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April 3, 2013

Mr. Bryan Wong, Environmental Engineer
NYSDEC
Division of Environmental Remediation, Region 2
One Hunters Point Plaza
47-40 21st Street
Long Island City, New York 11101-5407 via e-mail: yywong@gw.dec.state.ny.us

Re: Former NuHart Plastic Manufacturing - Site No. 224136
Draft Supplemental Remedial Investigation Work Plan
ESI File: SB09110.50

Dear Mr. Wong:

This Draft Supplemental Remedial Investigation Work Plan (Work Plan) has been prepared by Ecosystems Strategies, Inc. (ESI) in response to NYSDEC directives for additional investigative activities at the above-referenced property (Site), and has been developed to meet the objectives of the approved Remedial Investigation Work Plan (RIWP) dated November 2011.

Proposed activities will be implemented in accordance with all requirements, methodologies and services as specified in the RIWP, which is incorporated into this Work Plan by reference (to facilitate your review of this document, the body of the RIWP has been provided as Attachment 1). Environmental conditions encountered during fieldwork activities may necessitate modifications to this Work Plan; any such changes will be subject to NYSDEC review and/or approval and will be properly documented. ESI will ensure that any unforeseen environmental conditions are managed in accordance with applicable federal and state regulations.

BACKGROUND

Analytical results from ESI's February 2012 soil gas sampling event are summarized below:

1. Trichloroethylene (TCE) was detected in soil gas samples SG-2 and SG-3 at 59 ug/m^3 and 35,000 ug/m^3, respectively.

2. Tetrachloroethylene (PCE) was detected in soil gas sample SG-3 at 830 ug/m^3.

Given that no significant concentrations of TCE or PCE have been previously identified in Site soils or groundwater (including borings [e.g., SB-69] proximal to SG-3),, detected concentrations at SG-3 (and, to a lesser extent, SG-2) indicate a limited on-site source area. No comment can be made regarding impacts to indoor air quality, although the Site is currently vacant and therefore on-site exposure to contaminants is not an imminent concern. Additional data points are warranted to more completely define concentrations of VOCs in on-site soil gas.

A Proposed Fieldwork Map depicting sample locations is provided as Attachment 2 and Laboratory Data Tables are provided as Attachment 3.

PROPOSED FIELDWORK

The work detailed below is proposed in this Work Plan. This work will augment existing data and is intended to provide a sufficient description of soil gas conditions at the Site.

The following Tasks will be performed:

- Extension of eight borings and collection/analysis of eight soil samples for VOCs and SVOCs;
- Completion of two borings as groundwater monitoring wells and collections/analysis of groundwater samples for VOCs and SVOCs;
- Collection and analysis of six soil gas samples from the Site.

No indoor air quality samples are proposed at this time as the Site is vacant and will be subject to remedial activities that may involve breaching the concrete floor.

Extension of Soil Borings

Eight borings will be advanced to a minimum depth of 15 feet (23 feet for the two borings developed as monitoring wells) or deeper if field conditions warrant (e.g., overt evidence of contamination), as appropriate, to define the spatial distribution of PCE and TCE in soil gas. Additional borings may be performed if evidence of contamination is encountered (two “step out” borings will be located 15 – 20 feet from any proposed boring location with field evidence of contamination, e.g., elevated PID readings).

Soil Sampling and Analysis

Soils will be screened with a PID and samples will be collected from the surface, from the groundwater interface, and from any encountered stratum where there is field evidence of contamination. All encountered soils will be properly characterized in the field and findings will be recorded in a logbook. One duplicate and one matrix spike/matrix spike duplicate (MS/MSD) soil sample will be collected for quality assurance/quality control purposes. An equipment rinse blank may also be collected, if appropriate/warranted.

One sample from each boring will be submitted to a NYSDOH ELAP-certified laboratory for analysis of volatile organic compounds (VOCs) utilizing USEPA Method 8260 (full list, plus TICs). The particular soil sample submitted for laboratory analysis will be determined by field observations and by PID screening. At a minimum, four samples will be submitted from shallow soils. Additional samples may be submitted if field evidence suggests the need/benefit of more data.

Monitoring Well Installation and Development

The two boreholes (SB-80 and SB-82) will be completed as groundwater monitoring wells (MW-28 and MW-29). Wells will be developed a minimum of one week following installation in the manner detailed in the RIWP.

Groundwater Sampling and Analysis

Groundwater samples will be collected approximately one week after well development activities are completed. All groundwater samples will be submitted to a NYSDOH ELAP-certified laboratory for analysis of VOCs utilizing USEPA Method 8260. One trip blank will be supplied for each day of fieldwork

involving groundwater sample collection activities. No duplicate sample will be collected for this sampling round.

Soil Gas Sampling and Analysis

A total of four soil gas samples will be collected at the Site (proposed sample locations are provided in Attachment 2). The four locations will be selected based on field screening of the six boreholes. Additional locations may be suggested based on field evidence of contamination and each location is subject to relocation based on field conditions.

Soil gas samples will be collected into laboratory supplied 6 liter stainless steel Summa canisters equipped with 1 hour calibrated flow controllers, and will be submitted to a NYSDOH ELAP-certified laboratory for analysis of VOCs utilizing USEPA Method TO-15. Soil gas sample results will be compared to applicable NYSDOH guidance levels.

DOCUMENTATION

At the completion of all services detailed in this Work Plan, a Remedial Investigation Report (RIR) will be prepared and will be submitted to the NYSDEC for review and approval. This RIR will include, at a minimum: a summary of all fieldwork activities; results of any laboratory analyses generated as a result of this investigation; waste transport/disposal manifests for all investigation-derived waste (including well purge water and measurable free product, if present); maps illustrating Site investigation activities; a Data Usability Summary Report (DUSR) prepared by a third, independent party, which maintains NYSDOH ELAP CLP Certification; and, a recommendation for either additional investigation, additional monitoring or a recommendation for remediation, as appropriate.

We hope that you will find this Work Plan acceptable. Please contact me at (845) 452-1658 with any questions and/or concerns.

Sincerely,

ECOSYSTEMS STRATEGIES, INC.

Paul H. Ciminello
President

Attachment
PHC:ALA:ndc

Attachments: 1 – Approved Remedial Investigation Work Plan
2 – Proposed Fieldwork Map
3 – Data Summary Tables

cc: Joseph Folkman – 49 Dupont Realty Corp.
Lawrence P. Schnapf, Esq.
James Rigano - Rigano LLC

ATTACHMENT A

Approved Remedial Work Plan

REMEDIAL INVESTIGATION

WORK PLAN

Prepared for the

Former NuHart Plastic Manufacturing Site

Hazardous Waste Site No.: 224136

Located at

280 Franklin Street
Borough of Brooklyn
Kings County, New York

November 2011

ESI File: SB09110.52

Prepared by:

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24 Davis Avenue
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Prepared For:

49 Dupont Realty Corporation
P.O. Box 786
Deer Park, New York 11729

I, Paul H. Ciminello, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Any and all questions or comments, including requests for additional information, should be submitted to the undersigned.

Paul H. Ciminello
President

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

Ecosystems Strategies, Inc. (ESI) has prepared this Remedial Investigation Work Plan (RIWP) in order to investigate the nature and full extent of contamination of regulated chemicals (both on and off-site) resulting from historical operations at the "Former NuHart Plastic Manufacturing Site" (hereafter referred to as the "Site") located at 280 Franklin Street in the Borough of Brooklyn, Kings County, New York as per a NYSDEC Consent Order, dated January 18, 2011.

1.2 Site Location and Description

The Site is the western portion of an industrial building complex which consists of a number of separate buildings joined together over time (the "Complex") in the Greenpoint section of Brooklyn, in a mixed use (industrial/commercial/residential) area. The approximately 1 acre Site is described on the city tax map as Block No. 2487, Lots No. 1, 10, 12, 72 and 78 (the dimensions of the Site are approximately 240 feet by 200 feet). A map that shows the Site location and outlines the boundaries of the Site is provided as Figure 1, Appendix A.

The Site is bordered immediately to the north and east by commercial/industrial buildings, to the south by multi-family residential structures, and to the west, a park. Additional residential structures are located east of the Complex.

Soil and groundwater have been contaminated by phthalates and a mix of phthalates and paraffinic oil (mineral oil) used historically for industrial operations conducted at this Site. The Site is currently vacant (not used for industrial purposes at the present time).

The most recent manufacturing operations that occurred at the Site did not involve the use of paraffinic/Mineral Oil (this constituent is likely a result of past industrial manufacturing operations conducted by the previous property owner[s]).

1.3 Property & Site History

Information regarding the industrial history at this location was obtained during the completion of a Phase I Environmental Site Assessment for the property. The Complex had several commercial/industrial uses prior to 1950 including: an ironworks, stables, a gas and electric light fixture factory, a sheet metal works, a soap manufacturer, a water proofing manufacturer, and a scrap metal facility. After 1950, the Complex was primarily used for the production, storage, and shipping of plastic and vinyl products by several tenants (the last tenant ceased operation in 2004).

A Preliminary Phase I Site Assessment and a Phase I Environmental Site Assessment were completed for the Complex by RTP Environmental Associates Inc. and FPM Group, respectively. The reports identified the presence of underground storage tanks (USTs), sub-grade pipe trenches, a loading dock drain and silos in the portion of the Complex that is the Site.

The property owner retained an environmental consultant, Advanced Site Restoration, LLC (ASR), to properly clean and close the USTs (closed in place) and trenches identified at the Site. Tank and trench cleaning/closure and product disposal activities were documented in ASR's Underground Tank Closure Report, dated July 2006.

ASR also advanced extensive soil borings throughout the Site so that soil samples could be collected from the surface and/or the soil-groundwater interface. Elevated concentrations of Regulated Chemicals (a mix of phthalates and mineral oil) were detected at some of the borings located on the Site.

Groundwater monitoring wells and product recovery wells were installed by ASR as documented in a Phase II Site Assessment report, dated March 2007. Free product was detected in several of the on-site wells, but not in the off-site wells. As a result, several additional product recovery wells were installed on the Site and free product was subsequently removed from the recovery wells.

Product removal activities have been documented in a Monthly Monitoring Report, dated December 27, 2007 and several Quarterly Sampling Reports prepared by ASR.

The following provides a summary of analytical data provided in the ASR Phase II Site Assessment Report, dated March 2007 (provided in Appendix F):

1. Soil – Soil borings SB-4, SB-5, SB-6 and SB-7 had numerous detectable levels of Semi-volatile Organic Compounds (SVOCs) which exceeded TAGM levels in 2007. SB-5 also had numerous Volatile Organic Compounds (VOCs) which exceeded TAGM levels in 2007. Note: If this data is compared to current Title 6 NYCRR Part 375, Table 6.8 (current soil cleanup objectives), none of the VOCs for SB-5 exceeded un-restricted clean-up objectives and only one SVOC would exceed restricted clean-up objectives for Industrial sites. Pesticides and/or PCBs were not detected in the soil borings at concentrations that exceeded unrestricted clean up objectives. RCRA metals were detected at concentrations that exceeded either unrestricted use, restricted commercial or industrial or background levels.

2. Soil – Soil boring SB-39 (aka recovery well RW-10) had numerous detectable levels of VOCs and SVOCs which exceeded TAGM levels in 2007. Note: If this data is compared to current Title 6 NYCRR Part 375, Table 6.8 (current soil cleanup objectives), none of the VOCs and only two SVOCs would exceed unrestricted clean-up objectives and none of the SVOCs would exceed restricted clean-up objectives for industrial sites.

3. Groundwater – The majority of the groundwater monitoring wells at the site had detectable concentrations of one to two VOCs and/or one to two SVOCs that exceeded applicable groundwater standards/guidance criteria.

The following provides a summary of information contained in the ASR January – March 2009 Quarterly Report (provided in Appendix G):

1. Product Recovery Program – Free product was historically detected in the area surrounding MW-4 through MW-7, MW-9, MW-15, MW-16 and RW-2 through RW-10. Free product was removed, recorded and was properly disposed of using a peristaltic pump and/or P-10 sticks (an all natural absorbent). It is estimated that approximately 641 gallons of product was recovered from the abovementioned wells in three months (January 2009 through March 2009).

2. BTEX in excess of applicable NYS Groundwater Quality Standards was not detected in any of the groundwater samples collected for this sampling event.

3. A noticeable decrease in the plume size has been observed throughout the quarter (wells that historically contained product, MW-7, MW-15 and MW-16, now only exhibit sheens).

4. The following provides a summary of depth of free product detected in the recovery wells from 2006 to 2008:

    - RW-1 – No free product observed.
    - RW-2 – Depths ranging from 0.01 to 1.68 ft.
    - RW-3 - Depths ranging from 0.17 to 2.22 ft.
    - RW-4 - Depths ranging from 0.13 to 1.98 ft.
    - RW-5 - Depths ranging from 0.01/sheen to 3.82 ft.
    - RW-6 - Depths ranging from 0.03/sheen to 0.83 ft.
    - RW-7 – Not part of this site.
    - RW-8 – Depths ranging from 0.25 to 2.30 ft.
    - RW-9 – Depths ranging from 0.12 to 1.50 ft.
    - RW-10 – Depths ranging from 0.07 to 0.76 ft.

The most recent investigative activities at the Site were completed by another environmental consultant, Ecosystems, Strategies, Inc. (ESI), in 2010 (results are documented in ESI's April 2010 Interim Investigation Report). Findings of this investigation included the following:

1. Groundwater was determined to be flowing from the east (slightly southeast) to the west (slightly northwest) across the subject property (towards Franklin Avenue and away from residential dwellings in the nearby area). On-site wells were not affected by tidal fluctuation in the nearby East River.

2. Two distinctly different free products were identified at the Site. Based on field evidence and laboratory analysis these products include phthalates near the western portion of the Site, and a mixture of phthalates and mineral oils (paraffinic/mineral oil) in the southern portion of the Site.

3. Current sampling data documents no significant dissolved contamination in any of the wells sampled on the Site.

The ESI report indentifies several constraints with regard to implementing remedial activities for the Site, which will have to be considered while developing any further interim and/or full-scale remediation. These constraints include:

1. The presence of the on-site building including the ceiling height and structural supports for the upper stories present in the most western portion of the structure.

2. The native on-site subsurface soils consist of fine silty sand and silty clay which will restrict the movement of free product towards remedial measures and would require extensive stabilization if excavation is considered as part of remediation.

3. The depth to water is relatively deep at the Site, requiring extensive excavation in order to implement certain remedial activities (e.g. trenches).

4. A summary of free product depth as measured on February 15 and 22 of 2010 is as follows:

    - MW-8, MW-12, MW-13, MW-14 and RW-1 – No Free Product
    - MW-4 and MW-15 – 11.16 and 8.88 inches, respectively
    - MW-5 – 58.44 inches
    - MW-6 – 45.12 inches
    - MW-7 – 33.48 inches
    - MW-16 – 1.8 inches
    - RW-2 – 51.48 inches

- RW-3, RW-4 and RW-9 – 15.96, 16.44 and 17.4 inches, respectively
- RW-5 and RW-6 – 6.96 and 2.88 inches, respectively
- RW-8 – 38.52 inches
- RW-11 – 27.24 inches
- RW-12 – 57.48 inches

The interim remedial measure being implemented at the Site to address the presence of free product is described below.

Product Recovery Belt skimmers have been installed at the Site to continuously remove free product from wells to the surface where it is collected/removed for off-site disposal. Belt skimmers make use of the differences in specific gravity and surface tension between oil and water. These physical characteristics allow the skimmer's continuous belt to attract floating oil in the well. After picking up the oil, the belt travels over the head pulley on the drive unit and through tandem wiper blades. The oil is then scraped off both sides of the belt and discharged to a collection vessel.

1.4 Proposed Future Use of the Site

Future use of the property, which includes the Site, is expected to be industrial, therefore, it is the intent of the Site Owner to remediate the Site so it is consistent with NYSDEC Remedial Program Restricted Use Soil Cleanup Objectives (SCOs) for Industrial uses (6 NYCRR Subpart 375, Table 375-6.8[b]).

2.0 SITE INVESTIGATION

2.1 Investigation Objectives

The objective of this RIWP, as required by the NYSDEC Consent Order, is to further investigate the extent of existing contamination at the Site by documenting and clearly defining the presence or absence of contaminants in subsurface soils and groundwater; so further investigation and/or remedial activities can be completed/recommended, as appropriate.

2.2 Summary of Investigation Services

In order to achieve the objective specified in the section above, the following will be completed:

1. Coordinate and supervise the advancement of 12 interior soil borings (proposed soil borings SB-60 through SB-71) and 4 off-site borings (SB-72 through SB-75). Collect one soil sample from each boring.

2. Complete 3 of the interior soil borings as recovery wells (proposed recovery wells RW-13 through RW-15). Collect one groundwater sample from each well after development.

3. Complete 3 of the borings as groundwater monitoring wells (MW-20, MW-21 and MW-22) and the collection and analysis of three groundwater samples.

4. Re-develop and collect a groundwater sample from 8 existing monitoring wells (MW-4, MW-6, MW-7, MW-12, MW-13, MW-14, MW-15 and MW-16).

5. Measure the amount of free product, if any, within existing recovery wells RW-1, RW-2, RW-3, RW-4, RW-5, RW-6, RW-8, RW-9, RW-10, RW-11 and RW-12 (any free product observed will be removed from the well(s) and will be disposed of appropriately).

6. Document the presence or absence of contamination through sampling and laboratory analysis of subsurface soil and groundwater for volatile organic compounds (VOCs) by EPA Method 8260 (full list, plus tics), semi-volatile organic compounds (SVOCs) by EPA Method 8270 (full list, plus tics) and TAL metals by EPA method 6010.

7. All samples will be analyzed for SVOCs utilizing USEPA Method 8270 (full list, plus tics) and 10% of the samples will be analyzed for TAL Metals utilizing USEPA Method 6010 and 7471. Given the significant amount of prior investigation work already completed at the site which has established that the constituents of concern are limited to SVOCs (more specifically, phalates) as opposed to VOCs, it is proposed that approximately 50% (minimum) of the samples be analyzed for VOCs utilizing USEPA Method 8260 (full list, plus tics) unless field observations dictate otherwise.

8. All groundwater samples will be collected using low-flow purging and sampling methodologies. Refer to Appendix D for a Quality Assurance Project Plan (QAPP) which identifies the principal personnel who will participate in the investigation and which includes a table that summarizes proposed sample locations and analysis.

9. A Soil Gas Survey (SGS) will be completed to determine the concentration of volatile organic vapors (VOCs) located within the sub-grade soils.

This RIWP is divided into individual sections that describe site preparation and fieldwork methodologies (Section 2.3), proposed investigation services (Section 2.4), and the proposed project schedule (Section 3.0)

2.3 Site Preparation & Fieldwork Methodology

2.3.1 Agency Notification

The NYSDEC will be notified in writing at least five (5) business days prior to the start of fieldwork. Notification of subsequent field activities will be in accordance with reasonable business practice, with verbal notification for immediate (within 48 hours) activities and written notification otherwise. Written notifications will be transmitted to the agencies via facsimile or electronic mail.

2.3.2 Utility Markout

Prior to the implementation of any of the investigative tasks outlined in subsequent sections, a request for a complete utility markout of the Site will be submitted a required by New York State Department of Labor regulations. Confirmation of underground utility locations will be secured, and a field check of the utility markout will be conducted prior to the initiation of field work. Any utilities identified on the Site will be protected (as necessary) by the contractor or owner.

2.3.3 Equipment Calibration

A photo-ionization detector (PID) will be utilized during fieldwork activities to screen monitoring well headspace for the presence of volatile vapors. The PID will be calibrated at the onset of each workday, and a written calibration log will be maintained for this project. The PID will be calibrated to read parts per million gas equivalents of isobutylene in accordance with protocols set forth by the equipment manufacturer.

Prior to the initiation of fieldwork, all field equipment to be used during the work will be properly decontaminated in accordance with NYSDEC guidelines, and all field instruments will be properly calibrated in accordance with procedures set forth by the equipment manufacturer(s). Unless otherwise specified, a MiniRAE 3000 photo-ionization detector (PID) will be used for the screening of organic vapors. The PID is calibrated to read parts per million calibration gas equivalents (ppm-cge) of isobutylene. Instrument calibration will be performed no more than 24 hours prior to the commencement of fieldwork, and a written record of calibration results will be maintained in the project files.

2.3.4 Subcontractor Coordination

Subcontractors will perform requested services under the direct supervision of the On-site Coordinator (OSC). Prior to the initiation of fieldwork, all subcontractors will be notified of the components of the Health and Safety Plan (see Section 2.3.6, below), as appropriate. All necessary insurance certificates will be secured from subcontractors by the OSC and will be transmitted to and approved by the Client. At this time, the following subcontractors are anticipated to be used on this project:

- Driller
- Analytical Laboratory
- Independent Data Validator

2.3.5 Exposure Assessment

This exposure assessment is being provided to qualitatively assess potential impacts to human health and the environment based on current information collected to date for the Site (not the property).

The primary contaminants present on the Site are phthalates and a mix of phthalates and paraffinic oil in the subsurface soil and groundwater. Contaminated soil is located beneath portions of the building complex within tax lots 1, 10, 12 and 72. Since the contaminated area is covered by the floor of the buildings, it is unlikely there will be direct contact with contaminated soil. Exposure to contaminated groundwater is not occurring, as there are no water supply wells located in the vicinity of the Site and the surrounding area is served by a public water supply.

The potential exists at the site for "Vapor intrusion", although existing evidence would suggest that any vapors present on the Site are minimal and/or have originated from off-site sources (that is, soil data from samples collected on the Site indicate only low levels of volatile organic compounds). According to the NYSDEC, “Vapor intrusion is the process by which volatile chemicals move from a subsurface source into the indoor air of overlying or adjacent buildings. The subsurface source can either be contaminated groundwater or contaminated soil which releases vapors into the pore spaces in the soil. Vapors can enter buildings in two different ways. In rare cases, vapor intrusion is the result of groundwater contamination which enters basements and releases volatile chemicals into the indoor air. In most cases, vapor intrusion is caused by contaminated vapors migrating through the soil directly into basements or foundation slabs.”

Direct contact or inhalation of contaminated soils/sediment, soil vapors, or dust generated during proposed/future investigation activities are the most likely exposure pathways. Ingestion of contaminated media is another possible exposure pathway (ingestion of contaminated water is not a reasonable route of exposure as the Site and surrounding area is serviced by a public water supply).

On-site workers (or trespassers) present during future investigation, remediation and/or development activities are the most likely receptor population. The implementation of a Health and Safety Plan (HASP), incorporating a Community Health and Safety Plan and community air-monitoring plan, will mitigate possible impacts to any potential receptor populations.

Ecological exposures are limited to the movement of groundwater contaminated by VOCs, SVOCs and/or heavy metals. Historical data collected to date indicates that limited off-site migration of dissolved contamination (low VOC levels) has occurred; however interim remedial measures have been implemented at the site to prevent the possibility of further off-site migration (installation of product recovery wells equipped with belt skimmers), therefore exposure to VOCs and/or SVOCs to ecological resources is not currently an issue.

2.3.6 Health and Safety Plan

A site-specific Health and Safety Plan (HASP) will be reviewed with on-site personnel (including subcontractors) prior to the initiation of fieldwork. All proposed work will be performed in “Level D” personal protective equipment; however, all on-site field personnel will be prepared to continue services wearing more protective levels of equipment should field conditions warrant. See Appendix B for a copy of the site-specific HASP.

2.4 Proposed Investigation Services

2.4.1 Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) will be initiated during all ground intrusive activities that are reasonably likely to generate significant dust and/or vapors. The implementation of the CAMP will document the presence or absence of specific compounds in the air surrounding the work zone, which may migrate off-site due to fieldwork activities. This plan provides guidance on the need for implementing more stringent dust and emission controls based on air quality data. Air monitoring will be conducted for VOCs and for dust. See Appendix C for a copy of the CAMP.

2.4.2 Extension of Borings

Sixteen (16) borings are proposed to be advanced at the Site in locations specified on the Proposed Fieldwork Map (Figure 2) using a hollow-stem, rotary drill rig or comparable equipment. Borings will be advanced to a minimum depth of 15 feet (23 feet for the borings developed as recovery or monitoring wells) or deeper if field conditions warrant (e.g., presence of evidence of contamination), as appropriate. Additional borings may be performed should field evidence of significant contamination (e.g., staining, odors, etc.) be encountered. Three borings will be completed as recovery wells, as detailed in Section 2.4.5, below.

A determination will be made in the field regarding exact boring locations, based on the locations of underground utilities and other relevant Site conditions. An assessment of subsurface soil characteristics, including soil type, the presence of foreign materials, field indications of contamination, and instrument indications of contamination (i.e., PID readings) will be made by the OSC during the extension of each boring. The OSC will be responsible for identifying any soils which, in the opinion of the OSC, may contain elevated concentrations of contaminants and should, therefore, require stockpiling (on and covered by 6-mil plastic) and/or containerization (inside 55-gallon drums) for characterization and proper disposition.

Soil cuttings generated during boring advancement activities will be returned to the boreholes /re-interred unless field evidence suggests segregation/containerization, as described above. The depth to native (previously undisturbed) soils, if encountered, will be noted at each boring to generate cross-sections of the subsurface. A photographic record as well as field screening data (using a photoionization detector) will be maintained by field personnel.

The OSC will ensure that any unforeseen environmental conditions are managed in accordance with applicable federal and state regulations.

2.4.3 Soil Sampling and Analysis

Sixteen soil samples, one from each proposed soil boring (SB-60 through SB-75), will be collected. Additional soil samples may be collected if field evidence (e.g. unusual coloration patterns, odors, and/or positive PID readings) suggests contamination at a particular stratum. All encountered soils will be properly characterized in the field and findings will be recorded in a logbook.

Material selected for sampling will be obtained in a manner consistent with NYSDEC sample collection protocols; that is, sampling will be biased towards encountered soils/materials that have evidence of contamination (soils that are likely to require special handling) or soils at the groundwater interface, if encountered. Decontaminated stainless steel trowels and dedicated gloves may be used at each sample location to place the material into laboratory-supplied glassware. Prior to and after the collection of each material sample, the sample collection instrument will be properly decontaminated to avoid cross-contamination between samples.

All samples will be submitted to a New York State Department of Health (NYSDOH) ELAP-certified laboratory using appropriate chain of custody procedures. Dedicated, laboratory supplied glassware will be used for sample collection. Field personnel will maintain all samples at cold temperatures and complete all chain of custody forms. One duplicate and one matrix spike/matrix spike duplicate (MS/MSD) soil sample will be collected for quality assurance/quality control purposes. An equipment rinse blank may also be collected, if appropriate/warranted.

All samples will be analyzed for SVOCs utilizing USEPA Method 8270 (full list, plus tics). Given the significant amount of prior investigation work already completed at the site which has established that the constituents of concern are limited to SVOCs (more specifically, phalates), it is proposed that approximately 50% (minimum) of the samples be analyzed for VOCs utilizing USEPA Method 8260 (full list, plus tics) and TAL Metals utilizing USEPA Method 6010 and 7471.

2.4.4 Recovery Well/Monitoring Well Installation & Monitoring Well Development

Three of the boreholes will be completed as product recovery wells using a 6.25 ID hollow stem auger. Any overtly contaminated soil exposed during boring operations will be handled as per protocols discussed in Section 2.4.2, above.

1. Each recovery well will be constructed of four-inch steel casing with a ten foot length of 0.02-inch (or as determined by the Project Manager) slotted steel well screening across the water table. No glue will be used to thread the casing lengths. Wells will be constructed such that a minimum of 2.0 foot of screening will extend above the water table; approximately 8.0 feet of screening will extend below the water level.

2. Each Monitoring well will be constructed of one or two-inch PVC casing with a ten foot length of 0.01-inch slotted PVC well screening across the water table. No glue will be used to thread the casing lengths. Wells will be constructed such that a minimum of 2.0 foot of screening will extend above the water table; approximately 8.0 feet of screening will extend below the water level.

3. The annular space between the well screen and the borehole (for both recovery and monitoring wells) will be backfilled with clean #1 silica sand to a depth of one to two feet above the well screen. A one-foot thick bentonite seal will be poured down the borehole above the sand pack and allowed to hydrate before grouting the remaining annular space.

4. A locked cap with vent will be installed at the top of the PVC riser and all wells (both recovery and monitoring wells) will be protected by a secure “drive-over” metal cover. The elevation of the top of the PVC well riser will be determined relative to a permanent on-site marker using a surveyor’s transit. Monitoring well locations and relative elevations will be recorded in field logs and indicated on all fieldwork maps.

5. Wells will be developed and sampled a minimum of one week following installation utilizing a pump and dedicated tubing. Well development will begin at the top of the saturated portion of the screened interval to prevent clogging of the pump within the well casing. The wells will be developed until the discharge water is free of sediment and the indicator parameters (pH, temperature, turbidity, dissolved oxygen and specific conductivity) have stabilized. Well development will be discontinued when the turbidity of the discharged water is below 50 NTUs and the other parameters have stabilized. Upon completion, the pump assembly will be removed from the well while the pump is still running to avoid discharge of purged water back into the well. Between wells, all non-dedicated equipment will be properly decontaminated according to NYSDEC guidelines.

It is proposed that existing monitoring wells MW-4, MW-6, MW-7, MW-12, MW-13, MW-14, MW-15 and MW-16 be re-developed and sampled as part of this remedial investigation.

Wells will be developed one week prior to conducting sampling activities utilizing a pump and dedicated polyethylene tubing in order to clear fine-grained material that may have settled around the well screen, and, to enhance the natural hydraulic connection between the well screen and the surrounding soils. Prior to development, the monitoring well casing will be opened and the well column immediately screened with a PID to document the presence of any volatile organic vapors. Well development will begin at the top of the saturated portion of the screened interval to prevent clogging of the pump within the well casing. The pump will be raised and lowered one to two feet within various portions of the screened interval to force water back and forth through the screen. Repeated surging and pumping at intervals of less than five feet will be performed to the bottom of the screen until the discharged water appears clear. The wells will be developed until the discharge water is free of sediment and the indicator parameters (pH, temperature, turbidity below 50 NTUs, dissolved oxygen and specific conductivity) have stabilized. Upon completion, the pump assembly will be removed from the well while the pump is still running to avoid discharge of purged water back into the well. Between wells, all non-dedicated equipment will be properly decontaminated according to NYSDEC guidelines. Water removed from the monitoring well will be visually inspected for indications of petroleum contamination. Purged groundwater will be containerized and will be disposed of in accordance with applicable federal and state requirements, pending receipt of analytical results.

2.4.5 Groundwater Sampling and Analysis

Groundwater samples will be collected approximately 1 week after well development activities are completed from the wells identified in Section 2.4.4, above. Provided below is a description of the proposed groundwater sampling protocol. All relevant data will be recorded in field logbooks:

1. Basic climatological data (e.g., temperature, precipitation, etc.) will be noted;

2. The protective casing on the well will be unlocked and the air in the wellhead will be screened for organic vapors using the PID;

3. The well's static water level will be measured to the nearest 0.01 foot relative to the top of the PVC casing using a decontaminated water level meter;

4. The volume of standing water in the well will be calculated (using the well diameter, total well depth, and the measured depth of the standing water) to determine the amount of water to be purged from the well prior to sampling; Groundwater purged/removed from the monitoring wells during development and sampling will be containerized within 55-gallon drums or totes that can hold up to 400 gallons and will be disposed of in accordance with applicable federal and state requirements, pending receipt of analytical results.

5. The well will be purged a minimum of three well volumes using a properly decontaminated mechanical peristaltic pump and dedicated polyethylene tubing (low-flow purging). The purged volumes will be calculated by discharging the well water into a container of known volume. The time at the beginning and the end of purging, and all observations (e.g., turbidity, odor, presence of a sheen, etc.) will be recorded;

6. Groundwater samples will be collected from each well using a properly decontaminated mechanical peristaltic pump and dedicated polyethylene tubing in accordance with procedures outlined in US EPA protocols for low-flow sampling;

7. Groundwater samples will be placed in appropriately sized and preserved laboratory supplied glassware, and will be stored and transported at cold temperatures, following proper chain of custody procedures;

8. The protective cap on the well will be replaced and locked.

All samples will be submitted to a New York State Department of Health (NYSDOH) ELAP-certified laboratory using appropriate chain of custody procedures. Dedicated, laboratory supplied glassware will be used for sample collection. Field personnel will maintain all samples at cold temperatures and complete all chain of custody forms.

All groundwater samples will be analyzed for SVOCs utilizing USEPA Method 8270 (full list, plus tics). Given the significant amount of prior investigation work already completed at the site which has established that the constituents of concern are limited to SVOCs (more specifically, phalates), it is proposed that approximately 50% (minimum) of the samples be analyzed for VOCs utilizing USEPA Method 8260 (full list, plus tics) and TAL Metals utilizing USEPA Method 6010 and 7471. One trip blank will be supplied for each day of fieldwork involving groundwater sample collection activities. One duplicate and one MS/MSD groundwater sample will be collected for quality assurance/quality control purposes.

Groundwater sample results will be compared to NYSDEC Part 703 Water Quality Standards and Division of Water Technical and Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), as appropriate.

2.4.6 Groundwater Flow & Measurable Free Product

The direction of groundwater flow will be re-confirmed based on elevations of static groundwater as measured for the on-site wells specifically identified in this RIWP (measurements will be obtained prior to collecting water quality samples). Measurements will be collected with an electronic depth meter with an accuracy of measuring depth to the nearest 0.01 foot. Data will be recorded in field logs for use in generating a Direction of Groundwater Flow Map.

Existing recovery wells RW-1, RW-2, RW-3, RW-4, RW-5, RW-6, RW-8, RW-9, RW-10, RW-11 and RW-12 will be observed for the presence of measurable free product when the existing monitoring wells are being developed and sampled. Any measurable free product will be removed.

2.4.7 Soil Gas Survey

A total of four soil gas survey samples will be collected as shown on Figure 2. The SGS will be completed by lowering Teflon tubing into the invert of a boring (boring depths are anticipated to be ~15 ft bsg – regardless, the sampling point will be collected at 1 foot above the water table) and then backfilling it with sand (soil samples will NOT be collected from the 4 SGS borings). The top of the bore hole will be sealed using a non-VOC containing caulk in order to prevent the infiltration of surface air. Helium will be used as a tracer gas, as per NYSDOH guidelines. Each soil gas boring will be purged for at least five minutes, using a GilAir 3 air-sampling pump, at a rate of approximately 0.2 liters/minute. Soil gas samples will then be collected into laboratory supplied 6 liter stainless steel Summa canisters equipped with 1 hour calibrated flow controllers which will be submitted back to the laboratory (a New York State Department of Health - NYSDOH ELAP-certified laboratory) using appropriate chain of custody procedures. Soil gas sample results will be compared to the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (dated October 2006).

2.4. 8 Documentation of Site Investigation

At the completion of all services detailed in this RIWP, a Remedial Investigation Report (RIR) will be prepared and will be submitted to the NYSDEC for review and approval. This RIR will include, at a minimum, a summary of fieldwork activities, results of any laboratory analyses generated as a result of this investigation, waste transport/disposal manifests for all investigation-derived waste (well purge water & measurable free product, if present), maps illustrating Site investigation activities, a Data Usability Summary Report (DUSR) prepared by a third, independent party, which maintains NYSDOH ELAP CLP Certification, and a recommendation for either additional investigation, additional monitoring or a recommendation for remediation, as appropriate.

3.0 PROJECT SCHEDULE

The following general schedule is anticipated for implementing the actions detailed in this RIWP:

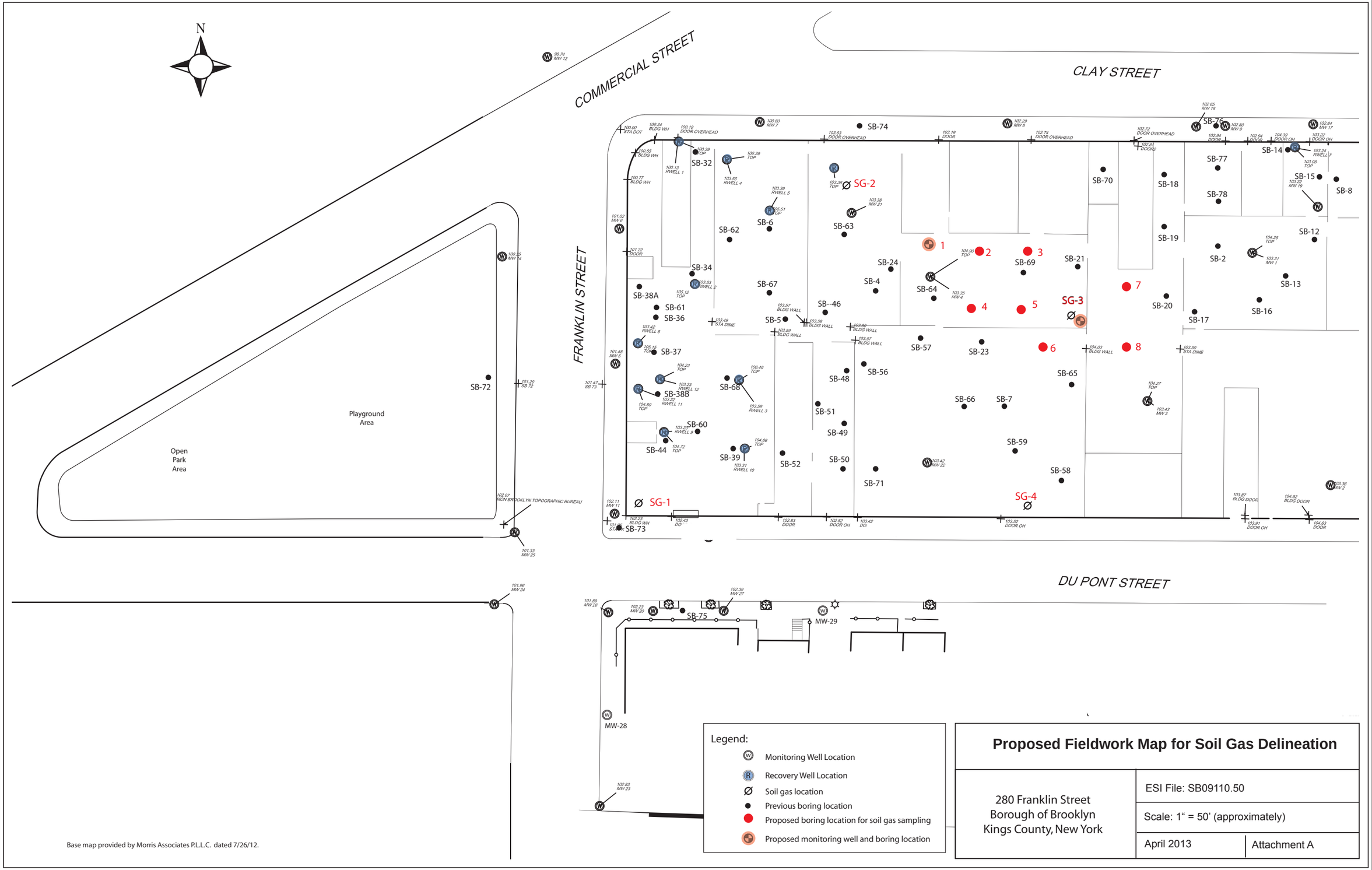
MONTHS	ACTION	DELIVERABLES
0 –3	Soil Boring Advancement, Soil Sample Collection, Recovery Well Installation, Recovery Well Measurements, Monitoring Well Redevelopment & Groundwater Sampling	None
3– 6	Data Validation, Waste Disposal & RIR Development	RIR Submission

Appendix E provides a detailed timeline/schedule for activities to be completed.

ATTACHMENT B

Proposed Fieldwork Map

Ecosystems Strategies, Inc.



Base map provided by Morris Associates P.L.L.C. dated 7/26/12.

Legend:

- Monitoring Well Location
- Recovery Well Location
- Soil gas location
- Previous boring location
- Proposed boring location for soil gas sampling
- Proposed monitoring well and boring location

Proposed Fieldwork Map for Soil Gas Delineation

280 Franklin Street
Borough of Brooklyn
Kings County, New York

ESI File: SB09110.50

Scale: 1" = 50' (approximately)

April 2013 | Attachment A

ATTACHMENT C

Data Summary Tables

Ecosystems Strategies, Inc.

Table 1: Soil Results - VOCs

All results provided in parts per billion (ppb)

Compound (USEPA Method 8260)	Guidance Level	Sample Identification													
		SB-60 (14') (2/1/2012)	SB-60B (6-8') (2/10/2012)	SB-61 (14') (2/1/2012)	SB-63 (14') (2/2/2012)	SB-65 (8-12') (4/18/2012)	SB-66 (12-16') (4/18/2012)	SB-67 (14') (2/2/2012)	SB-69 (14') (2/1/2012)	SB-71 (14') (2/10/2012)	MW-23 (9-10') (7/25/12)	MW-24 (11-13') (7/25/12)	MW-25 (10-12') (7/25/12)	MW-26 (10-15') (9/24/12)	MW-27 (6-11') (9/24/12)
1,1-Dichloroethane	**480,000**	ND	ND	ND	ND	ND	ND	21	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trimethylbenzene	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1 J	ND
1,2,4-Trimethylbenzene	**380,000**	350	ND	510	ND	110	ND	34	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	**1,000,000**	82	ND	9.1 J	ND	ND	ND	5.2 J	ND	ND	ND	ND	ND	8.5	ND
1,3,5-Trimethylbenzene	**380,000**	75	3000	87	ND	50 J	ND	15	ND	3.0 J	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	**560,000**	13 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	**250,000**	13 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1 J	ND
2-Butanone/Methyl ethyl ketone (MEK)	**1,000,000**	49 J	ND	ND	110	ND	16	59	ND	5.8 J	ND	ND	ND	3.0 J	ND
Acetone	**1,000,000**	180	2400 B	ND	270 B	51 J, B	31 B	94	33	85 B	9.4 J	19	ND	19 B	46 B
Benzene	**89,000**	9.4 J	ND	ND	ND	ND	ND	2.3 J	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	**1,000,000**	ND	ND	ND	ND	ND	ND	ND	ND	2.4 J	ND	ND	ND	ND	ND
Chloroethane	**- - -**	ND	ND	ND	ND	ND	ND	2.6 J	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	**1,000,000**	ND	ND	ND	ND	120	ND	1.8 J	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	**780,000**	76	490 J	37 J	2.4 J	48 J	ND	5.6	ND	14	ND	ND	ND	ND	ND
Isopropylbenzene	**- - -**	220	290 J	42 J	ND	13 J	ND	7.8	ND	ND	ND	ND	ND	7.5	ND
Methylene chloride	**1,000,000**	22 B-Dil, B	1100 B	12 B-Dil, B	25 B	87 J, B	13 B	63 B	10 J, B	56 B	11 J,B	6.3 J,B	1.1 B-Dil, J, B	3.2 J, B	2.9 J,B
Naphthalene	**- - -**	66 J	7000 B	65 J	ND	ND	ND	8.8 J	ND	ND	ND	ND	ND	3.6 J	ND
n-Butylbenzene	**1,000,000**	350	ND	96	ND	ND	ND	11	ND	ND	ND	ND	ND	13	ND
n-Propylbenzene	**1,000,000**	510	1200	73	ND	21 J	ND	8.6	ND	ND	ND	ND	ND	4.3 J	ND
o-Xylene	**- - -**	100	970	49 J	1.8 J	77	ND	7.4	ND	6.3	ND	ND	ND	ND	ND
p- & m- Xylenes	**- - -**	84 J	1400	81 J	8.6 J	210	1.1 J	17	ND	40	ND	ND	ND	ND	ND
p-Isopropyltoluene	**- - -**	83	2100	56	ND	ND	ND	6.9	ND	ND	ND	ND	ND	2.2 J	ND
sec-Butylbenzene	**1,000,000**	260	ND	54 J	ND	ND	ND	6.4	ND	ND	ND	ND	ND	13	ND
Tetrachloroethylene	**300,000**	9.3 J	ND	ND	ND	ND	ND	3.5 J	ND	ND	ND	ND	ND	ND	ND
Toluene	**1,000,000**	44 J	250 J	43 J	ND	78	1.2 J	24	ND	1.8 J	ND	ND	ND	ND	ND
Trichloroethylene	**400,000**	26 J	ND	16 J	ND	ND	2.7 J	10	1.9 J	ND	ND	ND	ND	ND	ND
Xylenes, Total	**1,000,000**	190	2400	130 J	10 J	290	ND	24	ND	47	ND	ND	ND	ND	ND
Tentatively Identified Compounds (TICs)															
1,2,4,5- Tetramethylbenzene	**- - -**	390 J	ND	110 J	110 J	ND	ND	9.7 J	ND	ND	ND	ND	ND	ND	ND
1-methyl-3-propyl benzene	**- - -**	ND	2500 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethyl Octane	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34 JN	ND
2-Butanone/MEK	**- - -**	ND	ND	ND	ND	ND	ND	59 J	ND	5.8 J	ND	ND	ND	ND	ND
2-ethyl-1-hexanol	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	740 JN, J	ND	ND	ND	ND	ND
3-Methyl Nonane	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32 JN	ND
3-methyl thiophene	**- - -**	ND	ND	ND	ND	ND	ND	34 JN, J	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	**- - -**	ND	ND	ND	ND	ND	ND	25 J	ND	ND	ND	ND	ND	ND	ND
Acetone	**- - -**	180 B, J	2400 B, J	ND	270 B,J	ND	ND	94 B, J	33 B, J	85	ND	ND	ND	ND	ND
Butanal	**- - -**	ND	ND	ND	52 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
butyl cyclohexane	**- - -**	390 JN, J	ND	320 JN, J	ND	ND	ND	32 JN, J	ND	ND	ND	ND	ND	37 JN	ND
butyl octanol isomer	**- - -**	ND	ND	ND	ND	ND	ND	20 JN, J	ND	ND	ND	ND	ND	ND	ND
Decahydro Methyl Naphthalene isomers	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	84 JN	ND
Dimethyl Cyclohexane isomer	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	66 JN	ND
Dimethyl nonane isomer	**- - -**	ND	ND	370 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl octane isomer	**- - -**	590 JN, J	2200 JN, J	170 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl Undecane isomer	**- - -**	ND	ND	160 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dodecane	**- - -**	ND	ND	ND	ND	ND	ND	31 JN, J	ND	ND	ND	ND	ND	ND	ND
Ethyl Dimethyl Benzene isomer	**- - -**	ND	ND	ND	12 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Hexanal isomer	**- - -**	ND	ND	ND	310 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Hexanol isomer	**- - -**	ND	ND	ND	360 JN, J	ND	ND	24 JN, J	ND	ND	ND	ND	ND	ND	ND
Ethyl Methyl Benzene isomer	**- - -**	ND	ND	ND	ND	75 J N, J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptene isomer	**- - -**	ND	ND	ND	12 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	12 JN, J	ND	ND	ND	ND	ND
Methyl (methylethyl) benzene isomer	**- - -**	ND	2900 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methyl Cycloheptane isomer	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	33 JN, J	ND	ND	ND	ND	ND
Methyl Cyclohexane	**- - -**	82 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Decane isomer	**- - -**	620 JN, J	ND	180 JN, J	ND	ND	ND	21 JN, J	ND	ND	ND	ND	ND	ND	ND
Methyl Heptane isomer	**- - -**	ND	ND	ND	ND	120 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Heptanol isomer	**- - -**	ND	ND	ND	15 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methyl hexanol isomer	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	61 JN, J	ND	ND	ND	ND	ND
Methyl Nonane isomers	**- - -**	1,500 JN, J	ND	200 JN, J	ND	ND	ND	19 JN, J	ND	ND	ND	ND	ND	ND	ND
methyl octane isomers	**- - -**	1,000 JN, J	ND	ND	ND	59 JN, J	ND	23 JN, J	ND	ND	ND	ND	ND	ND	ND
Methyl pentyl cyclohexane isomer	**- - -**	ND	ND	150 JN, J	25 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl-(Methylpropyl) Cyclopentane	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40 JN	ND
Octane	**- - -**	ND	ND	ND	ND	110 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	**- - -**	ND	ND	160 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentanal	**- - -**	ND	ND	ND	29 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentyl Cyclohexane isomer	**- - -**	ND	ND	210 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	60 JN	ND
p-Ethyltoluene	**- - -**	ND	ND	ND	ND	ND	ND	29 J	ND	ND	ND	ND	ND	ND	ND
propyl cyclohexanes	**- - -**	920 JN, J	3400 JN, J	170 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	50 JN	ND
tetramethyl Benzene isomers	**- - -**	ND	4200 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetramethyl Cyclohexane isomer	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	52 JN	ND
Trimethyl Benzene isomers	**- - -**	ND	7600 JN, J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trimethyl cyclohexane isomer	**- - -**	ND	ND	ND	ND	ND	ND	ND	ND	31 JN, J	ND	ND	ND	ND	ND
Undecanes	**- - -**	ND	2000 JN, J	ND	ND	ND	ND	130 JN, J	ND	ND	ND	ND	ND	ND	ND

Notes:

The following borings were not completed and/or sampled (accessibility or refusal issues): SB-62, 64 and 70.

Only parameters with detectable concentrations are included in this table.

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

B = Analyte is found in the associated analysis batch blank.

B dil = Detected in method blank(s) associated with the sample analysis. This is a common lab artifact which is found at ND-25 ppb.
No dilution factor has been applied to these compounds to eliminate artificially inflated results.

JN - Indicates the presence of a possible analyte or class of analyte that has been tentatively identified and the associated numerical value represents its estimated concentration.estimated concentration.

Guidance Level based on Table 375-6.8(b): Restricted Use SCO - Industrial.

Detectable concentrations.

Only exceeds applicable background levels.

Exceeds applicable guidance levels.

ND = Not detected

"- - - " = No value indicated.

ESI File: SB09110.50

Table 2: Groundwater Results - VOCs

All results provided in ug/L.

Compound (USEPA Method 8260)	Guidance Level	Sample Identification									
		MW-13 (4/25/12)	MW-22 (3/16/12)	Trip Blank (3/16/12)	Trip Blank (4/25/12)	Rinse Blank (3/16/12)	MW - 23 (9/24/2012)	MW-24 (9/24/2012)	Trip Blank (9/24/2012)	MW-27 (9/28/2012)	Trip Blank (9/28/2012)
Acetone	**50**	ND	3.1 J,B	3.4 J, B	ND	4.2 J,B	ND	ND	ND	ND	ND
Chloroform	**7**	ND	ND	ND	ND	ND	ND	ND	ND	1.0 J	ND
Methylene chloride	**5**	4.8 J, B	**5.9 J, B**	**5.4 J,B**	**8.9 J, B**	**5.8 J,B**	ND	ND	ND	ND	ND
Tentatively Identified Compounds (TICs)											
Octamethyl cyclotetrasiloxane	**- - -**	ND	ND	ND	ND	ND	5.6 JN	ND	ND	ND	- - -

Notes:

The following wells were not sampled (free product present* or dry**): MW-4*, 6*, 7*, 12**, 14**, 15*, 16*, 20* & 21*.

Only parameters with detectable concentrations are included in this table.

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

JN - Indicates the presence of a possible analyte or class of analyte that has been tentatively identified and the associated numerical value represents its estimated concentration.

B - Analyte is found in the associated batch blank.

Detectable concentrations.

Only exceeds applicable background levels.

Exceeds applicable guidance levels.

ND = Not Detected

"- - - " = No value indicated

ESI File: SB09110.50

Table 3: Soil Gas Results

All results provided in ug/m^3.

Compound (USEPA Method TO-15)	Guideance Level	Background Level	Sample ID			
			SG-1	SG-2	SG-3	SG-4
1,1,1-Trichloroethane	NE	20.6	ND	92.0	150	ND
1,1,2,2-Tetrachloroethane	NE	NE	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NE	3.5	4.5	ND	ND	ND
1,1,2-Trichloroethane	NE	<1.5	ND	ND	ND	ND
1,1-Dichloroethane	NE	<0.7	ND	ND	ND	ND
1,1-Dichloroethylene	NE	<1.4	ND	ND	36.0	ND
1,2,4-Trichlorobenzene	NE	<6.8	ND	ND	ND	ND
1,2,4-Trimethylbenzene	NE	9.5	18.0	18.0	ND	20.0
1,2-Dichlorobenzene	NE	<1.2	ND	ND	ND	ND
1,2-Dichloroethane	NE	<0.9	ND	ND	ND	ND
1,2-Dichloropropane	NE	<1.6	ND	ND	ND	ND
1,2-Dichlorotetrafluroethane	NE	<6.8	ND	ND	ND	ND
1,3,5-Trimethylbenzene	NE	3.7	4.6	5.1	ND	5.7
1,3-Butadiene	NE	<3.0	ND	12.0	ND	ND
1,3-Dichlorobenzene	NE	<2.4	ND	ND	ND	ND
1,4-Dichlorobenzene	NE	5.5	ND	ND	ND	ND
1,4-Dioxane	NE	NE	ND	ND	ND	ND
2,2,4-Trimethylpentane	NE	NE	ND	ND	ND	ND
2-Butanone	NE	12	25.0	36.0	ND	59.0
2-Hexanone	NE	NE	ND	ND	ND	53.0
3-Chloropropene	NE	NE	ND	ND	ND	ND
4-Methyl-2-pentanone	NE	6	60.0	180	330	77.0
Acetone	NE	98.9	130	110	130	150.0
Benzene	NE	9.4	8.5	8.3	ND	11.0
Benzyl Chloride	NE	<6.8	ND	ND	ND	ND
Bromodichloromethane	NE	NE	ND	ND	ND	ND
Bromoform	NE	NE	ND	ND	ND	ND
Bromomethane	NE	<1.7	ND	ND	ND	ND
Carbon Disulfide	NE	4.2	7.9	21.0	ND	20.0
Carbon Tetrachloride (Freon 10)	NE	<1.3	ND	ND	ND	ND
Chlorobenzene	NE	<0.9	ND	ND	ND	ND
Chloroethane	NE	<1.1	ND	ND	ND	ND
Chloroform	NE	1.1	9.2	5.9	52.0	ND
Chloromethane	NE	3.7	ND	ND	ND	ND
cis-1,2-Dichloroethylene	NE	<1.9	ND	2.7	3,700	ND
cis-1,3-Dichloropropylene	NE	<2.3	ND	ND	ND	ND
Cyclohexane	NE	NE	ND	3.9	ND	ND
Dichlorodifluoromethane (Freon 12)	NE	16.5	ND	ND	ND	ND
Ethyl acetate	NE	5.4	ND	ND	ND	ND
Ethylbenzene	NE	5.7	16.0	25.0	17.0	26.0
Hexachlorobutadiene	NE	<6.8	ND	ND	ND	ND
Isopropanol	NE	250	ND	ND	ND	43.0
Methyl tert-butyl ether (MTBE)	NE	11.5	ND	ND	ND	ND
Methylene Chloride	60	10	7.1 B	3.6 B	17 B	4.2 B
n-Heptane	NE	NE	4.4	9.0	ND	11.0
n-Hexane	NE	10.2	32.0	12.0	ND	23.0
o-Xylene	NE	7.9	19.0	28.0	20.0	27.0
p- & m-Xylenes	NE	22.2	61.0	86.0	53.0	87.0
p-Ethytoluene	NE	3.6	26.0	28.0	ND	30.0
Propylene	NE	NE	ND	ND	ND	ND
Styrene	NE	1.9	ND	ND	ND	ND
Tetrachloroethylene (PCE)	100	15.9	19.0	5.5	**830**	7.7
Tetrahydrofuran	NE	NE	ND	ND	ND	ND
Toluene	NE	43	54.0	110	37.0	79.0
trans-1,2-Dichloroethylene	NE	NE	ND	ND	110	ND
trans-1,3-Dichloropropylene	NE	<1.3	ND	ND	ND	ND
Trichloroethylene (TCE)	5	4.2	ND	**59.0**	**35,000**	ND
Trichlorofluoromethane (Freon 11)	NE	18.1	ND	ND	ND	ND
Vinyl acetate	NE	NE	ND	ND	ND	ND
Vinyl Bromide	NE	NE	ND	ND	ND	ND
Vinyl Chloride	NE	<1.9	ND	ND	ND	ND
Methane	NE	NE	ND	ND	ND	ND
Helium**	NE	NE	ND	ND	ND	ND

Notes:

Guideline levels based on the NYSDOH Guidance for Evaluating Soil Vapor Instrusion in the State of NY, dated October 2006.

Background levels based on 90th percentile contaminant concentrations presented in the USEPA 2001: Building Assessment and Survey Evaluation (BASE) database, Summa canister method (NYSDOH Guidance Appendix C).

Detectable concentrations.

Only exceeds applicable background levels.

Exceeds applicable guidance levels.

ND = Non detect NE = Not established

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