7	U	20	J	7	U	7	U
1,2-Dichloroethane	0.6	4.1	U	4.1	U	0.41	U	0.41	U	0.41	U	0.41	U	2	U	0.41	U	8.2	U	4.1	U	8.2	U	8.2	U
Trichloroethene	5	3.4	U	3.4	U	0.34	U	0.34	U	0.34	U	0.34	U	1.7	U	0.34	U	6.8	U	3.4	U	6.8	U	6.8	U
1,2-Dichloropropane	1	4.6	U	4.6	U	0.46	U	0.46	U	0.46	U	0.46	U	2.3	U	0.46	U	9.2	U	4.6	U	9.2	U	9.2	U
Bromodichloromethane	50	2.3	U	2.3	U	0.23	U	0.23	U	0.23	U	0.23	U	1.2	U	0.23	U	4.6	U	2.3	U	4.6	U	4.6	U
4-Methyl-2-Pentanone	NA	18	U	18	U	1.8	U	1.8	U	1.8	U	1.8	U	8.8	U	1.8	U	35	U	18	U	35	U	35	U
Toluene	5	1.6	U	27	J	0.16	U	0.16	U	0.16	U	0.16	U	0.8	U	0.16	U	3.2	U	140	J	3.2	U	3.2	U
t-1,3-Dichloropropene	0.4	3.1	U	3.1	U	0.31	U	0.31	U	0.31	U	0.31	U	1.6	U	0.31	U	6.2	U	3.1	U	6.2	U	6.2	U
cis-1,3-Dichloropropene	0.4	2.9	U	2.9	U	0.29	U	0.29	U	0.29	U	0.29	U	1.4	U	0.29	U	5.8	U	2.9	U	5.8	U	5.8	U
1,1,2-Trichloroethane	1	3.2	U	3.2	U	0.32	U	0.32	U	0.32	U	0.32	U	1.6	U	0.32	U	6.4	U	3.2	U	6.4	U	6.4	U
2-Hexanone	50	18	U	18	U	1.8	U	1.8	U	1.8	U	1.8	U	8.8	U	1.8	U	35	U	18	U	35	U	35	U
1,2-Dibromoethane	0.0006	2.6	U	2.6	U	0.26	U	0.26	U	0.26	U	0.26	U	1.3	U	0.26	U	5.2	U	2.6	U	5.2	U	5.2	U
Tetrachloroethene	5	9.7	U	9.7	U	0.97	U	0.97	U	0.97	U	0.97	U	4.8	U	0.97	U	19	UJ	9.7	UJ	19	U	19	UJ
Chlorobenzene	5	2.8	U	2.8	U	0.28	U	0.28	U	0.28	U	0.28	U	1.4	U	0.28	U	5.6	U	2.8	U	5.6	U	5.6	U
Ethyl Benzene	5	67		530		0.05	U	0.05	U	0.05	U	0.05	U	0.25	U	0.05	U	30	J	32	J	1	U	1	U
m/p-Xylenes	NA	49	J	400		0.47	U	0.47	U	0.47	U	0.47	U	2.4	U	2.1	J	52	J	150	J	9.4	U	28	J
o-Xylene	NA	24	J	210		0.16	U	0.16	U	0.16	U	0.16	U	0.8	U	0.16	U	3.2	U	50	J	3.2	U	3.2	U
Styrene	5	1.9	U	1.9	U	0.19	U	0.19	U	0.19	U	0.19	U	0.95	U	0.19	U	3.8	U	1.9	U	3.8	U	3.8	U
Bromoform	50	4.4	U	4.4	U	0.44	U	0.44	U	0.44	U	0.44	U	2.2	U	0.44	U	8.8	U	4.4	U	8.8	U	8.8	U
Isopropylbenzene	5	3.7	U	290		2	J	1.5	J	1.1	J	0.37	U	12	J	0.37	U	32	J	32	J	7.4	U	7.4	U
1,1,2,2-Tetrachloroethane	5	3.7	U	3.7	U	0.37	U	0.37	U	0.37	U	0.37	U	1.8	U	0.37	U	7.4	U	3.7	U	7.4	U	7.4	U
1,3-Dichlorobenzene	3	2.8	U	2.8	U	0.28	U	0.28	U	0.28	U	0.28	U	1.4	U	0.28	U	5.6	U	2.8	U	5.6	U	5.6	U
1,4-Dichlorobenzene	3	2.2	U	2.2	U	0.22	U	0.22	U	0.22	U	0.22	U	1.1	U	0.22	U	4.4	U	2.2	U	4.4	U	4.4	U
1,2-Dichlorobenzene	3	4	U	4	U	0.4	U	0.4	U	0.4	U	0.4	U	2	U	0.4	U	8	U	4	U	8	U	8	U
1,2-Dibromo-3-Chloropropane	0.04	5.8	U	5.8	U	0.58	U	0.58	U	0.58	U	0.58	U	2.9	U	0.58	U	12	U	5.8	U	12	U	12	U
1,2,4-Trichlorobenzene	5	3.9	U	3.9	U	0.39	U	0.39	U	0.39	U	0.39	U	2	U	0.39	U	7.8	U	3.9	U	7.8	U	7.8	U
CYANIDE																									
Cyanide	200	10	U	17		11		10	U	10	U	10	U	10	U	10	U	10	U	10	U	12	U	10	U

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EWMA Project # 205490

Table 5: Ground-Water Sampling Results for the Sand Aquifer/Intermediate-Deep Wells
Semi-Volatile Organic Compounds (Filtered and Unfiltered)

Sample ID	NYS	TW-1	FD-5 (TW-1)	TW-10	TW-14	FD-4 (TW-14)	TW-RCRA-3	MW-3I	MW-3D	MW-04-I	MW-05-I	MW5-IDL	Spike2 (MW06I)	DUP 2	MW-6I	MW-07I
Lab Sample Number	TOGS	Z1679-02	Z1679-03	Z1679-17	Z1679-15	Z1679-16	Z1679-01	Z1753-09	Z1753-10	Z1850-05	Z1851-07	Z1851-05	Z1850-03	Z1850-04	Z1850-19	Z1850-10
Sampling Date	1.1.1.	2/26/08	2/26/08	2/25/08	2/25/08	2/25/08	2/28/08	2/28/08	2/29/08	3/3/08	3/3/08	3/3/08	3/3/08	3/3/08	3/4/08	3/4/08
Matrix	Ambient	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	GW	1	1	1	1	1	1	1	1	1	1	5	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
SEMIVOLATILES																
Benzaldehyde	NA	2.6 U	2.7 U	0.31 U	0.29 U	0.26 U	0.28 U	0.29 U	0.3 U	0.3 U	0.31 U	1.5 UD	0.29 U	0.26 U	0.3 U	0.29 U
Phenol	1	5.4 U	5.4 U	0.63 U	0.6 U	0.57 U	0.57 U	0.59 U	0.61 U	0.61 U	0.62 U	3.1 UD	0.6 U	0.57 U	0.61 U	0.6 U
bis(2-Chloroethyl)ether	1	2.7 U	2.8 U	0.32 U	0.3 U	0.29 U	0.29 U	0.3 U	0.31 U	0.31 U	0.32 U	1.6 UD	0.3 U	0.29 U	0.31 U	0.3 U
2-Chlorophenol	NA	3.2 U	3.3 U	0.38 U	0.36 U	0.34 U	0.34 U	0.35 U	0.37 U	0.37 U	0.38 U	1.9 UD	0.36 U	0.34 U	0.37 U	0.33 U
2-Methylphenol	NA	3.6 U	3.6 U	0.41 U	0.39 U	0.38 U	0.36 U	0.39 U	0.4 U	0.4 U	1.2 J	2 UD	0.39 U	0.37 U	0.4 U	0.39 U
2,2-oxybis(1-Chloropropane)	NA	2.6 U	2.7 U	0.31 U	0.29 U	0.26 U	0.26 U	0.29 U	0.3 U	0.3 U	0.31 U	1.5 UD	0.29 U	0.28 U	0.3 U	0.29 U
Acetophenone	NA	3.6 U	3.7 U	0.43 U	0.4 U	0.39 U	0.39 U	0.4 U	0.41 U	0.41 U	0.42 U	2.1 UD	0.4 U	0.38 U	0.41 U	0.4 U
3+4-Methylphenols	NA	3.8 U	3.9 U	0.45 U	0.42 U	0.41 U	0.41 U	0.42 U	0.43 U	0.43 U	0.44 U	2.2 UD	0.42 U	0.4 U	0.43 U	0.42 U
N-Nitroso-di-n-propylamine	NA	3.3 U	3.4 U	0.39 U	0.37 U	0.35 U	0.35 U	0.37 U	0.38 U	0.38 U	0.39 U	1.9 UD	0.37 U	0.35 U	0.38 U	0.37 U
Hexachloroethane	5	2.3 U	2.3 U	0.26 U	0.25 U	0.24 U	0.24 U	0.25 U	0.26 U	0.26 U	0.26 U	1.3 UD	0.25 U	0.24 U	0.26 U	0.25 U
Nitrobenzene	0.4	3.2 U	3.3 U	0.38 U	0.36 U	0.34 U	0.34 U	0.35 U	0.37 U	0.37 U	0.38 U	1.9 UD	0.36 U	0.34 U	0.37 U	0.36 U
Isophorone	50	2.5 U	2.6 U	0.3 U	0.28 U	0.27 U	0.27 U	0.28 U	0.29 U	0.29 U	0.3 U	1.5 UD	0.28 U	0.27 U	0.29 U	0.28 U
2-Nitrophenol	NA	2.7 U	2.8 U	0.32 U	0.3 U	0.29 U	0.29 U	0.3 U	0.31 U	0.31 U	0.32 U	1.6 UD	0.3 U	0.29 U	0.31 U	0.3 U
2,4-Dimethylphenol	1	7.5 U	7.5 U	0.87 U	0.83 U	0.79 U	0.79 U	0.82 U	0.84 U	0.84 U	20	17 UD	5 J	13 JD	0.84 U	0.83 U
bis(2-Chloroethoxy)methane	5	3.2 U	3.3 U	0.36 U	0.36 U	0.34 U	0.34 U	0.35 U	0.37 U	0.37 U	0.38 U	1.9 UD	0.36 U	0.34 U	0.37 U	0.36 U
2,4-Dichlorophenol	1	3.3 U	3.4 U	0.39 U	0.37 U	0.35 U	0.35 U	0.37 U	0.38 U	0.38 U	0.39 U	1.9 UD	0.37 U	0.35 U	0.38 U	0.37 U
Naphthalene	10	1500 E	1400 D	2.8 J	2.9 J	2 J	0.29 U	0.3 U	5.4 J	0.31 U	1.9 J	1.6 UD	0.3 U	1.3 J	0.31 U	0.3 U
4-Chloroaniline	5	9 U	9.1 U	1.1 U	1 U	0.96 U	0.96 U	0.99 U	1 U	1 U	1 U	5.2 UD	1 U	0.95 U	1 U	1 U
Hexachlorobutadiene	NA	3.6 U	3.9 U	0.45 U	0.42 U	0.41 U	0.41 U	0.42 U	0.43 U	0.43 U	0.44 U	2.2 UD	0.42 U	0.4 U	0.43 U	0.42 U
Caprolactam	NA	15 U	15 U	1.7 U	1.8 U	1.5 U	1.5 U	1.6 U	1.6 U	1.6 U	1.7 U	5.4 UD	1.8 U	1.5 U	1.8 U	1.8 U
4-Chloro-3-methylphenol	NA	2.2 U	2.2 U	0.26 U	0.24 U	0.23 U	0.23 U	0.24 U	0.24 U	0.24 U	0.25 U	1.2 UD	0.24 U	0.23 U	0.24 U	0.24 U
2-Methylnaphthalene	NA	7600 E	6500 D	1.4 J	2.1 J	2.3 J	0.39 U	0.4 U	3.5 J	0.41 U	4.4 J	2.1 UD	1.2 J	11	0.41 U	0.4 U
Hexachlorocyclopentadiene	5	5.5 U	5.5 U	0.64 U	0.61 U	0.56 U	0.58 U	0.6 U	0.62 U	0.62 U	0.64 U	3.2 UD	0.61 U	0.58 U	0.62 U	0.61 U
2,4,6-Trichlorophenol	NA	3.4 U	3.5 U	0.4 U	0.38 U	0.36 U	0.36 U	0.38 U	0.39 U	0.39 U	0.4 U	2 UD	0.38 U	0.36 U	0.39 U	0.38 U
2,4,5-Trichlorophenol	NA	3.7 U	3.8 U	0.44 U	0.41 U	0.4 U	0.4 U	0.41 U	0.42 U	0.42 U	0.43 U	2.2 UD	0.41 U	0.39 U	0.42 U	0.41 U
1,1'-Biphenyl	5	3.1 U	3.2 U	0.37 U	0.35 U	0.33 U	0.33 U	0.34 U	0.36 U	0.36 U	18	11 UD	2.1 J	12	0.38 U	0.35 U
2-Chloronaphthalene	10	2.3 U	2.3 U	0.26 U	0.25 U	0.24 U	0.24 U	0.25 U	0.26 U	0.26 U	0.26 U	1.3 UD	0.25 U	0.24 U	0.26 U	0.25 U
2-Nitroaniline	5	2.5 U	2.5 U	0.29 U	0.27 U	0.26 U	0.26 U	0.27 U	0.28 U	0.28 U	0.28 U	1.4 UD	0.27 U	0.26 U	0.28 U	0.27 U
Dimethylphthalate	50	2.6 U	2.7 U	0.31 U	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.3 U	0.31 U	1.5 UD	0.29 U	0.28 U	0.3 U	0.29 U
Acenaphthylene	NA	3.4 U	3.5 U	0.4 U	0.38 U	0.36 U	0.36 U	0.38 U	1.2 J	0.39 U	4.6 J	2 UD	3 J	3 J	0.39 U	0.38 U
2,6-Dinitrotoluene	5	3.4 U	3.6 U	0.4 U	0.38 U	0.36 U	0.35 U	0.35 U	0.39 U	0.39 U	0.4 U	2 UD	0.38 U	0.36 U	0.39 U	0.38 U
3-Nitroaniline	5	3.4 U	3.5 U	0.4 U	0.38 U	0.36 U	0.36 U	0.38 U	0.39 U	0.39 U	0.4 U	2 UD	0.38 U	0.36 U	0.39 U	0.38 U
2,4-Dinitrophenol	1	6.3 U	6.3 U	0.74 U	0.7 U	0.67 U	0.67 U	0.69 U	0.71 U	0.71 U	0.73 U	3.8 UD	0.7 U	0.66 U	0.71 U	0.7 U
4-Nitrophenol	NA	17 U	17 U	2 U	1.9 U	1.8 U	1.8 U	1.9 U	1.9 U	1.9 U	2 U	9.8 UD	1.9 U	1.8 U	1.9 U	1.9 U
Dibenzofuran	NA	3 U	220	2.5 J	0.34 U	2.3 J	0.32 U	1.4 J	0.34 U	0.34 U	50	49 JD	36	59	0.34 U	0.34 U
2,4-Dinitrotoluene	5	3.3 U	3.4 U	0.39 U	0.37 U	0.35 U	0.35 U	0.37 U	0.38 U	0.38 U	0.39 U	1.9 UD	0.37 U	0.35 U	0.38 U	0.37 U
Diethylphthalate	50	3.1 U	3.2 U	0.37 U	0.35 U	0.33 U	0.33 U	0.34 U	0.35 U	0.36 U	0.36 U	1.8 UD	0.35 U	0.33 U	0.36 U	0.35 U
4-Chlorophenyl-phenylether	NA	2.8 U	2.9 U	0.33 U	0.32 U	0.3 U	0.3 U	0.31 U	0.32 U	0.32 U	0.33 U	1.6 UD	0.32 U	0.3 U	0.32 U	0.32 U
Fluorene	50	850 JD	520 JD	4 J	1.8 J	2.7 J	0.29 U	0.3 U	1.6 J	0.31 U	83	81 D	45	74	0.31 U	0.3 U
4-Nitroaniline	5	3.5 U	3.6 U	0.41 U	0.39 U	0.38 U	0.38 U	0.39 U	0.4 U	0.4 U	0.41 U	2 UD	0.39 U	0.37 U	0.4 U	0.39 U
4,6-Dinitro-2-methylphenol	NA	2.8 U	2.9 U	0.33 U	0.32 U	0.3 U	0.3 U	0.31 U	0.32 U	0.32 U	0.33 U	1.6 UD	0.32 U	0.3 U	0.32 U	0.32 U
N-Nitrosodiphenylamine	50	3.4 U	3.5 U	0.4 U	0.38 U	0.36 U	0.36 U	0.38 U	0.39 U	0.39 U	1.8 J	2 UD	0.38 U	0.36 U	0.39 U	0.38 U
4-Bromophenyl-phenylether	NA	14 U	14 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.6 U	1.6 U	1.5 U	8 UD	1.5 U	1.4 U	1.6 U	1.5 U
Hexachlorobenzene	0.04	2.6 U	2.7 U	0.31 U	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.3 U	0.31 U	1.5 UD	0.29 U	0.28 U	0.3 U	0.29 U
Atrazine	7.5	3.6 U	3.7 U	0.43 U	0.4 U	0.39 U	0.39 U	0.4 U	0.41 U	0.41 U	0.42 U	2.1 UD	0.4 U	0.38 U	0.41 U	0.4 U
Pentachlorophenol	1	5.1 U	5.1 U	0.6 U	0.57 U	0.54 U	0.54 U	0.56 U	0.58 U	0.59 U	10 J	3 UD	0.67 U	0.64 U	0.58 U	0.57 U
Phenanthrene	50	2100 D	1900 D	11 J	2.1 J	2.2 J	1.6 J	1.5 U	1.5 U	1.5 U	14	12 UD	1.8 J	20	1.5 U	1.5 U
Anthracene	50	280 JD	210	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.6 U	1.6 U	11 J	9.4 JD	7.2 J	12	1.6 U	1.5 U
Carbazole	NA	2.4 U	2.4 U	0.26 U	0.26 U	0.26 U	0.25 U	0.26 U	0.27 U	0.27 U	56	53 JD	40	62	0.27 U	0.26 U
Di-n-butylphthalate	50	67 U	58 U	6.7 U	6.4 U	6.1 U	6.1 U	6.3 U	6.5 U	6.5 U	6.7 U	33 UD	6.4 U	6 U	6.5 U	6.4 U
Fluoranthene	50	86 U	100	1.4 J	0.22 U	0.21 U	0.21 U	0.22 U	0.22 U	0.22 U	14	12 JD	14	18	0.22 U	0.22 U
Pyrene	50	210 JD	150	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.6 U	1.6 U	7.1 J	5 UD	8.3 J	10	1.6 U	1.5 U
Butylbenzylphthalate	50	4.1 U	4.2 U	0.48 U	0.46 U	0.44 U	0.44 U	0.45 U	0.47 U	0.47 U	0.48 U	2.4 UD	0.48 U	0.43 U	0.47 U	0.46 U
3,3-Dichlorobenzidine	5	11 U	11 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	6.1 UD	1.2 U	1.1 U	1.2 U	1.2 U
Benzo(a)anthracene	0.002	18 J	16 J	1.5 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	7.4 UD	1.4 U	1.3 U	1.4 U	1.4 U
Chrysene	0.002	35 J	32 J	0.3 U	0.28 U	0.27 U	0.27 U	0.28 U	0.29 U	0.29 U	0.3 U	1.5 UD	0.28 U	0.27 U	0.29 U	0.28 U
bis(2-Ethylhexyl)phthalate	5	13 U	13 U	3.1 JB	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.5 U	7.4 UD	1.4 U	1.3 U	1.4 U	1.4 U
Di-n-octyl phthalate	50	2.5 U	2.6 U	0.3 U	0.28 U	0.27 U	0.27 U	0.28 U	0.29 U	0.29 U	0.3 U	1.5 UD	0.28 U	0.27 U	0.29 U	0.28 U
Benzo(b)fluoranthene	0.002	4.2 U	4.3 U	0.49 U	0.47 U	0.45 U	0.45 U	0.46 U	0.48 U	0.48 U	0.49 U	2.4 UD	0.47 U	0.44 U	0.48 U	0.47 U
Benzo(k)fluoranthene	0.002	2.9 U	3 U	0.34 U	0.33 U	0.31 U	0.31 U	0.32 U	0.33 U	0.33 U	0.34 U	1.7 UD	0.33 U	0.31 U	0.33 U	0.33 U
Benzo(a)pyrene	NA	2.2 U	2.2 U	0.25 U	0.24 U	0.23 U	0.23 U	0.24 U	0.24 U	0.24 U	0.25 U	1.2 UD	0.24 U	0.23 U	0.24 U	0.24 U
Indeno(1,2,3-cd)pyrene	0.002	6.5 U	6.5 U	0.76 U	0.72 U	0.69 U	0.69 U	0.71 U	0.73 U	0.73 U	0.76 U	3.6 UD	0.72 U	0.68 U	0.73 U	0.72 U
Dibenz(a,h)anthracene	NA	5.3 U	5.3 U	0.62 U	0.59 U	0.56 U	0.56 U	0.58 U	0.6 U	0.6 U	0.61 U	3.1 UD	0.59 U	0.56 U	0.6 U	0.59 U
Benzo(g,h,i)perylene	NA	3.8 U	3.8 U	0.46 U	0.42 U	0.41 U	0.41 U	0.42 U	0.43 U	0.43 U	0.44 U	2.2 UD	0.42 U	0.4 U	0.43 U	0.42 U

OCA LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Table 5: Ground-Water Sampling Results for the Sand Aquifer/Intermediate-Deep Wells
Semi-Volatile Organic Compounds (Filtered and Unfiltered)

Sample ID	NYS	TW-1		FD-5 (TW-1)		TW-10	TW-14		FD-4 (TW-14)	TW-RCRA-3	MW-3I	MW-3D	MW-04I		MW-05I		MW-8IDL		Spike2 (MW05I)	DUP 2	MW-6I	MW-07I	
Lab Sample Number	TOGS	Z1679-02		Z1679-03		Z1679-17	Z1679-15		Z1679-16	Z1679-01	Z1753-09	Z1753-10	Z1850-05		Z1851-07		Z1851-05		Z1850-03	Z1850-04	Z1850-[illegible]	Z1850-10	
Sampling Date	1.1.1.	2/26/08		2/26/08		2/25/08	2/25/08		2/26/08	2/26/08	2/29/08	2/29/08	3/3/08		3/3/08		3/3/08		3/3/08	3/3/08	3/4/08	3/4/08	
Matrix	Ambient	WATER		WATER		WATER	WATER		WATER	WATER	WATER	WATER	WATER		WATER		WATER		WATER	WATER	WATER	WATER	
Dilution Factor	GW	1		1		1	1		1	1	1	1	1		1		5		1	1	1	1	
Units	ug/L	ug/l		ug/l		ug/l	ug/l		ug/l	ug/l	ug/l	ug/l	ug/l		ug/l		ug/l		ug/l	ug/l	ug/l	ug/l	
LAB FILTERED SEMIVOLATILES																							
Lab SampleID Number		Z1680-02		Z1680-03		-	Z1680-05		-	-	-	-	Z1851-05		Z1851-01		Z1851-01DL		-	-	-	Z1851-08	
Benzaldehyde	NA	2.6	U	2.7	U	-	0.29	U	-	-	-	-	0.28	U	0.3	U	1.5	UD	-	-	-	0.3	U
Phenol	1	5.4	U	5.4	U	-	0.59	U	-	-	-	-	0.56	U	0.62	U	3.1	UD	-	-	-	0.6	U
bis(2-Chloroethyl)ether	1	2.7	U	2.8	U	-	0.3	U	-	-	-	-	0.29	U	0.31	U	1.6	UD	-	-	-	0.31	U
2-Chlorophenol	NA	3.2	U	3.3	U	-	0.35	U	-	-	-	-	0.35	U	0.37	U	1.9	UD	-	-	-	0.36	U
2-Methylphenol	NA	3.5	U	3.6	U	-	0.39	U	-	-	-	-	0.38	U	0.4	U	2	UD	-	-	-	0.4	U
2,2-oxybis(1-Chloropropane)	NA	2.6	U	2.7	U	-	0.29	U	-	-	-	-	0.28	U	0.3	U	1.5	UD	-	-	-	0.3	U
Acetophenone	NA	3.6	U	3.7	U	-	0.4	U	-	-	-	-	0.39	U	0.42	U	2.1	UD	-	-	-	0.41	U
3+4-Methylphenols	NA	3.8	U	3.9	U	-	0.42	U	-	-	-	-	0.41	U	0.44	U	2.2	UD	-	-	-	0.43	U
N-Nitroso-di-n-propylamine	NA	3.3	U	3.4	U	-	0.37	U	-	-	-	-	0.36	U	0.38	U	1.9	UD	-	-	-	0.37	U
Hexachloroethane	5	2.3	U	2.3	U	-	0.25	U	-	-	-	-	0.24	U	0.26	U	1.3	UD	-	-	-	0.25	U
Nitrobenzene	0.4	3.2	U	3.3	U	-	0.36	U	-	-	-	-	0.35	U	0.37	U	1.9	UD	-	-	-	0.36	U
Isophorone	50	2.5	U	2.6	U	-	0.26	U	-	-	-	-	0.27	U	0.29	U	1.5	UD	-	-	-	0.29	U
2-Nitrophenol	NA	2.7	U	2.8	U	-	0.3	U	-	-	-	-	0.29	U	0.31	U	1.6	UD	-	-	-	0.31	U
2,4-Dimethylphenol	1	7.5	U	7.6	U	-	0.82	U	-	-	-	-	0.8	U	22		[illegible]	UD	-	-	-	0.84	U
bis(2-Chloroethoxy)methane	5	3.2	U	3.3	U	-	0.35	U	-	-	-	-	0.35	U	0.37	U	1.9	UD	-	-	-	0.36	U
2,4-Dichlorophenol	1	3.3	U	3.4	U	-	0.37	U	-	-	-	-	0.33	U	0.36	U	1.9	UD	-	-	-	0.37	U
Naphthalene	NA	1200	E	1200	E	-	2.3	J	-	-	-	-	0.29	U	0.31	U	1.6	UD	-	-	-	0.31	U
4-Chloroaniline	5	9	U	9.1	U	-	0.99	U	-	-	-	-	0.87	U	1	U	5.2	UD	-	-	-	1	U
Hexachlorobutadiene	NA	3.8	U	3.9	U	-	0.42	U	-	-	-	-	0.41	U	0.44	U	2.2	UD	-	-	-	0.43	U
Caprolactam	NA	15	U	15	U	-	1.6	U	-	-	-	-	1.6	U	1.7	U	8.3	UD	-	-	-	1.5	U
4-Chloro-3-methylphenol	NA	2.2	U	2.2	U	-	0.24	U	-	-	-	-	0.23	U	0.25	U	1.2	UD	-	-	-	0.24	U
2-Methylnaphthalene	NA	7800	E	6400	E	-	7.1	J	-	-	-	-	0.39	U	3.8	J	2.1	UD	-	-	-	0.41	U
Hexachlorocyclopentadiene	5	5.5	U	5.5	U	-	0.6	U	-	-	-	-	0.59	U	0.63	U	3.1	UD	-	-	-	0.62	U
2,4,6-Trichlorophenol	NA	3.4	U	3.5	U	-	0.38	U	-	-	-	-	0.37	U	0.39	U	2	UD	-	-	-	0.36	U
2,4,5-Trichlorophenol	NA	3.7	U	3.8	U	-	0.41	U	-	-	-	-	0.4	U	0.43	U	2.1	UD	-	-	-	0.42	U
1,1-Biphenyl	5	100	D	100	D	-	0.34	U	-	-	-	-	0.34	U	2.7	J	1.8	JD	-	-	-	0.35	U
2-Chloronaphthalene	10	2.3	U	2.3	U	-	0.25	U	-	-	-	-	0.24	U	0.26	U	1.3	UD	-	-	-	0.25	U
2-Nitroaniline	5	2.5	U	2.5	U	-	0.27	U	-	-	-	-	0.26	U	0.28	U	1.4	UD	-	-	-	0.27	U
Dimethylphthalate	50	2.6	U	2.7	U	-	0.29	U	-	-	-	-	0.28	U	0.3	U	1.5	UD	-	-	-	0.3	U
Acenaphthylene	NA	3.4	U	87	J	-	0.33	U	-	-	-	-	0.37	U	3.4	J	2	UD	-	-	-	0.38	U
2,6-Dinitrotoluene	5	3.4	U	3.6	U	-	0.33	U	-	-	-	-	0.37	U	0.39	U	2	UD	-	-	-	0.38	U
3-Nitroaniline	5	3.4	U	3.5	U	-	0.38	U	-	-	-	-	0.37	U	0.39	U	2	UD	-	-	-	0.38	U
Acenaphthene	20	120	D	110	D	-	7.1	J	-	-	-	-	5.7	J	160	D	140	D	-	-	-	0.35	U
2,4-Dinitrophenol	1	6.3	U	6.3	U	-	0.69	U	-	-	-	-	0.67	U	0.72	U	3.6	UD	-	-	-	0.7	U
4-Nitrophenol	NA	17	U	17	U	-	1.9	U	-	-	-	-	1.8	U	1.9	U	9.7	UD	-	-	-	1.9	U
Dibenzofuran	NA	180		180		-	1.6	J	-	-	-	-	0.33	U	44		42	JD	-	-	-	1.1	J
2,4-Dinitrotoluene	5	3.3	U	3.4	U	-	0.37	U	-	-	-	-	0.36	U	0.38	U	1.9	UD	-	-	-	0.37	U
Diethylphthalate	50	3.1	U	3.2	U	-	0.34	U	-	-	-	-	0.34	U	0.36	U	1.8	UD	-	-	-	0.35	U
4-Chlorophenyl-phenylether	NA	2.8	U	2.9	U	-	0.31	U	-	-	-	-	0.31	U	0.33	U	1.8	UD	-	-	-	0.32	U
Fluorene	50	300	D	230	D	-	2.6	J	-	-	-	-	2	J	55		64	D	-	-	-	0.31	U
4-Nitroaniline	5	3.6	U	3.6	U	-	0.39	U	-	-	-	-	0.38	U	0.4	U	2	UD	-	-	-	0.4	U
4,6-Dinitro-2-methylphenol	NA	2.8	U	2.9	U	-	0.31	U	-	-	-	-	0.31	U	0.33	U	1.6	UD	-	-	-	0.32	U
N-Nitrosodiphenylamine	50	3.4	U	3.5	U	-	0.30	U	-	-	-	-	0.37	U	0.39	U	2	UD	-	-	-	0.38	U
4-Bromophenyl-phenylether	NA	14	U	14	U	-	1.5	U	-	-	-	-	1.5	U	1.6	U	7.9	UD	-	-	-	1.6	U
Hexachlorobenzene	0.04	2.6	U	2.7	U	-	0.29	U	-	-	-	-	0.28	U	0.3	U	1.5	UD	-	-	-	0.3	U
Atrazine	7.5	3.8	U	3.7	U	-	0.4	U	-	-	-	-	0.39	U	0.42	U	2.1	UD	-	-	-	0.41	U
Pentachlorophenol	1	5.1	U	5.1	U	-	0.56	U	-	-	-	-	0.55	U	0.68	U	2.9	UD	-	-	-	0.57	U
Phenanthrene	50	1700	D	1800	D	-	2.8	J	-	-	-	-	1.6	J	3.6	J	7.6	JD	-	-	-	1.5	U
Anthracene	50	190		210		-	1.5	U	-	-	-	-	1.5	U	9.2	J	8.3	JD	-	-	-	1.6	U
Carbazole	NA	90	J	94	J	-	0.26	U	-	-	-	-	0.25	U	50		45	JD	-	-	-	0.26	U
Di-n-butylphthalate	50	57	U	58	U	-	6.3	U	-	-	-	-	6.2	U	6.6	U	33	UD	-	-	-	11	J
Fluoranthene	50	92		94	D	-	0.22	U	-	-	-	-	0.21	U	15		14	JD	-	-	-	0.22	U
Pyrene	50	300		310		-	1.5	U	-	-	-	-	1.5	U	7.9	J	7.9	UD	-	-	-	1.5	U
Butylbenzylphthalate	50	4.1	U	4.2	U	-	0.45	U	-	-	-	-	0.44	U	0.47	U	2.4	UD	-	-	-	0.46	U
3,3-Dichlorobenzidine	5	11	U	11	U	-	1.2	U	-	-	-	-	1.1	U	1.2	U	6.1	UD	-	-	-	1.2	U
Benzo(a)anthracene	0.002	16	J	22	J	-	1.4	U	-	-	-	-	1.4	U	1.5	U	7.3	UD	-	-	-	1.4	U
Chrysene	0.002	32	J	34	J	-	0.28	U	-	-	-	-	0.27	U	0.29	U	1.5	UD	-	-	-	0.28	U
bis(2-Ethylhexyl)phthalate	5	13	U	13	U	-	1.4	U	1.5	-	-	-	1.4	U	1.5	U	7.3	UD	-	-	-	1.4	U
Di-n-octyl phthalate	50	2.5	U	2.6	U	-	0.28	U	0.29	-	-	-	0.27	U	0.29	U	1.5	UD	-	-	-	0.29	U
Benzo(b)fluoranthene	0.002	4.2	U	4.3	U	-	0.46	U	0.25	-	-	-	0.45	U	0.48	U	2.4	UD	-	-	-	0.47	U
Benzo(k)fluoranthene	0.002	2.9	U	3	U	-	0.32	U	0.34	-	-	-	0.32	U	0.34	U	1.7	UD	-	-	-	0.33	U
Benzo(a)pyrene	NA	2.2	U	2.2	U	-	0.24	U	0.25	-	-	-	0.23	U	0.25	U	1.2	UD	-	-	-	0.24	U
Indeno(1,2,3-cd)pyrene	0.002	6.5	U	6.5	U	-	0.71	U	0.74	-	-	-	0.69	U	0.74	U	3.7	UD	-	-	-	0.73	U
Dibenz(a,h)anthracene	NA	5.3	U	5.3	U	-	0.68	U	0.61	-	-	-	0.57	U	0.61	U	3	UD	-	-	-	0.59	U
Benzo(g,h,i)perylene	NA	3.8	U	3.9	U	-	0.42	U	0.44	-	-	-	0.41	U	0.44	U	2.2	UD	-	-	-	0.43	U

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Table 5: Ground-Water Sampling Results for the Sand Aquifer/Intermediate and Deep Wells
Metals (Filtered and Unfiltered)

Sample ID	NYS	TW-1	TW-10	TW-14	FD-4 (TW-14)	TW-RCRA-3	MW-3I	MW-3D	MW-04-I	MW-05-I	MW-6I	MW-07I
Lab Sample ID	TOGS	Z1679-02	Z1679-17	Z1679-15	Z1679-16	Z1679-01	Z1753-02	Z1753-03	Z1850-05	Z1850-01	Z1850-19	Z1850-10
Sampling Date	1.1.1.	2/26/08	2/25/08	2/25/08	2/25/08	2/26/08	2/29/08	2/29/08	3/3/08	3/3/08	3/4/08	3/4/08
Matrix	Ambient	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor	GW	1	1	1	1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
METALS												
Aluminum	NA	5950	16500	17800	19900	32100	13500	31900	36700	839	1550	777
Antimony	3	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	4.8 U	7.2 J	8.1 U	8.1 U	8.1 U	8.1 U
Arsenic	25	2.8 U	2.9 J	15.8	9.2 J	19.4	4.1 U	15.7	34 J	2.8 UJ	2.8 UJ	2.8 UJ
Barium	1000	41.2 J	584	605	617	898	75.8 J	839	301 J	146 J	265 J	129 J
Beryllium	3	0.57 J	1.8 J	2.7 J	3.2	5.5	1 J	3.6 J	2.2 J	0.5 U	0.5 U	0.5 U
Cadmium	5	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.52 U	10.1	1.2 UJ	1.2 UJ	1.2 UJ	1.2 UJ
Calcium	NA	57300	66200	135000	131000	116000	159000	212000	84200	68900	214000	108000
Chromium	50	23.9	253	131	144	133	24.2	95.9	83.6	5.2	7.7	5.9
Cobalt	NA	9.7 J	35.4	35.2	48.8	99.6	7.8 J	51.4	31.6	3 J	2.1 J	3.1 J
Copper	200	20.9	211	151	172	240	62.1	180	79.7	6.2 J	8 J	4.5 J
Iron	300	24000	87400	192000	212000	402000	15900	109000	56900	27900	4450	2650
Lead	25	2.2 J	214	236	267	313	22.2	171	79.8	7.9 J	14.7 J	9.9 J
Magnesium	35000	6990	31000	82000	77600	29200	37300	86500	12800	19100	74100	49200
Manganese	300	989	2450	11300	12600	21600	455	2010	1150	2250	1450	497
Mercury	0.7	0.08 U	3.35	1.04	1.09	1.01	0.09 J	0.74	0.48 J	0.08 UJ	1.1 J	0.08 UJ
Nickel	100	15.6 J	124	96.8	112	197	25.8 J	91.9	58.4	8.8 J	4.2 J	3.6 U
Potassium	NA	33700	72500	45300	46100	76400	44500	74300	14800 J	23200 J	32500 J	49700 J
Selenium	10	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	2.3 J	1.5 U	8.8 J	3.6 U	3.6 U	3.6 U
Silver	50	7.9	2.2 U	2.2 U	2.2 U	2.2 U	0.61 U	4.5 J	2.2 U	2.2 U	2.2 U	2.2 U
Sodium	20000	398000	200000	426000	411000	165000	515000	845000	60400 J	170000 J	129000 J	293000 J
Thallium	0.5	8.1 U	8.1 U	8.1 U	8.1 U	22.8	5.8 J	4.9 U	8.1 U	8.1 U	8.1 U	8.1 U
Vanadium	NA	25.3	73.1	124	143	236	21.2 J	186	76 J	2.7 J	7.5 J	3.2 J
Zinc	2000	58.1	460	551	586	980	111	1130	236	94.8 J	90 J	118 J
FIELD FILTERED												
Lab SampleID		Z1680-02	Z1680-10	Z1680-08	Z1680-09	Z1680-01	Z1753-09	Z1753-10	Z1851-05	Z1851-01	Z1851-18	Z1851-09
Aluminum	NA	25 U	25 U	25 U	25 U	25 U	7.5 U	7.5 U	25 U	25 U	25 U	25 U
Antimony	3	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	4.8 U	4.8 U	10.5 J	8.1 U	9.3 J	8.1 U
Arsenic	25	2.8 U	2.8 U	2.8 U	2.5 U	3.2 J	4.1 U	4.1 U	13.1	5.1 J	6.7 J	2.8 U
Barium	1000	6.3 U	166	241	183	325	48.2 J	468	134	142	217	116
Beryllium	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.29 J	0.29 J	0.5 U	0.5 U	0.7 J	0.5 U
Cadmium	5	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.52 U	0.52 U	3.5 J	1.2 U	4.4 J	4.8 J
Calcium	NA	57700	53900	92200	65700	70000	161000	191000	34100	60500	188000	95700
Cobalt	NA	2 U	5 J	2 U	2 U	2 U	1.1 U	1.1 U	7 J	6.1 J	5.9 J	5.1 J
Copper	200	3.4 U	6.4 J	3.4 U	5.5 J	3.4 U	1.3 U	1.3 U	3.4 U	3.4 U	3.4 U	3.4 U
Iron	300	15800	6250	16600	12600	11200	30.4 U	200	42000	29200	209	984
Lead	25	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	7 J	4.8 J	16.6	3.6 J	17.2	15.1
Magnesium	35000	5480	25200	60100	43200	15300	32500	76900	23400	18900	59500	50000
Manganese	300	597	895	1150	859	524	339	226	355	2550	1210	400
Mercury	0.7	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.16 J	0.16 J	0.15 J	0.16 J
Nickel	100	3.6 U	18.4 J	3.6 U	4.2 J	5.8 J	0.54 U	0.54 U	3.6 U	8.8 J	5.8 J	3.6 U
Potassium	NA	24300	84600	33500	29300	53300	39400	84200	21700	21600	32000	54200
Selenium	10	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	1.5 U	1.5 U	3.8 U	3.6 U	3.6 U	3.6 U
Silver	50	3.9 J	7.4	2.2 U	2.2 U	2.2 U	0.65 J	0.64 J	2.2 U	2.2 U	2.2 U	2.2 U
Sodium	20000	294000	262000	358000	283000	124000	566000	743000	129000	151000	119000	295000
Thallium	0.5	8.1 U	8.1 U	8.1 U	8.1 U	8.1 U	4.9 U	4.9 U	8.1 U	8.1 U	8.1 U	8.1 U
Vanadium	NA	5.8 J	6 J	2.3 U	3.5 J	2.3 U	1.1 U	7 J	17 J	2.3 U	16.3 J	6.4 J
Zinc	2000	29.3	83.1	133	106	70.8	51.5	157	47	78.7	52.5	42

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Table 5: Ground-Water Sampling Results for the Sand Aquifier/Intermediate-Deep Wells
Pesticides and PCBs

Sample ID	NYS	TW-1		FD-5 (TW-1)		TW-10		TW-14		FD-4 (TW-14)		TW-RCRA-3		MW-3I		MW-3D		MW-04-I		MW-05-I		MW-6-I		MW-07-I	
Lab Sample Number	TOGS	Z1679-02		Z1679-03		Z1679-17		Z1679-15		Z1679-16		Z1679-01		Z1753-02		Z1753-03		Z1850-05		Z1850-01		Z1850-19		Z1850-10	
Sampling Date	1.1.1.	2/26/08		2/26/08		2/25/08		2/25/08		2/25/08		2/26/08		2/29/08		2/29/08		3/3/08		3/3/08		3/4/08		3/4/08	
Matrix	Ambient	WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Dilution Factor	GW	1		1		1		1		1		1		1		1		1		1		1		1	
Units	ug/L	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
PCBs																									
Aroclor-1016	0.09	139	U	141	U	0.175	U	0.156	U	0.156	U	0.153	U	0.161	U	0.161	U	0.161	U	0.161	U	0.159	U	0.145	U
Aroclor-1221	0.09	163	U	165	U	0.205	U	0.183	U	0.183	U	0.179	U	0.189	U	0.189	U	0.189	U	0.189	U	0.187	U	0.17	U
Aroclor-1232	0.09	105	U	106	U	0.131	U	0.117	U	0.117	U	0.115	U	0.121	U	0.121	U	0.121	U	0.121	U	0.12	U	0.109	U
Aroclor-1242	0.09	79.8	U	80.6	U	0.1	U	0.089	U	0.089	U	0.087	U	0.092	U	0.092	U	0.092	U	0.092	U	0.091	U	0.083	U
Aroclor-1248	0.09	40.4	U	40.8	U	0.051	U	0.045	U	0.045	U	0.044	U	0.047	U	0.047	U	0.047	U	0.047	U	0.046	U	0.042	U
Aroclor-1254	0.09	35.6	U	35.9	U	0.045	U	0.04	U	0.04	U	0.039	U	0.041	U	0.041	U	0.041	U	0.041	U	0.041	U	0.037	U
Aroclor-1260	0.09	1400		1500		0.19	U	0.17	U	0.17	U	0.16	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.16	U
TOTAL PCBs	0.09	1400		1500			U		U		U		U		U		U		U		U		U		U
PESTICIDES																									
4,4-DDE	0.2	35.15	U	34.81	U	0.0077	U	0.0075	U	0.0079	U	0.0076	U	0.008	U	0.0078	U	0.008	U	0.008	U	0.0079	U	0.0072	U
4,4-DDD	0.3	34.46	U	34.13	U	0.0076	U	0.0073	U	0.0077	U	0.0075	U	0.0078	U	0.0076	U	0.0078	U	0.0078	U	0.0077	U	0.007	U

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Table 7: Ground-Water Sampling Results for the Sand Aquifier
Volatile Organic Compounds

Sample ID	NYS Ambient	MW-3I	MW-3D	MW-4I	MW-5I-1	MW-D1 (MW-5I-2)	MW-6I	MW-D2 (MW-6I)	MW-D2RE (MW-6I)	MW-7I	FB-1	FB-2	FB-3	TB-1	TB-2
Lab Sample Number	Ground Water	Z3830-13	Z3783-01	Z3783-03	Z3783-04	Z3783-07	Z3830-11	Z3830-10	Z3830-10RE	Z3830-12	Z3783-05	Z3830-15	Z3830-16	Z3783-06	Z3830-14
Sampling Date		7/21/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008	7/21/2008	7/21/2008	7/21/2008	7/21/2008	7/18/2008	7/21/2008	7/22/2008	7/15/2008	7/21/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VO's															
Dichlorodifluoromethane	5	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
Chloromethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Vinyl Chloride	2	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromomethane	5	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Chloroethane	5	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Trichlorofluoromethane	5	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
1,1,2-Trichlorotrifluoroethane	5	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1,1-Dichloroethene	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Acetone	50	39	2.2 U	17 J	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Carbon Disulfide	NA	0.2 U	10	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Methyl tert-butyl Ether	NA	0.23 U	4.9 J	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	16	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methyl Acetate	NA	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Methylene Chloride	5	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
trans-1,2-Dichloroethene	5	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1-Dichloroethane	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Cyclohexane	NA	4.3 J	0.57 U	9.6	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-Butanone	50	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Carbon Tetrachloride	5	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
cis-1,2-Dichloroethene	5	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Chloroform	7	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,1,1-Trichloroethane	5	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
Methylcyclohexane	NA	4.8 J	0.47 U	8.3	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
Benzene	1	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	4.4 J	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2-Dichloroethane	0.6	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Trichloroethene	5	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2-Dichloropropane	1	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Bromodichloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
4-Methyl-2-Pentanone	NA	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Toluene	5	2.5 J	0.16 U	0.16 U	2.7 J	2.6 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
t-1,3-Dichloropropene	0.4	0.31 U	11	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
cis-1,3-Dichloropropene	0.4	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
1,1,2-Trichloroethane	1	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
2-Hexanone	50	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Dibromochloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dibromoethane	0.0006	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Tetrachloroethene	5	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
Chlorobenzene	5	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Ethyl Benzene	5	0.05 U	0.05 U	2.6 J	6.3	6.4	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m/p-Xylenes	NA	7.2 J	0.47 U	3.5 J	1.8 J	2 J	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
o-Xylene	NA	3.4 J	0.16 U	0.16 U	6.5	6.1	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Styrene	5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bromoform	50	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Isopropylbenzene	5	49	0.37 U	8.2	1 J	1.2 J	4.5 J	6	4.6 J	3.6 J	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,1,2,2-Tetrachloroethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,3-Dichlorobenzene	3	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,4-Dichlorobenzene	3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichlorobenzene	3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dibromo-3-Chloropropane	0.04	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
1,2,4-Trichlorobenzene	5	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U

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Table 7: Ground-Water Sampling Results for the Sand Aquifer
Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-3I	MW-3IRE	MW-3D	MW-4I	MW-5I-1	MW-5I-1DL	MW-D1 (MW-5I-2)	MW-D1DL (MW-5I-2DL)
Lab Sample Number		Z3830-13	Z3830-13RE	Z3783-01	Z3783-03	Z3783-04	Z3783-04DL	Z3783-07	Z3783-07DL
Sampling Date		7/21/2008	7/21/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	5	1	5
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Base Neutrals									
Benzaldehyde	NA	0.27 U	0.27 U	0.28 U	0.28 U	0.27 U	1.4 UD	0.3 U	1.5 UD
Phenol	1	0.55 U	0.55 U	0.56 U	0.57 U	0.55 U	2.8 UD	0.62 U	3.1 UD
bis(2-Chloroethyl)ether	1	0.28 U	0.28 U	0.29 U	0.29 U	0.28 U	1.4 UD	0.31 U	1.6 UD
2-Chlorophenol	NA	0.33 U	0.33 U	0.34 U	0.34 U	0.33 U	1.6 UD	0.37 U	1.9 UD
2-Methylphenol	NA	0.36 U	0.36 U	0.37 U	0.37 U	0.36 U	1.8 UD	0.4 U	2 UD
2,2-oxybis(1-Chloropropane)	NA	0.27 U	0.27 U	0.28 U	0.28 U	0.27 U	1.4 UD	0.3 U	1.5 UD
Acetophenone	NA	0.37 U	0.37 U	0.38 U	0.38 U	0.37 U	1.8 UD	0.42 U	2.1 UD
3+4-Methylphenols	NA	0.39 U	0.39 U	0.4 U	0.4 U	0.39 U	2 UD	0.44 U	2.2 UD
N-Nitroso-di-n-propylamine	NA	0.34 U	0.34 U	0.35 U	0.35 U	0.34 U	1.7 UD	0.38 U	1.9 UD
Hexachloroethane	5	0.23 U	0.23 U	0.23 U	0.24 U	0.23 U	1.2 UD	0.26 U	1.3 UD
Nitrobenzene	0.4	0.33 U	0.33 U	0.34 U	0.34 U	0.33 U	1.6 UD	0.37 U	1.9 UD
Isophorone	50	0.26 U	0.26 U	0.27 U	0.27 U	0.26 U	1.3 UD	0.29 U	1.5 UD
2-Nitrophenol	NA	0.28 U	0.28 U	0.29 U	0.29 U	0.28 U	1.4 UD	0.31 U	1.6 UD
2,4-Dimethylphenol	1	0.76 U	0.76 U	0.78 U	0.78 U	0.76 U	3.8 UD	0.85 U	4.3 UD
bis(2-Chloroethoxy)methane	5	0.33 U	0.33 U	0.34 U	0.34 U	0.33 U	1.6 UD	0.37 U	1.9 UD
2,4-Dichlorophenol	1	0.34 U	0.34 U	0.35 U	0.35 U	0.34 U	1.7 UD	0.38 U	1.9 UD
Naphthalene	10	0.28 U	0.28 U	0.29 U	0.29 U	87 E	83 D	65	69 D
4-Chloroaniline	5	0.92 U	0.92 U	0.94 U	0.95 U	0.92 U	4.6 UD	1 U	5.2 UD
Hexachlorobutadiene	NA	0.39 U	0.39 U	0.4 U	0.4 U	0.39 U	2 UD	0.44 U	2.2 UD
Caprolactam	NA	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	7.4 UD	1.7 U	8.3 UD
4-Chloro-3-methylphenol	NA	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	1.1 UD	0.25 U	1.2 UD
2-Methylnaphthalene	NA	0.37 U	0.37 U	0.38 U	0.38 U	6.2 J	5.1 JD	4.8 J	2.1 UD
Hexachlorocyclopentadiene	5	0.56 U	0.56 U	0.57 U	0.58 U	0.56 U	2.8 UD	0.63 U	3.1 UD
2,4,6-Trichlorophenol	NA	0.35 U	0.35 U	0.36 U	0.36 U	0.35 U	1.8 UD	0.39 U	2 UD
2,4,5-Trichlorophenol	NA	0.38 U	0.38 U	0.39 U	0.39 U	0.38 U	1.9 UD	0.43 U	2.1 UD
1,1-Biphenyl	5	0.32 U	0.32 U	0.33 U	0.33 U	8.7 J	7.6 JD	7.4 J	6.1 JD
2-Chloronaphthalene	10	0.23 U	0.23 U	0.23 U	0.24 U	0.23 U	1.2 UD	0.26 U	1.3 UD
2-Nitroaniline	5	0.25 U	0.25 U	0.26 U	0.26 U	0.25 U	1.2 UD	0.28 U	1.4 UD
Dimethylphthalate	50	0.27 U	0.27 U	0.28 U	0.28 U	0.27 U	1.4 UD	0.3 U	1.5 UD
Acenaphthylene	NA	0.35 U	0.35 U	0.36 U	0.36 U	2.7 J	1.8 UD	2.4 J	2 UD
2,6-Dinitrotoluene	5	0.35 U	0.35 U	0.36 U	0.36 U	0.35 U	1.8 UD	0.39 U	2 UD
3-Nitroaniline	5	0.35 U	0.35 U	0.36 U	0.36 U	0.35 U	1.8 UD	0.39 U	2 UD
Acenaphthene	20	0.32 U	0.32 U	2.6 J	6.3 J	110 E	110 D	100 E	95 D
2,4-Dinitrophenol	1	0.64 U	0.64 U	0.65 U	0.66 U	0.64 U	3.2 UD	0.72 U	3.6 UD
4-Nitrophenol	NA	1.7 U	1.7 U	1.8 U	1.8 U	1.7 U	8.6 UD	1.9 U	9.7 UD
Dibenzofuran	NA	0.31 U	0.31 U	0.32 U	0.32 U	58	52 D	52	45 JD
2,4-Dinitrotoluene	5	0.34 U	0.34 U	0.35 U	0.35 U	0.34 U	1.7 UD	0.38 U	1.9 UD
Diethylphthalate	50	0.32 U	0.32 U	8.6 J	0.33 U	0.32 U	1.6 UD	0.36 U	1.8 UD
4-Chlorophenyl-phenylether	NA	0.29 U	0.29 U	0.3 U	0.3 U	0.29 U	1.4 UD	0.33 U	1.6 UD

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Table 7: Ground-Water Sampling Results for the Sand Aquifer
Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-6I	MW-D2 (MW-6I)	MW-7I	MW-7IDL	FB-1	FB-2	FB-3
Lab Sample Number		Z3830-11	Z3830-10	Z3830-12	Z3830-12DL	Z3783-05	Z3830-15	Z3830-16
Sampling Date		7/21/2008	7/21/2008	7/21/2008	7/21/2008	7/18/2008	7/21/2008	7/22/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	2	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Base Neutrals								
Benzaldehyde	NA	0.27 U	0.28 U	0.27 U	0.54 UD	0.27 U	0.27 U	0.28 U
Phenol	1	0.55 U	0.57 U	0.55 U	1.1 UD	0.56 U	0.56 U	0.58 U
bis(2-Chloroethyl)ether	1	0.28 U	0.29 U	0.28 U	0.56 UD	0.28 U	0.28 U	0.29 U
2-Chlorophenol	NA	0.33 U	0.34 U	0.33 U	0.66 UD	0.33 U	0.33 U	0.35 U
2-Methylphenol	NA	0.36 U	0.38 U	0.36 U	0.72 UD	0.36 U	0.36 U	0.38 U
2,2-oxybis(1-Chloropropane)	NA	0.27 U	0.28 U	0.27 U	0.54 UD	0.27 U	0.27 U	0.28 U
Acetophenone	NA	0.37 U	0.39 U	0.37 U	0.74 UD	0.37 U	0.37 U	0.39 U
3+4-Methylphenols	NA	0.39 U	0.41 U	0.39 U	0.78 UD	0.39 U	0.39 U	0.41 U
N-Nitroso-di-n-propylamine	NA	0.34 U	0.35 U	0.34 U	0.68 UD	0.34 U	0.34 U	0.36 U
Hexachloroethane	5	0.23 U	0.24 U	0.23 U	0.46 UD	0.23 U	0.23 U	0.24 U
Nitrobenzene	0.4	0.33 U	0.34 U	0.33 U	0.66 UD	0.33 U	0.33 U	0.35 U
Isophorone	50	0.26 U	0.27 U	0.26 U	0.52 UD	0.26 U	0.26 U	0.27 U
2-Nitrophenol	NA	0.28 U	0.29 U	0.28 U	0.56 UD	0.28 U	0.28 U	0.29 U
2,4-Dimethylphenol	1	0.76 U	0.79 U	0.76 U	1.5 UD	0.77 U	0.77 U	0.8 U
bis(2-Chloroethoxy)methane	5	0.33 U	0.34 U	0.33 U	0.66 UD	0.33 U	0.33 U	0.35 U
2,4-Dichlorophenol	1	0.34 U	0.35 U	0.34 U	0.68 UD	0.34 U	0.34 U	0.36 U
Naphthalene	10	0.28 U	0.29 U	82 E	86 D	0.28 U	0.28 U	0.29 U
4-Chloroaniline	5	0.92 U	0.96 U	0.92 U	1.8 UD	0.93 U	0.93 U	0.97 U
Hexachlorobutadiene	NA	0.39 U	0.41 U	0.39 U	0.78 UD	0.39 U	0.39 U	0.41 U
Caprolactam	NA	1.5 U	1.5 U	1.5 U	3 UD	1.5 U	1.5 U	1.6 U
4-Chloro-3-methylphenol	NA	0.22 U	0.23 U	0.22 U	0.44 UD	0.22 U	0.22 U	0.23 U
2-Methylnaphthalene	NA	0.37 U	0.39 U	5.8 J	5.6 JD	0.37 U	0.37 U	0.39 U
Hexachlorocyclopentadiene	5	0.56 U	0.58 U	0.56 U	1.1 UD	0.57 U	0.57 U	0.59 U
2,4,6-Trichlorophenol	NA	0.35 U	0.36 U	0.35 U	0.7 UD	0.35 U	0.35 U	0.37 U
2,4,5-Trichlorophenol	NA	0.38 U	0.4 U	0.38 U	0.76 UD	0.38 U	0.38 U	0.4 U
1,1-Biphenyl	5	0.32 U	0.33 U	1.7 J	0.64 UD	0.32 U	0.32 U	0.34 U
2-Chloronaphthalene	10	0.23 U	0.24 U	0.23 U	0.46 UD	0.23 U	0.23 U	0.24 U
2-Nitroaniline	5	0.25 U	0.26 U	0.25 U	0.5 UD	0.25 U	0.25 U	0.26 U
Dimethylphthalate	50	0.27 U	0.28 U	0.27 U	0.54 UD	0.27 U	0.27 U	0.28 U
Acenaphthylene	NA	0.35 U	0.36 U	0.35 U	12 JD	0.35 U	0.35 U	0.37 U
2,6-Dinitrotoluene	5	0.35 U	0.36 U	0.35 U	0.7 UD	0.35 U	0.35 U	0.37 U
3-Nitroaniline	5	0.35 U	0.36 U	0.35 U	0.7 UD	0.35 U	0.35 U	0.37 U
Acenaphthene	20	9 J	9.5 J	40	39 D	0.32 U	0.32 U	0.34 U
2,4-Dinitrophenol	1	0.64 U	0.67 U	0.64 U	1.3 UD	0.65 U	0.65 U	0.67 U
4-Nitrophenol	NA	1.7 U	1.8 U	1.7 U	3.5 UD	1.7 U	1.7 U	1.8 U
Dibenzofuran	NA	0.31 U	0.32 U	14	14 JD	0.31 U	0.31 U	0.33 U
2,4-Dinitrotoluene	5	0.34 U	0.35 U	0.34 U	0.68 UD	0.34 U	0.34 U	0.36 U
Diethylphthalate	50	0.32 U	0.33 U	0.32 U	0.64 UD	0.32 U	0.32 U	0.34 U
4-Chlorophenyl-phenylether	NA	0.29 U	0.3 U	0.29 U	0.58 UD	0.29 U	0.29 U	0.31 U

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Table 7: Ground-Water Sampling Results for the Sand Aquifer
Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-3I	MW-3IRE	MW-3D	MW-4I	MW-5I-1	MW-5I-1DL	MW-D1 (MW-5I-2)	MW-D1DL (MW-5I-2DL)
Lab Sample Number		Z3830-13	Z3830-13RE	Z3783-01	Z3783-03	Z3783-04	Z3783-04DL	Z3783-07	Z3783-07DL
Sampling Date		7/21/2008	7/21/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	5	1	5
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Base Neutrals									
Fluorene	50	0.28 U	0.28 U	0.29 U	1.8 J	67 E	59 D	59	51 JD
4-Nitroaniline	5	0.36 U	0.36 U	0.37 U	0.37 U	0.36 U	1.8 UD	0.4 U	2 UD
4,6-Dinitro-2-methylphenol	NA	0.29 U	0.29 U	0.3 U	0.3 U	0.29 U	1.4 UD	0.33 U	1.6 UD
N-Nitrosodiphenylamine	50	0.35 U	0.35 U	0.36 U	0.36 U	0.35 U	1.8 UD	0.39 U	2 UD
4-Bromophenyl-phenylether	NA	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	7 UD	1.6 U	7.9 UD
Hexachlorobenzene	0.04	0.27 U	0.27 U	0.28 U	0.28 U	0.27 U	1.4 UD	0.3 U	1.5 UD
Atrazine	7.5	0.37 U	0.37 U	0.38 U	0.38 U	0.37 U	1.8 UD	0.42 U	2.1 UD
Pentachlorophenol	1	0.52 U	0.52 U	0.53 U	0.54 U	0.52 U	2.6 UD	0.58 U	2.9 UD
Phenanthrene	50	1.4 U	1.4 U	1.4 U	1.4 U	43	40 JD	34	30 JD
Anthracene	50	1.4 U	1.4 U	1.4 U	1.5 U	6 J	7.1 UD	5 J	8 UD
Carbazole	NA	0.24 U	0.24 U	0.24 U	0.25 U	22	20 JD	21	18 JD
Di-n-butylphthalate	50	5.9 U	5.9 U	6 U	6 U	5.9 U	29 UD	6.6 U	33 UD
Fluoranthene	50	0.2 U	0.2 U	0.2 U	0.21 U	14	12 JD	12	10 JD
Pyrene	50	1.4 U	1.4 U	1.4 U	1.5 U	7 J	7 UD	5.9 J	7.9 UD
Butylbenzylphthalate	50	0.42 U	0.42 U	0.43 U	0.43 U	0.42 U	2.1 UD	0.47 U	2.4 UD
3,3-Dichlorobenzidine	5	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	5.4 UD	1.2 U	6.1 UD
Benzo(a)anthracene	0.002	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	6.5 UD	1.5 U	7.3 UD
Chrysene	0.002	0.26 U	0.26 U	0.27 U	0.27 U	0.26 U	1.3 UD	0.29 U	1.5 UD
bis(2-Ethylhexyl)phthalate	5	1.3 U	1.3 U	1.4 J	1.3 U	1.3 U	6.5 UD	1.5 U	7.3 UD
Di-n-octyl phthalate	50	0.26 U	0.26 U	0.27 U	0.27 U	0.26 U	1.3 UD	0.29 U	1.5 UD
Benzo(b)fluoranthene	0.002	0.43 U	0.43 U	0.44 U	0.44 U	0.43 U	2.2 UD	0.48 U	2.4 UD
Benzo(k)fluoranthene	0.002	0.3 U	0.3 U	0.31 U	0.31 U	0.3 U	1.5 UD	0.34 U	1.7 UD
Benzo(a)pyrene	NA	0.22 U	0.22 U	0.22 U	0.23 U	0.22 U	1.1 UD	0.25 U	1.2 UD
Indeno(1,2,3-cd)pyrene	0.002	0.66 U	0.66 U	0.67 U	0.68 U	0.66 U	3.3 UD	0.74 U	3.7 UD
Dibenz(a,h)anthracene	NA	0.54 U	0.54 U	0.55 U	0.56 U	0.54 U	2.7 UD	0.61 U	3 UD
Benzo(g,h,i)perylene	NA	0.39 U	0.39 U	0.4 U	0.4 U	0.39 U	2 UD	0.44 U	2.2 UD

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Table 7: Ground-Water Sampling Results for the Sand Aquifer
Semi-Volatile Organic Compounds

Sample ID	NYS Ambient	MW-6I	MW-D2 (MW-6I)	MW-7I	MW-7IDL	FB-1	FB-2	FB-3
Lab Sample Number	Ground Water	Z3830-11	Z3830-10	Z3830-12	Z3830-12DL	Z3783-05	Z3830-15	Z3830-16
Sampling Date		7/21/2008	7/21/2008	7/21/2008	7/21/2008	7/18/2008	7/21/2008	7/22/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	2	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Base Neutrals								
Fluorene	50	2 J	1.7 J	12	12 JD	0.28 U	0.28 U	0.29 U
4-Nitroaniline	5	0.36 U	0.38 U	0.36 U	0.72 UD	0.36 U	0.36 U	0.38 U
4,6-Dinitro-2-methylphenol	NA	0.29 U	0.3 U	0.29 U	0.58 UD	0.29 U	0.29 U	0.31 U
N-Nitrosodiphenylamine	50	0.35 U	0.36 U	0.35 U	0.7 UD	0.35 U	0.35 U	0.37 U
4-Bromophenyl-phenylether	NA	1.4 U	1.5 U	1.4 U	2.8 UD	1.4 U	1.4 U	1.5 U
Hexachlorobenzene	0.04	0.27 U	0.28 U	0.27 U	0.54 UD	0.27 U	0.27 U	0.28 U
Atrazine	7.5	0.37 U	0.39 U	0.37 U	0.74 UD	0.37 U	0.37 U	0.39 U
Pentachlorophenol	1	0.52 U	0.54 U	0.52 U	1 UD	0.53 U	0.53 U	0.55 U
Phenanthrene	50	1.4 U	1.4 U	9.4 J	8.7 JD	1.4 U	1.4 U	1.4 U
Anthracene	50	1.4 U	1.5 U	2.5 J	2.8 UD	1.4 U	1.4 U	1.5 U
Carbazole	NA	0.24 U	0.25 U	4.4 J	4.1 JD	0.24 U	0.24 U	0.25 U
Di-n-butylphthalate	50	5.9 U	6.1 U	5.9 U	12 UD	5.9 U	5.9 U	6.2 U
Fluoranthene	50	0.2 U	0.21 U	1.4 J	0.4 UD	0.2 U	0.2 U	0.21 U
Pyrene	50	1.4 U	1.5 U	1.4 U	2.8 UD	1.4 U	1.4 U	1.5 U
Butylbenzylphthalate	50	0.42 U	0.44 U	0.42 U	0.84 UD	0.42 U	0.42 U	0.44 U
3,3-Dichlorobenzidine	5	1.1 U	1.1 U	1.1 U	2.2 UD	1.1 U	1.1 U	1.1 U
Benzo(a)anthracene	0.002	1.3 U	1.4 U	1.3 U	2.6 UD	1.3 U	1.3 U	1.4 U
Chrysene	0.002	0.26 U	0.27 U	0.26 U	0.52 UD	0.26 U	0.26 U	0.27 U
bis(2-Ethylhexyl)phthalate	5	1.3 U	1.4 U	1.3 U	2.6 UD	1.3 U	1.3 U	1.4 U
Di-n-octyl phthalate	50	0.26 U	0.27 U	0.26 U	0.52 UD	0.26 U	0.26 U	0.27 U
Benzo(b)fluoranthene	0.002	0.43 U	0.45 U	0.43 U	0.86 UD	0.43 U	0.43 U	0.45 U
Benzo(k)fluoranthene	0.002	0.3 U	0.31 U	0.3 U	0.6 UD	0.3 U	0.3 U	0.32 U
Benzo(a)pyrene	NA	0.22 U	0.23 U	0.22 U	0.44 UD	0.22 U	0.22 U	0.23 U
Indeno(1,2,3-cd)pyrene	0.002	0.66 U	0.69 U	0.66 U	1.3 UD	0.67 U	0.67 U	0.69 U
Dibenz(a,h)anthracene	NA	0.54 U	0.56 U	0.54 U	1.1 UD	0.55 U	0.55 U	0.57 U
Benzo(g,h,i)perylene	NA	0.39 U	0.41 U	0.39 U	0.78 UD	0.39 U	0.39 U	0.41 U

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Table 7: Ground-Water Sampling Results for the Sand Aquifer
Metals

Sample ID	NYS Ambient Ground Water	MW-3I	MW-3D	MW-4I	MW-5I-1	MW-D1(MW-5I-2)	MW-6I	MW-D2 (MW-6I)	MW-7I	FB-1	FB-2	FB-3
Lab Sample Number		Z3830-13	Z3783-01	Z3783-03	Z3783-04	Z3783-07	Z3830-11	Z3830-10	Z3830-12	Z3783-05	Z3830-15	Z3830-16
Sampling Date		7/21/2008	7/18/2008	7/18/2008	7/18/2008	7/18/2008	7/21/2008	7/21/2008	7/21/2008	7/18/2008	7/21/2008	7/22/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
TAL METALS												
Aluminum	NA	130	2070	250	223	131	495	222	132	19.3 U	19.3 U	19.3 U
Antimony	3	0.4 J	0.25 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Arsenic	25	5.4 U	5.4 U	6.15 J	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
Barium	1000	109	403	132	95.6	92.3	148	138	112	11.2 U	11.2 U	11.2 U
Beryllium	3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Cadmium	5	0.9 U	1.27 J	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
Calcium	NA	104000	196000	63600	70300	64100	183000	172000	87800	457 J	282 U	282 U
Chromium	50	1.4 U	7.38	1.62 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Cobalt	NA	2.5 U	2.54 J	14.2 J	3.27 J	3.03 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Copper	200	4.13 J	13.1	3.7 U	4.02 J	3.7 U	4.41 J	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U
Iron	300	6610	7300	27300	26600	24400	3160	2770	3330	122	33.1 J	27 U
Lead	25	6.64 J	14.3	6.96 J	5.24 J	3.1 U	6.89 J	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Magnesium	35000	26000	65900	27800	15900	13200	56500	53300	51000	291 U	291 U	291 U
Manganese	300	575	333	700	2460	2280	1040	842	336	9.43 J	0.9 U	0.9 U
Mercury	0.7	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Nickel	100	4.9 U	4.9 U	4.9 U	9.17 J	6.43 J	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Potassium	NA	18700	35000	23900	14800	14500	25300	25300	45100	260 J	196 J	113 J
Selenium	10	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Thallium	0.5	0.1 U	0.23 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Silver	50	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Sodium	20000	110000	424000	271000	112000	110000	106000	108000	229000	1600	1220	886 J
Vanadium	NA	4.1 U	16.9 J	4.79 J	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U
Zinc	2000	35.3	101	38.8	39.6	31.6	41.9	36	20.8	33.3	41.2	21.6

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Table 7: Ground-Water Sampling Results for the Perched Water Table
Analytical Table Qualifiers

Qualifiers
U - The compound was not detected at the indicated concentration.
J - Data Indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.
The concentration given is an approximate value.
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
E (Inorganics) - The reported value is estimated because of the presence of interference.
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
NR - Not analyzed

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Table 6: Ground-Water Sampling Results for the Perched Aquifer
Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-1	MW-6S	MW-8S	MW-9S	MW-11S	MW-12S	MW-D3 (MW-12S)	MW-13S	GW-1	GW-2	FB-1	FB-2	FB-3	TB-1	TB-2
Lab Sample Number		Z3830-02	Z3783-02	Z3830-03	Z3830-09	Z3830-04	Z3830-06	Z3830-01	Z3830-05	Z3830-07	Z3830-08	Z3783-05	Z3830-15	Z3830-16	Z3783-08	Z3830-14
Sampling Date		7/22/2008	7/18/2008	7/22/2008	7/21/2008	7/22/2008	7/22/2008	7/22/2008	7/22/2008	7/21/2008	7/21/2008	7/18/2008	7/21/2008	7/22/2008	7/15/2008	7/21/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VO's																
Dichlorodifluoromethane	5	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U	0.88 U
Chloromethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Vinyl Chloride	2	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromomethane	5	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Chloroethane	5	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Trichlorofluoromethane	5	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
1,1,2-Trichlorotrifluoroethane	5	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
1,1-Dichloroethene	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Acetone	50	2.2 U	2.2 U	12 J	2.2 U	2.2 U	2.2 U	2.2 U	18 J	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Carbon Disulfide	NA	4.3 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Methyl tert-butyl Ether	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Methyl Acetate	NA	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Methylene Chloride	5	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
trans-1,2-Dichloroethene	5	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1-Dichloroethane	5	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Cyclohexane	NA	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	13	0.57 U	8.2	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-Butanone	50	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Carbon Tetrachloride	5	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
cis-1,2-Dichloroethene	5	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Chloroform	7	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,1,1-Trichloroethane	5	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
Methylcyclohexane	NA	0.47 U	0.47 U	2.3 J	0.47 U	0.47 U	4.3 J	0.47 U	9.1	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
Benzene	1	0.35 U	0.35 U	100	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	2.3 J	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2-Dichloroethane	0.6	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Trichloroethene	5	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2-Dichloropropane	1	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Bromodichloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
4-Methyl-2-Pentanone	NA	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Toluene	5	0.16 U	0.16 U	9.6	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
t-1,3-Dichloropropene	0.4	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
cis-1,3-Dichloropropene	0.4	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
1,1,2-Trichloroethane	1	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
2-Hexanone	50	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Dibromochloromethane	50	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dibromoethane	0.0006	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Tetrachloroethene	5	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
Chlorobenzene	5	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Ethyl Benzene	5	0.05 U	0.05 U	30	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
m/p-Xylenes	NA	0.47 U	3.8 J	44	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
o-Xylene	NA	0.16 U	2.9 J	23	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Styrene	5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bromoform	50	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Isopropylbenzene	5	11	0.37 U	30	0.37 U	0.37 U	6.6	24	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,1,2,2-Tetrachloroethane	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,3-Dichlorobenzene	3	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,4-Dichlorobenzene	3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichlorobenzene	3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dibromo-3-Chloropropane	0.04	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
1,2,4-Trichlorobenzene	5	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U

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Table 6: Ground-Water Sampling Results for the Perched Aquifer
Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-1	MW-5S	MW-8S	MW-8SDL	MW-8SDL2	MW-8SDL3	MW-9S	MW-11S_	MW-11S (Filtered)	MW-12S	MW-D3 (MW-12S)	MW-13S	GW-1	GW-2
Lab Sample Number		Z3830-02	Z3783-02	Z3830-03	Z3830-03DL	Z3830-03DL2	Z3830-03DL3	Z3830-09	Z3830-04	Z3830-19	Z3830-06	Z3830-01	Z3830-05	Z3830-07	Z3830-08
Sampling Date		7/22/2008	7/18/2008	7/22/2008	7/22/2008	7/22/2008	7/22/2008	7/21/2008	7/22/2008	7/22/2008	7/22/2008	7/22/2008	7/22/2008	7/21/2008	7/21/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	5	25	125	1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Base Neutrals															
Benzaldehyde	NA	0.3 U	0.31 U	0.27 U	1.4 UD	6.8 UD	34 UD	0.3 U	0.33 U	0.45 U	0.27 U	0.3 U	0.33 U	0.27 U	0.28 U
Phenol	1	0.6 U	0.63 U	0.55 U	2.8 UD	14 UD	69 UD	0.6 U	0.68 U	0.92 U	0.55 U	0.61 U	0.66 U	0.55 U	0.57 U
bis(2-Chloroethyl)ether	1	0.31 U	0.32 U	0.28 U	1.4 UD	7 UD	35 UD	0.31 U	0.35 U	0.47 U	0.28 U	0.31 U	0.34 U	0.28 U	0.29 U
2-Chlorophenol	NA	0.36 U	0.38 U	0.33 U	1.6 UD	8.2 UD	41 UD	0.36 U	0.41 U	0.55 U	0.33 U	0.37 U	0.4 U	0.33 U	0.34 U
2-Methylphenol	NA	0.4 U	0.41 U	0.36 U	1.8 UD	9 UD	45 UD	0.4 U	0.44 U	0.6 U	0.36 U	0.4 U	0.43 U	0.36 U	0.38 U
2,2-oxybis(1-Chloropropane)	NA	0.3 U	0.31 U	0.27 U	1.4 UD	6.8 UD	34 UD	0.3 U	0.33 U	0.45 U	0.27 U	0.3 U	0.33 U	0.27 U	0.28 U
Acetophenone	NA	0.41 U	0.43 U	0.37 U	1.8 UD	9.2 UD	46 UD	0.41 U	0.46 U	0.62 U	0.37 U	0.41 U	0.45 U	0.37 U	0.39 U
3+4-Methylphenols	NA	0.43 U	0.45 U	1.2 J	2 UD	9.8 UD	49 UD	0.43 U	0.48 U	0.65 U	0.39 U	0.43 U	0.47 U	0.39 U	0.41 U
N-Nitroso-di-n-propylamine	NA	0.37 U	0.39 U	0.34 U	1.7 UD	8.5 UD	42 UD	0.37 U	0.42 U	0.57 U	0.34 U	0.38 U	0.41 U	0.34 U	0.35 U
Hexachloroethane	5	0.25 U	0.26 U	0.23 U	1.2 UD	5.8 UD	29 UD	0.25 U	0.28 U	0.38 U	0.23 U	0.26 U	0.28 U	0.23 U	0.24 U
Nitrobenzene	0.4	0.36 U	0.38 U	0.33 U	1.6 UD	8.2 UD	41 UD	0.36 U	0.41 U	0.55 U	0.33 U	0.37 U	0.4 U	0.33 U	0.34 U
Isophorone	50	0.29 U	0.3 U	0.26 U	1.3 UD	6.5 UD	32 UD	0.29 U	0.32 U	0.43 U	0.26 U	0.29 U	0.31 U	0.26 U	0.27 U
2-Nitrophenol	NA	0.31 U	0.32 U	0.28 U	1.4 UD	7 UD	35 UD	0.31 U	0.35 U	0.47 U	0.28 U	0.31 U	0.34 U	0.28 U	0.29 U
2,4-Dimethylphenol	1	0.84 U	0.87 U	0.76 U	3.8 UD	19 UD	95 UD	0.84 U	0.94 U	1.3 U	0.76 U	0.84 U	0.92 U	0.76 U	0.79 U
bis(2-Chloroethoxy)methane	5	0.36 U	0.38 U	0.33 U	1.6 UD	8.2 UD	41 UD	0.36 U	0.41 U	0.55 U	0.33 U	0.37 U	0.4 U	0.33 U	0.34 U
2,4-Dichlorophenol	1	0.37 U	0.39 U	0.34 U	1.7 UD	8.5 UD	42 UD	0.37 U	0.42 U	0.57 U	0.34 U	0.38 U	0.41 U	0.34 U	0.35 U
Naphthalene	10	0.31 U	0.32 U	1300 E	1800 ED	3100 ED	3400 D	0.31 U	0.35 U	0.47 U	0.28 U	1.6 J	0.34 U	0.28 U	0.29 U
4-Chloroaniline	5	1 U	1.1 U	0.92 U	4.6 UD	23 UD	120 UD	1 U	1.1 U	1.5 U	0.92 U	1 U	1.1 U	0.92 U	0.96 U
Hexachlorobutadiene	NA	0.43 U	0.45 U	0.39 U	2 UD	9.8 UD	49 UD	0.43 U	0.48 U	0.65 U	0.39 U	0.43 U	0.47 U	0.39 U	0.41 U
Caprolactam	NA	1.6 U	1.7 U	1.5 U	7.4 UD	37 UD	180 UD	1.6 U	1.8 U	2.5 U	1.5 U	1.6 U	1.8 U	1.5 U	1.5 U
4-Chloro-3-methylphenol	NA	0.24 U	0.25 U	0.22 U	1.1 UD	5.5 UD	28 UD	0.24 U	0.27 U	0.37 U	0.22 U	0.24 U	0.27 U	0.22 U	0.23 U
2-Methylnaphthalene	NA	0.41 U	0.43 U	600 E	730 ED	820 D	780 JD	0.41 U	0.46 U	0.62 U	0.37 U	0.41 U	0.45 U	0.37 U	0.39 U
Hexachlorocyclopentadiene	5	0.62 U	0.64 U	0.56 U	2.8 UD	14 UD	70 UD	0.62 U	0.69 U	0.93 U	0.56 U	0.62 U	0.67 U	0.56 U	0.58 U
2,4,6-Trichlorophenol	NA	0.38 U	0.4 U	0.35 U	1.8 UD	8.8 UD	44 UD	0.38 U	0.43 U	0.58 U	0.35 U	0.39 U	0.42 U	0.35 U	0.36 U
2,4,5-Trichlorophenol	NA	0.42 U	0.44 U	0.38 U	1.9 UD	9.5 UD	48 UD	0.42 U	0.47 U	0.63 U	0.38 U	0.42 U	0.46 U	0.38 U	0.4 U
1,1-Biphenyl	5	0.35 U	0.37 U	64 E	66 D	65 JD	40 UD	0.35 U	0.4 U	0.53 U	0.32 U	0.36 U	0.39 U	0.32 U	0.33 U
2-Chloronaphthalene	10	0.25 U	0.26 U	0.23 U	1.2 UD	5.8 UD	29 UD	0.25 U	0.28 U	0.38 U	0.23 U	0.26 U	0.28 U	0.23 U	0.24 U
2-Nitroaniline	5	0.27 U	0.29 U	0.25 U	1.2 UD	6.2 UD	31 UD	0.27 U	0.31 U	0.42 U	0.25 U	0.28 U	0.3 U	0.25 U	0.26 U
Dimethylphthalate	50	0.3 U	0.31 U	0.27 U	1.4 UD	6.8 UD	34 UD	0.3 U	0.33 U	0.45 U	0.27 U	0.3 U	0.33 U	0.27 U	0.28 U
Acenaphthylene	NA	0.38 U	0.4 U	0.35 U	1.8 UD	8.8 UD	44 UD	0.38 U	0.43 U	0.58 U	0.35 U	0.39 U	0.42 U	0.35 U	0.36 U
2,6-Dinitrotoluene	5	0.38 U	0.4 U	0.35 U	1.8 UD	8.8 UD	44 UD	0.38 U	0.43 U	0.58 U	0.35 U	0.39 U	0.42 U	0.35 U	0.36 U
3-Nitroaniline	5	0.38 U	0.4 U	0.35 U	1.8 UD	8.8 UD	44 UD	0.38 U	0.43 U	0.58 U	0.35 U	0.39 U	0.42 U	0.35 U	0.36 U
Acenaphthene	20	0.35 U	2.8 J	260 E	400 ED	420 D	400 JD	2.5 J	0.4 U	0.53 U	2.2 J	0.36 U	0.39 U	0.32 U	0.33 U
2,4-Dinitrophenol	1	0.7 U	0.74 U	0.64 U	3.2 UD	16 UD	80 UD	0.7 U	0.79 U	1.1 U	0.64 U	0.71 U	0.77 U	0.64 U	0.67 U
4-Nitrophenol	NA	1.9 U	2 U	1.7 U	8.6 UD	43 UD	220 UD	1.9 U	2.1 U	2.9 U	1.7 U	1.9 U	2.1 U	1.7 U	1.8 U
Dibenzofuran	NA	0.34 U	0.36 U	220 E	300 ED	310 D	290 JD	0.34 U	0.38 U	0.52 U	0.31 U	0.34 U	0.37 U	0.31 U	0.32 U
2,4-Dinitrotoluene	5	0.37 U	0.39 U	0.34 U	1.7 UD	8.5 UD	42 UD	0.37 U	0.42 U	0.57 U	0.34 U	0.38 U	0.41 U	0.34 U	0.35 U
Diethylphthalate	50	0.35 U	0.37 U	0.32 U	1.6 UD	8 UD	40 UD	0.35 U	1.6 J	0.53 U	0.32 U	0.36 U	0.39 U	0.32 U	0.33 U
4-Chlorophenyl-phenylether	NA	0.32 U	0.33 U	0.29 U	1.4 UD	7.2 UD	36 UD	0.32 U	0.36 U	0.48 U	0.29 U	0.32 U	0.35 U	0.29 U	0.3 U

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Table 6: Ground-Water Sampling Results for the Perched Aquifer
Semi-Volatile Organic Compounds

Sample ID	NYS Ambient	FB-1	FB-2	FB-3
Lab Sample Number	Ground Water	Z3783-05	Z3830-15	Z3830-16
Sampling Date		7/18/2008	7/21/2008	7/22/2008
Matrix		WATER	WATER	WATER
Dilution Factor		1	1	1
Units	ug/L	ug/l	ug/l	ug/l
Base Neutrals				
Benzaldehyde	NA	0.27 U	0.27 U	0.28 U
Phenol	1	0.56 U	0.56 U	0.58 U
bis(2-Chloroethyl)ether	1	0.28 U	0.28 U	0.29 U
2-Chlorophenol	NA	0.33 U	0.33 U	0.35 U
2-Methylphenol	NA	0.36 U	0.36 U	0.38 U
2,2-oxybis(1-Chloropropane)	NA	0.27 U	0.27 U	0.28 U
Acetophenone	NA	0.37 U	0.37 U	0.39 U
3+4-Methylphenols	NA	0.39 U	0.39 U	0.41 U
N-Nitroso-di-n-propylamine	NA	0.34 U	0.34 U	0.36 U
Hexachloroethane	5	0.23 U	0.23 U	0.24 U
Nitrobenzene	0.4	0.33 U	0.33 U	0.35 U
Isophorone	50	0.26 U	0.26 U	0.27 U
2-Nitrophenol	NA	0.28 U	0.28 U	0.29 U
2,4-Dimethylphenol	1	0.77 U	0.77 U	0.8 U
bis(2-Chloroethoxy)methane	5	0.33 U	0.33 U	0.35 U
2,4-Dichlorophenol	1	0.34 U	0.34 U	0.36 U
Naphthalene	10	0.28 U	0.28 U	0.29 U
4-Chloroaniline	5	0.93 U	0.93 U	0.97 U
Hexachlorobutadiene	NA	0.39 U	0.39 U	0.41 U
Caprolactam	NA	1.5 U	1.5 U	1.6 U
4-Chloro-3-methylphenol	NA	0.22 U	0.22 U	0.23 U
2-Methylnaphthalene	NA	0.37 U	0.37 U	0.39 U
Hexachlorocyclopentadiene	5	0.57 U	0.57 U	0.59 U
2,4,6-Trichlorophenol	NA	0.35 U	0.35 U	0.37 U
2,4,5-Trichlorophenol	NA	0.38 U	0.38 U	0.4 U
1,1-Biphenyl	5	0.32 U	0.32 U	0.34 U
2-Chloronaphthalene	10	0.23 U	0.23 U	0.24 U
2-Nitroaniline	5	0.25 U	0.25 U	0.26 U
Dimethylphthalate	50	0.27 U	0.27 U	0.28 U
Acenaphthylene	NA	0.35 U	0.35 U	0.37 U
2,6-Dinitrotoluene	5	0.35 U	0.35 U	0.37 U
3-Nitroaniline	5	0.35 U	0.35 U	0.37 U
Acenaphthene	20	0.32 U	0.32 U	0.34 U
2,4-Dinitrophenol	1	0.65 U	0.65 U	0.67 U
4-Nitrophenol	NA	1.7 U	1.7 U	1.8 U
Dibenzofuran	NA	0.31 U	0.31 U	0.33 U
2,4-Dinitrotoluene	5	0.34 U	0.34 U	0.36 U
Diethylphthalate	50	0.32 U	0.32 U	0.34 U
4-Chlorophenyl-phenylether	NA	0.29 U	0.29 U	0.31 U

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Table 6: Ground-Water Sampling Results for the Perched Aquifier
Semi-Volatile Organic Compounds

Sample ID	NYS Ambient Ground Water	MW-1	MW-5S	MW-8S	MW-8SDL	MW-8SDL2	MW-8SDL3	MW-9S	MW-11S_	MW-11S (Filtered)	MW-12S	MW-D3 (MW-12S)	MW-13S	GW-1	GW-2
Lab Sample Number		Z3830-02	Z3783-02	Z3830-03	Z3830-03DL	Z3830-03DL2	Z3830-03DL3	Z3830-09	Z3830-04	Z3830-19	Z3830-06	Z3830-01	Z3830-05	Z3830-07	Z3830-08
Sampling Date		7/22/2008	7/18/2008	7/22/2008	7/22/2008	7/22/2008	7/22/2008	7/21/2008	7/22/2008	7/22/2008	7/22/2008	7/22/2008	7/22/2008	7/21/2008	7/21/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	5	25	125	1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Fluorene	50	0.31 U	0.32 U	160 E	210 D	200 JD	180 JD	0.31 U	0.35 U	0.47 U	1.7 J	0.31 U	0.34 U	0.28 U	0.29 U
4-Nitroaniline	5	0.4 U	0.41 U	0.36 U	1.8 UD	9 UD	45 UD	0.4 U	0.44 U	0.6 U	0.36 U	0.4 U	0.43 U	0.36 U	0.38 U
4,6-Dinitro-2-methylphenol	NA	0.32 U	0.33 U	0.29 U	1.4 UD	7.2 UD	36 UD	0.32 U	0.36 U	0.48 U	0.29 U	0.32 U	0.35 U	0.29 U	0.3 U
N-Nitrosodiphenylamine	50	0.38 U	0.4 U	0.35 U	1.8 UD	8.8 UD	44 UD	0.38 U	0.43 U	0.58 U	0.35 U	0.39 U	0.42 U	0.35 U	0.36 U
4-Bromophenyl-phenylether	NA	1.5 U	1.6 U	1.4 U	7 UD	35 UD	180 UD	1.5 U	1.7 U	2.3 U	1.4 U	1.6 U	1.7 U	1.4 U	1.5 U
Hexachlorobenzene	0.04	0.3 U	0.31 U	0.27 U	1.4 UD	6.8 UD	34 UD	0.3 U	0.33 U	0.45 U	0.27 U	0.3 U	0.33 U	0.27 U	0.28 U
Atrazine	7.5	0.41 U	0.43 U	0.37 U	1.8 UD	9.2 UD	46 UD	0.41 U	0.46 U	0.62 U	0.37 U	0.41 U	0.45 U	0.37 U	0.39 U
Pentachlorophenol	1	0.57 U	0.6 U	0.52 U	2.6 UD	13 UD	65 UD	0.57 U	0.64 U	0.87 U	0.52 U	0.58 U	0.63 U	0.52 U	0.54 U
Phenanthrene	50	1.5 U	1.6 U	170 E	210 D	210 JD	210 JD	1.5 U	1.7 U	2.3 U	1.4 U	1.5 U	1.6 U	1.4 U	1.4 U
Anthracene	50	1.6 U	1.6 U	30	28 JD	36 UD	180 UD	1.6 U	1.8 U	2.4 U	1.4 U	1.6 U	1.7 U	1.4 U	1.5 U
Carbazole	NA	0.26 U	13	79 E	83 D	79 JD	30 UD	0.26 U	0.3 U	0.4 U	0.24 U	0.27 U	0.29 U	0.24 U	0.25 U
Di-n-butylphthalate	50	6.4 U	6.7 U	5.9 U	29 UD	150 UD	730 UD	6.4 U	7.2 U	9.8 U	5.9 U	6.5 U	7.1 U	5.9 U	6.1 U
Fluoranthene	50	0.22 U	0.23 U	19	20 JD	5 UD	25 UD	0.22 U	0.25 U	0.33 U	1.6 J	0.22 U	0.24 U	0.2 U	0.21 U
Pyrene	50	1.5 U	1.6 U	11	10 JD	35 UD	180 UD	1.5 U	1.7 U	2.4 U	3.9 J	1.6 U	1.7 U	1.4 U	1.5 U
Butylbenzylphthalate	50	0.46 U	0.48 U	0.42 U	2.1 UD	10 UD	52 UD	0.46 U	0.52 U	0.7 U	0.42 U	0.47 U	0.51 U	0.42 U	0.44 U
3,3-Dichlorobenzidine	5	1.2 U	1.2 U	1.1 U	5.4 UD	27 UD	140 UD	1.2 U	1.3 U	1.8 U	1.1 U	1.2 U	1.3 U	1.1 U	1.1 U
Benzo(a)anthracene	0.002	1.4 U	1.5 U	1.7 J	6.5 UD	32 UD	160 UD	1.4 U	1.6 U	2.2 U	3 J	1.4 U	1.6 U	1.3 U	1.4 U
Chrysene	0.002	0.29 U	0.3 U	1.3 J	1.3 UD	6.5 UD	32 UD	0.29 U	0.32 U	0.43 U	3.7 J	0.29 U	0.31 U	0.26 U	0.27 U
bis(2-Ethylhexyl)phthalate	5	1.4 U	1.5 U	1.3 U	6.5 UD	32 UD	160 UD	1.4 U	1.6 U	2.2 U	1.3 U	1.4 U	1.6 U	1.3 U	1.4 U
Di-n-octyl phthalate	50	0.29 U	0.3 U	0.26 U	1.3 UD	6.5 UD	32 UD	0.29 U	0.32 U	0.43 U	0.26 U	0.29 U	0.31 U	0.26 U	0.27 U
Benzo(b)fluoranthene	0.002	0.47 U	0.49 U	0.43 U	2.2 UD	11 UD	54 UD	0.47 U	0.53 U	0.72 U	1.6 J	0.48 U	0.52 U	0.43 U	0.45 U
Benzo(k)fluoranthene	0.002	0.33 U	0.34 U	0.3 U	1.5 UD	7.5 UD	38 UD	0.33 U	0.37 U	0.5 U	0.3 U	0.33 U	0.36 U	0.3 U	0.31 U
Benzo(a)pyrene	NA	0.24 U	0.25 U	0.22 U	1.1 UD	5.5 UD	28 UD	0.24 U	0.27 U	0.37 U	2.3 J	0.24 U	0.27 U	0.22 U	0.23 U
Indeno(1,2,3-cd)pyrene	0.002	0.73 U	0.76 U	0.66 U	3.3 UD	16 UD	82 UD	0.73 U	0.81 U	1.1 U	0.66 U	0.73 U	0.8 U	0.66 U	0.69 U
Dibenz(a,h)anthracene	NA	0.59 U	0.62 U	0.54 U	2.7 UD	14 UD	68 UD	0.59 U	0.67 U	0.9 U	0.54 U	0.6 U	0.65 U	0.54 U	0.56 U
Benzo(g,h,i)perylene	NA	0.43 U	0.45 U	0.39 U	2 UD	9.8 UD	49 UD	0.43 U	0.48 U	0.65 U	1.6 J	0.43 U	0.47 U	0.39 U	0.41 U

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Table 6: Ground-Water Sampling Results for the Perched Aquifer
Semi-Volatile Organic Compounds

Sample ID	NYS Ambient	FB-1	FB-2	FB-3
Lab Sample Number	Ground Water	Z3783-05	Z3830-15	Z3830-16
Sampling Date		7/18/2008	7/21/2008	7/22/2008
Matrix		WATER	WATER	WATER
Dilution Factor		1	1	1
Units	ug/L	ug/l	ug/l	ug/l
Fluorene	50	0.28 U	0.28 U	0.29 U
4-Nitroaniline	5	0.36 U	0.36 U	0.38 U
4,6-Dinitro-2-methylphenol	NA	0.29 U	0.29 U	0.31 U
N-Nitrosodiphenylamine	50	0.35 U	0.35 U	0.37 U
4-Bromophenyl-phenylether	NA	1.4 U	1.4 U	1.5 U
Hexachlorobenzene	0.04	0.27 U	0.27 U	0.28 U
Atrazine	7.5	0.37 U	0.37 U	0.39 U
Pentachlorophenol	1	0.53 U	0.53 U	0.55 U
Phenanthrene	50	1.4 U	1.4 U	1.4 U
Anthracene	50	1.4 U	1.4 U	1.5 U
Carbazole	NA	0.24 U	0.24 U	0.25 U
Di-n-butylphthalate	50	5.9 U	5.9 U	6.2 U
Fluoranthene	50	0.2 U	0.2 U	0.21 U
Pyrene	50	1.4 U	1.4 U	1.5 U
Butylbenzylphthalate	50	0.42 U	0.42 U	0.44 U
3,3-Dichlorobenzidine	5	1.1 U	1.1 U	1.1 U
Benzo(a)anthracene	0.002	1.3 U	1.3 U	1.4 U
Chrysene	0.002	0.26 U	0.26 U	0.27 U
bis(2-Ethylhexyl)phthalate	5	1.3 U	1.3 U	1.4 U
Di-n-octyl phthalate	50	0.26 U	0.26 U	0.27 U
Benzo(b)fluoranthene	0.002	0.43 U	0.43 U	0.45 U
Benzo(k)fluoranthene	0.002	0.3 U	0.3 U	0.32 U
Benzo(a)pyrene	NA	0.22 U	0.22 U	0.23 U
Indeno(1,2,3-cd)pyrene	0.002	0.67 U	0.67 U	0.69 U
Dibenz(a,h)anthracene	NA	0.55 U	0.55 U	0.57 U
Benzo(g,h,i)perylene	NA	0.39 U	0.39 U	0.41 U

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Table 6: Ground-Water Sampling Results for the Perched Aquifier
Metals (Filtered and Unfiltered)

Sample ID	NYS Ambient Ground Water	MW-1	MW-5S	MW-5S (filtered)	MW-8S	MW-8S	MW-9S	MW-11S	MW-11S (Filtered)
Lab Sample Number		Z3830-02	Z3783-02	Z3783-10	Z3830-03	Z3830-03	Z3830-09	Z3830-04	Z3830-19
Sampling Date		7/22/2008	7/18/2008	7/18/2008	7/22/2008	7/22/2008	7/21/2008	7/22/2008	7/22/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	5	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
TAL METALS									
Aluminum	NA	19.3 U	2380	19.3 U	55400	55400	537	9020	1540
Antimony	3	0.39 J	3.6	2.4	0.19 U	0.19 U	0.5 J	0.49 J	0.84 J
Arsenic	25	5.4 U	33.6	5.4 U	5.4 U	5.4 U	5.4 U	8.97 J	5.4 U
Barium	1000	100	101	29.4 J	2060	2060	226	378	163
Beryllium	3	0.3 U	0.3 U	0.3 U	5.74	5.74	0.3 U	1.02 J	0.3 U
Cadmium	5	0.9 U	0.9 U	0.9 U	4.19 J	4.19 J	0.9 U	0.9 U	0.9 U
Calcium	NA	149000	55100	55500	388000	388000	174000	149000	129000
Chromium	50	1.4 U	9.16	1.4 U	92.3	92.3	1.4 U	16.6	1.77 J
Cobalt	NA	2.5 U	4.6 J	2.5 U	23.5	23.5	2.5 U	8.5 J	2.5 U
Copper	200	3.7 U	76	20.4	10	10	10.2	55.7	9.8 J
Iron	300	15100	5260	96.8 J	334000	334000	9640	31500	3210
Lead	25	4.16 J	34.1	3.1 U	740	740	36.4	388	40.6
Magnesium	35000	18900	5210	3830	47000	47000	27000	14500	13900
Manganese	300	1010	658	951	5850	5850	963	2230	943
Mercury	0.7	0.06 U	0.12 J	0.06 U	17.7	17.7	0.06 U	0.91	0.06 U
Nickel	100	4.9 U	123	76.3	56.4	56.4	4.9 U	14.4 J	4.9 U
Potassium	NA	17900	13400	14400	35900	35900	34700	29900	33200
Selenium	10	4.5 U	5.13 J	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Thallium	0.5	0.1 U	0.14 J	0.1 U	0.27 J	0.27 J	0.13 J	0.17 J	0.1 U
Silver	50	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Sodium	20000	58800	32700	31600	155000	155000	104000	353000	389000
Vanadium	NA	4.1 U	10.9 J	4.1 U	216	216	4.1 U	37.5	5.69 J
Zinc	2000	46.2	988	488	1280	1280	39.6	138	46.3

Table 6: Ground-Water Sampling Results for the Perched Aquifer Metals (Filtered and Unfiltered)

Sample ID	NYS Ambient Ground Water	MW-12S	MW-D3 (MW-12S)	MW-13S	GW-1	GW-2	FB-1	FB-2	FB-3
Lab Sample Number		Z3830-06	Z3830-01	Z3830-05	Z3830-07	Z3830-08	Z3783-05	Z3830-15	Z3830-16
Sampling Date		7/22/2008	7/22/2008	7/22/2008	7/21/2008	7/21/2008	7/18/2008	7/21/2008	7/22/2008
Matrix		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Dilution Factor		1	1	1	1	1	1	1	1
Units	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
<u>TAL METALS</u>									
Aluminum	NA	883	681	542	160	112	19.3 U	19.3 U	19.3 U
Antimony	3	0.26 J	0.3 J	0.2 J	0.43 J	0.28 J	0.19 U	0.19 U	0.19 U
Arsenic	25	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
Barium	1000	198	199	337	98.8	220	11.2 U	11.2 U	11.2 U
Beryllium	3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Cadmium	5	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
Calcium	NA	101000	103000	135000	73700	203000	457 J	282 U	282 U
Chromium	50	1.47 J	1.4 U	1.4 U	3.1 J	1.4 U	1.4 U	1.4 U	1.4 U
Cobalt	NA	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Copper	200	6.52 J	6.16 J	7.15 J	4.21 J	3.7 U	3.7 U	3.7 U	3.7 U
Iron	300	2820	2320	11400	16200	4040	122	33.1 J	27 U
Lead	25	30.5	26.2	18.1	10.9	9.21 J	3.1 U	3.1 U	3.1 U
Magnesium	35000	32300	33700	34100	4520	15000	291 U	291 U	291 U
Manganese	300	385	391	834	762	430	9.43 J	0.9 U	0.9 U
Mercury	0.7	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Nickel	100	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
Potassium	NA	31000	31700	19700	18300	20500	260 J	196 J	113 J
Selenium	10	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Thallium	0.5	0.15 J	0.28 J	0.1 U	0.1 U	0.53 J	0.1 U	0.1 U	0.1 U
Silver	50	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Sodium	20000	162000	174000	66700	286000	139000	1600	1220	886 J
Vanadium	NA	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U
Zinc	2000	45.4	53	38.5	38.7	35.8	33.3	41.2	21.6

OCA LIC
5th St. Mixed Use Housing
EWMA Project # 205490

Table 6: Ground-Water Sampling Results for the Perched Water Table
Analytical Table Qualifiers

Qualifiers

U - The compound was not detected at the indicated concentration.
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.
The concentration given is an approximate value.
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
E (Organics) - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
E (Inorganics) - The reported value is estimated because of the presence of interference.
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
NR - Not analyzed

Appendix – 8

HUMAN HEALTH EXPOSURE ASSESSMENT

Property Known As:

OCA LIC Fifth Street Mixed-Use Housing
5-20 46th Road
City of New York, Queens County, New York 11101
BCP Site No C241098

Prepared for:

OCA Long Island City, LLC
c/o O'Connor Capital Partners
535 Madison Avenue, 23rd Floor
New York, NY 10022

December 2008

Submitted by:

Environmental Waste Management Associates, LLC
P. O. Box 5430
Parsippany, New Jersey 07054
EWMA Case No. 205490

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Qualitative Human Health Exposure Assessment
OCA LIC Fifth Street Mixed Use Housing
5-20 46th Road
City of New York, Queens County, NY 11101
BCP Site #C241098
EWMA Job No. 205490

1.0 INTRODUCTION

Environmental Waste Management Associates, LLC (EWMA) has prepared this Qualitative Human Health Exposure Assessment (QHEEA) for the property known as Former Accurate Associates Site located at 5-20 46th Road, Long Island City, Queens County, New York (Property). This assessment has been included as an appendix to EWMA's August 2008 *Remedial Investigation Report* (RIR). EWMA was retained by OCA Long Island City, LLC (OCA) to complete a *Remedial Investigation* (RI) and prepare a *Remedial Investigation Report* (RIR) for the Property.

An application was previously submitted by OCA to the New York State Department of Environmental Conservation (NYSDEC) for participation in the Brownfield Cleanup Program (BCP) as a "Volunteer" (i.e. OCA) to fulfill the Brownfield Cleanup Program (BCP) requirements to address the nature and extent of the contamination at the site and any potential off-site impacts.

The purpose of this assessment is to characterize the exposure setting (including the physical environment and potentially exposed on and off-site human populations), identify exposure pathways, and evaluate contaminant fate and transport for the subject property of those contaminants identified to exist at the site, at concentrations above regulatory concern, during the remedial investigation.

An exposure pathway is the means by which an individual may be exposed to contaminants originating from the site. The exposure pathway consists of five elements: 1) a contaminant source; 2) contaminant release and transport mechanisms; 3) a point of exposure; 4) a route of exposure; and 5) a receptor population. In order for the exposure pathway to be complete, all five of these elements must be documented. If any one of the five elements has not existed in the past, does not exist in the present and will never exist in the future, an exposure pathway may be eliminated from consideration.

In performing this assessment, current site conditions and proposed future development actions were utilized.

2.0 SITE CHARACTERIZATION - EXISTING CONDITIONS

The subject Property is located on the southeast corner of 46th Road and 5th Street in the Long Island City section of Queens in the State of New York. The subject Property covers approximately 42,575 square feet of area. The site is located within an old industrial portion of the Long Island City, Queens County, New York. The East River is the closest water body located approximately ¼-mile west of the subject Site.

The uppermost unit beneath the Property consists of 10 to 12 feet of historic fill material. The fill is variable, but tends to be coarse grained sand and gravel, intermixed with cinders, coal, brick and wood fragments.

Below the fill lies one to three feet of dark brown clayey peat. This clayey peat has been encountered in nearly all the soil borings, so it appears to be continuous beneath the Property. The clayey peat is interpreted as marsh/wetland deposits, and probably represents the natural ground surface before historic fill was emplaced at the Property.

Fine to coarse sand underlies the clayey peat. The top of the sand is found at depths ranging from 11 to 15 feet below grade (ft bsg).

A dense gray micaceous silt is present below the sand across most of the Property; the top of the silt occurs at a depth of about 30 ft bsg. Along the eastern-most edge of the property, a dense gray till (silt, sand, and clay) underlies the sand. The top of the till was encountered at a depth of about 20 ft bsg.

Bedrock was not encountered in any of the borings completed by EWMA, but geotechnical borings completed at the Property indicate bedrock, consisting of a gray schist, is encountered at depths ranging from 32 ft bsg to greater than 52 ft bsg.

There are two water-bearing zones immediately beneath the Property: an upper, perched-water zone, and an underlying sand aquifer. The perched-water zone occurs within the fill material on top of the clayey peat. Depths to water in monitoring wells completed within the perched zone are about seven to eight feet bgs. The saturated thickness of the perched zone is three to four feet.

The sand aquifer underlies the clayey peat layer. Depths to water for monitoring wells completed in the sand aquifer are about 10 to 11 ft bsg. The gray silt and gray till encountered below the sand (at depths of 20 to 30 ft bsg) are probably acting as a lower confining unit for the sand aquifer.

The large difference in water levels between the perched-water zone and the sand aquifer (two to three feet) shows that the clayey peat is acting as a confining layer, and is greatly limiting the downward migration of groundwater from the fill into the underlying sand aquifer.

Groundwater flow within the sand aquifer is westward, toward the nearby East River Based on water-level elevations obtained during the recent remedial investigation. This contrasts sharply with groundwater flow within the overlying perched-water zone, which is to the east. The reason for the eastward flow within the perched water zone is not known, but it may reflect the surface water drainage patterns that existed in the area before the historic fill was emplaced.

3.0 EXISTING/PROPOSED SITE USE

The BCP portion of the Property is vacant and all structures have been demolished to the street grade, with only concrete flooring, asphalt cover in the former parking lot and a limited wall area remain. The BCP Property is covered with asphalt and concrete impermeable surfacing, acting as an engineering control for contamination contained within the sub-grade fill materials. An 8' high, secured, chain link fence, with green mesh cover, encompasses the entirety of the Property perimeter as an engineering control eliminating unpermitted site access. The basement areas of the site are currently filled with building demolition debris. The Property is depicted on Figure 15, *Remediation Plan.* The area of concrete and asphalt cover on the BCP Property is located within the red dashed perimeter.

Elevated concentrations of lead, arsenic and selenium are encapsulated within a portion of the concrete and wall areas that are utilized as an engineering control under a deed notice with USEPA approval. The USEPA suspended the deed notice based on the proposed Brownfield application by the Volunteer.

The adjacent non-BCP portion of the Property has two vacant buildings and the construction command trailer on the vacant stone and soil covered lot. Demolition permitting is in process for these structures.

The site is currently zoned M1-4/R6A: Manufacturing. Land use is for industrial and manufacturing purposes. Adjacent sites within the same block are used for industrial and manufacturing purposes; and parking. Sites south of the property and 47th Avenue are used for commercial and office buildings. Land use north of the Property and 46th Street is for parking, industrial and manufacturing purposes. Land use west of Property and 5th Street is used for parking, industrial and manufacturing purposes.

The proposed endpoint includes the development of the site as a branch location for the City University of New York (CUNY). As part of the proposed development, removal of all buildings to include concrete flooring, basements and building debris, to include excavation of soil to 7-10' below grade is proposed prior to construction of new impermeable structures consisting of roadway, driveways, underground parking garage and building foundations; with adjacent landscaped areas.

4.0 Remedial History

The majority of the work conducted at the Property to date was solely for investigatory purposes and included both soil and groundwater sampling and analysis. Limited remedial activities have been completed, but these activities have been restricted to encapsulation of metal impacted floors and walls within a building interior under a deed notice. No active remediation systems were ever present at the Property, nor are future systems proposed at this time.

The work completed and detailed in the recent RIR provided the additional data required to generate a more complete understanding of environmental conditions on-site. The environmental data was utilized in the development of this QHHEA.. The opinions and conclusions purported herein are subject to modification based upon the receipt and review of any additional, previously unknown data generated during the course of the proposed remedial investigations and actions that would alter the current understanding of on-site environmental quality.

5.0 Previous Reports

The historic reports listed in the references section of the recent RIR were reviewed to facilitate the preparation of this QHHEA. These reports were previously submitted to the NYSDEC in conjunction with the BCP application for the Property.

6.0 Exposure Pathway Evaluation

6.1 Sources of Contamination

The source of the contamination is the source of contaminant release to the environment; if the original source is unknown, it is the environmental medium (soil, air, water, etc.) at the point of exposure.

Based on the previous Phase I Environmental Site Assessments (ESAs) by others, the Property had initially been developed prior to 1898 for use as an ink factory (i.e., M.L. Perlee) and a varnish works (i.e., Pratt & Lambert). Other previous occupants and uses identified at the subject Site included George L. Fenner (ink factory), Toch Bros. (manufacturer of paints & varnishes), Thibault & Walker Co. (varnish works), I. Wohl Inc. (cleaners & dyers), a dry cleaning and spotting facility, Accurate Metal Casting Co., Inc. and a basement motorcycle repair facility. These identified occupants and operations likely stored and utilized: industrial solvents; gasoline; lubricating, motor, fuel and cutting oils; metal polishing materials; plating bath solutions; paint and painting products, and dye products.

Currently identified as on-site sources of contamination are:

- RCRA arsenic, lead and selenium wastes encapsulated in concrete flooring and building materials;
- Potential fuel oil, gasoline and varnoline storage tanks, whose existence, status and environmental quality has not been established;
- Residual soil contamination for PAH and select metals due to historic fill materials; and
- Light, non-aqueous phase liquids (petroleum product) on groundwater from an unspecified source(s) and residual VO, PAH and metal contamination in groundwater due to fill materials and historic site operations; and
- Potential vapor intrusion issue for tetrachloroethylene (PCE) and methylene chloride detected at concentrations above those listed in the NYSDOH Guidance Document.

RCRA Wastes
Based on available information, a portion of the Property identified as 5-20 46th Road, Long Island City, New York (Block 28, Lot 21) was the subject of an Administrative Order (Docket No. II RCRA-7003-91-0201) issued by the United States Environmental Protection Agency (USEPA) pursuant to Resource Conservation and Recovery Act (RCRA), Section 7003. Pursuant to this Order, Accurate Associates undertook certain removal, investigative and remedial activities at the premises under USEPA's oversight. As part of the remedial activities, portions of the concrete floor and walls within this portion of the Property were encapsulated for the purpose of residual lead, arsenic, and selenium contamination. Pursuant to EPA's RCRA Administrative Order for the property, effective May 29, 1991, the Order's Respondents filed a Notice in Deed in the Queens County City Register on July 14, 1993, No. 47605. The Notice stated that lead, arsenic and selenium are encapsulated beneath portions of the floor and walls at the premises, and that the RCRA Order required that the encapsulation be maintained. The Deed Notice was the final action required by Respondents pursuant to the RCRA Order, as all other removal and remediation actions were satisfactorily performed.

By a letter transmitted to DEC on March 29, 2007, EPA consented to the suspension of the Notice in Deed, No. 47605, and termination of that Notice, upon completion of the remedial program carried out pursuant to the BCP, and provided that the Brownfield Cleanup Agreement be filed in the same place and manner as the Notice in Deed, No. 47605 together with a copy of the EPA consent letter.

On April 5, 2007, NYSDEC issued a letter approving OCA's request to participate in the Brownfield Cleanup Program, established under Article 27, Title 14 of the Environmental Conservation Law (ECL). The NYSDEC has deemed OCA to be eligible to participate in the program as a Volunteer. NYSDEC transmitted the Brownfield Cleanup Agreement

(BCA) along with this approval to OCA for signatures and return back to NYSDEC for final execution.

Storage Tanks
A number of historic storage tanks were identified during the assessment and investigation phases of site environmental work. Many of these storage tanks were reportedly located in or beneath the onsite BCP buildings, hindering investigation activities. Additionally, conflicting or no information was discovered regarding the status of the on-site storage tanks.

Currently, one 10,000 gallon #6 fuel oil tank (AOC 1) is suspected to have been abandoned-in-place and located in the sidewalk adjacent to 46th Road.

Two gasoline storage tanks (AOC 7) were identified on historic Sanborn Maps and the existence of these tanks was currently evidenced by observed vent pipes and a fill pipe with "gasoline" on the cap.

AOC 8 is twenty-two varnoline (Stoddard solvent) tanks that were identified on historic Sanborn Maps. Only one tank was identified during the inspection of the Property due to as a portion of this tank was partially extending through the basement concrete floor. Additional storage tanks were not observed during recent test pit investigative activities. Performance of this investigation was limited by the existing buildings.

It should be noted that Standard Oil historically operated large scale storage tank facilities immediately opposite of the BCP portion of the Property on the west side of 5th Street and the north side of 46th Street. Notably, LNAPL has been observed in temporary well points and monitoring wells on both of these streets.

Residual Soil Contaminants at Concentrations Above Unrestricted Use
VOCs, including acetone, methylene chloride, 2-butanone, benzene, and ethyl benzene were detected at concentrations that exceeded their UUSCO in soils. The most elevated VOC concentrations in soils were detected 6-9' below grade immediately above the clayey peat layer in the western half of the Property. The concrete flooring of the former buildings exists above these locations currently being utilized as an engineering control to prevent the release and potential transport of identified contamination.

BNAs, including naphthalene, acenaphthene, fluorene, phenanthrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzofuran, and dibenz(a,h)anthracene, were detected at concentrations above their UUSCO. A majority of the BNAs detected are likely due to the historic fill, with the exception of naphthalene, which is likely due to petroleum product release found in the UST area at the Property.

Metals, including arsenic, copper, lead, mercury, nickel, and zinc were detected at concentrations exceeding their UUSCOs throughout the Property and are likely due to the historic fill present throughout the Property.

One pesticides (4,4-DDD) was detected in three soil borings near the western edge of the property. No PCBs were detected in soil.

Based on the association of historic fill, targeted SVOC and metal detected contamination and limited surface soil analytical data, it is assumed that these contaminants may be encountered above the UUSCO in surficial soils. The concrete flooring of the former buildings exists above these locations currently being utilized as an engineering control to prevent the release and potential transport of identified contamination.

Residual Groundwater Contamination and LNAPL
LNAPL has been observed in temporary well points and monitoring wells on 5th Street and the north side of 46th Street. It should be noted that Standard Oil historically operated large scale storage tank facilities immediately opposite of the BCP portion of the Property on the west side of 5th Street and the north side of 46th Street, immediately adjacent of the BCP portion of the Property where product has been detected.

Select VO's, BN's, metals and pesticide 4,4-DDT have been detected in perched groundwater in the fill materials and sand aquifer groundwater beneath the fill materials and the peat layer at concentrations above the NYSDEC TOGS 1.1.1 Groundwater Quality Standards.

Vapor Intrusion
The soil vapor investigation results indicated PCE and methylene chloride, were detected in both sub-slab and soil vapor samples at concentrations above those provided in the NYSDOH Guidance Document. Therefore, the potential for vapor intrusion exists at the Site.

6.2 Contaminant Release and Transport Mechanisms

Contaminant release and transport mechanisms carry contaminants from the source to points where people may be exposed.

The primary contaminant release and transport mechanisms for the identified contaminants at this site include: surface water runoff containing particulates; leaching of soil-bound contaminants to the groundwater; groundwater flow carrying free phase product, dissolved and/or particulate-bound contaminants; and the airborne dispersion of vapors and contaminated particulate matter.

The concrete flooring of the former buildings and asphalt cover exists above the soil and groundwater contamination. The impermeable surface cover and security fencing is currently being utilized as temporary engineering controls to prevent the release and potential transport of identified soil and groundwater contamination by wind, storm water and vapor. The use of perimeter security fencing, along with impermeable cover significant reduces direct human contact with identified contaminants above unrestricted use concentrations.

Groundwater flow potentially carrying LNAPL petroleum product is a concern if contamination enters localized subsurface utility systems such as electric, storm sewer, sanitary sewer, water or natural gas lines or enters surface water bodies. Currently, there is no indication that utilities or surface water have been affected.

In the preliminary vapor assessment, PCE and methylene chloride were detected above corresponding concentrations listed in the NYSDOH Guidance Document. The Property is currently unoccupied and there are no on-site structures for a vapor intrusion concern. These exceedances were detected on the western side of the Property, remote from any existing, adjacent site structures. Impermeable surface cover should be effectively reducing on-site vertical vapor migration. Any fugitive vapors that may be diffusing through the impermeable cover would quickly dissipate when exposed to the atmosphere.

Finally, the proposed redevelopment will remove source soil, historic fill and should improve groundwater quality, which are the primary sources of soil vapor.

If approved, excavation activities are proposed to remove approximately 7'-10' of soil, historic fill and concrete flooring for site development. Removal of these materials will effectively remove a majority of the source(s) of contamination groundwater on-site to include:

- RCRA encapsulated arsenic, lead and selenium wastes;
- Storage tanks encountered during excavation activities and potential residual soil contamination due to identified storage tanks; and
- Historic fill and soil contamination.

Residual groundwater contamination and LNAPL petroleum may be encountered and transported due to construction dewatering activities, based on current site information. Construction dewatering activities should include contingencies for oil/water separation with product recovery, filtration and possible treatment such as activated carbon, air stripping or off-site treatment and/or disposal for contaminated groundwater.

Current information does not indicate that contamination from the Property has migrated beyond the sidewalk areas adjacent to the Property. Historic fill is suspected on adjacent properties based a review of historical information, so elevated concentrations of SVOCs and metals in soil and groundwater may be a regional condition.

Proposed excavation activities will be performed under the Community Air Monitoring Plan (CAMP), which monitors vapors and particulate matter during the course of the future remedial disturbance. Environmental workers performing soil removal activities will be required to adhere to the site specific Health and Safety Plan (HASP), which outlines worker protection steps that will be taken to significantly reduce worker exposures to on-site contaminants. Any impacted soils that are excavated and temporarily stockpiled on site will be staged on, and covered with, plastic sheeting to prevent the migration of contaminants from the stockpiled soil.

Specification designs for mitigation of potential future release and transport mechanisms will be incorporated into the site design plan. These specifications, if deemed necessary, may include, but are not limited to, the use of vapor barriers beneath buildings, the use of sub-slab depressurization systems, capping of impacted soil areas (i.e. pavement, asphalt, building foundations, 2' clean fill layer); and groundwater use restrictions. Since the proposed site development plans include underground parking throughout the entire site, some of these controls will likely not be necessary due to the absence of any direct exposure route to the occupants at the ground and upper levels. The proposed excavation and offsite disposal of source soil/historic fill should effectively reduce engineering control requirements for proposed future use.

6.3 Exposure Points

Exposure points are locations where actual or potential human contact with a contaminated medium may occur. Concrete and asphalt cover, as well as perimeter security fencing equipped with opaque mesh cover currently exists over a majority of the BCP Property eliminating current exposure points to impacted soil and groundwater on the Property.

In the future, under proposed site development activities, the primary source of potential exposure to site contamination will be from disturbed soils and dust generated after removal of impermeable cover temporary engineering controls; and during intrusive remediation and construction activities. Proposed redevelopment activities may include construction dewatering. Dewatering activities create the potential for human contact with LNAPL and residually contaminated groundwater. Additionally, human contact is possible during installation of utility trenches. Demarcation of contaminated soil is required in these locations is required to protect workers installing and, in the future potentially repairing onsite utilities. All proposed work will be completed in accordance with the site-specific Health and Safety Plan and the CAMP to protect worker and public safety

The proposed development, if approved, includes provisions to cover any soil contamination that is allowed to remain on site with either impermeable construction materials (i.e. pavement, concrete or buildings) or, in the case of "green" areas, a 2' clean fill layer. It should also be noted that imported clean stone layers will be required for suitable construction foundation for concrete flooring, pavement and buildings. The boundary between the clean fill and existing soils will be demarcated utilizing a high visibility mesh layer, placed on top of the existing soil. A long-term institutional control, in the form of an environmental easement, if required, may also be utilized to safeguard future workers/occupants of the property in the event intrusive work is required (i.e. utility repair work).

Groundwater at the site is not currently used nor are there any proposals for its use, either for potable or other (e.g., irrigation) purposes. It is not anticipated that wells (other than monitoring and/or recovery wells) will remain on-site once the residential development is complete. Any remaining monitoring or recovery wells will need to be secured in a way which prevents damage from vandalism and the potential for exposure, however remote. If necessary, the future use of the groundwater beneath the site will be restricted via long-term institutional control.

6.4 Routes of Exposure

Potential exposures to site contaminants may occur from one of the following scenarios:

1. Ingestion of soil or groundwater;
2. Inhalation of dusts, vapors or gases from soil or from vapors from groundwater; or
3. Direct contact with soil or groundwater (i.e. dermal absorption).

The potential for exposure to contaminated soils and groundwater at the site are discussed in detail in the following sections:

6.4.1 Soils

The potential for ingestion, inhalation and dermal absorption exposure to soil exhibiting concentrations above the unrestricted use standards is significantly reduced by the impermeable cover currently existing at the Property. Perimeter fencing covered with mesh fabric encompasses the Property eliminating unpermitted site entry. These engineering controls will remain in force until proposed redevelopment actions are approved by DEC and subsequently performed.

Specific phases of the proposed property development will increase potential for ingestion, inhalation and dermal absorption exposure to contaminated soil. This includes the following phases:

- During any construction and earthmoving activities on-site to demolish and remove foundations and to clear and grade the property for the construction road and the development roadways and building lots;
- During any soil removal to prepare for re-grading and introduction of clean fill and/or topsoil; and
- Prior to the placement of soil, topsoil and sod on the individual lots.

There is also potential for exposure during intrusive work, e.g., during trenching for utilities or extensive landscaping. However, this potential exposure pathway will be substantially diminished through the proposed use of a mesh (demarcation) layer separating the new, clean soil from the existing soil.

There is also the potential for exposure of occupants on adjacent properties to dust created during construction activities and the tracking of impacted soils off-site by construction vehicles. However, the CAMP requires dust monitoring and the employment of dust suppression techniques. Additionally, a tracking pad will be constructed at the exit/entrances to the construction site to minimize the tracking of mud (i.e. potentially impacted soils) from the site by construction vehicles.

The proposed excavation and off-site disposal of contaminated soil and use of engineering controls such as imported stone for sub-slab layers, concrete flooring, asphalt areas and landscaped areas with imported, clean soil, will effectively replace the existing concrete areas utilized as engineering controls and effectively remove a majority of the source soil and historic fill on-site exhibiting concentrations above the unrestricted use standards, thereby significantly minimizing potential routes of exposure.

6.4.2 Groundwater

There are currently no ingestion, inhalation or direct contact human health concerns for the Property related to groundwater contamination, as impermeable cover engineering controls and perimeter fencing significantly reduce contact with groundwater at the site.

The perched groundwater zone at the site is flowing to the east-northeast. The deeper sand aquifer is flowing to the west. Groundwater delineation data does not indicate that dissolved groundwater contamination or LNAPL has migrated off-site.

During the proposed redevelopment, potential de-watering activities during construction activities may create a direct contact exposure for construction workers. It is not anticipated that any party other than the groundwater remediation specialists would have direct contact with groundwater at this site.

During the proposed redevelopment, the potential inhalation hazard of volatile vapors from groundwater is greatest in the areas of former tanks. The potential exposure pathway is substantially reduced by removing and/or treating the source of potential volatiles, which will be performed under the direction of groundwater remediation specialists.

If necessary, a vapor barrier and/or a sub-slab depressurization system will be installed beneath the concrete slab of any new buildings on the Property. Since the proposed site development plans include underground parking throughout the entire site, some of these controls will not be necessary as any vapors potentially diffusing through concrete will dissipate in the parking garage, therefore a direct exposure route to the occupants at the ground and upper levels would not exist.

6.5 Receptor Population

The receptor population is those people who are, or may be, exposed to contaminants at the point of exposure. The site is currently zoned M1-4/R6A: Manufacturing. Therefore, the current land use is for industrial and manufacturing purposes. Adjacent sites within the same block are used for industrial purposes, manufacturing and parking. Sites south of the Property and 47th Avenue are used for commercial activities and office buildings. Based on these conditions, sensitive populations such as: day-care centers; elementary, middle and high schools; and elder care facilities have not been identified in close proximity to the Property. Currently, there is not data to suggest that vapor intrusion due to site contamination is potentially impacting adjacent properties.

Land use will change with proposed redevelopment from manufacturing to post-secondary schooling. The proposed redevelopment activities will positively affect onsite environmental quality via removal and offsite disposal of all or a majority of identified contaminated soil and historic fill materials and any underground storage tanks onsite. Environmental quality should be reassessed after the removal of these sources of onsite contamination to ensure the protection of the proposed future onsite population of post-secondary students.

If contamination remains on site after the remediation is completed, environmental easements will be required. Once the site has been completely developed, exposure to the future occupant population will be significantly reduced via the engineering controls utilized in developing the site (i.e. pavement, buildings, clean fill barriers, etc.). If necessary, long-term institutional controls will be implemented to ensure that the worker population is not exposed (i.e. for utility repairs, etc.).

All proposed future site investigative and, remedial activities will be conducted in accordance with the site-specific Health and Safety Plan and the CAMP. Therefore, exposure to the worker receptor and adjacent occupant populations will be closely monitored and steps will be employed (i.e. the use of personal protective equipment for on-site personnel, dust suppression, etc.) to significantly reduce exposure to these populations.

7.0 Tables

Historic soil and groundwater analytical tables are provided are attached to this revised QHHEA. The 2008 soil and groundwater analytical tables are provided as Tables 2,4,5,6, and 7 of the included December 2008 Remedial Investigation Report.

8.0 Figures

Maps depicting the soil and groundwater sample locations with contaminant concentrations that exceed the NYSDEC UUSCO and GWQS, and existing impermeable surface cover, are included as **Figures 8, 9, 10, 11, 12, 13, and 14** in the included December 2008 Remedial Investigation report.

9.0 Conclusions and Recommendations

Soil and groundwater impacted with concentrations of VOCs, SVOCs and metals above the NYSDEC UUSCO and GWQS have been detected throughout the Property. These contaminants are associated with chemicals from various operations in the site history dating back to at least the late 1800s, as well as historic fill material located on the property. Currently, impermeable surface cover and perimeter security fencing is being employed as engineering controls that are protective of human health.

The proposed investigation and remediation, associated with identified contamination to be performed as a precursor to development activities, if approved, will be the primary potential human health exposure due to disturbance of site contaminants detected above the unrestricted use standard. This proposed work will be performed by and/or under the direction of environmental remediation contractors.

To minimize the potential exposure to all potential populations and in preparation for proposed site remediation and construction activities, a Health and Safety Plan (HASP) and a Community Air Monitoring Plan (CAMP) have been prepared to protect the community, as well as site environmental and construction workers, and was included as appendices to the recent RIR. The CAMP provides a measure of protection for the surrounding community (i.e., off-site receptors including residents and on-site workers not directly involved with the work activities) from potential airborne releases resulting from investigative and remedial work activities. The CAMP also helps confirm that work activities do not spread airborne contaminants off-site.

The VO contaminants also carry with them a potential secondary exposure via the migration and accumulation of soil vapors. Low concentrations of VOCs were detected in sub-slab and soil vapor samples obtained from biased locations of the Property. Current information does not indicate that on-site vapor concentrations are affecting off-site properties. The removal of a large portion of existing soil should further reduce soil vapor as an issue for future site development.

Appendix – 9

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2
47-40 21ST Street, Long Island City, NY 11101-5407
Phone: (718) 482-4995 • **FAX:** (718) 482-6358
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

May 20, 2008

Sharon McSwieney
Assistant Vice-President
Environmental Waste Management Associates, LLC
51 Everett Drive, Suite A-10
West Windsor, NJ 08550

RE: OCA LIC Fifth Street Mixed-Use Housing
5-20 46th Road, Long Island City, Queens, New York 11101
BCP Site # C241098
Concrete Removal Plan - Revision dated May 13, 2008

Dear Ms. McSwieney:

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has completed its review of the document titled "Concrete Removal Plan" (CRP) dated May 13, 2008. The revised CRP adequately addresses comments provided previously by NYSDEC and NYSDOH, and is hereby approved.

The Applicant and its contractors are solely responsible for safe execution of all invasive and other work performed under the approved CRP. The Applicant and its contractors must obtain all local, state or federal permits or approvals that may be required to perform work under the CRP. Further, the Applicant and its contractors are solely responsible for the identification of utilities that might be affected by work under the CRP and implementation of all required, appropriate, or necessary health and safety measures during performance of work under the approved CRP.

If you have any questions regarding this matter please contact me at (718) 482-4905.

Sincerely,

Bryan Wong
Environmental Engineer

ec: Jane O'Connell, Christopher Horan – NYSDEC
Bridget K. Callaghan – NYSDOH
Brent Carrier – O'Connor Capital Partners
Michael Bogin, Esq. – Sive, Paget & Riesel, PC

Environmental Waste Management Associates

Mid-Atlantic Regional Office:
51 Everett Drive, Suite A-10
West Windsor, NJ 08550
phone (609) 799-7300
fax (609) 799-0108
website - www.ewma.com

COPY

Sent Via Email and Regular Mail

May 13, 2008

Bryan Wong, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, New York 11101

Re: ***Concrete Removal Plan***
OCA LIC Fifth Street Mixed-Use Housing
5-20 46th Road
Long Island City
Queens, New York 11101
BCP No C241098
EWMA Project No. 205490

Dear Mr. Wong:

On behalf of OCA Long Island City, LLC (OCA) Environmental Waste Management Associates, LLC (EWMA) has prepared this Concrete Removal Plan (the Plan) for the above referenced site located at 5-20 46th Road, Long Island City, NY.

The purpose of this Plan is to put in-place appropriate and adequate monitoring and protective measures for the removal of portions of the existing concrete slabs at the subject site for the purpose of completing the approved Brownfield Cleanup Program remedial investigation. The implementation of this plan will allow for minimally intrusive investigation to determine the presence of suspect Underground Storage Tanks (USTs) at the site using Geophysical methods (e.g. GPR, Magnetometer, etc.) following the removal of the concrete slab in all suspect UST areas. Refer to **Figure 1**. This proposed strategy to determine the presence of suspect USTs replaces the previously proposed intrusive test pits investigation as outlined in the January 25, 2008 RIWP and subsequent RIWP Addendum #1 and #2 dated February 1, 2008, and February 20, 2008, respectively.

This Plan is limited solely to those areas where USTs are suspected to be present. This Plan does not apply to any other areas and, specifically, does not apply to the encapsulated portions of the concrete slab within the former RCRA area, which will not be disturbed until a final remedial action has been selected and approved.

Health & Safety Procedures

During the proposed work, EWMA will follow all appropriate and relevant health and safety procedures outlined in the site-specific Health and Safety Plan (HASP), included as **Appendix 11** of EWMA's approved January 25, 2008 Remedial Investigation Work Plan (RIWP).

A designated EWMA personnel serving as the Site Safety Officer (SSO) will be on-site at all times during the proposed activities with appropriate monitoring equipment outlined in the HASP contained in the approved Remedial Investigation Work Plan (RIWP) dated January 25, 2008.

Air Monitoring Procedures

During implementation of the proposed work, EWMA will also implement the Community Air Monitoring Plan (CAMP), included as **Appendix 10** of EWMA's January 25, 2008 RIWP, approved by NYSDEC and NYSDOH.

In addition to the hand-held air monitors operated by the SSO as per the approved HASP, EWMA will provide at least one (1) upwind and two (2) downwind CAMP units consisting of a DataRam 4 (DR-4000) dust meter with an impactor head (for PM-10 dust measurement) and a MiniRae PID (for VOCs measurement) inside an environmental enclosure and mounted on a tripod. The CAMP units will also be equipped to relay the meter alarms above the designated action levels for dust and VOCs outlined in the HASP to a hand-held Walkie-Talkie in possession of EWMA designated SSO during the work activities.

Concrete Removal Procedure

All concrete removal activities will be conducted by a demolition contractor retained by OCA, and under the direction and supervision of EWMA personnel experienced in identifying subsurface environmental contamination. The EWMA oversight will include visual, olfactory and photoionization detector screening ("PID") of the subsurface grade during removal of all slabs, pavement, or concrete structures on grade in the suspect USTs areas.

The following details the concrete removal, and oversight procedures:

1. EWMA will notify NYSDEC at least 48 hours prior to planned concrete removal activities at the site;
2. At least 24 hours prior to planned activities, EWMA personnel will mark out all areas where concrete removal will be necessary for further investigation of the suspect

USTs. EWMA personnel will also mark out all areas of suspect fill/ vent ports, and subsurface piping, and instruct the demolition contractor to use caution in disturbing the concrete in these areas;

3. The concrete removal will be conducted using a rubber tire back hoe or track excavator. Extreme care will be taken so as to prevent accidental damage to the suspect USTs;
4. For cautionary areas (i.e., suspect UST areas), or if any resistance is encountered, a hand-held jackhammer will be used to disturb and manually remove the concrete in order to prevent accidental damage to the suspect USTs and related fill/ vent ports and piping;
5. All removed material consisting exclusively of recognizable concrete, brick, and rock will be treated as exempt Construction and Demolition (C&D) debris, and will be initially staged on-site at a field determined location by the demolition contractor and covered with a tarp at the end of each work day;
6. All exempt C&D debris will subsequently be sent off-site to a regional and authorized solid waste disposal and/or recycling facility by the demolition contractor following appropriate regulatory requirements and protocols;
7. No excavation of the subsurface material will be performed during the concrete removal, and care will be taken to minimize incidental disturbance of the subsurface soils during concrete removal;
8. Any removed material with incidentally removed subsurface soils or visibly impacted with potential contamination will be staged separately on a tarp, and will be covered with a tarp, properly secured along the perimeter, with appropriate soil erosion controls along the perimeter (i.e. hay bales, silt fence, etc.). All such material will be subsequently characterized for off-site disposal at a permitted facility in accordance with applicable regulations and with prior NYSDEC approval;
9. Dust suppression will be implemented and maintained during the proposed activities through the use of water spray/ mist to suppress any visible dust within the work area and at the work perimeter. In addition, misting of exposed areas and use of dust suppressant such as calcium chloride will be implemented if deemed necessary by the EWMA personnel;
10. All concrete removal equipment will be properly decontaminated at the end of each work day using steam cleaning and other physical means necessary at a designated decontamination area at the site;
11. EWMA personnel will take detailed field notes and photographs during the concrete removal activities;
12. All exposed subsurface areas and soils during the concrete removal will be continuously screened using a hand-held PID and appropriate field procedures (e.g. visual observation, odors, etc.) as outlined in the HASP contained in the approved RIWP dated January 25, 2008;

13. If PID readings indicate VOC levels above the ambient background levels by five parts per million (5 ppm) [averaged over one minute] or field observations suggest impacted soil distinct from the surrounding soils (e.g. staining, discoloration, etc.), the soils in the area will be considered an area of concern requiring further evaluation;
14. The location of such areas will be recorded in the field notes and on the site map for future reference, and demarcated using stakes, barricade tape, or temporary fencing to protect the area from unauthorized disruption or entry;
15. If nuisance odors are detected at the perimeter of the work area, odor control measures will be implemented. Odors will be initially controlled with an enzyme product called "EcoCare 250R" available from Nature Plus, Stratford, CT (http://www.ecocareodorcontrol.com/purchase/ocf.html). EcoCare 250GR is specifically formulated to eliminate VOCs such as perfumes, fragrances, solvents, petroleum odors, and aromatics. As per manufacturer's recommendations, this product will be diluted to 1:100 to 1:500 product to water ratio, depending upon the odor intensity, and applied as a fog or fine mist in air or directly sprayed on odor source. EWMA will have a 5-gallon drum of EcoCare 250GR on-site prior to the start of the proposed activities. Upon implementation of the proposed work, EWMA will have the odor suppressant pre-diluted and ready for application/deployment as needed;
16. In the event that sustained odors as a result of the exposed impacted soils are present at the end of each workday, a 6-mil plastic will be placed to fully cover the exposed areas, and properly secured along the perimeter at the end of the work day;
17. In the event that a plastic cover of the exposed areas is insufficient for odor control, EWMA will coordinate an application of a biodegradable odor and emission control foam (e.g. Rusmar AC-665 Foam) with a thickness of 1 to 4 inches over the exposed areas, which will be maintained until an RAWP has been approved and implemented;
18. All surficial areas of concern identified upon removal of the concrete will be further evaluated within 24 hours in accordance with the NYSDEC draft DER-10 document. Specifically, EWMA will collect representative soil samples within the top two feet (2 feet) at a depth exhibiting highest field measurement readings, and submit for full TCL/ TAL+30 laboratory analysis;
19. The results of the initial evaluation process summarized above will be provided to NYSDEC with recommendations for any further investigation or controls necessary;
20. Upon removal of the concrete, a Geophysical survey of the exposed areas will be conducted using GPR, magnetometer, etc. to determine the presence of suspect USTs at the site;
21. In the areas where the Geophysical survey indicates the presence of potential USTs, EWMA will advance soil borings instead of the previously proposed test pits to further investigate any potential impacts from the USTs. The exact locations of the soil borings will be determined based on the results of the Geophysical survey. All soil borings will be installed down to the clay layer previously encountered

throughout the site at approximately 11 feet below existing ground. All activities related to the soil borings investigation will be conducted consistent with the proposals and procedures previously outlined in the approved RIWP and related RIWPAs;

22. Upon completion of the proposed activities and at the end of each work day, all exposed areas will be covered with 6-mil plastic and properly secured at the perimeter. Any impacted areas identified as additional areas of concern will be demarcated using stakes, barricade tape, or temporary fencing to protect the area from unauthorized disruption or entry. An EWMA personnel will conduct weekly site visits and inspections of these areas to ensure the integrity of the implanted controls, and to coordinate any corrective actions necessary by the site contractor, until the implementation of an approved remedy; and,
23. The results of this investigation will be included in the Remedial Investigation Report/ Remedial Action Workplan (RIR/RAW) and submitted to NYSDEC with a certification by EWMA's licensed New York State PE.

EWMA requests your review and approval of the above Concrete Removal Plan at your earliest convenience. If you have any questions or require any additional information please feel free to contact me at EWMA's West Windsor, NJ office, (609) 799-7300 Ext. 196.

Sincerely,
Environmental Waste Management Associates, LLC

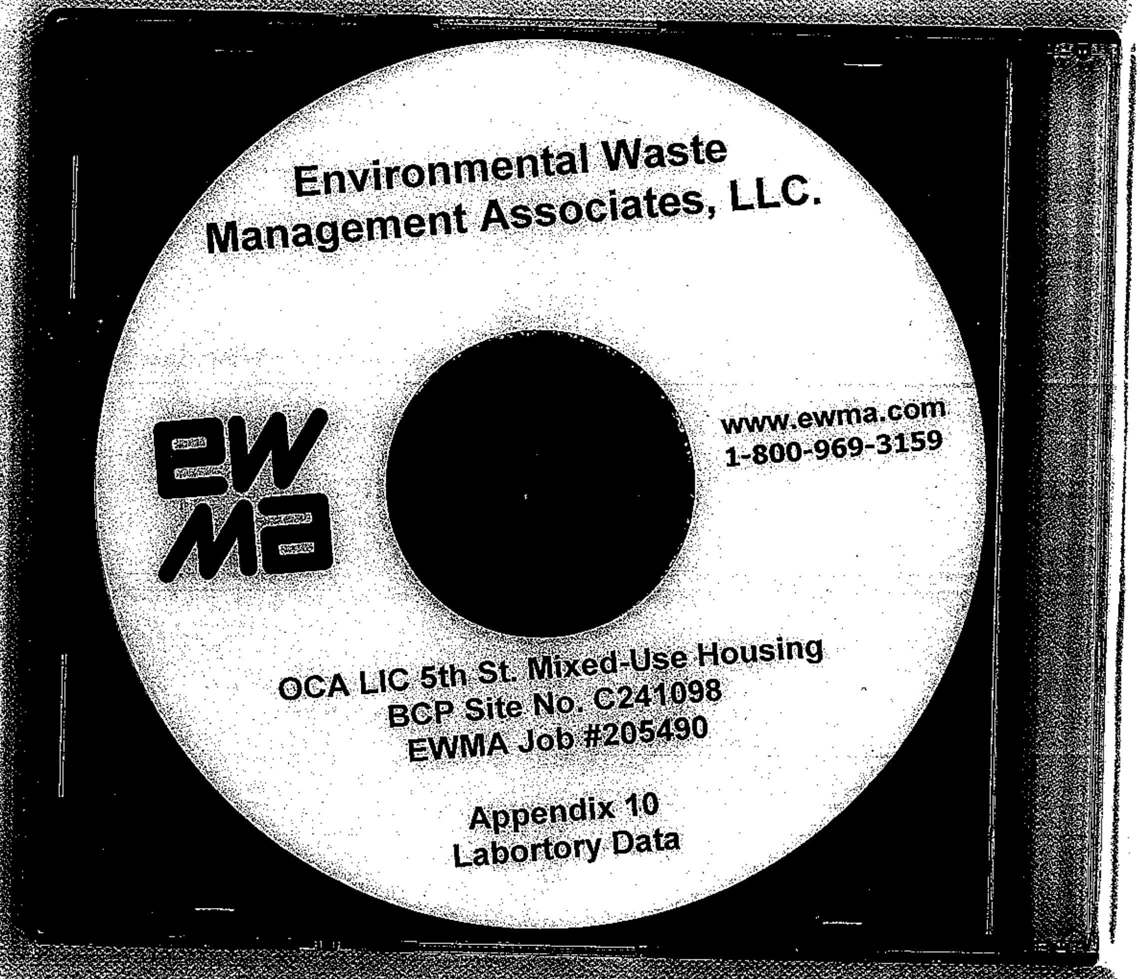
Sharon McSwieney

Sharon McSwieney, A.V.P.
Project Manager

Encl.

Cc: Bridget K. Callaghan, NYSDOH
Brent L. Carrier, O'Connor Capital Partners
Michael Bogin, Esq., Sive, Paget, Riesel, PC
Chris Viani, EWMA
Ron Weissbard, EWMA

Appendix – 10



Environmental Waste
Management Associates, LLC.

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1-800-969-3159

OCA LIC 5th St. Mixed-Use Housing
BCP Site No. C241098
EWMA Job #205490

Appendix 10
Labortory Data

Appendix – 11

Photo 1: Fifth Street Suspect UST Area. Note the three ports in line down the center of the photo. Two were labeled "fuel oil" and one resembled a vent.

Photo 2: Fifth Street Test Pit revealed a concrete pad at approximately 4 feet below the surface grade. The "fuel oil" fill port was encased in the concrete.

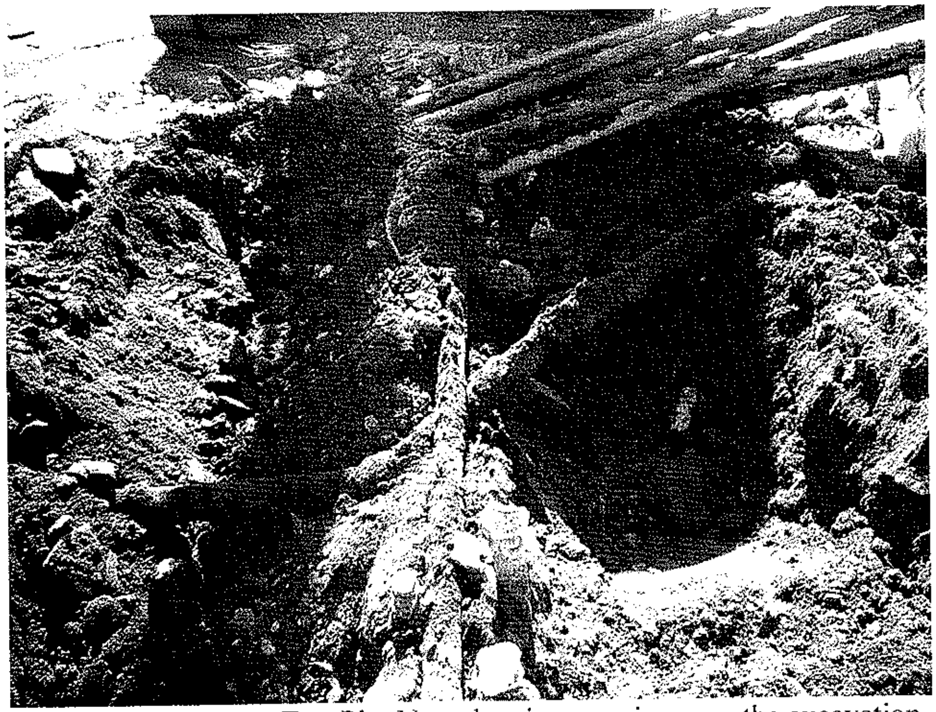

Photo 3: Fifth Street Test Pit. Note the pipe crossing over the excavation.

Photo 4: The Varnoline Test Pit Area prior to Excavation for Test Pit.

Photo 5: Varnoline Test Pit. Concrete Pad encountered at approximately three feet below surface grade with staining and odor.

Photo 6: Suspect Varnoline (Stoddard Solvent) UST embedded in subsurface concrete pad. The UST outlets were plugged prior to backfilling.

Photo 7: The 46th Road Test Pit Area.

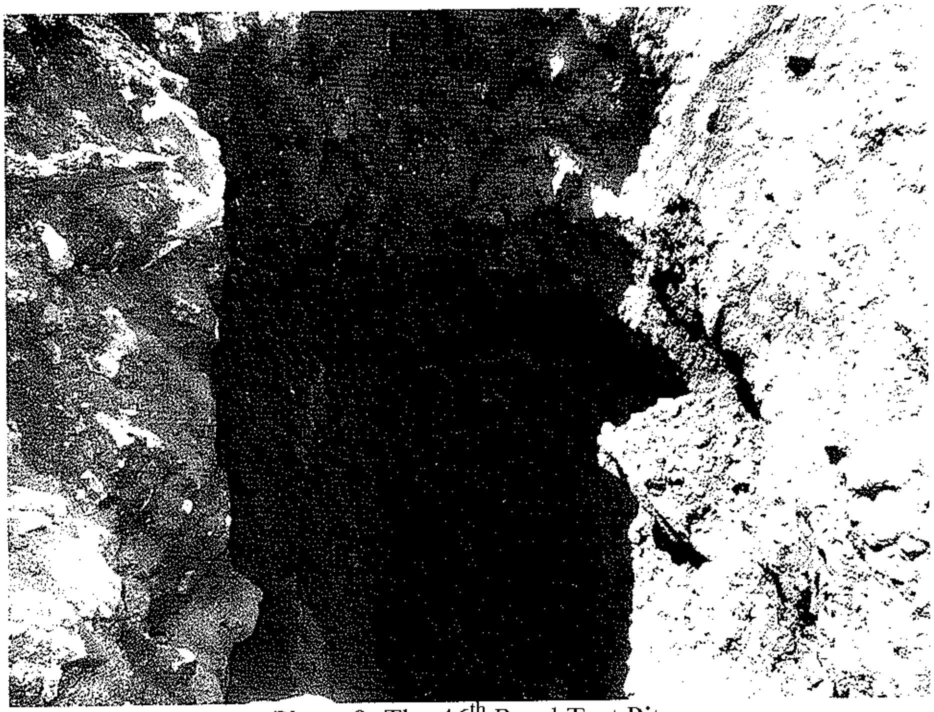

Photo 8: The 46th Road Test Pit.

Photo 9: Soils from 46th Road Test Pit. Note LNAPL soaked soils.