ROUX

Periodic Review Report

Site No. C241108
Long Island City, New York

December 5, 2018

Prepared for:

CSC 4540 Property Co, LLC
757 Third Avenue, 17th Floor,
New York, New York 10017

Prepared by:

Roux Environmental Engineering and Geology, D.P.C.
209 Shafter Street
Islandia, New York 11749

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Table of Contents

Executive Summary 2

1. Introduction 3

2. Site Overview 5
   - 2.1 Site Description and History 5
   - 2.2 Summary of Remedial Action 5
   - 2.3 Remaining Contamination 6
     - 2.3.1 Soil 6
     - 2.3.2 Groundwater 7
     - 2.3.3 Soil Vapor 7
   - 2.4 Engineering and Institutional Controls 7
     - 2.4.1 Engineering Controls 8
     - 2.4.2 Institutional Controls 8

3. SMP Requirements and Compliance Monitoring 9
   - 3.1 IC/EC Plan Compliance Report 9
     - 3.1.1 Notifications 9
   - 3.2 Inspections 10
   - 3.3 Monitoring Plan Compliance Report 10
     - 3.3.1 Site Cover System 11
     - 3.3.2 Groundwater Monitoring and Sampling 12
     - 3.3.3 Soil Vapor Intrusion Monitoring 13
   - 3.4 Operation and Maintenance Plan Compliance Report 13
     - 3.4.1 LNAPL Recovery System Operation Monitoring 13

4. Overall Conclusions and Recommendations 15

Figures

1. VOCs and LNAPL Detected in Groundwater December 2016 to December 2017
2. Composite Cover System
3. Remaining Soil Sample Exceedances within Courtyard
4. Remaining Soil Sample Exceedances within Garage

Appendices

A. IC/EC Certification Form
B. Site Inspection Checklists and Photo Log
C. Groundwater Monitoring Results
D. LNAPL Recovery System Monitoring Logs
E. NYSDEC Site Management Plan Approval
F. SMP ISCO Injections Documentation
G. NYSDEC Response Letter to SMP Modifications
H. Formal Groundwater Monitoring Reports

Executive Summary

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan recently amended per the NYSDEC's letter dated January 12, 2018 (Appendix G):

Site Identification:	Site Identification No. C241108 Paragon Paint and Varnish Corp. 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard, Long Island City, Queens, New York

Institutional Controls:	1. The property may be used for restricted residential, commercial and/or industrial use only.	
	2. Environmental Easement	
	3. Performance of soil vapor intrusion evaluation in event of redevelopment.	
	4. All ECs must be inspected at a frequency and in a manner defined in the SMP.	
Engineering Controls:	1. Cover system	
	2. Light Non-Aqueous Phase Liquid (LNAPL) Recovery System	
	3. *In-situ* Chemical Oxidation (ISCO) Injections	
Inspections:		Frequency
1. Cover inspection		Annually
2. LNAPL recovery system inspection		As Needed
Monitoring:		Frequency
1. Gauging of LNAPL recovery wells		Quarterly
2. Gauging of Monitoring wells - Groundwater		Quarterly
3. Sampling of Monitoring Wells – Groundwater		Annually (Can be increased if groundwater results support need to adjust frequency)
Maintenance:		Frequency
1. LNAPL pump maintenance		As Needed
2. LNAPL recovery drum change-out		As Needed
Reporting:		Frequency
1. Quarterly Progress Report (Ongoing)		Quarterly
2. Groundwater Monitoring Results		Annually
3. Periodic Review Report		Annually

1. Introduction

This Periodic Review Report (PRR) was prepared by Roux Environmental Engineering and Geology D.P.C. (Roux)[1] on behalf of CSC 4540 Property Co LLC (current Site Owner) and serves as a required element of the remedial program for the Former Paragon Paint and Varnish site located in Long Island City, New York (hereinafter referred to as the Site). A Site map is attached as Figure 1. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C241108, which is administered by the New York State Department of Environmental Conservation (NYSDEC).

On June 29, 2007, 549 46th Avenue LLC applied to the BCP as a Volunteer. Subsequent key dates related to the Volunteer's application to the BCP are below:

- September 4, 2008: The NYSDEC signed the Brownfield Cleanup Agreement ("BCA) with 549-46th Avenue LLC as Volunteer.
- July 6, 2010: Anable Beach Inc. applied to amend the BCA to be added as a Volunteer.
- August 17, 2010: The NYSDEC approved the BCA Amendment #1.
- July 18, 2011: Vernon 4540 Realty LLC applied to amend the BCA a second time to be added as a third Volunteer (BCA Amendment #2).
- July 29, 2011: The NYSDEC approved BCA Amendment #2.
- December 15, 2016: The NYSDEC issued a Certificate of Completion (COC) for the Site to 549-46th Avenue LLC, Anable Beach Inc. and Vernon 4540 Realty LLC.

As part of being in the BCP, a Site investigation was performed that revealed high levels of Benzene, Ethylbenzene, Isopropylbenzene (Cumene), and Xylene contamination in soil and groundwater at the Site. In addition, Roux also confirmed that there were two distinct LNAPL plumes located at the Site – one plume in the center of the courtyard and the other at the southwestern edge of the Site located within the driveway. A Track 4 cleanup was proposed and implemented in accordance with the Remedial Action Work Plan submitted to the NYSDEC on October 7, 2015.

The Site Management Plan (SMP), dated August 2015, was approved by NYSDEC on December 7, 2016 (refer to Appendix E). On January 12, 2018, NYSDEC approved of the following modifications:

1. All Site monitoring wells will be gauged for the presence of light non-aqueous phase liquid (LNAPL) on a quarterly basis in lieu of gauging select wells on a monthly basis. The first quarterly gauging event occurred in March 2018.
2. Monthly progress reports are no longer required. A quarterly report will be submitted that details the performance of gauging or sampling events performed at the Site.
3. The groundwater sampling frequency may be reduced to annual, with the next sampling event in June 2018.
4. A formal groundwater monitoring report will be replaced with a tabular summary of groundwater data and a short evaluation of conditions when data is generated. This may be applied to the recent groundwater sampling event performed at the Site in December 2017. The results should be discussed in greater detail in the subsequent Periodic Review Report (PRR).

[1] Prior to March 1, 2018, Roux Environmental Engineering and Geology, D.P.C. performed work as Remedial Engineering P.C. and Roux Associates, Inc. Remedial Engineering P.C. is a New York State professional service corporation organized primarily for the purpose of providing engineering services for clients of Roux Associates, Inc.

The required Site-wide inspection and monthly O&M inspections were completed during this SMP monitoring phase. The components, data, and rationale included in this PRR demonstrate that the engineering and institutional controls are performing as designed, are effective, and are compliant with specifications described in the SMP. No additional changes to the monitoring plan are recommended by Roux at this time.

Site Management activities, reporting, and Institutional Control (IC)/ Engineering Control (EC) certification are scheduled on a certification period basis. This certification is based on the submission of a PRR (included herein), submitted to the NYSDEC every year beginning fifteen months after the COC was issued. These PRRs will identify and assess all of the IC/ECs required by the remedy for the Site, any environmental monitoring data and/or information generated during the reporting period, and a complete Site evaluation which discusses the overall performance and effectiveness of the previous remedy.

2. Site Overview

2.1 Site Description and History

The Site is located in Long Island City, Queens County, New York and is identified as Block 26 and Lot 4 on the Long Island City Tax Map. The Site is an approximately 0.76-acre area and is bounded by a one-story commercial property and Anable Basin to the north, 46th Avenue to the south, Vernon Boulevard and multi-story residential/commercial buildings to the east, and a two-story warehouse to the west. The owner of the Site is CSC Vernon 4540 Property Co, LLC.

The Site consists of a four-story former paint factory, a three-story former garage and office, a three-story former warehouse, a concrete access road off 46th Avenue and a concrete rear courtyard that fronts approximately 50 feet of the Anable Basin. The Site is zoned industrial and is currently vacant. The properties adjoining the Site and, in the neighborhood, surrounding the Site primarily include commercial and residential properties.

2.2 Summary of Remedial Action

Following the BCP Remedial Investigation, and the Department's approval of the Remedial Action Work Plan, Volunteer began remediation at the Site in 2015. Since then, Volunteer has fully implemented and completed the approved remedial program. All remedial work was done with oversight, understanding, and direction from the NYSDEC.

Based on the results of the Remedial Investigation, the Decision Document identified the following Remedial Action Objectives (RAOs) for this Site.

Remedial Action Objectives

Groundwater RAOs
RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/pre-release conditions.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil RAOs
RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants volatilizing from soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor RAOs
RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

The cleanup consisted of the following:

- Excavation and off-Site disposal of grossly contaminated soil in the courtyard LNAPL source area, including:
  - Grossly contaminated soil as defined in 6NYCRR Part 375-1.2(u)
  - Soil containing LNAPL
  - Soil containing total SVOCs exceeding 500 parts per million (ppm)
  - Soils which exceeded the PoG SCOs as defined by 6 NYCRR Part 375-6.8 for those contaminants found in Site groundwater above standards
  - Soils that created a nuisance condition, as defined in NYSDEC Commissioner Policy CP-51 Section G
- Closure of USTs by removal or, as a contingency, closure in place
- Excavation and disposal of subsurface piping
- Air monitoring of potential airborne VOCs and particulates during all ground intrusive and soil handling activities
- Implementation of erosion and sediment controls
- Installation of five autonomous LNAPL recovery pumps at property boundary areas where LNAPL plume extends off-Site
- Installation of a Site cover system
- *In situ* chemical oxidation (ISCO) injections for treatment of VOCs in soil and groundwater underneath the brick warehouse building on-Site.

2.3 Remaining Contamination

The Remedial Alternative (RA) was designed to reduce the concentration of Site contaminants in groundwater through excavation of grossly contaminated soil in the LNAPL source area within the courtyard followed by product recovery at the edges of the LNAPL plumes that extended off-site from the courtyard area and the driveway.

Due to limits of the Support of Excavation (SOE), structural engineering concerns associated with the onsite buildings and other Site constraints, all soil contamination was not removed as part of the performance of the remedial action. As a result, soil contamination remains at several locations across the Site that exceeds the NYSDEC PoG SCOs for one or more of the four VOCs of concern (benzene, ethylbenzene isopropylbenzene and total xylenes).

2.3.1 Soil

The RA addressed grossly contaminated soil in the LNAPL source areas within the courtyard and driveway through excavation, low-level VOCs underneath the Warehouse through ISCO, and limiting contact with potentially-contaminated soil by installing a composite cover over the rest of the Site. Though the grossly contaminated soil was removed from the LNAPL source areas in the courtyard and driveway, soil contamination remains to the east of the excavation towards the four-story paint factory building and within the driveway excavation. This material, which potentially extends beneath Site buildings, could not be removed due to the SOE limitations.

The south extent of the excavation in the courtyard was extended to as near the warehouse and garage as a 1:1 slope would allow. Excavation and post-excavation sampling determined the presence of grossly contaminated material towards the three-story building and beneath the concrete slab where former 20,000 USTs had been staged on. The bottom sample collected from the middle of the driveway excavation at 17.5 ft showed evidence of gross contamination.

A total of 11 USTs was encountered during the RA, with five (5) in the southeast corner of the courtyard excavation and the remaining six (6) located inside the garage excavation footprint. All 11 tanks and their chambers encountered during the RA were emptied, cleaned and were either removed (the five (5) courtyard excavation USTs) or abandoned in place (the six (6) garage excavation USTs). Compliance UST samples were collected from the soil surrounding the courtyard and garage and the presence of residual contamination was present. This material could not be removed due to SOE limitations.

The residual soil contamination, as originally presented in the Final Engineering Report (FER) dated November 22, 2016, is also presented in this PRR as Figures 3 and 4. Further remedies to address this residual contamination will be evaluated in the Site redevelopment plan.

2.3.2 Groundwater

The RA addressed groundwater through removal and/or treatment of soil with VOCs above PoG SCOs. A component of the RAWP was an ISCO injection program to treat VOCs in groundwater and soil where excavation could not be completed during the RA, namely the soils under the basement of the Warehouse. As documented in the FER, the initial ISCO injection program marginally improved groundwater quality as all Site's contaminants of Concern (benzene, ethylbenzene, isopropylbenzene, m,p-xylene, and o-xylene) remain above their respective NYSDEC ambient water quality guidance and standard values (AWQSGV) at various monitoring well locations across the Site.

All post-remediation groundwater analytical results are summarized in Appendix C with COC-specific data depicted on Figure 1.

Based upon the continued presence of residual VOCs in groundwater following the initial injection treatment event in the warehouse area and residual VOCs in soil after excavation of impacted soil in the courtyard during the Remedial Action, additional ISCO treatment was performed during this reporting period. Further details concerning the performance of that injection event are discussed in Section 3.3.2.

2.3.3 Soil Vapor

The RA addressed soil vapor through removal and/or treatment of soil containing VOCs above the PoG SCOs. During redevelopment, the need for soil vapor mitigation in new structures will be evaluated. New buildings with occupancy and slab-on-grade design may require a vapor barrier and a sub-slab depressurization system.

2.4 Engineering and Institutional Controls

Since residual contamination remains beneath the Site, ICs/ECs have been incorporated into the Site remedy as part of the NYSDEC-approved SMP, to provide proper management of residual contamination in the future and ensure protection of public health and the environment.

2.4.1 Engineering Controls

The Site has ECs consisting of:

- Site Cover System (refer to Figure 1);
- ISCO Injections; and
- LNAPL Recovery System

The purpose of each EC is described below:

- The Site Cover System prevents exposure to remaining contamination in soil/ fill at the Site.
- The ISCO Injections, if effective, destroy the residual VOCs in groundwater and soil that were present after completion of the excavation remedy.
- The LNAPL Recovery System removes any residual LNAPL that may be present at the water table.

The LNAPL Recovery and Site Cover System ECs are fully in place and effective at meeting their objectives.

2.4.2 Institutional Controls

A Site-specific Environmental Easement has been recorded with the Queens County Clerk that provides an enforceable means to manage the remaining contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. The ICs presented in the SMP consist of the following:

- The property may be used for: restricted residential, commercial or industrial use;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries, and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the Site are prohibited.

3. SMP Requirements and Compliance Monitoring

Since remaining contaminated soil and groundwater exists beneath the Site, ICs and ECs are required to protect human health and the environment. This section details the elements of the SMP including the inspection, monitoring, and reporting requirements, IC/ECs, whether the IC/EC requirements were met, and regulatory notification and certification requirements. The various subsections below also include an evaluation of the remedy performance, effectiveness, and protectiveness.

3.1 IC/EC Plan Compliance Report

Since remaining contamination exists beneath the Site, ICs and ECs are required to protect human health and the environment and are described in detail in Section 2.4. On an annual basis, required certifications must be made for these Site-specific ICs and ECs to ensure that the required IC/ ECs are in place, are performing properly, and remain effective; and to confirm that they are continuing to be protective of human health and the environment. The respective IC/EC Certification Form for the controls that are currently in place for the Site is provided in Appendix A.

3.1.1 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

- 60-day advance notice of any proposed changes in Site use that are required under the terms of the BCA, 6NYCRR Part 375 and/or Environmental Conservation Law.
- 7-day advance notice of any field activity associated with the remedial program.
- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, along with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

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

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the BCA, and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

3.2 Inspections

All inspections were conducted at the frequency specified in the Executive Summary. Specific details of requirements and completed inspections are provided in the following sections. Inspections of remedial components are also conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as power interruption or fire that may affect the ECs. The inspections will determine and document the following:

- IC/ECs are in place, are performing properly, and remain effective;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If Site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system.

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

3.3 Monitoring Plan Compliance Report

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the Site cover system, and all affected Site media identified below. Components of the Monitoring Plan are:

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

Monitoring of the performance of the remedy and overall reduction in contamination onsite will be conducted for the periods specified for each matrix listed in table below. The frequency is subject to change in consultation with NYSDEC and based on reports submitted showing contaminant trends.

Monitoring Program	Frequency	Matrix	Analysis
Site Cover System and Site-Wide Inspection	Annually. First inspection no more than 15 months after issuance of the COC.	Soil	Visual inspection of all cover system components
Groundwater in Monitoring Wells	Quarterly gauging and annual sampling*	Groundwater	VOCs (USEPA Method 8260) for NYSDEC Target Compound List compounds
Free Product in Monitoring Wells	Quarterly gauging	LNAPL	Check for presence of LNAPL and confirm thickness, if applicable. Manual recovery of LNAPL where present and practical
LNAPL Recovery System Inspection	As Needed	LNAPL	Visual Inspection of all system components

* Annual groundwater sampling frequency was proposed to the NYSDEC in a revised SMP draft submitted on February 15, 2018. At the time this report was written, approval of the SMP was not yet received.

A record of the findings of each monitoring/inspection event and maintenance activity performed as described above, where applicable, will be documented on the Site Inspection Checklists and the LNAPL Recovery System Monitoring Logs provided in Appendices B and C, respectively of the SMP. If at any time during the reporting period the Volunteer identifies a failure of one or more of the ECs or non-compliance with one or more of the ICs, the remedial party must notify NYSDEC and implement corrective measures, in accordance with a Corrective Measures Work Plan (CMWP) submitted to and approved by NYSDEC and provide a periodic certification of the IC/ECs.

3.3.1 Site Cover System

Exposure to remaining contamination at the Site is prevented by a non-mechanical engineered Site composite cover system that consists of:

- Existing concrete building slabs for the Paint Factory, 1-Story Brick Building, and 3-Story Warehouse;
- Existing concrete pavement;
- Installed asphalt cap; or
- Installed minimum 2 feet of recycled concrete aggregate (RCA).

The location and details of the Site cover system are shown on Figure 2. Monitoring of the Site cover system will occur on an annual basis as long as the Environmental Easement is in effect to ensure the system's integrity. Monitoring consists of visual inspection, which evaluates the structural integrity of the slab, pavement, and asphalt; and exposure of the demarcation barrier and direction of drainage for the RCA cap.

Roux performed Site cover system and Site-wide inspections on September 8, 2016, October 13, 2016, November 15, 2016, December 1, 2016, January 19, 2017, February 14, 2017, March 30, 2017, April 24, 2017, May 24, 2017, June 22, 2017, July 27, 2017, August 29, 2017, September 26, 2017, and March 20, 2018. The completed Site Inspection Checklists are provided in Appendix B. These inspections determined that all Site cover system elements described herein were observed to be performing as designed during the reporting period of the PRR and are protective of human health and the environment. Photographs taken during the most recent Site-wide inspection are provided in Appendix B.

3.3.2 Groundwater Monitoring and Sampling

Groundwater monitoring was performed monthly until modifications were made in January 2018 when the frequency changed to quarterly. Samples were collected quarterly from the monitoring wells within the SMP monitoring network for Target Compound List (TCL) of VOCS using United States Environmental Protections Agency (USEPA) SW846 Method 8260. Purge water and decontamination waste water generated during the groundwater sampling was containerized in a labeled 55-gallon drum stored onsite. Groundwater analysis results dating back to September 8, 2016 are provided in Appendix C. All formal groundwater monitoring reports submitted to the NYSDEC during the reporting period are provided in Appendix H. The sampling, sample handling, decontamination, and field instrument calibration procedures were performed in accordance with procedures detailed in the SMP.

As identified in the SMP, residual groundwater (as well as soil) contamination was going to be addressed by the completion of additional ISCO injections. A single round of additional ISCO injections were proposed in the *In Situ* Chemical Oxidation Design Plan at various locations across the Site in April 2017 (Appendix F). Following completion of the injections, performance monitoring was conducted bi-weekly as field parameters (e.g. pH, oxidation-reduction potential, dissolved oxygen) and samples for TCL VOC EPA Method 8260 analysis were collected.

The most recent round of SMP groundwater monitoring indicated detections above NYSDEC AWQSGV for seven (7) compounds, excluding the exceedances in acetone that were most likely caused by laboratory preservative methods:

- 1,3,5-Trimethylbenzene concentrations ranged from 14 µg/L to 65 µg/L with the highest concentration detected in MW-47;
- Benzene concentrations ranged from 1.2 µg/L to 8.4 µg/L with the highest concentration detected in MW-40;
- Ethylbenzene concentrations ranged from 6.0 µg/L to 7.6 µg/L with the highest concentration detected in MW-47;
- Isopropylbenzene concentrations ranged from 5.2 µg/L to 63 µg/L (a laboratory diluted sample) with the highest concentration detected in MW-19;
- m,p-Xylene concentrations ranged from 12 µg/L to 19 µg/L with the highest concentration detected in MW-47;
- n-Propylbenzene concentrations ranged from 6.8 µg/L to 120 µg/L (a laboratory diluted sample) with the highest concentration detected in MW-19;
- o-Xylene (1,2-Dimethylbenzene) concentrations ranged from 6.4 µg/L to 12 µg/L with the highest concentration detected in MW-47;
- sec-Butylbenzene concentrations ranged from 8.6 µg/L to 41 µg/L (a laboratory diluted sample) with the highest concentration detected in MW-19; and

- tert-Butylbenzene concentrations ranged from 5.6 µg/L (a laboratory diluted sample) to 14 µg/L (a laboratory diluted sample) with the highest concentration detected in MW-19.

As previously stated in the "Response to November 17, 2017 NYSDEC Comment Letter" submitted on January 9, 2018 (Appendix F), the chemical PersulfOx (under Regenesis' recommendation) for this application resulted in some reduction of concentrations of the contaminants of concern. It was concluded that any further ISCO treatment will not dramatically improve the treatment goals beneath the onsite buildings. Roux does not believe ISCO or other applicable technologies, (i.e., bioventing, bioremediation, or air sparging) would effectively address groundwater and gross contamination in soil at the Site. As such, alternative treatment options (i.e., stabilization) would be further evaluated as Site redevelopment plans are finalized.

3.3.3 Soil Vapor Intrusion Monitoring

New buildings with occupancy and slab-on-grade design may require a vapor barrier and sub-slab depressurization system. Soil vapor intrusion sampling will be performed during redevelopment planning to assess the potential for intrusion into the new buildings. At this time no plans for redevelopment have been established.

3.4 Operation and Maintenance Plan Compliance Report

The O&M Plan provided in the SMP:

- Includes the procedures necessary to allow individuals unfamiliar with the Site to operate and maintain the LNAPL recovery system;
- Includes troubleshooting as referenced in the equipment manual(s); and
- Will be updated periodically to reflect changes in Site conditions or the manner in which the SSDS is operated and maintained;

The LNAPL recovery system consists of a Geotech AC Sipper connected to five recovery wells (RW-1 through RW-5). The system operates when product is present within the recovery well. To date, the Sipper has recovered approximately 3.3 gallons of LNAPL. Due to the lack of presence of detectable LNAPL, the recovery system has not been running since March 30, 2017. Complete details of the NYSDEC-approved LNAPL recovery system including as-built drawings and startup procedures are presented in the SMP.

3.4.1 LNAPL Recovery System Operation Monitoring

All mechanical aspects of the product recovery system are visibly inspected to ensure proper function. Inspection activities include making sure that power supply is functioning, verifying no leaks are present in any of the recovery tubing, hoses or connections. The 55-gallon product storage drum was also checked during each visit to determine if disposal arrangements needed to be made.

Free product levels within the wells located in the area were monitored and recorded to determine if the system needed to be restarted. Wells were gauged approximately monthly until modifications were made to the SMP effective January 12, 2018. These modifications include changing the gauging frequency from monthly to quarterly and shutting off the LNAPL recovery system. The system will remain in-place in the event that future monitoring events identify recoverable LNAPL. The system will be decommissioned upon Site redevelopment.

Moving forward, any LNAPL that is observed in monitoring wells at the Site during routine gauging events that are not within the capture zone of these existing recovery wells will continue to be manually recovered, to the extent practical, on a quarterly basis.

The required monthly LNAPL Recovery System Monitoring Logs that were completed during the reporting period are provided in chronological order in Appendix D. O&M activities described herein determined that the O&M Plan was carried out as designed during the reporting period of the PRR and it is protective of human health and the environment.

4. Overall Conclusions and Recommendations

The following section presents conclusions from inspections and monitoring activities and recommendations.

- The ICs and ECs are performing as designed, are effective, and are compliant with specifications described in the SMP. No changes to the monitoring plan are recommended at this time.

FIGURES

1. VOCs and LNAPL Detected in Groundwater
   December 2016 to December 2017
2. Composite Cover System
3. Remaining Soil Sample Exceedances within Courtyard
4. Remaining Soil Sample Exceedances within Garage

MW-11	12/01/2016	03/30/2017	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs			DUP			
Benzene	0.68	1	1	0.55	0.5 U	0.5 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-10	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/21/2017
COCs						DUP
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-46	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-45	12/01/2016	03/30/2017	06/22/2017	06/22/2017	09/26/2017	12/21/2017
COCs				DUP		
Benzene	NS	0.78 J	2.5 U	2.5 U	NS	NS
Ethylbenzene	NS	**39**	**22**	**22**	NS	NS
Isopropylbenzene (Cumene)	NS	**51**	**38**	**41**	NS	NS
m,p-Xylene	NS	**47**	**25**	**24**	NS	NS
O-Xylene (1,2-Dimethylbenzene)	NS	**7.4**	**5.4 J**	**6.4 J**	NS	NS
Xylenes	NS	**54**	**30 J**	**30 J**	NS	NS

MW-47	12/01/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs		DUP				
Benzene	0.98	**1.1**	0.66	0.42 J	0.31 J	0.47 J
Ethylbenzene	**11**	**11**	**15**	**9.4**	**5.2**	**7.6**
Isopropylbenzene (Cumene)	**9.2**	**9.9**	**16**	**13**	**9.1**	**11**
m,p-Xylene	**24**	**25**	**36**	**24**	**13**	**19**
O-Xylene (1,2-Dimethylbenzene)	**14**	**15**	**20**	**14**	**8.6**	**12**
Xylenes	**38**	**40**	**56**	**38**	**22**	**31**

MW-43	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	0.5 U	0.5 J	0.5 U	0.69	0.45 J
Ethylbenzene	2.5 U	**6.8**	0.82 J	**5.9**	**5.4**
Isopropylbenzene (Cumene)	1.4 J	**13**	1.9 J	**12**	**12**
m,p-Xylene	1.3 J	**15**	1.7 J	**18**	**12**
O-Xylene (1,2-Dimethylbenzene)	0.8 J	**7.2**	0.87 J	**10**	**6.4**
Xylenes	2.1 J	**22**	2.6 J	**28**	**18**

MW-44	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	1	0.63	0.19 J	0.37 J	0.36 J
Ethylbenzene	**9.9**	**9.7**	3.2	**6**	4.4
Isopropylbenzene (Cumene)	**6.8**	**13**	**5.8**	**9.3**	**7.4**
m,p-Xylene	**24**	**30**	**9.5**	**15**	**13**
O-Xylene (1,2-Dimethylbenzene)	**17**	**22**	**8.8**	**13**	**10**
Xylenes	**41**	**52**	**18**	**28**	**23**

MW-7	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	NS	NS	2.5 U	NS	NS
Ethylbenzene	NS	NS	12 U	NS	NS
Isopropylbenzene (Cumene)	NS	NS	**19**	NS	NS
m,p-Xylene	NS	NS	12 U	NS	NS
O-Xylene (1,2-Dimethylbenzene)	NS	NS	12 U	NS	NS
Xylenes	NS	NS	12 U	NS	NS

MW-2R	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	NS	NS	1.2 U	0.5 U	NS
Ethylbenzene	NS	NS	**5.4 J**	2.5 U	NS
Isopropylbenzene (Cumene)	NS	NS	**17**	**11**	NS
m,p-Xylene	NS	NS	**6.7**	1.1 J	NS
O-Xylene (1,2-Dimethylbenzene)	NS	NS	**5.2 J**	0.73 J	NS
Xylenes	NS	NS	**12 J**	1.8 J	NS

MW-19	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	NS	NS	1.2 U	NS	2.5 U
Ethylbenzene	NS	NS	3.4 J	NS	**5.3** J
Isopropylbenzene (Cumene)	NS	NS	**23**	NS	**63**
m,p-Xylene	NS	NS	6.2 U	NS	12 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	6.2 U	NS	12 U
Xylenes	NS	NS	6.2 U	NS	12 U

MW-33	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	0.5 U	1 U	0.5 U	0.23 J	1.2 U
Ethylbenzene	0.76 J	2.3 J	2.5 U	1.3 J	1.9 J
Isopropylbenzene (Cumene)	1.3 J	4.2 J	0.87 J	4.2	6 J
m,p-Xylene	1.1 J	5 U	2.5 U	2.5 U	6.2 U
O-Xylene (1,2-Dimethylbenzene)	1.5 J	5 U	2.5 U	2.5 U	6.2 U
Xylenes	2.6 J	5 U	2.5 U	2.5 U	6.2 U

MW-38	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	0.28 J	0.5 U	0.43 J	0.62	0.36 J
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**26**	**36**	**24**	**25**	**10**
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-34	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	0.26 J	0.5	0.23 J	NS	NS
Ethylbenzene	2.5 U	2.5 U	2.5 U	NS	NS
Isopropylbenzene (Cumene)	**22**	**18**	**23**	NS	NS
m,p-Xylene	2.5 U	2.5 U	2.5 U	NS	NS
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	NS	NS
Xylenes	2.5 U	2.5 U	2.5 U	NS	NS

MW-37	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	2.5 U	2.5 U	NS	NS	NS
Ethylbenzene	12 U	12 U	NS	NS	NS
Isopropylbenzene (Cumene)	**28**	**34**	NS	NS	NS
m,p-Xylene	12 U	12 U	NS	NS	NS
O-Xylene (1,2-Dimethylbenzene)	12 U	12 U	NS	NS	NS
Xylenes	12 U	12 U	NS	NS	NS

MW-40	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	**8.6**	**9.3**	**5.8**	NS	**8.4**
Ethylbenzene	2.5 U	2.5 U	2.5 U	NS	2.5 U
Isopropylbenzene (Cumene)	**44**	**47**	**40**	NS	**32**
m,p-Xylene	1 J	1 J	1.1 J	NS	0.8 J
O-Xylene (1,2-Dimethylbenzene)	0.78 J	0.72 J	0.79 J	NS	2.5 U
Xylenes	1.8 J	1.7 J	1.9 J	NS	0.8 J

MW-41	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	0.5 U	0.62	0.43 J	0.62	**1.2**
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	0.73 J	2.5	1.1 J	1.4 J	1.4 J
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

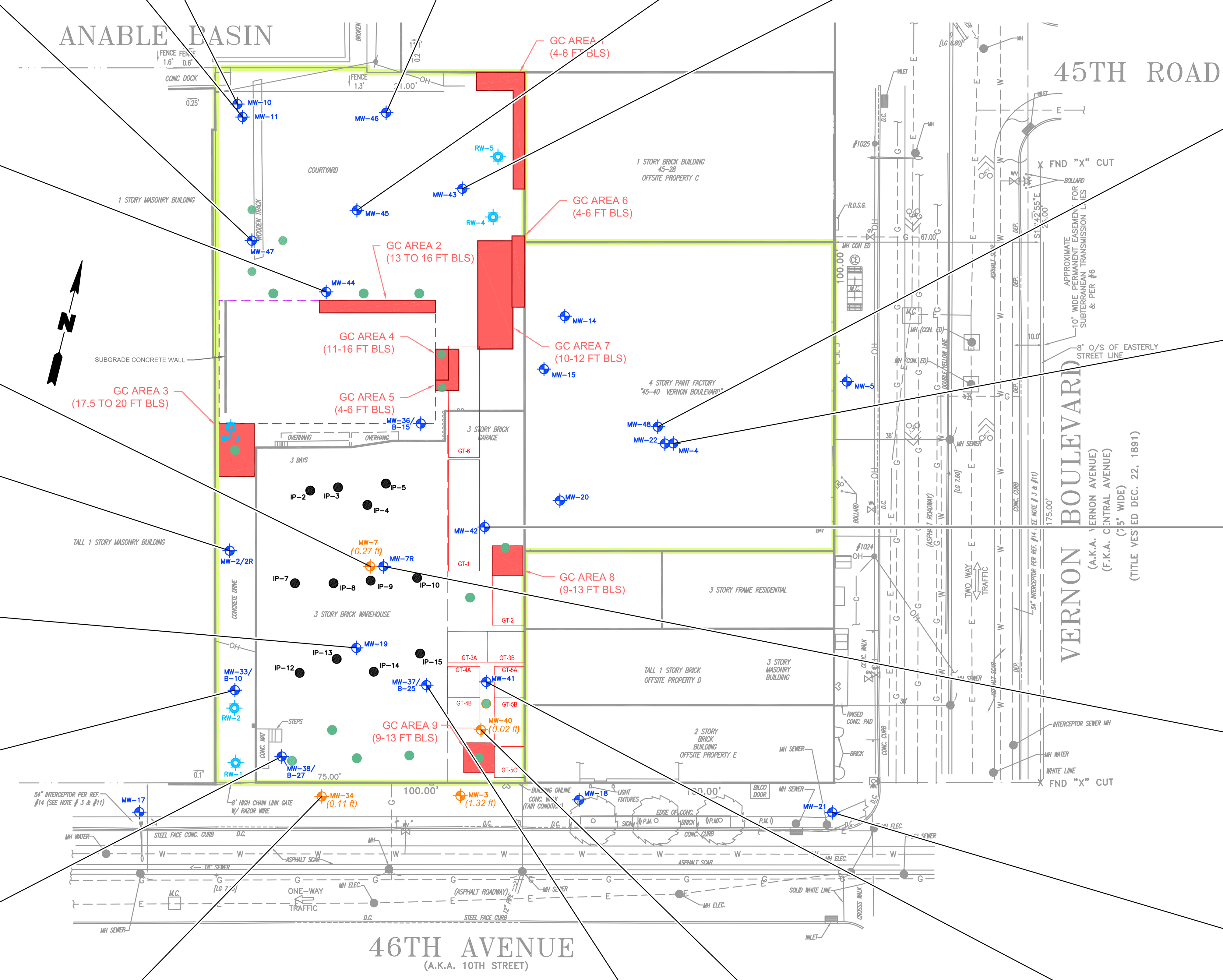
MW-48	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	4	2.6	1.9 J	1.5 J	1.2 J
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-4	12/01/2016	03/30/2017	06/22/2017	09/26/2017	09/26/2017	12/21/2017
COCs					DUP	
Benzene	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	NS	1.6 J	1.7 J	0.89 J	0.73 J	0.74 J
Isopropylbenzene (Cumene)	NS	**5.4**	**6.5**	**6.9**	**6.2**	4.7
m,p-Xylene	NS	1.6 J	1.9 J	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	NS	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	NS	1.6 J	1.9 J	2.5 U	2.5 U	2.5 U

MW-42	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	NS	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	NS	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	NS	0.73 J	2.5 U	2.5 U	2.5 U
m,p-Xylene	NS	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	NS	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	NS	2.5 U	2.5 U	2.5 U	2.5 U

MW-7R	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs					
Benzene	NS	5 U	NS	2 U	NS
Ethylbenzene	NS	25 U	NS	10 U	NS
Isopropylbenzene (Cumene)	NS	**14 J**	NS	**19**	NS
m,p-Xylene	NS	25 U	NS	10 U	NS
O-Xylene (1,2-Dimethylbenzene)	NS	25 U	NS	10 U	NS
Xylenes	NS	25 U	NS	10 U	NS

MW-21	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
COCs	DUP					
Benzene	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U	0.5 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U



LEGEND

- MW-5 — LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
- MW-3 — LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
- RW-1 — LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
- IP-2 — LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
- LOCATION OF FIRST ROUND ISCO INJECTION POINT
- (0.38 ft) — LNAPL THICKNESS
- GC AREA 1 (4-6 FT BLS) — DESIGNATION AND INFERRED HORIZONTAL AND VERTICAL LIMITS OF REMAINING GROSSLY CONTAMINATED MATERIAL BASED ON FIELD OBSERVATION AND RESULTS OF POST-EXCAVATION SAMPLING AND FIELD SCREENING
- ft — FEET
- LNAPL — LIGHT NON-AQUEOUS PHASE LIQUID
- ISCO — IN-SITU CHEMICAL OXIDATION
- CONCRETE VAULT
- PROPERTY BOUNDARY
- GT-6 — APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
- CONCRETE SLAB

TYPICAL DATA BOX INFORMATION

SAMPLE ID. → | MW-48 | 12/01/2016 | ← SAMPLE DATE

MW-48	12/01/2016
COCs	
Benzene	0.5 U
Ethylbenzene	2.5 U
Isopropylbenzene (Cumene)	4
m,p-Xylene	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U
Xylenes	2.5 U

ANALYTES — CONCENTRATIONS (IN µg/L)

PARAMETER	STANDARDS*
Benzene	1
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
m,p-Xylene	5
O-Xylene (1,2-Dimethylbenzene)	5
Xylenes	5

CONCENTRATIONS IN µg/L

µg/L – MICROGRAMS PER LITER

* – NYSDEC AWQSGVs

NYSDEC – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AWQSGVs – AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES

– – NO NYSDEC AWQSGV AVAILABLE

DUP – DUPLICATE SAMPLE

J – ESTIMATED VALUE

NS – NOT SAMPLED

U – COMPOUND WAS ANALYZED FOR BUT NOT DETECTED

BOLD – INDICATES THAT PARAMETER WAS DETECTED ABOVE THE NYSDEC AWQSGVS

NOTES

1. AN OBSERVABLE SHEEN WAS RECORDED DURING PURGE AT MONITORING WELLS MW-7, MW-34 AND MW-45, AND WERE NOT SAMPLED.
2. MONITORING WELLS MW-14 AND MW-15 WENT DRY DURING PURGE AND WERE NOT SAMPLED.

30' 0 30'

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Remedial
REMEDIAL ENGINEERING, P.C.
209 SHAFTER STREET ISLANDIA NEW YORK 11749
(631) 232-2600

PROJECT NAME:
SITE MANAGEMENT PERIODIC REVIEW REPORT
PARAGON PAINT AND VARNISH CORPORATION
LONG ISLAND CITY, NEW YORK

PROJECT FOR:
CSC 4540 PROPERTY CO LLC

TITLE:
VOCs AND LNAPL DETECTED IN GROUNDWATER DECEMBER 2016 TO DECEMBER 2017

FIGURE
1

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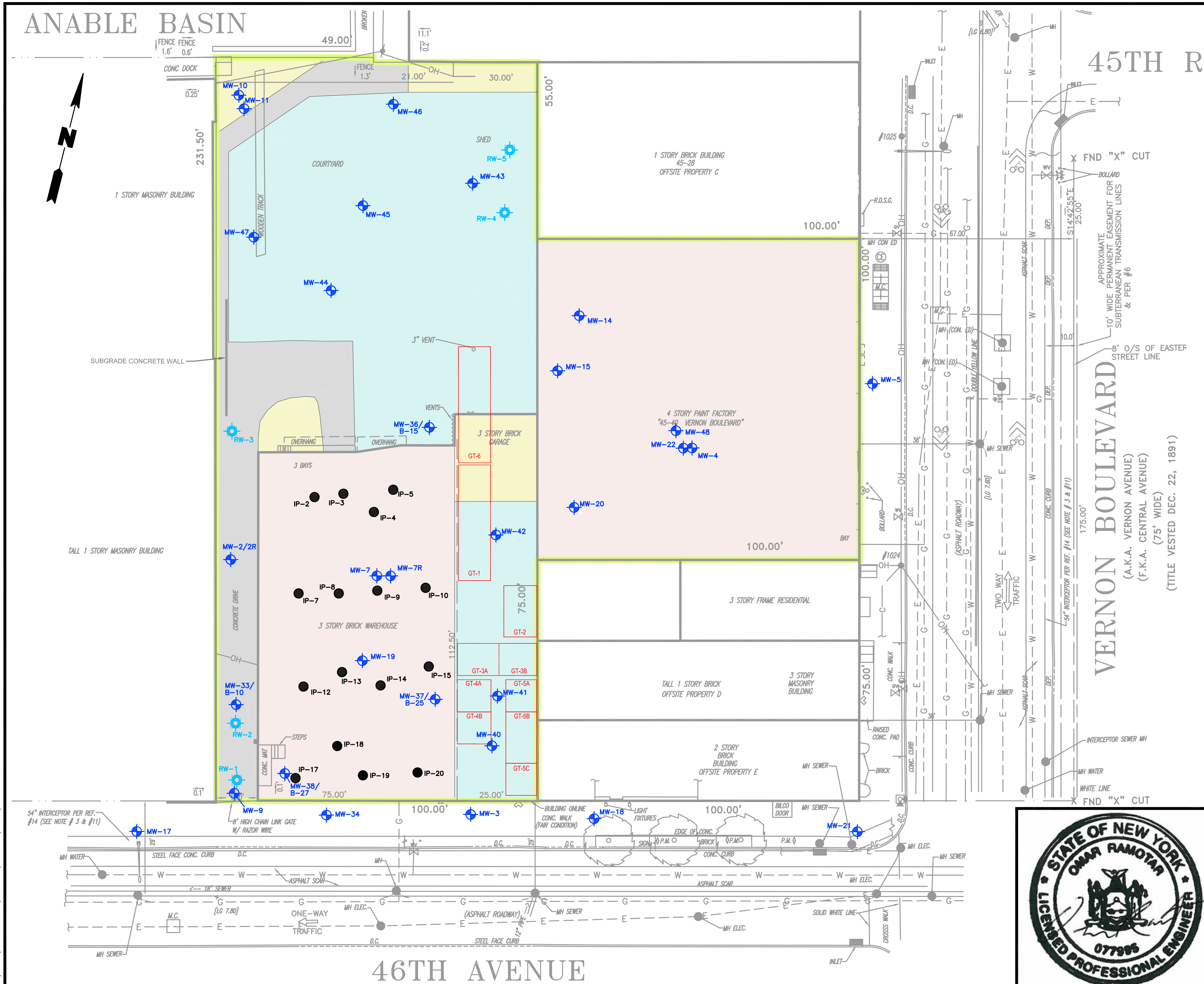

LEGEND

MW-5	LOCATION AND DESIGNATION OF MONITORING WELL
RW-1	LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL
IP-2	LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
ISCO	IN-SITU CHEMICAL OXIDATION
	CONCRETE VAULT
	PROPERTY BOUNDARY
GT-6	APPROXIMATE LOCATION AND DESIGNATION OF OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
	INSTALLED ASPHALT CAP
	EXISTING CONCRETE PAVEMENT
	INSTALLED RECYCLED CONCRETE AGGREGATE (MIN. 2 FT)
	EXISTING BUILDING SLAB

NOTE

REFER TO AS-BUILT DRAWINGS FOR ELEVATION INFORMATION OF INSTALLED PORTIONS OF COVER SYSTEM.

30' 0 30'

STATE OF NEW YORK
OMAR RAMOTAR
077995
LICENSED PROFESSIONAL ENGINEER

Title:

ENGINEERING CONTROL LOCATION - COMPOSITE COVER SYSTEM

SITE MANAGEMENT PERIODIC REVIEW REPORT
PARAGON PAINT AND VARNISH CORPORATION
LONG ISLAND CITY, NEW YORK

Prepared For:

CSC 4540 PROPERTY CO LLC

Remedial
REMEDIAL ENGINEERING, P.C.

Compiled by: C.H.	Date: 23APR18	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	2
Project Mgr: R.M.	Project: 2051.0001Y002	
File: 2051.0001Y253.02.DWG		

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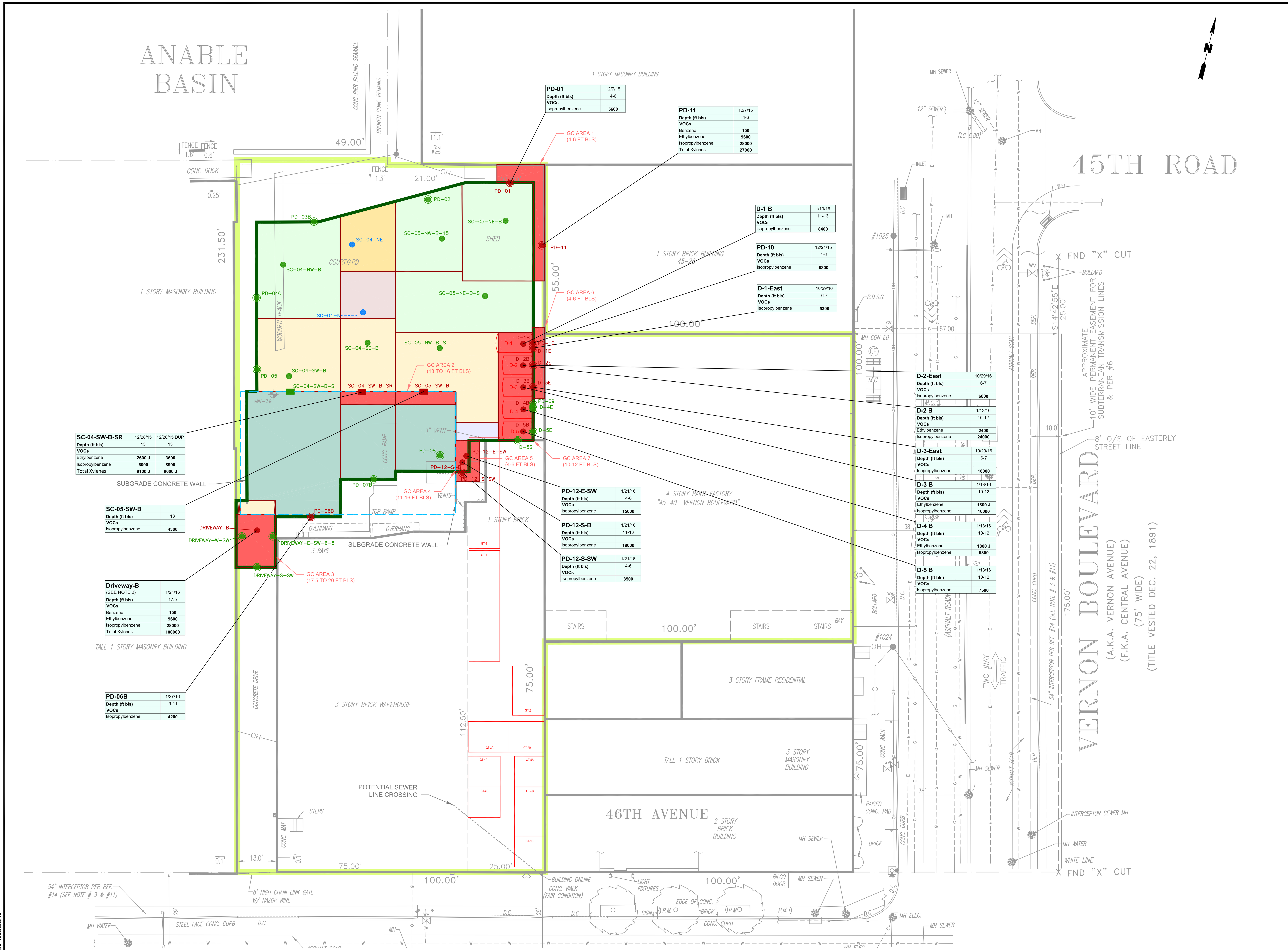

LEGEND

- PD-12-S-B — EXCAVATION BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS
- PD-10 — EXCAVATION SIDEWALL SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS
- SC-04-SW-B-SR — CONCRETE SLAB BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS
- SC-05-NW-B-S — EXCAVATION BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN DETECTIONS BELOW CLEANUP STANDARDS
- D-5S — EXCAVATION SIDEWALL SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN DETECTIONS BELOW CLEANUP STANDARDS
- SC-04-SW-B-S — CONCRETE SLAB BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN DETECTIONS BELOW CLEANUP STANDARDS (SEE NOTE 1)
- SC-04-NE — POTENTIAL SAMPLE LOCATION AND DESIGNATION ABANDONED DUE TO REFUSAL
- PROPERTY BOUNDARY
- GT-4 — APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
- D-4 — APPROXIMATE LOCATION AND DESIGNATION OF DISHED UNDERGROUND STORAGE TANK (REMOVED)
- REMEDIAL ACTION EXCAVATION LIMITS
- CONCRETE SLAB
- 9 FT BLS EXCAVATION FOOTPRINT
- 11 FT BLS EXCAVATION FOOTPRINT (TOPOGRAPHY OF CONCRETE SLAB)
- 13 FT BLS EXCAVATION FOOTPRINT
- 15 FT-15.5 FT BLS EXCAVATION FOOTPRINT
- 16 FT BLS EXCAVATION FOOTPRINT
- 17 FT BLS EXCAVATION FOOTPRINT
- 18 FT BLS EXCAVATION FOOTPRINT
- GC AREA 1 (4-6 FT BLS) — DESIGNATION AND INFERRED HORIZONTAL AND VERTICAL LIMITS OF REMAINING GROSSLY CONTAMINATED MATERIAL BASED ON FIELD OBSERVATION AND RESULTS OF POST-EXCAVATION SAMPLING AND FIELD SCREENING

Parameter	Standards* (µg/kg)
VOCs	
Benzene	60
Ethylbenzene	1000
Isopropylbenzene	**2300
Total Xylenes	1600

CONCENTRATIONS IN µg/kg

µg/kg – MICROGRAMS PER KILOGRAM
NYSDEC – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
* – NYSDEC PART 375 PROTECTION OF GROUNDWATER
** – NYSDEC CP-51 PROTECTION OF GROUNDWATER STANDARDS
VOCS – VOLATILE ORGANIC COMPOUNDS
J – ESTIMATED VALUE
FT BLS – FEET BELOW LAND SURFACE

NOTE

1. CONCRETE SLAB LOCATED IN COURTYARD AT APPROXIMATELY 11 TO 13 FT BLS WAS NOT REMOVED DURING REMEDIAL ACTION DUE TO SIZE. POST EXCAVATION SOIL SAMPLES WERE COLLECTED AT ACCESSIBLE EDGE BENEATH CONCRETE SLAB AS SHOWN DURING THE PERFORMANCE OF THE REMEDIAL ACTION.
2. GROSS CONTAMINATION PRESENT FROM 17.5' TO 20' BLS. ADDITIONAL EXCAVATION NOT PERFORMED DUE TO LIMITATIONS OF SHORING METHOD USED.

ABANDONED IN PLACE UNDERGROUND STORAGE TANK INFORMATION			
TANK ID	ESTIMATED DIAMETER (FT)	ESTIMATED LENGTH (FT)	ESTIMATED CAPACITY (GAL)
GT-1	10	36	21,000
GT-2	10	13	7,500
GT-3A	10	11.5	6,700
GT-3B	10	11.5	6,700
GT-4A	10	9	5,000
GT-4B	10	9	5,000
GT-5A	10	12	7,000
GT-5B	10	12	7,000
GT-5C	10	12	7,000
GT-6	10	36	21,000
REMOVED UNDERGROUND STORAGE TANK INFORMATION			
D-1	6	12	2,500
D-2	6	10	2,000
D-3	6	10	2,000
D-4	6	10	2,000
D-5	6	10	2,000

15' 0 15'

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REMEDIAL ENGINEERING, P.C.
209 SHAFTER STREET ISLANDIA NEW YORK 11749
(631) 232-2600

PROJECT NAME:
SITE MANAGEMENT PERIODIC REVIEW REPORT
PARAGON PAINT AND VARNISH CORPORATION

PROJECT FOR:
CSC 4540 PROPERTY CO LLC

TITLE:
CONTAMINATION REMAINING IN SOIL AFTER THE REMEDIAL ACTION WITHIN COURTYARD

FIGURE
3

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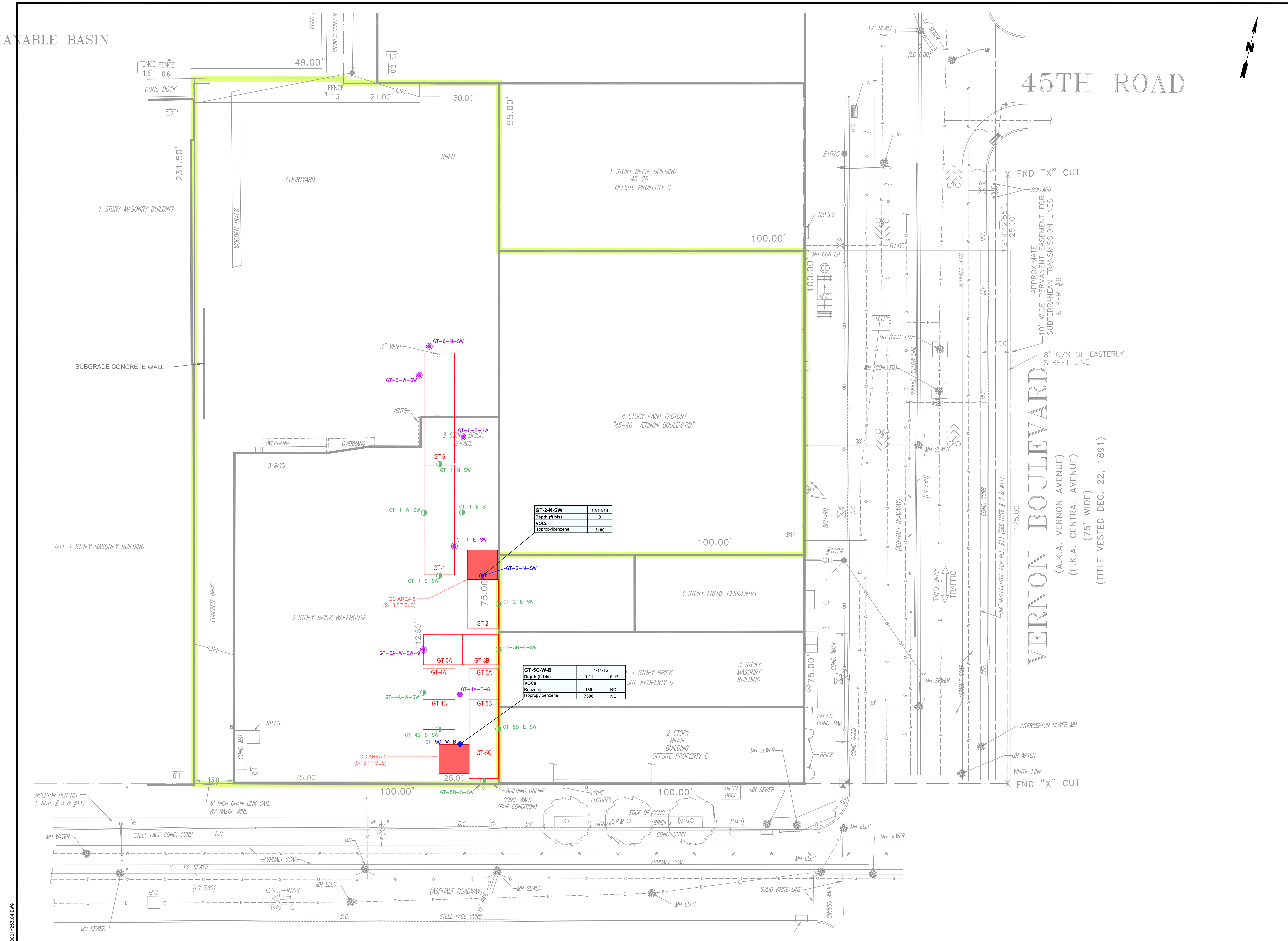

GT-2-N-SW	12/14/16
Depth (ft bls)	9
VOCs	
Isopropylbenzene	**3100**

GT-5C-W-B	1/11/16	
Depth (ft bls)	9-11	15-17
VOCs		
Benzene	**180**	ND
Isopropylbenzene	**7500**	NE

LEGEND

GT-1-E-B — POTENTIAL CONFIRMATORY SOIL SAMPLE LOCATION AND DESIGNATION WHERE CONCRETE REFUSAL ENCOUNTERED

GT-6-N-SW — UNDERGROUND STORAGE TANK BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION BENEATH CONCRETE SLAB WITH COMPOUND OF CONCERN DETECTIONS BELOW CLEANUP STANDARDS

GT-4A-E-B — UNDERGROUND STORAGE TANK SIDEWALL SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN DETECTIONS BELOW CLEANUP STANDARDS

GT-5C-W-B — UNDERGROUND STORAGE TANK BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION BENEATH CONCRETE SLAB WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS

GT-2-N-SW — UNDERGROUND STORAGE TANK SIDEWALL SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS

PROPERTY BOUNDARY

GT-6 — APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)

GC AREA 8 (9-13 FT BLS) — DESIGNATION AND INFERRED HORIZONTAL AND VERTICAL LIMITS OF REMAINING GROSSLY CONTAMINATED MATERIAL BASED ON FIELD OBSERVATION AND RESULTS OF POST-EXCAVATION SAMPLING AND FIELD SCREENING

Parameter	Standards* (µg/kg)
VOCs	
Benzene	**60**
Isopropylbenzene	****2300**

CONCENTRATIONS IN µg/kg

µg/kg – MICROGRAMS PER KILOGRAM
NYSDEC – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
* – NYSDEC PART 375 PROTECTION OF GROUNDWATER
** – NYSDEC CP-51 PROTECTION OF GROUNDWATER STANDARDS
VOCS – VOLATILE ORGANIC COMPOUNDS
ND – NO DETECTION
NE – NO EXCEEDANCE
FT BLS – FEET BELOW LAND SURFACE

15' 0 15'

NO.	DATE	REVISION DESCRIPTION	INT.

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF STATE LAW.

THESE DOCUMENTS (OR COPIES OF ANY THEREOF) PREPARED BY OR BEARING THE SEAL OF THE ENGINEER, SHALL NOT BE REUSED FOR ANY EXTENSIONS OF THE PROJECT OR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

PROJ. ENGINEER: O.R.	DRAWN BY: G.M.
DESIGNED BY: C.H.	CHECKED BY: O.R.
DRAWING SCALE: AS SHOWN	PLOT SCALE: 1:1
DRAWING DATE: 07MAY18	PRINT TYPE: B&W
OFFICE: NY	PAPER SIZE: ARCH D
PROJECT NO.: 2051.0001Y002	
DRAWING FILE: 2051.0001Y253.04.DWG	

Remedial
REMEDIAL ENGINEERING, P.C.
209 SHAFTER STREET ISLANDIA NEW YORK 11749
(631) 232-2600

PROJECT NAME:
SITE MANAGEMENT PERIODIC REVIEW REPORT
PARAGON PAINT AND VARNISH CORPORATION

PROJECT FOR:
CSC 4540 PROPERTY CO LLC

TITLE:
CONTAMINATION REMAINING IN SOIL AFTER THE REMEDIAL ACTION WITHIN THE GARAGE

FIGURE
4

V:\CAD\PROJECTS\2051Y\0001Y\253\2051.0001Y253.04.DWG

APPENDICES

A. IC/EC Certification Form

B. Site Inspection Checklists and Photo Log

C. Groundwater Monitoring Results

D. LNAPL Recovery System Monitoring Logs

E. NYSDEC Site Management Plan Approval

F. SMP ISCO Injections Documentation

G. NYSDEC Response Letter to SMP Modifications

H. Formal Groundwater Monitoring Reports

APPENDIX A

IC/EC Certification Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C241108**

Site Name Paragon Paint and Varnish Corp

Site Address: 5-49 46th Avenue Zip Code: 11101-5214
City/Town: Long Island City
County: Queens
Site Acreage: 0.8

Reporting Period: December 15, 2016 to April 15, 2018

		YES	NO
1.	Is the information above correct?	X	☐
	If NO, include handwritten above or on a separate sheet.		
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
	If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5.	Is the site currently undergoing development?	☐	X

Box 2

		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	X	☐
7.	Are all ICs/ECs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

Box2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	X

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	X	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C241108 **Box3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
4-26-4	CSC 4540 Property Co, LLC, c/o Simon Dev	Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

Site Management Plan (SMP)
Conduct groundwater monitoring
Compliance with a soil management plan
Prepare periodic review reports
Perform OM&M as per the SMP
Evaluate vapor intrusion before occupying buildings
No vegetable gardens

Box4

Description of Engineering Controls

Parcel	Engineering Control
4-26-4	Cover System

Cover System for entire site 0.759 acres
LNAPL Recovery System
ISCO Injections as required

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

______________________________________ ________________

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. C241108

Box6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I, Omar Ramotar at Roux Environmental Engineering and Geology 209 Shafter Street, Islandia, NY 11749

print name | print business address

am certifying as CSC 4540 Property Co, LLC, c/o Simon Dev (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Omar Ramotar

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

6/4/18

Date

IC/EC CERTIFICATIONS

Box7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Omar Ramotar at Roux Environmental Engineering and Geology 209 Shafter Street, Islandia, NY 11749

Print Name — Print Business Address

am certifying as a Professional Engineer for the CSC 4540 Property Co, LLC, c/o Simon Dev

(Owner or Remedial Party)

6/4/18

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification — Stamp (Required for PE) — Date

APPENDIX B

Site Inspection Checklists and Photo Log

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Thursday, September 08, 2016**

Site Observations: **Performed by (MS) on (9/8/16)**

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: **Performed by (MS) on (9/8/16)**

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: **Performed by (MS) on (9/8/16)**

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: **Performed by (MS) on (9/8/16)**

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : **Performed by (MS) on (9/8/16)**

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **9/8/2016**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

Sampling to be completed today from monitoring wells in SMP monitoring network

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Jordanna Kendrot**

Date: **Thursday, October 13, 2016**

Site Observations: **Performed by (JK) on (10/13/16)**

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: **Performed by (JK) on (10/13/16)**

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: **Performed by (JK) on (10/13/16)**

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: **Performed by (JK) on (10/13/16)**

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : **Performed by (JK) on (10/13/16)**

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Jordanna Kendrot**
Date: **10/13/2016**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Tuesday, November 15, 2016**

Site Observations: Performed by (MS) on (11/15/16)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (11/15/16)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (11/15/16)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (11/15/16)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (11/15/16)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	[X]	Were all five (5) AC Sipper reels operating properly? See pg. 2
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **11/15/2016**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery System was turned off (breaker when hooked into system was shut off entirely). Brekaer turned back on and system restarted

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Thursday, December 01, 2016**

Site Observations: Performed by (MS) on (12/1/16)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (12/1/16)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (12/1/16)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (12/1/16)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (12/1/16)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **12/1/2016**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

Sampling to be completed today from monitoring wells in SMP monitoring network

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Thursday, January 19, 2017**

Site Observations: Performed by (MS) on (1/19/17)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (1/19/17)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (1/19/17)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (1/19/17)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (1/19/17)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **1/19/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Tuesday, February 14, 2017**

Site Observations: Performed by (MS) on (2/14/17)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (2/14/17)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (2/14/17)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (2/14/17)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (2/14/17)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **2/14/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Thursday, March 30, 2017**

Site Observations: Performed by (MS) on (3/30/17)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (3/30/17)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (3/30/17)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (3/30/17)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (3/30/17)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **3/30/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

Sampling to be completed today from monitoring wells in the SMP monitoring network.

Recovery system to be shut off due to lack of recoverable product. Continue to inspect recovery system going forward.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Monday, April 24, 2017**

Site Observations: Performed by (MS) on (4/24/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (4/24/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (4/24/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (4/24/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (4/24/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **4/24/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Wednesday, May 24, 2017**

Site Observations: Performed by (MS) on (5/24/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (5/24/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (5/24/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (5/24/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (5/24/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **5/24/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Thursday, June 22, 2017**

Site Observations: Performed by (MS) on (6/22/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (6/22/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (6/22/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (6/22/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (6/22/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **6/22/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Thursday, July 27, 2017**

Site Observations: Performed by (MS) on (7/27/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (7/27/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (7/27/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (7/27/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (7/27/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **7/27/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Tuesday, August 29, 2017**

Site Observations: Performed by (MS) on (8/29/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (8/29/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (8/29/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (8/29/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (8/29/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **8/29/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Tuesday, September 26, 2017**

Site Observations: Performed by (MS) on (9/26/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (9/26/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (9/26/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (9/26/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (9/26/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **9/26/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Tuesday, March 20, 2018**

Site Observations: Performed by (MS) on (3/20/2018)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[ ]	**[X]**	Are monitoring wells intact? **See pg. 2**
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (3/20/2018)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (3/20/2018)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (3/20/2018)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (3/20/2018)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **3/20/2018**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

The concrete pad surrounding monitoring well MW-43 was damaged and removed. New pad will be constructed as soon as possible.

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Photos of inspection attached.

Photograph 1: Condition of driveway looking south

Photograph 2: Conditions of paint factory, garage, and warehouse looking southeast

Photograph 3: Condition of paint factory looking east

Photograph 4: Aerial view of courtyard

Photograph 5: Aerial view of east end of courtyard and paint factory

Photograph 6: Aerial view of courtyard leading into warehouse

Photograph 7: Aerial view of intersection between driveway and courtyard

Photograph 8: Condition of courtyard and entrance to paint factory

Photograph 9: Intersection of driveway and courtyard looking west

Photograph 10: Condition of driveway and warehouse looking west

Photograph 11: Designated drum storage area with secondary containment pad

Photograph 12: Geotech AC Sipper control panel

Photograph 13: Condition of warehouse basement

Photograph 14: One of five Geotech AC Sipper pumps installed in recovery wells

APPENDIX C

Groundwater Monitoring Results

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-2R	MW-2R	MW-4	MW-4	MW-4	MW-4	MW-4
		Sample Date:	06/22/2017	09/26/2017	03/30/2017	06/22/2017	09/26/2017	09/26/2017	12/21/2017
		Normal or Field Duplicate:	N	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	3.8 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	5 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**76**	**39**	**14**	**14**	**8.2**	**6.8**	4.8
1,3-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	620 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	12 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	6.2 J	7.6	5 U	5 U	4.1 J	3.9 J	5 U
Benzene	**1**	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	5 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	23	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	12 U	5 U	5 U	5 U	5 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-2R	MW-2R	MW-4	MW-4	MW-4	MW-4	MW-4
		Sample Date:	06/22/2017	09/26/2017	03/30/2017	06/22/2017	09/26/2017	09/26/2017	12/21/2017
		Normal or Field Duplicate:	N	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**5.4 J**	2.5 U	1.6 J	1.7 J	0.89 J	0.73 J	0.74 J
Isopropylbenzene (Cumene)	**5**	UG/L	**17**	**11**	**5.4**	**6.5**	**6.9**	**6.2**	4.7
m,p-Xylene	**5**	UG/L	**6.7**	1.1 J	1.6 J	1.9 J	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	7.6 J	3.3 J	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	12 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**29**	**18**	**5.8**	**7.6**	**5.8**	4.9	3.7
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**5.2 J**	0.73 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**8.5**	4.9	**6.6**	**6.7**	**11**	**10**	**8.6**
Styrene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	5 J	3	**7.3**	**5.7**	**8.6**	**8.4**	**7.6**
Tert-Butyl Methyl Ether	10	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	**12 J**	1.8 J	1.6 J	1.9 J	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-5	MW-7	MW-7R	MW-7R	MW-7R	MW-10	MW-10
		Sample Date:	09/08/2016	06/22/2017	09/08/2016	03/30/2017	09/26/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	7.5 U	1.5 U	15 U	6 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	10 U	2 U	20 U	8 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	5 U	1 U	10 U	4 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	1200 U	250 U	2500 U	1000 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	25 U	5 U	50 U	20 U	5 U	5 U
Acetone	**50**	UG/L	5 U	25 U	14	50 U	19 J	5 U	5 U
Benzene	**1**	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	10 U	2 U	20 U	8 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	8.6 J	5 U	50 U	20 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	25 U	5 U	50 U	20 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-5	MW-7	MW-7R	MW-7R	MW-7R	MW-10	MW-10
		Sample Date:	09/08/2016	06/22/2017	09/08/2016	03/30/2017	09/26/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	**19**	**11**	**14 J**	**19**	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	25 U	5.5	50 U	20 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	25 U	5 U	50 U	20 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	**21**	**19**	**25**	**34**	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	**23**	**12**	**12 J**	**15**	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	**16**	**6**	**7 J**	**9.1 J**	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	1.6 J	0.5 U	5 U	2 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	12 U	0.99 J	25 U	10 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	5 U	1 U	10 U	4 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U

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µg/L -Micrograms per liter
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- - No NYSDEC AWQSGV available
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Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-10	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11
		Sample Date:	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/21/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	4.5 J	5 U	5 U	5 U	5 U
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.64	0.68
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-10	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11
		Sample Date:	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/21/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4.7	4.1
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

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Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-11	MW-11	MW-11	MW-11	MW-11	MW-19	MW-19
Sample Date:			03/30/2017	03/30/2017	06/22/2017	09/26/2017	12/21/2017	09/08/2016	06/22/2017
Normal or Field Duplicate:			N	FD	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3.8 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	5 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2.5 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**7**	6.2 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	620 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	12 U
Acetone	**50**	UG/L	2.2 J	1.9 J	1.7 J	4.1 J	5 U	5.6	8.8 J
Benzene	**1**	UG/L	1	1	0.55	0.5 U	0.5 U	0.46 J	1.2 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	5 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	12 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	12 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-11	MW-11	MW-11	MW-11	MW-11	MW-19	MW-19
		Sample Date:	03/30/2017	03/30/2017	06/22/2017	09/26/2017	12/21/2017	09/08/2016	06/22/2017
		Normal or Field Duplicate:	N	FD	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3.4 J
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**25**	**23**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5	5.4 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	12 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**33**	**36**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**23**	**14**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
T-Butylbenzene	**5**	UG/L	4.4	4.5	4	**5.1**	3.9	**13**	**8.6**
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2.5 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-19	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21
		Sample Date:	12/21/2017	09/08/2016	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
		Normal or Field Duplicate:	N	N	FD	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	7.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	10 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**14**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	1200 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	25 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	21 J	5 U	5 U	5 U	5 U	5 U	3.8 J
Benzene	**1**	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U
Bromochloromethane	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	10 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	25 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	25 U	5 U	5 U	5 U	5 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-19	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21
		Sample Date:	12/21/2017	09/08/2016	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
		Normal or Field Duplicate:	N	N	FD	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**5.3 J**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**63**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	25 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	25 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**120**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**41**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	**14**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	2.5 U	0.5 U	0.5 U	0.46 J	0.5 U	0.35 J	0.5 U
Toluene	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	12 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
 - - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-33	MW-33	MW-33	MW-33	MW-33	MW-34
		Sample Date:	12/21/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	3 U	1.5 U	1.5 U	3.8 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	4 U	2 U	2 U	5 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	2 U	1 U	1 U	2.5 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	3	5 U	2.5 U	2.5 U	6.2 U	1.3 J
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	500 U	250 U	250 U	620 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	10 U	5 U	5 U	12 U	5 U
Acetone	**50**	UG/L	5 U	23	5.7 J	5 U	5.6	12 U	5 U
Benzene	**1**	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.23 J	1.2 U	0.42 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	4 U	2 U	2 U	5 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	10 U	5 U	5 U	12 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	10 U	5 U	5 U	12 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-33	MW-33	MW-33	MW-33	MW-33	MW-34
		Sample Date:	12/21/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	0.76 J	2.3 J	2.5 U	1.3 J	1.9 J	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	1.3 J	4.2 J	0.87 J	4.2	**6 J**	**30**
m,p-Xylene	**5**	UG/L	2.5 U	1.1 J	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	3.2 J	9.9 J	5 U	5 U	12 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	10 U	5 U	5 U	12 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.2 J	**8.2**	1.5 J	**8.2**	**12**	**39**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	1.5 J	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.6	4.6 J	1.4 J	**5.2**	**7.5**	**16**
Styrene	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	1.8 J	2.3 J	0.89 J	2.3 J	2.8 J	**7**
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	1 U	0.5 U	**1.2**	1.2 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	1 U	0.5 U	1.2	1.2 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1.2 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	5 U	2.5 U	2.5 U	6.2 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	2 U	1 U	1 U	2.5 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.6 J	5 U	2.5 U	2.5 U	6.2 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-34	MW-34	MW-34	MW-37	MW-37	MW-37	MW-38
		Sample Date:	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016	03/30/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	7.5 U	7.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	0.74 J	12 U	12 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	10 U	10 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	5 U	5 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	0.98 J	0.94 J	0.86 J	2.5 U	3.6 J	12 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	1200 U	1200 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	25 U	25 U	5 U
Acetone	**50**	UG/L	5 U	2.4 J	2.2 J	3.4 J	39	25 U	3.5 J
Benzene	**1**	UG/L	0.26 J	0.5	0.23 J	0.19 J	2.5 U	2.5 U	0.27 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	10 U	10 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	1.4 J	5 U	25 U	25 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	25 U	25 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-34	MW-34	MW-34	MW-37	MW-37	MW-37	MW-38
		Sample Date:	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016	03/30/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**22**	**18**	**23**	**14**	**28**	**34**	**15**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	3 J	5 U	7.4	25 U	25 U	6.8
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	1.2 J	5 U	5 U	25 U	25 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
N-Propylbenzene	**5**	UG/L	**33**	**25**	**32**	**20**	**50**	**68**	**16**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**15**	**13**	**14**	**5.1**	**21**	**30**	5
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
T-Butylbenzene	**5**	UG/L	**6.9**	**7.2**	**6.6**	2.8	**7.1 J**	**8.8 J**	2.5
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	1.2 J	12 U	12 U	1 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	5 U	5 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
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FD - Duplicate
- - No NYSDEC AWQSGV available
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Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-38	MW-38	MW-38	MW-38	MW-38	MW-40	MW-40
		Sample Date:	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	1.6 J	5 U	**53**	12	14	2 J	2.3 J
Benzene	**1**	UG/L	0.28 J	0.5 U	0.43 J	0.62	0.36 J	**8.6**	**9.3**
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	2.8 J	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	1.2 J	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-38	MW-38	MW-38	MW-38	MW-38	MW-40	MW-40
Sample Date:			12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/01/2016	03/30/2017
Normal or Field Duplicate:			N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**26**	**36**	**24**	**25**	**10**	**44**	**47**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1 J	1 J
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	16	5 U	18	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	1.7 J	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**34**	**55**	**31**	**34**	**12**	**69**	**38**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.78 J	0.72 J
Sec-Butylbenzene	**5**	UG/L	**11**	**16**	**8.2**	**14**	**10**	**16**	**20**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	4.3	**6.8**	4.2	**5.4**	**5.6**	3.5	**5.3**
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	0.97 J	2.5 U	2.5 U	0.74 J	2.5 U	1.7 J	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.22 J	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.8 J	1.7 J

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
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U - Compound was analyzed for but not detected
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- - No NYSDEC AWQSGV available
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Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-40	MW-40	MW-41	MW-41	MW-41	MW-41	MW-41
Sample Date:			06/22/2017	12/21/2017	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
Normal or Field Duplicate:			N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	**1.2**	0.34 J	0.5 U	0.5 U	0.5 U	**0.74**	0.48 J
1,2-Dichloropropane	1	UG/L	0.27 J	0.38 J	1 U	1 U	1 U	0.52 J	0.29 J
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	**260**	3.1 J	5 U	5 U	5 U	**96**	10
Benzene	**1**	UG/L	**5.8**	**8.4**	0.26 J	0.5 U	0.62	0.43 J	0.62
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	4.6 J	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	4.2	2.5 U	2.5 U	2.5 U	2.5 U	2.8	0.76 J
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-40	MW-40	MW-41	MW-41	MW-41	MW-41	MW-41
		Sample Date:	06/22/2017	12/21/2017	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**40**	**32**	1.3 J	0.73 J	2.5	1.1 J	1.4 J
m,p-Xylene	**5**	UG/L	1.1 J	0.8 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	39	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	1.5 J	2.5 U	2.5 U	2.5 U	2.5 U	1.2 J	2.5 U
N-Propylbenzene	**5**	UG/L	**64**	**6.8**	1.7 J	0.8 J	3.1	1.3 J	1.5 J
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	0.79 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**19**	**15**	2.3 J	1.1 J	3.9	1.7 J	2.2 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	4.2	4.5	1.2 J	0.78 J	2.4 J	1.3 J	2.1 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	0.72 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	1.9 J	0.8 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-41	MW-42	MW-42	MW-42	MW-42	MW-42	MW-43
		Sample Date:	12/21/2017	09/08/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.51	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	0.23 J	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**12**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	19	5 U	5 U	5 U	2.5 J	5 U	7.4
Benzene	**1**	UG/L	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-41	MW-42	MW-42	MW-42	MW-42	MW-42	MW-43
		Sample Date:	12/21/2017	09/08/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	1.4 J	4.7	0.73 J	2.5 U	2.5 U	2.5 U	1.4 J
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.3 J
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	4.4 J	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	1 J	3.5	2.5 U	2.5 U	2.5 U	2.5 U	1.9 J
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.8 J
Sec-Butylbenzene	**5**	UG/L	2.2 J	2.9	1.4 J	1.1 J	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	1.8 J	1.2 J	1.7 J	1.2 J	1.2 J	1.2 J	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 J

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-43	MW-43	MW-43	MW-43	MW-44	MW-44	MW-44
		Sample Date:	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	3 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	4 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**78**	**7.1**	**49**	**47**	**41**	**81**	**42**
1,3-Dichlorobenzene	3	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	500 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	28	7	**57**	41	**98**	**53**	**61**
Benzene	**1**	UG/L	0.5 J	0.5 U	0.69	0.45 J	1	0.63	0.19 J
Bromochloromethane	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	4 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	10 U	5 U	1.3 J	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	10 U	5 U	5 U	5 U	5 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-43	MW-43	MW-43	MW-43	MW-44	MW-44	MW-44
		Sample Date:	03/30/2017	06/22/2017	09/26/2017	12/21/2017	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**6.8**	0.82 J	**5.9**	**5.4**	**9.9**	**9.7**	3.2
Isopropylbenzene (Cumene)	**5**	UG/L	**13**	1.9 J	**12**	**12**	**6.8**	**13**	**5.8**
m,p-Xylene	**5**	UG/L	**15**	1.7 J	**18**	**12**	**24**	**30**	**9.5**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	10 U	5 U	9	6.5	12	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	10 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**22**	2.9	**18**	**18**	**8.5**	**19**	**9.6**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**7.2**	0.87 J	**10**	**6.4**	**17**	**22**	**8.8**
Sec-Butylbenzene	**5**	UG/L	**5.8**	0.83 J	4	4.9	1.8 J	**6.2**	3.9
Styrene	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1 J	2.5 U
T-Butylbenzene	**5**	UG/L	2.4 J	2.5 U	2.1 J	2 J	1.2 J	2.4 J	1.7 J
Tert-Butyl Methyl Ether	10	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.23 J	0.5 U
Toluene	5	UG/L	5 U	2.5 U	1.3 J	0.95 J	3.8	3.6	0.99 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	**22**	2.6 J	**28**	**18**	**41**	**52**	**18**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-44	MW-44	MW-45	MW-45	MW-45	MW-46	MW-46
		Sample Date:	09/26/2017	12/21/2017	03/30/2017	06/22/2017	06/22/2017	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	3.8 U	7.5 U	7.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	5 U	10 U	10 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	2.5 U	5 U	5 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**57**	**48**	**230**	**150**	**180**	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	620 U	1200 U	1200 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	12 U	25 U	25 U	5 U	5 U
Acetone	**50**	UG/L	11	**56**	32	45	31	4.2 J	5 U
Benzene	**1**	UG/L	0.37 J	0.36 J	0.78 J	2.5 U	2.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	5 U	10 U	10 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	12 U	25 U	25 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	12 U	25 U	25 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-44	MW-44	MW-45	MW-45	MW-45	MW-46	MW-46
		Sample Date:	09/26/2017	12/21/2017	03/30/2017	06/22/2017	06/22/2017	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**6**	4.4	**39**	**22**	**22**	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**9.3**	**7.4**	**51**	**38**	**41**	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	**15**	**13**	**47**	**25**	**24**	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	2.6 J	7.8	12 U	25 U	25 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	12 U	25 U	25 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**15**	**11**	**88**	**59**	**63**	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**13**	**10**	**7.4**	**5.4 J**	**6.4 J**	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	4.2	4.1	**16**	**12**	**12**	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	1.9 J	1.8 J	4.8 J	3.9 J	4 J	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
Toluene	5	UG/L	1.6 J	1.8 J	6.2 U	12 U	12 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	2.5 U	5 U	5 U	1 U	1 U
Xylenes	**5**	UG/L	**28**	**23**	**54**	**30 J**	**30 J**	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-46	MW-46	MW-46	MW-47	MW-47	MW-47	MW-47
Sample Date:			06/22/2017	09/26/2017	12/21/2017	12/01/2016	12/01/2016	03/30/2017	06/22/2017
Normal or Field Duplicate:			N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	4 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2 J	0.88 J	2.5 U	**40**	**41**	**78**	**67**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	500 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	1.1 J	5 U	10 U
Acetone	**50**	UG/L	4.2 J	2.7 J	4.8 J	**110**	**110**	39	27
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	0.98	**1.1**	0.66	0.42 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	4 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	1.2 J	2.5 U	5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-46	MW-46	MW-46	MW-47	MW-47	MW-47	MW-47
Sample Date:			06/22/2017	09/26/2017	12/21/2017	12/01/2016	12/01/2016	03/30/2017	06/22/2017
Normal or Field Duplicate:			N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**11**	**11**	**15**	**9.4**
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	**9.2**	**9.9**	**16**	**13**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**24**	**25**	**36**	**24**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	14	16	5 U	4.2 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	1.1 J	5 U	5 U	10 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**13**	**14**	**23**	**20**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	**14**	**15**	**20**	**14**
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.1 J	2.2 J	4.6	4.2 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1 J	5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	0.95 J	0.99 J	2 J	1.7 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	3.8	4	2.9	2.2 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	**38**	**40**	**56**	**38**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-47	MW-47	MW-48	MW-48	MW-48	MW-48	MW-48
		Sample Date:	09/26/2017	12/21/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**49**	**65**	2.2 J	0.92 J	2.8	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	13	47	5 U	5 U	5 U	3.9 J	5 U
Benzene	**1**	UG/L	0.31 J	0.47 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Appendix C. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-47	MW-47	MW-48	MW-48	MW-48	MW-48	MW-48
		Sample Date:	09/26/2017	12/21/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/21/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**5.2**	**7.6**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**9.1**	**11**	4	2.6	1.9 J	1.5 J	1.2 J
m,p-Xylene	**5**	UG/L	**13**	**19**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	8	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**15**	**17**	3.1	2.4 J	2.1 J	0.81 J	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**8.6**	**12**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	3.5	4.3	4.7	4.3	3	2.3 J	1.7 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	1.5 J	2 J	4.1	3.1	1.8 J	1.5 J	1.4 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	1.7 J	2.2 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	**22**	**31**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

APPENDIX D

LNAPL Recovery System Monitoring Logs

LNAPL Recovery System Monitoring Log, Former Paragon Paint Varnish Factory, Long Island City, New York

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.71	--	
Recovery Well RW-2	N	--	7.34	--	
Recovery Well RW-3	Y	8.36	8.38	0.02	
Recovery Well RW-4	Y	8.65	8.66	0.01	Trace amount; cannot be recovered by system
Recovery Well RW-5	N	--	8.45	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				0 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how? System startup; program LNAPL recovery system to pull from RW-3 and RW-4 only

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log, Former Paragon Paint Varnish Factory - October 13, 2016, Long Island City, New York

Source of Reading	Value	Recovery Well Gauging Data			Comments
Recovery Well Network -Presence of Product	Product Present?	DTW	DTP	FTP	
Recovery Well RW-1	N	--	6.71	--	
Recovery Well RW-2	N	--	7.34	--	
Recovery Well RW-3	Y	8.36	8.38	0.02	
Recovery Well RW-4	Y	8.65	8.66	0.01	Trace amount; cannot be recovered by system
Recovery Well RW-5	N	--	8.45	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				2.4 Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how? N/A

Form Completed By:

Jordanna Kendrot

LNAPL Recovery System Monitoring Log, Former Paragon Paint Varnish Factory - October 26, 2016, Long Island City, New York

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.84	--	
Recovery Well RW-2	N	--	7.4	--	
Recovery Well RW-3	N	--	8.04	--	No product present
Recovery Well RW-4	N	--	8.3	--	No product present
Recovery Well RW-5	Y	8.1	8.12	0.02	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				2.6 Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how? Modify system so no longer removing product from RW-3/RW-4; program system to begin removal from RW-5

Form Completed By:

Michael Sarnie

LNAPL Recovery System Monitoring Log, Former Paragon Paint Varnish Factory - November 15, 2016, Long Island City, New York

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	7.2	--	
Recovery Well RW-2	N	--	7.6	--	
Recovery Well RW-3	N	--	7.29	--	
Recovery Well RW-4	N	--	8.68	--	
Recovery Well RW-5	N	--	8.46	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.1	Gallons	

Is the system operating within the acceptable conditions? No; system breaker had been turned off

If no, was the condition corrected and how? Turn on breaker to building and turn system back on; resume settings from 10/26/16

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log, Former Paragon Paint Varnish Factory - December 01, Long Island City, New York

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.51	--	
Recovery Well RW-2	N	--	6.54	--	
Recovery Well RW-3	N	--	6.67	--	
Recovery Well RW-4	N	--	6.98	--	
Recovery Well RW-5	Y	6.74	6.75	0.01	Trace amount; cannot be recovered by system
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.1 Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how? N/A

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - January 19, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.63	--	
Recovery Well RW-2	N	--	7.38	--	
Recovery Well RW-3	N	--	7.87	--	
Recovery Well RW-4	N	--	8.20	--	
Recovery Well RW-5	Y	7.94	7.95	0.01	Trace amount; cannot be recovered by system
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable condition Yes

If no, was the condition corrected and how?

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - February 14, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	**Value**	**Unit**			**Comments**
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.65	--	
Recovery Well RW-2	N	--	7.29	--	
Recovery Well RW-3	Y	--	7.78	--	
Recovery Well RW-4	Y	--	7.84	--	
Recovery Well RW-5	N	7.64	7.65	0.01	Trace amount; cannot be recovered by system
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditi Yes

If no, was the condition corrected and how?

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - March 30, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.66	--	
Recovery Well RW-2	N	--	7.02	--	
Recovery Well RW-3	N	--	7.48	--	
Recovery Well RW-4	N	--	7.69	--	
Recovery Well RW-5	Y	--	7.50	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable condition: Yes

If no, was the condition corrected and how? No product present in recovery wells, turn off system until reportable levels of product become present in the recovery system wells.

Form Completed By:

Michael Sarni

ROUX

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - April 24, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.48	--	
Recovery Well RW-2	N	--	6.77	--	
Recovery Well RW-3	N	--	7.51	--	
Recovery Well RW-4	N	--	7.82	--	
Recovery Well RW-5	N	--	7.59	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - May 25, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.05	--	
Recovery Well RW-2	N	--	6.39	--	
Recovery Well RW-3	N	--	6.82	--	
Recovery Well RW-4	N	--	7.24	--	
Recovery Well RW-5	N	--	7.01	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - June 22, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.29	--	
Recovery Well RW-2	N	--	6.79	--	
Recovery Well RW-3	N	--	6.92	--	
Recovery Well RW-4	N	--	7.70	--	
Recovery Well RW-5	N	--	6.98	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - July 27, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.24	--	
Recovery Well RW-2	N	--	6.52	--	
Recovery Well RW-3	N	--	7.01	--	
Recovery Well RW-4	N	--	7.31	--	
Recovery Well RW-5	N	--	7.10	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - August 29, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.07	--	
Recovery Well RW-2	N	--	6.38	--	
Recovery Well RW-3	N	--	6.80	--	
Recovery Well RW-4	N	--	7.30	--	
Recovery Well RW-5	N	--	7.10	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - September 26, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	**Value**	**Unit**			**Comments**
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.87	--	
Recovery Well RW-2	N	--	7.16	--	
Recovery Well RW-3	N	--	7.99	--	
Recovery Well RW-4	N	--	8.19	--	
Recovery Well RW-5	N	--	7.96	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - October 31, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.15	--	
Recovery Well RW-2	N	--	6.42	--	
Recovery Well RW-3	N	--	6.98	--	
Recovery Well RW-4	N	--	7.47	--	
Recovery Well RW-5	N	--	7.30	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - November 14, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.35	--	
Recovery Well RW-2	N	--	6.60	--	
Recovery Well RW-3	N	--	7.12	--	
Recovery Well RW-4	N	--	7.50	--	
Recovery Well RW-5	N	--	7.34	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - December 21, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	7.22	--	
Recovery Well RW-2	N	--	7,78	--	
Recovery Well RW-3	N	--	8.51	--	
Recovery Well RW-4	N	--	8.70	--	
Recovery Well RW-5	N	--	8.52	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - January 4, 2018
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	7.30	--	
Recovery Well RW-2	N	--	7.83	--	
Recovery Well RW-3	N	--	8.60	--	
Recovery Well RW-4	N	--	8.82	--	
Recovery Well RW-5	N	--	8.61	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - March 20, 2018
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.10	--	
Recovery Well RW-2	N	--	6.43	--	
Recovery Well RW-3	N	--	6.98	--	
Recovery Well RW-4	N	--	7.28	--	
Recovery Well RW-5	N	--	7.07	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. The system was shut off effective January 12, 2018, however the system will remain in-place in the event that future monitoring events detect LNAPL.

Form Completed By:

Michael Sarni

APPENDIX E

NYSDEC Site Management Plan Approval

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 2
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4995
www.dec.ny.gov

December 7, 2016

Mr. Brent Carrier
4540 Vernon Realty LLC
45 Carleon Ave
Larchmont NY 10538

RE Paragon Paint and Varnish Corp.
5-49 46th Avenue, Long Island City, NY
Brownfield Cleanup Program, Site ID C241108, Queens County
Site Management Plan

Dear Ms. Carrier:

The New York State Department of Environmental Conservation has reviewed the Site Management Plan (SMP) dated November 2016, for the referenced site, NYSDEC BCP Site No. C241108, NYSDEC BCA Index No. W2-1119-08-03, prepared by Remedial Engineering P.C. on behalf of 4540 Vernon Realty LLC.

This SMP was prepared as a requirement of the New York State Brownfield Cleanup Program. The SMP contains a comprehensive plan that provides detailed maintenance and monitoring discussions of the Institutional and Engineering Controls developed for the site, as well as provisions for the annual certification of these controls. The SMP is hereby approved.

The approved SMP must be placed in all publicly accessible repositories for the Site within five business days. A certification that this document has been placed, and that the repositories are complete with all project documents, must be submitted to the NYSDEC project manager.

If you have any questions or comments, please feel free to contact me at (718) 482-4891.

Sincerely,

Sondra Martinkat
Environmental Engineer

ec: Jane O'Connell, Karen Mintzer – NYSDEC
Justin Deming, Anthony Perretta – NYSDOH
Michael Bogin – Sive Paget Riesel
Omar Ramotar – Remedial Engineering, P.C.

cc: Angela Krevey – Anable Beach Inc
Donald Rattner – 549 46th Ave LLC

APPENDIX F

SMP ISCO Injections Documentation

REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

209 SHAFTER STREET
ISLANDIA, NEW YORK 11749
TEL: 631-232-2600
FAX: 631 232-9898

January 9, 2018

Ms. Sondra Martinkat
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation
Region Two
47-40 21st Street
Long Island City, New York 11101

Re: Response to November 17, 2017 NYSDEC Comment Letter
Paragon Paint and Varnish Corp., Long Island, New York, Site No. C241108

Dear Ms. Martinkat:

Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering), on behalf of CSC 4540 Property Co. LLC, have generated this response to comments raised in the November 17, 2017 New York State Department of Environmental Conservation ("NYSDEC") comment letter (Attachment 1) and as a follow-up to what was discussed in the recent meeting that took place at the NYSDEC's offices in Long Island City, New York on December 1, 2017. The minutes for the meeting between the NYSDEC, Quadrum Global, Simon Baron Development and Roux Associates, Inc. are presented in Attachment 2. The specific NYSDEC's comments on the conclusions and recommendations presented in the Quarterly Inspection and Monitoring Report submitted to the NYSDEC on August 23, 2017 are presented below in italics followed by Roux Associates' responses.

Comment No. 1:

Since the results have not been satisfactory, some design parameters may need to be adjusted. Update the Conceptual Site Model as more information is collected. The geology, hydrogeology and contaminant mass may need to be understood better as well. In addition, a pilot study would provide information needed to better treat the residual grossly contamination soil and would help to determine optimal design/inputs.

Response:

The equivalent of a pilot study was in fact conducted from April 24th to 26th, 2017, as Regenesis PersulfOx was injected across 17 points covering areas that had either residual gross contamination in soil or NYSDEC Ambient Water Quality Standards and Guidance Values ("AWQSGVs") exceedances in groundwater. Proposed areas of treatment were also selected based on varying site conditions and lithology as well. Note, as the post-remediation design plan to treat all residual soil and groundwater contamination at the Site was being developed, Roux Associates elected to perform an injection event at several representative areas across the project Site in lieu of treating all areas at the same time. The injection design was described, in detail, in the Phase I In-Situ Chemical Oxidation ("ISCO") Design Plan (Design Plan) that was submitted to the NYSDEC on April 11, 2017 two weeks prior to performing the injection event that was conducted on April 25, 26 and 27, 2017. The submitted Design was based on a review of all historic and recent soil and groundwater data for the Site that was shared, reviewed and discussed with Regenesis. As such, there is no need to update the conceptual Site model as the design of the limited injection event, which Roux considers the equivalent of a pilot study, was based on all known conditions at the Site.

Based on Regenesis' evaluation of the data, design recommendations for the focused injection event performed in April were developed, reviewed and updated in consultation with Roux. The final design recommendations provided by Regenesis were previously provided to the NYSDEC, at their request, in an e-mail on May 4, 2017 (Attachment 3). It is important to note that conservative assumptions were made when estimating the quantity of material needed at each proposed injection location as well as the required spacing for each injection point. Also, prior experience with regards to performing ISCO at the Warehouse in 2015 was used to determine the maximum amount of chemicals that could be effectively injected into the ground at each proposed treatment area during the performance of the injection event discussed herein. It is important to note that "daylighting" of injected chemicals at the surface was specifically observed at several injection points in the Warehouse footprint during the prior injection event performed in 2015. These observations were used to determine the maximum, yet effective amount of chemicals that could be injected at each treatment location during the April 2017 event.

Following completion of the initial injection round and subsequent groundwater sampling event, the lab data showed that PersulfOx, the chemical Regenesis recommended for this application, fell short of reducing concentrations of the contaminants of concern ("COCs") than what was anticipated. It was concluded from this treatment event that any further ISCO treatment will not dramatically improve the groundwater quality and, in turn, not achieve treatment goals to below NYSDEC AWQSGVs.

In addition, Light Non-Aqueous Phase Liquid ("LNAPL") releases were not observed at any monitoring well (MW-40, MW-41, MW-42 and MW-44) or recovery well (RW-3) in close proximity to grossly contaminated areas in unsaturated soil (GC Area 5) and saturated soil (GC Areas 2, 3, 4, 8 and 9) that were specifically targeted for treatment. Accordingly, these observations do not support the need to perform ISCO treatment in all remaining grossly contaminated areas, which exhibit similar characteristics in terms of product type (i.e., mineral spirits) and lithology, that were not included in this first-phase of ISCO treatment (GC Areas 1, 6 and 7) conducted in April of 2017.

As discussed in greater detail in the August 23, 2017 inspection report and subsequently conveyed to the NYSDEC in person on December 1, 2017, Roux recommends further treatment, as warranted, be determined **after** an established plan for Site redevelopment is generated.

Comment No. 2:

Conditions have changed since the SMP was approved, with LNAPL appearing in wells in both the warehouse and the factory. LNAPL has been found in MW-19 and MW-7 in the warehouse, and in MW-4 and MW-22 in the factory. Well construction logs for MW-4 and MW-22, which are in close proximity to MW-48, indicate the presence of residual soil contamination in the factory. Please clarify how this is proposed to be addressed. If not already part of the periodic gauging, please add monitoring wells MW-4, MW-7, MW-19, and MW-22 to the gauging events.

Response:

The presence of LNAPL at the Site has generally been consistent in both the warehouse and the factory following the approval of the SMP.

For clarification purposes, LNAPL was present at the warehouse in MW-7 dating back to March 15, 2015 prior to the performance of the remedial action and continued to be observed at this well during the post-remediation phase. Attachment 4 includes the gauging logs from the March 15, 2015 gauging event that was also submitted to the NYSDEC in a monthly progress report on April 10, 2015. While Roux understands that there has been a new detection of LNAPL at MW-19 in 2017 in the warehouse area, the most recent detections were minimal (<0.01 feet) during the September gauging event to no detection at all during the recent December 1, 2017 gauging event.

With regards to the wells in the factory, a new well (MW-48) was installed in the vicinity of MW-4 and MW-22 in the Paint Factory Building as part of the remedial action. This well was installed at the request of the NYSDEC to further understand the level of source area soil contamination, if any, in the vicinity of historical monitoring wells MW-4 and MW-22. While it is understood that the boring logs for adjacent wells MW-4 and MW-22 indicated the presence of localized soil contamination, the lack of LNAPL and AWQSGV exceedances at MW-48 proves those impacts are minor and more importantly, do not appear to be a continuing source of groundwater contamination.

MW-4, MW-7, MW-19, and MW-22 are already part of the periodic gauging events. In addition MW-4, MW-7, and MW-19 are part of the NYSDEC-approved sampling network. Moving forward, Roux suggests that the site monitoring wells within the monitoring network will be gauged and sampled on a quarterly basis as discussed during the December 1, 2017 meeting. Roux will follow the monitoring data more closely with regards to these wells moving forward and notify the NYSDEC of any significant changes. For the record, MW-4, MW-7, MW-19, and MW-22 did not have product detections during the recent December 1, 2017 sampling event.

Comment No. 3:

Other methods to treat grossly contaminated soils may be proposed. Grossly contaminated soil areas are considered source areas and must be addressed. Alternative approaches, such as but not limited to bioventing, bioremediation or air sparging, must be evaluated if it is determined that ISCO is not effective.

Response:

Roux believes that grossly contaminated soil at the Site is relatively stable and residual LNAPL is not mobile at the Site in its current condition. While we understand that there is a potential that bound LNAPL could potentially be released and become mobile as the subsurface is disturbed in the future as the Site is redeveloped, the plan for redevelopment has not been identified yet and may not be finalized for some time. In the meantime, the Site Owners are committed to addressing mobile LNAPL observed in the post-remediation monitoring phase as well as during any future remedial activities.

Furthermore, the Site Owner agrees to develop a plan to proactively address residual grossly contaminated areas that could be impacted by future Site redevelopment activities, where applicable, when those redevelopment activities are confirmed. These efforts could relate to removal, encapsulation or treatment. As such, alternative treatment options (i.e., bioventing, bioremediation, air sparging or stabilization) would be further evaluated as Site development plans are finalized. In the interim, subsurface gross contamination is stable and, as such, no further remediation is warranted at this time. The site will be continued to be monitored for LNAPL on a quarterly basis and observed LNAPL will be manually removed by bailing or use of absorbent socks or pads.

If you would like to discuss these responses or have any questions or concerns with regards to what has been conveyed herein, please don't hesitate to contact our office.

Sincerely,

REMEDIAL ENGINEERING, P.C.

Omar Ramotar

Omar Ramotar, P.E.
Principal Engineer

Attachments

cc: Jane O'Connell, NYSDEC
Andrew Till, Simon Baron Development
Robert Hendrickson, Quadrum Global
Lawrence Schnapf, Esq., Schnapf LLC
Joseph Duminuco, Roux Associates, Inc.
Christian Hoelzli, Roux Associates, Inc.

NYSDEC Comment Letter Dated November 15, 2017

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 2
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4995
www.dec.ny.gov

November 15, 2017

Mr. Brent Carrier
4540 Vernon Realty LLC
45 Carleon Ave
Larchmont NY 10538

Re: Paragon Paint and Varnish Company
Queens County, BCP # C241108
Phase I In-Situ Chemical Oxidation (ISCO)

Dear Mr. Carrier:

The New York State Department of Environmental Conservation (the Department) has reviewed the Quarterly Inspection and Monitoring Report submitted on August 23, 2017 and the supplemental drawings and charts provided on October 6, 2017 by Roux Associates, Inc. (Roux) for the Paragon Paint and Varnish Site (the Site). This work was done in accordance with the approved Site Management Plan (SMP) dated December 2015 and the Phase I In-Situ Chemical Oxidation (ISCO) Design Plan dated April 11, 2017. The quarterly report presented conclusions and recommendations based upon the ISCO treatments performed on the site in April 2017. The Department offers the following comments:

- Since the results have not been satisfactory, some design parameters may need to be adjusted. Update the Conceptual Site Model as more information is collected. The geology, hydrogeology and contaminant mass may need to be understood better as well. In addition, a pilot study would provide information needed to better treat the residual grossly contamination soil and would help to determine optimal design/inputs.

- Conditions have changed since the SMP was approved, with LNAPL appearing in wells in both the warehouse and the factory. LNAPL has been found in MW-19 and MW-7 in the warehouse, and in MW-4 and MW-22 in the factory. Well construction logs for MW-4 and MW-22, which are in close proximity to MW-48, indicate the presence of residual soil contamination in the factory. Please clarify how this is proposed to be addressed. If not already part of the periodic gauging, please add monitoring wells MW-4, MW-7, MW-19, and MW-22 to the gauging events.

- Other methods to treat grossly contaminated soils may be proposed. Grossly contaminated soil areas are considered source areas and must be addressed.

Alternative approaches, such as but not limited to bioventing, bioremediation or air sparging, must be evaluated if it is determined that ISCO is not effective.

In sum, a more robust application of ISCO may be necessary since results have not been positive, or another method to remediate the residual contamination should be proposed.

Please provide a written response to this letter within 30 days. If you have any questions or would like to schedule a meeting to discuss this letter, please contact me at (718) 482-4891 or sondra.martinkat@dec.ny.gov.

Sincerely,

Sondra Martinkat
Project Manager

ec: Jane O'Connell, Gerard Burke, Karen Mintzer – NYSDEC
Matthew Baron – CSC Realty LLC
Omar Ramotar – Roux Associates/Remedial Engineering PC
Michael Bogin – Sive Paget & Riesel

cc: Angela Krevey – Anabel Beach, Inc.
Donald Rattner – 549 46th Ave LLC

Minutes from December 1, 2017 Meeting with the NYSDEC

REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS
209 SHAFTER STREET
ISLANDIA, NY 11749

TEL: 631-232-2600
FAX: 631-232-9898
WEBSITE: rouxinc.com

TO: Jane O'Connell – NYSDEC
Sondra Martinkat – NYSDEC

FROM: Omar Ramotar, P.E., Remedial Engineering, P.C.

CC: Robert Hendrickson, Quadrum Global
Jared White – Quadrum Global
Andrew Till – Simon Baron Development
Joseph Duminuco – Roux Associates, Inc.
Christian Hoelzli – Roux Associates, Inc

DATE: December 8, 2017

RE: Minutes from December 1, 2017 NYSDEC Meeting
NYSDEC Site No. C241108, Long Island City, New York

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1. **Attendance:**
    a. Jane O'Connell, NYSDEC
    b. Sondra Martinkat, NYSDEC
    c. Robert Hendrickson, Quadrum Global
    d. Jared White, Quadrum Global
    e. Andrew Till, Simon Baron Development
    f. Joseph Duminuco, Roux Associates, Inc.
    g. Omar Ramotar, P.E., Remedial Engineering, P.C.

2. **Key Points Discussed:**
    a. <u>**Ownership**</u>: Representatives of ownership (Quadrum Global ["Quadrum"] and Simon Baron Development ["Simon Baron"]) gave a brief background on their involvement at NYSDEC Site No. C241108 ("the Site"). They specifically noted that they are the majority owners of the Site. They also highlighted their involvement on the project over the past year since the Site Certificate of Completion ("COC") was issued and committed to complying with NYSDEC requirements in the post-remediation phase as Site redevelopment plans are finalized in the future and eventually implemented. Ownership conveyed that Brent Carrier is still a silent, minority owner on the project. Moving forward, the NYSDEC suggested that the majority owners file a request to update the project contact list currently on file with the NYSDEC for the project to clarify and make clear who should also be contacted on this project moving forward whenever any future correspondence is issued by the NYSDEC. The NYSDEC also provided the following information regarding other owners cited on the COC:

        i. Angela Krevey
        Anable Beach, Inc.
        375 South End Avenue, Apartment 6S
        New York, New York 10280

ii. Donald Rattner
549 46th Avenue LLC
116 Ferncliff Road
Cos Cob, Connecticut 06807

b. **Ownership's Counsel**: Michael S. Bogin, Esq. with Sive, Paget and Riesel is no longer the attorney of record of the project. Larry Schnapf, Esq. with Schnapf LLC is now the attorney of record.

c. **NYSDEC November 15, 2017 Letter**: Roux Associates, Inc. (Roux) briefly reviewed what was requested by the NYSDEC in its' November 15, 2017 Letter that was sent in response to what was conveyed in Roux's Quarterly Inspection and Monitoring Report dated August 23, 2017 ("2nd Quarterly Report for 2017"). Roux committed to providing a response to the issues and concerns raised as requested.

d. **Redevelopment Plan Issues**: The Ownership team conveyed there has been a variety, but related issues with regards to finalizing Site redevelopment plans for the project Site. These issues are primarily related to complying with and addressing requirements of the New York City Board of Standards and Appeals ("BSA"), City Planning and Uniform Land Use Review Procedures ("ULURP"). As such, a plan for redeveloping the site has not been finalized and is not expected to be developed in the short-term.

e. **Effectiveness of ISCO**: Roux reiterated its position that ISCO does not appear to be effective at treating residual groundwater or gross contamination soil areas as originally presented in the 2nd Quarterly Report for 2017. Roux will present its rationale in greater detail within the next two weeks in response to the NYSDEC November 15, 2017 letter.

f. **Additional Treatment Options**: Roux conveyed that it will not recommend further treatment, of any kind, until a confirmed overall plan for Site redevelopment is generated. The NYSDEC was generally in agreement with this recommendation based on current conditions and the understanding that there are no known subsurface disturbances planned to occur at the Site prior to performing any future redevelopment. Note, when there is an actual confirmed plan for redevelopment, options to address residual gross contamination areas, if and where applicable, will be identified.

g. **Short-term Groundwater Monitoring Requirements**: Roux conveyed that it will initiate gauging site monitoring wells for Light Non-Aqueous Phase Liquid ("LNAPL") on a quarterly basis instead of a monthly basis in 2018.

h. **Short-term Groundwater Sampling Requirements**: The NYSDEC conveyed that after the December 2017 event has been performed, Roux can plan on sampling in six months (June 2018) and potentially annually after that. However, the actual timing for the next sampling event would be discussed with the NYSDEC after the June 2018 sampling event has been performed.

i. **Short-term Reporting Requirements**:
    i. Roux will no longer submit monthly progress reports. Instead, quarterly progress reports will be submitted and coincide with the performance of gauging or sampling events performed at the Site.
    ii. The NYSDEC conveyed that formal groundwater monitoring reports will not be required. After a groundwater monitoring round is performed in the future, Roux can simply provide a tabular summary of groundwater data when generated. The respective results would then be discussed in greater detail in the follow-up annual Periodic Review Report ("PRR").
    iii. The NYSDEC conveyed that the first annual PRR is expected to be submitted during the second quarter of 2018.

j. **Short-term Operation and Maintenance (O&M) Requirements**: Roux conveyed that the onsite LNAPL recovery system will be permanently shut down as no LNAPL has been recovered by this system in the past year. The system, however, is not anticipated to be decommissioned until the Site is redeveloped. It was noted that Roux anticipates that it will continue to manually recover LNAPL with bailers and oil absorbing socks/ pads on a quarterly basis.

k. **COC Issues**: Ownership discussed concerns over the amended COC which lists 4540 Vernon Realty LLC and two other entities as certificate holders while CSC 4540 Property Co, LLC which incurred all of the site preparation costs was identified as the Owner of the Site but not a certificate holder. Thus, none of the named Certificate Holders nor ownership can claim the site preparation tax credit. After some discussion, Ms. Jane O'Connell discussed possible administrative actions with the Owner's counsel to address Owner's concerns, if possible.

l. **NYSDEC Discussion with Owner's Counsel**: The NYSDEC spoke with the Owner's counsel directly regarding the issue cited above.

m. **Next Steps Were Generally Reviewed**:
    i. Ms. Jane O'Connell, to the extent practical, will work with the Owner's counsel (Larry Schnapf, Esq.) and Andrew Gugliemi, NYSDEC counsel, to amend the COC so that CSC 4540 Property Co, LLC would be identified as a Certificate Holder. Time is of essence since the COC is dated December 2016 which means ownership would need to file an amended return to claim the site prep tax credit by the end of this month. .
    ii. Roux will provide a formal response to the NYSDEC's November 15, 2017 letter discussing Roux's position on eliminating future ISCO treatments as well as other key issues of concern.
    iii. Roux to perform quarterly sampling and gauging round in December 2017.
    iv. Owners conveyed that they would like to meet with the NYSDEC again in June 2018 to provide another status update.

--- **End of Minutes**---

Regenesis Design Recommendations

Omar Ramotar

From: Jordanna Kendrot
Sent: Thursday, May 04, 2017 1:06 PM
To: Martinkat, Sondra (DEC); Omar Ramotar; O'Connell, Jane H (DEC)
Cc: Andrew Till (atill@simonbaron.com); Robert Hendrickson (rhendrickson@quadrumglobal.com); mbogin@sprlaw.com; Joe Duminuco; Glenn Netuschil
Subject: RE: Paragon RAWP Implementation (Site No. C241108): SMP Phase 1 In-Situ Chemical Oxidation Design Plan
Attachments: Area Surrounding MW-47.pdf; GC Area 2 & MW-44.pdf; GC Areas 4&5.pdf; GC Area 3.pdf; Preexisting IPs in Basment (Only IP-17 to IP-19).pdf; GC Area 8.pdf; GC Area 9.pdf

Afternoon Sondra,

Please find attached the dosing calculations from Regenesis for the most recent treatment detailed in this Design Plan.

Please feel free to call or email if you have any concerns.

Thank you,

Jordanna Kendrot | Project Engineer | Roux Associates, Inc.
209 Shafter Street Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2356 | Mobile: 631.741.7142
Email: jkendrot@rouxinc.com | Website: www.rouxinc.com

From: Martinkat, Sondra (DEC) [mailto:sondra.martinkat@dec.ny.gov]
Sent: Wednesday, April 26, 2017 3:39 PM
To: Omar Ramotar; O'Connell, Jane H (DEC)
Cc: Andrew Till (atill@simonbaron.com); Robert Hendrickson (rhendrickson@quadrumglobal.com); mbogin@sprlaw.com; Joe Duminuco; Jordanna Kendrot; Glenn Netuschil
Subject: RE: Paragon RAWP Implementation (Site No. C241108): SMP Phase 1 In-Situ Chemical Oxidation Design Plan

Please provide the dosing calculations from Regenesis for the treatment and other worksheets they provide.

Sondra Martinkat
Environmental Engineer 2, Environmental Remediation

New York State Department of Environmental Conservation
47-40 21st St, Long Island City, NY 11101
P: 718-482-4891 | F: 718-482-6358 | sondra.martinkat@dec.ny.gov
www.dec.ny.gov | |

From: Omar Ramotar [mailto:oramotar@rouxinc.com]
Sent: Tuesday, April 11, 2017 3:26 PM
To: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>; O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Cc: Andrew Till (atill@simonbaron.com) <atill@simonbaron.com>; Robert Hendrickson (rhendrickson@quadrumglobal.com) <rhendrickson@quadrumglobal.com>; mbogin@sprlaw.com; Joe Duminuco <jduminuco@rouxinc.com>; Jordanna Kendrot <jkendrot@rouxinc.com>; Glenn Netuschil <gnetuschil@rouxinc.com>
Subject: Paragon RAWP Implementation (Site No. C241108): SMP Phase 1 In-Situ Chemical Oxidation Design Plan

Sondra and Jane,

Roux Associates, on behalf of Vernon 4540 Realty, LLC, has prepared the attached ISCO injection design plan to continue to address VOCs in groundwater and grossly contaminated soil following implementation of the RAWP at the Paragon Paint and Varnish Corporation property located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard (Tax Block 26, Lot 4) in Long Island City, New York.

Implementation of the proposed Design Plan is anticipated to require five (5) work days, and will commence on April 24, 2017. Prior to field mobilization, Roux Associates will submit Form 7250-16 ("Inventory of Injection Wells") to the USEPA in accordance with the Code of Federal Regulations Title 40 Part 144 of the USEPA's Underground Injection Program.

If you have any questions or concerns on the planned injection event, please don't hesitate to call or e-mail.

Kind Regards,
Omar

Omar Ramotar
Principal Engineer
P.E. - NY, AZ, NV

Omar Ramotar | Principal Engineer | Roux Associates, Inc.
209 Shafter Street, Islandia, NY 11749
Main: 631-232-2600 | Direct: 631-630-2339| Cell: 631-553-9274
Email: oramotar@rouxinc.com | Website: www.rouxinc.com

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REGENESIS

Project Information		
Paragon Pain Varnish		
Long island city NY		
Area 3		
Prepared For:		
Roux		
Target Treatment Zone (TTZ) Info	**Unit**	**Value**
Treatment Area	ft^2	200
Top Treat Depth	ft	8.0
Bot Treat Depth	ft	13.0
Vertical Treatment Interval	ft	5.0
Treatment Zone Volume	ft^3	1,000
Treatment Zone Volume	cy	37
Soil Type	---	silty sand
Porosity	cm^3/cm^3	0.40
Effective Porosity	cm^3/cm^3	0.20
Treatment Zone Pore Volume	gals	2,992
Treatment Zone Effective Pore Volume	gals	1,496
Fraction Organic Carbon (foc)	g/g	0.003
Soil Density	g/cm^3	1.6
Soil Density	lb/ft^3	100
Soil Weight	lbs	1.0E+05
Hydraulic Conductivity	ft/day	10.0
Hydraulic Conductivity	cm/sec	3.53E-03
Hydraulic Gradient	ft/ft	0.005
GW Velocity	ft/day	0.25
GW Velocity	ft/yr	91
Sources of Oxidant Demand	**Unit**	**Value**
Sorbed Phase Contaminant Mass	lbs	1
Dissolved Phase Contaminant Mass	lbs	0.3
Total Contaminant Mass	lbs	1
Stoichiometric RegenOx Oxidant Demand	lbs	24
Engineering/Safety Factor	---	**1.0**
Stoichiometric RegenOx Required	lbs	24
Additional Soil Oxidant Demand (SOD)	g/kg	1.0
RegenOx Required for Additional SOD	lbs	100
Total RegenOx Oxidant Required	**lbs**	**124**
Application Dosing		
RegenOx to be Applied	lbs	280
RegenOx Part A to be Applied	**lbs**	**160**
RegenOx Part B to be Applied	**lbs**	**120**

RegenOx® Application Design Summary

Area 3		Field App. Instructions
Application Method	**Direct Push**	Add RegenOx Part A to water, mix until dissolved, then add Part B and mix until dissolved.
Spacing Within Rows (ft)	8	
Spacing Between Rows (ft)	10	
Injection Points (per app.)	**3**	
Number of Applications	**3**	
Areal Extent (square ft)	200	**Field Mixing Ratios**
Top Application Depth (ft bgs)	8	Water per Pt per App (gals)
Bottom Application Depth (ft bgs)	13	40
Total RegenOx to be Applied (lbs)	**280**	RegenOx Part A per Pt per App (lbs)
RegenOx Part A (lbs)	160	18
RegenOx Part B (lbs)	120	RegenOx Part B per Pt per App (lbs)
RegenOx Part A Solution %	5%	13
Volume Water (gals)	**364**	Total Volume per Pt per App (gals)
Total Solution Volume (gals)	**385**	43
Per Application Totals		
Total RegenOx per App (lbs)	*93*	*Volume per vertical ft (gals)*
RegenOx Part A Per App (lbs)	*53*	*9*
RegenOx Part B Per App (lbs)	*40*	
Water per App (gals)	*121*	
Injection Volume per App (gals)	*128*	

Technical Notes/Discussion

Prepared By: ***1/0/1900***
Date: ***3/28/2017***

Assumptions/Qualifications

In generating this preliminary estimate, Regenesis relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

REGENESIS

Project Information

Paragon Pain Varnish

Long island city NY

Area 4

Prepared For:

Roux

Target Treatment Zone (TTZ) Info	Unit	Value
Treatment Area	ft^2	250
Top Treat Depth	ft	5.0
Bot Treat Depth	ft	13.0
Vertical Treatment Interval	ft	8.0
Treatment Zone Volume	ft^3	2,000
Treatment Zone Volume	cy	74
Soil Type	---	silty sand
Porosity	cm^3/cm^3	0.40
Effective Porosity	cm^3/cm^3	0.20
Treatment Zone Pore Volume	gals	5,984
Treatment Zone Effective Pore Volume	gals	2,992
Fraction Organic Carbon (foc)	g/g	0.003
Soil Density	g/cm^3	1.6
Soil Density	lb/ft^3	100
Soil Weight	lbs	2.0E+05
Hydraulic Conductivity	ft/day	10.0
Hydraulic Conductivity	cm/sec	3.53E-03
Hydraulic Gradient	ft/ft	0.005
GW Velocity	ft/day	0.25
GW Velocity	ft/yr	91
Sources of Oxidant Demand	**Unit**	**Value**
Sorbed Phase Contaminant Mass	lbs	2
Dissolved Phase Contaminant Mass	lbs	0.5
Total Contaminant Mass	lbs	3
Stoichiometric RegenOx Oxidant Demand	lbs	48
Engineering/Safety Factor	---	**1.0**
Stoichiometric RegenOx Required	lbs	48
Additional Soil Oxidant Demand (SOD)	g/kg	1.0
RegenOx Required for Additional SOD	lbs	200
Total RegenOx Oxidant Required	**lbs**	**248**

Application Dosing

RegenOx to be Applied	**lbs**	**440**
RegenOx Part A to be Applied	**lbs**	**280**
RegenOx Part B to be Applied	**lbs**	**160**

RegenOx® Application Design Summary

Area 4		Field App. Instructions
Application Method	**Direct Push**	**Add RegenOx Part A to water, mix until dissolved, then add Part B and mix until dissolved.**
Spacing Within Rows (ft)	10	
Spacing Between Rows (ft)	10	
Injection Points (per app.)	**3**	
Number of Applications	**3**	
Areal Extent (square ft)	250	**Field Mixing Ratios**
Top Application Depth (ft bgs)	5	Water per Pt per App (gals)
Bottom Application Depth (ft bgs)	13	71
Total RegenOx to be Applied (lbs)	**440**	RegenOx Part A per Pt per App (lbs)
RegenOx Part A (lbs)	280	31
RegenOx Part B (lbs)	160	RegenOx Part B per Pt per App (lbs)
RegenOx Part A Solution %	5%	18
Volume Water (gals)	**638**	Total Volume per Pt per App (gals)
Total Solution Volume (gals)	**668**	74
Per Application Totals		
Total RegenOx per App (lbs)	*147*	*Volume per vertical ft (gals)*
RegenOx Part A Per App (lbs)	*93*	*9*
RegenOx Part B Per App (lbs)	*53*	
Water per App (gals)	*213*	
Injection Volume per App (gals)	*223*	

Technical Notes/Discussion

Prepared By: ***1/0/1900***

Date: ***3/28/2017***

Assumptions/Qualifications

In generating this preliminary estimate, Regenesis relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

REGENESIS

Project Information		
Paragon Pain Varnish		
Long island city NY		
Area 7		
Prepared For:		
Roux		
Target Treatment Zone (TTZ) Info	**Unit**	**Value**
Treatment Area	ft^2	100
Top Treat Depth	ft	17.0
Bot Treat Depth	ft	20.0
Vertical Treatment Interval	ft	3.0
Treatment Zone Volume	ft^3	300
Treatment Zone Volume	cy	11
Soil Type	---	silty sand
Porosity	cm^3/cm^3	0.40
Effective Porosity	cm^3/cm^3	0.20
Treatment Zone Pore Volume	gals	898
Treatment Zone Effective Pore Volume	gals	449
Fraction Organic Carbon (foc)	g/g	0.003
Soil Density	g/cm^3	1.6
Soil Density	lb/ft^3	100
Soil Weight	lbs	3.0E+04
Hydraulic Conductivity	ft/day	10.0
Hydraulic Conductivity	cm/sec	3.53E-03
Hydraulic Gradient	ft/ft	0.005
GW Velocity	ft/day	0.25
GW Velocity	ft/yr	91
Sources of Oxidant Demand	**Unit**	**Value**
Sorbed Phase Contaminant Mass	lbs	0
Dissolved Phase Contaminant Mass	lbs	0.1
Total Contaminant Mass	lbs	0
Stoichiometric RegenOx Oxidant Demand	lbs	7
Engineering/Safety Factor	---	**1.0**
Stoichiometric RegenOx Required	lbs	7
Additional Soil Oxidant Demand (SOD)	g/kg	1.0
RegenOx Required for Additional SOD	lbs	30
Total RegenOx Oxidant Required	**lbs**	**37**
Application Dosing		
RegenOx to be Applied	lbs	80
RegenOx Part A to be Applied	**lbs**	**40**
RegenOx Part B to be Applied	**lbs**	**40**

RegenOx® Application Design Summary

Area 7		Field App. Instructions
Application Method	**Direct Push**	**Add RegenOx Part A to water, mix until dissolved, then add Part B and mix until dissolved.**
Spacing Within Rows (ft)	12	
Spacing Between Rows (ft)	12	
Injection Points (per app.)	**1**	
Number of Applications	**1**	
Areal Extent (square ft)	100	**Field Mixing Ratios**
Top Application Depth (ft bgs)	17	Water per Pt per App (gals)
Bottom Application Depth (ft bgs)	20	75
Total RegenOx to be Applied (lbs)	**80**	RegenOx Part A per Pt per App (lbs)
RegenOx Part A (lbs)	40	40
RegenOx Part B (lbs)	40	RegenOx Part B per Pt per App (lbs)
RegenOx Part A Solution %	6%	40
Volume Water (gals)	**75**	Total Volume per Pt per App (gals)
Total Solution Volume (gals)	**81**	81

Per Application Totals		
Total RegenOx per App (lbs)	*80*	*Volume per vertical ft (gals)*
RegenOx Part A Per App (lbs)	*40*	*27*
RegenOx Part B Per App (lbs)	*40*	
Water per App (gals)	*75*	
Injection Volume per App (gals)	*81*	

Technical Notes/Discussion

Prepared By: ***1/0/1900***

Date: ***3/28/2017***

Assumptions/Qualifications

In generating this preliminary estimate, Regenesis relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

REGENESIS

Project Information

Paragon Pain Varnish

Long island city NY

Area 11

Prepared For:

Roux

Target Treatment Zone (TTZ) Info	Unit	Value
Treatment Area	ft^2	370
Top Treat Depth	ft	8.0
Bot Treat Depth	ft	13.0
Vertical Treatment Interval	ft	5.0
Treatment Zone Volume	ft^3	1,850
Treatment Zone Volume	cy	69
Soil Type	---	silty sand
Porosity	cm^3/cm^3	0.40
Effective Porosity	cm^3/cm^3	0.20
Treatment Zone Pore Volume	gals	5,536
Treatment Zone Effective Pore Volume	gals	2,768
Fraction Organic Carbon (foc)	g/g	0.003
Soil Density	g/cm^3	1.6
Soil Density	lb/ft^3	100
Soil Weight	lbs	1.8E+05
Hydraulic Conductivity	ft/day	10.0
Hydraulic Conductivity	cm/sec	3.53E-03
Hydraulic Gradient	ft/ft	0.005
GW Velocity	ft/day	0.25
GW Velocity	ft/yr	91
Sources of Oxidant Demand	**Unit**	**Value**
Sorbed Phase Contaminant Mass	lbs	2
Dissolved Phase Contaminant Mass	lbs	0.5
Total Contaminant Mass	lbs	3
Stoichiometric RegenOx Oxidant Demand	lbs	45
Engineering/Safety Factor	---	**1.0**
Stoichiometric RegenOx Required	lbs	45
Additional Soil Oxidant Demand (SOD)	g/kg	1.0
RegenOx Required for Additional SOD	lbs	185
Total RegenOx Oxidant Required	**lbs**	**229**

Application Dosing

RegenOx to be Applied	**lbs**	**400**
RegenOx Part A to be Applied	**lbs**	**240**
RegenOx Part B to be Applied	**lbs**	**160**

RegenOx® Application Design Summary

Area 11		Field App. Instructions
Application Method	**Direct Push**	Add RegenOx Part A to water, mix until dissolved, then add Part B and mix until dissolved.
Spacing Within Rows (ft)	12	
Spacing Between Rows (ft)	12	
Injection Points (per app.)	**3**	
Number of Applications	**1**	
Areal Extent (square ft)	370	**Field Mixing Ratios**
Top Application Depth (ft bgs)	8	Water per Pt per App (gals)
Bottom Application Depth (ft bgs)	13	150
Total RegenOx to be Applied (lbs)	**400**	RegenOx Part A per Pt per App (lbs)
RegenOx Part A (lbs)	240	80
RegenOx Part B (lbs)	160	RegenOx Part B per Pt per App (lbs)
RegenOx Part A Solution %	6%	53
Volume Water (gals)	**451**	Total Volume per Pt per App (gals)
Total Solution Volume (gals)	**479**	160

Per Application Totals		
Total RegenOx per App (lbs)	*400*	*Volume per vertical ft (gals)*
RegenOx Part A Per App (lbs)	*240*	*32*
RegenOx Part B Per App (lbs)	*160*	
Water per App (gals)	*451*	
Injection Volume per App (gals)	*479*	

Technical Notes/Discussion

Prepared By: ***1/0/1900***

Date: ***3/28/2017***

Assumptions/Qualifications

In generating this preliminary estimate, Regenesis relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

REGENESIS

Project Information		
Paragon Pain Varnish		
Long island city NY		
Area 12		
Prepared For:		
Roux		
Target Treatment Zone (TTZ) Info	**Unit**	**Value**
Treatment Area	ft^2	320
Top Treat Depth	ft	5.0
Bot Treat Depth	ft	13.0
Vertical Treatment Interval	ft	8.0
Treatment Zone Volume	ft^3	2,560
Treatment Zone Volume	cy	95
Soil Type	---	silty sand
Porosity	cm^3/cm^3	0.40
Effective Porosity	cm^3/cm^3	0.20
Treatment Zone Pore Volume	gals	7,660
Treatment Zone Effective Pore Volume	gals	3,830
Fraction Organic Carbon (foc)	g/g	0.003
Soil Density	g/cm^3	1.6
Soil Density	lb/ft^3	100
Soil Weight	lbs	2.6E+05
Hydraulic Conductivity	ft/day	10.0
Hydraulic Conductivity	cm/sec	3.53E-03
Hydraulic Gradient	ft/ft	0.005
GW Velocity	ft/day	0.25
GW Velocity	ft/yr	91
Sources of Oxidant Demand	**Unit**	**Value**
Sorbed Phase Contaminant Mass	lbs	3
Dissolved Phase Contaminant Mass	lbs	0.7
Total Contaminant Mass	lbs	4
Stoichiometric RegenOx Oxidant Demand	lbs	62
Engineering/Safety Factor	---	**1.0**
Stoichiometric RegenOx Required	lbs	62
Additional Soil Oxidant Demand (SOD)	g/kg	1.0
RegenOx Required for Additional SOD	lbs	256
Total RegenOx Oxidant Required	**lbs**	**318**
Application Dosing		
RegenOx to be Applied	lbs	520
RegenOx Part A to be Applied	**lbs**	**320**
RegenOx Part B to be Applied	**lbs**	**200**

RegenOx® Application Design Summary

Area 12		Field App. Instructions
Application Method	**Direct Push**	Add RegenOx Part A to water, mix until dissolved, then add Part B and mix until dissolved.
Spacing Within Rows (ft)	12	
Spacing Between Rows (ft)	12	
Injection Points (per app.)	**2**	
Number of Applications	**1**	
Areal Extent (square ft)	320	**Field Mixing Ratios**
Top Application Depth (ft bgs)	5	Water per Pt per App (gals)
Bottom Application Depth (ft bgs)	13	300
Total RegenOx to be Applied (lbs)	**520**	RegenOx Part A per Pt per App (lbs)
RegenOx Part A (lbs)	320	160
RegenOx Part B (lbs)	200	RegenOx Part B per Pt per App (lbs)
RegenOx Part A Solution %	6%	100
Volume Water (gals)	**601**	Total Volume per Pt per App (gals)
Total Solution Volume (gals)	**637**	319
Per Application Totals		
Total RegenOx per App (lbs)	*520*	*Volume per vertical ft (gals)*
RegenOx Part A Per App (lbs)	*320*	*40*
RegenOx Part B Per App (lbs)	*200*	
Water per App (gals)	*601*	
Injection Volume per App (gals)	*637*	

Technical Notes/Discussion

Prepared By: *1/0/1900*

Date: *3/28/2017*

Assumptions/Qualifications

In generating this preliminary estimate, Regenesis relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

REGENESIS

Project Information		
Paragon Pain Varnish		
Long island city NY		
Area 6		
Prepared For:		
Roux		
Target Treatment Zone (TTZ) Info	**Unit**	**Value**
Treatment Area	ft^2	100
Top Treat Depth	ft	5.0
Bot Treat Depth	ft	13.0
Vertical Treatment Interval	ft	8.0
Treatment Zone Volume	ft^3	800
Treatment Zone Volume	cy	30
Soil Type	---	silty sand
Porosity	cm^3/cm^3	0.40
Effective Porosity	cm^3/cm^3	0.20
Treatment Zone Pore Volume	gals	2,394
Treatment Zone Effective Pore Volume	gals	1,197
Fraction Organic Carbon (foc)	g/g	0.003
Soil Density	g/cm^3	1.6
Soil Density	lb/ft^3	100
Soil Weight	lbs	8.0E+04
Hydraulic Conductivity	ft/day	10.0
Hydraulic Conductivity	cm/sec	3.53E-03
Hydraulic Gradient	ft/ft	0.005
GW Velocity	ft/day	0.25
GW Velocity	ft/yr	91
Sources of Oxidant Demand	**Unit**	**Value**
Sorbed Phase Contaminant Mass	lbs	1
Dissolved Phase Contaminant Mass	lbs	0.2
Total Contaminant Mass	lbs	1
Stoichiometric RegenOx Oxidant Demand	lbs	19
Engineering/Safety Factor	---	**1.0**
Stoichiometric RegenOx Required	lbs	19
Additional Soil Oxidant Demand (SOD)	g/kg	1.0
RegenOx Required for Additional SOD	lbs	80
Total RegenOx Oxidant Required	**lbs**	**99**
Application Dosing		
RegenOx to be Applied	lbs	200
RegenOx Part A to be Applied	**lbs**	**120**
RegenOx Part B to be Applied	**lbs**	**80**

RegenOx® Application Design Summary

Area 6		Field App. Instructions
Application Method	**Direct Push**	Add RegenOx Part A to water, mix until dissolved, then add Part B and mix until dissolved.
Spacing Within Rows (ft)	8	
Spacing Between Rows (ft)	8	
Injection Points (per app.)	**2**	
Number of Applications	**3**	
Areal Extent (square ft)	100	**Field Mixing Ratios**
Top Application Depth (ft bgs)	5	Water per Pt per App (gals)
Bottom Application Depth (ft bgs)	13	38
Total RegenOx to be Applied (lbs)	**200**	RegenOx Part A per Pt per App (lbs)
RegenOx Part A (lbs)	120	20
RegenOx Part B (lbs)	80	RegenOx Part B per Pt per App (lbs)
RegenOx Part A Solution %	6%	13
Volume Water (gals)	**225**	Total Volume per Pt per App (gals)
Total Solution Volume (gals)	**240**	40
Per Application Totals		
Total RegenOx per App (lbs)	*67*	*Volume per vertical ft (gals)*
RegenOx Part A Per App (lbs)	*40*	*5*
RegenOx Part B Per App (lbs)	*27*	
Water per App (gals)	*75*	
Injection Volume per App (gals)	*80*	

Technical Notes/Discussion

Prepared By: ***1/0/1900***
Date: ***3/28/2017***

Assumptions/Qualifications

In generating this preliminary estimate, Regenesis relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

REGENESIS

Project Information		
Paragon Pain Varnish		
Long island city NY		
Area 9A		
Prepared For:		
Roux		
Target Treatment Zone (TTZ) Info	**Unit**	**Value**
Treatment Area	ft^2	800
Top Treat Depth	ft	0.0
Bot Treat Depth	ft	5.0
Vertical Treatment Interval	ft	5.0
Treatment Zone Volume	ft^3	4,000
Treatment Zone Volume	cy	148
Soil Type	---	silty sand
Porosity	cm^3/cm^3	0.40
Effective Porosity	cm^3/cm^3	0.20
Treatment Zone Pore Volume	gals	11,969
Treatment Zone Effective Pore Volume	gals	5,984
Fraction Organic Carbon (foc)	g/g	0.003
Soil Density	g/cm^3	1.6
Soil Density	lb/ft^3	100
Soil Weight	lbs	4.0E+05
Hydraulic Conductivity	ft/day	10.0
Hydraulic Conductivity	cm/sec	3.53E-03
Hydraulic Gradient	ft/ft	0.005
GW Velocity	ft/day	0.25
GW Velocity	ft/yr	91
Sources of Oxidant Demand	**Unit**	**Value**
Sorbed Phase Contaminant Mass	lbs	0
Dissolved Phase Contaminant Mass	lbs	0.5
Total Contaminant Mass	lbs	1
Stoichiometric PersulfOx Demand	lbs	96
Engineering/Safety Factor	**---**	**1.0**
Stoichiometric PersulfOx Required	lbs	96
Additional Soil Oxidant Demand	g/kg	2.0
SOD PersulfOx Required	lbs	888
Total PersulfOx Required	**lbs**	**983**
Application Dosing		
PersulfOx Required	**lbs**	**331**

PersulfOx® Application Design Summary

Area 9A		Field App. Instructions
Application Method	**Direct Push**	
Spacing Within Rows (ft)	15	
Spacing Between Rows (ft)	20	
Injection Points (per app.)	**3**	
Number of Applications	**1**	
Areal Extent (square ft)	800	**Field Mixing Ratios**
Top Application Depth (ft bgs)	0	Water per Pt per app (gals)
Bottom Application Depth (ft bgs)	5	75
PersulfOx to be Applied (lbs)	**331**	PersulfOx per Pt per app (lbs)
PersulfOx Solution %	15%	110
Volume Water (gals)	**224**	Total Volume per Pt per app (gals)
Total Volume (gals)	**241**	80
Per Application Totals		
PersulfOx per app. (lbs)	*331*	*Volume per vertical ft (gals)*
Volume Water per app. (gals)	*224*	*16*
Total Volume per app. (gals)	*241*	

Technical Notes/Discussion

Prepared By: ***1/0/1900***

Date: ***4/27/2017***

Assumptions/Qualifications

In generating this preliminary estimate, Regenesis relied upon professional judgment and site specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to affect remediation of the site.

March 15, 2015 Gauging Logs

Table 1. LNAPL Recovery IRM Summary Table, Former Paragon Paint Varnish Corp
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	PID (ppm)	Product Thickness (ft)	Purged (g)	Cumulative (g)
3/5/2015	MW-1R[1]	NG	NG	4	NM	NA	0	0
3/19/2015	MW-1R1	NG	NG	4	NM	NA	0	0
3/30/2015	MW-1R[1]	NG	NG	4	NM	NA	0	0
3/5/2015	MW-2R	ND	7.92	4	NM	0	0	0.66
3/19/2015	MW-2R	ND	7.23	4	1.2	0	0	0.66
3/30/2015	MW-2R	ND	6.88	4	0.6	0	0	0.66
3/5/2015	MW-3	6.91	7.03	2	NM	0.12	0.01	21.28
3/19/2015	MW-3	6.54	6.69	2	24.3	0.15	0.01	21.29
3/30/2015	MW-3	6.94	7.08	2	49.8	0.14	0.10	21.39
3/5/2015	MW-4	ND	9.70	2	NM	0	0	0
3/19/2015	MW-4	ND	9.39	2	0.0	0	0	0
3/30/2015	MW-4	ND	9.46	2	0.0	0	0	0
3/5/2015	MW-5	ND	5.48	2	NM	0	0	0
3/19/2015	MW-5	ND	5.48	2	0.0	0	0	0
3/30/2015	MW-5	ND	5.53	2	0.0	0	0	0
3/5/2015	MW-6	10.65	13.34	1	NM	2.69	0.50	52.96
3/19/2015	MW-6	10.21	13.42	1	20.8	3.21	0.50	53.46
3/30/2015	MW-6	9.77	13.11	1	22.3	3.34	0.50	53.96
3/5/2015	MW-6R	10.47	12.13	2	NM	1.66	0.75	20.60
3/19/2015	MW-6R	9.94	12.02	2	137	2.08	0.50	21.10
3/30/2015	MW-6R	9.64	11.82	2	39.9	2.18	0.50	21.60
3/5/2015	MW-7	2.99	3.28	1	NM	0.29	0.10	20.37
3/19/2015	MW-7	1.52	1.62	1	49.7	0.10	0.10	20.47
3/30/2015	MW-7	1.36	1.47	1	42.6	0.11	0.10	20.57
3/5/2015	MW-7R	ND	2.56	2	NM	0	0	0.14
3/19/2015	MW-7R	ND	1.15	2	1.3	0	0	0.14
3/30/2015	MW-7R	ND	0.83	2	57.4	0	0	0.14
3/5/2015	MW-8[1]	NG	NG	2	NM	NA	0	1298.50
3/19/2015	MW-8[1]	NG	NG	2	NM	NA	0	1298.50
3/30/2015	MW-8[1]	NG	NG	2	NM	NA	0	1298.50
3/5/2015	MW-9	7.46	8.18	2	NM	0.72	0.25	60.35
3/19/2015	MW-9[2]	NG	NG	NA	NM	NM	NA	60.35
3/30/2015	MW-9[2]	NG	NG	NA	NM	NM	NA	60.35
3/5/2015	MW-10[1]	NG	NG	2	NM	NA	0	0
3/19/2015	MW-10	ND	7.33	2	0.0	0	0	0
3/30/2015	MW-10	ND	7.20	2	0.0	0	0	0
3/5/2015	MW-11[1]	NG	NG	2	NM	NA	0	0
3/19/2015	MW-11[1]	NG	NG	2	NM	NA	0	0
3/30/2015	MW-11[1]	NG	NG	2	NM	NA	0	0
3/5/2015	MW-12[3]	NG	NG	2	NM	NA	0	42.46
3/19/2015	MW-12	7.78	9.29	2	134	1.51	0.50	42.96
3/30/2015	MW-12	7.10	10.23	2	3.13	42.40	0.75	43.71
3/5/2015	MW-13	8.26	9.47	2	NM	1.21	0.50	156.99
3/19/2015	MW-13	8.99	13.22	2	112	4.23	1.25	158.24
3/30/2015	MW-13	7.48	8.57	2	42.6	1.09	0.25	158.49

Table 1. LNAPL Recovery IRM Summary Table, Former Paragon Paint Varnish Corp
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	PID (ppm)	Product Thickness (ft)	Purged (g)	Cumulative (g)
3/5/2015	MW-14	ND	9.95	2	NM	0	0	0
3/19/2015	MW-14	ND	9.09	2	0.2	0	0	0
3/30/2015	MW-14	ND	9.06	2	1.6	0	0	0
3/5/2015	MW-15	ND	9.80	2	NM	0	0	0
3/19/2015	MW-15	ND	9.00	2	0.3	0	0	0
3/30/2015	MW-15	ND	9.00	2	0.7	0	0	0
3/5/2015	MW-16[1]	NG	NG	4	NM	NA	0	0
3/19/2015	MW-16[1]	NG	NG	4	NM	NA	0	0
3/30/2015	MW-16[1]	NG	NG	4	NM	NA	0	0
3/5/2015	MW-17[4]	7.08	7.12	4	NM	0.04	0.01	43.76
3/19/2015	MW-17[4]	6.70	6.72	4	61.6	0.02	0.01	43.77
3/30/2015	MW-17[4]	6.46	6.48	4	78.2	0.02	0.01	43.78
3/5/2015	MW-18	ND	6.59	4	NM	0	0	0
3/19/2015	MW-18	ND	6.56	4	0.0	0	0	0
3/30/2015	MW-18	ND	6.51	4	0.0	0	0	0
3/5/2015	MW-19	2.36	2.37	2	NM	0.01	0.01	0.19
3/19/2015	MW-19	2.02	2.02	2	78.2	0	0.01	0.20
3/30/2015	MW-19	ND	1.60	2	94.3	0	0.00	0.20
3/5/2015	MW-20	ND	9.91	2	NM	0	0	0
3/19/2015	MW-20	ND	9.51	2	0.0	0	0	0
3/30/2015	MW-20	ND	9.59	2	0.0	0	0	0
3/5/2015	MW-21	ND	4.45	4	NM	0	0	0
3/19/2015	MW-21	ND	5.84	4	0.0	0	0	0
3/30/2015	MW-21	ND	5.76	4	0.0	0	0	0
3/5/2015	MW-22	ND	9.79	2	NM	0	0	0
3/19/2015	MW-22	ND	9.44	2	0.0	0	0	0
3/30/2015	MW-22	ND	9.52	2	0.0	0	0	0
3/5/2015	MW-23[1]	NG	NG	4	NM	NA	0	368.00
3/19/2015	MW-23[1]	NG	NG	4	NM	NA	0	368.00
3/30/2015	MW-23	5.89	7.90	4	168	2	4	372.00
3/5/2015	MW-24	ND	6.98	2	NM	0	0	0
3/19/2015	MW-24	ND	6.42	2	4.2	0	0	0
3/30/2015	MW-24	ND	6.10	2	0.0	0	0	0
3/5/2015	MW-25	ND	7.60	2	NM	0	0	0
3/19/2015	MW-25	ND	6.39	2	7.4	0	0	0
3/30/2015	MW-25	ND	6.71	2	2.1	0	0	0
3/5/2015	MW-27	ND	7.74	2	NM	0	0	0
3/19/2015	MW-27	ND	7.20	2	6.1	0	0	0
3/30/2015	MW-27	ND	7.13	2	0.6	0	0	0

Table 1. LNAPL Recovery IRM Summary Table, Former Paragon Paint Varnish Corp 5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd. Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	PID (ppm)	Product Thickness (ft)	Purged (g)	Cumulative (g)
3/5/2015	MW-28	ND	7.39	2	NM	0	0	0
3/19/2015	MW-28	ND	6.64	2	0.2	0	0	0
3/30/2015	MW-28	ND	6.59	2	3.5	0	0	0
3/5/2015	MW-30[2]	NG	NG	4	NM	NA	NA	0
3/19/2015	MW-30[2]	NG	NG	4	NM	NA	NA	0
3/30/2015	MW-30[2]	NG	NG	4	NM	NA	NA	0
3/5/2015	MW-31[2]	NG	NG	4	NM	NA	NA	43.20
3/19/2015	MW-31[2]	NG	NG	4	NM	NA	NA	43.20
3/30/2015	MW-31[2]	NG	NG	4	NM	NA	NA	43.20
3/5/2015	MW-32	ND	6.79	4	NM	0	0	0
3/19/2015	MW-32	ND	5.98	4	1.3	0	0	0
3/30/2015	MW-32	ND	5.91	4	1.6	0	0	0
3/5/2015	MW-33	8.04	8.16	4	NM	0.12	0.10	2.40
3/19/2015	MW-33	7.46	7.49	4	58.6	0.03	0.10	2.50
3/30/2015	MW-33	7.14	7.16	4	64.6	0.02	0.10	2.60
3/5/2015	MW-34	ND	7.56	4	NM	0	0	0
3/19/2015	MW-34	ND	6.86	4	129	0	0	0
3/30/2015	MW-34	ND	6.53	4	69.3	0	0	0
3/5/2015	MW-35[1]	NG	NG	4	NM	NA	NA	0.10
3/19/2015	MW-35[1]	NG	NG	4	NM	NA	NA	0.10
3/30/2015	MW-35[1]	NG	NG	4	NM	NA	NA	0.10
3/5/2015	MW-36[2]	NG	NG	NA	NM	NA	NA	0
3/19/2015	MW-36[2]	NG	NG	NA	NM	NA	NA	0
3/30/2015	MW-36[2]	NG	NG	NA	NM	NA	NA	0
3/5/2015	MW-37	ND	2.23	2	NM	0	0	0
3/19/2015	MW-37	ND	1.14	2	45.8	0	0	0
3/30/2015	MW-37	ND	1.85	2	30.6	0	0	0
3/5/2015	MW-38	ND	2.90	2	NM	0	0	0
3/19/2015	MW-38	ND	1.71	2	23.4	0	0	0
3/30/2015	MW-38	ND	1.52	2	55.1	0	0	0
							Total:	2141.25

Notes:

PID - Photo ionization detector (well headspace reading)

ft - Feet

ppm - Parts per million

g - Gallons

ND - Not detected

NM - Not measured

NR - Not recorded

NA - Not applicable

1- Could not access well due to ongoing underground storage tank removal activities

2 - Monitoring well destroyed during underground storage tank removal activities

3 - Could not access well due to an accumulation of snow and ice

4 - Monitoring well MW-17 was observed to be damaged

REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

209 SHAFTER STREET
ISLANDIA, NEW YORK 11749
TEL: 631-232-2600
FAX: 631 232-9898

April 11, 2017

Ms. Sondra Martinkat
New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, New York 11101

Re: Phase I *In Situ* Chemical Oxidation Design Plan
Paragon Paint and Varnish Corp.
5-49 46th Avenue
Long Island City, New York 11101
NYSDEC Site No. C241108

Dear Ms. Martinkat:

Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering), on behalf of Vernon 4540 Realty, LLC (Vernon 4540), has prepared this *in situ* chemical oxidation (ISCO) injection design plan (Design Plan) to continue to address volatile organic compounds (VOCs) in groundwater and grossly contaminated soil following implementation of the Remedial Action Work Plan (RAWP) at the Paragon Paint and Varnish Corporation property located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard (Tax Block 26, Lot 4) in Long Island City, New York (Site). The Design Plan is a required element of the New York State Department of Environmental Conservation (NYSDEC) approved Site Management Plan (SMP) dated November 2016.

Background Information

In order to achieve Site-cleanup goals identified in the RAWP, gross contamination was removed at the Site to the extent practical as documented in the Final Engineering Report (FER) dated November 2016. However, due to limits of the support of excavation utilized, structural engineering concerns associated with the onsite buildings and other Site constraints, all gross contamination was not removed during the remedial action (RA). These residual gross contamination areas are identified in Figure 1.

In addition, a single round of ISCO injections was conducted during the performance of the RA to address VOCs in groundwater underneath the three-story brick warehouse (Warehouse). The chemical oxidant was injected at a total of 20 locations as follows: 16 permanent points installed in the basement of the Warehouse and 4 temporary points installed along the length of the Site driveway adjacent to the Warehouse building. While groundwater quality has improved following the first-round of ISCO injections performed in the Warehouse area in December of 2015, residual VOCs in groundwater still exceed NYSDEC Ambient Water-Quality Standards and Guidance Values (AWQSGVs) within the Warehouse area footprint as well as other areas on the Site as shown in Figure 2.

The SMP requires additional ISCO treatment because residual VOCs remain in groundwater following the initial injection treatment event in the Warehouse area and residual gross contamination remains following the completion of Site-wide excavation activities. The following sections of this design report present Roux Associates' ISCO injection design for the initial SMP phase of planned injections at the Site.

ISCO Injection Design Plan

As described in the approved SMP, additional ISCO treatment will address: (i) residual Site-specific compounds of concern (COCs) in groundwater [benzene, ethylbenzene, isopropylbenzene and xylenes] with concentrations that exceed their respective AWQSGVs (Figure 2) and (ii) remaining gross contamination in soil (Figure 1). Site-wide ISCO treatment will be performed in a phased approach. Roux Associates will initially address six (6) representative areas across the Site that require some level of treatment as described above. Once the effectiveness of this injection event has been demonstrated, the remaining areas will be treated.

A total of 13 injections will be completed during this first ISCO injection event at the following locations (See Figure 3):

- Ten (10) temporary ISCO injection points within the limits of gross contamination (GC) Areas 2, 4, 5, 8 and 9; and

- Three (3) of the 16 permanent ISCO injection wells (IP-17, 18, and 19) that were previously installed to treat groundwater during the RA within the footprint of the Warehouse.

The majority of the temporary ISCO injection points will be completed at approximately 8 to 13 feet below level surface (ft bls) to address gross contamination and groundwater impacts. In areas where there is unsaturated gross contamination (i.e., GC Area 4 and 5), the temporary ISCO injection points will be completed at a larger interval of approximately 5 to 13 ft bls. The exception to these proposed intervals are the utilization of the permanent ISCO injection wells, which have been installed to depths of approximately 5 ft bls within the Warehouse basement.

The SMP stated that the chemical oxidant that would be used in ISCO events would be RegenOx™ manufactured by Regenesis, Inc. (Regenesis). Due to the nature of the material being treated, a similar product (PersulfOx™), also manufactured by Regenesis, will be utilized for the post-remediation injection events. PersulfOx™ is a solid alkaline oxidant that is a solid powder that is mixed with water to produce an effective oxidant that is then injected into groundwater. The advantages of PersulfOx™ is that the material is able to be injected at much higher concentrations, up to 20% to react directly with the organic materials. This injection material also supports the degradation of target COCs for an extended period of time following completion of ISCO injections due to the generation of sulfate as a residual bi-product, which supports additional biodegradation processes. Specifications for PersulfOx™ are included in Attachment 1.

As the PersulfOx™ is dissolved in water it creates an alkaline and oxidative environment that raises the pH of groundwater to values greater than 10. The radius of influence of the injection points will be verified during the injections by monitoring field parameters (i.e., pH and dissolved oxygen) at any adjacent monitoring wells to confirm the presence of the injection material.

The PersulfOx™ will be delivered to the subsurface at a controlled rate of either 15-percent or 20-percent (by weight) solution. For this initial injection event, 2,100 pounds of PersulfOx™ will need approximately 1,215 gallons of water to prepare the chemical oxidant injection solution. Regenesis calculated the volume and oxidant percentage using representative Site aquifer characteristics (porosity, soil bulk density and radius of influence), and concentrations of total VOCs based on data from the FER and the December 2016 groundwater sampling round.

The proposed injection mixtures for each area of concern are as follows:

Area of Concern	No. of Points	PersulfOx™ lbs		Gallons of Water (Approx. Total)		Proposed Concentration
		Total	Per Point	Total	Per Point	
GC Area 2	3	750	250	370	125	20%
GC Area 4	1	100	100	70		15%
GC Area 5	1	100	100	70		15%
GC Area 8	3	450	150	305	100	15%
GC Area 9	2	400	200	195	97.5	20%
Warehouse (MW-38)	3	300	100	205	68	15%

The PersulfOx™ solution will be prepared on-Site. The temporary injection points will be completed using a Geoprobe®. A 1.5-inch hollow steel rod with an end cap in place will be driven to the desired depths and a deployable 2-foot screened interval will be opened by pulling back on the rod. The injection solution will be pumped through the screened interval, and then the entire rod assembly will be raised to cover the entirety of the proposed injection depth.

For the temporary points outside and adjacent to the Warehouse, the oxidant and activator will be injected using an injection pump at a flow rate of 5 gallons per minute (gpm). During the injection process, the injection pump pressure will be maintained below 20 pounds per square inch to allow the aquifer to naturally dissipate any hydrostatic pressure build up. Higher pressures are generally not desirable due to the potential for the chemical oxidant solution to seep upwards around the injection rods (daylighting).

The permanent injection wells within the Warehouse will have the chemical oxidant solution delivered from a holding tank into the subsurface (i.e., gravity feed) through custom direct push technology injection tools supplied by the drilling subcontractor. A pump that can inject at low to moderate pressures (up to 20 pounds per square inch) may be used if gravity feed cannot meet the design flow rate at the permanent injection wells within the Warehouse.

If necessary, the injection volume will be decreased with a concurrent increase in PersulfOx™ concentration to ensure the design volume of chemical oxidant is delivered into the aquifer. The injection points will be sealed with a combination of bentonite, cement grout, and/or concrete at the end of the work.

During performance of the ISCO injections, the staging and work areas will be kept clean and well-maintained and the Site-specific health and safety plan discussing personal protective equipment, material handling, storage procedures, and spill response will be utilized. Community air monitoring will not be performed due to the negligible quantity of OC vapors that could be released. Wastes will be containerized in 55-gallon drums to be disposed off-Site at an approved facility.

Data Evaluation and Reporting

In accordance with the SMP, ISCO performance monitoring will be conducted bi-weekly for approximately two months following completion of the injections or until parameters return to baseline conditions. Only monitoring wells that are both within the SMP monitoring network and located in the targeted injection area will be specifically monitored during the aforementioned schedule. The monitoring well network for the first ISCO injection event will consist of monitoring wells MW-36, MW-38, MW-40, MW-41, MW-42, and MW-44.

Field parameters (e.g., pH, oxidation-reduction potential, and dissolved oxygen) will be measured at each monitoring well within the proposed radius of influence immediately prior to (i.e., baseline), during, and once every two weeks for two months following ISCO injections. When the field parameters indicate groundwater conditions have nearly returned to baseline, groundwater samples will be collected and analyzed for Target Compound List (TCL) VOCs by using United States Environmental Protection Agency (USEPA) SW846 Method 8260, and for persulfate by a field titration test kit. Groundwater sampling will be completed utilizing the USEPA low-flow (minimal drawdown) procedures.

Roux Associates will use VOC data generated from the subsequent quarterly groundwater monitoring events to assess the effectiveness of the ISCO treatment.

Implementation Schedule
Implementation of the proposed Design Plan is anticipated to require five (5) work days, and will commence on April 24, 2017. Prior to field mobilization, Roux Associates will submit Form 7250-16 ("Inventory of Injection Wells") to the USPEA in accordance with the Code of Federal Regulations Title 40 Part 144 of the USEPA's Underground Injection Program.

Please do not hesitate to contact the undersigned if you have any questions or need additional information.

Sincerely,

REMEDIAL ENGINEERING, P.C.

STATE OF NEW YORK
OMAR RAMOTAR
077995
LICENSED PROFESSIONAL ENGINEER

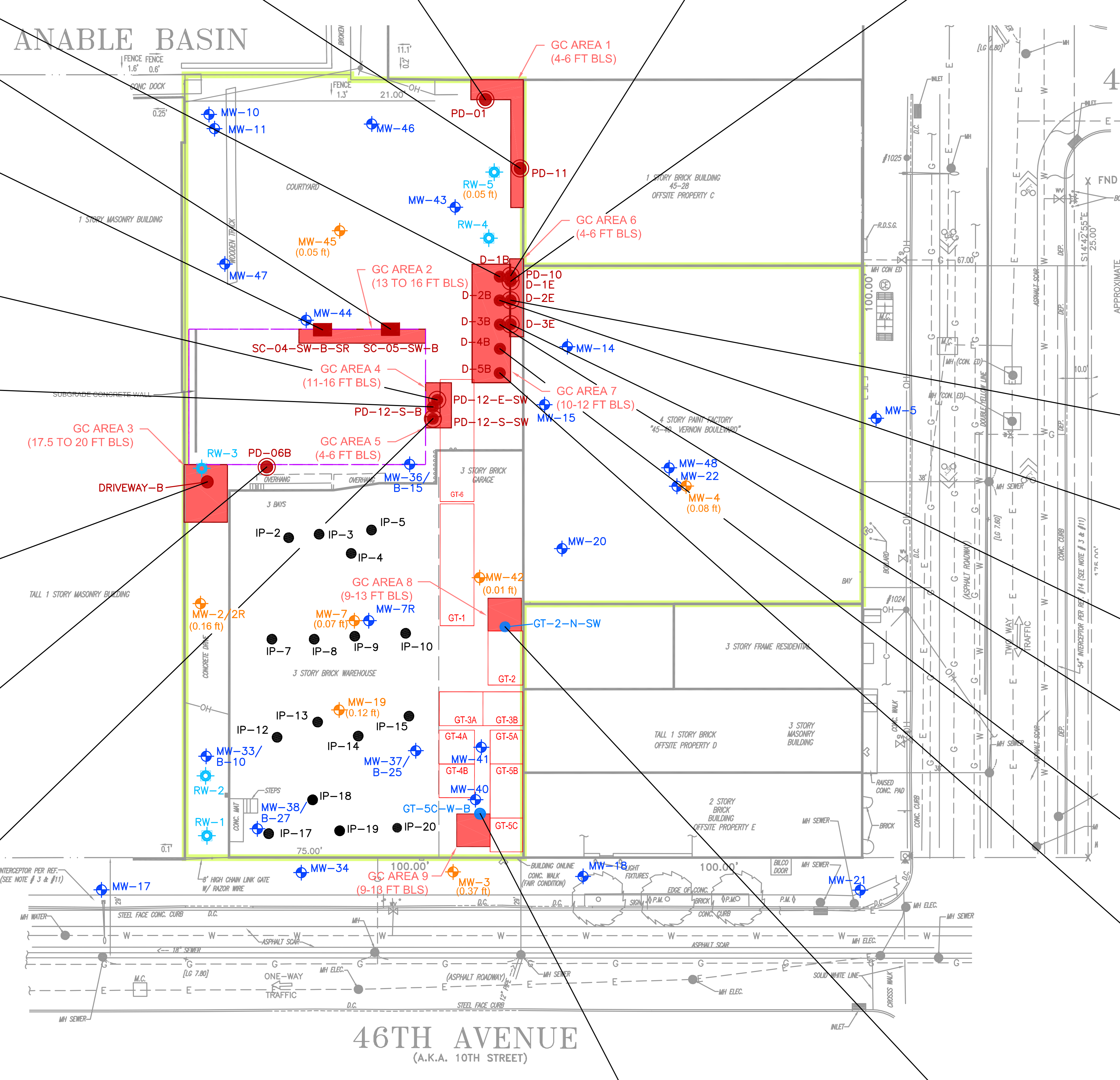
077995 — NYS Professional Engineer #

4/11/17 — Date

Signature

Attachment

cc: Jane O'Connell, NYSDEC
Glen Netuschil, P.E., Remedial Engineering, P.C.
Omar Ramotar, P.E., Remedial Engineering, P.C.
Joseph Duminuco, Roux Associates, Inc.
Andrew Till, Simon Baron Development
Robert Hendrickson, Quadrum Global



D-1 B	1/13/16
Depth (ft bls)	11-13
VOCs	
Isopropylbenzene	8400

PD-11	12/7/15
Depth (ft bls)	4-6
VOCs	
Benzene	150
Ethylbenzene	9600
Isopropylbenzene	28000
Total Xylenes	27000

PD-01	12/7/15
Depth (ft bls)	4-6
VOCs	
Isopropylbenzene	5600

PD-10	12/21/15
Depth (ft bls)	4-6
VOCs	
Isopropylbenzene	6300

D-1-East	10/29/16
Depth (ft bls)	6-7
VOCs	
Isopropylbenzene	5300

SC-05-SW-B	
Depth (ft bls)	13
VOCs	
Isopropylbenzene	4300

SC-04-SW-B-SR	12/28/15	12/28/15 DUP
Depth (ft bls)	13	13
VOCs		
Ethylbenzene	2600 J	3600
Isopropylbenzene	6000	8900
Total Xylenes	8100 J	8600 J

PD-12-E-SW	1/21/16
Depth (ft bls)	4-6
VOCs	
Isopropylbenzene	15000

PD-12-S-B	1/21/16
Depth (ft bls)	11-13
VOCs	
Isopropylbenzene	18000

Driveway-B (SEE NOTE 2)	1/21/16
Depth (ft bls)	17.5
VOCs	
Benzene	150
Ethylbenzene	9600
Isopropylbenzene	28000
Total Xylenes	100000

PD-06B	1/27/16
Depth (ft bls)	9-11
VOCs	
Isopropylbenzene	4200

PD-12-S-SW	1/21/16
Depth (ft bls)	4-6
VOCs	
Isopropylbenzene	8500

GT-5C-W-B	1/11/16	
Depth (ft bls)	9-11	15-17
VOCs		
Benzene	180	ND
Isopropylbenzene	7500	NE

GT-2-N-SW	12/14/16
Depth (ft bls)	9
VOCs	
Isopropylbenzene	3100

D-2-East	10/29/16
Depth (ft bls)	6-7
VOCs	
Isopropylbenzene	6800

D-2 B	1/13/16
Depth (ft bls)	10-12
VOCs	
Ethylbenzene	2400
Isopropylbenzene	24000

D-3-East	10/29/16
Depth (ft bls)	6-7
VOCs	
Isopropylbenzene	18000

D-3 B	1/13/16
Depth (ft bls)	10-12
VOCs	
Ethylbenzene	1800 J
Isopropylbenzene	16000

D-4 B	1/13/16
Depth (ft bls)	10-12
VOCs	
Ethylbenzene	1800 J
Isopropylbenzene	9300

D-5 B	1/13/16
Depth (ft bls)	10-12
VOCs	
Isopropylbenzene	7500

LEGEND

- MW-5 — LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
- MW-3 — LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
- RW-1 — LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
- PD-12-S-B — EXCAVATION BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS
- PD-10 — EXCAVATION SIDEWALL SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS
- SC-04-SW-B-SR — CONCRETE SLAB BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS
- GT-5C-W-B — UNDERGROUND STORAGE TANK BOTTOM SOIL SAMPLE LOCATION AND DESIGNATION BENEATH CONCRETE SLAB WITH COMPOUND OF CONCERN EXCEEDANCES OF CLEANUP STANDARDS
- IP-2 — LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
- (0.08 ft) — LNAPL THICKNESS
- PROPERTY BOUNDARY
- GT4 — APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
- CONCRETE SLAB
- GC AREA 1 (4-6 FT BLS) — DESIGNATION AND INFERRED HORIZONTAL AND VERTICAL LIMITS OF REMAINING GROSSLY CONTAMINATED MATERIAL BASED ON FIELD OBSERVATION AND RESULTS OF POST-EXCAVATION SAMPLING AND FIELD SCREENING

TYPICAL DATA BOX INFORMATION

SAMPLE ID. → GT-2-N-SW ← SAMPLE DATE

GT-2-N-SW	12/14/16
Depth (ft bls)	9
VOCs	
Isopropylbenzene	3100

ANALYTES — CONCENTRATIONS (IN µg/L)

Parameter	Standards* (µg/kg)
VOCs	
Benzene	60
Ethylbenzene	1000
Isopropylbenzene	**2300
Total Xylenes	1600

CONCENTRATIONS IN µg/kg

- µg/kg — MICROGRAMS PER KILOGRAM
- NYSDEC — NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- * — NYSDEC PART 375 PROTECTION OF GROUNDWATER
- ** — NYSDEC CP-51 PROTECTION OF GROUNDWATER STANDARDS
- VOCS — VOLATILE ORGANIC COMPOUNDS
- J — ESTIMATED VALUE
- FT BLS — FEET BELOW LAND SURFACE

ABANDONED IN PLACE UNDERGROUND STORAGE TANK INFORMATION			
TANK ID	ESTIMATED DIAMETER (FT)	ESTIMATED LENGTH (FT)	ESTIMATED CAPACITY (GAL)
GT-1	10	36	21,000
GT-2	10	13	7,500
GT-3A	10	11.5	6,700
GT-3B	10	11.5	6,700
GT-4A	10	9	5,000
GT-4B	10	9	5,000
GT-5A	10	12	7,000
GT-5B	10	12	7,000
GT-5C	10	12	7,000
GT-6	10	36	21,000
REMOVED UNDERGROUND STORAGE TANK INFORMATION			
D-1	6	12	2,500
D-2	6	10	2,000
D-3	6	10	2,000
D-4	6	10	2,000
D-5	6	10	2,000

NOTE

1. CONCRETE SLAB LOCATED IN COURTYARD AT APPROXIMATELY 11 TO 13 FT BLS WAS NOT REMOVED DURING REMEDIAL ACTION DUE TO SIZE. POST EXCAVATION SOIL SAMPLES WERE COLLECTED AT ACCESSIBLE EDGE BENEATH CONCRETE SLAB AS SHOWN DURING THE PERFORMANCE OF THE REMEDIAL ACTION.
2. GROSS CONTAMINATION IN DRIVEWAY PRESENT FROM 17.5' TO 20' BLS. ADDITIONAL EXCAVATION NOT PERFORMED DUE TO LIMITATIONS OF SHORING METHOD USED DURING REMEDIAL ACTION.

30' 0 30'

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NO.	DATE	REVISION DESCRIPTION	INT.

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Remedial

REMEDIAL ENGINEERING, P.C.

209 Shafter Street
Islandia, New York 11749 (631) 232-2600

PROJECT NAME: INJECTION DESIGN PLAN

PROJECT FOR: VERNON 4540 REALTY LLC

TITLE: CONTAMINATION REMAINING IN SOIL
POST-REMEDIAL ACTION

FIGURE 1

1 OF 3

MW-47	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**40**
2-Hexanone	5 U
Acetone	**110**
Benzene	0.98
Chloromethane	2.5 U
Ethylbenzene	**11**
Isopropylbenzene (Cumene)	**9.2**
m,p-Xylene	**24**
Methyl Ethyl Ketone (2-Butanone)	14
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.1 J
N-Propylbenzene	**13**
O-Xylene (1,2-Dimethylbenzene)	**14**
Sec-Butylbenzene	2.1 J
T-Butylbenzene	0.95 J
Toluene	3.8
Xylenes	**38**

MW-11	Dec-16
Analyte	
Benzene	0.68
T-Butylbenzene	4.1

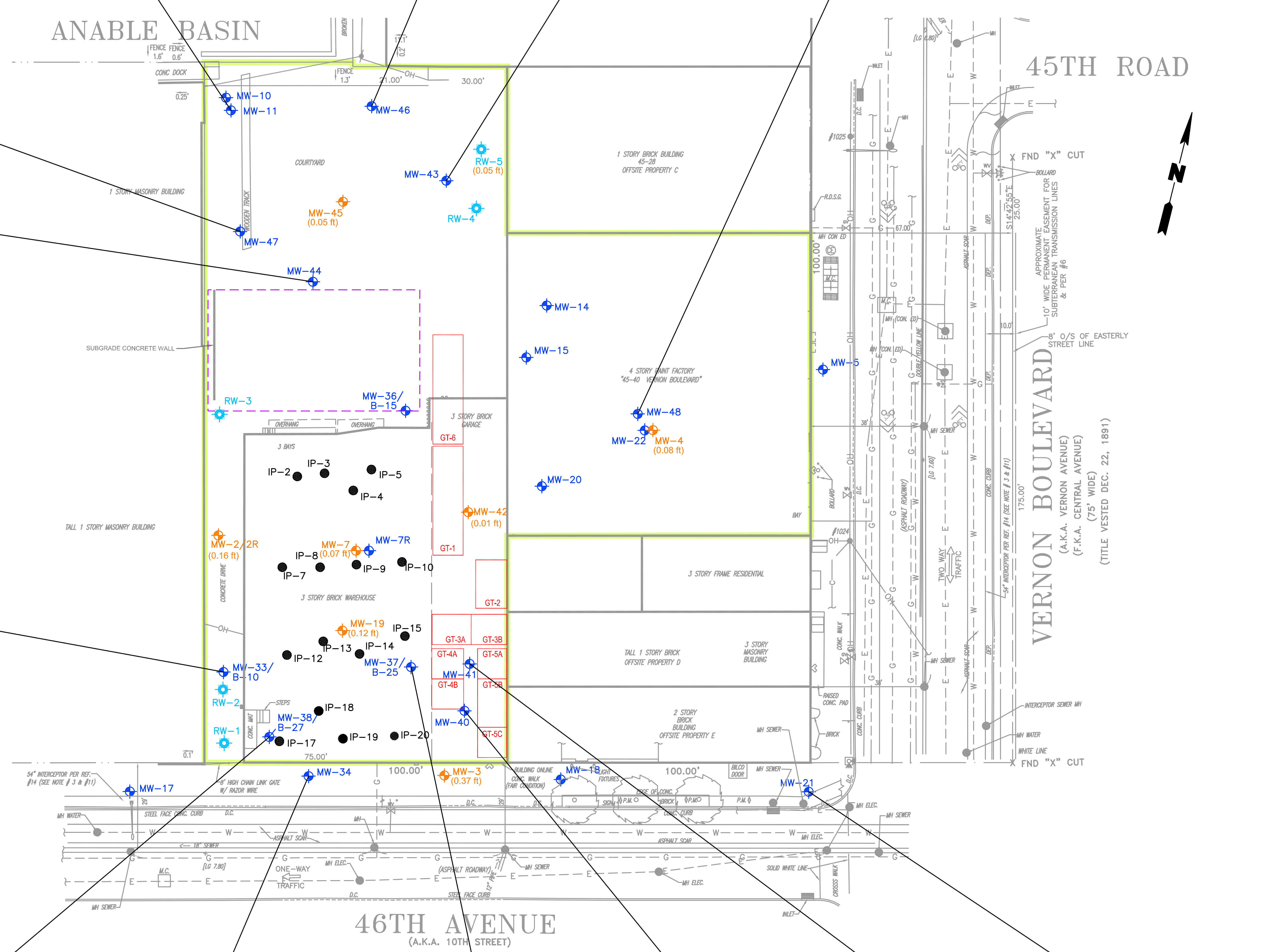
MW-46	Dec-16
Analyte	
Acetone	4.2 J

MW-43	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**12**
Acetone	7.4
Isopropylbenzene (Cumene)	1.4 J
m,p-Xylene	1.3 J
N-Propylbenzene	1.9 J
O-Xylene (1,2-Dimethylbenzene)	0.8 J
Xylenes	2.1 J

MW-48	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	2.2 J
Isopropylbenzene (Cumene)	4
N-Propylbenzene	3.1
Sec-Butylbenzene	4.7
T-Butylbenzene	4.1

MW-44	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**41**
Acetone	**98**
Benzene	1
Ethylbenzene	**9.9**
Isopropylbenzene (Cumene)	**6.8**
m,p-Xylene	**24**
Methyl Ethyl Ketone (2-Butanone)	12
N-Propylbenzene	**8.5**
O-Xylene (1,2-Dimethylbenzene)	**17**
Sec-Butylbenzene	1.8 J
T-Butylbenzene	1.2 J
Toluene	3.8
Xylenes	**41**

MW-33	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	3
Acetone	23
Ethylbenzene	0.76 J
Isopropylbenzene (Cumene)	1.3 J
m,p-Xylene	1.1 J
Methyl Ethyl Ketone (2-Butanone)	3.2 J
N-Propylbenzene	2.2 J
O-Xylene (1,2-Dimethylbenzene)	1.5 J
Sec-Butylbenzene	2.6
T-Butylbenzene	1.8 J
Xylenes	2.6 J



MW-38	Dec-16
Analyte	
Acetone	1.6 J
Benzene	0.28 J
Isopropylbenzene (Cumene)	**26**
Methyl Ethyl Ketone (2-Butanone)	5 U
N-Propylbenzene	**34**
Sec-Butylbenzene	**11**
T-Butylbenzene	4.3
Toluene	0.97 J

MW-34	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	0.98 J
Benzene	0.26 J
Isopropylbenzene (Cumene)	**22**
N-Propylbenzene	**33**
Sec-Butylbenzene	**15**
T-Butylbenzene	**6.9**

MW-37	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	3.6 J
Acetone	39
Benzene	2.5 U
Isopropylbenzene (Cumene)	**28**
Methyl Ethyl Ketone (2-Butanone)	25 U
N-Propylbenzene	**50**
Sec-Butylbenzene	**21**
T-Butylbenzene	**7.1 J**
Toluene	12 U

MW-40	Dec-16
Analyte	
Acetone	2 J
Benzene	**8.6**
Isopropylbenzene (Cumene)	**44**
m,p-Xylene	1 J
N-Propylbenzene	**69**
O-Xylene (1,2-Dimethylbenzene)	0.78 J
Sec-Butylbenzene	**16**
T-Butylbenzene	3.5
Toluene	1.7 J
Xylenes	1.8 J

MW-41	Dec-16
Analyte	
Benzene	0.5 U
Isopropylbenzene (Cumene)	0.73 J
N-Propylbenzene	0.8 J
Sec-Butylbenzene	1.1 J
T-Butylbenzene	0.78 J

MW-21	Dec-16
Analyte	
Tetrachloroethylene (PCE)	0.46 J

LEGEND

MW-5	LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
MW-3	LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
RW-1	LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
IP-2	LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
(0.08 ft)	LNAPL THICKNESS
FT	FEET
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
	CONCRETE VAULT
	PROPERTY BOUNDARY
GT-6	APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
	CONCRETE SLAB

TYPICAL DATA BOX INFORMATION

SAMPLE ID. → MW-11 | Dec-16 ← SAMPLE DATE

ANALYTES — Analyte: Benzene 0.68, T-Butylbenzene 4.1 — CONCENTRATIONS (IN µg/L)

Parameter (Concentrations in µg/L)	Standards* (µg/L)
1,2-Dichloropropane	1
1,3,5-Trimethylbenzene (Mesitylene)	5
1,3-Dichlorobenzene	3
2-Hexanone	50
Acetone	50
Benzene	1
Chloromethane	–
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
m,p-Xylene	5
Methyl Ethyl Ketone (2-Butanone)	50
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	–
N-Propylbenzene	5
O-Xylene (1,2-Dimethylbenzene)	5
Sec-Butylbenzene	5
T-Butylbenzene	5
Tetrachloroethylene (PCE)	5
Toluene	5

CONCENTRATIONS IN µg/L

µg/L	–	MICROGRAMS PER LITER
*	–	NYSDEC AWQSGVS
NYSDEC	–	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AWQSGVs	–	AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES
J	–	ESTIMATED VALUE
U	–	COMPOUND WAS ANALYZED FOR BUT NOT DETECTED
NS	–	NOT SAMPLED
FD	–	DUPLICATE
– –	–	NO NYSDEC AWQSGV AVAILABLE
BOLD	–	DATA INDICATES THAT PARAMETER WAS DETECTED ABOVE THE NYSDEC AWQSGVS

30' 0 30'

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Remedial

REMEDIAL ENGINEERING, P.C.

209 Shafter Street
Islandia, New York 11749 (631) 232-2600

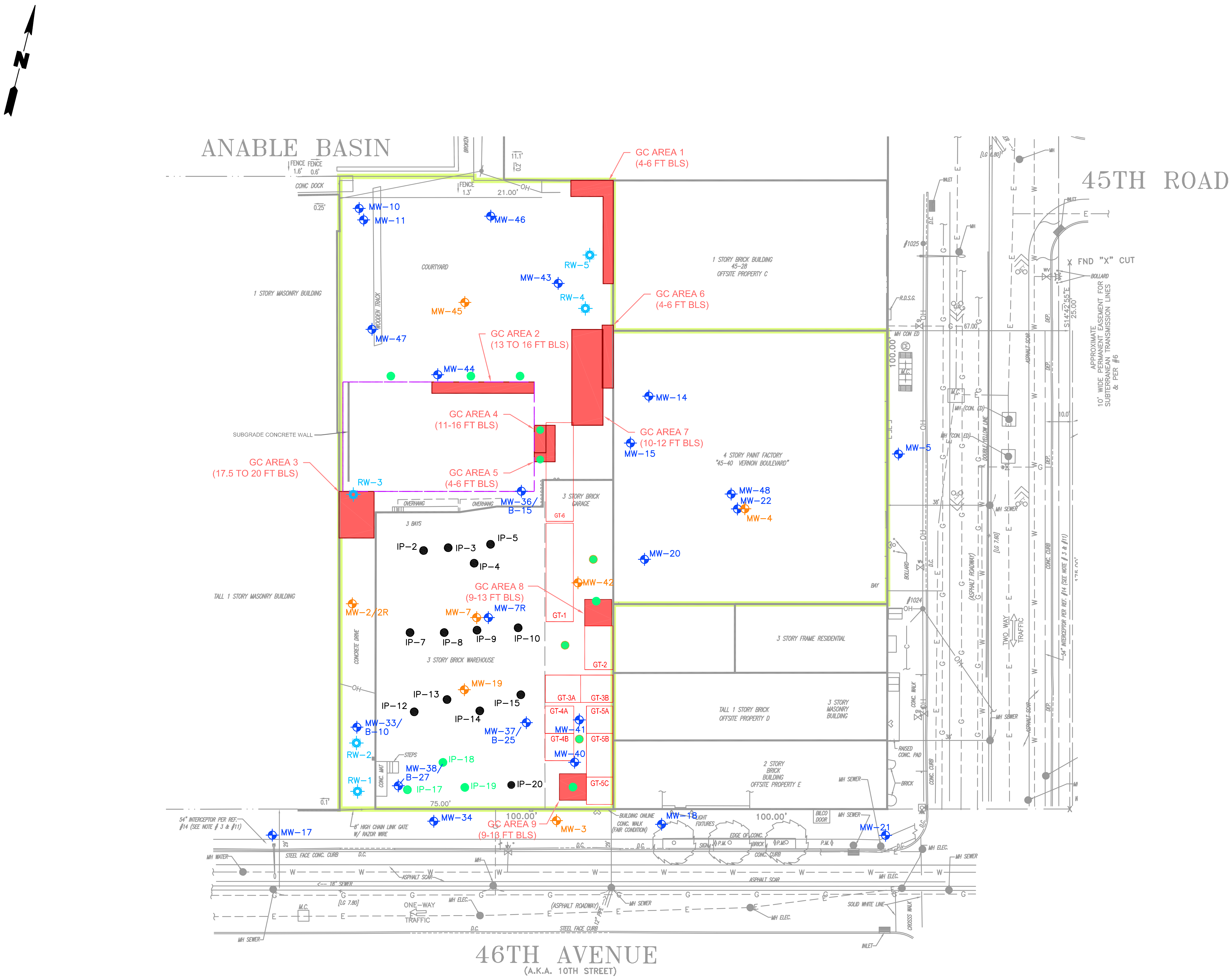
PROJECT NAME:
INJECTION DESIGN PLAN

PROJECT FOR:
VERNON 4540 REALTY LLC

TITLE:
VOCs AND LNAPL DETECTED IN GROUNDWATER DECEMBER 2016

FIGURE
2

2 OF 3



LEGEND

MW-5	LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
MW-3	LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
RW-1	LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
IP-2	LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
IP-17	LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT (TO BE UTILIZED IN INJECTION ROUNDS)
	LOCATION OF PROPOSED FIRST ROUND ISCO INJECTION POINT
	PROPERTY BOUNDARY
GT-4	APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
	CONCRETE SLAB
GC AREA 1 (4-6 FT BLS)	DESIGNATION AND INFERRED HORIZONTAL AND VERTICAL LIMITS OF REMAINING GROSSLY CONTAMINATED MATERIAL BASED ON FIELD OBSERVATION AND RESULTS OF POST-EXCAVATION SAMPLING AND FIELD SCREENING

30' 0 30'

NOTE

1. CONCRETE SLAB LOCATED IN COURTYARD AT APPROXIMATELY 11 TO 13 FT BLS WAS NOT REMOVED DURING REMEDIAL ACTION DUE TO SIZE. POST EXCAVATION SOIL SAMPLES WERE COLLECTED AT ACCESSIBLE EDGE BENEATH CONCRETE SLAB AS SHOWN DURING THE PERFORMANCE OF THE REMEDIAL ACTION.
2. GROSS CONTAMINATION IN DRIVEWAY PRESENT FROM 17.5' TO 20' BLS. ADDITIONAL EXCAVATION NOT PERFORMED DUE TO LIMITATIONS OF SHORING METHOD USED DURING REMEDIAL ACTION.
3. THE FIRST ISCO INJECTION ROUND WILL BE COMPLETED USING TEMPORARY PUSH INJECTION METHODS AND AT PERMANENT ISCO INJECTION POINTS IP-17, IP-18 AND IP-19 LOCATED IN THE BASEMENT OF THE 3-STORY BRICK WAREHOUSE.

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Remedial
REMEDIAL ENGINEERING, P.C.
209 Shafter Street
Islandia, New York 11749 (631) 232-2600

PROJECT NAME: INJECTION DESIGN PLAN

PROJECT FOR: VERNON 4540 REALTY LLC

TITLE: PROPOSED FIRST ROUND ISCO INJECTION LOCATIONS

FIGURE 3

3 OF 3

V:\CAD\PROJECTS\2051Y\0001Y\237\2051.0001Y237.05.DWG

Specifications for PersulfOx™

CATALYZED PERSULFATE:
Advancing *In Situ* Chemical Oxidation (ISCO) Technology

Scott Wilson[a]; William Farone, PhD[b]; Gareth Leonard[c]; Jeremy Birnstingl, PhD[c]; Alberto Leombruni, PhD[d]
[a]*REGENESIS, San Clemente, CA, USA;* [b]*Applied Power Concepts, Anaheim, CA, USA;* [c]*REGENESIS UK, Bath, UK;*
[d]*REGENESIS Ltd, Milano, Italia*

1.0 Introduction

For over a decade persulfate has been used to oxidize contamination in the field of environmental remediation. Most project applications have involved the use of persulfate in conjunction with traditional activation chemistries. While these activation technologies can be used successfully to degrade contamination in the field, each has its drawbacks. Over the past decade little was accomplished toward improving the efficacy, cost effectiveness or occupational safety related the use of persulfate oxidation chemistry for environmental remediation. Recently, however, a significant advancement has emerged in the form of a new all-in-one oxidant product that employs advanced catalyst-based activation chemistry.

The focus of this paper is to: 1) outline for the reader oxidation technologies employed in environmental remediation, 2) discuss the traditional technologies employed to activate persulfate, and 3) introduce a new catalyzed persulfate chemistry that has been demonstrated to be effective at degrading contaminants *in situ*, while reducing the need for activation chemicals.

2.0 *In Situ* Chemical Oxidation (ISCO)

In situ chemical oxidation (ISCO) of groundwater and soil contaminants is a remediation approach widely practiced throughout the world. The technique generally involves the use of a chemical oxidant applied into the environmental media such that direct contact is made with the target contaminant. In the case of subsurface soil or groundwater treatment, this usually involves the injection of the oxidants into the subsurface in the form an aqueous solution or slurry. In the case of treating soils on the ground surface, mixing of oxidant powder or slurries into the soil is not uncommon.

Commercial use of chemical oxidation for subsurface remediation began in earnest in the early 1990s and focused primarily on the use of Fenton's reagent (hydrogen peroxide activated with iron under low pH). Over time this broadened into a suite of closely related approaches based upon catalyzing hydrogen peroxide in what is often today referred to as catalyzed hydrogen peroxide (CHP). Throughout the 1990s this was a popular remediation approach due to its low unit cost and aggressive performance in degrading a wide range of contaminants. While this approach is still used today for some specific remediation projects types, use of CHP-type oxidants has fallen out of favor. This has been due primarily to rapid decomposition of the oxidant in the subsurface (affecting limited area) and safety concerns associated with the often highly exothermic reactions, off-gassing and pressure buildup (US EPA, 2013).

Permanganate use as an oxidant for remediation (typically employing either the potassium or sodium salt) has gained popularity over the past decade and is widely practiced. Use of these compounds is limited primarily to the destruction of substituted alkenes such as the chlorinated ethene series as the oxidation reactivity of permanganates is insufficient to oxidize key groundwater and soil contaminants such as petroleum hydrocarbons, chlorinated ethanes, etc. Application of permanganates in high concentration can lead to formation of solid manganese dioxide within aquifer pore space reducing reagent distribution and restricting aquifer hydraulic conductivity (Schroth et al., 2001). Manganese itself is also a regulated groundwater contaminant under certain environmental regulatory regimes (e.g. Decreto Legislativo 152/2006-Italia).

In recent years, the use of a sodium percarbonate-based oxidation chemistry has become a widely used remediation technology. This particular chemistry, which employs a proprietary catalyst system applied with a soluble percarbonate (RegenOx®[1]), has shown significant performance in degrading a broad array of environmental contaminants. Previously, thoughts on the use of percarbonate as an oxidant for remediation were hampered by theories that the carbonate ion would scavenge desired radicals and render the chemistry ineffective. However, this has been largely dispelled by excellent field performance of the oxidant and recent research showing catalyzed percarbonate propagates the formation of the superoxide radical in significant concentration (Watts, 2012).

3.0 Persulfate as an ISCO Reagent

For over a decade, persulfate has been used to oxidize contaminants *in situ*. While various forms of persulfate are used as chemical oxidants in different industries, it is sodium persulfate that is the predominant form of the compound employed in ISCO processes. Technically this compound is the sodium salt of peroxydisulfate ($Na_2S_2O_8$) and is a solid white powder at standard temperature and pressure. Figure 1 depicts the persulfate molecular structure.

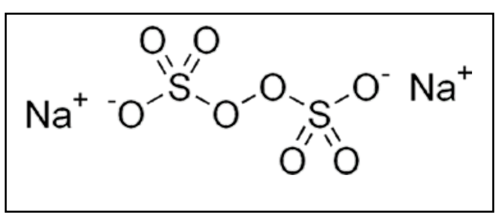

Figure 1: Molecular Structure of Sodium Persulfate

[1] RegenOx® is a registered trademark of REGENESIS, San Clemente, CA

3.1 Oxidation Reactions

Oxidation of organic compounds by persulfate is very complex and is the topic of a considerable amount of recent research. A range of oxidation reactions are known to be involved and each of these is influenced by various factors in the subsurface including site specific geochemistry, pH, temperature, contaminant type, native organic matter, etc. Known oxidation reactions related to persulfate include both direct oxidation reactions and radical oxidations.

3.1.1 Direct Oxidation

Persulfate reacts directly with many organic materials, exchanging electrons in a process known as direct oxidation. Persulfate is considered a powerful direct oxidant as it has a theoretical standard oxidation potential of 2.0V (for the reaction $S_2O_8^{2-} + 2e^- \rightarrow 2SO_4^{2-}$). This is similar to that of ozone (2.1V) and greater than that of hydrogen peroxide (1.8V), sodium percarbonate (1.8V), and permanganate (1.7V) (ITRC, 2005). This strong oxidizing potential of persulfate makes oxidation of many organic contaminants thermodynamically favorable. It should be noted, however, that a thermodynamically favorable reaction means only that the energy of the products is lower than the energy of the reactants. The reaction may or may not proceed at rates that are favorable. In fact the direct oxidation of organic pollutants by persulfate, where the two electrons are transferred simultaneously as above, has long been shown to proceed at kinetically slow rates (House, 1962).

3.1.2 Radical Oxidation

In addition to the direct oxidation pathway, persulfate has the propensity to generate radicals. Radicals are generated when the persulfate anion reacts with another compound to form atoms with unpaired electrons (radicals). Radicals generally are very reactive, rapidly oxidizing other compounds (increased kinetic rates compared to direct oxidation) and often forming a series of radicals in a chain reaction referred to as “propagation”. Radical species within a propagation series can be inorganic species or organic radicals generated by electron exchange. It should be noted, however, that radicals by their very nature are highly reactive and ephemeral. As a consequence, they are notoriously difficult to detect. Much of the understanding of radical formation, propagation and behavior throughout the ISCO field remains theoretical and inferred through a combination of thermodynamic probability and the nature of transitional oxidation intermediates formed.

The most common radicals generated by persulfate under conditions employed in ISCO are thought to be the sulfate radical and the hydroxyl radical (Peyton, 1993; Furman et al., 2012).

Eq.1: Formation of sulfate radical:

$$S_2O_8^{2-} + 2e^- \rightarrow SO_4^{2-} + SO_4^{\bullet -}$$

Eq. 2: Propagations forming hydroxyl radical:

$$SO_4^{\bullet -} + OH^- \rightarrow SO_4^{2-} + OH^{\bullet}$$

Both the sulfate radical and hydroxyl radical are very strong oxidizers with standard oxidation potentials of 2.43 (Huie et al., 1991) and 2.59V (Bosmann et al., 1998), respectively. These primary radicals react with other compounds very rapidly through what is thought to be a variety of reaction mechanisms including direct electron transfer, addition to double bonds and hydrogen abstraction (removal of hydrogen atom, often generating another radical). Most of the research conducted to date on persulfate radicals generated during persulfate ISCO has focused upon the impact of these two species. Other radical species, however, are also thought to play an important role including the perhydroxl radical ($HO_2^{\bullet}$) and superoxide anion ($O_2^{\bullet -}$) (Watts, 2012).

3.2 Activation

As stated above, sodium persulfate has the ability to transfer electrons directly in the process of direct oxidation. It is generally accepted, however, that the kinetics of contaminant destruction through direct oxidation alone is far less suitable for ISCO than the kinetics achieved by activating the formation of radicals (Petri et al., 2011).

The radical oxidation of organic compounds with persulfate can be viewed as having three distinct phases. *Activation* is generally defined as the initiation of radical formation. This is followed by a period of *Propagation*, where the first radicals oxidize the target contaminant, but may also produce other inorganic radicals and perhaps radicals of organic compounds (including target pollutant fragments). This, in turn, is followed by *Termination*, where sequential electron exchange is no longer active.

Mechanisms employed to achieve activation of persulfate for ISCO have historically included use of iron, heat, hydrogen peroxide, and alkaline activation (base).

3.2.1 Iron as an Activator

It has been recognized for decades that certain transition metals can stimulate the formation of radicals when combined with persulfate. Among these, the use of dissolved iron has been the most practiced transition metal activator for ISCO, primarily due to its low environmental toxicity.

Ferrous iron (Fe II), when mixed with persulfate is known to donate electrons initiating the generation of the sulfate radical (Crimi and Taylor, 2007) which in turn oxidizes target compounds or produces other radicals. It is believed that ferrous iron offers superior degradation kinetics compared to other valence states, although ferric iron (Fe III) has been shown in certain circumstances to increase degradation kinetics of certain relevant groundwater contaminants when compared to unactivated persulfate (Block et al., 2004) although the reaction mechanisms are not well understood.

In practice, the use of dissolved ferrous iron as an activator comes with limitations. Ferrous iron (Fe II), while soluble upon application to the subsurface, is quickly oxidized to ferric iron (Fe III) as it donates electrons to initiate the formation of the sulfate radical. Ferric iron rapidly precipitates from solution as iron hydroxide rendering it less effective in activation (Petri et al., 2011). To maintain ferrous iron activation of a persulfate ISCO system, one must maintain the pH <3 in the aquifer or apply the iron with chelation agents to ensure dissolution.

The use of chelation agents to maintain dissolved iron concentrations for persulfate activation has been studied (Liang et al., 2004). The research generally indicates favorable results for such ligands as citric acid, trisodium phosphate, and EDTA. The practical application of these chelating agents shows limitations with regard to the environmental acceptability of these compounds for use in aquifers and the cost of applying large amounts of chelated metals. Lastly, the use of organic chelation agents itself presents a certain demand upon the oxidant as the oxidant will, to some extent, attack the ligands themselves. The extent of this demand and the impact on overall ISCO efficiency is unknown and would certainly be site specific.

3.2.2 Thermal Activation

Persulfate activation can be stimulated by exposing a solution of sodium persulfate to elevated temperatures. It has generally been found that the rate of persulfate activation increases with the temperature of persulfate solutions (Liang et al., 2003). Thermal activation is thought to proceed by the following equation where heat decomposes persulfate into two sulfate radicals.

Eq. 3: Thermal Activation of Persulfate Ion:

$$S_2O_8^{2-} \rightarrow 2SO_4^{\bullet -}$$

The efficiency of thermal activation for use in persulfate ISCO systems is not as intuitive as one might expect. While activation appears to increase with temperature, so do the rates of reactions that compete with the degradation of the target contaminant. Thus, depending upon site conditions, temperature and contaminant characteristics, thermal activation may increase the persulfate oxidant demand relative to other activation technologies as the oxidant is consumed in side reactions.

Probably the greatest limitation to the commercial use of thermal activation for ISCO is the considerable cost of heating soil and groundwater. Thermal activation of persulfate for ISCO is rarely practiced other than in association with thermal extraction technologies such as subsurface heating/vapor extraction.

3.2.3 Hydrogen Peroxide Activation

The use of hydrogen peroxide (H_2O_2) to activate persulfate is well documented (Block et al., 2004; Crimi and Taylor, 2007). Employing this activation technique involves injecting hydrogen peroxide solutions directly into the subsurface along with the persulfate. Once in the subsurface the hydrogen peroxide contacts mineral surfaces catalyzing an exothermic decomposition reaction. The resulting temperature increase is almost certainly responsible for thermal activation of the persulfate. Other reaction mechanisms of peroxide activation however, are not well understood. One mechanism that plays an important role is the initial formation of hydroxyl radical ($OH^{\bullet}$) upon the decomposition of the hydrogen peroxide followed by the activation of the persulfate to produce sulfate radical.

Eq. 4: Hydrogen Peroxide Activation:

$$S_2O_8^{2-} + OH^{\bullet} \rightarrow SO_4^{2-} + SO_4^{\bullet -} + \tfrac{1}{2} O_2 + H^+$$

In practical application, hydrogen peroxide activation is short-lived as the hydrogen peroxide rapidly decomposes, often with considerable off-gassing. It has been shown that multiple injections of hydrogen peroxide may be required in order to sustain any benefit of peroxide activation (Cronk and Cartwright, 2006).

3.2.4 Alkaline Activation

In the presence of high pH, persulfate is known to activate and undergo the formation of sulfate radicals. This is not a catalytic effect rather, as mentioned in section 3.1.2., it is a direct result of the requirement for base in the chemical reaction to form sulfate radicals. This activation technique is widely practiced in ISCO remediation generally by applying solutions of either sodium hydroxide or potassium hydroxide. Once activated, propagation continues through the formation of hydroxyl radicals, etc.

Eq. 5: Propagation under Alkaline Activation:

$$SO_4^{\bullet -} + OH^- \rightarrow SO_4^{2-} + OH^{\bullet}$$

At high pH conditions (pH >11), alkaline activation is very productive in generating the primary sulfate and hydroxyl radicals. This, in turn, propagates the formation of ancillary inorganic radicals as well as organic radicals from native organic materials and from the target contaminants themselves. It should be noted also that at pH ranges above pH 11 simple alkaline hydrolysis plays a significant role in the breakdown of some organic compounds. Here the presence of hydroxide ion in high concentration can decompose organics independent of any radical oxidation.

The main limitation with alkaline activation of persulfate for ISCO remediation is the cost and logistics associated with injecting of large volumes of caustic solutions multiple times in order to maintain the alkaline conditions in the subsurface. This requirement is driven by both the natural buffering capacity of most subsurface environments and the acidic conditions created as persulfate decomposes. It is common for alkaline activated persulfate applications to rapidly drop below the effective pH range well before the persulfate oxidizer has decomposed, requiring the practitioner to remobilize to the site and reinject the alkaline activation solution multiple times.

4.0 Advanced Persulfate Technology - PersulfOx®

While persulfate has been used commercially for environmental remediation for over a decade, little advancement has occurred in activation technology or product form. Thus practitioners in the environmental remediation industry, when using persulfate to degrade contaminants *in situ*, are left to applying persulfate solutions with large volumes of often dangerous activation chemicals. This can present quite a risk to the health and safety of the field practitioners, and quite a cost to the remediation project.

More recently, an advanced form of persulfate chemistry has become available that offers the practitioner a safe, effective and simple-to-use product. This new technology, commercially available as PersulfOx®[2], offers advantages over traditional activation chemistries as it has been proven effective in contaminant destruction without the cost and safety issues associated with other technologies.

4.1 Built-in Activation

The PersulfOx chemistry incorporates a dual activation mechanism including alkaline activation as well as a heterogeneous catalyst technology that deploys once the alkaline activation becomes limiting. The product is packaged as an all-in-one soluble powder that is simply mixed with water and applied to the environmental medium to be treated.

[2] PersulfOx® is a registered trademark of REGENESIS, San Clemente, CA

4.1.1 Alkaline Activated

The product when mixed with water has a pH >11, without the addition of any other chemicals. The mixture at this pH range is very effective at initiating the formation of sulfate radicals and propagating the alkaline radical suite directly upon application.

Eq. 6: PersulfOx Activation/ Propagation

$$\text{PersulfOx} \rightarrow SO_4^{2-} + SO_4^{\bullet-}$$

$$SO_4^{\bullet-} + OH^- \rightarrow SO_4^{2-} + OH^{\bullet}$$

$$SO_4^{\bullet-} + H_2O \rightarrow SO_4^{2-} + OH^{\bullet} + H^+$$

As cited above (section 3.2.4 Alkaline Activation), the initiation of radical formation by alkaline activation mechanisms is only successful in the presence of abundant hydroxyl ions. As the alkaline activation proceeds, base is consumed and acidic conditions can develop within the target treatment zone. Depending upon the buffering capacity of the media being treated, this may result in a lowering of the pH below that which is conducive to activation via alkaline free-radical activation (Petri *et al*., 2011).

4.1.2 PersulfOx Catalyst

PersulfOx employs a unique chemistry such that if the pH drops into the circumneutral range a heterogeneous catalyst forms within the aqueous medium under treatment. This catalyst then proceeds to activate the persulfate thereby stimulating degradation of the target contaminants (Farone and Azad, 2010).

Amorphous silica structures

The chemical basis of the PersulfOx catalyst is amorphous silica. As the pH drops below pH 9, amorphous silica precipitation is initiated forming colloidal structures. Amorphous silica particles are known to have very high surface area often containing intra-porosity of varying diameter which serve to trap dissolved organic contaminants (Goyne et al., 2003) and partially oxidized daughter products in a manner similar to activated carbon.

The surface of amorphous silicas is also known to contain silanol functional groups (silica-bound hydroxyl groups). These silanol groups may interact with the H^+ generated in the persulfate reaction acting as the required base to drive radical formation from persulfate (Equation 6).

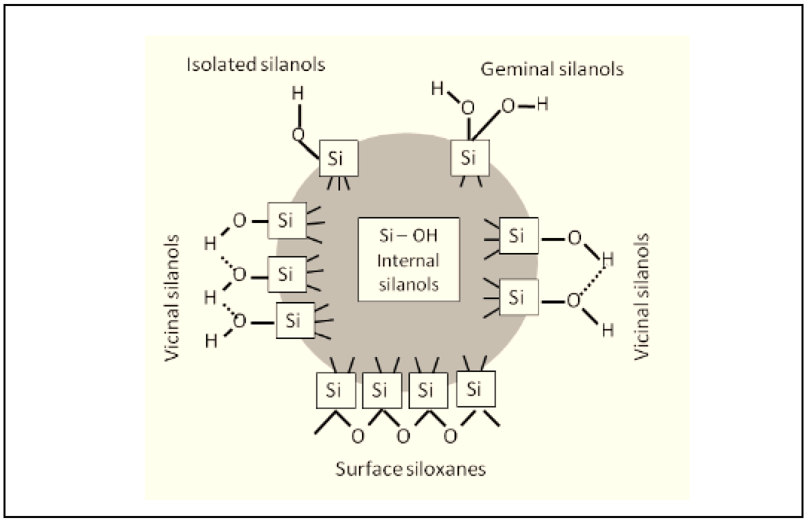

Figure 2: Illustration of amorphous silica particle (after Zhuravlev, 2000)

Amorphous silicas are known to be strong adsorbents due to the surface silanol groups. These groups are known to bind metals and metal oxides (Zhuravlev, 2000) to form what is often referred to as a heterogeneous catalyst.

Heterogeneous catalysis

The use of heterogeneous catalysts to activate peroxygens (primarily hydrogen peroxide) has been documented (Pham et al*.,* 2009), and it has been shown that certain mineral complexes act to increase the kinetics of reactions (Kwan and Voelker, 2003).

A study on the activation of persulfate by native soils and manganese oxide catalysts demonstrated that the native soils employed did not significantly catalyze radical formation, however, the use of manganese oxide precipitates (Bernessite mineral) stimulated the formation of hydroxyl radicals (Ahmad, 2008). These catalytic activities are understood to involve a combination of interactions including effects of the mineral surface itself and electron transfer from metals and metal complexes bound upon the mineral surface. In the case of the PersulfOx catalyst, the mechanism by which it operates to stimulate degradation of the target contaminants appears to be similar in complexity and to involve a suite of surface-mediated reactions. These include contaminant/catalyst adsorption and persulfate/catalyst interactions that likely initiate radical formation.

In an effort to better understand the association of the PersulfOx silica catalyst with persulfate and target contaminants, a study of bond energies in the transition from reactant to products was performed (Farone, 2013). One resulting theoretical model is depicted in Figure 3 which shows a portion of the catalyst's silica surface that is binding both the persulfate ion (yellow) and a benzene molecule (black) in close proximity. This binding in close association allows for much greater degree of interaction when compared to the bulk solution thereby substantially increasing the rates of reaction. This catalytic effect is only further enhanced by the deposition of metals or metal oxide upon the catalytic surface.

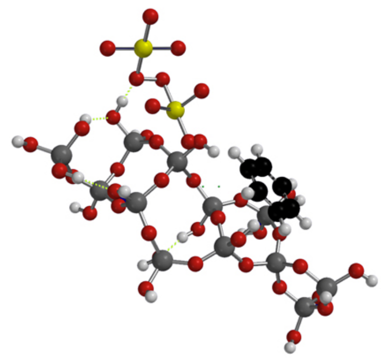

Figure 3: Benzene and Persulfate Adsorbed upon the Catalyst

5.0 Performance of PersulfOx

5.1 Completely soluble alkaline solution

PersulfOx is available as a pre-mixed single component product. Most applications of the product call for it to be mixed with water to a concentration range of 10% to 20% w/w. The mixture is completely soluble at standard temperature and pressure. In the field, mixing time may vary with water temperature and hardness, in some cases requiring several minutes of vigorous mixing to attain complete solution. The resulting mixture has a pH >11.

5.2 Formation of the heterogeneous catalyst

As mentioned above, if the pH of the system drops into the neutral range, alkaline activation will drop off and radical propagation slows. The PersulfOx product, once in this pH range forms a colloidal amorphous silica catalyst which serves to bind both the contaminant and other metal/metal oxide species upon its surface. This suspended colloidal silica complex can then serve as a heterogeneous catalyst mediating surface reactions between the target contaminants and persulfate.

Figure 4: Formation of the PersulfOx Catalyst

Beaker #1 PersulfOx and water solution resulting in pH 11

Beaker #2 Formation of the PersulfOx Catalyst in PersulfOx and water solution post addition of 10% wt/wt solution of H_2SO_4 resulting in pH 7

5.3 Comparative studies

In the use of persulfate as an oxidant for environmental remediation the most popular form of traditional activation in recent years has been alkaline activation. For this reason the majority of comparative activation research conducted to date on the PersulfOx chemistry has been in comparison to alkaline activation. To date, studies have been conducted on the chlorinated ethene series, chlorinated ethanes, benzene, toluene, ethyl benzenes, etc. Performance by PersulOx in degrading contaminants is very similar to that of alkaline activation, with the majority of tests conducted to date showing nearly identical results in terms of percent contaminant degraded over the test period.

For example, in a comparative performance study employing alkaline activated persulfate (Klozur®[3]) versus PersulfOx , the systems degraded 99% and 96% of the benzene present , respectively, over the course of the seven day study (Regenesis, 2012). Results are depicted in Figure 5.

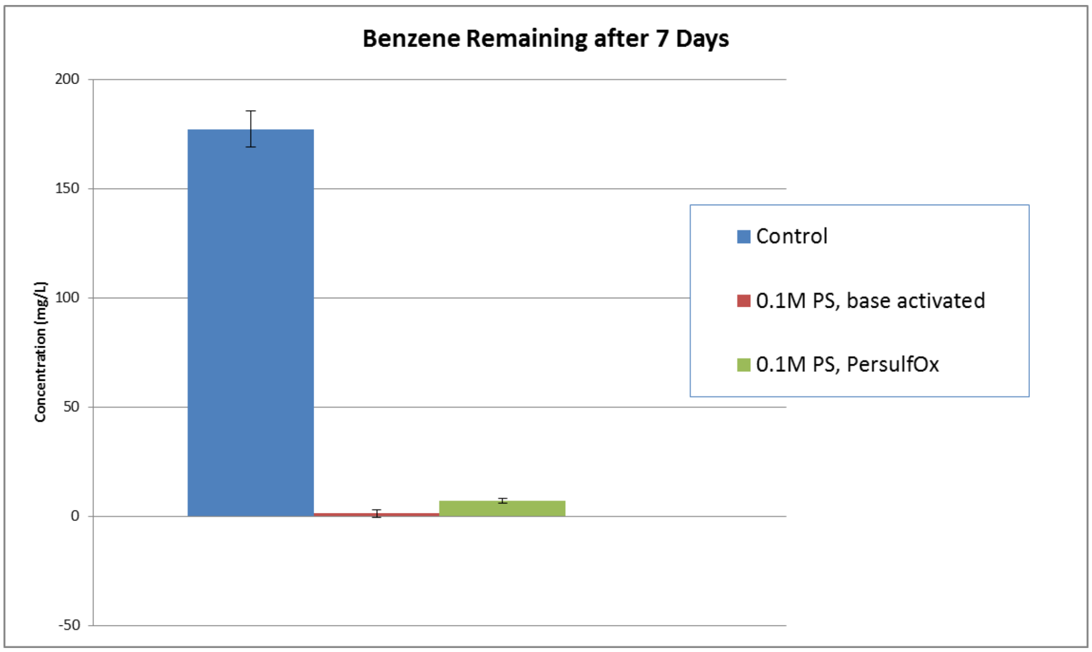

Figure 5: Performance of PersulfOx vs alkaline activated persulfate

Important to note, however, was that in order to achieve this level of performance, the alkaline activated system was supplied with a <u>non-limiting supply of base</u> (sodium hydroxide) which is a very difficult and expensive endeavor in practical field application. In contrast, the PersulfOx was simply

[3] Klozur® is a registered trademark of FMC corporation, Philadelphia, PA

added to the test water with no amendments. The final pH of the alkaline activated system upon termination was 12.82 versus 8.12 for the PersulfOx.

5.4 Field performance

Results of actual field projects where PersulfOx has been applied to degrade organic contaminants *in situ* have corroborated laboratory data. PersulfOx has been shown to stimulate the degradation of contaminants as effectively as traditionally activated persulfate, without having to apply activator solutions. This generally results in considerable savings in costs to the project.

In a well-documented independent project study involving a side-by-side *in situ* treatment of BTEX (Figure 6) and petroleum hydrocarbons in the C10-C16 range (Figure 7) , it was shown that PersulfOx performed at a higher level than activated persulfate when in the subsurface (McGregor, 2013). In this case, two similar areas of a contaminated aquifer were treated similarly by alkaline activated persulfate over a period of two years. One area was then treated with PersulfOx (prototype formulation), while the other was treated again with alkaline activated persulfate. As can be seen from groundwater monitoring data (see Figure 6), in the PersulfOx treated area, both BTEX and C10-C16 hydrocarbons were significantly degraded, while the alkaline activated persulfate area shows only moderate declines.

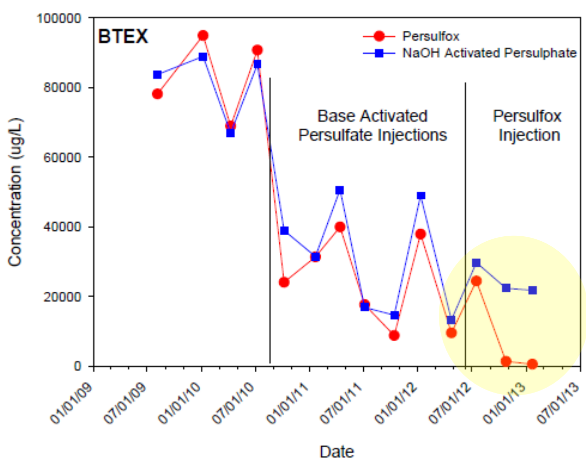

Figure 6. Field Data Depicting Comparative Performance of PersulfOx and Alkaline Activated Persulfate (Klozur®[1]). Highlighted area shows impact of PersulfOx for treatment of petroleum hydrocarbons in the BTEX range.

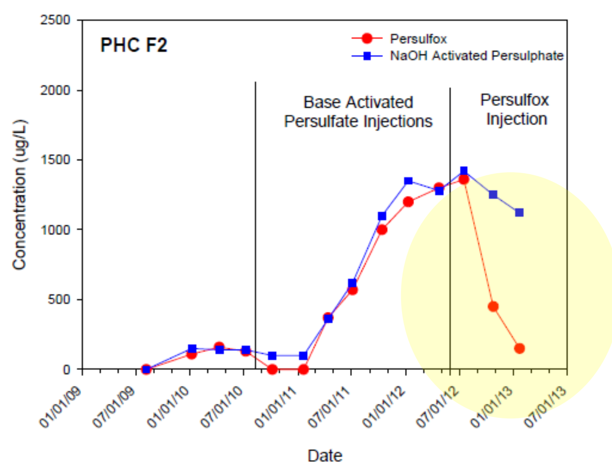

Figure 7. Field Data Depicting Comparative Performance of PersulfOx and Alkaline Activated Persulfate (Klozur®[1]). Highlighted area shows impact of PersulfOx for treatment of petroleum hydrocarbons in the F2 (C10 to C16) range.

Investigative work was then conducted on the study site to determine the effectiveness of the activation technologies by collecting data from hundreds of discrete data points in three dimensions. Results showed that in the alkaline activated persulfate treatment area, the required alkaline conditions were not sustained. Initially the area was injected with sodium hydroxide and persulfate (Klozur®[4]) at pH >12; but within 48 hours, the pH had dropped well below pH 11. Thus, the treatment had moved below the pH range that stimulates radical production and efficient oxidation of the target contaminant species (BTEX). In order to maintain efficient persulfate oxidation, this area would require yet another injection of sodium hydroxide.

In the PersulfOx treated area, however, the PersulfOx catalyst concentration (as suspended amorphous silica) remained within 80% of its initial concentration throughout the first 96 hours following the injection, allowing for continued efficient production of radicals and ultimate oxidation of the target contaminants.

A comparison of the average data collected for each study area is presented in Figure 8. The vertical target zone for injection was 2-3 meters below ground surface (mbgs).

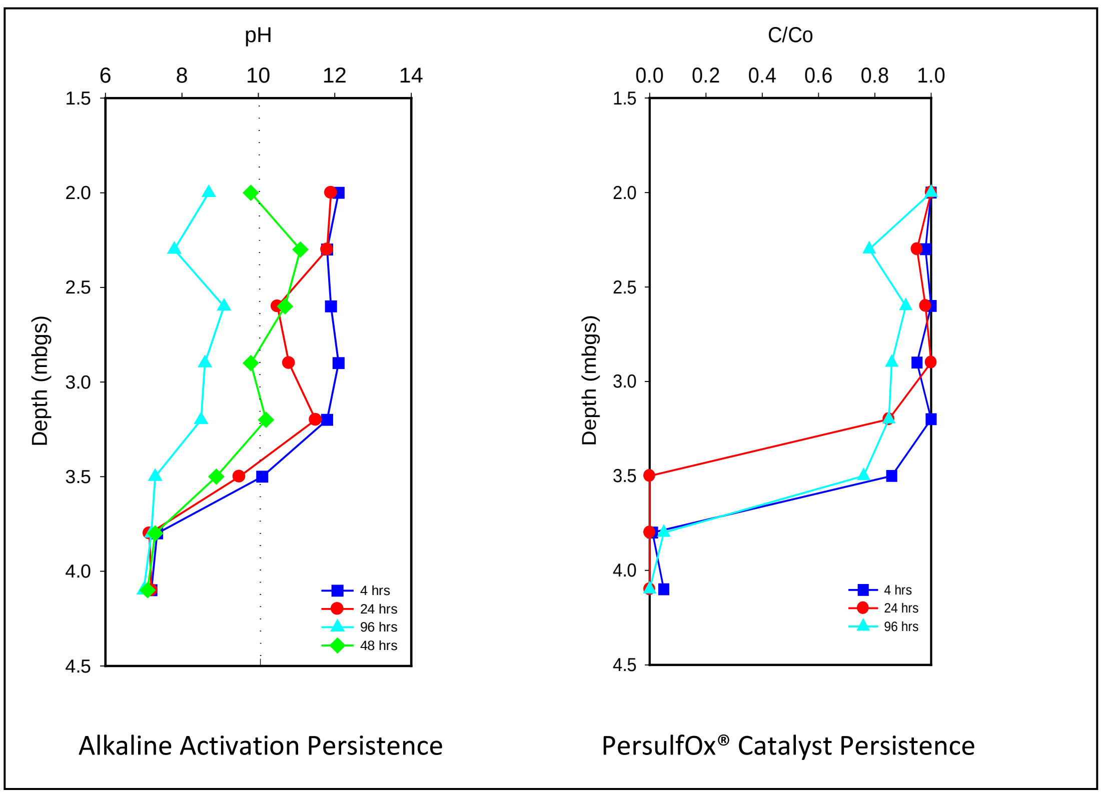

Figure 8: Persistence of Activation within Subsurface with Time

6.0 Range of Treatable Contaminants

Testing conducted to date indicates that the range of organic contaminants treated by PersulfOx is similar to that of alkaline activated persulfate (Regenesis, 2012):

- Aliphatic hydrocarbons (total petroleum hydrocarbons- TPH))
- Benzene, toluene, ethylbenzene, xylenes (BTEX)
- Chlorinated ethenes (e.g. perchloroethene, trichloroethene)
- Chlorinated ethanes (e.g. trichloroethane)
- Oxygenates (e.g. MTBE, TBA, 1,4,-dioxane)

7.0 Summary

Chemical oxidation has been a widely practiced remediation strategy to achieve rapid reductions of organic contaminants in groundwater, soils, and other environmental media. Persulfate, an oxidant used in environmental remediation, has historically been activated using the co-application of additional chemicals that are often costly to apply and can present a significant safety hazard on-site. PersulfOx, an all-in-one chemical product, promises to lower the cost and improve the safety of persulfate-based remediation projects by employing both alkaline activation and an advanced catalyst system.

Literature Cited

Ahmad, M. 2008. Persulfate Activation by Major Soil Minerals. Masters Thesis, Washington State University, Department of Civil and Environmental Engineering.

Block, P. A., R.A. Brown, D. Robinson. 2004. Novel Activation Technologies for Sodium Persulfate *In Situ* Chemical Oxidation. Proceedings, Fourth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, CA, USA. May 24-27.

Bossmann, S.H., E. Oliveros, S. Gob, S. Siegwart, E.P Dahlen, L. Payawan, M. Straub, M. Worner, A. M. Braun. 1998. New evidence against hydroxyl radicals as reactive intermediates in the thermal and photochemically enhanced Fenton reactions. Journ. Phys. Chem. 102: 5542-5550.

Crimi, M.L. and J. Taylor. 2007. Experimental evaluation of catalyzed hydrogen peroxide and sodium persulfate for destruction of BTEX contaminants. Soil Sediment Contam. 16: 29-45.

Cronk G. and R. Cartwright. 2006. Optimization of a Chemical Oxidation Treatment Train Process for Groundwater Remediation. Proceedings, Fifth International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, CA, USA. May 22-25.

House, D. A. 1962. Kinetics and mechanisms of oxidations by peroxydisulfate. Chem. Rev. 62: 185-203.

Farone, W.A. and M.H. Azad. 2010. US Patent 7,833,423.

Farone, W. A. 2013. Personal communication on research performed at Applied Power Concepts, Anaheim, CA. USA.

Furman, O.S., A. L. Teel, and R.J.Watts. 2010. Mechanism of base activation of persulfate. Env. Sci. Technol; 44 (16): 6423-6428.

Goyne, K.W., J. Chorover, A.R. Zimmerman, S. Komarneni and S.L. Brantley. 2004. Influence of mesoporosity on the sorption of 2,4,-dichlorophenoxyacetic acid onto alumina and silica. Journ. Colloid and Interf. Sci., 272:10-20

Huie, R. E. , C.L. Clifton, and P. Neta, 1991. Electron transfer reaction rates and equilibria of the carbonate and sulfate radial anions. Int. J. Rad. Appl. Instrum. C Radiat. Phys. Chem. 38:477-481.

Kwan WP, Voelker BM. 2003. Rates of hydroxyl radical generation and organic compound oxidation in mineral-catalyzed Fenton-like systems. Environ.l Sci. & Tech. 37(6): 1150–1158.

Liang, C., C. J. Bruell, M.C. Marley, K. L. Sperry. 2003. Thermally activated persulfate oxidation of trichloroethylene and 1,1,1-trichloroethane in aqueous systems and soil slurries. Soil Sediment Contam. 12: 207-228.

Liang,C , C. J. Bruell, M.C. Marley, K. L. Sperry. 2004. Persulfate oxidation for *in situ* remediation of TCE activated by chelated ferrous ion. Chemosphere 55: 1225-1233.

McGregor, R. 2013. Remediation Field Studies Evaluating the Effectiveness of Catalyzed Persulfate (PersulfOx™) vs. Activated Persulfate. Regenesis Seminar Series. www.regenesis.com. Complete study in press.

Petri, B. G. , R. J. Watts, A. Tsitonaki, M. Crimi, N. Thompson, and A.L. Teel. 2011. *Fundamentals of ISCO Using Persulfate* in: In Situ Chemical Oxidation for Groundwater Remediation, R.L. Siegrist et.al.eds. Springer Press.

Peyton, G.R. 1993. The radical chemistry of persulfate-based total organic carbon analyzers. Marine Chem 41:91-103.

Pham, A. L., L. C. Lee, F. M. Doyle, and D.L Sedlak. 2009. A silica-supported iron oxide catalyst capable of activating hydrogen peroxode at neutral pH values. Environ. Sci. Technol. 43(23):8930-8935.

ITRC- Interstate Technology & Regulatory Council. 2005. Technical and Regulatory Guidance for I*n Situ* Chemical Oxidation of Contaminated Soil and Groundwater, Second Edition. http://www.itrcweb.org//ISCO-2.pdf

Regenesis, 2012. Internal Laboratory Study.

US EPA, 2013. Dense Non-Aqueous Liquids Treatment Technologies: Chemical Oxidation. CLU-IN website. Technology Innovation and Field Services Division. http://www.cluin.org.

Schroth, M. H., M.H. Schroth, M. Oostrom, T. W. Wietsma, and J. D. Istok. 2001. *In situ* oxidation of trichloroethene by permanganate: effects on porous medium hydraulic properties. Journal of Contam. Hydrol., 50: 79-98.

Watts, R. J. 2012. Super Oxide: Recent findings and potential future applications. Presentation at Southeastern *In Situ* Soil and Groundwater Remediation Conference, Raliegh, SC.

Zhuravlev, L.t. . 1999. The Surface Chemistry of Amorphous Silica: The Zhuravlev Model. Colloids and Surfaces A: Physicochemical and Engineering Aspects 173 (2000)1-38.

APPENDIX G

NYSDEC Response Letter to SMP Modifications

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 2
47-40 21st Street, Long Island City, NY 11101
P: (718) 482-4995
www.dec.ny.gov

January 12, 2018

Robert Hendrickson
Quadrum Global
757 3rd Avenue
New York NY 10017

Re: Paragon Paint and Varnish Company
Queens County, BCP # C241108
Modifications to the Site Management Plan (SMP)

Dear Mr. Hendrickson:

On December 1, 2017, the New York State Department of Environmental Conservation (the Department) met with Quadrum Global and Roux Associates to review the project. As a follow-up to that discussion, Roux Associates provided an email on January 9, 2018 which included a summary of proposed changes regarding monitoring, sampling, operation, maintenance and reporting activities. These proposed changes constitute modifications to the Site Management Plan (SMP).

The following SMP modifications are approved:

1. All Site monitoring wells will be gauged for the presence of light non-aqueous phase liquid (LNAPL) on a quarterly basis in lieu of gauging select wells on a monthly basis. The first quarterly gauging event will occur in March 2018.

2. Monthly progress reports are no longer required. A quarterly report will be submitted that details the performance of gauging or sampling events performed at the Site.

3. The groundwater sampling frequency may be reduced to annual, with the next sampling event in June 2018.

4. A formal groundwater monitoring report will be replaced with a tabular summary of groundwater data and a short evaluation of conditions when data is generated. This may be applied to the recent groundwater sampling event performed at the Site in December 2017. The results should be discussed in greater detail in the subsequent Periodic Review Report (PRR). The first PRR for the Site is due April 15, 2018.

5. Since no LNAPL has been recovered by the on-site system in the past year, the LNAPL recovery system may be shut down. The system should remain in-place in the event that future monitoring events identify recoverable LNAPL. The system may be decommissioned when the Site is redeveloped. LNAPL recovery will continue manually with bailers and/or oil absorbing socks/pads on a quarterly basis, as needed.

Within 30 days of the date of this letter, please submit revised sections of the SMP for the approvals listed above. Upon approval of these sections, a revised SMP must be submitted to the Department.

If you have any questions or would like to schedule a meeting to discuss this letter, please contact me at (718) 482-4891 or sondra.martinkat@dec.ny.gov.

Sincerely,

Sondra Martinkat
Project Manager

ec: Jane O'Connell, Gerard Burke, Karen Mintzer – NYSDEC
Anthony Perretta – NYSDOH
Matthew Baron – CSC Realty LLC
Omar Ramotar – Roux Associates/Remedial Engineering PC
Larry Schnapf – Schnapf Law
Brent Carrier – Vernon 4540 Realty LLC

cc: Angela Krevey – Anabel Beach, Inc.
Donald Rattner – 549 46th Ave LLC

APPENDIX H

Formal Groundwater Monitoring Reports

From: Jordanna Kendrot
Sent: Monday, January 11, 2016 5:15 PM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin
Subject: Progress Report December 2015 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

During this reporting period the following major Site activities occurred:

The excavation footprint located beneath the odor-suppression tent was completed as per the RAWP. The final depth of the excavation was dependent on sample results or encountering bedrock. Upon a clean analysis or reaching bedrock, the area was backfilled with approved for re-use site soils (original 0-5 ft bls pre-characterized soil from the courtyard excavation) or imported RCA.

- Approximately 2880 CY (144 loads) of clean 1”-5” RCA was imported to the Site from Liberty Aggregates LLC to be used as backfill.
- Approximately 2618 CY (119 loads) of pre-characterized nonhazardous material was excavated from inside the tent was transported off-site for disposal to one of the following facilities: Clean Earth- Carteret, Berks County Landfill, Cumberland County Landfill, or Greentree County Landfill.
- Dished UST D-4 was removed from the excavation after being cleaned in-place and will be disposed off-Site.
- A concrete slab was uncovered from 11 ft bls to 13 ft bls within the southern portion of the courtyard excavation. Soil samples were collected from beneath the slab during excavation activities. As per email correspondence, NYSDEC has approved leaving the concrete slab in place and to treat any residual soil exceeding Site-specific cleanup criteria with in-situ chemical oxidation (ISCO) injections as described in the RAWP.

The Excavation of garage soil was completed to approximately 3 feet below the surface of the USTs. Backfill was completed using re-usable soil previously excavated and imported RCA. The contents of the UST were removed by-hand and containerized in either 55-gallon drums or 275 gallon totes. The contents were disposed off-Site either in these containers by a certified hauler or in the case of liquid-state material, was disposed off-Site by use of a Vac truck.

- 110 55-gallon drums were removed off-Site;
- 5 275-gallon totes were removed off-Site; and
- 14,316 gallons were removed off-Site.

The status of backfilling USTs located inside the garage area is noted below:

- GT-3A, GT-3B, GT-4A, and half of GT-5A were backfilled with material from stockpile SP-Garage;
- GT-1, GT-2, half of GT-5A, GT-5B, and GT-C were backfilled with clean 1.5” RCA; and
- GT-6 was not backfilled during this reporting period, but will be backfilled with flowable fill.

Confirmatory UST samples were collected from the garage USTs post-cleaning as per the NYSDEC approved Tank Closure Design Plan dated November 18, 2015. The inside wall of each UST was cut using power tools and, if concrete was not encountered, a sidewall sample was collected. The status of collecting sidewall samples from these USTs are noted below:

- UST sidewall samples GT-3A-W-SW-9, GT-2-N-SW-9 and GT-1-E-SW-9 were the only locations that did not present concrete refusal for sample locations in GT-1, GT-2, GT-3A, GT-3B, GT-4A, GT-4B, and GT-5A.
- USTs GT-1, GT-2, GT-3A, GT-3B, GT-4A, GT-4B, GT-5A, GT-5B and GT-5C are all certified to be clean and all sidewall samples from the listed tanks were collected or concrete refusal was identified at the proposed sample location.

Dust was mitigated by applying water as necessary during soil movement activities. Foam suppressant was used to control odors from the excavation during soil movement and loadout and has been applied to the bed of dump trucks as necessary. No dust or VOC exceedances were recorded during the month of December 2015.

<u>Sampling/Sample Results:</u>

The sample results discussed herein were received during this reporting period and will be validated and provided to the NYSDEC as part of the Final Engineering Report.

<u>Post-Excavation Samples (Courtyard):</u>

- 3 sidewall samples were collected from the excavation through the excavation support system (PD-04C/8-10, PD-11/4-6 and PD-01/4-6):
  - Analytical results from PD-04C/8-10 did not exceed Site-specific cleanup criteria and no further action is required.
  - Analytical results from PD-11/4-6 and PD-01/4-6 exceeded Site-specific cleanup criteria. The residual contamination will be treated with ISCO injections in the post-remediation phase.
- 5 bottom soil samples were collected from the NW SC-04 excavation footprint from 14ft to 17 ft bls (SC-04-NE-B-14R, SC-05-NW-B-15, SC-05-NE-B-15.5, SC-05-NW-B-15.5S and SC-05-NW-B-17S):
  - Analytical results show the following samples did not exceed Site-specific cleanup criteria and no further action is required:
    - SC-04-NE-B-14R;
    - SC-05-NE-B-15.5;
    - SC-05-NW-B-15.5S; and
    - SC-05-NW-B-17S.
  - Analytical results from SC-05-NW-B-15 exceeded Site-specific cleanup criteria and was addressed with further excavation. This location was resampled as “SC-05-NW-B-15.5S” and did not exceed Site-specific criteria.
- 4 sub-slab samples were collected from the slab encountered at 11-13 ft bls on the south perimeter of the tent excavation (SC-04-SW-B-13S, SC-04-SE-B-13S, SC-04-SE-B-13SR, and SC-05-SW-B-13):
  - Analytical results show the following samples came back with no exceedances;
    - SC-04-SW-B-13S.
  - Analytical results show the following samples exceeded Site-specific cleanup criteria and, as per NYSDEC response, the residual contamination will be treated with ISCO injections in the post-remediation phase:
    - SC-04-SE-B-13S;
    - SC-04-SE-B-13SR; and
    - SC-05-SW-B-13S.

<u>Waste Characterization Samples (Soil and UST Liquid/Solid Contents):</u>

- Roux collected soil characterization sample SC-06/9-16 for disposal purposes.
- SCE collected waste samples for profiling purposes from material contained in UST GT-3B (hard gel) on 12/1/15.

- SCE collected waste samples for profiling purposes from oily water generated from dewatering the excavation on 12/1/15.

Post-Injection Groundwater Monitoring Samples:

- Roux collected groundwater samples from monitoring wells MW-19, and MW-38; both monitoring wells are located in the area recently injected with RegenOx®. Results of all groundwater sampling on-Site will be completed under a separate cover to document the effectiveness of the implemented ISCO injection phase of work.

Planned Actions:

The following activities are scheduled for the next reporting period (January 1, 2015 through January 31, 2016):

- Completion of the Remedial Action;
- Continued preparation of Final Engineering Report; and
- Submittal of the completed RCRA Closure Completion Report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Draft Site Management Plan was submitted to NYSDEC on October 23, 2015. Comments from the NYSDEC have not been received to date.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

As per the RCRA Closure Plan, a Closure Completion Report will be submitted to NYSDEC under separate cover during the next reporting period.

Please do not hesitate to contact me, Richard Maxwell or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
We solve our clients' most challenging environmental problems.

From:	Jordanna Kendrot
Sent:	Wednesday, February 10, 2016 1:23 PM
To:	Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc:	O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; Rachel Henke
Subject:	Progress Report January 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

During this reporting period the following major Site activities occurred:

The excavation footprint located beneath the odor-suppression tent was completed during the last reporting period as per the RAWP. The area was backfilled with imported RCA to restore to original grade elevation.

- 965.86 tons (40 loads) of clean 1"-5" RCA were imported to the Site from Liberty Aggregates LLC;
- Dished underground storage tanks (UST) D-5 was removed from the excavation after being cleaned in-place and was disposed off-Site with previously removed UST D-4. Wastes generated from the cleaning are currently staged on-Site to be disposed of at a later date:
    - 2 55-gallons drums
    - 3 275-gallon totes
- The tent surrounding the footprint was disassembled and shipped off-Site; and
- 5,160 gallons of oily water dewatered from the excavation were shipped off-Site for treatment and disposal.

The excavation of the area to the south of the tent footprint was completed as per the RAWP. The final depth of the excavation was 11 feet below level surface (ft bls), where the previously documented concrete slab is located. The excavation was split into three sections based on previous pre-delineation samples PD-06, PD-07 and PD-08 and the final horizontal extent of the excavation areas was dependent on sample results, encountering grossly contaminated material, or not exceeding the required excavation sloping (1:1) that was implemented to prevent structure collapse (see attached figure). The area was backfilled with imported RCA to restore to original grade elevation; this RCA was taken from the tent footprint backfilled area.

- 849.60 tons (29 loads) of pre-characterized non-hazardous material was excavated and transported off-site for disposal to Cumberland County Landfill.
- The excavation area associated with sample PD-06 was extended both west and south due to the presence of grossly contaminated material. Western excavation was completed to 1.5 feet off the border of the site due to the presence of a subgrade retaining wall that surrounded the former 20,000-gallon courtyard USTs. The excavation was extended south until 1:1 sloping off of the warehouse building limited the excavation. When excavation activities were completed in the driveway, described below, the excavation was further extended south due to the presence of grossly contaminated material.
- The excavation associated with sample PD-07 was bordered by PD-06 and PD-08 excavation areas, so it did not expand to the west or east. The area extended to the south until a clean sample was collected.

- The excavation associated with sample PD-08 was extended both south and east. Additionally sampling was completed (PD-12) to further document the sub-surface delineation marked by the eastern sidewall of the subgrade retaining wall that surrounded the former 20,000-gallon courtyard USTs. The area extended to the east until it was limited by UST GT-6 or by the concrete and brick encasement around part of UST GT-6. The excavation was extended south until 1:1 slopping off the warehouse and boiler room limited the excavation.

The excavation of the driveway near preexisting monitoring wells MW-12 and MW-13 was completed using a 10' by 20' slide-rail excavation system. The area was backfilled with imported RCA to restore to original grade elevation; this RCA was taken from the tent footprint backfilled area.

- 225.38 tons (8 loads) of pre-characterized nonhazardous material was excavated and transported off-site for disposal to Cumberland County Landfill.
- The excavation was extended to 17.5 ft bls due to the presence of grossly contaminated material. Due to machinery and shoring limitations, further excavation could not be completed to remove grossly impacted material beyond the noted depth.

The status of backfilling USTs located inside the garage area is noted below:

- GT-1, GT-2, GT-3A, GT-3B, GT-4A GT-5A, GT-5B, and GT-5C were backfilled during the previous reporting period;
- GT-6 was not backfilled during this reporting period, but will be backfilled with RCA.

Confirmatory UST samples were collected from beneath the concrete slab where the dished USTs were located prior to removal and off-Site disposal. Samples were completed using a drill rig to sample through the concrete slab. Five (5) bottom soil samples were completed for the dished USTs at a depth of 11-13 ft bls and three (3) sidewall samples were collected for the dished USTs at 6-7 ft bls.

Confirmatory UST samples were collected from the garage USTs post-cleaning using a drill rig as per the NYSDEC approved Tank Closure Design Plan dated November 18, 2015. Bottom samples were collected through the concrete slab that was encountered beneath the garage USTs. Three (3) bottom soil samples were collected either below the sub-slab concrete located in the garage, with a final depth not exceeding 17 ft bls, where non-impacted material was observed. Monitoring wells were installed at the bottom sampling locations after samples were collected. Three (3) sidewall samples were completed at UST GT-6 from 6.5- 9 ft bls.

The spent activated carbon from the TIGG air filtration unit was removed from the unit and stockpiled on-Site prior to off-Site disposal. Approximately 22 cubic yards of material was removed and transported off-site for disposal to Cumberland County Landfill

Dust was mitigated by applying water as necessary during soil movement activities, RCA stockpiling and load out of spent carbon. Foam suppressant was used to control odors from the excavation during soil movement and loadout and has been applied to the bed of dump trucks as necessary. No dust or VOC exceedances were recorded during the month of January 2016.

Sampling/Sample Results:

The sample results discussed herein were received during this reporting period and will be validated and provided to the NYSDEC as part of the Final Engineering Report.

Post-Excavation Samples (Courtyard):

- 5 sidewall samples were collected from the excavation completed to the south of the tent excavation footprint (PD-06B/9-11, PD-07B/9-11, PD-09/4-6, PD-12-S-SW-4-6, and PD-12-W-SW-4-6):
    - Analytical results from PD-07B/9-11 and PD-09/4-6 did not exceed Site-specific cleanup criteria and no further action is required.
    - Analytical results show the following samples came back with exceedances of Site-specific cleanup criteria. The residual contamination will be treated with ISCO injections in the post-remediation phase:

        - PD-06B/9-11;
        - PD-12-S-SW-4-6; and
        - PD-12-W-SW-4-6.
- 1 bottom soil sample was collected from the excavation completed to the south of the tent excavation footprint (PD-12-S-B-11-13):
    - Analytical results from PD-12-S-B-11-13 exceeded Site-specific cleanup but the excavation could not be extended due to the location of the garage foundation (the sample was collected under the foundation) and the presence of large boulders that could not be removed. The residual contamination will be treated with ISCO injections in the post-remediation phase

<u>Post-Excavation Samples (Driveway):</u>

- 4 sidewall samples were collected from the driveway excavation before dropping the excavation support system (Driveway-S-SW-6-8, Driveway-E-SW-6-8, Driveway-W-SW-6-8, and Driveway-N-SW-6-8):
    - Analytical results show the following samples came back with no exceedances;
        - Driveway-S-SW-6-8;
        - Driveway-E-SW-6-8; and
        - Driveway-W-SW-6-8
    - Analytical results from Driveway-N-SW exceeded Site-specific cleanup criteria. The excavation was extended north into excavation being completed outside the tent footprint to remove all accessible grossly contaminated material..
- 2 bottom soil samples were collected from the driveway excavation (Driveway-B-14, and Driveway-B-17.5):
    - Analytical results from Driveway-B-14 exceeded Site-specific cleanup criteria and was addressed with further excavation. This location was resampled as "Driveway-B-17.5", which still exceeded Site-specific criteria. Due to machinery and shoring limitations, further excavation could not be completed to remove grossly impacted material beyond the noted depth. The residual contamination will be treated with ISCO injections in the post-remediation phase and by the recovery well system to be installed as per the Site Management Plan (SMP).

<u>Confirmatory UST Samples (Courtyard):</u>

- 5 sub-slab bottom samples were collected from the slab encountered below the dished USTs located in the tent excavation footprint (D-1 B/10-12, D-2 B/10-12, D-3 B/10-12, D-4 B/10-12, and D-5 B/10-12).
    - Analytical results show that the five (5) sub-slab bottom samples exceeded Site-specific cleanup criteria and, as per NYSDEC response, the residual contamination will be treated with ISCO injections in the post-remediation phase and by the recovery well system to be installed as per the SMP.
- 3 post-excavation sidewall samples were collected from the previous location of dished USTs D-4 and D-5 (D-4 East/6-7, D-5 East/6-7, and D-5 South/6-7)
    - Analytical results show the three (3) sidewall samples did not exceeded Site-specific cleanup criteria.

<u>Confirmatory UST Samples (Garage):</u>

- 3 sub-slab bottom samples were collected from the slab encountered below the garage USTs (GT-4A-E-B/16-17, GT-5C-W-B/9-11, and GT-5C-W-B/15-17).
    - Analytical results from GT-4A-E-B/16-17 did not exceed Site-specific cleanup criteria and no further action is required.
    - Analytical results from GT-5C-W-B/9-11 exceeded Site-specific cleanup criteria and the area was resampled to determine the extent of contamination. This location was resampled at a deeper depth as "GT-5C-W-B/15-17", which no longer exceeded Site-specific criteria. The residual contamination located above 17 ft bls will be treated with ISCO injections in the post-remediation phase and by the recovery well system to be installed as per the SMP.
- 3 sidewall samples were collected from the garage USTs (GT-6-W-SW-9, GT-6-E-SW/7-9, and GT-6-N-SW/6.5-8.5)

- Analytical results show that the three (3) sidewall samples did not exceeded Site-specific cleanup criteria and no further action is required.

Waste Characterization Samples (Soil and UST Liquid/Solid Contents):

- No waste characterization samples were collected during this reporting period.

Six-week Post-Injection Groundwater Monitoring Samples:

- Roux collected groundwater samples from six (6) monitoring wells; MW-2R, MW-7R, MW-19, MW-33, MW-34, MW-37, and MW-38. These monitoring wells are located in or adjacent to the area recently injected with RegenOx®. Results of all groundwater sampling on-Site will be completed under a separate cover to document the effectiveness of the implemented ISCO injection phase of work.

Planned Actions:

The following activities are scheduled for the next reporting period (February 1, 2016 through February 29, 2016):

- Completion of the Remedial Action;
- Continued preparation of Final Engineering Report; and
- Submittal of the completed RCRA Closure Completion Report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Draft Site Management Plan was submitted to NYSDEC on October 23, 2015. Comments from the NYSDEC have not been received to date.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

As per the RCRA Closure Plan, a Closure Completion Report will be submitted to NYSDEC under separate cover during the next reporting period.

Please do not hesitate to contact me, Richard Maxwell or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
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From: Jordanna Kendrot
Sent: Thursday, March 10, 2016 7:23 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; Rachel Henke
Subject: Progress Report February 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

During this reporting period the following major Site activities occurred:

The excavation footprint located beneath the odor-suppression tent, the area to the south of the tent footprint, and 10’ by 20’ slide-rail excavation of the driveway was completed during the last reporting period as per the RAWP. These areas were backfilled with imported RCA to restore to original grade elevation or to provide an additional 2’ RCA cap in areas where reusable soil was used or native impacted material was undisturbed.

- 709.10 tons (32 loads) of clean 1”-5” RCA were imported to the Site from Liberty Aggregates LLC;
- 943 gallons of oily water dewatered from the excavation were shipped off-Site for treatment and disposal. Frac tanks (x2) were demobilized offsite and the area where frac tanks were staged was decontaminated;
- Whalers, rakers, and toe pins were removed to approximately 3 to 5 ft bls or cut and shipped off-Site for disposal;
- Approximately 115 CY (7 loads) of clean, non-impacted concrete were shipped off-Site for disposal; and
- All sheets installed for the remedial excavation were removed; x23 sheets pulled from excavation footprint perimeter were decontaminated for off-Site removal

Dust was mitigated by applying water as necessary during RCA mobilization, RCA stockpile management, and load out of concrete. Foam suppressant was not used during this reporting period. No dust or VOC exceedances were recorded during the month of February 2016.

A hole was cut in the top surface of garage UST GT-6 and approximately 120 CY of flowable fill was used to backfill and abandon the UST in place. All USTs located inside the garage have been abandoned in place and backfilled using either RCA, reusable soil from the garage, or flowable fill.

Installation of the LNAPL recovery system, which will be used to reduce mobile LNAPL on-Site and prevent off-Site migration during the SMP phase, has begun during this reporting period. The LNAPL recovery system will be installed as per the RAWP.

- 5 recovery wells (RW-1 through RW-5) and associated trenches were installed;
- x1 truck load of clean sand delivered to site (26.63 tons) was used as piping protection from backfilling activities. Sand came from a NYSDEC-permitted virgin mining pit, NY Sand and Stone, LLC;
- Piping was installed on 4" of clean, virgin-source sand and backfilled with 6" of virgin-source sand prior to backfilling with reusable site soils or RCA. Caution tape was placed at 6" bls to mark recovery system layout;
- PVC piping was used for the recovery system to protect recovery components as follows:

- 2” PVC for RW-1 recovery components to RW-3 vault box;
    - 2” PVC for RW-2 recovery components to RW-3 vault box;
    - 4” PVC for RW-1, RW-2, and RW-3 recovery components to the pull box;
    - 2” PVC for RW-4 recovery components to the pull box; and
    - 2” PVC for RW-5 recovery components to the pull box.
- Recovery components for RW-4 and RW-5 (air lines and product recovery tubing) were pulled to the pull box; and
- Damage to RW-3 vault will be repaired during the March 2016 reporting session to allow complete installation and startup of the LNAPL recovery system.

Sampling/Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (March 1, 2016 through March 31, 2016):

- Startup of the LNAPL Recovery System;
- Completion of the Remedial Action; and
- Continued preparation of Final Engineering Report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Draft Site Management Plan was submitted to NYSDEC on October 23, 2015. Comments from the NYSDEC have not been received to date.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

As per the RCRA Closure Plan, the Closure Completion Report was submitted to NYSDEC on February 12, 2016.

Please do not hesitate to contact me, Richard Maxwell or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
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From: Jordanna Kendrot
Sent: Monday, April 11, 2016 4:51 PM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; Rachel Henke
Subject: Progress Report March 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

During this reporting period the following major Site activities occurred:

The excavation footprint located beneath the odor-suppression tent, the area to the south of the tent footprint, and 10' by 20' slide-rail excavation of the driveway was completed during the last reporting period as per the RAWP. These areas were backfilled with imported RCA to restore to original grade elevation or to provide an additional 2' RCA cap in areas where reusable soil was used or native impacted material was undisturbed.

- 5 loads of clean 3/4" RCA (approximately 140 tons) were imported to the Site from Liberty Aggregates LLC;
- Final grading of site was completed using RCA;
- x49 sheets pulled from excavation footprint perimeter were wet decontaminated prior to off-Site removal;
- All sheets installed for the remedial excavation were removed off-Site;
- A 2' RCA cap above final grade was installed along the north-east corner and perimeter of tent excavation footprint as engineering control; and
- Asphalt cover installed in driveway, west and north perimeter of the Site, and south of tent excavation footprint.

Dust and odor mitigation was not utilized during this reporting period due to no impacted material being present on-Site to generate odors or excessive fugitive dust.

Completed installation of the LNAPL recovery system, which will be used to reduce mobile LNAPL on-Site and prevent off-Site migration during the SMP phase. The LNAPL recovery system was installed as per the RAWP, with the recovery wells and trenches installed during the previous reporting period.

- Damage to RW-3 vault was repaired during this reporting period.
- Recovery well vaults RW-1 and RW-2 and monitoring wells MW-2 and MW-33 were raised and had concrete re-poured prior to asphalt installation.
- Recovery components for recovery wells RW-1 through RW-5 (air lines and product recovery tubing) were pulled into the Paint Factory Building and connected to the 55-gallon product recovery drum and control panel; and
- Initial system start up for product recovery from recovery wells RW-2, RW-3 and RW-5. Recovery wells RW-1 and RW-4 not programmed into system due to lack of monitored product, but will be implemented in program once product is determined to be present.

Sampling/Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (April 1 through April 30, 2016):

- Monitoring of the LNAPL Recovery System;
- Completion of the Remedial Action (final waste disposal); and
- Continued preparation of Final Engineering Report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Draft Site Management Plan was submitted to NYSDEC on October 23, 2015. Comments from the NYSDEC have not been received to date.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 3016. Comments from the NYSDEC have not been received to date.

Please do not hesitate to contact me, Richard Maxwell or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
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From: Jordanna Kendrot
Sent: Tuesday, May 10, 2016 6:31 PM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin
Subject: Progress Report April 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

Backfilling of the excavation areas and installation of the LNAPL recovery system were completed the previous reporting period. During this reporting period the following material generated from remedial activities was removed offsite for disposal:

- 9 55-gallon drums of solid and liquid paint residue from cleaning underground storage tank (UST) D-4;
- 2 55-gallon drums of solid and liquid paint residue from cleaning UST D-5;
- 1 55-gallons drum containerizing the chalk removed and separated during excavation activities in the main courtyard;
- 7 55-gallons drums of solid sediment generated from decontaminating the frac tanks;
- 4 55-gallon drums of paint residue from the piping removed throughout excavation activities;
- 4 55-gallon drums of purged groundwater generated during recovery well installation and development;
- 3 275-gallon totes containerizing nonhazardous wastewater from the frac tanks and USTs GT-1, GT-4B and D-5; and
- 1 20 CY container of cleaned piping from the garage and excavation areas.

The LNAPL recovery system is operational and recovering free-product.

Sampling/Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (May 1 through May 31, 2016):

- Monitoring of the LNAPL Recovery System;
- Resubmission of the Site Management Plan; and

- Potential submission of Final Engineering Report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Draft Site Management Plan was submitted to NYSDEC on October 23, 2015. Comments from the NYSDEC have not been received to date. An updated Draft Site Management Plan will be submitted to further document current site conditions and remedial systems installed onsite.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 3016. Comments from the NYSDEC have not been received to date.

Please do not hesitate to contact me, Richard Maxwell or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
We solve our clients' most challenging environmental problems.

From: Jordanna Kendrot
Sent: Friday, June 10, 2016 2:33 PM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; Robert Hendrickson
Subject: Progress Report May 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

During this reporting period, the following Remedial Activities were performed:

- The LNAPL recovery system is operational and recovering free-product. During this reporting period a 55-gallon drum of LNAPL recovered by the LNAPL recovery system was removed offsite for disposal.
- Continued preparation of the Final Engineering Report (FER); and
- Continued preparation of resubmittal of Site Management Plan (SMP).

Sampling/Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (June 1 through June 30, 2016):

- Monitoring of the LNAPL Recovery System;
- Potential resubmission of the Site Management Plan; and
- Potential submission of Final Engineering Report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Draft Site Management Plan was submitted to NYSDEC on October 23, 2015. Comments from the NYSDEC have not been received to date. An updated Draft Site Management Plan will be submitted to further document current site conditions and remedial systems installed onsite.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 3016. Comments from the NYSDEC have not been received to date.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
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From: Jordanna Kendrot
Sent: Monday, July 11, 2016 10:30 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); mbogin@sprlaw.com; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; atill@simonbaron.com; Robert Hendrickson
Subject: Progress Report June 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

During this reporting period, the following Remedial Activities were performed:

- Electronic submittal of the Draft Final Engineering Report (FER) on June 23, 2016; and
- Continued preparation of resubmittal of the Draft Site Management Plan (SMP).

Sampling/Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (July 1 through July 31, 2016):

- Resubmission of the Draft SMP.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Draft SMP was submitted to NYSDEC on October 23, 2015. Comments from the NYSDEC have not been received to date. An updated Draft SMP will be submitted during the July 2016 reporting period to further document current site conditions and remedial systems installed onsite.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
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From: Omar Ramotar
Sent: Monday, December 19, 2016 3:30 PM
To: Jordanna Kendrot
Subject: FW: Progress Report July 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

From: Jordanna Kendrot
Sent: Wednesday, August 10, 2016 11:28 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); mbogin@sprlaw.com; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; atill@simonbaron.com; Robert Hendrickson
Subject: Progress Report July 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

Following removal of the 55-gallon drum containing recovered LNAPL, completed during the previous reporting period, the LNAPL recovery system has experienced difficulties due to the compressor malfunctioning. During this reporting period, the LNAPL recovery was non-operational and did not recover free-product.

The electronic and physical submittal of the Draft Site Management Plan (SMP) was completed on July 11, 2016.

Sampling/Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (August 1 through August 31, 2016):

- Repair the LNAPL recovery system and resume LNAPL recovery.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The updated Draft SMP was submitted to NYSDEC on July 11, 2016. Comments from the NYSDEC have not been received to date.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
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From: Omar Ramotar
Sent: Friday, September 9, 2016 12:07 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); mbogin@sprlaw.com; Jordanna Kendrot; Joe Duminuco; atill@simonbaron.com; Robert Hendrickson
Subject: Progress Report August 2016 - Former Paragon Paint (NYSDEC Site No. C241108)

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Remedial Activities:

As reported the previous period, the LNAPL recovery system was non-operational and did not recover free-product. During maintenance and troubleshooting completed this reporting period, it was determined that the compressor had sustained moisture damage. The compressor was repaired and will be re-installed during the next scheduled site visit. Upon reinstallation and testing the LNAPL recovery system will be fully operational. This is anticipated to occur on September 9, 2016.

Sampling/Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (September 1 through September 30, 2016):

- Preparation and completion of quarterly gauging and collection of groundwater samples from monitoring wells within proposed SMP monitoring network; and
- Installation of repaired compressor in the LNAPL recovery system and resume LNAPL recovery.

These activities are anticipated to be completed by September 9, 2016.

Work Plan Modifications:

No modifications were made to the Work Plan during this reporting period.

Site Management Plan

The updated Draft SMP was submitted to NYSDEC on July 11, 2016. Comments from the NYSDEC were received on August 31, 2016. Comments will be addressed and the revised Draft SMP will be re-submitted to the NYSDEC and NYSDOH within the required 30 day time frame.

Final Engineering Report (FER)

The FER was submitted to NYSDEC on June 23, 2016. Comments from the NYSDEC have not been received to date.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date.

Please do not hesitate to contact our office with any questions or concerns.

Kind Regards,
Omar

Omar Ramotar
Principal Engineer
P.E. - NY, AZ

oramotar@rouxinc.com
Roux Associates, Inc./ Remedial Engineering, P.C.
209 Shafter Street
Islandia, New York 11749
Office: 631-232-2600
Direct No.: 631-630-2339
Fax: 631-232-9898
Cell: 631-553-9274
www.rouxinc.com
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From: Jordanna Kendrot
Sent: Wednesday, October 12, 2016 2:35 PM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report September 2016 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (September 2016).pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Operation, Maintenance and Monitoring Activities:

On September 8, 2016, Roux Associates completed the first post-remediation quarterly groundwater gauging and sampling of monitoring wells to be included in the SMP monitoring network, consisting of 17 monitoring wells. If the presence of free-product was observed, the monitoring well was not sampled. The remainder of monitoring wells were sampled and analyzed for VOCs. During the gauging event, the five recovery wells (RW-1 through RW-5) onsite were gauged to determine the presence of free-product.

During the groundwater sampling on September 8, 2016, the presence of free-product was noted in monitoring wells MW-2R, MW-3, MW-4, MW-7, MW-22, MW-33 and MW-40 and recovery wells RW-3 and RW-4. Free-product that was present in the monitoring wells were manually bailed and removed from the monitoring well. Approximately 1.35 gallons of free-product were removed in total from these monitoring wells, to be stored in the onsite 55-gallon recovery drum.

Free-product had not previously been noted in monitoring wells MW-4 and MW-22. As a result, subsequent Site visits were completed on September 16 and 30, 2016 to confirm observations noted on September 8, 2016. During these visits, the two monitoring wells were gauged again and manually bailed with the following results:

- MW-22: Thickness was 1.38’ on September 8, 2016. 0.25 gallons of free-product removed during gauging event. To confirm presence of free-product observed on September 8, 2016, well gauged again on September 16, 2016. Thickness was 0.29’ on September 16, 2016 (about one foot less). **Trace amounts** of free-product removed during this subsequent Site visit because thickness of free-product in the well was only 0.29’.

- MW-4: Thickness was 0.20’ on September 8, 2016. 0.1 gallons of free-product removed during gauging event. To confirm presence of free-product observed on September 8, 2016, well gauged again on September 16, 2016. Thickness was 0.15’ on September 16, 2016 (about 0.05’ less). **Trace amounts** of free-product removed during this subsequent Site visit because thickness of free-product in the well was only 0.15’.

A summary of the gauging data collected during the reporting period is provided in the attached table. Moving forward, free-product levels at these monitoring wells, as well as other monitoring wells across the entire Site that have product present, will continue to be monitored and respective free-product bailed on a monthly basis. Additional efforts to optimize free-product recovery efforts will be employed, as necessary, in accordance with the Site Management Plan.

As reported during the previous reporting period, the LNAPL recovery system was non-operational and did not recover free-product. On September 29, 2016, the LNAPL recovery system was brought online upon system repair.

Sampling/ Sample Results:

During this reporting period, 11 groundwater samples were collected from the following monitoring wells:

- MW-5
- MW-7R
- MW-10
- MW-11
- MW-19
- MW-21
- MW-34
- MW-37
- MW-38
- MW-41
- MW-42

Monitoring well MW-7R, though not included in the original SMP monitoring network, was sampled in lieu of MW-7 because no product was encountered. The results of this quarterly sampling round will be presented and discussed in a groundwater monitoring report, which will be submitted under separate cover in the upcoming reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (October 1 through October 31, 2016):

- Continued monthly O&M of LNAPL recovery system;
- Continued monthly gauging of monitoring wells within modified SMP monitoring network; and
- Installation of six (6) monitoring wells within the courtyard and former paint factory building.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The updated Draft SMP was submitted to the NYSDEC on July 11, 2016. Comments from the NYSDEC were received on August 31, 2016. Comments were addressed and the revised Draft SMP was re-submitted to the NYSDEC and NYSDOH on October 3, 2016. Additional comments on the Draft SMP raised during Roux Associates meeting with the NYSDEC on October 7, 2016 will require the immediate resubmission of the Draft SMP. The updated draft is anticipated to be submitted during the week of October 17, 2016.

Final Engineering Report

The Draft Final Engineering Report (FER) was submitted to the NYSDEC on June 23, 2016. Comments from the NYSDEC were received on October 6, 2016. Comments will be addressed during the next comment period and the FER is anticipated to be resubmitted to the NYSDEC after the new monitoring wells have been installed and monitored for the presence of free-product. It is anticipated that the FER will be submitted during the week of October 24, 2016.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street

Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
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Table 1. Updated Summary of September 2016 Water Level Elevations and LNAPL Thickness, Former Paragon Paint Manufacturing Facility, Long Island City, New York

Well ID[3]	MPE (ft)	September 8, 2016				September 16, 2016				September 30, 2016				Comments
		DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	
Monitoring Wells														
MW-2R	9.46	7.52	7.59	1.92	0.07	--	--	--	--	--	--	--	--	Trace free-product observed. Free-product has historically been observed at this location. No free-product removed during gauging event. Free-product levels at this monitoring well will continue to be monitored and respective free-product bailed on a monthly basis, to the extent practical.
MW-3	8.44	6.8	8.91	1.11	2.11	--	--	--	--	--	--	--	--	Free-product observed. Free-product has historically been observed at this location. 1 gallon of free-product removed during September 8, 2016 gauging event. Free-product levels at this monitoring well will continue to be monitored and respective free-product bailed on a monthly basis, to the extent practical.
MW-4	11.57	9.98	10.18	1.54	0.2	10.04	10.19	1.49	0.15	10.18	10.22	1.38	0.04	Free-product observed. However, free-product has historically not been observed at this location during prior gauging events (See Note 3). 0.1 gallons of free-product removed during September 8, 2016 gauging event. To confirm presence of free-product observed on September 8, 2016, well regauged on September 16, 2016. Trace amounts of free-product removed during subsequent Site visits. Free-product levels at this monitoring well will continue to be monitored and bailed on a monthly basis, to the extent practical.
MW-5	8.35	--	6.76	1.59	--	--	--	--	--	--	6.79	--	--	No free-product observed. Monitoring well will continue to be monitored on a monthly basis.
MW-7	4.48	2.39	3.65	1.78	1.26	--	--	--	--	--	--	--	--	Free-product observed. Free-product has historically been observed at this location. Free-product not removed from this location during the September 8, 2016 gauging event since this monitoring well has a one-inch diameter and the field workers did not have the right size bailer to remove the free-product that was present. Free-product levels at this monitoring well will continue to be monitored and respective free-product bailed on a monthly basis, to the extent practical.
MW-10	7.82	--	7.65	0.17	--	--	--	--	--	--	--	--	--	No free-product observed. Monitoring well will continue to be monitored on a monthly basis.
MW-11	7.82	--	6.77	1.05	--	--	--	--	--	--	--	--	--	No free-product observed. Monitoring well will continue to be monitored on a monthly basis.
MW-14*	11.63	--	--	--	--	--	--	--	--	--	10.11	1.52	--	No free-product observed. See Note 5.
MW-15	11.51	--	9.27	2.24	--	--	--	--	--	--	9.98	1.53	--	No free-product observed. Monitoring well will continue to be monitored on a monthly basis.
MW-17*	8.78	--	--	--	--	--	--	--	--	--	7.05	1.73	--	No free-product observed. See Note 5.
MW-18*	8.40	--	--	--	--	--	--	--	--	--	7.07	1.33	--	No free-product observed. See Note 5.
MW-19	4.41	--	2.36	2.05	--	--	--	--	--	--	--	--	--	No free-product observed. Trace free-product observed prior to system start-up. Monitoring well will continue to be monitored on a monthly basis.
MW-20*	11.69	--	--	--	--	--	--	--	--	--	10.27	1.42	--	No free-product observed. See Note 5.
MW-21	8.17	--	6.65	1.52	--	--	--	--	--	--	--	--	--	No free-product observed. Monitoring well will continue to be monitored on a monthly basis.
MW-22	11.63	9.81	11.19	1.48	1.38	10.06	10.35	1.50	0.29	10.19	10.34	1.40	0.15	Free-product observed. However, free-product has historically not been observed at this location during prior gauging events (See Notes 3 and 4). 0.25 gallons of free-product removed during September 8, 2016 gauging event. To confirm presence of free-product observed on September 8, 2016, well regauged on September 16, 2016. Trace amounts of free-product removed during this subsequent Site visit. Free-product levels at this monitoring well will continue to be monitored and respective free-product bailed on a monthly basis, to the extent practical.
MW-33	9.49	7.46	7.48	2.03	0.02	--	--	--	--	--	--	--	--	Trace free-product levels observed. Free-product has historically been observed at this location. No free-product removed during gauging event. Free-product levels at this monitoring well will continue to be monitored and respective free-product bailed on a monthly basis, to the extent practical.
MW-34	8.30	--	7.31	0.99	--	--	--	--	--	--	--	--	--	No free-product observed. Monitoring well will continue to be monitored on a monthly basis.
MW-36*	9.11	--	--	--	--	--	--	--	--		7.44	1.67	--	No free-product observed. See Note 5.
MW-38	4.44	--	2.62	1.82	--	--	--	--	--	--	--	--	--	No free-product observed. Monitoring well will continue to be monitored on a monthly basis.
MW-40	8.49	6.98	7	1.51	0.02	--	--	--	--	--	--	--	--	Trace amount of free-product observed. No free-product removed during September 8, 2016 gauging event. New monitoring well installed during remedial action. Free-product levels at this monitoring well will continue to be monitored and respective free-product bailed on a monthly basis, to the extent practical.
MW-41	8.51	--	6.61	1.90	--	--	--	--	--	--	--	--	--	No free-product observed. New monitoring well installed during remedial action and will continue to be monitored on a monthly basis.
MW-42	9.37	--	7.86	1.51	--	--	--	--	--	--	--	--	--	No free-product observed. New monitoring well installed during remedial action and will continue to be monitored on a monthly basis.
Recovery Wells														
RW-1[4]	8.26	--	6.71	1.55	--	--	--	--	--	--	--	--	--	Since system was started, free-product has not been observed at this location.
RW-2[4]	9.81	--	7.34	2.47	--	--	--	--	--	--	--	--	--	Since system was started, free-product has decreased from 1.2 inches to non-detect levels at this location.
RW-3[4]	9.83	8.36	8.38	1.47	0.02	--	--	--	--	--	--	--	--	Since system was started, free-product has decreased from 2.76 inches to trace levels at this location.
RW-4[4]	10.2	8.65	8.66	1.55	0.01	--	--	--	--	--	--	--	--	Since system was started, only trace free-product has been observed at this location.
RW-5[4]	10.27	--	8.45	1.82	--	--	--	--	--	--	--	--	--	Since system was started, free-product has decreased from 2.28 inches to non-detect levels at this location.

Notes:

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. Presence of free-product at monitoring well attributed to disturbance and resulting movement of free-product within the courtyard area during the performance of the remedial action.
4. Monitoring well was gauged to corroborate presence of free-product at MW-4.
5. Monitoring wells gauged are not part of the SMP monitoring network. Wells gauged at request of the NYSDEC on September 29, 2016.

Legend:

LNAPL - light non-aqueous phase liquid
MPE - measuring point elevation (top of well casing)
DTW - depth to water
DTP - depth to product
GWE - groundwater elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - free product thickness

From: Jordanna Kendrot
Sent: Thursday, November 10, 2016 7:11 PM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report October 2016 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (October 2016).pdf; F2.pdf; F2.Paragon Site Plan.pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Operation, Maintenance and Monitoring Activities:

On October 7, 2016, a meeting was held between Roux Associates and NYSDEC to discuss actions needed to have the Site obtain its COC; this included review of NYSDEC-comments to the draft Site Management Plan (SMP) and confirmation of the installation of monitoring wells within the Site courtyard. During the meeting NYSDEC expressed concern due to free-product observed last reporting period at monitoring wells MW-4 and MW-22, and requested an additional monitoring well be installed within 10 feet of the aforementioned monitoring wells.

On October 11, 2016, NYSDEC was provided with a figure detailing the locations of the six (6) monitoring wells to be installed: five (5) within the Site courtyard and one (1) within the Paint Factory Building. Verbal approval was granted on October 11, 2016 to install these wells at these locations, with an email approval following for documentation purposes on October 18, 2016.

On October 13, 14, and 17, 2016, Roux Associates completed the installation and development of six (6) new monitoring wells (MW-43 to MW-48). The monitoring well construction logs will be provided as part of the SMP. Prior to installation of the new monitoring wells on October 13, 2016, and a week following the development of those monitoring wells on October 26, 2016, monitoring wells within the SMP monitoring network were gauged.

The presence of free-product was noted in monitoring wells MW-2R, MW-3, MW-4, MW-7, MW-18, MW-19, MW-22, MW-33 and MW-40, newly installed monitoring well MW-45, and recovery wells RW-3 and RW-4. If the presence of free-product in the monitoring wells was observed to be greater than trace amount (e.g., >0.01”), the monitoring well was manually bailed. Approximately .60 gallons of free-product were removed in total from monitoring wells MW-2R and MW-3 during this reporting period. Any recovered product is temporarily stored on-site in a 55-gallon drum until it is required to be disposed.

A summary of the gauging and recovery data collected during the reporting period is provided in the attached table. In addition, Figure 2 from the Site Management Plan is provided for reference purposes.

Sampling/ Sample Results:

During this reporting period, no sampling was completed.

Planned Actions:

The following activities are scheduled for the next reporting period (November 1 through November 30, 2016):

- Continued monthly O&M of LNAPL recovery system;
- Continued monthly gauging of monitoring wells within SMP monitoring network; and
- Preparation and submittal of quarterly groundwater monitoring report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The updated Draft SMP was submitted to the NYSDEC on July 11, 2016. Comments from the NYSDEC were received on August 31, 2016. Comments were addressed and the revised Draft SMP was re-submitted to the NYSDEC and NYSDOH on October 3, 2016. Additional comments on the Draft SMP were raised during the meeting held on October 7, 2016. Comments most critical to expediting the review of the SMP were addressed by Roux and the revised SMP text and Figure 2 ("Site Layout Map") were submitted via email to NYSDEC on October 19, 2016. The remaining comments will be addressed and implemented in the final version of the SMP, which is anticipated to be submitted during the next reporting period.

Final Engineering Report

The Draft Final Engineering Report (FER) was submitted to the NYSDEC on June 23, 2016. Comments from the NYSDEC were received on October 6, 2016. Comments will be addressed and the updated and final versions of the FER are anticipated to be submitted during the next reporting period.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date.

COC Status

It is Roux's understanding that the NYSDEC will issue the COC before the end of the year as final SMP and FER documents for the project are anticipated to be submitted during the next reporting period.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
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October 2016 - Summary of Water Level Elevations and LNAPL Thickness
Former Paragon Paint Manufacturing Facility, Long Island City, New York

		March 20, 2013				March 14, 2014				January 9, 2015				October 13, 2016*				October 26, 2016			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																					
MW-1/1R	7.55	--	6.37	1.18	--	--	6.76	0.79	--	--	6.62	0.93	--	N/A				N/A			
MW-2R	9.23	7.11	7.12	2.12	0.01	--	7.84	1.39	--	--	7.14	2.09	--	7.65	8.3	1.42	0.65	7.69	8.24	1.40	0.55
MW-3	8.40	6.31	6.62	2.01	0.31	7	7.12	1.37	0.12	6.67	6.74	1.71	0.07	7.08	7.81	1.14	0.73	7.18	7.9	1.04	0.72
MW-4	11.57	--	9.68	1.89	--	--	9.73	1.84	--	--	9.62	1.95	--	10.13	10.21	1.42	0.08	10.05	10.12	1.50	0.07
MW-5	8.35	--	5.75	2.6	--	--	6.1	2.25	--	--	6.1	2.25	--	--	6.57	1.78	--	--	6.68	1.67	--
MW-6	NR	10.00	13.60	NC	3.6	--	--	NC	--	10.04	13.72	NC	3.68	N/A				N/A			
MW-6R	11.73	--	--	--	--	10.27	13.04	2.21	2.77	9.87	11.93	1.35	2.06	N/A				N/A			
MW-7	4.48	1.07	1.63	3.27	0.56	2.39	2.66	2.02	0.27	1.78	2.14	2.61	0.36	2.80	3.20	1.58	0.4	3.11	3.19	1.35	0.08
MW-7R	4.48	--	--	--	--	--	1.36	3.12	--	--	1.06	3.42	--	--	2.95	1.53	--	--	3.02	1.46	--
MW-8	8.00	5.95	10.63	0.88	4.68	6.84	9.46	0.51	2.62	6.08	10.45	0.83	4.37	N/A				N/A			
MW-9	8.81	6.91	8.76	1.44	1.85	7.39	9.88	0.80	2.49	6.94	7.93	1.62	0.99	N/A				N/A			
MW-10	7.82	--	7.53	0.29	--	--	6.38	1.44	--	--	7.55	0.27	--	--	5.03	2.79	--	--	2.37	5.45	--
MW-11	7.82	--	6.36	1.46	--	--	6.7	1.12	--	--	6.52	1.30	--	--	6.05	1.77	--	--	6.78	1.04	--
MW-12	9.12	7.81	9.16	0.97	1.35	8.31	9.69	0.46	1.38	9.13	10.81	0.43	1.68	N/A				N/A			
MW-13	9.13	7.30	10.87	0.94	3.57	7.98	11.02	0.39	3.04	7.90	9.49	0.83	1.59	N/A				N/A			
MW-14	11.63	N/A				--	9.55	2.08	--	--	9.35	2.28	--	--	10.09	1.54	--	--	9.95	1.68	--
MW-15	11.51	N/A				--	9.46	2.05	--	--	9.26	2.25	--	--	9.99	1.52	--	--	NM	NM	--
MW-16	8.55	N/A				--	7.4	1.15	--	--	6.12	2.43	--	N/A				N/A			
MW-17	8.78	N/A				7.03	11.02	0.75	3.99	6.86	6.89	1.91	0.03	--	7.00	1.78	--	--	6.98	1.8	--
MW-18	8.40	N/A				--	6.81	1.59	--	--	6.68	1.72	--	--	6.69	1.71	--	--	7.03	1.37	--
MW-19	4.41	N/A				1.96	2.01	2.44	0.05	--	1.02	3.39	--	2.9	2.93	1.50	0.03	3.29	3.44	1.08	0.15
MW-20	11.69	N/A				--	9.85	1.84	--	--	9.74	1.95	--	--	10.26	1.43	--	--	10.19	1.5	--
MW-21	8.17	N/A				--	6.44	1.73	--	--	6.11	2.06	--	--	6.28	1.89		--	6.19	1.98	
MW-22	11.63	N/A				--	9.79	1.84	--	--	9.66	1.97	--	10.18	10.32	1.42	0.14	10.08	10.22	1.52	0.14
MW-23	8.27	N/A				7.02	10.13	0.47	3.11	6.46	8.41	1.32	1.95	N/A				N/A			
MW-24	8.86	N/A				N/A				--	6.36	2.50	--	N/A				N/A			
MW-25	9.29	N/A				N/A				--	6.88	2.41	--	N/A				N/A			
MW-27	9.55	N/A				N/A				--	7.29	2.26	--	N/A				N/A			
MW-28	9.10	N/A				N/A				--	6.75	2.35	--	N/A				N/A			
MW-30	8.70	N/A				N/A				--	7.06	1.64	--	N/A				N/A			
MW-31	9.27	N/A				N/A				8.00	8.21	1.22	0.21	N/A				N/A			
MW-32	7.76	N/A				N/A					6.18	1.58	--	N/A				N/A			
MW-33	9.49	N/A				N/A				7.39	8.20	1.90	0.81	7.55	7.60	1.93	0.05		7.55	7.60	7.55
MW-34	8.30	N/A				N/A				--	6.76	1.54	--	--	7.43	0.87	--	--	7.55	0.75	--
MW-35	NR	N/A				N/A				7.68	7.79	NC	0.11	N/A				N/A			
MW-36	9.11	N/A				N/A				--	7.07	2.04	--	--	7.42	1.69	--	--	1.07	8.04	--
MW-37	4.45	N/A				N/A				--	1.02	3.43	--	N/A				--	2.98	1.47	--
MW-38	4.44	N/A				N/A				--	NM	NM	--	--	3.00	1.44	--	--	3.17	1.27	--
MW-40	8.49	N/A				N/A				N/A				7.23	7.26	1.25	0.03	7.30	7.32	1.19	0.02
MW-41	8.51	N/A				N/A				N/A				--	7.04	1.47	--	--	6.98	1.53	--
MW-42	9.37	N/A				N/A				N/A				--	7.92	1.45	--	--	7.88	1.49	--
MW-43	7.81	N/A				N/A				N/A				--	6.22	1.59	--	--	6.22	1.59	--
MW-44	9.15	N/A				N/A				N/A				--	7.51	1.64	--	--	7.51	1.64	--
MW-45	8.69	N/A				N/A				N/A				7.07	7.13	1.61	0.06	7.07	7.13	1.61	0.06
MW-46	7.69	N/A				N/A				N/A				--	6.70	0.99	--	--	6.70	0.99	--
MW-47	8.03	N/A				N/A				N/A				--	6.45	1.58	--	--	6.45	1.58	--
MW-48	11.43	N/A				N/A				N/A				--	9.87	1.56	--	--	9.87	1.56	--

October 2016 - Summary of Water Level Elevations and LNAPL Thickness
Former Paragon Paint Manufacturing Facility, Long Island City, New York

Well ID	MPE (ft)	March 20, 2013				March 14, 2014				January 9, 2015				October 13, 2016*				October 26, 2016			
		DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Recovery Wells																					
RW-1	8.26	N/A				N/A				N/A				--	6.71	1.55	--	--	6.84	1.42	--
RW-2	9.81	N/A				N/A				N/A				--	7.34	2.47	--	--	7.4	2.41	--
RW-3	9.83	N/A				N/A				N/A				8.36	8.38	1.47	0.02	--	8.04	1.79	--
RW-4	10.2	N/A				N/A				N/A				8.65	8.66	1.55	0.01	--	8.3	1.9	--
RW-5	10.27	N/A				N/A				N/A				--	8.45	1.82	--	8.1	8.12	2.15	--

Notes:

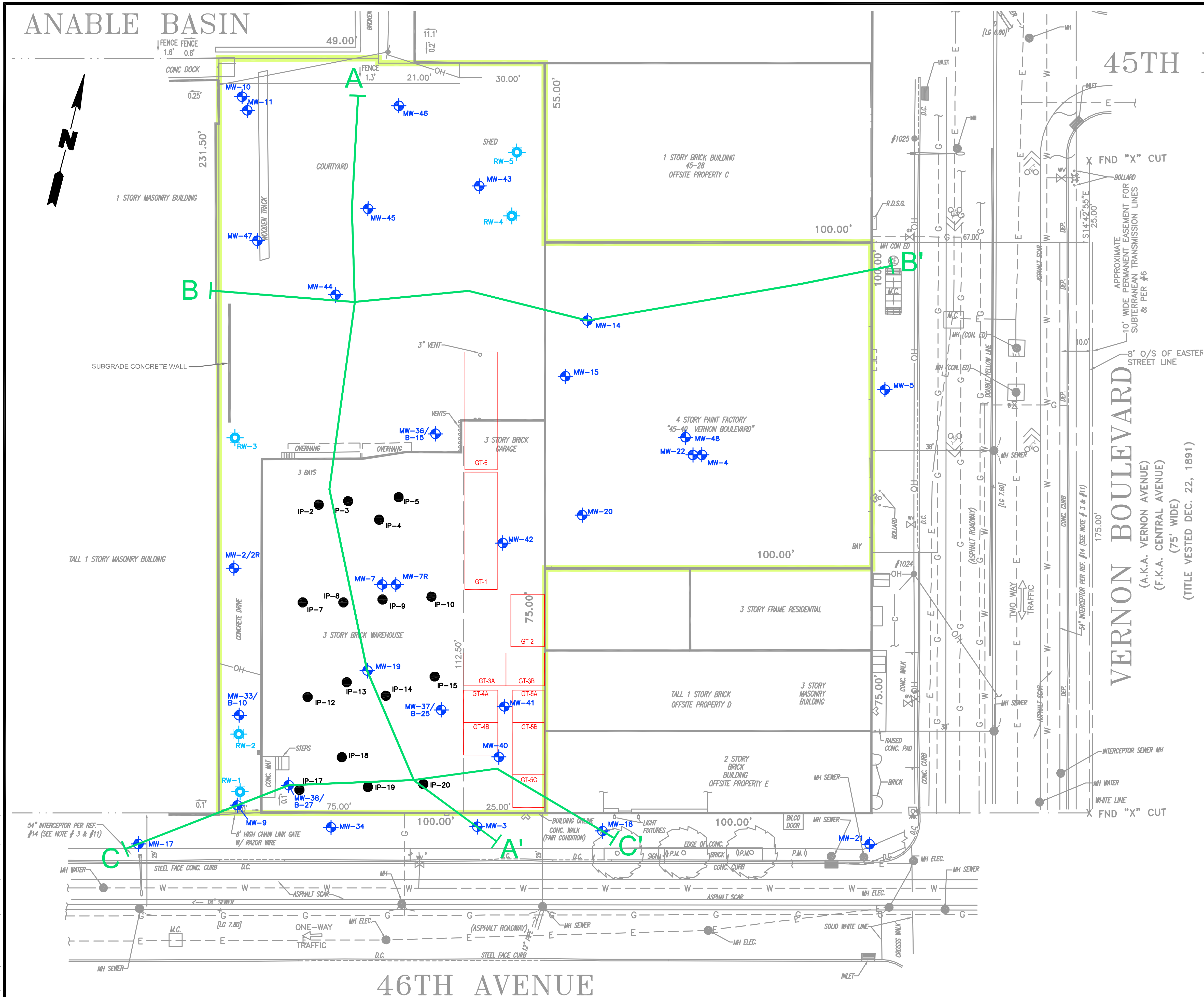
LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NR - Not Recorded
NC - Not Calculated[2]
NM - Not Measured

N/A - No data as monitoring/ recovery well was either not constructed (March 2013 to January 2015 monitoring period) or destroyed (October 2016 monitoring event) when monitoring event was performed.
* - Measurement data collected for monitoring wells MW-43 to MW-48 were collected on 10/17/2016; following installation

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:

Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)

Assumes a specific gravity of 0.75



LEGEND

MW-5	LOCATION AND DESIGNATION OF MONITORING WELL
RW-1	LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL
IP-2	LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
ISCO	IN-SITU CHEMICAL OXIDATION
	CONCRETE VAULT
	PROPERTY BOUNDARY
GT-8	APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
A—A'	LINE OF GEOLOGIC CROSS SECTION

30' 0 30'

Title:

SITE LAYOUT MAP

SITE MANAGEMENT PLAN
PARAGON PAINT & VARNISH CORPORATION
LONG ISLAND CITY, NEW YORK

Prepared For:

VERNON 4540 REALTY LLC

Remedial REMEDIAL ENGINEERING, P.C. ENVIRONMENTAL ENGINEERS	Compiled by: R.M.	Date: 15SEP16	FIGURE
	Prepared by: J.A.D.	Scale: AS SHOWN	2
	Project Mgr: R.M.	Project: 2051.0001Y000	
	File: 2051.0001Y204R.01.DWG		

V:\CAD\PROJECTS\2051Y\0001Y\204R\2051.0001Y204R.01.DWG

From: Jordanna Kendrot
Sent: Tuesday, December 13, 2016 10:51 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report November 2016 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (November 15, 2016).pdf

Ms. Martinkat,

I apologize for the delay. In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Operation, Maintenance and Monitoring Activities:

On November 15, 2016 during the performance of the quarterly groundwater monitoring event, the wells within the SMP sampling network were gauged. Moving forward, all Site monitoring wells will be gauged, when and where applicable, in accordance with the schedule presented in Table 5 of the approved SMP.

The presence of free-product was noted in monitoring wells MW-2R, MW-3, MW-4, MW-7, MW-19, MW-22, MW-40 and MW-45. If the presence of free-product in the monitoring wells was observed to be greater than trace amount (e.g., >0.01"), the monitoring well was manually bailed. Approximately 1.50 gallons of free-product were removed in total from the aforementioned monitoring wells, excluding monitoring wells MW-19 and MW-40, during this reporting period. Any recovered product is temporarily stored on-site in a 55-gallon drum until it is required to be disposed.

A summary of the gauging data collected during the reporting period is provided in the attached table.

Sampling/ Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (December 1 through December 31, 2016):

- Preparation and completion of quarterly gauging and collection of groundwater samples from monitoring wells within proposed SMP monitoring network;
- Continued monthly O&M of LNAPL recovery system;
- Continued monthly gauging of monitoring wells within SMP monitoring network; and
- Preparation and submittal of quarterly groundwater monitoring report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Final SMP was signed and certified by Roux Associates on November 8, 2016, and submitted to NYSDEC for approval on November 15, 2016. Minor comments were received from NYSDEC on December 2, 2016. The edits were addressed by Roux and the revised SMP was resubmitted to NYSDEC for approval on December 6, 2016. The NYSDEC approved the SMP on December 7, 2016. The SMP will be placed in the required public repositories within five business days of this approval.

Final Engineering Report

The Final FER was signed and certified by Roux Associates on November 22, 2016, and submitted to NYSDEC for approval on December 1, 2016. Minor edits to the FER (i.e., changing template blue text to black) were completed by Roux Associates and the revised FER was resubmitted to NYSDEC for approval on December 6, 2016. Comments or approval from the NYSDEC have not been received to date.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date.

COC Status

It is Roux's understanding that the NYSDEC will issue the COC before the end of the year as final, certified SMP and FER documents have been submitted to the NYSDEC and all outstanding comments have been addressed.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
We solve our clients' most challenging environmental problems.

Summary of Water Level Elevations and LNAPL Thickness; November 2016
Former Paragon Paint and Varnish Corp., Long Isladn City, New York

		March 20, 2013				March 14, 2014				January 9, 2015				October 13, 2016*				October 26, 2016				November 15, 2016			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																									
MW-1/1R	7.55	--	6.37	1.18	--	--	6.76	0.79	--	--	6.62	0.93	--	N/A				N/A				N/A			
MW-2R	9.23	7.11	7.12	2.12	0.01	--	7.84	1.39	--	--	7.14	2.09	--	7.65	8.3	1.42	0.65	7.69	8.24	1.40	0.55	7.85	8.31	1.27	0.46
MW-3	8.40	6.31	6.62	2.01	0.31	7	7.12	1.37	0.12	6.67	6.74	1.71	0.07	7.08	7.81	1.14	0.73	7.18	7.9	1.04	0.72	7.21	8.15	0.96	0.94
MW-4	11.57	--	9.68	1.89	--	--	9.73	1.84	--	--	9.62	1.95	--	10.13	10.21	1.42	0.08	10.05	10.12	1.50	0.07	10.29	10.34	1.27	0.05
MW-5	8.35	--	5.75	2.6	--	--	6.1	2.25	--	--	6.1	2.25	--	--	6.57	1.78	--	--	6.68	1.67	--	--	NM	NM	--
MW-6	NR	10.00	13.60	NC	3.6	--	--	NC	--	10.04	13.72	NC	3.68	N/A				N/A				N/A			
MW-6R	11.73	--	--	--	--	10.27	13.04	2.21	2.77	9.87	11.93	1.35	2.06	N/A				N/A				N/A			
MW-7	4.48	1.07	1.63	3.27	0.56	2.39	2.66	2.02	0.27	1.78	2.14	2.61	0.36	2.80	3.20	1.58	0.4	3.11	3.19	1.35	0.08	2.98	3.06	1.48	0.08
MW-7R	4.48	--	--	--	--	--	1.36	3.12	--	--	1.06	3.42	--	--	2.95	1.53	--	--	3.02	1.46	--	--	NM	NM	--
MW-8	8.00	5.95	10.63	0.88	4.68	6.84	9.46	0.51	2.62	6.08	10.45	0.83	4.37	N/A				N/A				N/A			
MW-9	8.81	6.91	8.76	1.44	1.85	7.39	9.88	0.80	2.49	6.94	7.93	1.62	0.99	N/A				N/A				N/A			
MW-10	7.82	--	7.53	0.29	--	--	6.38	1.44	--	--	7.55	0.27	--	--	5.03	2.79	--	--	2.37	5.45	--	--	4.65	3.17	--
MW-11	7.82	--	6.36	1.46	--	--	6.7	1.12	--	--	6.52	1.30	--	--	6.05	1.77	--	--	6.78	1.04	--	--	5.97	1.85	--
MW-12	9.12	7.81	9.16	0.97	1.35	8.31	9.69	0.46	1.38	9.13	10.81	0.43	1.68	N/A				N/A				N/A			
MW-13	9.13	7.30	10.87	0.94	3.57	7.98	11.02	0.39	3.04	7.90	9.49	0.83	1.59	N/A				N/A				N/A			
MW-14	11.63	N/A				--	9.55	2.08	--	--	9.35	2.28	--	--	10.09	1.54	--	--	9.95	1.68	--	--	NM	NM	--
MW-15	11.51	N/A				--	9.46	2.05	--	--	9.26	2.25	--	--	9.99	1.52	--	--	NM	NM	--	--	10.12	1.39	--
MW-16	8.55	N/A				--	7.4	1.15	--	--	6.12	2.43	--	N/A				N/A				N/A			
MW-17	8.78	N/A				7.03	11.02	0.75	3.99	6.86	6.89	1.91	0.03	--	7.00	1.78	--	--	6.98	1.8	--	--	NM	NM	--
MW-18	8.40	N/A				--	6.81	1.59	--	--	6.68	1.72	--	--	6.69	1.71	--	--	7.03	1.37	--	--	NM	NM	--
MW-19	4.41	N/A				1.96	2.01	2.44	0.05	--	1.02	3.39	--	2.9	2.93	1.50	0.03	3.29	3.44	1.08	0.15	3.08	3.1	1.33	0.02
MW-20	11.69	N/A				--	9.85	1.84	--	--	9.74	1.95	--	--	10.26	1.43	--	--	10.19	1.5	--	--	NM	NM	--
MW-21	8.17	N/A				--	6.44	1.73	--	--	6.11	2.06	--	--	6.28	1.89		--	6.19	1.98		--	NM	NM	
MW-22	11.63	N/A				--	9.79	1.84	--	--	9.66	1.97	--	10.18	10.32	1.42	0.14	10.08	10.22	1.52	0.14	10.31	10.42	1.29	0.11
MW-23	8.27	N/A				7.02	10.13	0.47	3.11	6.46	8.41	1.32	1.95	N/A				N/A				N/A			
MW-24	8.86	N/A				N/A				--	6.36	2.50	--	N/A				N/A				N/A			
MW-25	9.29	N/A				N/A				--	6.88	2.41	--	N/A				N/A				N/A			
MW-27	9.55	N/A				N/A				--	7.29	2.26	--	N/A				N/A				N/A			
MW-28	9.10	N/A				N/A				--	6.75	2.35	--	N/A				N/A				N/A			
MW-30	8.70	N/A				N/A				--	7.06	1.64	--	N/A				N/A				N/A			
MW-31	9.27	N/A				N/A				8.00	8.21	1.22	0.21	N/A				N/A				N/A			
MW-32	7.76	N/A				N/A					6.18	1.58	--	N/A				N/A				N/A			
MW-33	9.49	N/A				N/A				7.39	8.20	1.90	0.81	7.55	7.60	1.93	0.05	--	7.55	1.94	--	--	5.87	3.62	--
MW-34	8.30	N/A				N/A				--	6.76	1.54	--	--	7.43	0.87	--	--	7.55	0.75	--	--	7.18	1.12	--
MW-35	NR	N/A				N/A				7.68	7.79	NC	0.11	N/A				N/A				N/A			
MW-36	9.11	N/A				N/A				--	7.07	2.04	--	--	7.42	1.69	--	--	1.07	8.04	--	--	NM	NM	--
MW-37	4.45	N/A				N/A				--	1.02	3.43	--	N/A				--	2.98	1.47	--	--	NM	NM	--
MW-38	4.44	N/A				N/A				--	NM	NM	--	--	3.00	1.44	--	--	3.17	1.27	--	--	3.04	1.4	--
MW-40	8.49	N/A				N/A				N/A				7.23	7.26	1.25	0.03	7.30	7.32	1.19	0.02	7.39	7.40	1.10	0.01
MW-41	8.51	N/A				N/A				N/A				--	7.04	1.47	--	--	6.98	1.53	--	--	7.10	1.41	--
MW-42	9.37	N/A				N/A				N/A				--	7.92	1.45	--	--	7.88	1.49	--	--	8.08	1.29	--
MW-43	7.81	N/A				N/A				N/A				--	6.22	1.59	--	--	6.22	1.59	--	--	6.57	1.24	--
MW-44	9.15	N/A				N/A				N/A				--	7.51	1.64	--	--	7.51	1.64	--	--	7.90	1.25	--
MW-45	8.69	N/A				N/A				N/A				7.07	7.13	1.61	0.06	7.07	7.13	1.61	0.06	7.41	7.50	1.26	0.09
MW-46	7.69	N/A				N/A				N/A				--	6.70	0.99	--	--	6.70	0.99	--	--	6.91	0.78	--
MW-47	8.03	N/A				N/A				N/A				--	6.45	1.58	--	--	6.45	1.58	--	--	6.77	1.26	--
MW-48	11.43	N/A				N/A				N/A				--	9.87	1.56	--	--	9.87	1.56	--	--	10.10	1.33	--

Summary of Water Level Elevations and LNAPL Thickness; November 2016
Former Paragon Paint and Varnish Corp., Long Isladn City, New York

		March 20, 2013				March 14, 2014				January 9, 2015				October 13, 2016*				October 26, 2016				November 15, 2016			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Recovery Wells																									
RW-1	8.26	N/A				N/A				N/A				--	6.71	1.55	--	--	6.84	1.42	--	--	7.2	1.06	--
RW-2	9.81	N/A				N/A				N/A				--	7.34	2.47	--	--	7.4	2.41	--	--	7.6	2.21	--
RW-3	9.83	N/A				N/A				N/A				8.36	8.38	1.47	0.02	--	8.04	1.79	--	--	7.29	2.54	--
RW-4	10.2	N/A				N/A				N/A				8.65	8.66	1.55	0.01	--	8.3	1.9	--	--	8.68	1.52	--
RW-5	10.27	N/A				N/A				N/A				--	8.45	1.82	--	8.1	8.12	2.17	0.02	--	8.46	1.81	--

Notes:

LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NR - Not Recorded
NC - Not Calculated[2]
NM - Not Measured

N/A - No data as monitoring/ recovery well was either not constructed (March 2013 to January 2015 monitoring period) or destroyed (October 2016 monitoring event) when monitoring event was performed.
* - Measurement data collected for monitoring wells MW-43 to MW-48 were collected on 10/17/2016; following installation

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75

From: Jordanna Kendrot
Sent: Wednesday, January 11, 2017 7:21 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report December 2016 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (December 1, 2016).pdf

Ms. Martinkat,

I apologize for the delay. In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Operation, Maintenance and Monitoring Activities:

On December 1, 2016, Roux Associates completed the quarterly groundwater gauging and sampling of the 21 monitoring wells included in the SMP monitoring network. If the presence of free-product was observed, the monitoring well was not sampled. The remaining monitoring wells within the network were sampled and analyzed for VOCs. The five (5) recovery wells (RW-1 through RW-5) onsite and an additional nine (9) monitoring wells both onsite and offsite were gauged in addition to the monitoring wells above to determine the presence of LNAPL.

During the groundwater sampling, the presence of free-product was noted in monitoring wells MW-2R, MW-3, MW-4, MW-7, MW-19, MW-22, MW-42, MW-45, and recovery well RW-5. If the presence of free-product in the monitoring wells was observed to be greater than trace amount (e.g., >0.01”), the monitoring well was manually bailed. Approximately 1.00 gallons of free-product were removed in total from the aforementioned monitoring wells, excluding monitoring wells MW-22 and MW-42, during this reporting period. Any recovered product is temporarily stored on-site in a 55-gallon drum until it is required to be disposed.

A summary of the gauging data collected during the reporting period is provided in the attached table.

On December 15, 2016, NYSDEC issued the Certificate of Completion (COC) for the project. The COC will be recorded by the Site owner as requested by the NYSDEC.

Sampling/ Sample Results:

During this reporting period, 13 groundwater samples were collected from the following monitoring wells:

- MW-10
- MW-11
- MW-21
- MW-33
- MW-37
- MW-38
- MW-40
- MW-41
- MW-43
- MW-44
- MW-46
- MW-47
- MW-48

The results of this quarterly sampling round, as well as the previously completed sampling event in September 2016, will be presented and discussed in a Quarterly Status Report. This report will be submitted under separate cover in the upcoming reporting period (January 2017).

Planned Actions:

The following activities are scheduled for the next reporting period (January 1 through January 31, 2017):

- Preparation and completion of quarterly gauging and collection of groundwater samples from monitoring wells within proposed SMP monitoring network;
- Continued monthly O&M of LNAPL recovery system;
- Continued monthly gauging of monitoring wells within SMP monitoring network; and
- Preparation and submittal of quarterly status report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Site Management Plan

The Final SMP was signed and certified by Roux Associates on November 8, 2016, and submitted to NYSDEC for approval on November 15, 2016. Minor comments were received from NYSDEC on December 2, 2016. The edits were addressed by Roux and the revised SMP was resubmitted to NYSDEC for approval on December 6, 2016. The NYSDEC approved the SMP on December 7, 2016. The SMP was placed in the required public repositories as requested by the NYSDEC.

Final Engineering Report

The Final FER was signed and certified by Roux Associates on November 22, 2016, and submitted to NYSDEC for approval on December 1, 2016. Minor edits to the FER (i.e., changing template blue text to black) were completed by Roux Associates and the revised FER was resubmitted to NYSDEC for approval on December 6, 2016. The NYSDEC approved the FER upon issuance of the COC, dated December 15, 2016. The FER was placed in the required public repositories as requested by the NYSDEC.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date. Based on prior discussions with the NYSDEC, no comments on the report will be provided on the RCRA Closure Completion Report.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
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Summary of Water Level Elevations and LNAPL Thickness; December 2016
Former Paragon Paint and Varnish Corp., Long Isladn City, New York

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Monitoring Wells																													
MW-1/1R	7.55	--	6.37	1.18	--	--	6.76	0.79	--	--	6.62	0.93	--	N/A				N/A				N/A				N/A			
MW-2R	9.23	7.11	7.12	2.12	0.01	--	7.84	1.39	--	--	7.14	2.09	--	7.65	8.3	1.42	0.65	7.69	8.24	1.40	0.55	7.85	8.31	1.27	0.46	6.66	6.82	2.53	0.16
MW-3	8.40	6.31	6.62	2.01	0.31	7	7.12	1.37	0.12	6.67	6.74	1.71	0.07	7.08	7.81	1.14	0.73	7.18	7.9	1.04	0.72	7.21	8.15	0.96	0.94	6.60	6.97	1.71	0.37
MW-4	11.57	--	9.68	1.89	--	--	9.73	1.84	--	--	9.62	1.95	--	10.13	10.21	1.42	0.08	10.05	10.12	1.50	0.07	10.29	10.34	1.27	0.05	6.50	6.58	5.05	0.08
MW-5	8.35	--	5.75	2.6	--	--	6.1	2.25	--	--	6.1	2.25	--	--	6.57	1.78	--	--	6.68	1.67	--	--	NM	NM	--	N/A			
MW-6	NR	10.00	13.60	NC	3.6	--	--	NC	--	10.04	13.72	NC	3.68	N/A				N/A				N/A				N/A			
MW-6R	11.73	--	--	--	--	10.27	13.04	2.21	2.77	9.87	11.93	1.35	2.06	N/A				N/A				N/A				N/A			
MW-7	4.48	1.07	1.63	3.27	0.56	2.39	2.66	2.02	0.27	1.78	2.14	2.61	0.36	2.80	3.20	1.58	0.4	3.11	3.19	1.35	0.08	2.98	3.06	1.48	0.08	2.36	2.43	2.10	0.07
MW-7R	4.48	--	--	--	--	--	1.36	3.12	--	--	1.06	3.42	--	--	2.95	1.53	--	--	3.02	1.46	--	--	NM	NM	--	--	3.32	1.16	--
MW-8	8.00	5.95	10.63	0.88	4.68	6.84	9.46	0.51	2.62	6.08	10.45	0.83	4.37	N/A				N/A				N/A				N/A			
MW-9	8.81	6.91	8.76	1.44	1.85	7.39	9.88	0.80	2.49	6.94	7.93	1.62	0.99	N/A				N/A				N/A				N/A			
MW-10	7.82	--	7.53	0.29	--	--	6.38	1.44	--	--	7.55	0.27	--	--	5.03	2.79	--	--	2.37	5.45	--	--	4.65	3.17	--	--	6.15	1.67	--
MW-11	7.82	--	6.36	1.46	--	--	6.7	1.12	--	--	6.52	1.30	--	--	6.05	1.77	--	--	6.78	1.04	--	--	5.97	1.85	--	--	5.61	2.21	--
MW-12	9.12	7.81	9.16	0.97	1.35	8.31	9.69	0.46	1.38	9.13	10.81	0.43	1.68	N/A				N/A				N/A				N/A			
MW-13	9.13	7.30	10.87	0.94	3.57	7.98	11.02	0.39	3.04	7.90	9.49	0.83	1.59	N/A				N/A				N/A				N/A			
MW-14	11.63	N/A				--	9.55	2.08	--	--	9.35	2.28	--	--	10.09	1.54	--	--	9.95	1.68	--	--	NM	NM	--	--	8.44	3.19	--
MW-15	11.51	N/A				--	9.46	2.05	--	--	9.26	2.25	--	--	9.99	1.52	--	--	NM	NM	--	--	10.12	1.39	--	--	NM	NM	--
MW-16	8.55	N/A				--	7.4	1.15	--	--	6.12	2.43	--	N/A				N/A				N/A				N/A			
MW-17	8.78	N/A				7.03	11.02	0.75	3.99	6.86	6.89	1.91	0.03	--	7.00	1.78	--	--	6.98	1.8	--	--	NM	NM	--	--	9.23	-0.45	--
MW-18	8.40	N/A				--	6.81	1.59	--	--	6.68	1.72	--	--	6.69	1.71	--	--	7.03	1.37	--	--	NM	NM	--	--	6.58	1.82	--
MW-19	4.41	N/A				1.96	2.01	2.44	0.05	--	1.02	3.39	--	2.9	2.93	1.50	0.03	3.29	3.44	1.08	0.15	3.08	3.1	1.33	0.02	2.80	2.92	1.58	0.12
MW-20	11.69	N/A				--	9.85	1.84	--	--	9.74	1.95	--	--	10.26	1.43	--	--	10.19	1.5	--	--	NM	NM	--	--	NM	NM	--
MW-21	8.17	N/A				--	6.44	1.73	--	--	6.11	2.06	--	--	6.28	1.89		--	6.19	1.98		--	NM	NM		--	6.55	1.62	
MW-22	11.63	N/A				--	9.79	1.84	--	--	9.66	1.97	--	10.18	10.32	1.42	0.14	10.08	10.22	1.52	0.14	10.31	10.42	1.29	0.11	9.52	9.61	2.09	0.09
MW-23	8.27	N/A				7.02	10.13	0.47	3.11	6.46	8.41	1.32	1.95	N/A				N/A				N/A				N/A			
MW-24	8.86	N/A				N/A				--	6.36	2.50	--	N/A				N/A				N/A				N/A			
MW-25	9.29	N/A				N/A				--	6.88	2.41	--	N/A				N/A				N/A				N/A			
MW-27	9.55	N/A				N/A				--	7.29	2.26	--	N/A				N/A				N/A				N/A			
MW-28	9.10	N/A				N/A				--	6.75	2.35	--	N/A				N/A				N/A				N/A			
MW-30	8.70	N/A				N/A				--	7.06	1.64	--	N/A				N/A				N/A				N/A			
MW-31	9.27	N/A				N/A				8.00	8.21	1.22	0.21	N/A				N/A				N/A				N/A			
MW-32	7.76	N/A				N/A					6.18	1.58	--	N/A				N/A				N/A				N/A			
MW-33	9.49	N/A				N/A				7.39	8.20	1.90	0.81	7.55	7.60	1.93	0.05	--	7.55	1.94	--	--	5.87	3.62	--	--	6.10	3.39	--
MW-34	8.30	N/A				N/A				--	6.76	1.54	--	--	7.43	0.87	--	--	7.55	0.75	--	--	7.18	1.12	--	--	6.82	1.48	--
MW-35	NR	N/A				N/A				7.68	7.79	NC	0.11	N/A				N/A				N/A				N/A			
MW-36	9.11	N/A				N/A				--	7.07	2.04	--	--	7.42	1.69	--	--	1.07	8.04	--	--	NM	NM	--	--	3.8	5.31	--
MW-37	4.45	N/A				N/A				--	1.02	3.43	--	N/A				--	2.98	1.47	--	--	NM	NM	--	--	2.78	1.67	--
MW-38	4.44	N/A				N/A				--	NM	NM	--	--	3.00	1.44	--	--	3.17	1.27	--	--	3.04	1.4	--	--	2.82	1.62	--
MW-40	8.49	N/A				N/A				N/A				7.23	7.26	1.25	0.03	7.30	7.32	1.19	0.02	7.39	7.40	1.10	0.01	--	6.80	1.69	--
MW-41	8.51	N/A				N/A				N/A				--	7.04	1.47	--	--	6.98	1.53	--	--	7.10	1.41	--	--	6.18	2.33	--
MW-42	9.37	N/A				N/A				N/A				--	7.92	1.45	--	--	7.88	1.49	--	--	8.08	1.29	--	7.44	7.45	1.93	0.01
MW-43	7.81	N/A				N/A				N/A				--	6.22	1.59	--	--	6.22	1.59	--	--	6.57	1.24	--	--	4.86	2.95	--
MW-44	9.15	N/A				N/A				N/A				--	7.51	1.64	--	--	7.51	1.64	--	--	7.90	1.25	--	--	6.18	2.97	--
MW-45	8.69	N/A				N/A				N/A				7.07	7.13	1.61	0.06	7.07	7.13	1.61	0.06	7.41	7.50	1.26	0.09	5.75	5.80	2.93	0.05
MW-46	7.69	N/A				N/A				N/A				--	6.70	0.99	--	--	6.70	0.99	--	--	6.91	0.78	--	--	5.75	1.94	--
MW-47	8.03	N/A				N/A				N/A				--	6.45	1.58	--	--	6.45	1.58	--	--	6.77	1.26	--	--	5.10	2.93	--
MW-48	11.43	N/A				N/A				N/A				--	9.87	1.56	--	--	9.87	1.56	--	--	10.10	1.33	--	--	6.28	5.15	--
Recovery Wells																													
RW-1	8.26	N/A				N/A				N/A				--	6.71	1.55	--	--	6.84	1.42	--	--	7.2	1.06	--	--	6.51	1.75	--
RW-2	9.81	N/A				N/A				N/A				--	7.34	2.47	--	--	7.4	2.41	--	--	7.6	2.21	--	--	6.54	3.27	--
RW-3	9.83	N/A				N/A				N/A				8.36	8.38	1.47	0.02	--	8.04	1.79	--	--	7.29	2.54	--	--	6.67	3.16	--
RW-4	10.2	N/A				N/A				N/A				8.65	8.66	1.55	0.01	--	8.3	1.9	--	--	8.68	1.52	--	--	6.98	3.22	--
RW-5	10.27	N/A				N/A				N/A				--	8.45	1.82	--	8.1	8.12	2.17	0.02	--	8.46	1.81	--	6.74	6.75	3.53	0.01

Notes:

LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NR - Not Recorded
NC - Not Calculated[2]
NM - Not Measured

N/A - No data as monitoring/ recovery well was either not constructed (March 2013 to January 2015 monitoring period),destroyed (October 2016 monitoring event) when monitoring event was performed, or is not included in the monitoring network
* - Measurement data collected for monitoring wells MW-43 to MW-48 were collected on 10/17/2016; following installation

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75

REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

209 SHAFTER STREET
ISLANDIA, NEW YORK 11749
TEL: 631-232-2600
FAX: 631 232-9898

February 10, 2017

Ms. Sondra Martinkat
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation
Region Two
47-40 21st Street
Long Island City, New York 11101

Re: Quarterly Inspection and Monitoring Report
September 2016 to December 2016
Paragon Paint and Varnish Corp., Long Island, New York, Site No. C241108

Dear Ms. Martinkat:

Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering), on behalf of Vernon 4540 Realty, LLC, have generated this quarterly inspection and monitoring report to summarize operation, maintenance and monitoring activities being performed at the Paragon Paint and Varnish Corp. located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard, Long Island City, Queens, New York (Site). The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C241108, which is administered by New York State Department of Environmental Conservation (NYSDEC), and the controls described are in accordance with the NYSDEC-approved Site Management Plan (SMP) dated November 2016. During this reporting period (September 2016 to December 2016), the composite cover system and institutional controls (ICs) were not modified. In addition, the following activities, as described herein, were specifically performed:

- Monthly operation and maintenance (O&M) of the Light Non-Aqueous Phase Liquid (LNAPL) recovery system;
- Monthly gauging of Site monitoring and recovery wells to assess presence of LNAPL;
- Monthly LNAPL recovery using manual bailing techniques, where applicable, at Site monitoring wells; and
- Quarterly monitoring (gauging and sampling) of Site monitoring wells.

O&M of the LNAPL Recovery System

As per the SMP, O&M of the LNAPL recovery system and its respective recovery wells (RW-1 through RW-5) was completed monthly. The completed site-wide monitoring, inspection, and maintenance forms are included in Attachment 1. During this reporting period, the LNAPL recovery system was operational and recovering LNAPL. Although maintenance of the system was not required, adjustments were made to optimize LNAPL recovery at selected recovery wells (i.e., RW-4 and RW-5) that contained recoverable amounts of LNAPL. Approximately 3.1 gallons of LNAPL has been recovered from the operation of the LNAPL recovery system during this reporting period. Gauging data generated during the reporting period for each recovery well is presented in tabular form in Attachment 2. The following summarizes LNAPL present at each recovery well as of December 1, 2016:

Recovery Well	LNAPL Thickness
RW-1	Not present
RW-2	Not present
RW-3	Not present
RW-4	Not present
RW-5	0.01 feet

Based on the lack of recoverable amounts of product at each recovery well, the continued operation of the LNAPL recovery system may not be warranted. Accordingly, the presence of LNAPL at these specific recovery wells will continue to be evaluated in the next quarter to determine if continued operation of the on-site LNAPL recovery system is necessary.

Gauging and Manual LNAPL Recovery

As required by the SMP, the approved monitoring well network must be gauged on a monthly basis to support ongoing assessment of measurable LNAPL in on-site and off-site monitoring and recovery wells. In addition, gauging of accessible Site monitoring wells outside the approved SMP monitoring network will also be performed periodically to determine if LNAPL is present and needs to also be addressed at those particular locations. Specifically, the gauging of these additional monitoring wells will be performed monthly for a six (6) month period through June 2017 following the recent issuance of the Site-specific Certificate of Completion (COC) on December 15, 2016. After June 2017, these activities will then be performed on a quarterly basis at all Site monitoring wells, although LNAPL assessment and manual recovery efforts, where applicable, will continue to be performed on a monthly basis at monitoring wells where LNAPL continues to be present. If the presence of LNAPL in the monitoring wells was observed to be greater than trace amount (i.e., >0.01’), the monitoring well was manually bailed. A total of approximately 4.45 gallons of LNAPL was manually recovered from the aforementioned monitoring wells. This total is in addition to the 3.1 gallons of LNAPL recovered from the operation of the LNAPL system at recovery wells RW-1 through RW-5 as highlighted earlier.

All gauging and manual LNAPL recovery data generated during the reporting period is provided in tabular form in Attachment 3 with a more focused and condensed summary of monitoring wells with the presence of LNAPL provided below:

Monitoring Well	LNAPL Thickness Measurements				LNAPL Recovered
	September 2016 (4 events)*	October 2016 (2 events)	November 2016 (1 event)	December 2016 (1 event)	
MW-2R	0.07 feet	0.55 feet; 0.65 feet	0.46 feet	0.16 feet	0.85 gallons
MW-3 (Off-Site)	2.11 feet	0.72 feet; 0.73 feet	0.94 feet	0.37 feet	2.35 gallons
MW-4	0.2 feet; 0.15 feet; 0.04 feet	0.07 feet; 0.08 feet	0.05 feet	0.08 feet	0.3 gallons
MW-7	1.26 feet	0.4 feet; 0.08 feet	0.08 feet	0.07 feet	0.2 gallons
MW-19	Not present	0.03 feet; 0.15 feet	0.02 feet	0.12 feet	0.1 gallons
MW-22	1.38 feet; 0.29 feet; 0.15 feet	0.14 feet (both events)	0.11 feet	0.09 feet	0.35 gallons
MW-33	0.02 feet	Not Present; 0.05 feet	Not Present	Not Present	trace amounts
MW-40	0.02 feet	0.02 feet; 0.03 feet	0.01 feet	Not Present	trace amounts
MW-42	Not present	Not Present (both events)	Not Present	0.01 feet	0 gallons
MW-45	Monitoring well not installed during reporting period	0.06 feet (both events)	0.09 feet	0.05 feet	0.3 gallons

* The gauging and monitoring of the NYSDEC-approved SMP monitoring network was completed on September 8, 2016. Supplemental gauging and bailing of monitoring wells MW-4 and MW-22 was completed upon NYSDEC request on September 16, 29 and 30, 2016 due to the presence of non-historic LNAPL.

Based on a review of the gauging and manual LNAPL recovery data generated during the reporting period, the following key observations and trends are provided below:

- The presence of LNAPL was noted in ten (10) monitoring wells MW-2R, MW-3, MW-4, MW-7, MW-19, MW-22, MW-33, MW-40, MW-42 and MW-45 at one point during the monitoring period.
- Based on the most recent, December 2016, gauging event of the ten monitoring wells that had LNAPL at one point during the monitoring period:
  - LNAPL is currently not present at two (2) on-site locations (MW-33 and MW-40);
  - LNAPL thickness at remaining seven (7) on-site locations is currently less than 0.2 feet; and
  - LNAPL thickness at one (1) off-site location is currently 0.37 feet and has decreased by approximately 50% over the monitoring period.

- Manual bailing is effectively removing residual LNAPL at some Site monitoring wells.

Based on the summary provided herein, manual bailing of LNAPL at various monitoring wells highlighted herein appears to be effective and will continue to be performed on a monthly basis during the next quarter. However, alternative methods (i.e., oil absorbing socks), if practical, may be employed during the next monitoring period to supplement recovery of LNAPL if manual bailing efforts become less effective.

Groundwater Monitoring

Groundwater is monitored by a combination of gauging and sampling of groundwater monitoring wells within the SMP monitoring network. As discussed earlier, groundwater monitoring wells are gauged monthly to check for the presence of LNAPL and confirm thickness of LNAPL, if present. Site monitoring wells are then sampled on a quarterly basis to determine the presence of volatile organic compounds (VOCs), in particular the four Site-specific chemicals of concern (benzene, ethylbenzene, isopropylbenzene and total xylenes). The monitoring wells were sampled for Target Compound List (TCL) of VOCs using United States Environmental Protection Agency (USEPA) SW846 Method 8260.

The water/ LNAPL level data (Attachment 3) collected during the December 2016 gauging event was used to prepare a Site groundwater elevation contour and flow pattern map (Figure 1). If the presence of LNAPL was noted in groundwater monitoring wells outside the radius of influence of Site recovery wells, the product thickness was noted and the monitoring well was manually bailed to the extent practical. The respective LNAPL measurements collected from the September and December 2016 gauging rounds are highlighted on Figures 2 and 3.

On September 8, 2016 and December 1, 2016, two separate quarterly groundwater gauging and sampling rounds were performed. Since the monitoring well network was not finalized when the September 8, 2016 event was performed, the number and location of monitoring wells that were sampled were not the same for each event. The current monitoring well network consists of the following:

- three off-site monitoring wells along the southern perimeter of the site (MW-3, MW-4, and MW-34); and
- 18 on-site monitoring wells (MW-2R, MW-4, MW-7, MW-10, MW-11, MW-15, MW-19, MW-33, MW-38, MW-40, MW-41, MW-42, MW-43, MW-44, MW-45, MW-46, MW-47, and MW-48).

For each event, if the presence of product was noted at a monitoring well to be sampled within the respective monitoring network, the monitoring well was not sampled. Instead of being sampled, LNAPL was manually recovered to the extent practical. A total of 4.45 gallons of LNAPL were recovered by bailing during this reporting period.

Groundwater samples were collected using low-flow groundwater sampling procedures. The pump intake was set within the saturated portion of the well screen during purging and sampling activities. Prior to collecting groundwater samples, each monitoring well was purged at a flow rate of approximately .12 liters per minute (L/min). Flow rates were adjusted to maintain minimal drawdown in the well during purging activities. A portable water-quality meter, equipped with an in-line flow-through cell, was used to monitor water quality indicator parameters (pH, conductivity, dissolved oxygen [DO], oxidation-reduction potential [ORP], temperature, and turbidity). Groundwater quality measurements were collected every three to five minutes until the field parameters stabilized (Attachments 4 and 5).

Purging was considered complete when the field parameters had stabilized, after which groundwater samples were collected and submitted for TCL VOC analysis. The results of these samples are summarized in Table 1 and presented in Figures 2 and 3.

The following monitoring wells were sampled during the two (2) quarterly events:

September 2016 (11 Monitoring Wells Sampled)		**December 2016 (14 Monitoring Wells Sampled)**	
MW-5	MW-34	MW-10	MW-40
MW-7R	MW-37	MW-11	MW-41
MW-10	MW-38	MW-21	MW-43
MW-11	MW-41	MW-33	MW-44
MW-19	MW-42	MW-34	MW-46
MW-21		MW-37	MW-47
		MW-38	MW-48

A review of the groundwater data generated indicated the following:

- Seven (7) of the twenty-one (21) monitoring wells within the NYSDEC-approved monitoring network were not sampled during the December 2016 sampling event due to the presence of LNAPL at those locations as discussed previously.
- VOCs were detected, but at concentrations below AWQSGVs in seven (7) monitoring wells (MW-11, MW-21, MW-33, MW-41, MW-42, MW-46 and MW-48).
- COC exceedances of AWQSGVs were generally less than an order of magnitude greater than their respective AWQSGV:
  - Benzene results were below their respective AWQSGV of 5 µg/L at all monitoring locations except at MW-40 which had a detection of 8.6 µg/L.
  - Ethylbenzene results exceeded their respective AWQSGV of 5 µg/L at two monitoring well locations (9.9 µg/L at MW-44 and 11 µg/L at MW-47).
  - Isopropylbenzene results exceeded their respective AWQSGV of 5 µg/L at seven monitoring well locations. Exceedances ranged from 6.8 to 44 µg/L.
  - Xylene results exceed their respective AWQSGV of 5 µg/L at two monitoring well locations (44 µg/L at MW-44 and 38 µg/L at MW-47).

Based on the presence of VOCs above the NYSDEC AWQSGVs in groundwater, treatment of VOCs utilizing In-situ Chemical Oxidation (ISCO) will be required. As contemplated in the SMP, ISCO will also be required to address residual gross contamination in areas depicted on Figure 9 of the SMP. It is anticipated that an ISCO injection design plan will be prepared and implemented at a later date after on-site LNAPL recovery efforts have been completed to the extent practical. Development and implementation of a NYSDEC-approved injection plan could potentially occur as early as the second quarter of 2017.

Modifications or Amendments to the SMP

No modifications or amendments to the SMP were implemented this reporting period.

Actions Planned for the Next Quarterly Reporting Period

The following actions are planned for the next reporting period:

- Continued monthly operation and maintenance of LNAPL recovery system;
- Continued monthly gauging and manual LNAPL recovery, where applicable, at Site monitoring and recovery wells;
- Continued quarterly monitoring (gauging and sampling) of Site monitoring wells within SMP network;
- Evaluation of LNAPL recovery efforts at RW-1 through RW-5 to determine if continued operation of the on-site LNAPL recovery system is warranted; and
- Evaluation and potential use of alternative (i.e., oil absorbing socks), practical methods to supplement recovery of LNAPL at Site monitoring wells where manual recovery efforts become ineffective.

If there are any follow-up questions or concerns with regards to the information provided in this quarterly report, please don't hesitate to contact our office.

Sincerely,

REMEDIAL ENGINEER, P.C.

Omar Ramotar, P.E.
Principal Engineer

Attachments

cc: Jane O'Connell, NYSDEC
Andrew Till, Simon Baron Development
Robert Hendrickson, Quadrum Global
Joseph Duminuco, Roux Associates, Inc.
Glenn Netuschil, P.E., Remedial Engineering, P.C.
Jordanna Kendrot, Roux Associates, Inc.

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-10	MW-10	MW-11	MW-11	MW-19	MW-21	MW-21
		Sample Date:	09/08/2016	12/01/2016	09/08/2016	12/01/2016	09/08/2016	09/08/2016	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	FD
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	**7**	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	5 U	5 U	5.6	5 U	5 U
Benzene	**1**	UG/L	0.5 U	0.5 U	0.64	0.68	0.46 J	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-10	MW-10	MW-11	MW-11	MW-19	MW-21	MW-21
Sample Date:			09/08/2016	12/01/2016	09/08/2016	12/01/2016	09/08/2016	09/08/2016	09/08/2016
Normal or Field Duplicate:			N	N	N	N	N	N	FD
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	**25**	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	**33**	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	**23**	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	4.7	4.1	**13**	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-33	MW-34	MW-34	MW-37	MW-37	MW-38
		Sample Date:	12/01/2016	12/01/2016	09/08/2016	12/01/2016	09/08/2016	12/01/2016	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	7.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	0.74 J	12 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	10 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	5 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	3	1.3 J	0.98 J	2.5 U	3.6 J	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	1200 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Acetone	**50**	UG/L	5 U	23	5 U	5 U	3.4 J	39	3.5 J
Benzene	**1**	UG/L	0.5 U	0.5 U	0.42 J	0.26 J	0.19 J	2.5 U	0.27 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	10 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-33	MW-34	MW-34	MW-37	MW-37	MW-38
		Sample Date:	12/01/2016	12/01/2016	09/08/2016	12/01/2016	09/08/2016	12/01/2016	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	0.76 J	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	1.3 J	**30**	**22**	**14**	**28**	**15**
m,p-Xylene	**5**	UG/L	2.5 U	1.1 J	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	3.2 J	5 U	5 U	7.4	25 U	6.8
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	25 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.2 J	**39**	**33**	**20**	**50**	**16**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	1.5 J	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.6	**16**	**15**	**5.1**	**21**	5
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	1.8 J	**7**	**6.9**	2.8	**7.1 J**	2.5
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.46 J	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	1.2 J	12 U	1 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	5 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.6 J	2.5 U	2.5 U	2.5 U	12 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
 - - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-38	MW-40	MW-41	MW-41	MW-42	MW-43	MW-44
		Sample Date:	12/01/2016	12/01/2016	09/08/2016	12/01/2016	09/08/2016	12/01/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**12**	**41**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	1.6 J	2 J	5 U	5 U	5 U	7.4	**98**
Benzene	**1**	UG/L	0.28 J	**8.6**	0.26 J	0.5 U	0.5 U	0.5 U	1
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-38	MW-40	MW-41	MW-41	MW-42	MW-43	MW-44
		Sample Date:	12/01/2016	12/01/2016	09/08/2016	12/01/2016	09/08/2016	12/01/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**9.9**
Isopropylbenzene (Cumene)	**5**	UG/L	**26**	**44**	1.3 J	0.73 J	4.7	1.4 J	**6.8**
m,p-Xylene	**5**	UG/L	2.5 U	1 J	2.5 U	2.5 U	2.5 U	1.3 J	**24**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	12
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**34**	**69**	1.7 J	0.8 J	3.5	1.9 J	**8.5**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	0.78 J	2.5 U	2.5 U	2.5 U	0.8 J	**17**
Sec-Butylbenzene	**5**	UG/L	**11**	**16**	2.3 J	1.1 J	2.9	2.5 U	1.8 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	4.3	3.5	1.2 J	0.78 J	1.2 J	2.5 U	1.2 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	0.97 J	1.7 J	2.5 U	2.5 U	2.5 U	2.5 U	3.8
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	1.8 J	2.5 U	2.5 U	2.5 U	2.1 J	**41**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-46	MW-47	MW-47	MW-48	MW-5	MW-7R
		Sample Date:	12/01/2016	12/01/2016	12/01/2016	12/01/2016	09/08/2016	09/08/2016
		Normal or Field Duplicate:	N	FD	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units						
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	**41**	**40**	2.2 J	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	1.1 J	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	4.2 J	**110**	**110**	5 U	5 U	14
Benzene	**1**	UG/L	0.5 U	**1.1**	0.98	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	1.2 J	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-46	MW-47	MW-47	MW-48	MW-5	MW-7R
		Sample Date:	12/01/2016	12/01/2016	12/01/2016	12/01/2016	09/08/2016	09/08/2016
		Normal or Field Duplicate:	N	FD	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units						
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	**11**	**11**	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	**9.9**	**9.2**	4	2.5 U	**11**
m,p-Xylene	**5**	UG/L	2.5 U	**25**	**24**	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	16	14	5 U	5 U	5.5
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	1.1 J	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	**14**	**13**	3.1	2.5 U	**19**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	**15**	**14**	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.2 J	2.1 J	4.7	2.5 U	**12**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	0.99 J	0.95 J	4.1	2.5 U	**6**
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	4	3.8	2.5 U	2.5 U	0.99 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	**40**	**38**	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
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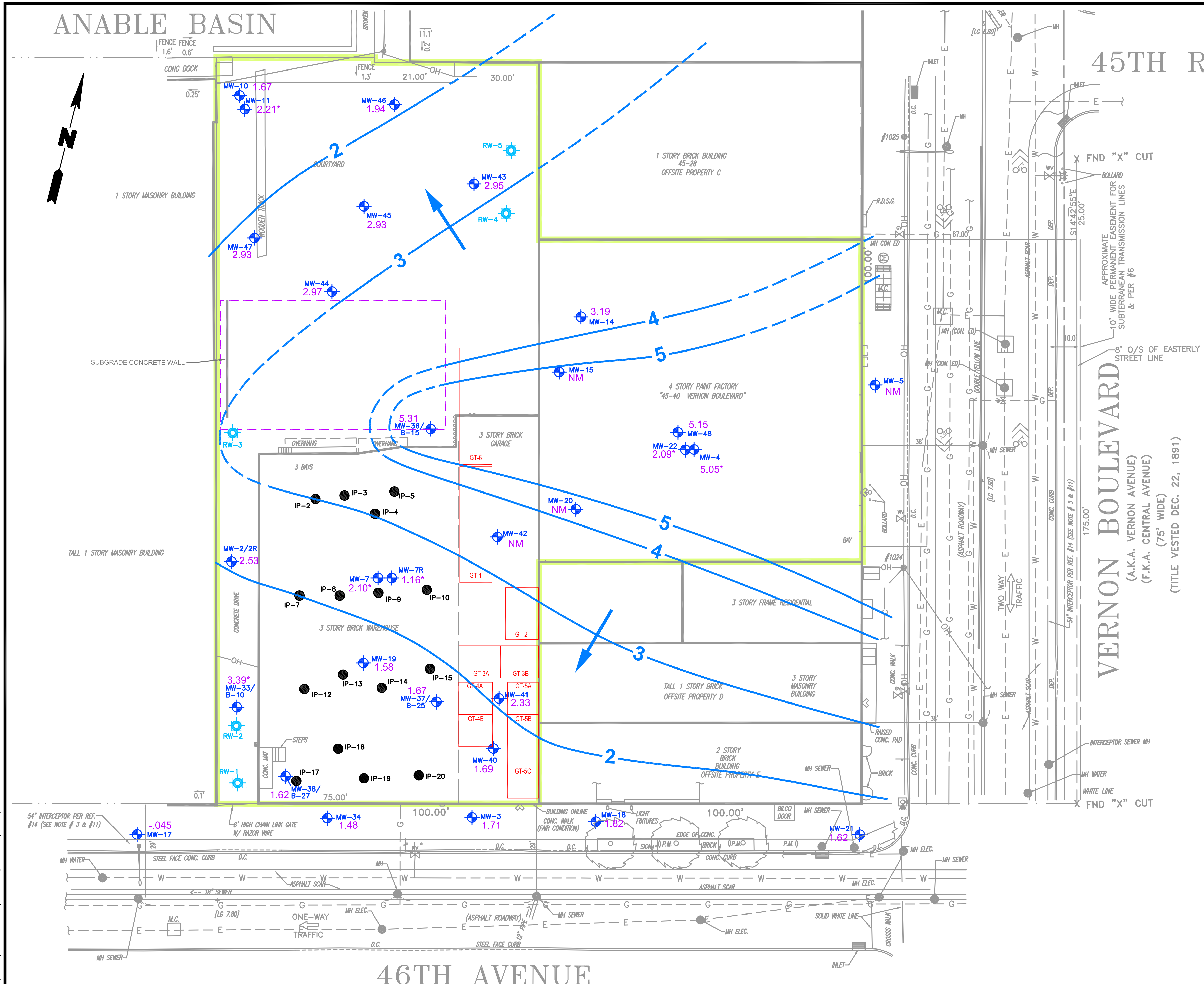

LEGEND

MW-5	LOCATION AND DESIGNATION OF MONITORING WELL
RW-1	LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL
IP-2	LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
ISCO	IN-SITU CHEMICAL OXIDATION
	CONCRETE VAULT
	PROPERTY BOUNDARY
GT-6	APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
	CONCRETE SLAB
1.67	GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
2.09*	MEASUREMENT NOT USED IN CONTOURING
2	LINE OF EQUAL GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL) (DASHED WHERE INFERRED)
	DIRECTION OF GROUNDWATER FLOW

NOTE

1. GROUNDWATER ELEVATIONS WERE GROUNDWATER CORRECTED FOR THE PRESENCE OF LNAPL WHERE APPLICABLE

30' 0 30'

Title:

GROUNDWATER ELEVATION AND CONTOUR MAP DECEMBER 1, 2016

PARAGON PAINT & VARNISH CORPORATION
LONG ISLAND CITY, NEW YORK

Prepared For:

VERNON 4540 REALTY LLC

Remedial
REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

Compiled by: J.K.	Date: 09FEB17	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	1
Project Mgr: O.R.	Project: 2051.0001Y000	
File: 2051.0001Y236.01.DWG		

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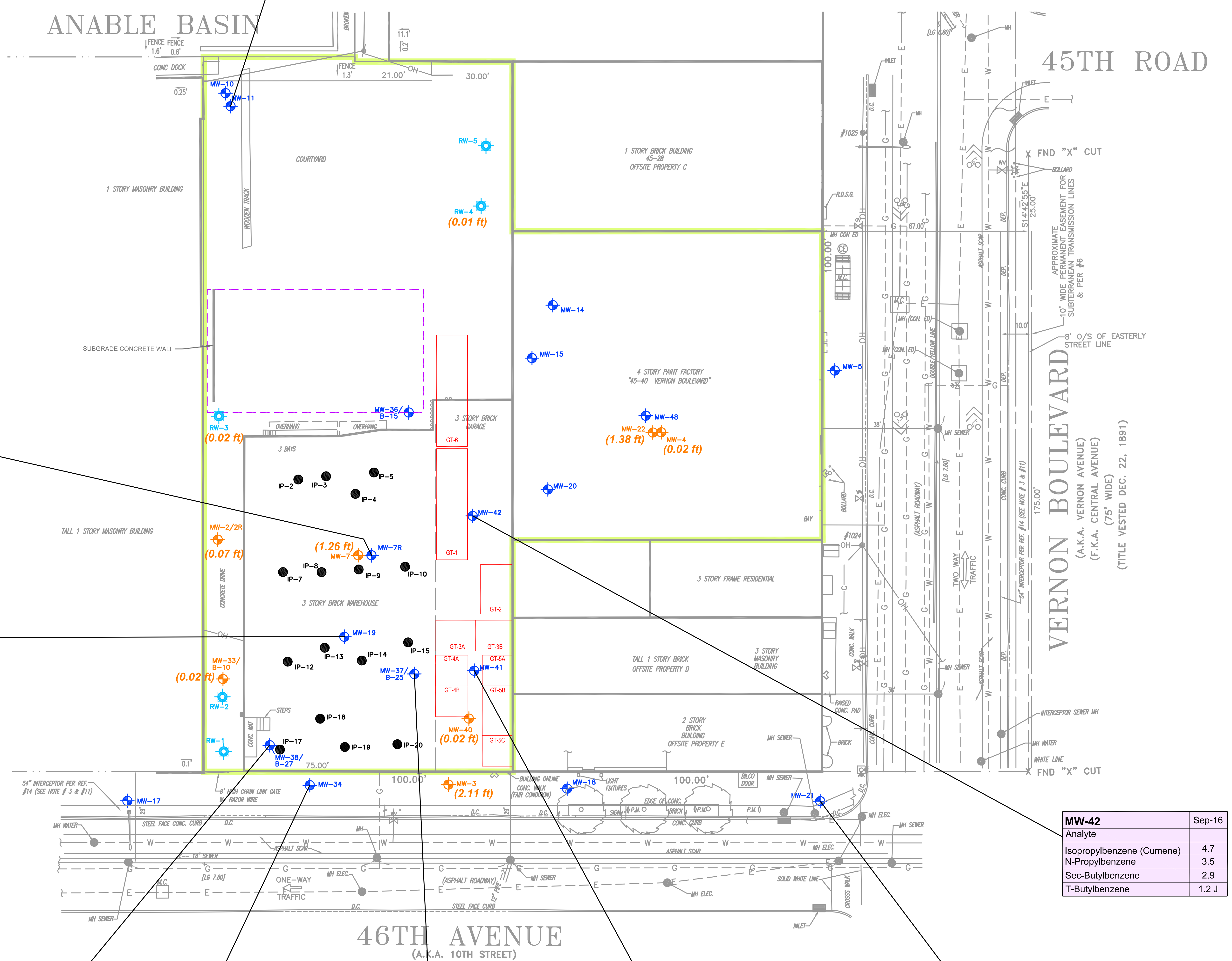

LEGEND

- MW-5 — LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
- MW-3 — LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
- RW-1 — LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
- IP-2 — LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
- (1.38 ft) — LNAPL THICKNESS
- ft — FEET
- LNAPL — LIGHT NON-AQUEOUS PHASE LIQUID
- ISCO — IN-SITU CHEMICAL OXIDATION
- CONCRETE VAULT
- PROPERTY BOUNDARY
- GT-6 — APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
- CONCRETE SLAB

TYPICAL DATA BOX INFORMATION

SAMPLE ID. → MW-11; SAMPLE DATE → Sep-16; ANALYTES; CONCENTRATIONS (IN µg/L)

MW-11	Sep-16
Analyte	
Benzene	0.64
T-Butylbenzene	4.7

Parameter (Concentrations in µg/L)	Standards* (µg/L)
1,2-Dichloropropane	1
1,3,5-Trimethylbenzene (Mesitylene)	5
1,3-Dichlorobenzene	3
2-Hexanone	50
Acetone	50
Benzene	1
Chloromethane	--
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
m,p-Xylene	5
Methyl Ethyl Ketone (2-Butanone)	50
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--
N-Propylbenzene	5
O-Xylene (1,2-Dimethylbenzene)	5
Sec-Butylbenzene	5
T-Butylbenzene	5
Tetrachloroethylene (PCE)	5
Toluene	5

Concentrations in µg/L

µg/L - Micrograms per liter
* - NYSDEC AWQSGVs
NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L - Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
NS - Not Sampled
FD - Duplicate
-- - No NYSDEC AWQSGV available

Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Data Boxes

MW-11	Sep-16
Analyte	
Benzene	0.64
T-Butylbenzene	4.7

MW-7R	Sep-16
Analyte	
Acetone	14
Isopropylbenzene (Cumene)	**11**
Methyl Ethyl Ketone (2-Butanone)	5.5
N-Propylbenzene	**19**
Sec-Butylbenzene	**12**
T-Butylbenzene	**6**
Toluene	0.99 J

MW-19	Sep-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**7**
Acetone	5.6
Benzene	0.46 J
Isopropylbenzene (Cumene)	**25**
Methyl Ethyl Ketone (2-Butanone)	5
N-Propylbenzene	**33**
Sec-Butylbenzene	**23**
T-Butylbenzene	**13**

MW-42	Sep-16
Analyte	
Isopropylbenzene (Cumene)	4.7
N-Propylbenzene	3.5
Sec-Butylbenzene	2.9
T-Butylbenzene	1.2 J

MW-38	Sep-16
Analyte	
Acetone	3.5 J
Benzene	0.27 J
Isopropylbenzene (Cumene)	**15**
Methyl Ethyl Ketone (2-Butanone)	6.8
N-Propylbenzene	**16**
Sec-Butylbenzene	5
T-Butylbenzene	2.5
Toluene	1 J

MW-34	Sep-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	1.3 J
Benzene	0.42 J
Isopropylbenzene (Cumene)	**30**
N-Propylbenzene	**39**
Sec-Butylbenzene	**16**
T-Butylbenzene	**7**

MW-37	Sep-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	2.5 U
Acetone	3.4 J
Benzene	0.19 J
Isopropylbenzene (Cumene)	**14**
Methyl Ethyl Ketone (2-Butanone)	7.4
N-Propylbenzene	**20**
Sec-Butylbenzene	**5.1**
T-Butylbenzene	2.8
Toluene	1.2 J

MW-41	Sep-16
Analyte	
Benzene	0.26 J
Isopropylbenzene (Cumene)	1.3 J
N-Propylbenzene	1.7 J
Sec-Butylbenzene	2.3 J
T-Butylbenzene	1.2 J

MW-21	Sep-16
Analyte	
Tetrachloroethylene (PCE)	0.5 U

N

30' 0 30'

NO.	DATE	REVISION DESCRIPTION	INT.

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Remedial
REMEDIAL ENGINEERING, P.C.
209 Shafter Street
Islandia, New York 11749 (631) 232-2600

PROJECT NAME:
QUARTERLY MONITORING REPORT - 4TH QUARTER
PARAGON PAINT AND VARNISH CORPORATION

PROJECT FOR:
VERNON 4540 REALTY LLC

TITLE:
VOCs AND LNAPL DETECTED IN GROUNDWATER
SEPTEMBER 2016

FIGURE
2

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MW-47	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**40**
2-Hexanone	5 U
Acetone	**110**
Benzene	0.98
Chloromethane	2.5 U
Ethylbenzene	**11**
Isopropylbenzene (Cumene)	**9.2**
m,p-Xylene	**24**
Methyl Ethyl Ketone (2-Butanone)	14
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.1 J
N-Propylbenzene	**13**
O-Xylene (1,2-Dimethylbenzene)	**14**
Sec-Butylbenzene	2.1 J
T-Butylbenzene	0.95 J
Toluene	3.8
Xylenes	**38**

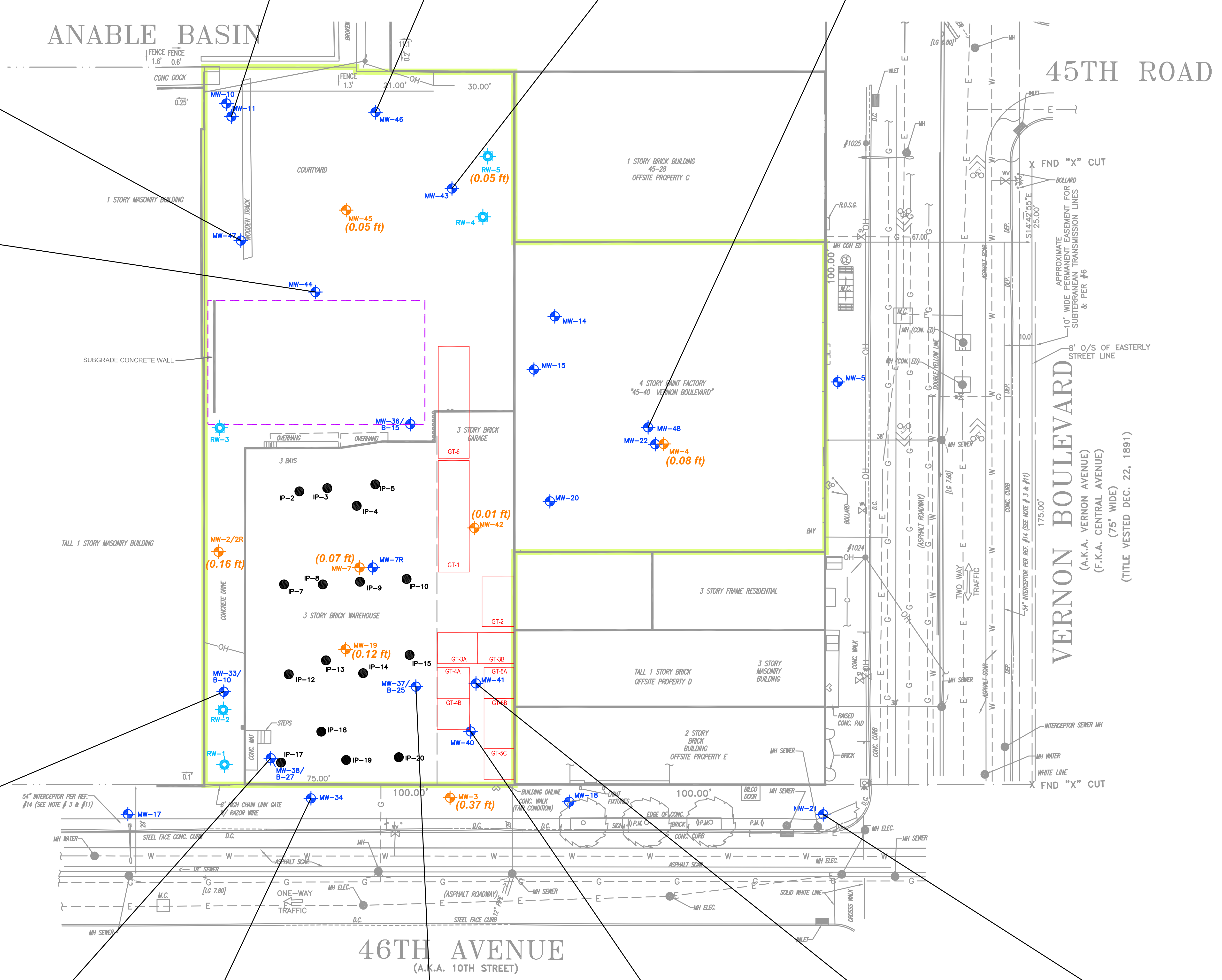
MW-11	Dec-16
Analyte	
Benzene	0.68
T-Butylbenzene	4.1

MW-46	Dec-16
Analyte	
Acetone	4.2 J

MW-43	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**12**
Acetone	7.4
Isopropylbenzene (Cumene)	1.4 J
m,p-Xylene	1.3 J
N-Propylbenzene	1.9 J
O-Xylene (1,2-Dimethylbenzene)	0.8 J
Xylenes	2.1 J

MW-48	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	2.2 J
Isopropylbenzene (Cumene)	4
N-Propylbenzene	3.1
Sec-Butylbenzene	4.7
T-Butylbenzene	4.1

MW-44	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**41**
Acetone	**98**
Benzene	1
Ethylbenzene	**9.9**
Isopropylbenzene (Cumene)	**6.8**
m,p-Xylene	**24**
Methyl Ethyl Ketone (2-Butanone)	12
N-Propylbenzene	**8.5**
O-Xylene (1,2-Dimethylbenzene)	**17**
Sec-Butylbenzene	1.8 J
T-Butylbenzene	1.2 J
Toluene	3.8
Xylenes	**41**



MW-33	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	3
Acetone	23
Ethylbenzene	0.76 J
Isopropylbenzene (Cumene)	1.3 J
m,p-Xylene	1.1 J
Methyl Ethyl Ketone (2-Butanone)	3.2 J
N-Propylbenzene	2.2 J
O-Xylene (1,2-Dimethylbenzene)	1.5 J
Sec-Butylbenzene	2.6
T-Butylbenzene	1.8 J
Xylenes	2.6 J

MW-38	Dec-16
Analyte	
Acetone	1.6 J
Benzene	0.28 J
Isopropylbenzene (Cumene)	**26**
Methyl Ethyl Ketone (2-Butanone)	5 U
N-Propylbenzene	**34**
Sec-Butylbenzene	**11**
T-Butylbenzene	4.3
Toluene	0.97 J

MW-34	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	0.98 J
Benzene	0.26 J
Isopropylbenzene (Cumene)	**22**
N-Propylbenzene	**33**
Sec-Butylbenzene	**15**
T-Butylbenzene	**6.9**

MW-37	Dec-16
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	3.6 J
Acetone	39
Benzene	2.5 U
Isopropylbenzene (Cumene)	**28**
Methyl Ethyl Ketone (2-Butanone)	25 U
N-Propylbenzene	**50**
Sec-Butylbenzene	**21**
T-Butylbenzene	**7.1 J**
Toluene	12 U

MW-40	Dec-16
Analyte	
Acetone	2 J
Benzene	**8.6**
Isopropylbenzene (Cumene)	**44**
m,p-Xylene	1 J
N-Propylbenzene	**69**
O-Xylene (1,2-Dimethylbenzene)	0.78 J
Sec-Butylbenzene	**16**
T-Butylbenzene	3.5
Toluene	1.7 J
Xylenes	1.8 J

MW-41	Dec-16
Analyte	
Benzene	0.5 U
Isopropylbenzene (Cumene)	0.73 J
N-Propylbenzene	0.8 J
Sec-Butylbenzene	1.1 J
T-Butylbenzene	0.78 J

MW-21	Dec-16
Analyte	
Tetrachloroethylene (PCE)	0.46 J

LEGEND

MW-5	LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
MW-3	LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
RW-1	LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
IP-2	LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
(0.05 ft)	LNAPL THICKNESS
ft	FEET
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
ISCO	IN-SITU CHEMICAL OXIDATION
	CONCRETE VAULT
	PROPERTY BOUNDARY
GT-6	APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
	CONCRETE SLAB

TYPICAL DATA BOX INFORMATION

SAMPLE ID. → MW-11 | Dec-16 ← SAMPLE DATE

ANALYTES: Benzene 0.68; T-Butylbenzene 4.1 — CONCENTRATIONS (IN µg/L)

Parameter (Concentrations in µg/L)	Standards* (µg/L)
1,2-Dichloropropane	1
1,3,5-Trimethylbenzene (Mesitylene)	5
1,3-Dichlorobenzene	3
2-Hexanone	50
Acetone	50
Benzene	1
Chloromethane	--
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
m,p-Xylene	5
Methyl Ethyl Ketone (2-Butanone)	50
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--
N-Propylbenzene	5
O-Xylene (1,2-Dimethylbenzene)	5
Sec-Butylbenzene	5
T-Butylbenzene	5
Tetrachloroethylene (PCE)	5
Toluene	5

Concentrations in µg/L

µg/L - Micrograms per liter
* - NYSDEC AWQSGVs
NYSDEC - New York State Department of Environmental Conservation
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N

30' 0 30'

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PARAGON PAINT AND VARNISH CORPORATION

PROJECT FOR:
VERNON 4540 REALTY LLC

TITLE:
VOCs AND LNAPL DETECTED IN GROUNDWATER
DECEMBER 2016

FIGURE
3

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ATTACHMENT 1

Monitoring, Inspection, and
Maintenance Forms

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Thursday, September 08, 2016**

Site Observations: Performed by (MS) on (9/8/16)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (9/8/16)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (9/8/16)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (9/8/16)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (9/8/16)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **9/8/2016**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

Sampling to be completed today from monitoring wells in SMP monitoring network

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Jordanna Kendrot**

Date: **Thursday, October 13, 2016**

Site Observations: Performed by (JK) on (10/13/16)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (JK) on (10/13/16)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (JK) on (10/13/16)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (JK) on (10/13/16)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (JK) on (10/13/16)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Jordanna Kendrot**
Date: **10/13/2016**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Tuesday, November 15, 2016**

Site Observations: Performed by (MS) on (11/15/16)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (11/15/16)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (11/15/16)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (11/15/16)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (11/15/16)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	[X]	Were all five (5) AC Sipper reels operating properly? See pg. 2
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **11/15/2016**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery System was turned off (breaker when hooked into system was shut off entirely). Brekaer turned back on and system restarted

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Thursday, December 01, 2016**

Site Observations: **Performed by (MS) on (12/1/16)**

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: **Performed by (MS) on (12/1/16)**

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: **Performed by (MS) on (12/1/16)**

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: **Performed by (MS) on (12/1/16)**

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : **Performed by (MS) on (12/1/16)**

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **12/1/2016**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

Sampling to be completed today from monitoring wells in SMP monitoring network

ATTACHMENT 2

LNAPL Recovery System
Monitoring Logs

LNAPL Recovery System Monitoring Log, Former Paragon Paint & Varnish Factory, Long Island City, New York

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.71	--	
Recovery Well RW-2	N	--	7.34	--	
Recovery Well RW-3	Y	8.36	8.38	0.02	
Recovery Well RW-4	Y	8.65	8.66	0.01	Trace amount; cannot be recovered by system
Recovery Well RW-5	N	--	8.45	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				0 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how? System startup; program LNAPL recovery system to pull from RW-3 and RW-4 only

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log, Former Paragon Paint & Varnish Factory, Long Island City, New York

Source of Reading	Value	Recovery Well Gauging Data			Comments
Recovery Well Network -Presence of Product	Product Present?	DTW	DTP	FTP	
Recovery Well RW-1	N	--	6.71	--	
Recovery Well RW-2	N	--	7.34	--	
Recovery Well RW-3	Y	8.36	8.38	0.02	
Recovery Well RW-4	Y	8.65	8.66	0.01	Trace amount; cannot be recovered by system
Recovery Well RW-5	N	--	8.45	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				2.4 Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how? N/A

Form Completed By:

Jordanna Kendrot

LNAPL Recovery System Monitoring Log, Former Paragon Paint & Varnish Factory, Long Island City, New York

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.84	--	
Recovery Well RW-2	N	--	7.4	--	
Recovery Well RW-3	N	--	8.04	--	No product present
Recovery Well RW-4	N	--	8.3	--	No product present
Recovery Well RW-5	Y	8.1	8.12	0.02	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				2.6 Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how? Modify system so no longer removing product from RW-3/RW-4; program system to begin removal from RW-5

Form Completed By:

Michael Sarnie

LNAPL Recovery System Monitoring Log, Former Paragon Paint & Varnish Factory, Long Island City, New York

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	7.2	--	
Recovery Well RW-2	N	--	7.6	--	
Recovery Well RW-3	N	--	7.29	--	
Recovery Well RW-4	N	--	8.68	--	
Recovery Well RW-5	N	--	8.46	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.1 Gallons	

Is the system operating within the acceptable conditions? No; system breaker had been turned off

If no, was the condition corrected and how? Turn on breaker to building and turn system back on; resume settings from 10/26/16

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log, Former Paragon Paint & Varnish Factory, Long Island City, New York

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.51	--	
Recovery Well RW-2	N	--	6.54	--	
Recovery Well RW-3	N	--	6.67	--	
Recovery Well RW-4	N	--	6.98	--	
Recovery Well RW-5	Y	6.74	6.75	0.01	Trace amount; cannot be recovered by system
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.1 Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how? N/A

Form Completed By:

Michael Sarni

ATTACHMENT 3

Gauging and Manual LNAPL
Recovery Data

Groundwater Gauging Former Paragon Paint Varnish Corp - September 8, 2016
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
9/8/2016	MW-2R	7.52	7.59	4	0.07	--	0.0
9/8/2016	MW-3	6.8	8.91	2	2.11	1.0	1.0
9/8/2016	MW-4	9.98	10.18	2	0.2	0.1	0.1
9/8/2016	MW-7	2.39	3.65	1	1.26	--	0.0
9/8/2016	MW-7R	NM	NM	2	--	--	
9/8/2016	MW-9	Monitoring well destroyed/paved over by asphalt					
9/8/2016	MW-10	--	7.65	2	--	--	
9/8/2016	MW-11	--	6.77	2	--	--	
9/8/2016	MW-14	--	NM	2	--	--	
9/8/2016	MW-15	--	9.27	2	--	--	
9/8/2016	MW-17	NM	NM	4	--	--	
9/8/2016	MW-18	NM	NM	4	--	--	
9/8/2016	MW-19	--	2.36	2	--	--	
9/8/2016	MW-20	NM	NM	2	--	--	
9/8/2016	MW-21	--	6.65	4	--	--	
9/8/2016	MW-22	9.81	11.19	2	1.38	0.25	0.25
9/8/2016	MW-33	7.46	7.48	2	0.02	--	0.0
9/8/2016	MW-34	--	7.31	4	--	--	
9/8/2016	MW-36	NM	NM	4	--	--	
9/8/2016	MW-37	NM	NM	2	--	--	
9/8/2016	MW-38	--	2.62	2	--	--	
9/8/2016	MW-40	6.98	7	2	0.02	--	0.0
9/8/2016	MW-41	--	6.61	2	--	--	
9/8/2016	MW-42	--	7.86	2	--	--	
9/8/2016	MW-43	Monitoring well not installed at time of gauging					
9/8/2016	MW-44	Monitoring well not installed at time of gauging					
9/8/2016	MW-45	Monitoring well not installed at time of gauging					0.0
9/8/2016	MW-46	Monitoring well not installed at time of gauging					
9/8/2016	MW-47	Monitoring well not installed at time of gauging					
9/8/2016	MW-48	Monitoring well not installed at time of gauging					
						Total	**1.35**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - September 16, 2016
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
9/16/2016	MW-2R	NM	NM	4	--	--	0.0
9/16/2016	MW-3	NM	NM	2	--	--	1.0
9/16/2016	MW-4	10.04	10.19	2	0.15	--	0.1
9/16/2016	MW-7	NM	NM	1	--	--	0.0
9/16/2016	MW-7R	NM	NM	2	--	--	
9/16/2016	MW-9	Monitoring well destroyed/paved over by asphalt					
9/16/2016	MW-10	NM	NM	2	--	--	
9/16/2016	MW-11	NM	NM	2	--	--	
9/16/2016	MW-14	NM	NM	2	--	--	
9/16/2016	MW-15	--	9.29	2	--	--	
9/16/2016	MW-17	NM	NM	4	--	--	
9/16/2016	MW-18	NM	NM	4	--	--	
9/16/2016	MW-19	NM	NM	2	--	--	
9/16/2016	MW-20	NM	NM	2	--	--	
9/16/2016	MW-21	NM	NM	4	--	--	
9/16/2016	MW-22	10.06	10.35	2	0.29	--	0.25
9/16/2016	MW-33	NM	NM	2	--	--	0.0
9/16/2016	MW-34	NM	NM	4	--	--	
9/16/2016	MW-36	NM	NM	4	--	--	
9/16/2016	MW-37	NM	NM	2		--	
9/16/2016	MW-38	NM	NM	2	--	--	
9/16/2016	MW-40	NM	NM	2	--	--	0.0
9/16/2016	MW-41	NM	NM	2	--	--	
9/16/2016	MW-42	NM	NM	2	--	--	
9/16/2016	MW-43	Monitoring well not installed at time of gauging					
9/16/2016	MW-44	Monitoring well not installed at time of gauging					
9/16/2016	MW-45	Monitoring well not installed at time of gauging					0.0
9/16/2016	MW-46	Monitoring well not installed at time of gauging					
9/16/2016	MW-47	Monitoring well not installed at time of gauging					
9/16/2016	MW-48	Monitoring well not installed at time of gauging					
						Total	**1.35**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - September 29, 2016
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
9/29/2016	MW-2R	NM	NM	4	--	--	0.0
9/29/2016	MW-3	7.06	8.37	2	1.31	--	1.0
9/29/2016	MW-4	10.04	10.19	2	0.15	--	0.1
9/29/2016	MW-7	NM	NM	1	--	--	0.0
9/29/2016	MW-7R	NM	NM	2	--	--	
9/29/2016	MW-9	Monitoring well destroyed/paved over by asphalt					
9/29/2016	MW-10	NM	NM	2	--	--	
9/29/2016	MW-11	NM	NM	2	--	--	
9/29/2016	MW-14	NM	NM	2	--	--	
9/29/2016	MW-15	NM	NM	2	--	--	
9/29/2016	MW-17	NM	NM	4	--	--	
9/29/2016	MW-18	NM	NM	4	--	--	
9/29/2016	MW-19	NM	NM	2	--	--	
9/29/2016	MW-20	NM	NM	2	--	--	
9/29/2016	MW-21	NM	NM	4	--	--	
9/29/2016	MW-22	10.06	10.35	2	0.29	--	0.25
9/29/2016	MW-33	NM	NM	2	--	--	0.0
9/29/2016	MW-34	NM	NM	4	--	--	
9/29/2016	MW-36	NM	NM	4	--	--	
9/29/2016	MW-37	NM	NM	2		--	
9/29/2016	MW-38	NM	NM	2	--	--	
9/29/2016	MW-40	NM	NM	2	--	--	0.0
9/29/2016	MW-41	NM	NM	2	--	--	
9/29/2016	MW-42	NM	NM	2	--	--	
9/29/2016	MW-43	Monitoring well not installed at time of gauging					
9/29/2016	MW-44	Monitoring well not installed at time of gauging					
9/29/2016	MW-45	Monitoring well not installed at time of gauging					0.0
9/29/2016	MW-46	Monitoring well not installed at time of gauging					
9/29/2016	MW-47	Monitoring well not installed at time of gauging					
9/29/2016	MW-48	Monitoring well not installed at time of gauging					
						Total	**1.35**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - September 30, 2016
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
9/30/2016	MW-2R	NM	NM	4	--	--	0.0
9/30/2016	MW-3	NM	NM	2	--	--	1.0
9/30/2016	MW-4	10.18	10.22	2	0.04	--	0.1
9/30/2016	MW-7	NM	NM	1	--	--	0.0
9/30/2016	MW-7R	NM	NM	2	--	--	
9/30/2016	MW-9	Monitoring well destroyed/paved over by asphalt					
9/30/2016	MW-10	NM	NM	2	--	--	
9/30/2016	MW-11	NM	NM	2	--	--	
9/30/2016	MW-14	--	10.11	2	--	--	
9/30/2016	MW-15	--	9.98	2	--	--	
9/30/2016	MW-17	--	7.05	4	--	--	
9/30/2016	MW-18	--	7.07	4	--	--	
9/30/2016	MW-19	NM	NM	2	--	--	
9/30/2016	MW-20	--	10.27	2	--	--	
9/30/2016	MW-21	NM	NM	4	--	--	
9/30/2016	MW-22	10.19	10.34	2	0.15	--	0.25
9/30/2016	MW-33	NM	NM	2	--	--	0.0
9/30/2016	MW-34	NM	NM	4	--	--	
9/30/2016	MW-36	--	7.44	4	--	--	
9/30/2016	MW-37	NM	NM	2	--	--	
9/30/2016	MW-38	NM	NM	2	--	--	
9/30/2016	MW-40	NM	NM	2	--	--	0.0
9/30/2016	MW-41	NM	NM	2	--	--	
9/30/2016	MW-42	NM	NM	2	--	--	
9/30/2016	MW-43	Monitoring well not installed at time of gauging					
9/30/2016	MW-44	Monitoring well not installed at time of gauging					
9/30/2016	MW-45	Monitoring well not installed at time of gauging					0.0
9/30/2016	MW-46	Monitoring well not installed at time of gauging					
9/30/2016	MW-47	Monitoring well not installed at time of gauging					
9/30/2016	MW-48	Monitoring well not installed at time of gauging					
						Total	**1.35**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - October 13, 2016
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
10/13/2016	MW-2R	7.65	8.3	4	0.65	--	0.15
10/13/2016	MW-3	7.08	7.81	2	0.73	0.3	1.25
10/13/2016	MW-4	10.13	10.21	2	0.08	--	0.1
10/13/2016	MW-7	2.8	3.2	1	0.4	--	0.0
10/13/2016	MW-7R	--	2.95	2	--	--	
10/13/2016	MW-9	Monitoring well destroyed/paved over by asphalt					
10/13/2016	MW-10	--	5.03	2	--	--	
10/13/2016	MW-11	--	6.05	2	--	--	
10/13/2016	MW-14	--	10.09	2	--	--	
10/13/2016	MW-15	--	9.99	2	--	--	
10/13/2016	MW-17	--	7	4	--	--	
10/13/2016	MW-18	--	6.69	4	--	--	
10/13/2016	MW-19	2.9	2.93	2	0.03	--	0.0
10/13/2016	MW-20	--	10.26	2	--	--	
10/13/2016	MW-21	--	6.28	4	--	--	
10/13/2016	MW-22	10.18	10.32	2	0.14	--	0.25
10/13/2016	MW-33	7.55	7.6	2	0.05	--	0.0
10/13/2016	MW-34	--	7.43	4	--	--	
10/13/2016	MW-36	--	7.42	4	--	--	
10/13/2016	MW-37	NM	NM	2		--	
10/13/2016	MW-38	--	3	2	--	--	
10/13/2016	MW-40	7.23	7.26	2	0.03	--	0.0
10/13/2016	MW-41	--	7.04	2	--	--	
10/13/2016	MW-42	--	7.92	2	--	--	
10/13/2016	MW-43	--	6.22	2	--	--	
10/13/2016	MW-44	--	7.51	2	--	--	
10/13/2016	MW-45	7.07	7.13	2	0.06	--	0.0
10/13/2016	MW-46	--	6.7	2	--	--	
10/13/2016	MW-47	--	6.45	2	--	--	
10/13/2016	MW-48	--	9.87	2	--	--	
						Total	**1.75**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - October 26, 2016
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
10/26/2016	MW-2R	7.69	8.24	4	0.55	0.15	0.15
10/26/2016	MW-3	7.18	7.9	2	0.72	0.2	1.45
10/26/2016	MW-4	10.05	10.12	2	0.07	--	0.1
10/26/2016	MW-7	3.11	3.19	1	0.08	--	0.0
10/26/2016	MW-7R	--	3.02	2	--	--	
10/26/2016	MW-9	Monitoring well destroyed/paved over by asphalt					
10/26/2016	MW-10	--	2.37	2	--	--	
10/26/2016	MW-11	--	6.78	2	--	--	
10/26/2016	MW-14	--	9.95	2	--	--	
10/26/2016	MW-15	NM	NM	2	--	--	
10/26/2016	MW-17	--	6.98	4	--	--	
10/26/2016	MW-18	--	7.03	4	--	--	
10/26/2016	MW-19	3.29	3.44	2	0.15	--	0.0
10/26/2016	MW-20	--	10.19	2	--	--	
10/26/2016	MW-21	--	6.19	4	--	--	
10/26/2016	MW-22	10.08	10.22	2	0.14	--	0.25
10/26/2016	MW-33	--	7.55	2	--	--	
10/26/2016	MW-34	--	7.55	4	--	--	
10/26/2016	MW-36	--	1.07	4	--	--	
10/26/2016	MW-37	--	2.98	2	--	--	
10/26/2016	MW-38	--	3.17	2	--	--	
10/26/2016	MW-40	7.3	7.32	2	0.02	--	0.0
10/26/2016	MW-41	--	6.98	2	--	--	
10/26/2016	MW-42	--	7.88	2	--	--	
10/26/2016	MW-43	--	6.22	2	--	--	
10/26/2016	MW-44	--	7.51	2	--	--	
10/26/2016	MW-45	7.07	7.13	2	0.06	--	0.0
10/26/2016	MW-46	--	6.7	2	--	--	
10/26/2016	MW-47	--	6.45	2	--	--	
10/26/2016	MW-48	--	9.87	2	--	--	
						Total	**1.95**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - November 11, 2016
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
11/15/2016	MW-2R	7.85	8.31	4	0.46	0.2	0.65
11/15/2016	MW-3	7.21	8.15	2	0.94	0.4	1.95
11/15/2016	MW-4	10.29	10.34	2	0.05	0.1	0.2
11/15/2016	MW-7	2.98	3.06	1	0.08	0.1	0.1
11/15/2016	MW-7R	NM	NM	2	--	--	
11/15/2016	MW-9	Monitoring well destroyed/paved over by asphalt					
11/15/2016	MW-10	--	4.65	2	--	--	
11/15/2016	MW-11	--	5.97	2	--	--	
11/15/2016	MW-14	NM	NM	2	--	--	
11/15/2016	MW-15	--	10.12	2	--	--	
11/15/2016	MW-17	NM	NM	4	--	--	
11/15/2016	MW-18	NM	NM	4	--	--	
11/15/2016	MW-19	3.08	3.1	2	0.02	--	0.0
11/15/2016	MW-20	--	NM	2	--	--	
11/15/2016	MW-21	--	NM	4	--	--	
11/15/2016	MW-22	10.31	10.42	2	0.11	--	0.35
11/15/2016	MW-33	--	5.87	2	--	--	
11/15/2016	MW-34	--	7.18	4	--	--	
11/15/2016	MW-36	NM	NM	4	--	--	
11/15/2016	MW-37	NM	NM	2	--	--	
11/15/2016	MW-38	--	3.04	2	--	--	
11/15/2016	MW-40	7.39	7.4	2	0.01	--	0.0
11/15/2016	MW-41	--	7.1	2	--	--	
11/15/2016	MW-42	--	8.08	2	--	--	
11/15/2016	MW-43	--	6.57	2	--	--	
11/15/2016	MW-44	--	7.9	2	--	--	
11/15/2016	MW-45	7.41	7.5	2	0.09	0.1	0.2
11/15/2016	MW-46	--	6.91	2	--	--	
11/15/2016	MW-47	--	6.77	2	--	--	
11/15/2016	MW-48	--	10.1	2	--	--	
						Total	**3.45**

Notes:
ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - December 1, 2016
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
12/1/2016	MW-2R	6.66	6.82	4	0.16	0.2	0.85
12/1/2016	MW-3	6.6	6.97	2	0.37	0.4	2.35
12/1/2016	MW-4	6.5	6.58	2	0.08	0.1	0.3
12/1/2016	MW-7	2.36	2.43	1	0.07	0.1	0.2
12/1/2016	MW-7R	--	3.32	2	--	--	
12/1/2016	MW-9	Monitoring well destroyed/paved over by asphalt					
12/1/2016	MW-10	--	6.15	2	--	--	
12/1/2016	MW-11	--	5.61	2	--	--	
12/1/2016	MW-14	--	8.44	2	--	--	
12/1/2016	MW-15	NM	NM	2	--	--	
12/1/2016	MW-17	--	9.23	4	--	--	
12/1/2016	MW-18	--	6.58	4	--	--	
12/1/2016	MW-19	2.8	2.92	2	0.12	0.1	0.1
12/1/2016	MW-20	NM	NM	2	--	--	
12/1/2016	MW-21	--	6.55	4	--	--	
12/1/2016	MW-22	9.52	9.61	2	0.09	--	0.35
12/1/2016	MW-33	--	6.1	2	--	--	
12/1/2016	MW-34	--	6.82	4	--	--	
12/1/2016	MW-36	--	3.8	4	--	--	
12/1/2016	MW-37	--	2.78	2	--	--	
12/1/2016	MW-38	--	2.82	2	--	--	
12/1/2016	MW-40	--	6.8	2	--	--	
12/1/2016	MW-41	--	6.18	2	--	--	
12/1/2016	MW-42	7.44	7.45	2	0.01	--	0.0
12/1/2016	MW-43	--	4.86	2	--	--	
12/1/2016	MW-44	--	6.18	2	--	--	
12/1/2016	MW-45	5.75	5.8	2	0.05	0.1	0.3
12/1/2016	MW-46	--	5.75	2	--	--	
12/1/2016	MW-47	--	5.1	2	--	--	
12/1/2016	MW-48	--	6.28	2	--	--	
						Total	**4.45**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

ATTACHMENT 4

September 2016 Well Sampling
Data Forms

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-5
Intake depth: Approx. 17'
DTW: 6.76
Vol Purged: 1 gal
DTB: 18.06
Sampler: AF
Purge Start: 8:20
Purge End Time: 8:44
Purge Water Description: Clear

MS/MSD samples collected at 8:50 and 8:55, respectively

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:20	8.58	200.00	20.38	5.73	2.51	6.53	-33	367.00
8:23	8.62	200.00	20.01	5.68	1.37	6.73	-61	128.00
8:26	8.64	200.00	19.96	5.66	0.94	6.73	-64	67.90
8:29	8.68	200.00	19.94	5.63	0.88	6.73	-63	46.50
8:32	8.69	200.00	19.95	5.61	0.79	6.73	-64	21.30
8:35	8.70	200.00	19.93	5.60	0.73	6.73	-64	13.50
8:38	8.70	200.00	19.95	5.60	0.75	6.73	-65	10.10
8:41	8.71	200.00	19.96	5.60	0.71	6.72	-65	9.60
8:44	8.71	200.00	19.97	5.60	0.70	6.72	-65	9.20

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-7R
Intake depth: Approx. 18.5
DTW: 2.1
Vol Purged: 2 gal
DTB: 6.85
Sampler: MS
Purge Start: 10:20
Purge End Time: 10:35
Purge Water Description: Clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:20	2.10	100.00	20.75	1.48	2.89	6.75	-111	132.00
10:23		100.00	20.41	1.49	0.62	6.72	-113	143.00
10:26		100.00	20.39	1.49	0.57	6.72	-115	150.00
10:29		100.00	20.36	1.48	0.46	6.73	-117	164.00
10:32		100.00	20.31	1.48	0.38	6.74	-114	161.00
	Well pumped dry during initial purge. Well was sampled following recharge.							

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-10
Intake depth: Approx. 9
DTW: 7.65
Vol Purged: .75 gal
DTB: 10.55
Sampler: AF
Purge Start: 9:15
Purge End Time: 9:45
Purge Water Description: Clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:15	8.41	100.00	25.14	35.14	2.04	6.63	-15	53.00
9:18	8.43	100.00	24.91	36.20	1.24	6.59	-7	42.30
9:21	8.44	100.00	24.88	36.20	1.17	6.59	3	40.70
9:24	8.44	100.00	24.87	36.30	0.88	6.58	7	19.80
9:27	8.45	100.00	24.85	36.30	0.70	6.59	12	12.40
9:30	8.45	100.00	24.85	36.40	0.61	6.60	15	11.30
9:33	8.45	100.00	24.83	36.40	0.53	6.61	17	10.20
9:36	8.45	100.00	24.83	36.40	0.51	6.61	18	8.40
9:39	8.45	100.00	24.82	36.40	0.51	6.61	18	7.90
9:42	8.45	100.00	24.82	36.50	0.49	6.61	19	7.70
9:45	8.45	100.00	24.82	36.50	0.49	6.61	19	7.30

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-11
Intake depth: Approx. 23.5
DTW: 6.77
Vol Purged: 1.25 gal
DTB: 24.50
Sampler: AF
Purge Start: 9:55
Purge End Time: 10:28
Purge Water Description: Clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:55	7.81	150.00	20.33	23.50	1.71	6.88	-49	88.90
9:58	7.92	150.00	19.92	23.30	1.13	6.87	-48	71.30
10:01	7.96	150.00	19.88	23.30	0.74	6.86	-48	62.70
10:04	8.04	150.00	19.81	23.20	0.62	6.85	-48	57.20
10:07	8.07	150.00	19.81	23.20	0.53	6.85	-48	54.70
10:10	8.08	150.00	19.70	23.10	0.39	6.85	-50	51.60
10:13	8.09	150.00	19.54	23.00	0.31	6.85	-51	49.50
10:16	8.12	150.00	19.48	23.00	0.24	6.85	-53	47.30
10:19	8.14	150.00	19.41	22.90	0.17	6.85	-56	46.40
10:22	8.15	150.00	19.36	22.90	0.10	6.85	-56	45.80
10:25	8.17	150.00	19.34	22.80	0.09	6.85	-57	44.70
10:28	8.18	150.00	19.33	22.80	0.07	6.85	-57	44.00

SITE NAME:	5-49 46th Ave. Long Island City, NY	**Project Number:**	2051.0001Y002

Weather:	Clear, 90F	Date:	9/8/2016
Well ID:	MW-19	Intake depth:	Approx. 5'
DTW:	2.36	Vol Purged:	0.5 gal
DTB:	6		
Sampler:	CH		
Purge Start:	11:05	Purge End Time:	11:45
Purge Water Description:	Yellow, odor		

Monitoring well went dry during sampling; only 2 of 3 VOAs collected

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:13	2.45	250.00	21.97	1.61	4.21	6.70	-107	81.20
11:18	2.78	225.00	21.69	1.62	1.33	6.70	-118	32.30
11:23	3.12	225.00	21.47	1.61	0.48	6.74	-126	26.50
11:28	3.21	225.00	21.33	1.62	0.10	6.79	-132	8.40
11:33	3.57	225.00	21.24	1.62	0.00	6.93	-142	28.70
11:38	3.95	225.00	21.42	1.64	0.15	6.97	-140	52.20
11:41	4.00	225.00	21.54	1.64	0.24	6.96	-136	56.10

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-21
Intake depth: Approx. 12
DTW: 6.56
Vol Purged: 1 gal
DTB: 15
Sampler: CH
Purge Start: 8:32
Purge End Time: 9:20
Purge Water Description: Clear

DUP090816 sampled at 0915

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:36	6.71	250.00	26.81	1.48	1.84	6.51	-68	90.00
8:41	6.78	200.00	26.98	1.44	1.20	6.53	-83	83.00
8:46	6.85	200.00	27.18	1.43	0.83	6.54	-86	64.00
8:51	6.92	220.00	27.31	1.42	0.61	6.55	-87	53.50
8:56	7.02	220.00	27.45	1.42	0.41	6.54	-89	45.90
9:00	7.08	220.00	27.49	1.41	0.34	6.52	-91	42.50

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-34
Intake depth: Approx. 12.5
DTW: 7.27
Vol Purged: 2 gal
DTB: 13.5
Sampler: MS
Purge Start: 8:45
Purge End Time: 9:15
Purge Water Description: Clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:45	7.27	100.00	22.93	3.28	3.44	6.38	-109	36.40
8:48	7.27	100.00	23.24	3.31	1.90	6.47	-117	30.10
8:51	7.27	100.00	23.66	3.28	1.25	6.52	-128	22.60
8:54	7.27	100.00	23.83	3.25	1.02	6.56	-127	23.80
8:59	7.27	100.00	23.97	3.23	0.80	6.58	-130	31.90
9:02	7.27	100.00	24.11	3.22	0.62	6.61	-135	29.70
9:05	7.27	100.00	24.16	3.23	0.46	6.63	-141	34.20
9:08	7.27	100.00	24.17	3.23	0.40	6.64	-144	34.80
9:11	7.27	100.00	24.16	3.23	0.37	6.65	-145	33.00
9:14	7.27	100.00	24.19	3.23	0.35	6.65	-147	30.9

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-37
Intake depth: Approx. 3.5'
DTW: 2.07
Vol Purged: 1 gal
DTB: 4.57
Sampler: MS
Purge Start: 11:05
Purge End Time: 11:30
Purge Water Description: Clear

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:05	2.07	100.00	21.13	1.32	0.00	6.77	-128	79.90
11:08	2.21	100.00	21.18	1.31	0.00	6.74	-129	68.00
11:11	2.40	100.00	21.24	1.30	0.00	6.78	-131	45.50
11:14	2.57	100.00	21.32	1.30	0.00	6.73	-136	40.10
11:17	2.70	100.00	21.29	1.30	0.00	6.73	-137	42.50
11:20	2.96	100.00	21.33	1.29	0.00	6.74	-137	45.60
11:23	3.12	100.00	21.32	1.29	0.00	6.74	-138	50.20
11:26	3.27	100.00	21.34	1.30	0.00	6.74	-138	49.60
11:30	3.48	100.00	21.29	1.29	0.00	6.73	-139	49.00

SITE NAME:	5-49 46th Ave. Long Island City, NY	**Project Number:**	2051.0001Y002
Weather:	Clear, 90F	Date:	9/8/2016
Well ID:	MW-38	Intake depth:	Approx. 4.5'
DTW:	2.62	Vol Purged:	0.5 gal
DTB:	5		
Sampler:	AF		
Purge Start:	11:00	Purge End Time:	11:33
Purge Water Description:	Clear		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:00	2.98	50.00	22.88	2.62	2.23	6.93	-93	183.00
11:03	2.98	50.00	22.80	1.78	1.84	6.90	-102	171.00
11:06	2.98	50.00	22.80	1.70	1.20	6.85	-110	150.00
11:09	2.98	50.00	22.70	1.51	0.86	6.78	-111	120.00
11:12	2.98	50.00	22.68	1.46	0.53	6.76	-111	105.00
11:15	2.98	50.00	22.68	1.40	0.31	6.74	-113	87.80
11:18	2.98	50.00	22.65	1.31	0.24	6.72	-115	46.20
11:21	2.98	50.00	22.64	1.26	0.18	6.71	-118	33.90
11:24	2.98	50.00	22.62	1.25	0.12	6.70	-119	20.10
11:27	2.98	50.00	22.60	1.24	0.1	6.69	-119	19.6
11:30	2.98	50.00	22.60	1.23	0.09	6.69	-119	19.1
11:33	2.98	50.00	22.59	1.23	0.08	6.69	-120	18.7

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-41
Intake depth: Approx. 8'
DTW: 6.61
Vol Purged: 1.5 gal
DTB: 11.4
Sampler: CH
Purge Start: 9:40
Purge End Time: 10:20
Purge Water Description: Clear, no sediment

Sodium Persulfate: 1.4ppm

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:44	6.58	250.00	22.28	1.04	8.30	7.07	118	0.00
9:49	6.58	225.00	21.76	1.05	2.47	7.09	61	0.00
9:54	6.58	225.00	21.14	1.06	1.34	7.11	23	0.00
9:59	6.58	225.00	20.72	1.05	0.54	7.20	-15	0.00
10:04	6.58	225.00	20.62	1.03	0.22	7.39	-44	0.00
10:09	6.58	225.00	20.59	1.02	0.00	7.48	-63	0.00
10:12	6.58	225.00	20.54	1.01	0.00	7.51	-73	0.00
10:15	6.58	225.00	20.55	1.00	0.00	7.54	-83	0.00

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 90F
Date: 9/8/2016
Well ID: MW-42
Intake depth: Approx. 19
DTW: 7.8
Vol Purged: 4 gal
DTB: 11.15
Sampler: MS
Purge Start: 9:35
Purge End Time: 10:05
Purge Water Description: Greenish brown, no sediment, strong odor

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:35	7.80	100.00	20.25	0.68	0.32	7.49	-131	31.70
9:38	7.80	100.00	20.11	0.66	0.14	7.31	-131	27.90
9:41	7.80	100.00	20.01	0.66	0.05	7.23	-134	12.70
9:44	7.80	100.00	19.97	0.66	0.00	7.23	-137	10.00
9:47	7.80	100.00	19.92	0.66	0.00	7.21	-138	4.90
9:50	7.80	100.00	19.88	0.66	0.00	7.20	-139	2.60
9:53	7.80	100.00	19.86	0.66	0.00	7.19	-140	1.90
9:58	7.80	100.00	19.82	0.66	0.00	7.18	-142	1.10
10:01	7.80	100.00	19.81	0.66	0.00	7.19	-143	0.90
10:04	7.80	100.00	19.8	0.66	0.00	7.20	-145	0.60
10:07	7.80	100.00	19.79	0.66	0.00	7.19	-145	0.7

ATTACHMENT 5

December 2016 Well Sampling
Data Forms

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 49F
Date: 12/1/2016
Well ID: MW-10
Intake depth: Approx. 11.5
DTW: 6.15
Vol Purged: 1 gal
DTB: 12.50
Sampler: MS
Purge Start: 8:30
Purge End Time: 8:54
Purge Water Description: Clear, no sediment, odor

MS/MSD collected at 8:56 and 8:57 respectively

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:30	6.15	100.00	13.36	37.80	5.16	8.12	150	60.90
8:33	6.15	100.00	13.33	37.80	5.02	8.14	159	24.40
8:36	6.15	100.00	13.13	37.90	5.01	8.29	175	4.60
8:39	6.15	100.00	13.10	37.90	5.00	8.31	183	5.60
8:42	6.15	100.00	13.07	37.90	4.95	8.39	197	3.40
8:45	6.15	100.00	13.06	37.90	4.94	8.40	202	2.40
8:48	6.15	100.00	13.05	37.90	4.87	8.41	204	1.70
8:51	6.15	100.00	13.07	38.00	4.88	8.41	206	2.00
8:54	6.15	100.00	13.07	37.90	4.85	8.41	207	1.50

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 49F
Date: 12/1/2016
Well ID: MW-11
Intake depth: Approx. 23.5
DTW: 5.61
Vol Purged: 1 gal
DTB: 24.50
Sampler: RL
Purge Start: 7:55
Purge End Time: 8:20
Purge Water Description: Clear, no sediment, odor

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
7:55	7.55	100.00	15.62	7.65	2.51	7.26	344	1.30
7:58	7.55	100.00	15.42	7.49	2.52	7.93	334	2.10
8:01	7.55	100.00	15.63	7.61	2.41	8.33	325	2.00
8:04	7.55	100.00	15.70	7.82	2.13	8.48	322	2.70
8:07	7.55	100.00	15.69	15.60	1.60	8.50	294	2.60
8:10	7.55	100.00	15.34	15.50	0.91	8.49	297	1.90
8:13	7.55	100.00	15.28	15.30	0.00	8.40	104	0.30
8:16	7.55	100.00	15.30	15.20	0.00	8.30	103	0.40
8:20	7.55	100.00	15.27	15.20	0.00	8.28	101	0.40

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather:	Clear, 49F	Date:	12/1/2016
Well ID:	MW-21	Intake depth:	Approx. 14
DTW:	6.55	Vol Purged:	1 gal
DTB:	15		
Sampler:	RL		
Purge Start:	7:30	Purge End Time:	8:03
Purge Water Description:	Clear, no sediment		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
12:22	6.55	100.00	18.06	0.92	0.60	7.62	-66	286.00
12:25	6.55	100.00	18.50	0.90	0.06	7.36	-40	113.00
12:28	6.55	100.00	18.64	0.90	0.00	7.34	-36	94.90
12:31	6.55	100.00	18.59	0.90	0.02	7.27	-28	60.20
12:34	6.55	100.00	18.44	0.88	0.16	7.25	-25	29.70
12:37	6.55	100.00	18.43	0.88	0.27	7.24	-21	10.70
12:40	6.55	100.00	18.53	0.88	0.26	7.23	-18	9.60
12:43	6.55	100.00	18.50	0.88	0.26	7.21	-15	10.90

SITE NAME:	5-49 46th Ave. Long Island City, NY	**Project Number:**	2051.0001Y002
Weather:	Clear, 49F	Date:	12/1/2016
Well ID:	MW-33	Intake depth:	Approx. 12.25'
DTW:	6.1	Vol Purged:	1 gal
DTB:	13.25		
Sampler:	MS		
Purge Start:	12:20	Purge End Time:	12:44
Purge Water Description:	Clear, no sediment, no odor		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
12:20	6.10	100.00	16.47	0.54	0.00	8.22	34	29.40
12:23	6.11	100.00	0.51	0.54	1.00	8.11	35	27.70
12:26	6.13	100.00	16.55	0.54	2.00	8.00	36	28.00
12:29	6.14	100.00	16.62	0.53	3.00	7.84	37	26.60
12:32	6.15	100.00	16.64	0.53	4.00	7.76	38	26.70
12:35	6.16	100.00	16.74	0.53	5.00	7.69	39	27.60
12:38	6.17	100.00	16.79	0.54	6.00	7.55	40	28.20
12:41	6.18	100.00	16.81	0.54	7.00	7.53	41	27.50
12:44	6.19	100.00	16.82	0.55	8.00	7.51	42	27.70

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 49F
Date: 12/1/2016
Well ID: MW-37
Intake depth: Approx. 3.5'
DTW: 2.78
Vol Purged: 1 gal
DTB: 4.57
Sampler: RM
Purge Start: 9:05
Purge End Time: 9:37
Purge Water Description: Clear, no sediment, strong odor

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:20	2.78	100.00	13.98	1.88	0.60	8.82	-98	37.80
10:23	3.42	100.00	14.12	1.89	0.15	7.84	-85	33.60
10:26	3.80	100.00	14.17	1.87	0.00	7.50	-97	30.80
10:29	4.10	100.00	14.28	1.86	0.00	7.36	-81	30.60
10:32	4.46	100.00	14.28	1.86	0.00	7.29	-85	30.00
Thick sediment coming up from well caused clogging/high turbidity; stopped reading then at 14:00 sampled upon monitoring well recharge								

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 49F
Date: 12/1/2016
Well ID: MW-38
Intake depth: Approx. 4.25'
DTW: 2.82
Vol Purged: 1 gal
DTB: 5.25
Sampler: RL
Purge Start: 9:47
Purge End Time: 10:16
Purge Water Description: Clear, no sediment, strong odor

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:47	2.82	100.00	15.20	1.80	0.00	8.37	-16	93.40
9:50	2.88	100.00	15.17	1.72	0.00	8.12	-17	60.00
9:53	2.89	100.00	15.18	1.67	0.00	7.97	-20	41.40
9:56	2.94	100.00	15.18	1.67	0.00	7.86	-23	33.90
9:59	2.97	100.00	15.19	1.53	0.00	7.83	-27	20.30
10:02	3.04	100.00	15.21	1.48	0.00	7.76	-29	15.90
10:05	3.11	100.00	15.22	1.44	0.00	7.77	-31	12.00
10:08	3.18	100.00	15.25	1.41	0.00	7.74	-33	12.30
10:11	3.21	100.00	15.25	1.37	0.00	7.41	-36	11.90
10:14	3.28	100.00	15.26	1.36	0	7.71	-36	11.8

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 49F
Date: 12/1/2016
Well ID: MW-40
Intake depth: Approx. 18'
DTW: 6.80
Vol Purged: 1 gal
DTB: 19
Sampler: RL
Purge Start: 10:50
Purge End Time: 11:22
Purge Water Description: Clear, no sediment

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:50	6.80	100.00	15.97	1.39	0.00	8.31	-16	19.46
10:53	6.80	100.00	15.88	1.38	0.00	8.50	-12	7.50
10:56	6.80	100.00	15.89	1.39	0.00	8.54	-20	5.90
10:59	6.80	100.00	15.94	1.37	0.00	8.57	-28	4.90
11:02	6.80	100.00	16.11	1.37	0.00	8.51	-30	4.30
11:05	6.80	100.00	16.10	1.37	0.00	8.52	-39	4.40
11:08	6.80	100.00	16.11	1.37	0.00	8.53	-40	4.30
11:11	6.80	100.00	16.13	1.37	0.00	8.52	-41	4.50
11:14	6.80	100.00	16.14	1.37	0.00	8.54	-42	4.40
11:17	6.80	100.00	16.15	1.37	0	8.53	-44	4.5
11:20	6.80	100.00	16.15	1.37	0	8.53	-45	4.5

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 49F
Date: 12/1/2016
Well ID: MW-41
Intake depth: Approx. 10'
DTW: 6.18
Vol Purged: 2 gal
DTB: 11.4
Sampler: RL
Purge Start: 10:45
Purge End Time: 11:20
Purge Water Description: Clear, no sediment

Sodium Persulfate: 1.4ppm

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:50	6.18	100.00	15.21	1.66	4.37	9.18	30	22.70
10:54	6.18	100.00	15.24	1.66	3.62	9.20	32	21.50
10:57	6.18	100.00	15.21	1.66	3.29	9.11	33	24.20
11:01	6.18	100.00	15.23	1.64	2.83	9.08	32	13.30
11:05	6.18	100.00	15.28	1.63	1.82	9.05	26	12.00
11:08	6.18	100.00	15.29	1.63	1.44	9.02	22	11.60
11:12	6.18	100.00	15.29	1.63	1.32	9.08	15	10.50
11:15	6.18	100.00	15.31	1.63	1.23	9.04	14	10.50
11:18	6.18	100.00	15.32	1.63	1.03	9.04	10	10.40

SITE NAME:	5-49 46th Ave. Long Island City, NY	**Project Number:**	2051.0001Y002
Weather:	Clear, 49F	Date:	12/1/2016
Well ID:	MW-43	Intake depth:	Approx. 19
DTW:	4.86	Vol Purged:	1 gal
DTB:	20		
Sampler:	RL		
Purge Start:	8:35	Purge End Time:	9:10
Purge Water Description:			

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:40	4.85	100.00	14.29	0.83	0.12	13.02	124	15.50
8:44	4.85	100.00	14.41	0.83	0.00	12.77	102	15.40
8:48	4.85	100.00	14.41	0.82	0.00	12.63	99	15.90
8:51	4.85	100.00	14.40	0.82	0.00	12.48	94	15.30
8:54	4.85	100.00	14.32	0.83	0.00	12.35	91	14.90
8:58	4.85	100.00	14.38	0.83	0.00	12.25	89	14.70
9:01	4.85	100.00	14.34	0.82	0.00	12.06	90	14.60
9:04	4.85	100.00	14.36	0.82	0.00	11.98	89	14.30
9:07	4.85	100.00	14.37	0.83	0.00	11.95	87	14.70
9:10	4.85	100.00	14.38	0.83	0	11.93	84	14.4

SITE NAME:	5-49 46th Ave. Long Island City, NY	**Project Number:**	2051.0001Y002
Weather:	Clear, 49F	Date:	12/1/2016
Well ID:	MW-44	Intake depth:	Approx. 14
DTW:	6.18	Vol Purged:	2 gal
DTB:	15		
Sampler:	RL		
Purge Start:	7:30	Purge End Time:	8:03
Purge Water Description:	Clear, no sediment, strong odor		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
7:34	6.18	150.00	15.52	1.77	0.32	13.67	69	16.80
7:38	7.18	150.00	0.53	0.79	0.25	14.00	0.0	13.30
7:42	8.18	150.00	15.56	1.80	0.22	15.00	43	13.20
7:45	9.18	150.00	15.63	1.81	0.19	16.00	20	13.80
7:48	10.18	150.00	15.68	1.82	0.16	17.00	10	13.70
7:51	11.18	150.00	15.61	1.83	0.12	18.00	-5	13.70
7:55	12.18	150.00	15.57	2.83	0.10	19.00	-10	13.60
7:59	13.18	150.00	15.54	3.83	0.09	20.00	-15	13.20
8:02	14.18	150.00	15.63	1.85	0.07	21.00	-20	13.40

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 49F
Date: 12/1/2016
Well ID: MW-46
Intake depth: Approx. 18.5
DTW: 5.75
Vol Purged: 2 gal
DTB: 19.5
Sampler: RM
Purge Start: 7:50
Purge End Time: 8:15
Purge Water Description: Greenish brown, odor, no sediment

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
7:55	5.75	100.00	16.01	1.43	0.47	7.13	190	40.90
8:00	6.75	100.00	15.98	1.42	0.22	8.14	191	36.00
8:03	7.75	100.00	15.20	1.41	0.11	8.23	183	36.20
8:06	8.75	100.00	15.20	1.41	0.09	8.33	175	34.50
8:09	9.75	100.00	15.15	1.41	0.05	8.35	171	34.30
8:12	10.75	100.00	15.15	1.41	0.03	8.38	167	32.70
8:15	11.75	100.00	15.15	1.41	0.02	8.42	162	32.40

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 49F
Date: 12/1/2016
Well ID: MW-47
Intake depth: Approx. 19
DTW: 5.1
Vol Purged: 4 gal
DTB: 20.00
Sampler: RM
Purge Start: 9:05
Purge End Time: 9:37
Purge Water Description: Greenish brown, no sediment, strong odor

DUP-120116 collected at 9:40

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:07	5.10	100.00	15.43	1.50	0.63	11.80	14	78.40
9:10	5.10	100.00	15.68	1.50	0.47	11.78	-7	58.00
9:13	5.10	100.00	15.71	1.51	0.49	11.81	-23	29.20
9:16	5.10	100.00	15.71	1.53	0.44	11.90	-44	22.80
9:19	5.10	100.00	15.71	1.54	0.42	11.93	-49	30.80
9:22	5.10	100.00	15.78	1.55	0.47	11.96	-56	21.70
9:25	5.10	100.00	15.70	1.57	0.41	11.98	-63	18.20
9:28	5.10	100.00	15.78	1.57	0.45	11.98	-68	16.90
9:31	5.10	100.00	15.74	1.57	0.44	12.00	-73	15.20
9:34	5.10	100.00	15.77	1.58	0.49	12.01	-78	15.6
9:37	5.1	100.00	15.78	1.59	0.47	12.01	-84	15.2

SITE NAME:	5-49 46th Ave. Long Island City, NY	**Project Number:**	2051.0001Y002
Weather:	Clear, 49F	Date:	12/1/2016
Well ID:	MW-48	Intake depth:	Approx. 19
DTW:	6.28	Vol Purged:	1 gal
DTB:	20		
Sampler:	MS		
Purge Start:	12:18	Purge End Time:	12:45
Purge Water Description:	Clear, no sediment		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
13:30	6.28	100.00	15.70	0.52	0.00	8.32	51	65.60
13:33	6.28	100.00	15.56	0.52	0.03	8.12	59	58.10
13:36	6.28	100.00	15.74	0.52	0.09	8.05	62	62.50
13:39	6.28	100.00	15.39	0.52	0.08	7.95	66	62.50
13:42	6.28	100.00	15.37	0.52	0.01	7.87	68	66.90
13:45	6.28	100.00	15.38	0.52	0.00	7.82	70	70.20
13:48	6.28	100.00	15.39	0.52	0.00	7.79	72	71.10
13:51	6.28	100.00	15.38	0.52	0.00	7.70	74	73.10
13:54	6.28	100.00	15.39	0.52	0.00	7.69	76	74.20
13:57	6.28	100.00	15.4	0.52	0	7.7	77	74.9
14:00	6.28	100.00	15.4	0.52	0	7.67	78	75.1

From: Jordanna Kendrot
Sent: Monday, February 13, 2017 10:51 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report January 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (January 19, 2017).pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Operation, Maintenance and Monitoring Activities:

On January 19, 2016, the wells within the SMP sampling network were gauged.

The presence of free-product was noted in monitoring wells MW-2R, MW-3, MW-4, MW-7, MW-19, MW-22, MW-42 and MW-45. If the presence of free-product in the monitoring wells was observed to be greater than trace amount (e.g., >0.01”), the monitoring well was manually bailed. Approximately 1.00 gallons of free-product were removed in total from the aforementioned monitoring wells, excluding monitoring well MW-42, during this reporting period. Any recovered product is temporarily stored on-site in a 55-gallon drum until it is required to be disposed.

A summary of the gauging data collected during the reporting period is provided in the attached table.

Sampling/ Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (February 1, 2017 to February 28, 2017):

- Continued monthly O&M of LNAPL recovery system;
- Continued monthly gauging of monitoring wells within SMP monitoring network; and
- Preparation and submittal of quarterly status report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Resource Conservation and Recovery Act (RCRA) Facility Closure Work Plan

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date. Based on prior discussions with the NYSDEC, no comments on the report will be provided on the RCRA Closure Completion Report.

COC Status

The RCRA Closure Completion Report was submitted to NYSDEC on February 12, 2016. Comments from the NYSDEC have not been received to date. Based on prior discussions with the NYSDEC, no comments on the report will be provided on the RCRA Closure Completion Report.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
We solve our clients' most challenging environmental problems.

Summary of Water Level Elevations and LNAPL Thickness; January 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

		March 20, 2013				March 14, 2014				January 9, 2015				October 13, 2016*				October 26, 2016				November 15, 2016				December 1, 2016				January 19, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																																	
MW-1/1R	7.55	--	6.37	1.18	--	--	6.76	0.79	--	--	6.62	0.93	--	N/A				N/A				N/A				N/A				N/A			
MW-2R	9.23	7.11	7.12	2.12	0.01	--	7.84	1.39	--	--	7.14	2.09	--	7.65	8.3	1.42	0.65	7.69	8.24	1.40	0.55	7.85	8.31	1.27	0.46	6.66	6.82	2.53	0.16	7.5	7.52	1.73	0.02
MW-3	8.40	6.31	6.62	2.01	0.31	7	7.12	1.37	0.12	6.67	6.74	1.71	0.07	7.08	7.81	1.14	0.73	7.18	7.9	1.04	0.72	7.21	8.15	0.96	0.94	6.60	6.97	1.71	0.37	6.98	7.66	1.25	0.68
MW-4	11.57	--	9.68	1.89	--	--	9.73	1.84	--	--	9.62	1.95	--	10.13	10.21	1.42	0.08	10.05	10.12	1.50	0.07	10.29	10.34	1.27	0.05	6.50	6.58	5.05	0.08	9.81	9.82	1.76	0.01
MW-5	8.35	--	5.75	2.6	--	--	6.1	2.25	--	--	6.1	2.25	--	--	6.57	1.78	--	--	6.68	1.67	--	--	NM	NM	--	N/A				N/A			
MW-6	NR	10.00	13.60	NC	3.6	--	--	NC	--	10.04	13.72	NC	3.68	N/A				N/A				N/A				N/A				N/A			
MW-6R	11.73	--	--	--	--	10.27	13.04	2.21	2.77	9.87	11.93	1.35	2.06	N/A				N/A				N/A				N/A				N/A			
MW-7	4.48	1.07	1.63	3.27	0.56	2.39	2.66	2.02	0.27	1.78	2.14	2.61	0.36	2.80	3.20	1.58	0.4	3.11	3.19	1.35	0.08	2.98	3.06	1.48	0.08	2.36	2.43	2.10	0.07	2.62	2.78	1.82	0.16
MW-7R	4.48	--	--	--	--	--	1.36	3.12	--	--	1.06	3.42	--	--	2.95	1.53	--	--	3.02	1.46	--	--	NM	NM	--	--	3.32	1.16	--	--	2.52	1.96	--
MW-8	8.00	5.95	10.63	0.88	4.68	6.84	9.46	0.51	2.62	6.08	10.45	0.83	4.37	N/A				N/A				N/A				N/A				N/A			
MW-9	8.81	6.91	8.76	1.44	1.85	7.39	9.88	0.80	2.49	6.94	7.93	1.62	0.99	N/A				N/A				N/A				N/A				N/A			
MW-10	7.82	--	7.53	0.29	--	--	6.38	1.44	--	--	7.55	0.27	--	--	5.03	2.79	--	--	2.37	5.45	--	--	4.65	3.17	--	--	6.15	1.67	--	--	7.62	0.20	--
MW-11	7.82	--	6.36	1.46	--	--	6.7	1.12	--	--	6.52	1.30	--	--	6.05	1.77	--	--	6.78	1.04	--	--	5.97	1.85	--	--	5.61	2.21	--	--	6.63	1.19	--
MW-12	9.12	7.81	9.16	0.97	1.35	8.31	9.69	0.46	1.38	9.13	10.81	0.43	1.68	N/A				N/A				N/A				N/A				N/A			
MW-13	9.13	7.30	10.87	0.94	3.57	7.98	11.02	0.39	3.04	7.90	9.49	0.83	1.59	N/A				N/A				N/A				N/A				N/A			
MW-14	11.63	N/A				--	9.55	2.08	--	--	9.35	2.28	--	--	10.09	1.54	--	--	9.95	1.68	--	--	NM	NM	--	--	8.44	3.19	--	--	8.22	3.41	--
MW-15	11.51	N/A				--	9.46	2.05	--	--	9.26	2.25	--	--	9.99	1.52	--	--	NM	NM	--	--	10.12	1.39	--	--	NM	NM	--	--	9.55	1.96	--
MW-16	8.55	N/A				--	7.4	1.15	--	--	6.12	2.43	--	N/A				N/A				N/A				N/A				N/A			
MW-17	8.78	N/A				7.03	11.02	0.75	3.99	6.86	6.89	1.91	0.03	--	7.00	1.78	--	--	6.98	1.8	--	--	NM	NM	--	--	9.23	-0.45	--	--	6.94	1.84	--
MW-18	8.40	N/A				--	6.81	1.59	--	--	6.68	1.72	--	--	6.69	1.71	--	--	7.03	1.37	--	--	NM	NM	--	--	6.58	1.82	--	--	6.87	1.53	--
MW-19	4.41	N/A				1.96	2.01	2.44	0.05	--	1.02	3.39	--	2.9	2.93	1.50	0.03	3.29	3.44	1.08	0.15	3.08	3.1	1.33	0.02	2.80	2.92	1.58	0.12	2.72	2.75	1.68	0.03
MW-20	11.69	N/A				--	9.85	1.84	--	--	9.74	1.95	--	--	10.26	1.43	--	--	10.19	1.5	--	--	NM	NM	--	--	NM	NM	--	--	NM	NM	--
MW-21	8.17	N/A				--	6.44	1.73	--	--	6.11	2.06	--	--	6.28	1.89		--	6.19	1.98		--	NM	NM		--	6.55	1.62		--	5.91	2.26	
MW-22	11.63	N/A				--	9.79	1.84	--	--	9.66	1.97	--	10.18	10.32	1.42	0.14	10.08	10.22	1.52	0.14	10.31	10.42	1.29	0.11	9.52	9.61	2.09	0.09	9.89	9.93	1.73	0.04
MW-23	8.27	N/A				7.02	10.13	0.47	3.11	6.46	8.41	1.32	1.95	N/A				N/A				N/A				N/A				N/A			
MW-24	8.86	N/A				N/A				--	6.36	2.50	--	N/A				N/A				N/A				N/A				N/A			
MW-25	9.29	N/A				N/A				--	6.88	2.41	--	N/A				N/A				N/A				N/A				N/A			
MW-27	9.55	N/A				N/A				--	7.29	2.26	--	N/A				N/A				N/A				N/A				N/A			
MW-28	9.10	N/A				N/A				--	6.75	2.35	--	N/A				N/A				N/A				N/A				N/A			
MW-30	8.70	N/A				N/A				--	7.06	1.64	--	N/A				N/A				N/A				N/A				N/A			
MW-31	9.27	N/A				N/A				8.00	8.21	1.22	0.21	N/A				N/A				N/A				N/A				N/A			
MW-32	7.76	N/A				N/A					6.18	1.58	--	N/A				N/A				N/A				N/A				N/A			
MW-33	9.49	N/A				N/A				7.39	8.20	1.90	0.81	7.55	7.60	1.93	0.05	--	7.55	1.94	--	--	5.87	3.62	--	--	6.10	3.39	--	--	7.33	2.16	--
MW-34	8.30	N/A				N/A				--	6.76	1.54	--	--	7.43	0.87	--	--	7.55	0.75	--	--	7.18	1.12	--	--	6.82	1.48	--	--	7.20	1.10	--
MW-35	NR	N/A				N/A				7.68	7.79	NC	0.11	N/A				N/A				N/A				N/A				N/A			
MW-36	9.11	N/A				N/A				--	7.07	2.04	--	--	7.42	1.69	--	--	1.07	8.04	--	--	NM	NM	--	--	3.8	5.31	--	--	6.85	2.26	--
MW-37	4.45	N/A				N/A				--	1.02	3.43	--	N/A				--	2.98	1.47	--	--	NM	NM	--	--	2.78	1.67	--	--	2.66	1.79	--
MW-38	4.44	N/A				N/A				--	NM	NM	--	--	3.00	1.44	--	--	3.17	1.27	--	--	3.04	1.4	--	--	2.82	1.62	--	--	2.83	1.61	--
MW-40	8.49	N/A				N/A				N/A				7.23	7.26	1.25	0.03	7.30	7.32	1.19	0.02	7.39	7.40	1.10	0.01	--	6.80	1.69	--	--	7.01	1.48	--
MW-41	8.51	N/A				N/A				N/A				--	7.04	1.47	--	--	6.98	1.53	--	--	7.10	1.41	--	--	6.18	2.33	--	--	6.55	1.96	--
MW-42	9.37	N/A				N/A				N/A				--	7.92	1.45	--	--	7.88	1.49	--	--	8.08	1.29	--	7.44	7.45	1.93	0.01	7.47	7.48	1.90	0.01
MW-43	7.81	N/A				N/A				N/A				--	6.22	1.59	--	--	6.22	1.59	--	--	6.57	1.24	--	--	4.86	2.95	--	--	6.13	1.68	--
MW-44	9.15	N/A				N/A				N/A				--	7.51	1.64	--	--	7.51	1.64	--	--	7.90	1.25	--	--	6.18	2.97	--	--	7.38	1.77	--
MW-45	8.69	N/A				N/A				N/A				7.07	7.13	1.61	0.06	7.07	7.13	1.61	0.06	7.41	7.50	1.26	0.09	5.75	5.80	2.93	0.05	6.90	6.91	1.79	0.01
MW-46	7.69	N/A				N/A				N/A				--	6.70	0.99	--	--	6.70	0.99	--	--	6.91	0.78	--	--	5.75	1.94	--	--	5.89	1.80	--
MW-47	8.03	N/A				N/A				N/A				--	6.45	1.58	--	--	6.45	1.58	--	--	6.77	1.26	--	--	5.10	2.93	--	--	6.26	1.77	--
MW-48	11.43	N/A				N/A				N/A				--	9.87	1.56	--	--	9.87	1.56	--	--	10.10	1.33	--	--	6.28	5.15	--	--	9.65	1.78	--
Recovery Wells																																	
RW-1	8.26	N/A				N/A				N/A				--	6.71	1.55	--	--	6.84	1.42	--	--	7.2	1.06	--	--	6.51	1.75	--	--	6.63	1.63	--
RW-2	9.81	N/A				N/A				N/A				--	7.34	2.47	--	--	7.4	2.41	--	--	7.6	2.21	--	--	6.54	3.27	--	--	7.38	2.43	--
RW-3	9.83	N/A				N/A				N/A				8.36	8.38	1.47	0.02	--	8.04	1.79	--	--	7.29	2.54	--	--	6.67	3.16	--	--	7.87	1.96	--
RW-4	10.2	N/A				N/A				N/A				8.65	8.66	1.55	0.01	--	8.3	1.9	--	--	8.68	1.52	--	--	6.98	3.22	--	--	8.2	2.00	--
RW-5	10.27	N/A				N/A				N/A				--	8.45	1.82	--	8.1	8.12	2.17	0.02	--	8.46	1.81	--	6.74	6.75	3.53	0.01	7.94	7.95	2.33	0.01

Notes:

LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NR - Not Recorded
NC - Not Calculated[2]
NM - Not Measured

N/A - No data as monitoring/ recovery well was either not constructed (March 2013 to January 2015 monitoring period),destroyed (October 2016 monitoring event) when monitoring event was performed, or is not included in the monitoring network
* - Measurement data collected for monitoring wells MW-43 to MW-48 were collected on 10/17/2016; following installation

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75

From: Jordanna Kendrot
Sent: Friday, March 10, 2017 5:42 PM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report February 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (February 14, 2017).pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Operation, Maintenance and Monitoring Activities:

The quarterly groundwater monitoring report was submitted via email and hardcopy to NYSDEC on February 10, 2017.

On February 14, 2017, the wells within the SMP sampling network were gauged. A summary of the gauging data collected during the reporting period is provided in the attached table.

The presence of free-product was noted in monitoring wells MW-2R, MW-3, MW-4, MW-7, MW-22, MW-42 and MW-45. If the presence of free-product in the monitoring wells was observed to be greater than 0.10-feet, the monitoring well was manually bailed. Approximately 0.4 gallons of free-product were removed in total from monitoring wells MW-3 and MW-7 during this reporting period, with the recovered product being temporarily stored on-Site in a 55-gallon drum until it is required to be disposed.

As discussed in the submitted quarterly groundwater monitoring report, alternative methods of LNAPL recovery would be implemented to supplement LNAPL recovery when manual recovery (e.g., physical bailing) became less effective. Monitoring wells with trace amounts of product had an oil absorbent sock installed within the well at the height of the groundwater table. The oil absorbent socks installed repel water and only absorb oil based fluids, up to 0.25 gallons of LNAPL per installed absorbent sock (for the specific absorbent socks utilized for the 2" diameter monitoring wells). Socks will be removed the week prior to the quarterly groundwater sampling event to monitor the presence of LNAPL recovery.

Also discussed in the quarterly groundwater monitoring report was the evaluation if the continued operation of the on-site LNAPL recovery system was warranted. During the previous quarter and this reporting period, product was only observed at trace amounts (i.e., <0.10-feet) in recovery well RW-5. Based on the lack of recoverable amounts of product, Roux Associates proposes a momentary pause in operation of the LNAPL recovery system until reportable levels of product become present in the recovery system wells.

Sampling/ Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (March 1, 2017 to March 31, 2017):

- Preparation and completion of quarterly gauging and collection of groundwater samples from monitoring wells within proposed SMP monitoring network;
- Continued monthly O&M of LNAPL recovery system;
- Continued monthly gauging of monitoring wells within SMP monitoring network;
- Evaluation of LNAPL recovery efforts at RW-1 through RW-5 to determine if continued operation of the on-site LNAPL recovery system is warranted; and
- Develop and submit Design Plan for 1st post-remediation in-situ chemical oxidation (ISCO) treatment tentatively scheduled to be performed in April 2017.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot | Project Engineer | Roux Associates, Inc.
209 Shafter Street Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2356 | Mobile: 631.741.7142
Email: jkendrot@rouxinc.com | Website: www.rouxinc.com

Summary of Water Level Elevations and LNAPL Thickness; February 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

		October 13, 2016*				October 26, 2016				November 15, 2016				December 1, 2016				January 19, 2017				February 14, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																									
MW-1/1R	7.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-2R	9.23	7.65	8.3	1.42	0.65	7.69	8.24	1.40	0.55	7.85	8.31	1.27	0.46	6.66	6.82	2.53	0.16	7.5	7.52	1.73	0.02	7.44	7.45	1.79	0.01
MW-3	8.40	7.08	7.81	1.14	0.73	7.18	7.9	1.04	0.72	7.21	8.15	0.96	0.94	6.60	6.97	1.71	0.37	6.98	7.66	1.25	0.68	6.99	7.48	1.29	0.49
MW-4	11.57	10.13	10.21	1.42	0.08	10.05	10.12	1.50	0.07	10.29	10.34	1.27	0.05	6.50	6.58	5.05	0.08	9.81	9.82	1.76	0.01	9.60	9.62	1.97	0.02
MW-5	8.35	--	6.57	1.78	--	--	6.68	1.67	--	--	NM	NM	--	N/A				N/A				N/A			
MW-6	NR	N/A				N/A				N/A				N/A				N/A				N/A			
MW-6R	11.73	N/A				N/A				N/A				N/A				N/A				N/A			
MW-7	4.48	2.80	3.20	1.58	0.4	3.11	3.19	1.35	0.08	2.98	3.06	1.48	0.08	2.36	2.43	2.10	0.07	2.62	2.78	1.82	0.16	2.62	2.76	1.83	0.14
MW-7R	4.48	--	2.95	1.53	--	--	3.02	1.46	--	--	NM	NM	--	--	3.32	1.16	--	--	2.52	1.96	--	--	2.52	1.96	--
MW-8	8.00	N/A				N/A				N/A				N/A				N/A				N/A			
MW-9	8.81	N/A				N/A				N/A				N/A				N/A				N/A			
MW-10	7.82	--	5.03	2.79	--	--	2.37	5.45	--	--	4.65	3.17	--	--	6.15	1.67	--	--	7.62	0.20	--	--	6.60	1.22	--
MW-11	7.82	--	6.05	1.77	--	--	6.78	1.04	--	--	5.97	1.85	--	--	5.61	2.21	--	--	6.63	1.19	--	--	6.15	1.67	--
MW-12	9.12	N/A				N/A				N/A				N/A				N/A				N/A			
MW-13	9.13	N/A				N/A				N/A				N/A				N/A				N/A			
MW-14	11.63	--	10.09	1.54	--	--	9.95	1.68	--	--	NM	NM	--	--	8.44	3.19	--	--	8.22	3.41	--	--	9.42	2.21	--
MW-15	11.51	--	9.99	1.52	--	--	NM	NM	--	--	10.12	1.39	--	--	NM	NM	--	--	9.55	1.96	--	--	9.46	2.05	--
MW-16	8.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-17	8.78	--	7.00	1.78	--	--	6.98	1.8	--	--	NM	NM	--	--	9.23	-0.45	--	--	6.94	1.84	--	--	6.89	1.89	--
MW-18	8.40	--	6.69	1.71	--	--	7.03	1.37	--	--	NM	NM	--	--	6.58	1.82	--	--	6.87	1.53	--	--	6.77	1.63	--
MW-19	4.41	2.9	2.93	1.50	0.03	3.29	3.44	1.08	0.15	3.08	3.1	1.33	0.02	2.80	2.92	1.58	0.12	2.72	2.75	1.68	0.03	--	2.62	1.79	--
MW-20	11.69	--	10.26	1.43	--	--	10.19	1.5	--	--	NM	NM	--	--	NM	NM	--	--	NM	NM	--	--	9.71	1.98	--
MW-21	8.17	--	6.28	1.89		--	6.19	1.98		--	NM	NM		--	6.55	1.62		--	5.91	2.26		--	5.92	2.25	
MW-22	11.63	10.18	10.32	1.42	0.14	10.08	10.22	1.52	0.14	10.31	10.42	1.29	0.11	9.52	9.61	2.09	0.09	9.89	9.93	1.73	0.04	9.62	9.70	1.99	0.08
MW-23	8.27	N/A				N/A				N/A				N/A				N/A				N/A			
MW-24	8.86	N/A				N/A				N/A				N/A				N/A				N/A			
MW-25	9.29	N/A				N/A				N/A				N/A				N/A				N/A			
MW-27	9.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-28	9.10	N/A				N/A				N/A				N/A				N/A				N/A			
MW-30	8.70	N/A				N/A				N/A				N/A				N/A				N/A			
MW-31	9.27	N/A				N/A				N/A				N/A				N/A				N/A			
MW-32	7.76	N/A				N/A				N/A				N/A				N/A				N/A			
MW-33	9.49	7.55	7.60	1.93	0.05	--	7.55	1.94	--	--	5.87	3.62	--	--	6.10	3.39	--	--	7.33	2.16	--	--	7.33	2.16	--
MW-34	8.30	--	7.43	0.87	--	--	7.55	0.75	--	--	7.18	1.12	--	--	6.82	1.48	--	--	7.20	1.10	--	--	7.19	1.11	--
MW-35	NR	N/A				N/A				N/A				N/A				N/A				N/A			
MW-36	9.11	--	7.42	1.69	--	--	1.07	8.04	--	--	NM	NM	--	--	3.8	5.31	--	--	6.85	2.26	--	--	6.70	2.41	--
MW-37	4.45	N/A				--	2.98	1.47	--	--	NM	NM	--	--	2.78	1.67	--	--	2.66	1.79	--	--	2.12	2.33	--
MW-38	4.44	--	3.00	1.44	--	--	3.17	1.27	--	--	3.04	1.4	--	--	2.82	1.62	--	--	2.83	1.61	--	--	2.58	1.86	--
MW-40	8.49	7.23	7.26	1.25	0.03	7.30	7.32	1.19	0.02	7.39	7.40	1.10	0.01	--	6.80	1.69	--	--	7.01	1.48	--	--	6.63	1.86	--
MW-41	8.51	--	7.04	1.47	--	--	6.98	1.53	--	--	7.10	1.41	--	--	6.18	2.33	--	--	6.55	1.96	--	--	6.21	2.3	--
MW-42	9.37	--	7.92	1.45	--	--	7.88	1.49	--	--	8.08	1.29	--	7.44	7.45	1.93	0.01	7.47	7.48	1.90	0.01	7.43	7.44	1.94	0.01
MW-43	7.81	--	6.22	1.59	--	--	6.22	1.59	--	--	6.57	1.24	--	--	4.86	2.95	--	--	6.13	1.68	--	--	5.82	1.99	--
MW-44	9.15	--	7.51	1.64	--	--	7.51	1.64	--	--	7.90	1.25	--	--	6.18	2.97	--	--	7.38	1.77	--	--	7.09	2.06	--
MW-45	8.69	7.07	7.13	1.61	0.06	7.07	7.13	1.61	0.06	7.41	7.50	1.26	0.09	5.75	5.80	2.93	0.05	6.90	6.91	1.79	0.01	6.60	6.61	2.09	0.01
MW-46	7.69	--	6.70	0.99	--	--	6.70	0.99	--	--	6.91	0.78	--	--	5.75	1.94	--	--	5.89	1.80	--	--	6.65	1.04	--
MW-47	8.03	--	6.45	1.58	--	--	6.45	1.58	--	--	6.77	1.26	--	--	5.10	2.93	--	--	6.26	1.77	--	--	5.99	2.04	--
MW-48	11.43	--	9.87	1.56	--	--	9.87	1.56	--	--	10.10	1.33	--	--	6.28	5.15	--	--	9.65	1.78	--	--	9.40	2.03	--
Recovery Wells																									
RW-1	8.26	--	6.71	1.55	--	--	6.84	1.42	--	--	7.2	1.06	--	--	6.51	1.75	--	--	6.63	1.63	--	--	6.65	1.61	--
RW-2	9.81	--	7.34	2.47	--	--	7.4	2.41	--	--	7.6	2.21	--	--	6.54	3.27	--	--	7.38	2.43	--	--	7.29	2.52	--
RW-3	9.83	8.36	8.38	1.47	0.02	--	8.04	1.79	--	--	7.29	2.54	--	--	6.67	3.16	--	--	7.87	1.96	--	--	7.78	2.05	--
RW-4	10.2	8.65	8.66	1.55	0.01	--	8.3	1.9	--	--	8.68	1.52	--	--	6.98	3.22	--	--	8.2	2.00	--	--	7.84	2.36	--
RW-5	10.27	--	8.45	1.82	--	8.1	8.12	2.17	0.02	--	8.46	1.81	--	6.74	6.75	3.53	0.01	7.94	7.95	2.33	0.01	7.64	7.65	2.63	0.01

Notes:

LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NR - Not Recorded
NC - Not Calculated[2]
NM - Not Measured

Notes (cont.):

N/A - No data as monitoring/ recovery well was either not constructed (March 2013 to January 2015 monitoring period),destroyed (October 2016 monitoring event) when monitoring event was performed, or is not included in the monitoring network

* - Measurement data collected for monitoring wells MW-43 to MW-48 were collected on 10/17/2016; following installation

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:

Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
Assumes a specific gravity of 0.75

From:	Jordanna Kendrot
Sent:	Tuesday, April 11, 2017 10:53 AM
To:	Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc:	O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject:	Progress Report March 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments:	Water Level Elevations and LNAPL thickness (March 30, 2017).pdf

Ms. Martinkat,

I apologize for the delay in this submittal. In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Operation, Maintenance and Monitoring Activities:

On March 30, 2017, Roux Associates completed the quarterly groundwater gauging and sampling of the 21 monitoring wells included in the SMP monitoring network. If the presence of free-product was observed, the monitoring well was not sampled. The remaining monitoring wells within the network were sampled and analyzed for VOCs. The five (5) recovery wells (RW-1 through RW-5) onsite and an additional nine (9) monitoring wells both onsite and offsite were gauged in addition to the monitoring wells above to determine the presence of LNAPL.

A summary of the gauging data collected during the reporting period is provided in the attached table.

As discussed in the previous month's Progress Report, alternative methods of LNAPL recovery were implemented to supplement LNAPL recovery when manual recovery (e.g., physical bailing) became less effective. Monitoring wells with trace amounts of product had an oil absorbent sock installed within the well at the height of the groundwater table. These absorbent socks were installed in monitoring wells MW-3, MW-4, MW-22, MW-42, and MW-45 during the previous reporting period. These absorbent socks were removed March 10, 2017. During this three-week period, product did not return to monitoring wells MW-4, MW-22, MW-42 and MW-45. It is estimated that approximately 0.65 gallons of free-product was removed in total from these monitoring wells based on the saturation of the absorbent sock.

The presence of free-product was noted in monitoring wells MW-2R, MW-3, MW-7, and MW-19. If the presence of free-product in the monitoring wells was observed to be greater than 0.10-feet, the monitoring well was manually bailed. Approximately 0.4 gallons of free-product were removed in total from the monitoring wells mentioned above, excluding MW-7, during this reporting period, with the recovered product being temporarily stored on-Site in a 55-gallon drum until it is required to be disposed.

Due to the lack of free-product present in the recovery wells (RW-1 to RW-5), Roux Associates has paused in operation of the LNAPL until reportable levels of product become present in the recovery system wells.

Sampling/ Sample Results:

During this reporting period, 18 groundwater samples were collected from the following monitoring wells:

- MW-4
- MW-7R
- MW-10
- MW-11
- MW-21
- MW-33

- MW-34
- MW-37
- MW-38
- MW-40
- MW-41
- MW-42
- MW-43
- MW-44
- MW-45
- MW-46
- MW-47
- MW-48

The results of this quarterly sampling round will be presented and discussed in a Quarterly Status Report. This report will be submitted under separate cover in the upcoming reporting period (April 2017).

Planned Actions:

The following activities are scheduled for the next reporting period (April 1 through April 30, 2017):

- Preparation and submittal Design Plan for 1st post-remediation in-situ chemical oxidation (ISCO) treatment;
- Implementation of 1st post-remediation ISCO injection event;
- Continued monthly O&M of LNAPL recovery system (as necessary);
- Continued monthly gauging of monitoring wells within SMP monitoring network; and
- Preparation and submittal of quarterly status report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot
Project Engineer
jkendrot@rouxinc.com
Roux Associates, Inc.
209 Shafter Street
Islandia, NY 11749-5074
Office: (631) 232-2600
Direct: (631) 630-2356
Cell: (631) 741-7142
www.rouxinc.com
We solve our clients' most challenging environmental problems.

Summary of Water Level Elevations and LNAPL Thickness; March 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

		October 26, 2016				November 15, 2016				December 1, 2016				January 19, 2017				February 14, 2017				March 30, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																									
MW-1/1R	7.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-2R	9.23	7.69	8.24	1.40	0.55	7.85	8.31	1.27	0.46	6.66	6.82	2.53	0.16	7.5	7.52	1.73	0.02	7.44	7.45	1.79	0.01	4.31	4.32	4.92	0.01
MW-3	8.40	7.18	7.9	1.04	0.72	7.21	8.15	0.96	0.94	6.60	6.97	1.71	0.37	6.98	7.66	1.25	0.68	6.99	7.48	1.29	0.49	6.79	7.81	1.36	1.02
MW-4	11.57	10.05	10.12	1.50	0.07	10.29	10.34	1.27	0.05	6.50	6.58	5.05	0.08	9.81	9.82	1.76	0.01	9.60	9.62	1.97	0.02	--	9.7	1.87	--
MW-5	8.35	--	6.68	1.67	--	--	NM	NM	--	N/A				N/A				N/A				N/A			
MW-6	NR	N/A				N/A				N/A				N/A				N/A				N/A			
MW-6R	11.73	N/A				N/A				N/A				N/A				N/A				N/A			
MW-7	4.48	3.11	3.19	1.35	0.08	2.98	3.06	1.48	0.08	2.36	2.43	2.10	0.07	2.62	2.78	1.82	0.16	2.62	2.76	1.83	0.14	2.72	3.10	1.67	0.38
MW-7R	4.48	--	3.02	1.46	--	--	NM	NM	--	--	3.32	1.16	--	--	2.52	1.96	--	--	2.52	1.96	--	--	2.75	1.73	--
MW-8	8.00	N/A				N/A				N/A				N/A				N/A				N/A			
MW-9	8.81	N/A				N/A				N/A				N/A				N/A				N/A			
MW-10	7.82	--	2.37	5.45	--	--	4.65	3.17	--	--	6.15	1.67	--	--	7.62	0.20	--	--	6.60	1.22	--	--	5.91	1.91	--
MW-11	7.82	--	6.78	1.04	--	--	5.97	1.85	--	--	5.61	2.21	--	--	6.63	1.19	--	--	6.15	1.67	--	--	6.69	1.13	--
MW-12	9.12	N/A				N/A				N/A				N/A				N/A				N/A			
MW-13	9.13	N/A				N/A				N/A				N/A				N/A				N/A			
MW-14	11.63	--	9.95	1.68	--	--	NM	NM	--	--	8.44	3.19	--	--	8.22	3.41	--	--	9.42	2.21	--	--	6.37	5.26	--
MW-15	11.51	--	NM	NM	--	--	10.12	1.39	--	--	NM	NM	--	--	9.55	1.96	--	--	9.46	2.05	--	--	6.38	5.13	--
MW-16	8.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-17	8.78	--	6.98	1.8	--	--	NM	NM	--	--	9.23	-0.45	--	--	6.94	1.84	--	--	6.89	1.89	--	--	6.64	2.14	--
MW-18	8.40	--	7.03	1.37	--	--	NM	NM	--	--	6.58	1.82	--	--	6.87	1.53	--	--	6.77	1.63	--	--	6.77	1.63	--
MW-19	4.41	3.29	3.44	1.08	0.15	3.08	3.1	1.33	0.02	2.80	2.92	1.58	0.12	2.72	2.75	1.68	0.03	--	2.62	1.79	--	2.82	2.9	1.57	0.08
MW-20	11.69	--	10.19	1.5	--	--	NM	NM	--	--	NM	NM	--	--	NM	NM	--	--	9.71	1.98	--	--	9.81	1.88	--
MW-21	8.17	--	6.19	1.98		--	NM	NM	--	--	6.55	1.62	--	--	5.91	2.26	--	--	5.92	2.25	--	--	5.89	2.28	--
MW-22	11.63	10.08	10.22	1.52	0.14	10.31	10.42	1.29	0.11	9.52	9.61	2.09	0.09	9.89	9.93	1.73	0.04	9.62	9.70	1.99	0.08	--	9.74	1.89	--
MW-23	8.27	N/A				N/A				N/A				N/A				N/A				N/A			
MW-24	8.86	N/A				N/A				N/A				N/A				N/A				N/A			
MW-25	9.29	N/A				N/A				N/A				N/A				N/A				N/A			
MW-27	9.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-28	9.10	N/A				N/A				N/A				N/A				N/A				N/A			
MW-30	8.70	N/A				N/A				N/A				N/A				N/A				N/A			
MW-31	9.27	N/A				N/A				N/A				N/A				N/A				N/A			
MW-32	7.76	N/A				N/A				N/A				N/A				N/A				N/A			
MW-33	9.49	--	7.55	1.94	--	--	5.87	3.62	--	--	6.10	3.39	--	--	7.33	2.16	--	--	7.33	2.16	--	--	7.00	2.49	--
MW-34	8.30	--	7.55	0.75	--	--	7.18	1.12	--	--	6.82	1.48	--	--	7.20	1.10	--	--	7.19	1.11	--	--	7.03	1.27	--
MW-35	NR	N/A				N/A				N/A				N/A				N/A				N/A			
MW-36	9.11	--	1.07	8.04	--	--	NM	NM	--	--	3.8	5.31	--	--	6.85	2.26	--	--	6.70	2.41	--	--	6.47	2.64	--
MW-37	4.45	--	2.98	1.47	--	--	NM	NM	--	--	2.78	1.67	--	--	2.66	1.79	--	--	2.12	2.33	--	--	2.64	1.81	--
MW-38	4.44	--	3.17	1.27	--	--	3.04	1.4	--	--	2.82	1.62	--	--	2.83	1.61	--	--	2.58	1.86	--	--	2.83	1.61	--
MW-40	8.49	7.30	7.32	1.19	0.02	7.39	7.40	1.10	0.01	--	6.80	1.69	--	--	7.01	1.48	--	--	6.63	1.86	--	--	6.98	1.51	--
MW-41	8.51	--	6.98	1.53	--	--	7.10	1.41	--	--	6.18	2.33	--	--	6.55	1.96	--	--	6.21	2.30	--	--	6.75	1.76	--
MW-42	9.37	--	7.88	1.49	--	--	8.08	1.29	--	7.44	7.45	1.93	0.01	7.47	7.48	1.90	0.01	7.43	7.44	1.94	0.01	--	7.60	1.77	--
MW-43	7.81	--	6.22	1.59	--	--	6.57	1.24	--	--	4.86	2.95	--	--	6.13	1.68	--	--	5.82	1.99	--	--	5.71	2.1	--
MW-44	9.15	--	7.51	1.64	--	--	7.90	1.25	--	--	6.18	2.97	--	--	7.38	1.77	--	--	7.09	2.06	--	--	6.95	2.2	--
MW-45	8.69	7.07	7.13	1.61	0.06	7.41	7.50	1.26	0.09	5.75	5.80	2.93	0.05	6.90	6.91	1.79	0.01	6.60	6.61	2.09	0.01	--	6.49	2.2	--
MW-46	7.69	--	6.70	0.99	--	--	6.91	0.78	--	--	5.75	1.94	--	--	5.89	1.80	--	--	6.65	1.04	--	--	5.52	2.17	--
MW-47	8.03	--	6.45	1.58	--	--	6.77	1.26	--	--	5.10	2.93	--	--	6.26	1.77	--	--	5.99	2.04	--	--	5.84	2.19	--
MW-48	11.43	--	9.87	1.56	--	--	10.10	1.33	--	--	6.28	5.15	--	--	9.65	1.78	--	--	9.40	2.03	--	--	9.47	1.96	--
Recovery Wells																									
RW-1	8.26	--	6.84	1.42	--	--	7.2	1.06	--	--	6.51	1.75	--	--	6.63	1.63	--	--	6.65	1.61	--	--	6.66	1.6	--
RW-2	9.81	--	7.4	2.41	--	--	7.6	2.21	--	--	6.54	3.27	--	--	7.38	2.43	--	--	7.29	2.52	--	--	7.02	2.79	--
RW-3	9.83	--	8.04	1.79	--	--	7.29	2.54	--	--	6.67	3.16	--	--	7.87	1.96	--	--	7.78	2.05	--	--	7.48	2.35	--
RW-4	10.2	--	8.3	1.9	--	--	8.68	1.52	--	--	6.98	3.22	--	--	8.2	2.00	--	--	7.84	2.36	--	--	7.69	2.51	--
RW-5	10.27	8.1	8.12	2.17	0.02	--	8.46	1.81	--	6.74	6.75	3.53	0.01	7.94	7.95	2.33	0.01	7.64	7.65	2.63	0.01	--	7.5	2.77	--

Notes:

LNAPL - Light Non-Aqueous Phase Liquid

MPE - Measuring Point Elevation (top of well casing)

DTW - Depth to Water

DTP - Depth to Product

GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])

FPT - Free Product Thickness

NR - Not Recorded

NC - Not Calculated[2]

NM - Not Measured

Notes (cont.):

N/A - No data as monitoring/ recovery well was either not constructed (March 2013 to January 2015 monitoring period),destroyed (October 2016 monitoring event) when monitoring event was performed, or is not included in the monitoring network

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:

Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)

Assumes a specific gravity of 0.75

REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

209 SHAFTER STREET
ISLANDIA, NEW YORK 11749
TEL: 631-232-2600
FAX: 631 232-9898

April 28, 2017

Ms. Sondra Martinkat
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation
Region Two
47-40 21st Street
Long Island City, New York 11101

Re: Quarterly Inspection and Monitoring Report
January to March 2017
Paragon Paint and Varnish Corp., Long Island, New York, Site No. C241108

Dear Ms. Martinkat:

Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering), on behalf of Vernon 4540 Realty, LLC, have generated this quarterly inspection and monitoring report to summarize the operation, maintenance and monitoring activities being performed at the Paragon Paint and Varnish Corp. located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard, Long Island City, Queens, New York (Site). The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C241108, which is administered by New York State Department of Environmental Conservation (NYSDEC), and the controls described are in accordance with the NYSDEC-approved Site Management Plan (SMP) dated November 2016. During this reporting period (January to March 2017), the composite cover system and institutional controls (ICs) were not modified. In addition, the following activities, as described herein, were specifically performed:

- Monthly operation and maintenance (O&M) of the Light Non-Aqueous Phase Liquid (LNAPL) recovery system;
- Monthly gauging of Site monitoring and recovery wells to assess presence of LNAPL;
- Monthly LNAPL recovery using manual bailing techniques, where applicable, at Site monitoring wells; and
- Quarterly monitoring (gauging and sampling) of Site monitoring wells.

O&M of the LNAPL Recovery System

As per the SMP, O&M of the LNAPL recovery system and its respective recovery wells (RW-1 through RW-5) was completed monthly. The completed site-wide monitoring, inspection, and maintenance forms are included in Attachment 1. During this reporting period, the LNAPL recovery system was operational and recovering LNAPL. Although maintenance of the system was not required, adjustments were made to optimize LNAPL recovery at selected recovery wells (i.e., RW-4 and RW-5) that contained recoverable amounts of LNAPL. 0 gallons of LNAPL has been recovered from the operation of the LNAPL recovery system during this reporting period. Gauging data generated during the reporting period for each recovery well is presented in tabular form in Attachment 2. The following summarizes LNAPL present at each recovery well as of March 30, 2017:

Recovery Well	LNAPL Thickness
RW-1	Not present
RW-2	Not present
RW-3	Not present
RW-4	Not present
RW-5	Not present

Based on the lack of recoverable amounts of product at each recovery well, the operation of the LNAPL recovery system has been temporarily paused starting March 30, 2017. Accordingly, the presence of LNAPL at these specific recovery wells will continue to be evaluated in the next quarter to determine if continued operation of the on-site LNAPL recovery system is necessary.

Gauging and Manual LNAPL Recovery

As required by the SMP, the approved monitoring well network must be gauged on a monthly basis to support the ongoing assessment of measurable LNAPL in on-site and off-site monitoring and recovery wells. In addition, accessible Site monitoring wells outside the approved SMP monitoring network will be gauged periodically to determine if LNAPL is present and needs to also be addressed at those particular locations. Specifically, the gauging of these additional monitoring wells will be performed monthly for a six (6) month period through June 2017 following the recent issuance of the Site-specific Certificate of Completion (COC) on December 15, 2016. After June 2017, these activities will then be performed at all Site monitoring wells during the quarterly groundwater sampling event. LNAPL assessment and manual recovery efforts, where applicable, will continue to be performed on a monthly basis at monitoring wells where LNAPL continues to be present.

During this reporting period, if the presence of LNAPL in the monitoring wells was observed to be greater than trace amount (i.e., >0.01’), the monitoring well was manually bailed. A total of approximately 2.575 gallons of LNAPL was manually recovered from the aforementioned monitoring wells. As noted earlier, LNAPL was not recovered from the operation of the LNAPL system at recovery wells RW-1 through RW-5. Note, oil absorbing socks were installed at monitoring wells MW-2, MW-4, MW-22, MW-42 and MW-45 to facilitate removal of trace product at those locations.

All gauging and manual LNAPL recovery data generated during the reporting period is provided in tabular form in Attachment 3 with a more focused and condensed summary of monitoring wells with the presence of LNAPL provided below:

Monitoring Well	LNAPL Thickness Measurements			LNAPL Recovered
	January 2017 (1 event)	February 2017 (1 event)	March 2017 (1 event)	
MW-2R	0.02 feet	0.01 feet (absorbent sock installed)	0.01 feet	0.55 gallons
MW-3 (Off-Site)	0.68 feet	0.49 feet	1.02 feet	0.8 gallons
MW-4	0.01 feet	0.03 feet (absorbent sock installed)	Not Present	0.325 gallons
MW-7	0.16 feet	0.14 feet	0.38 feet	0.2 gallons
MW-19	0.03 feet	Not Present	0.08 feet	0.2 gallons
MW-22	0.04 feet	0.08 feet (absorbent sock installed)	Not Present	0.225 gallons
MW-42	0.01 feet	0.01 feet (absorbent sock installed)	Not Present	0.05 gallons
MW-45	0.01 feet	0.05 feet (absorbent sock installed)	Not Present	0.225 gallons

Based on a review of the gauging and manual LNAPL recovery data generated during the reporting period, the following key observations and trends are provided below:

- The presence of LNAPL was noted in eight (8) monitoring wells MW-2R, MW-3, MW-4, MW-7, MW-19, MW-22, MW-42 and MW-45 at one point during the monitoring period.

- Based on the most recent, March 2017, gauging event of the eight monitoring wells that had LNAPL at one point during the monitoring period:
  - LNAPL is currently not present at four (4) on-site locations (MW-4, MW-22, MW-42 and MW-45);
  - LNAPL thickness at remaining three (3) on-site locations is currently less than 0.4 feet; and
  - LNAPL thickness at one (1) off-site location is currently 1.02 feet.

- Manual bailing and installation of oil absorbent socks are effectively removing residual LNAPL at some Site monitoring wells.

Based on the summary provided herein, manual bailing of LNAPL and the installation of oil absorbent socks at various monitoring wells highlighted herein appears to be effective. These LNAPL recovery techniques will continue to be utilized during the next quarter.

Groundwater Monitoring

Groundwater is monitored by a combination of gauging and sampling of groundwater monitoring wells within the SMP monitoring network. As discussed earlier, groundwater monitoring wells are gauged monthly to check for the presence of LNAPL and confirm thickness of LNAPL, if present. Site monitoring wells are then sampled on a quarterly basis to determine the presence of volatile organic compounds (VOCs), in particular the four Site-specific chemicals of concern (benzene, ethylbenzene, isopropylbenzene and total xylenes). The monitoring wells were sampled for Target Compound List (TCL) of VOCs using United States Environmental Protection Agency (USEPA) SW846 Method 8260.

Water/ LNAPL level data was collected during the March 2017 gauging event (Attachment 3). If the presence of LNAPL was noted in groundwater monitoring wells outside the radius of influence of Site recovery wells, the product thickness was noted and the monitoring well was manually bailed to the extent practical. The respective LNAPL measurements collected from the March 2017 gauging round is highlighted on Figure 1.

On March 2017, the required quarterly groundwater gauging and sampling round was performed. The current monitoring well network consists of the following:

- three off-site monitoring wells along the southern perimeter of the site (MW-3, MW-21, and MW-34); and

- 18 on-site monitoring wells (MW-2R, MW-4, MW-7, MW-10, MW-11, MW-15, MW-19, MW-33, MW-38, MW-40, MW-41, MW-42, MW-43, MW-44, MW-45, MW-46, MW-47, and MW-48).

For each event, if the presence of product was noted at a monitoring well to be sampled within the respective monitoring network, the monitoring well was not sampled. Instead of being sampled, LNAPL was manually recovered to the extent practical. A total of 2.575 gallons of LNAPL were recovered by bailing during this reporting period.

Groundwater samples were collected using low-flow groundwater sampling procedures. The pump intake was set within the saturated portion of the well screen during purging and sampling activities. Prior to collecting groundwater samples, each monitoring well was purged at a flow rate of approximately .12 liters per minute (L/min). Flow rates were adjusted to maintain minimal drawdown in the well during purging activities. A portable water-quality meter, equipped with an in-line flow-through cell, was used to monitor water quality indicator parameters (pH, conductivity, dissolved oxygen [DO], oxidation-reduction potential [ORP], temperature, and turbidity). Groundwater quality measurements were collected every three to five minutes until the field parameters stabilized (Attachment 4).

Purging was considered complete when the field parameters had stabilized, after which groundwater samples were collected and submitted for TCL VOC analysis. The results of these samples are summarized in Table 1 and presented in Figure 1.

The following monitoring wells were sampled during the quarterly event:

March 2017 (18 Monitoring Wells Sampled)		
MW-4	MW-34	MW-43
MW-7R	MW-37	MW-44
MW-10	MW-38	MW-45
MW-11	MW-40	MW-46
MW-21	MW-41	MW-47
MW-33	MW-42	MW-48

A review of the groundwater data generated indicated the following:

- Four (4) of the twenty-one (21) monitoring wells within the NYSDEC-approved monitoring network were not sampled during the March 2017 sampling event due to the presence of LNAPL at those locations as discussed previously.

- VOCs were detected, but at concentrations below AWQSGVs in six (6) monitoring wells (MW-10, MW-11, MW-41, MW-42, MW-46 and MW-48).

- COC exceedances of AWQSGVs are noted below:
  - Benzene results exceeded their respective AWQSGV of 1 µg/L at two monitoring well locations (1.4 µg/L at MW-21 and 9.3 µg/L at MW-40).

  - Ethylbenzene results exceeded their respective AWQSGV of 5 µg/L at four monitoring well locations (6.8 µg/L at MW-43, 9.7 µg/L at MW-44, 39 µg/L at MW-45 and 15 µg/L at MW-47).

  - Isopropylbenzene results exceeded their respective AWQSGV of 5 µg/L at ten monitoring well locations. Exceedances ranged from 5.4 to 51 µg/L.

  - Xylene results exceeded their respective AWQSGV of 5 µg/L at four monitoring well locations (22 µg/L at MW-43, 52 µg/L at MW-44, 54 µg/L at MW-45 and 56 µg/L at MW-47).

Based on the presence of VOCs above the NYSDEC AWQSGVs in groundwater, treatment of VOCs utilizing In-situ Chemical Oxidation (ISCO) will be required. As contemplated in the SMP, ISCO will also be required to address residual soil gross contamination in areas depicted on Figure 9 of the SMP. An ISCO Design Plan was submitted to the NYSDEC via email on April 11, 2017, with implementation anticipated to occur during the week of April 24, 2017.

Modifications or Amendments to the SMP

No modifications or amendments to the SMP were implemented this reporting period.

Actions Planned for the Next Quarterly Reporting Period

The following actions are planned for the next reporting period:

- Continued monthly operation and maintenance of LNAPL recovery system;
- Continued monthly gauging and manual LNAPL recovery, where applicable, at Site monitoring and recovery wells;
- Continued quarterly monitoring (gauging and sampling) of Site monitoring wells within SMP network;
- Evaluation of LNAPL recovery efforts at RW-1 through RW-5 to determine if operation of the on-site LNAPL recovery system continues to not be warranted; and
- Continued use of alternative (i.e., oil absorbing socks), practical methods to supplement recovery of LNAPL at Site monitoring wells where manual recovery efforts become ineffective.

If there are any follow-up questions or concerns with regards to the information provided in this quarterly report, please don't hesitate to contact our office.

Sincerely,

REMEDIAL ENGINEER, P.C.

Omar Ramotar

Omar Ramotar, P.E.
Principal Engineer

Attachments

cc: Jane O'Connell, NYSDEC
Andrew Till, Simon Baron Development
Robert Hendrickson, Quadrum Global
Joseph Duminuco, Roux Associates, Inc.
Glenn Netuschil, P.E., Remedial Engineering, P.C.
Jordanna Kendrot, Roux Associates, Inc.

TABLE

1. Summary of Volatile Organic Compounds in Groundwater

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-4	MW-5	MW-7R	MW-7R	MW-10	MW-10	MW-10
		Sample Date:	03/30/2017	09/08/2016	09/08/2016	03/30/2017	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	20 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	10 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**14**	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	2500 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	14	50 U	5 U	5 U	5 U
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	20 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-4	MW-5	MW-7R	MW-7R	MW-10	MW-10	MW-10
		Sample Date:	03/30/2017	09/08/2016	09/08/2016	03/30/2017	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	1.6 J	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**5.4**	2.5 U	**11**	**14 J**	2.5 U	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	1.6 J	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5.5	50 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**5.8**	2.5 U	**19**	**25**	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**6.6**	2.5 U	**12**	**12 J**	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	**7.3**	2.5 U	**6**	**7 J**	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	0.99 J	25 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	10 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	1.6 J	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-11	MW-11	MW-11	MW-11	MW-19	MW-21	MW-21
		Sample Date:	09/08/2016	12/01/2016	03/30/2017	03/30/2017	09/08/2016	09/08/2016	09/08/2016
		Normal or Field Duplicate:	N	N	N	FD	N	N	FD
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	**7**	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	2.2 J	1.9 J	5.6	5 U	5 U
Benzene	**1**	UG/L	0.64	0.68	1	1	0.46 J	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-11	MW-11	MW-11	MW-11	MW-19	MW-21	MW-21
		Sample Date:	09/08/2016	12/01/2016	03/30/2017	03/30/2017	09/08/2016	09/08/2016	09/08/2016
		Normal or Field Duplicate:	N	N	N	FD	N	N	FD
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	**25**	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	**33**	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	**23**	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	4.7	4.1	4.4	4.5	**13**	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-21	MW-33	MW-33	MW-34	MW-34	MW-34
		Sample Date:	12/01/2016	03/30/2017	12/01/2016	03/30/2017	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	3 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	4 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	3	5 U	1.3 J	0.98 J	0.94 J
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	500 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	23	5.7 J	5 U	5 U	2.4 J
Benzene	**1**	UG/L	0.5 U	**1.4**	0.5 U	1 U	0.42 J	0.26 J	0.5
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	4 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-21	MW-21	MW-33	MW-33	MW-34	MW-34	MW-34
Sample Date:			12/01/2016	03/30/2017	12/01/2016	03/30/2017	09/08/2016	12/01/2016	03/30/2017
Normal or Field Duplicate:			N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	0.76 J	2.3 J	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	1.3 J	4.2 J	**30**	**22**	**18**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	1.1 J	5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	3.2 J	9.9 J	5 U	5 U	3 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	1.2 J
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.2 J	**8.2**	**39**	**33**	**25**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	1.5 J	5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.6	4.6 J	**16**	**15**	**13**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	1.8 J	2.3 J	**7**	**6.9**	**7.2**
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.46 J	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.6 J	5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
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FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-37	MW-37	MW-37	MW-38	MW-38	MW-38	MW-40
		Sample Date:	09/08/2016	12/01/2016	03/30/2017	09/08/2016	12/01/2016	03/30/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	7.5 U	7.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	0.74 J	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	10 U	10 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	5 U	5 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	3.6 J	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	1200 U	1200 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	3.4 J	39	25 U	3.5 J	1.6 J	5 U	2 J
Benzene	**1**	UG/L	0.19 J	2.5 U	2.5 U	0.27 J	0.28 J	0.5 U	**8.6**
Bromochloromethane	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	10 U	10 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-37	MW-37	MW-37	MW-38	MW-38	MW-38	MW-40
		Sample Date:	09/08/2016	12/01/2016	03/30/2017	09/08/2016	12/01/2016	03/30/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**14**	**28**	**34**	**15**	**26**	**36**	**44**
m,p-Xylene	**5**	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	1 J
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	7.4	25 U	25 U	6.8	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	25 U	25 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**20**	**50**	**68**	**16**	**34**	**55**	**69**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	0.78 J
Sec-Butylbenzene	**5**	UG/L	**5.1**	**21**	**30**	5	**11**	**16**	**16**
Styrene	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.8	**7.1 J**	**8.8 J**	2.5	4.3	**6.8**	3.5
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	1.2 J	12 U	12 U	1 J	0.97 J	2.5 U	1.7 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	5 U	5 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	12 U	12 U	2.5 U	2.5 U	2.5 U	1.8 J

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-40	MW-41	MW-41	MW-41	MW-42	MW-42	MW-43
		Sample Date:	03/30/2017	09/08/2016	12/01/2016	03/30/2017	09/08/2016	03/30/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**12**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	2.3 J	5 U	5 U	5 U	5 U	5 U	7.4
Benzene	**1**	UG/L	**9.3**	0.26 J	0.5 U	0.62	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-40	MW-41	MW-41	MW-41	MW-42	MW-42	MW-43
		Sample Date:	03/30/2017	09/08/2016	12/01/2016	03/30/2017	09/08/2016	03/30/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**47**	1.3 J	0.73 J	2.5	4.7	0.73 J	1.4 J
m,p-Xylene	**5**	UG/L	1 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.3 J
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**38**	1.7 J	0.8 J	3.1	3.5	2.5 U	1.9 J
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	0.72 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.8 J
Sec-Butylbenzene	**5**	UG/L	**20**	2.3 J	1.1 J	3.9	2.9	1.4 J	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	**5.3**	1.2 J	0.78 J	2.4 J	1.2 J	1.7 J	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	1.7 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 J

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- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-43	MW-44	MW-44	MW-45	MW-46	MW-46	MW-47
		Sample Date:	03/30/2017	12/01/2016	03/30/2017	03/30/2017	12/01/2016	03/30/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	3 U	1.5 U	1.5 U	3.8 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	4 U	2 U	2 U	5 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	2 U	1 U	1 U	2.5 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**78**	**41**	**81**	**230**	2.5 U	2.5 U	**40**
1,3-Dichlorobenzene	3	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	500 U	250 U	250 U	620 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	10 U	5 U	5 U	12 U	5 U	5 U	5 U
Acetone	**50**	UG/L	28	**98**	**53**	32	4.2 J	5 U	**110**
Benzene	**1**	UG/L	0.5 J	1	0.63	0.78 J	0.5 U	0.5 U	0.98
Bromochloromethane	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	4 U	2 U	2 U	5 U	2 U	2 U	2 U
Bromomethane	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	10 U	5 U	5 U	12 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-43	MW-44	MW-44	MW-45	MW-46	MW-46	MW-47
		Sample Date:	03/30/2017	12/01/2016	03/30/2017	03/30/2017	12/01/2016	03/30/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	10 U	5 U	5 U	12 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**6.8**	**9.9**	**9.7**	**39**	2.5 U	2.5 U	**11**
Isopropylbenzene (Cumene)	**5**	UG/L	**13**	**6.8**	**13**	**51**	2.5 U	2.5 U	**9.2**
m,p-Xylene	**5**	UG/L	**15**	**24**	**30**	**47**	2.5 U	2.5 U	**24**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	10 U	12	5 U	12 U	5 U	5 U	14
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	10 U	5 U	5 U	12 U	5 U	5 U	1.1 J
Methylene Chloride	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**22**	**8.5**	**19**	**88**	2.5 U	2.5 U	**13**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**7.2**	**17**	**22**	**7.4**	2.5 U	2.5 U	**14**
Sec-Butylbenzene	**5**	UG/L	**5.8**	1.8 J	**6.2**	**16**	2.5 U	2.5 U	2.1 J
Styrene	5	UG/L	5 U	2.5 U	1.1 J	6.2 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.4 J	1.2 J	2.4 J	4.8 J	2.5 U	2.5 U	0.95 J
Tert-Butyl Methyl Ether	10	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	1 U	0.5 U	0.23 J	1.2 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	5 U	3.8	3.6	6.2 U	2.5 U	2.5 U	3.8
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	1 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	2 U	1 U	1 U	2.5 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	**22**	**41**	**52**	**54**	2.5 U	2.5 U	**38**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
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U - Compound was analyzed for but not detected
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 - - No NYSDEC AWQSGV available
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Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-47	MW-47	MW-48	MW-48
		Sample Date:	12/01/2016	03/30/2017	12/01/2016	03/30/2017
		Normal or Field Duplicate:	FD	N	N	N
Parameter	NYSDEC AWQSGVs	Units				
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**41**	**78**	2.2 J	0.92 J
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	1.1 J	5 U	5 U	5 U
Acetone	**50**	UG/L	**110**	39	5 U	5 U
Benzene	**1**	UG/L	**1.1**	0.66	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	1.2 J	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-47	MW-47	MW-48	MW-48
		Sample Date:	12/01/2016	03/30/2017	12/01/2016	03/30/2017
		Normal or Field Duplicate:	FD	N	N	N
Parameter	NYSDEC AWQSGVs	Units				
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**11**	**15**	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**9.9**	**16**	4	2.6
m,p-Xylene	**5**	UG/L	**25**	**36**	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	16	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**14**	**23**	3.1	2.4 J
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**15**	**20**	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.2 J	4.6	4.7	4.3
Styrene	5	UG/L	2.5 U	1.1 J	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	0.99 J	2 J	4.1	3.1
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	4	2.9	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	**40**	**56**	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

ATTACHMENTS

1. Monitoring, Inspection, and Maintenance Forms
2. LNAPL Recovery System Monitoring Logs
3. Gauging and Manual LNAPL Recovery Data
4. March 2017 Well Sampling Data Forms

ATTACHMENT 1

Monitoring, Inspection, and
Maintenance Forms

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Thursday, January 19, 2017**

Site Observations: Performed by (MS) on (1/19/17)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (1/19/17)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (1/19/17)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (1/19/17)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (1/19/17)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **1/19/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Tuesday, February 14, 2017**

Site Observations: Performed by (MS) on (2/14/17)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (2/14/17)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (2/14/17)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (2/14/17)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (2/14/17)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **2/14/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Thursday, March 30, 2017**

Site Observations: Performed by (MS) on (3/30/17)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations

Inspection of RCA Cap: Performed by (MS) on (3/30/17)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (3/30/17)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations

Inspection of Building Covers: Performed by (MS) on (3/30/17)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketched or photos of observations

Inspection of LNAPL Recovery System : Performed by (MS) on (3/30/17)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[X]	[ ]	Were all five (5) AC Sipper reels operating properly?
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.
SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **3/30/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

Sampling to be completed today from monitoring wells in the SMP monitoring network.
Recovery system to be shut off due to lack of recoverable product. Continue to inspect recovery system going forward.

ATTACHMENT 2

LNAPL Recovery System
Monitoring Logs

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - January 19, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	**Value**	**Unit**			**Comments**
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.63	--	
Recovery Well RW-2	N	--	7.38	--	
Recovery Well RW-3	N	--	7.87	--	
Recovery Well RW-4	N	--	8.20	--	
Recovery Well RW-5	Y	7.94	7.95	0.01	Trace amount; cannot be recovered by system
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how?

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - February 14, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.65	--	
Recovery Well RW-2	N	--	7.29	--	
Recovery Well RW-3	Y	--	7.78	--	
Recovery Well RW-4	N	--	7.84	--	
Recovery Well RW-5	Y	7.64	7.65	0.01	Trace amount; cannot be recovered by system
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how?

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - March 30, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.66	--	
Recovery Well RW-2	N	--	7.02	--	
Recovery Well RW-3	N	--	7.48	--	
Recovery Well RW-4	N	--	7.69	--	
Recovery Well RW-5	N	--	7.50	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? Yes

If no, was the condition corrected and how? No product present in recovery wells, turn off system until reportable levels of product become present in the recovery system wells.

Form Completed By:

Michael Sarni

ATTACHMENT 3

Gauging and Manual LNAPL
Recovery Data

Groundwater Gauging Former Paragon Paint Varnish Corp - January 19, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
1/19/2017	MW-2R	7.50	7.52	4	0.02	0.2	1.05
1/19/2017	MW-3	6.98	7.66	2	0.68	0.3	2.65
1/19/2017	MW-4	9.81	9.82	2	0.01	0.3	0.6
1/19/2017	MW-7	2.62	2.78	1	0.16	0.1	0.3
1/19/2017	MW-7R	--	2.52	1.96	--	--	
1/19/2017	MW-9	Monitoring well destroyed/paved over by asphalt					
1/19/2017	MW-10	--	7.62	2	--	--	
1/19/2017	MW-11	--	6.63	2	--	--	
1/19/2017	MW-14	--	8.22	2	--	--	
1/19/2017	MW-15	--	9.55	2	--	--	
1/19/2017	MW-17	--	6.94	4	--	--	
1/19/2017	MW-18	--	6.87	4	--	--	
1/19/2017	MW-19	2.72	2.75	2	0.03	0.1	0.2
1/19/2017	MW-20	--	NM	2	--	--	
1/19/2017	MW-21	--	5.91	4	--	--	
1/19/2017	MW-22	9.89	9.93	2	0.04	0.1	0.45
1/19/2017	MW-33	--	7.33	2	--	--	
1/19/2017	MW-34	--	7.20	4	--	--	
1/19/2017	MW-36	--	6.85	4	--	--	
1/19/2017	MW-37	--	2.66	2	--	--	
1/19/2017	MW-38	--	2.83	2	--	--	
1/19/2017	MW-40	--	7.01	2	--	--	
1/19/2017	MW-41	--	6.55	2	--	--	
1/19/2017	MW-42	7.47	7.48	2	0.01	--	0.0
1/19/2017	MW-43	--	6.13	2	--	--	
1/19/2017	MW-44	--	7.38	2	--	--	
1/19/2017	MW-45	6.90	6.91	2	0.01	0.1	0.4
1/19/2017	MW-46	--	5.89	2	--	--	
1/19/2017	MW-47	--	6.26	2	--	--	
1/19/2017	MW-48	--	9.65	2	--	--	
						Total	**5.65**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - February 14, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
2/14/2017	MW-2R	7.44	7.45	4	0.01	Sock Installed	1.05
2/14/2017	MW-3	6.99	7.48	2	0.49	0.3	2.95
2/14/2017	MW-4	9.6	9.62	2	0.02	Sock Installed	0.6
2/14/2017	MW-7	2.62	2.76	1	0.14	0.1	0.4
2/14/2017	MW-7R	--	2.52	2	--	--	
2/14/2017	MW-9	Monitoring well destroyed/paved over by asphalt					
2/14/2017	MW-10	--	6.60	2	--	--	
2/14/2017	MW-11	--	6.15	2	--	--	
2/14/2017	MW-14	--	9.42	2	--	--	
2/14/2017	MW-15	--	9.46	2	--	--	
2/14/2017	MW-17	--	6.89	4	--	--	
2/14/2017	MW-18	--	6.77	4	--	--	
2/14/2017	MW-19		2.62	2	--	--	0.2
2/14/2017	MW-20		9.71	2	--	--	
2/14/2017	MW-21	--	5.92	4	--	--	
2/14/2017	MW-22	9.62	9.70	2	0.08	Sock Installed	0.45
2/14/2017	MW-33	--	7.33	2	--	--	
2/14/2017	MW-34	--	7.19	4	--	--	
2/14/2017	MW-36	--	6.70	4	--	--	
2/14/2017	MW-37	--	2.12	2	--	--	
2/14/2017	MW-38	--	2.58	2	--	--	
2/14/2017	MW-40	--	6.63	2	--	--	
2/14/2017	MW-41	--	6.21	2	--	--	
2/14/2017	MW-42	7.43	7.44	2	0.01	Sock Installed	0.0
2/14/2017	MW-43	--	5.82	2	--	--	
2/14/2017	MW-44	--	7.09	2	--	--	
2/14/2017	MW-45	6.60	6.61	2	0.05	Sock Installed	0.4
2/14/2017	MW-46	--	6.65	2	--	--	
2/14/2017	MW-47	--	5.99	2	--	--	
2/14/2017	MW-48	--	9.40	2	--	--	
						Total	**6.05**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Sock Installed - An oil absorbent sock was installed within the well at the height of the groundwater table instaed of bailing due to trace amounts of product.

Groundwater Gauging Former Paragon Paint Varnish Corp - March 30, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Well	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged* (g)	Cumulative (g)
3/30/2017	MW-2R	4.31	4.32	4	0.01	0.1	1.40
3/30/2017	MW-3	6.79	7.81	2	1.02	0.2	3.15
3/30/2017	MW-4	--	9.70	2	--	--	0.63
3/30/2017	MW-7	2.72	3.10	1	0.38	trace removal	0.4
3/30/2017	MW-7R	--	2.75	2	--	--	
3/30/2017	MW-9	Monitoring well destroyed/paved over by asphalt					
3/30/2017	MW-10	--	5.91	2	--	--	
3/30/2017	MW-11	--	6.69	2	--	--	
3/30/2017	MW-14	--	6.37	2	--	--	
3/30/2017	MW-15	--	6.38	2	--	--	
3/30/2017	MW-17	--	6.64	4	--	--	
3/30/2017	MW-18	--	6.77	4	--	--	
3/30/2017	MW-19	2.82	2.90	2	0.08	0.1	0.3
3/30/2017	MW-20	--	9.81	2	--	--	
3/30/2017	MW-21	--	5.89	4	--	--	
3/30/2017	MW-22	--	9.74	2	--	--	0.58
3/30/2017	MW-33	--	7.00	2	--	--	
3/30/2017	MW-34	--	7.03	4	--	--	
3/30/2017	MW-36	--	6.47	4	--	--	
3/30/2017	MW-37	--	2.64	2	--	--	
3/30/2017	MW-38	--	2.83	2	--	--	
3/30/2017	MW-40	--	6.98	2	--	--	
3/30/2017	MW-41	--	6.75	2	--	--	
3/30/2017	MW-42	--	7.60	2	--	--	0.05
3/30/2017	MW-43	--	5.71	2	--	--	
3/30/2017	MW-44	--	6.95	2	--	--	
3/30/2017	MW-45	--	6.49	2	--	--	0.53
3/30/2017	MW-46	--	5.52	2	--	--	
3/30/2017	MW-47	--	5.84	2	--	--	
3/30/2017	MW-48	--	9.47	2	--	--	
						Total	**7.03**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

* - Purged total shown during this reporting month is the cumulative sum of bailed free-product on March 30, 2017 and the calculated total of product recovered from the use of the oil absorbent sock as installed during February 2017 based on absorbency.

ATTACHMENT 4

March 2017 Well Sampling Data Forms

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40F
Date: 3/30/2017
Well ID: MW-4
Intake depth: Approx. 15'
DTW: 9.69
Vol Purged: 1.5
DTB: 17.60
Sampler: RH
Purge Start: 11:15
Purge End Time: 11:40
Purge Water Description: Clear, no odor

Sample Time: 11:40

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:15	10.35	200	7.24	0.160	100.3	7.73	-89	129
11:20	10.50	200	13.09	0.264	0.00	7.33	-129	40.7
11:25	10.62	200	13.15	0.263	0.00	7.30	-131	27.4
11:30	10.73	200	13.31	0.263	0.00	7.28	-133	18.7
11:33	10.55	200	13.33	0.265	0.00	7.26	-133	15.0
11:36	10.55	200	13.35	0.266	0.00	7.24	-133	11.6
11:39	10.55	200	13.36	0.268	0.00	7.25	-134	11.0

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Sunny, 41F
Date: 3/30/2017
Well ID: MW-7R
Intake depth: Approx. 5'
DTW: 2.52
Vol Purged: 1 gal
DTB: 6.85
Sampler: MS
Purge Start: 13:00
Purge End Time: 13:30
Purge Water Description: Clear/grey - sediment floating

Sample time 1330

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
13:00	3.50	100	9.69	2.38	2.29	6.99	-94	265
13:03	3.50	100	9.72	2.39	1.79	6.89	-86	247
13:06	3.50	100	9.74	2.39	1.66	6.79	-79	246
13:09	3.50	100	9.74	2.39	1.67	6.76	-75	243
13:12	3.50	100	9.73	2.39	1.79	6.73	-73	238
13:15	3.50	100	9.73	2.40	1.79	6.71	-71	234
13:18	3.50	100	9.72	2.40	1.87	6.70	-69	231
13:21	3.50	100	9.71	2.40	1.98	6.69	-67	229
13:24	3.50	100	9.70	2.41	2.11	6.68	-66	225
13:27	3.50	100	9.71	2.41	2.17	6.69	-64	220
13:30	3.50	100	9.70	2.41	2.14	6.68	-63	217

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40F
Date: 3/30/2017
Well ID: MW-10
Intake depth: Approx. 9'
DTW: 6.64
Vol Purged: .5 gal
DTB: 10.86
Sampler: AF
Purge Start: 9:54
Purge End Time: 10:18
Purge Water Description: Clear from to start to end
Sample time 10:20

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:54	6.66	75	9.18	31.9	4.69	7.02	132	92.9
9:57	6.63	75	8.96	31.9	4.02	7.13	135	31.3
10:00	6.61	75	8.64	32.0	3.94	7.24	137	17.2
10:03	6.59	75	8.30	32.1	3.81	7.29	139	15.1
10:06	6.59	75	8.16	32.3	3.76	7.31	140	12.6
10:09	6.57	75	8.01	32.3	3.73	7.33	144	10.4
10:12	6.56	75	7.83	32.3	3.70	7.34	146	9.3
10:15	6.56	75	7.79	32.3	3.69	7.35	146	8.7
10:18	6.56	75	7.75	32.4	3.67	7.35	148	8.1

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40F
Date: 3/30/2017
Well ID: MW-11
Intake depth: Approx. 21'
DTW: 6.14
Vol Purged: 0.75 gal
DTB: 23.87
Sampler: AF
Purge Start: 9:17
Purge End Time: 9:44
Purge Water Description: Clear from start to finish
Sample time: 0945
Duplicate sample collected from MW-11 (DUP-033017) at 0950

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:17	7.22	150	12.97	6.88	2.46	6.44	196	201
9:20	7.41	150	13.03	6.73	0.92	6.90	61	98.6
9:23	7.49	100	12.99	6.63	0.32	7.38	2	31.6
9:26	7.53	100	12.96	6.63	0.14	7.40	-14	30.5
9:29	7.55	100	12.94	6.62	0.09	7.43	-26	27.3
9:32	7.57	100	12.91	6.61	0.08	7.47	-28	24.9
9:35	7.58	100	12.89	6.61	0.07	7.48	-29	24.0
9:38	7.58	100	12.90	6.61	0.07	7.49	-30	23.6
9:41	7.59	100	12.89	6.61	0.06	7.49	-30	23.5
9:44	7.60	100	12.89	6.61	0.05	7.49	-30	23.2

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40F
Date: 3/30/2017
Well ID: MW-21
Intake depth: Approx. 14'
DTW: 6.20
Vol Purged: 1 gal
DTB: 15
Sampler: MS
Purge Start: 9:30
Purge End Time: 10:00
Purge Water Description: Orange to Clear during purge
Sample time: 1000

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:30	6.26	100	13.99	10.5	1.08	6.69	-38	103
9:33	6.26	100	14.01	10.5	0.95	6.64	-29	110
9:36	6.26	100	13.97	10.6	0.81	6.62	-23	68.0
9:39	6.26	100	13.88	10.6	0.72	6.60	-18	115
9:42	6.26	100	13.85	10.6	0.72	6.59	-15	58.1
9:45	6.26	100	13.77	10.7	0.64	6.58	-11	43.0
9:48	6.26	100	13.75	10.7	0.57	6.58	-9	16.0
9:51	6.26	100	13.74	10.7	0.54	6.57	-6	3.7
9:54	6.26	100	13.72	10.7	0.53	6.57	-4	3.5
9:57	6.26	100	13.72	10.7	0.52	6.57	-1	4.7
10:00	6.26	100	13.73	10.7	0.51	6.57	-2	3.9

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Sunny, 40F
Date: 3/30/2017
Well ID: MW-33
Intake depth: Approx. 11.5'
DTW: 7.92
Vol Purged: .75 gal
DTB: 13.5
Sampler: MS
Purge Start: 10:15
Purge End Time: 10:45
Purge Water Description: Clear
Sample time: 1045

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:15	7.93	100	12.66	1.52	0.87	7.09	-16	19.9
10:18	7.93	100	12.54	1.51	0.85	7.08	-26	20.6
10:21	7.93	100	12.30	1.45	0.63	7.08	-37	21.0
10:24	7.93	100	12.25	1.42	0.53	7.08	-40	19.5
10:27	7.93	100	12.12	1.40	0.45	7.03	-44	19.9
10:30	7.93	100	11.81	1.38	0.35	7.07	-59	20.6
10:33	7.93	100	11.72	1.38	0.35	7.07	-60	20.0
10:36	7.93	100	11.65	1.38	0.35	7.07	-61	19.6
10:39	7.93	100	11.58	1.38	0.33	7.06	-62	20.0
10:42	7.93	100	11.42	1.38	0.30	7.06	-63	19.8
10:45	7.93	100	11.38	1.38	0.31	7.07	-63	19.7

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather:	windy, clear, 39F	Date:	3/30/2017
Well ID:	MW-34	Intake depth:	Approx. 12.5'
DTW:	7.83	Vol Purged:	1 gal
DTB:	13.5		
Sampler:	MS		
Purge Start:	8:00	Purge End Time:	8:30
Purge Water Description:	Clear		
	Sample time 830		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:00	7.83	100	12.81	3.87	1.79	6.89	-50	8.6
8:03	7.83	100	12.78	3.85	1.56	6.90	-58	8.4
8:06	7.83	100	12.44	3.85	1.33	6.91	-70	8.3
8:09	7.83	100	12.39	3.85	1.28	6.91	-74	9.4
8:12	7.83	100	12.33	3.85	1.19	6.91	-77	8.7
8:15	7.83	100	12.27	3.85	1.13	6.92	-80	9.5
8:18	7.83	100	12.26	3.85	1.03	6.92	-82	8.9
8:21	7.83	100	12.28	3.86	1.07	6.92	-84	9.1
8:24	7.83	100	12.30	3.86	0.95	6.92	-84	9.0
8:27	7.83	100	12.32	3.86	0.92	6.92	-85	9.1
8:30	7.83	100	12.35	3.86	0.90	6.92	-86	9.0

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: clear, 40F
Date: 3/30/2017
Well ID: MW-37
Intake depth: Approx. 4'
DTW: 2.63
Vol Purged: 0.6 gal
DTB: 4.57
Sampler: AF
Purge Start: 12:49
Purge End Time: 13:16
Purge Water Description: Clear from start to finish
Sample time: 1320
During collection of the sample, the well went dry. Waited 10min for recharge

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
12:49	2.89	75	10.55	1.72	3.96	8.03	-206	93.6
12:52	2.92	75	10.16	1.75	1.22	7.79	-183	77.2
12:55	2.99	75	9.87	1.77	0.37	7.75	-161	65.3
12:58	3.06	75	9.76	1.78	0.11	7.71	-158	60.1
13:01	3.17	75	9.64	1.79	0.00	7.67	-153	56.4
13:04	3.22	75	9.59	1.80	0.00	7.65	-146	51.7
13:07	3.29	75	9.41	1.81	0.00	7.63	-143	49.9
13:10	3.40	75	9.36	1.82	0.00	7.63	-141	48.3
13:13	3.47	75	9.31	1.82	0.00	7.62	-140	48.0
13:16	3.52	75	9.27	1.83	0.00	7.62	-139	47.3

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40F Date: 3/30/2017

Well ID: MW-38 Intake depth: Approx. 3.5'

DTW: 2.80 Vol Purged: 1.2 gal

DTB: 4.98

Sampler: RH

Purge Start: 12:55 Purge End Time: 13:15

Purge Water Description: Clear, no odor

Sample time 1320

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
12:55	3.05	200	9.51	1.41	1.40	6.99	7	92.8
12:58	3.15	200	9.33	1.43	0.00	7.00	-6	85.2
13:01	3.28	200	9.28	1.44	0.00	6.99	-13	79.0
13:04	3.43	200	9.21	1.47	0.00	6.98	-21	71.0
13:07	3.60	200	9.20	1.47	0.00	6.98	-26	66.8
13:10	3.69	200	9.22	1.48	0.00	6.97	-28	65.0
13:13	3.90	200	9.23	1.49	0.00	6.99	-32	61.4

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Mostly Cloudy, 43F
Date: 3/30/2017
Well ID: MW-40
Intake depth: Approx. 16'
DTW: 6.98
Vol Purged: 2.5 gal
DTB: 18.82
Sampler: RH
Purge Start: 8:45
Purge End Time: 9:14
Purge Water Description: odor, clear
Sample time: 0915
MS/MSD collected

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:45	7.84	200	11.29	0.407	1.33	6.88	33	65.7
8:50	7.85	200	11.62	0.398	0.00	7.47	-80	50.6
8:55	7.91	200	11.60	0.392	0.00	7.68	-144	33.5
9:00	7.97	200	11.53	0.387	0.00	7.79	-184	32.0
9:05	8.00	200	11.56	0.377	0.00	7.85	-220	19.2
9:08	8.01	200	11.61	0.376	0.00	7.87	-224	17.9
9:11	8.02	200	11.61	0.374	0.00	7.87	-227	14.6
9:14	8.02	200	11.55	0.371	0.00	7.88	-233	13.4

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40's
Date: 3/30/2017
Well ID: MW-41
Intake depth: Approx. 9.5'
DTW: 6.75
Vol Purged: 2 gal
DTB: 11.4
Sampler: RH
Purge Start: 9:40
Purge End Time: 10:05
Purge Water Description: Clear
Sample time 10:05

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:40	6.80	200	9.76	1.29	3.05	8.25	-170	11.5
9:45	6.84	200	9.69	1.31	0.00	8.22	-182	4.6
9:50	6.87	200	9.72	1.32	0.00	8.20	-197	0.5
9:55	6.93	200	9.69	1.33	0.00	8.18	-82	0.0
9:58	6.98	200	9.71	1.34	0.00	8.17	-213	0.0
10:01	6.98	200	9.71	1.34	0.00	8.16	-216	0.0
10:04	6.98	200	9.71	1.34	0.00	8.15	-218	0.0

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: clear, 40F

Date: 3/30/2017

Well ID: MW-42

Intake depth: Approx. 9.5'

DTW: 7.52

Vol Purged: 2 gal

DTB: 11.08

Sampler: RH

Purge Start: 10:20

Purge End Time: 10:50

Purge Water Description: clear

Sample time 10:51

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:20	7.52	200	8.43	0.743	1.27	8.14	-148	41.2
10:25	7.59	200	8.50	0.732	0.00	8.00	-154	20.7
10:30	7.72	200	8.54	0.728	0.00	7.84	-161	6.5
10:35	7.89	200	8.66	0.719	0.00	7.74	-158	0.0
10:40	7.95	200	8.68	0.718	0.00	7.71	-159	0.0
10:43	7.98	200	8.68	0.720	0.00	7.68	-160	0.0
10:46	8.00	200	8.72	0.722	0.00	7.65	-161	0.0
10:49	8.01	200	8.68	0.725	0.00	7.64	-162	0.0

SITE NAME:	5-49 46th Ave. Long Island City, NY	**Project Number:**	2051.0001Y002

Weather:	Sunny, 40F	Date:	3/30/2017
Well ID:	MW-43	Intake depth:	Approx. 18
DTW:	5.65	Vol Purged:	1 gal
DTB:	20.00		
Sampler:	MS		
Purge Start:	11:45	Purge End Time:	12:15
Purge Water Description:	Clear		
	Sample time: 1215		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:45	5.65	100	11.21	1.72	0.91	11.82	-256	10.1
11:48	5.65	100	10.89	1.70	0.69	11.81	-146	9.5
11:51	5.65	100	10.92	1.70	0.69	11.85	-160	9.7
11:54	5.65	100	10.91	1.68	0.35	11.88	-180	10.0
11:57	5.65	100	10.88	1.68	0.32	11.88	-185	9.6
12:00	5.65	100	10.71	1.64	0.20	11.88	-191	9.3
12:03	5.65	100	10.70	1.64	0.19	11.85	-191	9.3
12:06	5.65	100	10.80	1.63	0.19	11.89	-190	9.4
12:09	5.65	100	10.82	1.63	0.18	11.85	-190	9.5
12:12	5.65	100	10.79	1.63	0.18	11.82	-189	9.6
12:15	5.65	100	10.77	1.63	0.18	11.84	-189	9.6

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40F
Date: 3/30/2017
Well ID: MW-44
Intake depth: approx. 16
DTW: 6.89
Vol Purged: 1.2 gal
DTB: 19.10
Sampler: A.F.
Purge Start: 10:55
Purge End Time: 11:22
Purge Water Description: Clear from start to finish
Sample time: 1125
Recalibrated the hariba due to unusual high pH readings

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:55	6.89	150	12.89	1.99	2.68	11.13	-38	31.7
10:58	6.89	150	12.70	1.99	0.83	11.82	-41	26.3
11:01	6.89	150	12.61	1.99	0.12	12.09	-47	23.2
11:04	6.89	150	12.32	2.01	0.00	12.26	-54	20.1
11:07	6.89	150	12.07	2.01	0.00	12.44	-57	18.4
11:10	6.89	150	11.83	2.01	0.00	12.51	-62	16.5
11:13	6.89	150	11.64	2.02	0.00	12.53	-66	13.2
11:16	6.89	150	11.51	2.02	0.00	12.53	-67	11.6
11:19	6.89	150	11.47	2.02	0.00	12.52	-68	10.9
11:22	6.89	150	11.42	2.02	0.00	12.52	-69	10.3

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather:	Clear, 40F	Date:	3/30/2017
Well ID:	MW-45	Intake depth:	approx. 15
DTW:	6.44	Vol Purged:	1.25 gal
DTB:	18.05		
Sampler:	A.F.		
Purge Start:	11:29	Purge End Time:	12:02
Purge Water Description:	Clear from start to finish Start time:1205		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:29	6.47	150	11.36	1.69	1.22	10.46	-80	12.3
11:32	6.48	150	11.52	1.72	0.33	11.56	-88	2.3
11:35	6.48	150	11.67	1.72	0.00	11.70	-97	1.6
11:38	6.48	150	11.73	1.74	0.00	11.88	-112	0.0
11:41	6.48	150	11.76	1.74	0.00	11.90	-120	0.0
11:44	6.48	150	11.77	1.76	0.00	12.03	-121	0.0
11:47	6.48	150	11.80	1.76	0.00	12.13	-122	0.0
11:50	6.48	150	11.82	1.77	0.00	12.20	-123	0.0
11:53	6.48	150	11.84	1.78	0.00	12.29	-123	0.0
11:56	6.48	150	11.86	1.78	0.00	12.32	-123	0.0
11:59	6.48	150	11.87	1.78	0.00	12.36	-123	0.0
12:02	6.48	150	11.87	1.77	0.00	12.39	-123	0.0

SITE NAME:	5-49 46th Ave. Long Island City, NY	**Project Number:**	2051.0001Y002
Weather:	Sunny	Date:	3/30/2017
Well ID:	MW-46	Intake depth:	Approx. 18'
DTW:	5.51	Vol Purged:	1 gal
DTB:	19.50		
Sampler:	MS		
Purge Start:	11:00	Purge End Time:	11:30
Purge Water Description:	clear Sample time 11:30		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:00	5.51	100	11.22	1.66	0.28	8.27	-88	23.1
11:03	5.51	100	11.21	1.66	0.29	8.27	-89	21.8
11:06	5.51	100	11.19	1.66	0.36	8.28	-90	18.5
11:09	5.51	100	11.07	1.65	0.37	8.29	-91	18.5
11:12	5.51	100	10.90	1.65	0.31	8.30	-92	18.2
11:15	5.51	100	10.71	1.65	0.31	8.30	-92	18.5
11:18	5.51	100	10.51	1.65	0.25	8.31	-92	19.0
11:21	5.51	100	10.38	1.65	0.22	8.31	-93	18.9
11:24	5.51	100	10.30	1.65	0.22	8.31	-93	18.7
11:27	5.51	100	10.28	1.65	0.21	8.31	-93	18.8
11:30	5.51	100	10.26	1.65	0.21	8.31	-93	18.9

SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40F
Date: 3/30/2017
Well ID: MW-47
Intake depth: ~17
DTW: 5.79
Vol Purged: 0.6 GAL
DTB: 20.22
Sampler: AF
Purge Start: 10:27
Purge End Time: 10:48
Purge Water Description: clear, from start to finish
Sample time 1050
Horiba recalibrated following sampling due to high pH readings

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:27	5.80	100	11.40	2.33	3.36	9.78	-39	92.6
10:30	5.80	100	11.43	1.72	1.29	11.33	-45	70.3
10:33	5.80	100	11.51	1.69	0.83	11.88	-53	64.2
10:36	5.80	100	11.62	1.63	0.51	12.06	-59	50.9
10:39	5.80	100	11.69	1.57	0.36	12.09	-62	38.3
10:42	5.80	100	11.75	1.55	0.18	12.16	-66	26.4
10:45	5.80	100	11.77	1.55	0.16	12.17	-67	26.0
10:48	5.80	100	11.82	1.54	0.14	12.17	-67	25.1

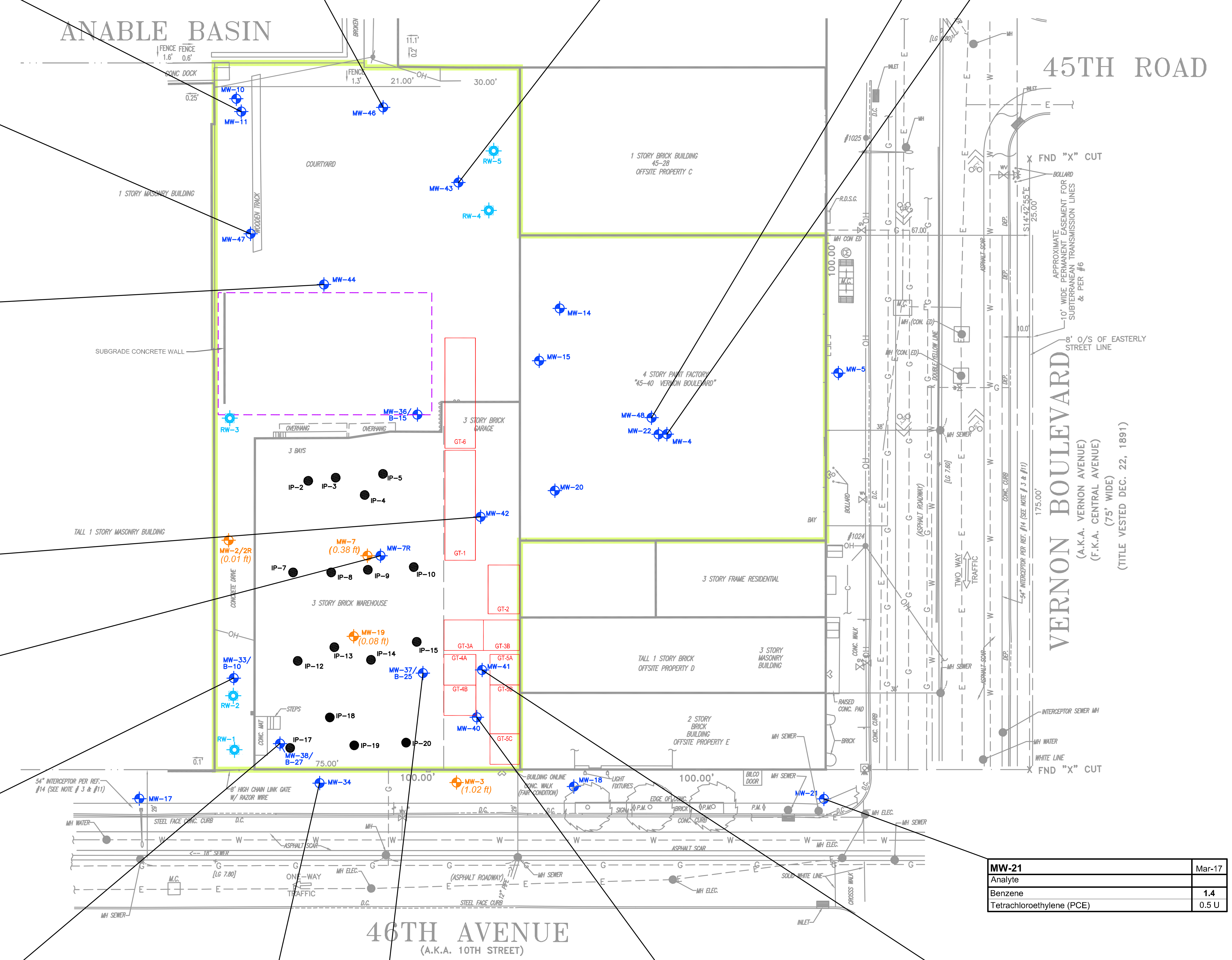
SITE NAME: 5-49 46th Ave. Long Island City, NY **Project Number:** 2051.0001Y002

Weather: Clear, 40F
Date: 3/30/2017
Well ID: MW-48
Intake depth: Approx. 19'
DTW: 9.47
Vol Purged: 1.75 gal
DTB: 20.0
Sampler: RH
Purge Start: 11:50
Purge End Time: 12:18
Purge Water Description: clear, no apparent odor
Sample time: 1218

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:50	9.56	200	11.78	0.251	4.00	8.23	-80	216.0
11:55	9.69	200	12.39	0.260	0.00	7.29	-79	29.7
12:00	9.74	200	12.55	0.268	0.00	7.23	-75	21.6
12:05	9.87	200	12.60	0.271	0.00	7.16	-68	23.2
12:10	9.90	200	12.68	0.266	0.00	7.11	-60	13.7
12:13	9.91	200	12.68	0.265	0.00	7.09	-57	8.1
12:16	9.92	200	12.68	0.265	0.00	7.08	-54	6.2

PLATE

1. VOCs and LNAPL Detected in Groundwater March 2017



MW-11	Mar-17
Analyte	
Acetone	2.2 J
Benzene	1
T-Butylbenzene	4.4

MW-47	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**78**
2-Hexanone	5 U
Acetone	39
Benzene	0.66
Chloromethane	2.5 U
Ethylbenzene	**15**
Isopropylbenzene (Cumene)	**16**
m,p-Xylene	**36**
Methyl Ethyl Ketone (2-Butanone)	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	5 U
N-Propylbenzene	**23**
O-Xylene (1,2-Dimethylbenzene)	**20**
Sec-Butylbenzene	4.6
Styrene	1.1 J
T-Butylbenzene	2 J
Toluene	2.9
Xylenes	**56**

MW-45	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**230**
Acetone	32
Benzene	0.78 J
Ethylbenzene	**39**
Isopropylbenzene (Cumene)	**51**
m,p-Xylene	**47**
N-Propylbenzene	**88**
O-Xylene (1,2-Dimethylbenzene)	**7.4**
Sec-Butylbenzene	**16**
T-Butylbenzene	4.8 J
Xylenes	**54**

MW-43	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**78**
Acetone	28
Benzene	0.5 J
Ethylbenzene	**6.8**
Isopropylbenzene (Cumene)	**13**
m,p-Xylene	**15**
N-Propylbenzene	**22**
O-Xylene (1,2-Dimethylbenzene)	**7.2**
Sec-Butylbenzene	**5.8**
T-Butylbenzene	2.4 J
Xylenes	**22**

MW-48	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	0.92 J
Isopropylbenzene (Cumene)	2.6
N-Propylbenzene	2.4 J
Sec-Butylbenzene	4.3
T-Butylbenzene	3.1

MW-4	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**14**
Ethylbenzene	1.6 J
Isopropylbenzene (Cumene)	**5.4**
m,p-Xylene	1.6 J
N-Propylbenzene	**5.8**
Sec-Butylbenzene	**6.6**
T-Butylbenzene	**7.3**
Xylenes	1.6 J

MW-44	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	**81**
Acetone	**53**
Benzene	0.63
Ethylbenzene	**9.7**
Isopropylbenzene (Cumene)	**13**
m,p-Xylene	**30**
Methyl Ethyl Ketone (2-Butanone)	5 U
N-Propylbenzene	**19**
O-Xylene (1,2-Dimethylbenzene)	**22**
Sec-Butylbenzene	**6.2**
Styrene	1.1 J
T-Butylbenzene	2.4 J
Tetrachloroethylene (PCE)	0.23 J
Toluene	3.6
Xylenes	**52**

MW-42	Mar-17
Analyte	
Isopropylbenzene (Cumene)	0.73 J
N-Propylbenzene	2.5 U
Sec-Butylbenzene	1.4 J
T-Butylbenzene	1.7 J

MW-7R	Mar-17
Analyte	
Acetone	50 U
Isopropylbenzene (Cumene)	**14 J**
Methyl Ethyl Ketone (2-Butanone)	50 U
N-Propylbenzene	**25**
Sec-Butylbenzene	**12 J**
T-Butylbenzene	**7 J**
Toluene	25 U

MW-33	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	5 U
Acetone	5.7 J
Ethylbenzene	2.3 J
Isopropylbenzene (Cumene)	4.2 J
m,p-Xylene	5 U
Methyl Ethyl Ketone (2-Butanone)	9.9 J
N-Propylbenzene	**8.2**
O-Xylene (1,2-Dimethylbenzene)	5 U
Sec-Butylbenzene	4.6 J
T-Butylbenzene	2.3 J
Xylenes	5 U

MW-38	Mar-17
Analyte	
Acetone	5 U
Benzene	0.5 U
Isopropylbenzene (Cumene)	**36**
Methyl Ethyl Ketone (2-Butanone)	5 U
N-Propylbenzene	**55**
Sec-Butylbenzene	**16**
T-Butylbenzene	6.8
Toluene	2.5 U

MW-34	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	0.94 J
Acetone	2.4 J
Benzene	0.5
Isopropylbenzene (Cumene)	**18**
Methyl Ethyl Ketone (2-Butanone)	3 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.2 J
N-Propylbenzene	**25**
Sec-Butylbenzene	**13**
T-Butylbenzene	**7.2**

MW-37	Mar-17
Analyte	
1,3,5-Trimethylbenzene (Mesitylene)	12 U
Acetone	25 U
Benzene	2.5 U
Isopropylbenzene (Cumene)	**34**
Methyl Ethyl Ketone (2-Butanone)	25 U
N-Propylbenzene	**68**
Sec-Butylbenzene	**30**
T-Butylbenzene	**8.8 J**
Toluene	12 U

MW-40	Mar-17
Analyte	
Acetone	2.3 J
Benzene	**9.3**
Isopropylbenzene (Cumene)	**47**
m,p-Xylene	1 J
N-Propylbenzene	**38**
O-Xylene (1,2-Dimethylbenzene)	0.72 J
Sec-Butylbenzene	**20**
T-Butylbenzene	**5.3**
Toluene	2.5 U
Xylenes	1.7 J

MW-21	Mar-17
Analyte	
Benzene	**1.4**
Tetrachloroethylene (PCE)	0.5 U

MW-41	Mar-17
Analyte	
Benzene	0.62
Isopropylbenzene (Cumene)	2.5
N-Propylbenzene	3.1
Sec-Butylbenzene	3.9
T-Butylbenzene	2.4 J

LEGEND

MW-5 — LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)

MW-3 — LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)

RW-1 — LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)

IP-2 — LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT

(0.38 ft) — LNAPL THICKNESS

ft — FEET

LNAPL — LIGHT NON-AQUEOUS PHASE LIQUID

ISCO — IN-SITU CHEMICAL OXIDATION

CONCRETE VAULT

PROPERTY BOUNDARY

GT-6 — APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)

CONCRETE SLAB

TYPICAL DATA BOX INFORMATION

SAMPLE ID. → MW-11; Mar-17 ← SAMPLE DATE

ANALYTES — CONCENTRATIONS (IN µg/L)

MW-11	Mar-17
Analyte	
Acetone	2.2 J
Benzene	1
T-Butylbenzene	4.4

PARAMETER (CONCENTRATIONS IN µg/L)	STANDARDS* (µg/L)
1,2-Dichloropropane	1
1,3,5-Trimethylbenzene (Mesitylene)	5
1,3-Dichlorobenzene	3
2-Hexanone	50
Acetone	50
Benzene	1
Chloromethane	--
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
m,p-Xylene	5
Methyl Ethyl Ketone (2-Butanone)	50
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--
N-Propylbenzene	5
O-Xylene (1,2-Dimethylbenzene)	5
Sec-Butylbenzene	5
T-Butylbenzene	5
Tetrachloroethylene (PCE)	5
Toluene	5

CONCENTRATIONS IN µg/L

µg/L — MICROGRAMS PER LITER

* — NYSDEC AWQSGVs

NYSDEC — NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AWQSGVs — AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES

J — ESTIMATED VALUE

U — COMPOUND WAS ANALYZED FOR BUT NOT DETECTED

NS — NOT SAMPLED

FD — DUPLICATE

– – – — NO NYSDEC AWQSGV AVAILABLE

BOLD — INDICATES THAT PARAMETER WAS DETECTED ABOVE THE NYSDEC AWQSGVS

NO.	DATE	REVISION DESCRIPTION	INT.

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Remedial
REMEDIAL ENGINEERING, P.C.
209 Shafter Street
Islandia, New York 11749 (631) 232-2600

PROJECT NAME:
QUARTERLY MONITORING REPORT Q1 OF 2017
PARAGON PAINT AND VARNISH CORPORATION

PROJECT FOR:
VERNON 4540 REALTY LLC

TITLE:
VOCs AND LNAPL DETECTED IN GROUNDWATER
MARCH 2017

FIGURE
1
1 OF 1

V:\CAD\PROJECTS\2051\0001Y\242\2051.0001Y242.01.DWG

From: Jordanna Kendrot
Sent: Tuesday, May 9, 2017 6:08 PM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report April 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (April 24, 2017).pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

ISCO Implementation and Monitoring Activities:

On April 11, 2017, the in-situ chemical oxidation (ISCO) Design Plan required by the Site Management Plan (SMP) was submitted via email and hardcopy to the NYSDEC. Roux Associates also submitted Form 7250-16 ("Inventory of Injection Wells") to the United States Environmental Protection Agency (USEPA) as part of this ISCO Design Plan.

On April 24 to 26, 2017, Roux Associates completed the implementation of the ISCO Design Plan detailed in the aforementioned submittal that provides the injection plan for the initial injection at the Site. As noted, in the ISCO Design Plan, the performance of ISCO at the Site will be performed in a phased approach. With regards to this initial treatment phase, injections were completed in eight (8) representative areas across the Site that had residual gross contamination in soil or NYSDEC Ambient Water-Quality Standards and Guidance Values (AWQSGVs) exceedances in groundwater. The PersulfOx™ material utilized in the injections were delivered to the subsurface at a controlled rate of either 15-percent or 20-percent (by weight) solution. A total of 2,975.40 lbs of PersulfOx™ was mixed with 1,690 gallons of water. Details pertaining to exact mixture concentrations and injection locations were provided via the Daily Construction Report, submitted to the NYSDEC via email on April 27, 2017.

In accordance with the SMP and as detailed in the ISCO Design Plan, ISCO performance monitoring will be conducted bi-weekly for approximately two months following completion of the injections or until parameters return to baseline conditions. The first monitoring event will be completed during the next reporting period. Only monitoring wells that are both within the SMP monitoring network and located in the targeted injection area will be specifically monitored during the aforementioned schedule. The monitoring well network for the first ISCO injection event will consist of monitoring wells MW-36, MW-38, MW-40, MW-41, MW-42, MW-44, and MW-47.

Routine Operation, Maintenance, Monitoring and Reporting Activities:

On April 24, 2017, prior to implementation of the ISCO Design Plan, the wells within the SMP sampling network were gauged. A summary of the gauging data collected during the reporting period is provided in the attached table.

As discussed in the prior progress report, alternative methods of LNAPL recovery have been implemented to supplement LNAPL recovery when manual recovery (e.g., physical bailing) became less effective. Absorbent socks that were installed in monitoring wells MW-2R, MW-3, MW-19, and MW-42, during the previous reporting period were removed prior to gauging. The presence of free-product was noted in monitoring well MW-7, with free-product continuing to be present in off-site monitoring well MW-3 following removal of the absorbent sock. It is estimated that approximately 0.675 gallons of free-product was removed in total from these monitoring wells based on the saturation of the absorbent sock. Absorbent socks were not reinstalled following the gauging event to determine if any free-product recharge will occur at these monitoring wells during the next reporting period.

Due to the lack of free-product present in the recovery wells (RW-1 to RW-5), Roux Associates has continued to pause the operation of the LNAPL recovery system until recoverable levels of product become present in the recovery system wells.

The Second Quarterly Inspection and Monitoring Report was submitted via email and hardcopy to the NYSDEC on April 28, 2017 and was based on inspection and monitoring results from January to March 2017.

Sampling/ Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (May 1 through May 31, 2017):

- Implementation of bi-weekly ISCO performance monitoring;
- Continued monthly O&M of LNAPL recovery system (as necessary); and
- Continued monthly gauging of monitoring wells within SMP monitoring network.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot | Project Engineer | Roux Associates, Inc.
209 Shafter Street Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2356 | Mobile: 631.741.7142
Email: jkendrot@rouxinc.com | Website: www.rouxinc.com

Summary of Water Level Elevations and LNAPL Thickness; April 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

		November 15, 2016				December 1, 2016				January 19, 2017				February 14, 2017				March 30, 2017				April 24, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																									
MW-1/1R	7.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-2R	9.23	7.85	8.31	1.27	0.46	6.66	6.82	2.53	0.16	7.5	7.52	1.73	0.02	7.44	7.45	1.79	0.01	4.31	4.32	4.92	0.01	--	7.28	1.95	--
MW-3	8.40	7.21	8.15	0.96	0.94	6.60	6.97	1.71	0.37	6.98	7.66	1.25	0.68	6.99	7.48	1.29	0.49	6.79	7.81	1.36	1.02	6.81	7.94	1.31	1.13
MW-4	11.57	10.29	10.34	1.27	0.05	6.50	6.58	5.05	0.08	9.81	9.82	1.76	0.01	9.60	9.62	1.97	0.02	--	9.7	1.87	--	--	9.72	1.85	--
MW-5	8.35	--	NM	NM	--	N/A				N/A				N/A				N/A				N/A			
MW-6	NR	N/A				N/A				N/A				N/A				N/A				N/A			
MW-6R	11.73	N/A				N/A				N/A				N/A				N/A				N/A			
MW-7	4.48	2.98	3.06	1.48	0.08	2.36	2.43	2.10	0.07	2.62	2.78	1.82	0.16	2.62	2.76	1.83	0.14	2.72	3.10	1.67	0.38	2.35	2.48	2.10	0.13
MW-7R	4.48	--	NM	NM	--	--	3.32	1.16	--	--	2.52	1.96	--	--	2.52	1.96	--	--	2.75	1.73	--	--	2.37	2.11	--
MW-8	8.00	N/A				N/A				N/A				N/A				N/A				N/A			
MW-9	8.81	N/A				N/A				N/A				N/A				N/A				N/A			
MW-10	7.82	--	4.65	3.17	--	--	6.15	1.67	--	--	7.62	0.20	--	--	6.60	1.22	--	--	5.91	1.91	--	--	5.36	2.46	--
MW-11	7.82	--	5.97	1.85	--	--	5.61	2.21	--	--	6.63	1.19	--	--	6.15	1.67	--	--	6.69	1.13	--	--	5.72	2.10	--
MW-12	9.12	N/A				N/A				N/A				N/A				N/A				N/A			
MW-13	9.13	N/A				N/A				N/A				N/A				N/A				N/A			
MW-14	11.63	--	NM	NM	--	--	8.44	3.19	--	--	8.22	3.41	--	--	9.42	2.21	--	--	6.37	5.26	--	--	9.57	2.06	--
MW-15	11.51	--	10.12	1.39	--	--	NM	NM	--	--	9.55	1.96	--	--	9.46	2.05	--	--	6.38	5.13	--	--	9.48	2.03	--
MW-16	8.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-17	8.78	--	NM	NM	--	--	9.23	-0.45	--	--	6.94	1.84	--	--	6.89	1.89	--	--	6.64	2.14	--	--	6.21	2.57	--
MW-18	8.40	--	NM	NM	--	--	6.58	1.82	--	--	6.87	1.53	--	--	6.77	1.63	--	--	6.77	1.63	--	--	6.76	1.64	--
MW-19	4.41	3.08	3.1	1.33	0.02	2.80	2.92	1.58	0.12	2.72	2.75	1.68	0.03	--	2.62	1.79	--	2.82	2.9	1.57	0.08	--	2.37	2.04	--
MW-20	11.69	--	NM	NM	--	--	NM	NM	--	--	NM	NM	--	--	9.71	1.98	--	--	9.81	1.88	--	--	9.85	1.84	--
MW-21	8.17	--	NM	NM	--	--	6.55	1.62	--	--	5.91	2.26	--	--	5.92	2.25	--	--	5.89	2.28	--	--	6.01	2.16	--
MW-22	11.63	10.31	10.42	1.29	0.11	9.52	9.61	2.09	0.09	9.89	9.93	1.73	0.04	9.62	9.70	1.99	0.08	--	9.74	1.89	--	--	9.78	1.85	--
MW-23	8.27	N/A				N/A				N/A				N/A				N/A				N/A			
MW-24	8.86	N/A				N/A				N/A				N/A				N/A				N/A			
MW-25	9.29	N/A				N/A				N/A				N/A				N/A				N/A			
MW-27	9.55	N/A				N/A				N/A				N/A				N/A				N/A			
MW-28	9.10	N/A				N/A				N/A				N/A				N/A				N/A			
MW-30	8.70	N/A				N/A				N/A				N/A				N/A				N/A			
MW-31	9.27	N/A				N/A				N/A				N/A				N/A				N/A			
MW-32	7.76	N/A				N/A				N/A				N/A				N/A				N/A			
MW-33	9.49	--	5.87	3.62	--	--	6.10	3.39	--	--	7.33	2.16	--	--	7.33	2.16	--	--	7.00	2.49	--	--	6.79	2.7	--
MW-34	8.30	--	7.18	1.12	--	--	6.82	1.48	--	--	7.20	1.10	--	--	7.19	1.11	--	--	7.03	1.27	--	--	6.69	1.61	--
MW-35	NR	N/A				N/A				N/A				N/A				N/A				N/A			
MW-36	9.11	--	NM	NM	--	--	3.8	5.31	--	--	6.85	2.26	--	--	6.70	2.41	--	--	6.47	2.64	--	--	6.69	2.42	--
MW-37	4.45	--	NM	NM	--	--	2.78	1.67	--	--	2.66	1.79	--	--	2.12	2.33	--	--	2.64	1.81	--	--	2.28	2.17	--
MW-38	4.44	--	3.04	1.4	--	--	2.82	1.62	--	--	2.83	1.61	--	--	2.58	1.86	--	--	2.83	1.61	--	--	2.32	2.12	--
MW-40	8.49	7.39	7.40	1.10	0.01	--	6.80	1.69	--	--	7.01	1.48	--	--	6.63	1.86	--	--	6.98	1.51	--	--	6.81	1.68	--
MW-41	8.51	--	7.10	1.41	--	--	6.18	2.33	--	--	6.55	1.96	--	--	6.21	2.30	--	--	6.75	1.76	--	--	6.30	2.21	--
MW-42	9.37	--	8.08	1.29	--	7.44	7.45	1.93	0.01	7.47	7.48	1.90	0.01	7.43	7.44	1.94	0.01	--	7.60	1.77	--	--	7.33	2.04	--
MW-43	7.81	--	6.57	1.24	--	--	4.86	2.95	--	--	6.13	1.68	--	--	5.82	1.99	--	--	5.71	2.1	--	--	5.78	2.03	--
MW-44	9.15	--	7.90	1.25	--	--	6.18	2.97	--	--	7.38	1.77	--	--	7.09	2.06	--	--	6.95	2.2	--	--	7.05	2.1	--
MW-45	8.69	7.41	7.50	1.26	0.09	5.75	5.80	2.93	0.05	6.90	6.91	1.79	0.01	6.60	6.61	2.09	0.01	--	6.49	2.2	--	--	6.58	2.11	--
MW-46	7.69	--	6.91	0.78	--	--	5.75	1.94	--	--	5.89	1.80	--	--	6.65	1.04	--	--	5.52	2.17	--	--	5.60	2.09	--
MW-47	8.03	--	6.77	1.26	--	--	5.10	2.93	--	--	6.26	1.77	--	--	5.99	2.04	--	--	5.84	2.19	--	--	5.94	2.09	--
MW-48	11.43	--	10.10	1.33	--	--	6.28	5.15	--	--	9.65	1.78	--	--	9.40	2.03	--	--	9.47	1.96	--	--	9.55	1.88	--
Recovery Wells																									
RW-1	8.26	--	7.2	1.06	--	--	6.51	1.75	--	--	6.63	1.63	--	--	6.65	1.61	--	--	6.66	1.6	--	--	6.48	1.78	--
RW-2	9.81	--	7.6	2.21	--	--	6.54	3.27	--	--	7.38	2.43	--	--	7.29	2.52	--	--	7.02	2.79	--	--	6.77	3.04	--
RW-3	9.83	--	7.29	2.54	--	--	6.67	3.16	--	--	7.87	1.96	--	--	7.78	2.05	--	--	7.48	2.35	--	--	7.51	2.32	--
RW-4	10.2	--	8.68	1.52	--	--	6.98	3.22	--	--	8.2	2.00	--	--	7.84	2.36	--	--	7.69	2.51	--	--	7.82	2.38	--
RW-5	10.27	--	8.46	1.81	--	6.74	6.75	3.53	0.01	7.94	7.95	2.33	0.01	7.64	7.65	2.63	0.01	--	7.5	2.77	--	--	7.59	2.68	--

Notes:

LNAPL - Light Non-Aqueous Phase Liquid

MPE - Measuring Point Elevation (top of well casing)

DTW - Depth to Water

DTP - Depth to Product

GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])

FPT - Free Product Thickness

NR - Not Recorded

NC - Not Calculated[2]

NM - Not Measured

N/A - No data as monitoring well was destroyed during the Remedial Action or was excluded from the monitoring network.

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:

Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)

Assumes a specific gravity of 0.75

From: Jordanna Kendrot
Sent: Monday, June 12, 2017 11:17 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report May 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (May 25, 2017).pdf; Paragon.ISCO.Monitoring.pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

<u>ISCO Implementation and Monitoring Activities:</u>

Roux Associates completed the implementation of the April 11, 2017 in-situ chemical oxidation (ISCO) Design Plan submitted during the prior reporting period. As documented in the ISCO Design Plan, Site-wide ISCO treatment will be performed in a phased approach. Roux Associates initially addressed several representative areas across the Site that require some level of treatment. Once the effectiveness of this injection event has been demonstrated, the remaining areas will be treated. In accordance with the SMP, ISCO monitoring was conducted bi-weekly starting the week of May 15, 2017, with two monitoring events completed on May 18 and 25, 2017. Monitoring will continue into the next reporting period for approximately another month or until groundwater parameters return to baseline conditions.

The monitoring well network for this first ISCO injection event consists of monitoring wells MW-36, MW-38, MW-40, MW-41, MW-42, MW-44, and MW-47. The groundwater parameters that were specifically monitored to determine ISCO material influence are: pH, oxidation-reduction potential, conductivity, and dissolved oxygen. A summary of the parameters collected during this reporting period is provided in the attached figures. Effectiveness and influence of the ISCO injections will be discussed in the quarterly Inspection and Monitoring Report that will address all activities performed in the second quarter of 2017.

<u>Routine Operation, Maintenance, Monitoring and Reporting Activities:</u>

The monitoring wells within the SMP monitoring network were gauged during the two (2) monitoring events noted above. A summary of the gauging data collected during the reporting period is provided in the attached table.

Trace free-product was present in on-site monitoring wells MW-7, MW-17, and MW-19, with free-product continuing to be present in off-site monitoring wells MW-3. Absorbent socks were installed in these monitoring wells, with approximately 0.325 gallons of free-product absorbed in total from these monitoring wells based on the saturation of the absorbent sock. These monitoring wells will continue to be gauged and monitored, with manual bailing and absorbent sock replacement implemented as necessary.

Due to the lack of free-product present in the recovery wells (RW-1 to RW-5), Roux Associates has continued to pause the operation of the LNAPL recovery system until recoverable levels of product become present in the recovery system wells.

<u>Sampling/ Sample Results:</u>

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (June 1 through June 30, 2017):

- Continue bi-weekly ISCO performance monitoring;
- Preparation and completion of quarterly gauging and collection of groundwater samples from monitoring wells within proposed SMP monitoring network;
- Evaluation of groundwater results and ISCO performance;
- Continued monthly O&M of LNAPL recovery system (as necessary);

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Jordanna Kendrot | Project Engineer | Roux Associates, Inc.
209 Shafter Street Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2356 | Mobile: 631.741.7142
Email: jkendrot@rouxinc.com | Website: www.rouxinc.com

Summary of Water Level Elevations and LNAPL Thickness; May 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

		January 19, 2017				February 14, 2017				March 30, 2017				April 24, 2017				May 18, 2017				May 25, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																									
MW-2R	9.23	7.5	7.52	1.73	0.02	7.44	7.45	1.79	0.01	4.31	4.32	4.92	0.01	--	7.28	1.95	--	--	6.53	2.70	--	--	6.72	2.51	--
MW-3	8.40	6.98	7.66	1.25	0.68	6.99	7.48	1.29	0.49	6.79	7.81	1.36	1.02	6.81	7.94	1.31	1.13	6.70	7.69	1.45	0.99	6.77	7.98	1.33	1.21
MW-4	11.57	9.81	9.82	1.76	0.01	9.60	9.62	1.97	0.02	--	9.7	1.87	--	--	9.72	1.85	--	--	9.38	2.19	--	--	9.5	2.07	--
MW-7	4.48	2.62	2.78	1.82	0.16	2.62	2.76	1.83	0.14	2.72	3.10	1.67	0.38	2.35	2.48	2.10	0.13	1.79	1.80	2.69	0.01	2.02	2.03	2.46	0.01
MW-7R	4.48	--	2.52	1.96	--	--	2.52	1.96	--	--	2.75	1.73	--	--	2.37	2.11	--	--	1.91	2.57	--	--	1.84	2.64	--
MW-10	7.82	--	7.62	0.20	--	--	6.60	1.22	--	--	5.91	1.91	--	--	5.36	2.46	--	--	7.66	0.16	--	--	4.70	3.12	--
MW-11	7.82	--	6.63	1.19	--	--	6.15	1.67	--	--	6.69	1.13	--	--	5.72	2.10	--	--	6.03	1.79	--	--	5.16	2.66	--
MW-14	11.63	--	8.22	3.41	--	--	9.42	2.21	--	--	6.37	5.26	--	--	9.57	2.06	--	--	9.01	2.62	--	--	9.21	2.42	--
MW-15	11.51	--	9.55	1.96	--	--	9.46	2.05	--	--	6.38	5.13	--	--	9.48	2.03	--	--	8.98	2.53	--	--	9.17	2.34	--
MW-17	8.78	--	6.94	1.84	--	--	6.89	1.89	--	--	6.64	2.14	--	--	6.21	2.57	--	5.68	5.69	3.10	0.01	--	5.74	3.04	--
MW-18	8.40	--	6.87	1.53	--	--	6.77	1.63	--	--	6.77	1.63	--	--	6.76	1.64	--	--	6.54	1.86	--	--	6.60	1.80	--
MW-19	4.41	2.72	2.75	1.68	0.03	--	2.62	1.79	--	2.82	2.9	1.57	0.08	--	2.37	2.04	--	1.93	1.94	2.48	0.01	--	1.79	2.62	--
MW-20	11.69	--	NM	NM	--	--	9.71	1.98	--	--	9.81	1.88	--	--	9.85	1.84	--	--	9.48	2.21	--	--	9.61	2.08	--
MW-21	8.17	--	5.91	2.26	--	--	5.92	2.25	--	--	5.89	2.28	--	--	6.01	2.16	--	--	5.80	2.37	--	--	5.74	2.43	--
MW-22	11.63	9.89	9.93	1.73	0.04	9.62	9.70	1.99	0.08	--	9.74	1.89	--	--	9.78	1.85	--	--	9.44	2.19	--	--	9.54	2.09	--
MW-33	9.49	--	7.33	2.16	--	--	7.33	2.16	--	--	7.00	2.49	--	--	6.79	2.7	--	--	5.95	3.54	--	--	6.18	3.31	--
MW-34	8.30	--	7.20	1.10	--	--	7.19	1.11	--	--	7.03	1.27	--	--	6.69	1.61	--	--	6.29	2.01	--	--	6.67	1.63	--
MW-36	9.11	--	6.85	2.26	--	--	6.70	2.41	--	--	6.47	2.64	--	--	6.69	2.42	--	--	5.91	3.20	--	--	5.82	3.29	--
MW-37	4.45	--	2.66	1.79	--	--	2.12	2.33	--	--	2.64	1.81	--	--	2.28	2.17	--	--	1.95	2.50	--	--	1.84	2.61	--
MW-38	4.44	--	2.83	1.61	--	--	2.58	1.86	--	--	2.83	1.61	--	--	2.32	2.12	--	--	1.98	2.46	--	--	1.98	2.46	--
MW-40	8.49	--	7.01	1.48	--	--	6.63	1.86	--	--	6.98	1.51	--	--	6.81	1.68	--	--	6.36	2.13	--	--	6.50	1.99	--
MW-41	8.51	--	6.55	1.96	--	--	6.21	2.30	--	--	6.75	1.76	--	--	6.30	2.21	--	--	6.02	2.49	--	--	6.17	2.34	--
MW-42	9.37	7.47	7.48	1.90	0.01	7.43	7.44	1.94	0.01	--	7.60	1.77	--	--	7.33	2.04	--	--	NM	NM	--	--	7.14	2.23	--
MW-43	7.81	--	6.13	1.68	--	--	5.82	1.99	--	--	5.71	2.1	--	--	5.78	2.03	--	--	4.99	2.82	--	--	5.19	2.62	--
MW-44	9.15	--	7.38	1.77	--	--	7.09	2.06	--	--	6.95	2.2	--	--	7.05	2.10	--	--	6.20	2.95	--	--	6.46	2.69	--
MW-45	8.69	6.90	6.91	1.79	0.01	6.60	6.61	2.09	0.01	--	6.49	2.2	--	--	6.58	2.11	--	--	5.71	2.98	--	--	5.99	2.70	--
MW-46	7.69	--	5.89	1.80	--	--	6.65	1.04	--	--	5.52	2.17	--	--	5.60	2.09	--	--	4.70	2.99	--	--	5.01	2.68	--
MW-47	8.03	--	6.26	1.77	--	--	5.99	2.04	--	--	5.84	2.19	--	--	5.94	2.09	--	--	5.08	2.95	--	--	5.35	2.68	--
MW-48	11.43	--	9.65	1.78	--	--	9.40	2.03	--	--	9.47	1.96	--	--	9.55	1.88	--	--	9.19	2.24	--	--	9.32	2.11	--
Recovery Wells																									
RW-1	8.26	--	6.63	1.63	--	--	6.65	1.61	--	--	6.66	1.6	--	--	6.48	1.78	--	--	5.97	2.29	--	--	6.05	2.21	--
RW-2	9.81	--	7.38	2.43	--	--	7.29	2.52	--	--	7.02	2.79	--	--	6.77	3.04	--	--	6.25	3.56	--	--	6.39	3.42	--
RW-3	9.83	--	7.87	1.96	--	--	7.78	2.05	--	--	7.48	2.35	--	--	7.51	2.32	--	--	6.64	3.19	--	--	6.82	3.01	--
RW-4	10.2	--	8.2	2.00	--	--	7.84	2.36	--	--	7.69	2.51	--	--	7.82	2.38	--	--	6.95	3.25	--	--	7.24	2.96	--
RW-5	10.27	7.94	7.95	2.33	0.01	7.64	7.65	2.63	0.01	--	7.5	2.77	--	--	7.59	2.68	--	--	6.76	3.51	--	--	7.01	3.26	--

Notes:

LNAPL - Light Non-Aqueous Phase Liquid

MPE - Measuring Point Elevation (top of well casing)

DTW - Depth to Water

DTP - Depth to Product

GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])

FPT - Free Product Thickness

NR - Not Recorded

NC - Not Calculated[2]

NM - Not Measured

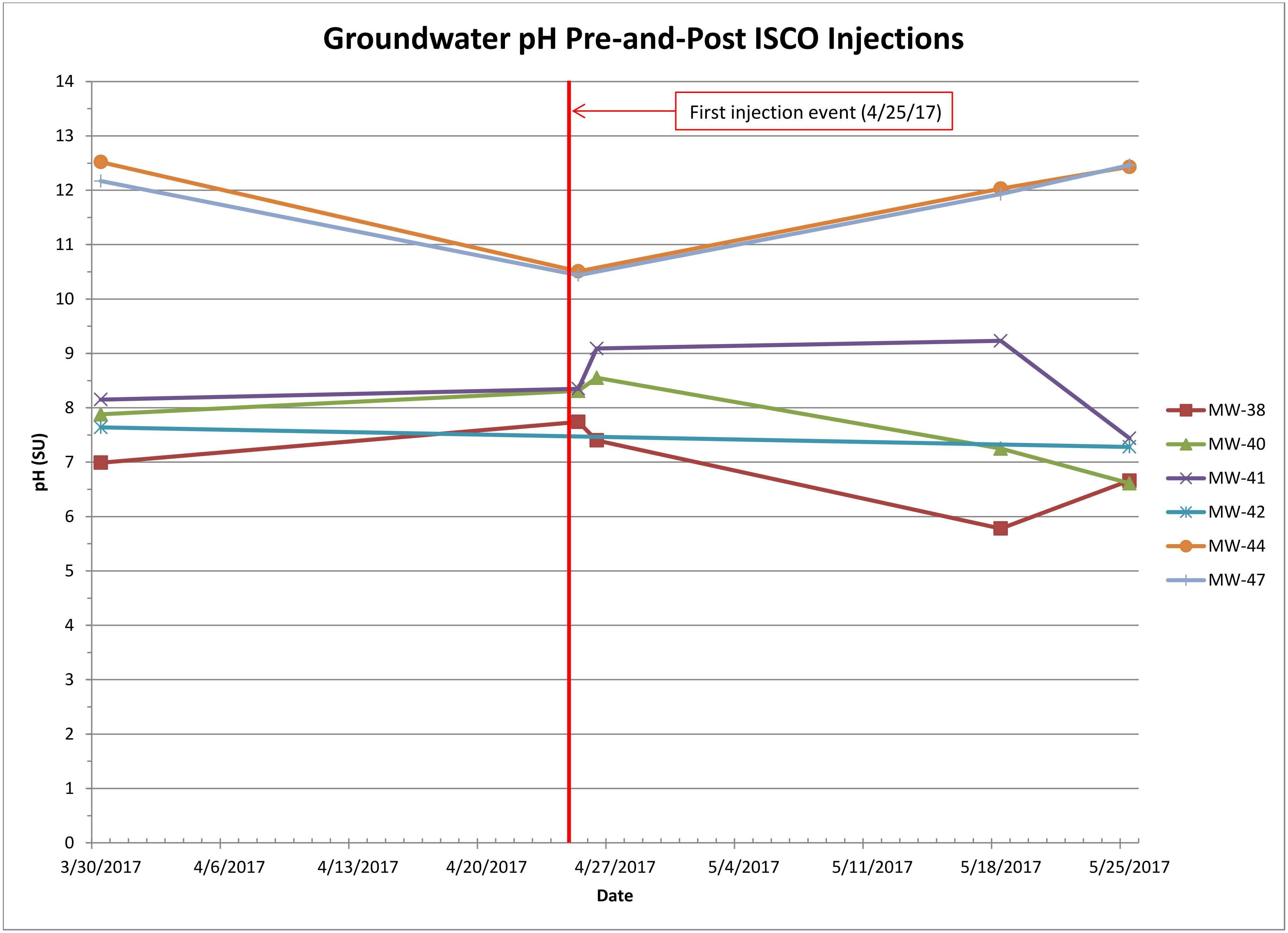
N/A - No data as monitoring well was destroyed during the Remedial Action or was excluded from the monitoring network.

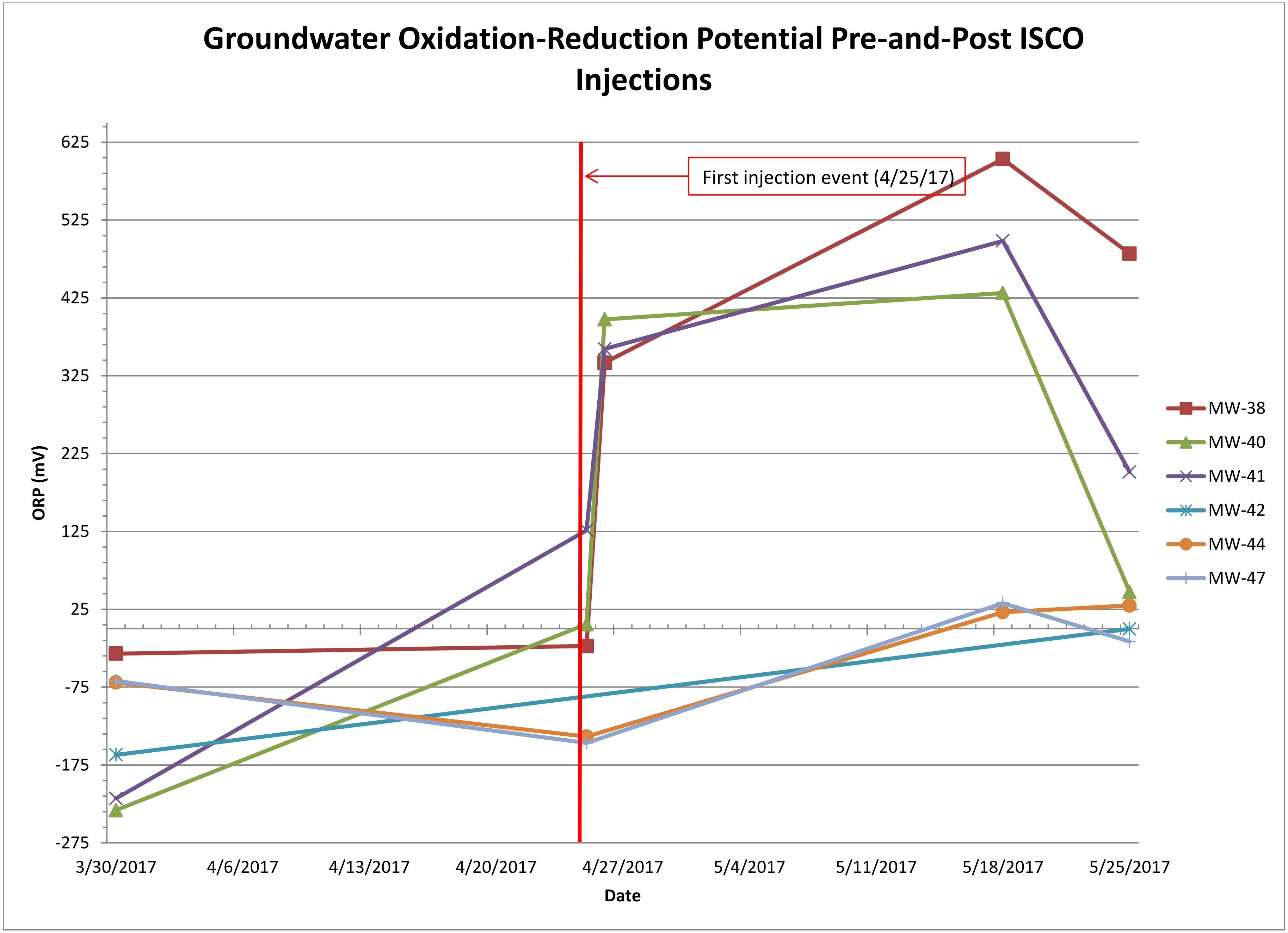
1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:

   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)

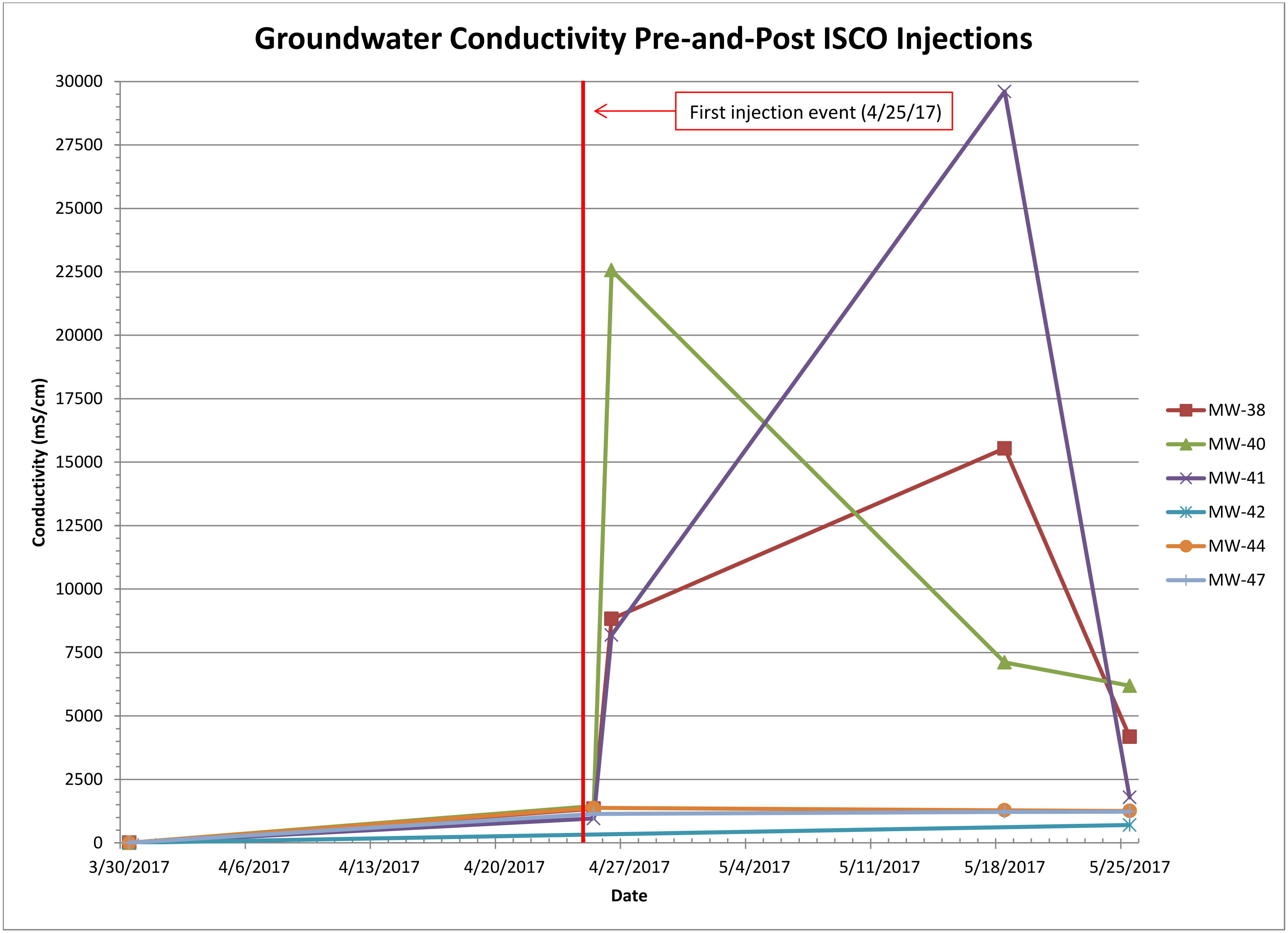
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:

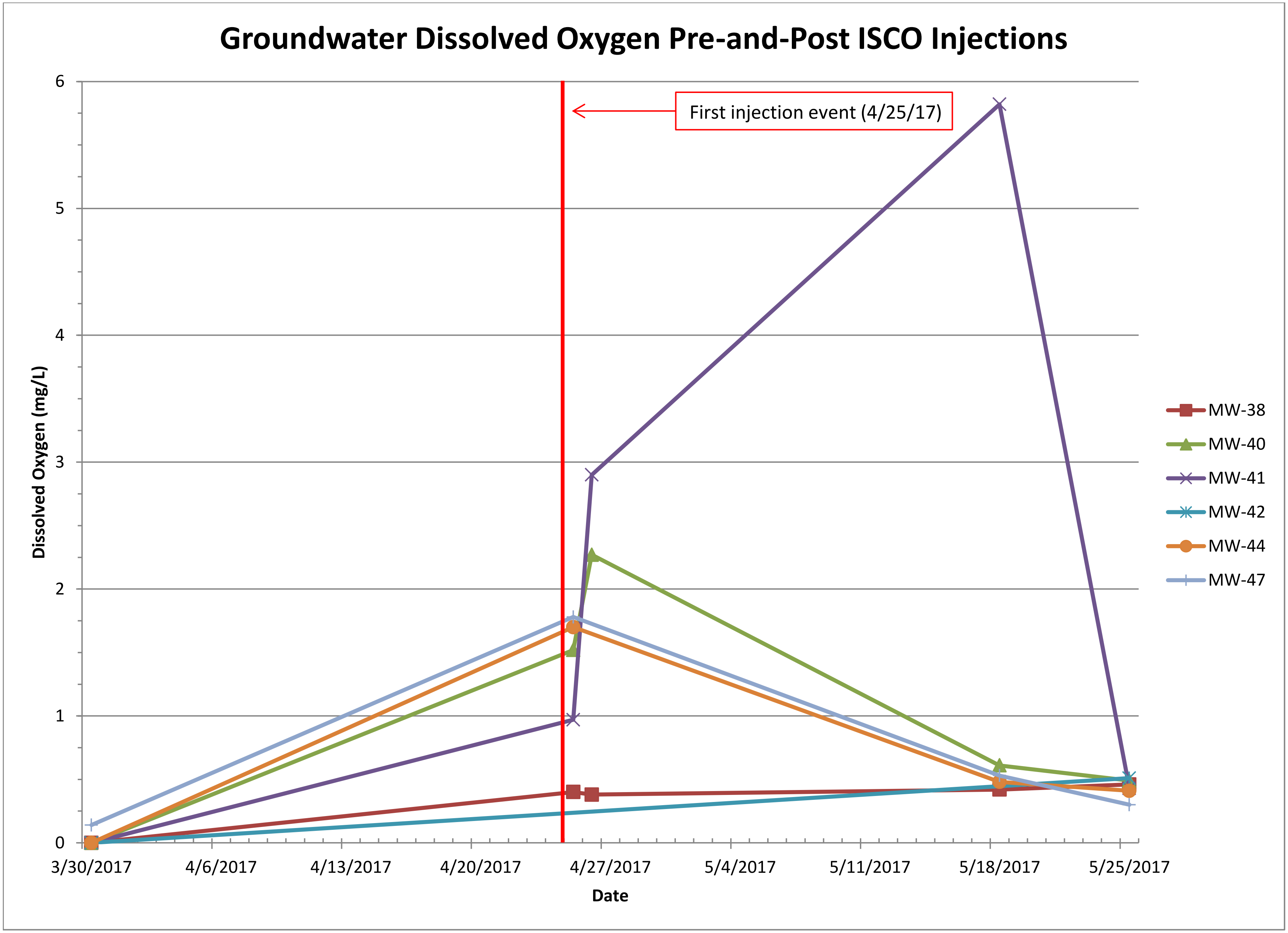
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.


Groundwater pH Pre-and-Post ISCO Injections
First injection event (4/25/17)
pH (SU)
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
3/30/2017
4/6/2017
4/13/2017
4/20/2017
4/27/2017
5/4/2017
5/11/2017
5/18/2017
5/25/2017
Date
MW-38
MW-40
MW-41
MW-42
MW-44
MW-47



Groundwater Oxidation-Reduction Potential Pre-and-Post ISCO Injections
First injection event (4/25/17)
ORP (mV)
625
525
425
325
225
125
25
-75
-175
-275
3/30/2017
4/6/2017
4/13/2017
4/20/2017
4/27/2017
5/4/2017
5/11/2017
5/18/2017
5/25/2017
Date
MW-38
MW-40
MW-41
MW-42
MW-44
MW-47


Groundwater Conductivity Pre-and-Post ISCO Injections
First injection event (4/25/17)
Conductivity (mS/cm)
30000
27500
25000
22500
20000
17500
15000
12500
10000
7500
5000
2500
0
3/30/2017
4/6/2017
4/13/2017
4/20/2017
4/27/2017
5/4/2017
5/11/2017
5/18/2017
5/25/2017
Date
MW-38
MW-40
MW-41
MW-42
MW-44
MW-47



Groundwater Dissolved Oxygen Pre-and-Post ISCO Injections
First injection event (4/25/17)
Dissolved Oxygen (mg/L)
0
1
2
3
4
5
6
3/30/2017
4/6/2017
4/13/2017
4/20/2017
4/27/2017
5/4/2017
5/11/2017
5/18/2017
5/25/2017
Date
MW-38
MW-40
MW-41
MW-42
MW-44
MW-47

From: Jordanna Kendrot
Sent: Tuesday, July 11, 2017 4:29 AM
To: Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc: O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report June 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (June 22, 2017).pdf; Paragon.ISCO.Monitoring.06.22.17.pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

ISCO Implementation and Monitoring Activities:

As part of the NYSDEC-approved in-situ chemical oxidation (ISCO) Design Plan, effectiveness of the injection event would be monitored to confirm influence. In accordance with the SMP, ISCO monitoring was conducted bi-weekly starting the week of May 15, 2017, with two monitoring events completed this reporting period on June 6 and 22, 2017. During this reporting period it was observed that groundwater parameters returned to approximate baseline conditions and thus were sampled during the quarterly groundwater monitoring and sampling event, further discussed below.

The monitoring well network for this first ISCO injection event consisted of monitoring wells MW-36, MW-38, MW-40, MW-41, MW-42, MW-44, and MW-47. The groundwater parameters that were specifically monitored to determine ISCO material influence are: pH, oxidation-reduction potential, conductivity, and dissolved oxygen. A summary of the parameters collected during this reporting period is provided in the attached figures. Effectiveness and influence of the ISCO injections will be discussed in the quarterly Inspection and Monitoring Report that will address all activities performed in the second quarter of 2017.

Routine Operation, Maintenance, Monitoring and Reporting Activities:

The monitoring wells within the SMP monitoring network were gauged during the two (2) monitoring events noted above. A summary of the gauging data collected during the reporting period is provided in the attached table.

On March 30, 2017, Roux Associates completed the quarterly groundwater gauging and sampling of the 21 monitoring wells included in the SMP monitoring network. If the presence of free-product was observed, the monitoring well was not sampled. The remaining monitoring wells within the network were sampled and analyzed for VOCs. The five (5) recovery wells (RW-1 through RW-5) onsite and an additional nine (9) monitoring wells both onsite and offsite were gauged in addition to the monitoring wells above to determine the presence of LNAPL.

Trace free-product was present in on-site monitoring well MW-7, with free-product continuing to be present in off-site monitoring wells MW-3. Absorbent socks were installed in these monitoring wells, with approximately 0.438 gallons of free-product absorbed in total from these monitoring wells based on the saturation of the absorbent sock. An additional 1.5 gallons of product was manually bailed from monitoring well MW-3, with the recovered product and saturated absorbent socks being temporarily stored on-Site in a 55-gallon drum until it is required to be disposed. These monitoring wells will continue to be gauged and monitored, with manual bailing and absorbent sock replacement implemented as necessary.

Due to the lack of free-product present in the recovery wells (RW-1 to RW-5), Roux Associates has continued to pause the operation of the LNAPL recovery system until recoverable levels of product become present in the recovery system wells.

Sampling/ Sample Results:

During this reporting period, 19 groundwater samples were collected from the following monitoring wells:

- MW-2R
- MW-4
- MW-7
- MW-10
- MW-11
- MW-19
- MW-21
- MW-33
- MW-34
- MW-38
- MW-40
- MW-41
- MW-42
- MW-43
- MW-44
- MW-45
- MW-46
- MW-47
- MW-48

The results of this quarterly sampling round will be presented and discussed in a Quarterly Status Report. This report will be submitted under separate cover in the upcoming reporting period (July 2017).

Planned Actions:

The following activities are scheduled for the next reporting period (July 1 through July 31, 2017):

- Evaluation of groundwater results and ISCO performance;
- Preparation and submittal of quarterly status report;
- Continued monthly gauging of monitoring wells within SMP monitoring network; and
- Continued monthly O&M of LNAPL recovery system (as necessary).

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot | Project Engineer | Roux Associates, Inc.
209 Shafter Street Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2356 | Mobile: 631.741.7142
Email: jkendrot@rouxinc.com | Website: www.rouxinc.com

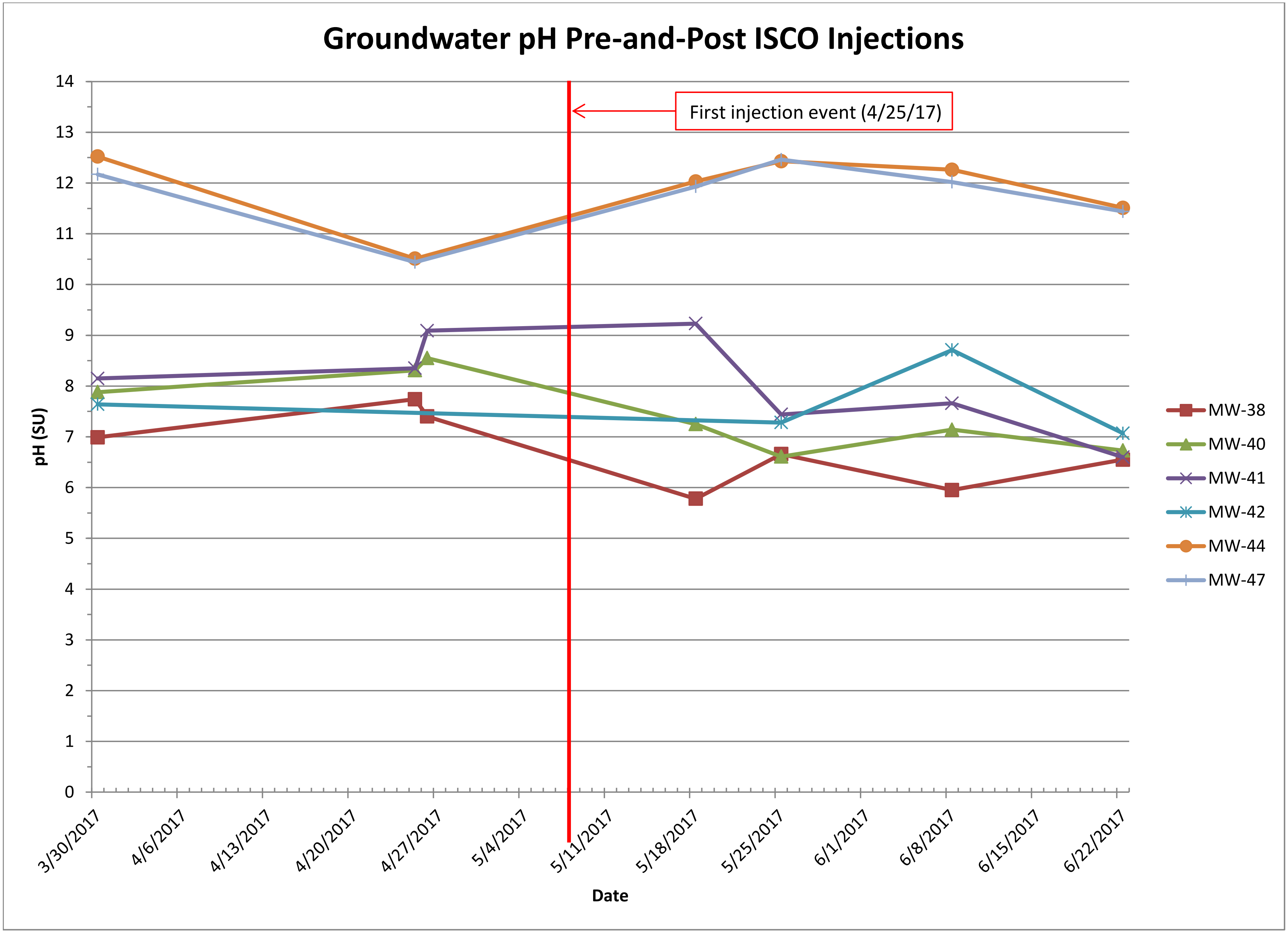
Summary of Water Level Elevations and LNAPL Thickness; May 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

		January 19, 2017				February 14, 2017				March 30, 2017				April 24, 2017				May 18, 2017				May 25, 2017				June 8, 2017				June 22, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																																	
MW-2R	9.23	7.5	7.52	1.73	0.02	7.44	7.45	1.79	0.01	4.31	4.32	4.92	0.01	--	7.28	1.95	--	--	6.53	2.70	--	--	6.72	2.51	--	--	7.05	2.18	--	--	6.95	2.28	--
MW-3	8.40	6.98	7.66	1.25	0.68	6.99	7.48	1.29	0.49	6.79	7.81	1.36	1.02	6.81	7.94	1.31	1.13	6.70	7.69	1.45	0.99	6.77	7.98	1.33	1.21	7.04	8.41	1.02	1.37	7.08	8.86	0.88	1.78
MW-4	11.57	9.81	9.82	1.76	0.01	9.60	9.62	1.97	0.02	--	9.7	1.87	--	--	9.72	1.85	--	--	9.38	2.19	--	--	9.5	2.07	--	--	9.77	1.80	--	--	9.79	1.78	--
MW-7	4.48	2.62	2.78	1.82	0.16	2.62	2.76	1.83	0.14	2.72	3.10	1.67	0.38	2.35	2.48	2.10	0.13	1.79	1.80	2.69	0.01	2.02	2.03	2.46	0.01	1.01	1.02	3.47	0.01	2.32	2.33	2.16	0.01
MW-7R	4.48	--	2.52	1.96	--	--	2.52	1.96	--	--	2.75	1.73	--	--	2.37	2.11	--	--	1.91	2.57	--	--	1.84	2.64	--	--	2.27	2.21	--	--	2.14	2.34	--
MW-10	7.82	--	7.62	0.20	--	--	6.60	1.22	--	--	5.91	1.91	--	--	5.36	2.46	--	--	7.66	0.16	--	--	4.70	3.12	--	--	5.82	2.00	--	--	6.40	1.42	--
MW-11	7.82	--	6.63	1.19	--	--	6.15	1.67	--	--	6.69	1.13	--	--	5.72	2.10	--	--	6.03	1.79	--	--	5.16	2.66	--	--	5.79	2.03	--	--	5.85	1.97	--
MW-14	11.63	--	8.22	3.41	--	--	9.42	2.21	--	--	6.37	5.26	--	--	9.57	2.06	--	--	9.01	2.62	--	--	9.21	2.42	--	--	9.56	2.07	--	--	9.33	2.30	--
MW-15	11.51	--	9.55	1.96	--	--	9.46	2.05	--	--	6.38	5.13	--	--	9.48	2.03	--	--	8.98	2.53	--	--	9.17	2.34	--	--	9.50	2.01	--	--	9.36	2.15	--
MW-17	8.78	--	6.94	1.84	--	--	6.89	1.89	--	--	6.64	2.14	--	--	6.21	2.57	--	5.68	5.69	3.10	0.01	--	5.74	3.04	--	--	6.08	2.70	--	--	6.18	2.60	--
MW-18	8.40	--	6.87	1.53	--	--	6.77	1.63	--	--	6.77	1.63	--	--	6.76	1.64	--	--	6.54	1.86	--	--	6.60	1.80	--	--	6.96	1.44	--	--	7.06	1.34	--
MW-19	4.41	2.72	2.75	1.68	0.03	--	2.62	1.79	--	2.82	2.9	1.57	0.08	--	2.37	2.04	--	1.93	1.94	2.48	0.01	--	1.79	2.62	--	--	2.17	2.24	--	--	2.24	2.17	--
MW-20	11.69	--	NM	NM	--	--	9.71	1.98	--	--	9.81	1.88	--	--	9.85	1.84	--	--	9.48	2.21	--	--	9.61	2.08	--	--	9.89	1.80	--	--	9.88	1.81	--
MW-21	8.17	--	5.91	2.26	--	--	5.92	2.25	--	--	5.89	2.28	--	--	6.01	2.16	--	--	5.80	2.37	--	--	5.74	2.43	--	--	6.26	1.91	--	--	6.03	2.14	--
MW-22	11.63	9.89	9.93	1.73	0.04	9.62	9.70	1.99	0.08	--	9.74	1.89	--	--	9.78	1.85	--	--	9.44	2.19	--	--	9.54	2.09	--	--	9.80	1.83	--	--	9.81	1.82	--
MW-33	9.49	--	7.33	2.16	--	--	7.33	2.16	--	--	7.00	2.49	--	--	6.79	2.7	--	--	5.95	3.54	--	--	6.18	3.31	--	--	6.79	2.70	--	--	6.19	3.30	--
MW-34	8.30	--	7.20	1.10	--	--	7.19	1.11	--	--	7.03	1.27	--	--	6.69	1.61	--	--	6.29	2.01	--	--	6.67	1.63	--	--	6.84	1.46	--	--	7.07	1.23	--
MW-36	9.11	--	6.85	2.26	--	--	6.70	2.41	--	--	6.47	2.64	--	--	6.69	2.42	--	--	5.91	3.20	--	--	5.82	3.29	--	--	6.53	2.58	--	--	6.19	2.92	--
MW-37	4.45	--	2.66	1.79	--	--	2.12	2.33	--	--	2.64	1.81	--	--	2.28	2.17	--	--	1.95	2.50	--	--	1.84	2.61	--	--	2.04	2.41	--	--	2.30	2.15	--
MW-38	4.44	--	2.83	1.61	--	--	2.58	1.86	--	--	2.83	1.61	--	--	2.32	2.12	--	--	1.98	2.46	--	--	1.98	2.46	--	--	2.26	2.18	--	--	2.41	2.03	--
MW-40	8.49	--	7.01	1.48	--	--	6.63	1.86	--	--	6.98	1.51	--	--	6.81	1.68	--	--	6.36	2.13	--	--	6.50	1.99	--	--	7.09	1.40	--	--	7.16	1.33	--
MW-41	8.51	--	6.55	1.96	--	--	6.21	2.30	--	--	6.75	1.76	--	--	6.30	2.21	--	--	6.02	2.49	--	--	6.17	2.34	--	--	6.52	1.99	--	--	6.78	1.73	--
MW-42	9.37	7.47	7.48	1.90	0.01	7.43	7.44	1.94	0.01	--	7.60	1.77	--	--	7.33	2.04	--	--	NM	NM	--	--	7.14	2.23	--	--	7.40	1.97	--	--	7.54	1.83	--
MW-43	7.81	--	6.13	1.68	--	--	5.82	1.99	--	--	5.71	2.1	--	--	5.78	2.03	--	--	4.99	2.82	--	--	5.19	2.62	--	--	5.57	2.24	--	--	5.19	2.62	--
MW-44	9.15	--	7.38	1.77	--	--	7.09	2.06	--	--	6.95	2.2	--	--	7.05	2.10	--	--	6.20	2.95	--	--	6.46	2.69	--	--	6.85	2.3	--	--	6.43	2.72	--
MW-45	8.69	6.90	6.91	1.79	0.01	6.60	6.61	2.09	0.01	--	6.49	2.2	--	--	6.58	2.11	--	--	5.71	2.98	--	--	5.99	2.70	--	--	6.40	2.29	--	--	5.84	2.85	--
MW-46	7.69	--	5.89	1.80	--	--	6.65	1.04	--	--	5.52	2.17	--	--	5.60	2.09	--	--	4.70	2.99	--	--	5.01	2.68	--	--	5.39	2.30	--	--	4.96	2.73	--
MW-47	8.03	--	6.26	1.77	--	--	5.99	2.04	--	--	5.84	2.19	--	--	5.94	2.09	--	--	5.08	2.95	--	--	5.35	2.68	--	--	5.70	2.33	--	--	5.32	2.71	--
MW-48	11.43	--	9.65	1.78	--	--	9.40	2.03	--	--	9.47	1.96	--	--	9.55	1.88	--	--	9.19	2.24	--	--	9.32	2.11	--	--	9.89	1.54	--	--	9.53	1.90	--
Recovery Wells																																	
RW-1	8.26	--	6.63	1.63	--	--	6.65	1.61	--	--	6.66	1.6	--	--	6.48	1.78	--	--	5.97	2.29	--	--	6.05	2.21	--	--	6.36	1.90	--	--	6.29	1.97	--
RW-2	9.81	--	7.38	2.43	--	--	7.29	2.52	--	--	7.02	2.79	--	--	6.77	3.04	--	--	6.25	3.56	--	--	6.39	3.42	--	--	6.66	3.15	--	--	6.79	3.02	--
RW-3	9.83	--	7.87	1.96	--	--	7.78	2.05	--	--	7.48	2.35	--	--	7.51	2.32	--	--	6.64	3.19	--	--	6.82	3.01	--	--	7.30	2.53	--	--	6.92	2.91	--
RW-4	10.2	--	8.2	2.00	--	--	7.84	2.36	--	--	7.69	2.51	--	--	7.82	2.38	--	--	6.95	3.25	--	--	7.24	2.96	--	--	7.62	2.58	--	--	7.70	2.50	--
RW-5	10.27	7.94	7.95	2.33	0.01	7.64	7.65	2.63	0.01	--	7.5	2.77	--	--	7.59	2.68	--	--	6.76	3.51	--	--	7.01	3.26	--	--	7.58	2.69	--	--	6.98	3.29	--

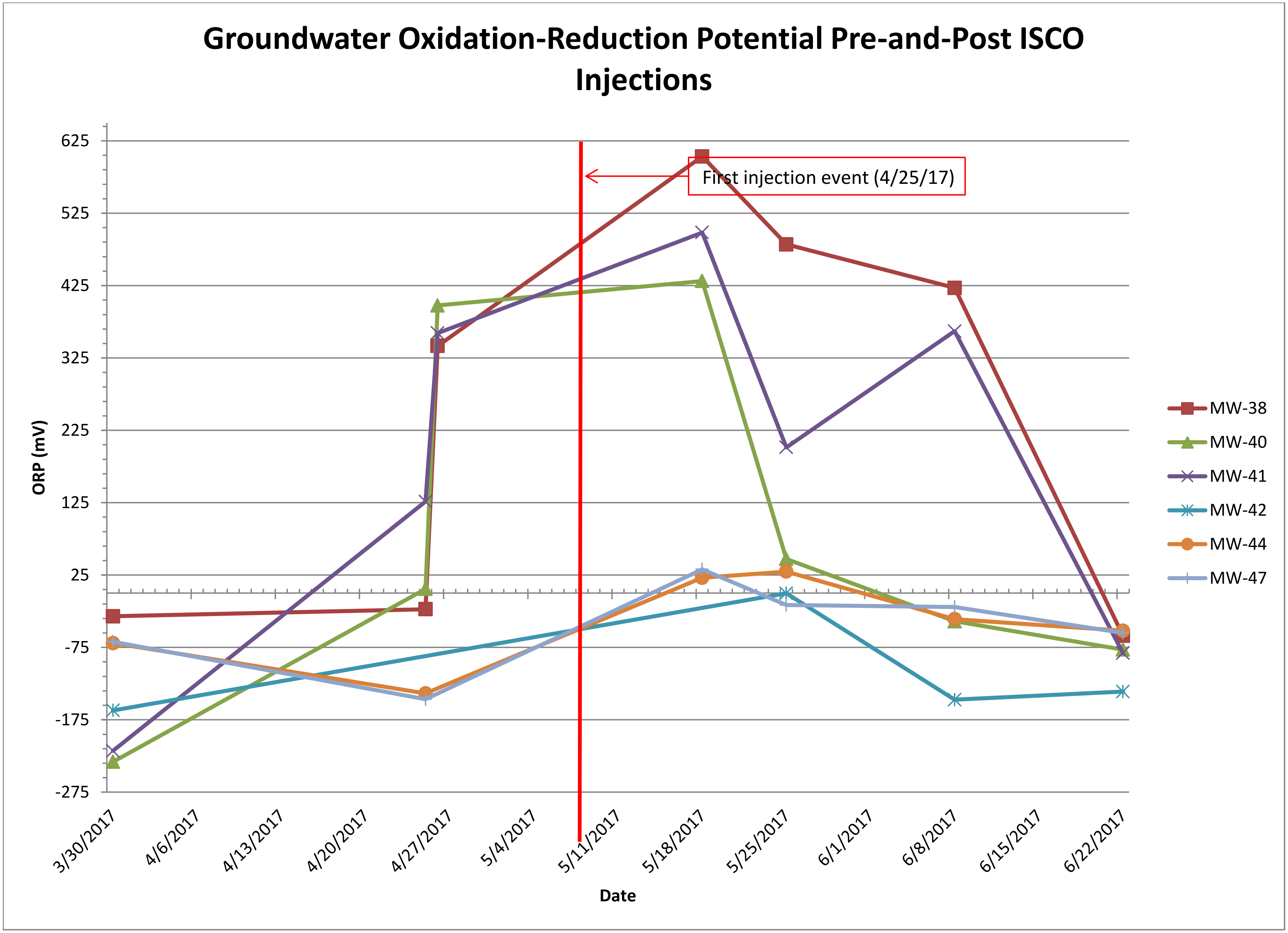
Notes:

LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NR - Not Recorded
NC - Not Calculated[2]
NM - Not Measured
N/A - No data as monitoring well was destroyed during the Remedial Action or was excluded from the monitoring network.

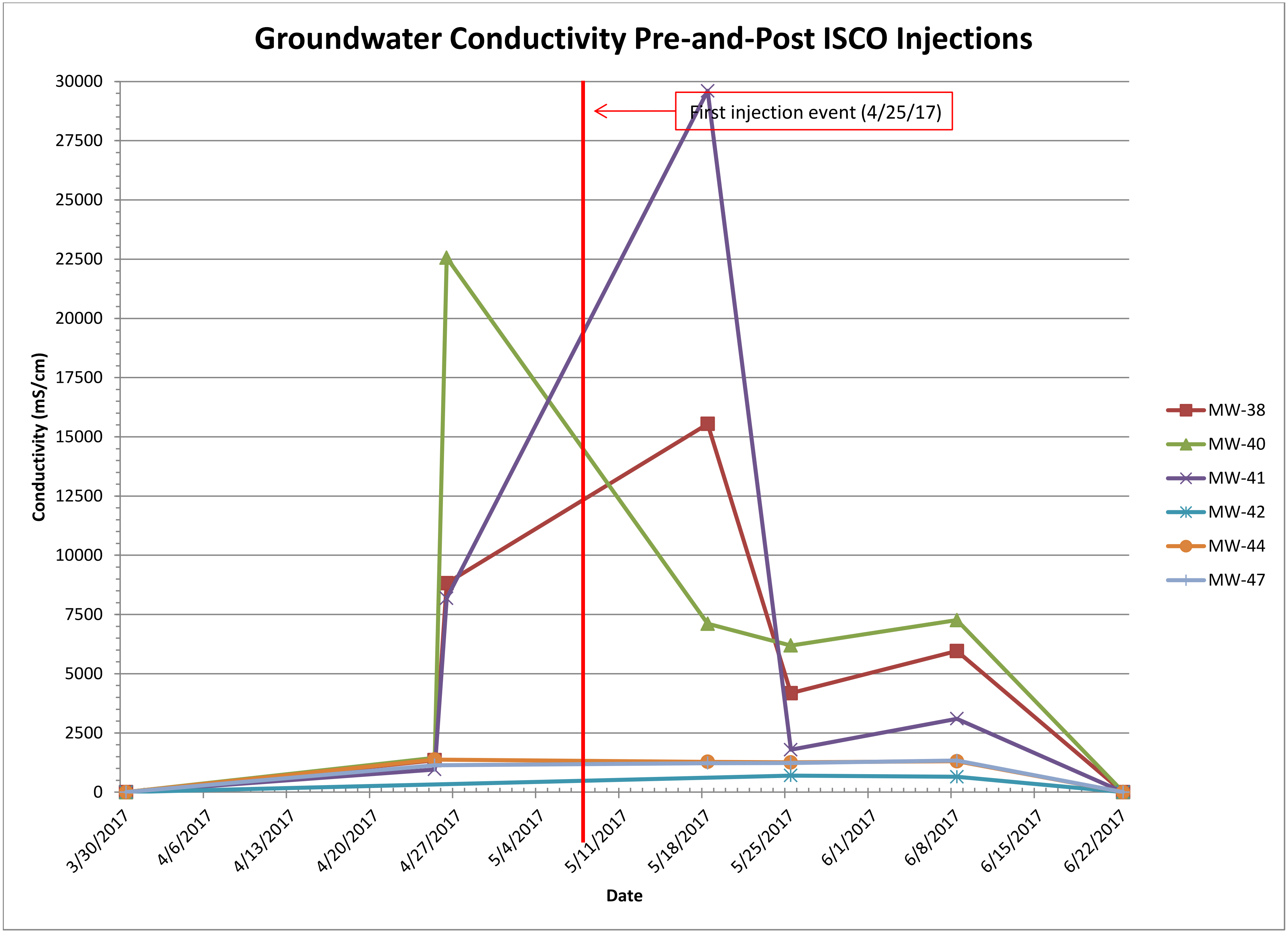
1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.



Groundwater pH Pre-and-Post ISCO Injections
First injection event (4/25/17)
pH (SU)
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
3/30/2017
4/6/2017
4/13/2017
4/20/2017
4/27/2017
5/4/2017
5/11/2017
5/18/2017
5/25/2017
6/1/2017
6/8/2017
6/15/2017
6/22/2017
Date
MW-38
MW-40
MW-41
MW-42
MW-44
MW-47



Groundwater Oxidation-Reduction Potential Pre-and-Post ISCO Injections
ORP (mV)
625
525
425
325
225
125
25
-75
-175
-275
First injection event (4/25/17)
MW-38
MW-40
MW-41
MW-42
MW-44
MW-47
3/30/2017
4/6/2017
4/13/2017
4/20/2017
4/27/2017
5/4/2017
5/11/2017
5/18/2017
5/25/2017
6/1/2017
6/8/2017
6/15/2017
6/22/2017
Date



Groundwater Conductivity Pre-and-Post ISCO Injections
First injection event (4/25/17)
Conductivity (mS/cm)
30000
27500
25000
22500
20000
17500
15000
12500
10000
7500
5000
2500
0
3/30/2017
4/6/2017
4/13/2017
4/20/2017
4/27/2017
5/4/2017
5/11/2017
5/18/2017
5/25/2017
6/1/2017
6/8/2017
6/15/2017
6/22/2017
Date
MW-38
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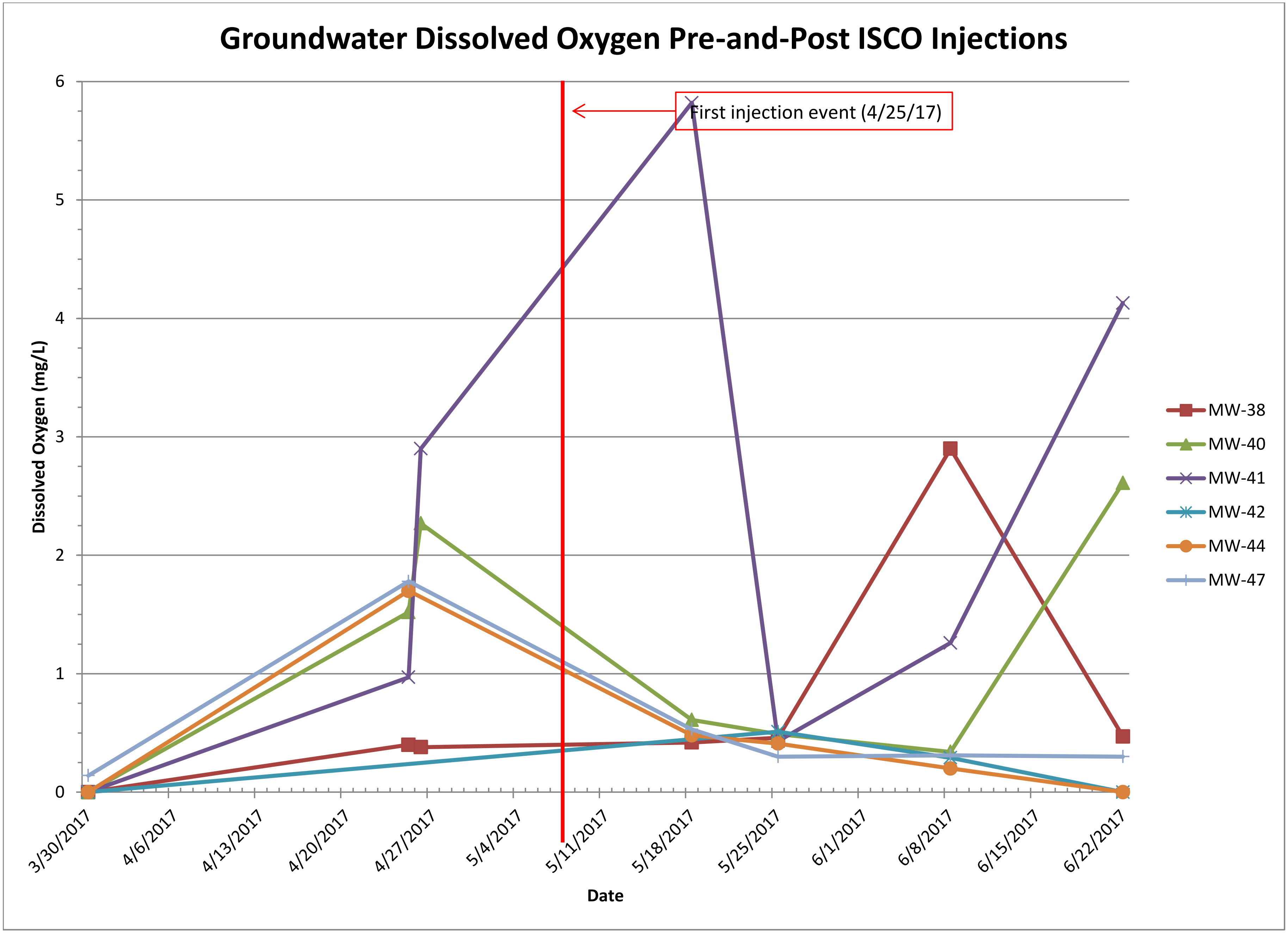
MW-41
MW-42
MW-44
MW-47



Groundwater Dissolved Oxygen Pre-and-Post ISCO Injections
First injection event (4/25/17)
Dissolved Oxygen (mg/L)
0
1
2
3
4
5
6
3/30/2017
4/6/2017
4/13/2017
4/20/2017
4/27/2017
5/4/2017
5/11/2017
5/18/2017
5/25/2017
6/1/2017
6/8/2017
6/15/2017
6/22/2017
Date
MW-38
MW-40
MW-41
MW-42
MW-44
MW-47

From:	Jordanna Kendrot
Sent:	Wednesday, August 9, 2017 2:12 PM
To:	Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)
Cc:	O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov); Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov); Brent Carrier (CRE Development) (bcarrier@credevelopment.com); 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject:	Progress Report July 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments:	Water Level Elevations and LNAPL thickness (July 27, 2017).pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Routine Operation, Maintenance, Monitoring and Reporting Activities:

To continue the ongoing assessment of measureable LNAPL in on-site and off-site monitoring and recovery wells, the SMP monitoring well network has been gauged on a monthly basis. Additional monitoring wells outside this network were gauged to determine the presence of LNAPL. The gauging of these additional monitoring wells has been performed monthly for the six (6) month period following Certificate of Completion issuance.

As of June 2017, the gauging of the entire SMP monitoring well network will be performed on a quarterly basis during the quarterly groundwater sampling event. Consistent with the requirements of the SMP, LNAPL monitoring and manual recovery efforts will continue to be performed on a monthly basis at all recovery wells (RW-1 through RW-5) and monitoring wells where LNAPL was observed during the last quarter (MW-2R, MW-3, MW-4, MW-7, MW-17, and MW-19). As necessary, monitoring wells can be added to this LNAPL assessment network.

On July 27, 2017, the wells noted above were gauged. A summary of the gauging data collected during the reporting period is provided in the attached table.

Trace free-product (<0.1 feet) was detected in on-site monitoring wells MW-2R and MW-7, with free-product continuing to be present in off-site monitoring wells MW-3. Manual bailing was completed at monitoring wells MW-2R and MW-7 with approximately 0.2 gallons of free-product recovered from the on-site monitoring wells (0.1 gallons each) and an additional 1.5 gallons of product manually bailed from monitoring well MW-3. Absorbent socks were installed at these monitoring wells. Recovered product and saturated absorbent socks are being temporarily stored on-Site in a 55-gallon drum until it is required to be disposed. These monitoring wells will continue to be gauged and monitored, with manual bailing and absorbent sock replacement implemented as necessary.

Due to the lack of free-product present in the recovery wells (RW-1 to RW-5), Roux Associates has continued to pause the operation of the LNAPL recovery system until recoverable levels of product become present in the recovery system wells.

Sampling/ Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (August 1 through August 31, 2017):

- Evaluation of groundwater results and ISCO performance;

- Preparation and submittal of quarterly status report;
- Continued monthly gauging of monitoring wells within SMP monitoring network with a historic presence of LNAPL; and
- Continued monthly O&M of LNAPL recovery system (as necessary).

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Jordanna Kendrot | Project Engineer | Roux Associates, Inc.
209 Shafter Street Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2356 | Mobile: 631.741.7142
Email: jkendrot@rouxinc.com | Website: www.rouxinc.com

Summary of Water Level Elevations and LNAPL Thickness; July 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

		March 30, 2017				April 24, 2017				May 18, 2017				May 25, 2017				June 8, 2017				June 22, 2017				July 27, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																													
MW-2R	9.23	4.31	4.32	4.92	0.01	--	7.28	1.95	--	--	6.53	2.70	--	--	6.72	2.51	--	--	7.05	2.18	--	--	6.95	2.28	--	6.92	6.94	2.29	0.02
MW-3	8.40	6.79	7.81	1.36	1.02	6.81	7.94	1.31	1.13	6.70	7.69	1.45	0.99	6.77	7.98	1.33	1.21	7.04	8.41	1.02	1.37	7.08	8.86	0.88	1.78	6.78	8.39	1.22	1.61
MW-4	11.57	--	9.7	1.87	--	--	9.72	1.85	--	--	9.38	2.19	--	--	9.5	2.07	--	--	9.77	1.80	--	--	9.79	1.78	--	--	9.76	1.81	--
MW-7	4.48	2.72	3.10	1.67	0.38	2.35	2.48	2.10	0.13	1.79	1.80	2.69	0.01	2.02	2.03	2.46	0.01	1.01	1.02	3.47	0.01	2.32	2.33	2.16	0.01	2.75	2.76	1.73	0.01
MW-7R	4.48	--	2.75	1.73	--	--	2.37	2.11	--	--	1.91	2.57	--	--	1.84	2.64	--	--	2.27	2.21	--	--	2.14	2.34	--	--	NM	NC	--
MW-10	7.82	--	5.91	1.91	--	--	5.36	2.46	--	--	7.66	0.16	--	--	4.70	3.12	--	--	5.82	2.00	--	--	6.40	1.42	--	--	NM	NC	--
MW-11	7.82	--	6.69	1.13	--	--	5.72	2.10	--	--	6.03	1.79	--	--	5.16	2.66	--	--	5.79	2.03	--	--	5.85	1.97	--	--	NM	NC	--
MW-14	11.63	--	6.37	5.26	--	--	9.57	2.06	--	--	9.01	2.62	--	--	9.21	2.42	--	--	9.56	2.07	--	--	9.33	2.30	--	--	NM	NC	--
MW-15	11.51	--	6.38	5.13	--	--	9.48	2.03	--	--	8.98	2.53	--	--	9.17	2.34	--	--	9.50	2.01	--	--	9.36	2.15	--	--	NM	NC	--
MW-17	8.78	--	6.64	2.14	--	--	6.21	2.57	--	5.68	5.69	3.10	0.01	--	5.74	3.04	--	--	6.08	2.70	--	--	6.18	2.60	--	--	5.90	2.88	--
MW-18	8.40	--	6.77	1.63	--	--	6.76	1.64	--	--	6.54	1.86	--	--	6.60	1.80	--	--	6.96	1.44	--	--	7.06	1.34	--	--	NM	NC	--
MW-19	4.41	2.82	2.9	1.57	0.08	--	2.37	2.04	--	1.93	1.94	2.48	0.01	--	1.79	2.62	--	--	2.17	2.24	--	--	2.24	2.17	--	--	2.33	2.08	--
MW-20	11.69	--	9.81	1.88	--	--	9.85	1.84	--	--	9.48	2.21	--	--	9.61	2.08	--	--	9.89	1.80	--	--	9.88	1.81	--	--	NM	NC	--
MW-21	8.17	--	5.89	2.28	--	--	6.01	2.16	--	--	5.80	2.37	--	--	5.74	2.43	--	--	6.26	1.91	--	--	6.03	2.14	--	--	NM	NC	--
MW-22	11.63	--	9.74	1.89	--	--	9.78	1.85	--	--	9.44	2.19	--	--	9.54	2.09	--	--	9.80	1.83	--	--	9.81	1.82	--	--	NM	NC	--
MW-33	9.49	--	7.00	2.49	--	--	6.79	2.7	--	--	5.95	3.54	--	--	6.18	3.31	--	--	6.79	2.70	--	--	6.19	3.30	--	--	NM	NC	--
MW-34	8.30	--	7.03	1.27	--	--	6.69	1.61	--	--	6.29	2.01	--	--	6.67	1.63	--	--	6.84	1.46	--	--	7.07	1.23	--	--	NM	NC	--
MW-36	9.11	--	6.47	2.64	--	--	6.69	2.42	--	--	5.91	3.20	--	--	5.82	3.29	--	--	6.53	2.58	--	--	6.19	2.92	--	--	NM	NC	--
MW-37	4.45	--	2.64	1.81	--	--	2.28	2.17	--	--	1.95	2.50	--	--	1.84	2.61	--	--	2.04	2.41	--	--	2.30	2.15	--	--	NM	NC	--
MW-38	4.44	--	2.83	1.61	--	--	2.32	2.12	--	--	1.98	2.46	--	--	1.98	2.46	--	--	2.26	2.18	--	--	2.41	2.03	--	--	NM	NC	--
MW-40	8.49	--	6.98	1.51	--	--	6.81	1.68	--	--	6.36	2.13	--	--	6.50	1.99	--	--	7.09	1.40	--	--	7.16	1.33	--	--	NM	NC	--
MW-41	8.51	--	6.75	1.76	--	--	6.30	2.21	--	--	6.02	2.49	--	--	6.17	2.34	--	--	6.52	1.99	--	--	6.78	1.73	--	--	NM	NC	--
MW-42	9.37	--	7.60	1.77	--	--	7.33	2.04	--	--	NM	NM	--	--	7.14	2.23	--	--	7.40	1.97	--	--	7.54	1.83	--	--	NM	NC	--
MW-43	7.81	--	5.71	2.1	--	--	5.78	2.03	--	--	4.99	2.82	--	--	5.19	2.62	--	--	5.57	2.24	--	--	5.19	2.62	--	--	NM	NC	--
MW-44	9.15	--	6.95	2.2	--	--	7.05	2.10	--	--	6.20	2.95	--	--	6.46	2.69	--	--	6.85	2.3	--	--	6.43	2.72	--	--	NM	NC	--
MW-45	8.69	--	6.49	2.2	--	--	6.58	2.11	--	--	5.71	2.98	--	--	5.99	2.70	--	--	6.40	2.29	--	--	5.84	2.85	--	--	NM	NC	--
MW-46	7.69	--	5.52	2.17	--	--	5.60	2.09	--	--	4.70	2.99	--	--	5.01	2.68	--	--	5.39	2.30	--	--	4.96	2.73	--	--	NM	NC	--
MW-47	8.03	--	5.84	2.19	--	--	5.94	2.09	--	--	5.08	2.95	--	--	5.35	2.68	--	--	5.70	2.33	--	--	5.32	2.71	--	--	NM	NC	--
MW-48	11.43	--	9.47	1.96	--	--	9.55	1.88	--	--	9.19	2.24	--	--	9.32	2.11	--	--	9.89	1.54	--	--	9.53	1.90	--	--	NM	NC	--
Recovery Wells																													
RW-1	8.26	--	6.66	1.6	--	--	6.48	1.78	--	--	5.97	2.29	--	--	6.05	2.21	--	--	6.36	1.90	--	--	6.29	1.97	--	--	6.24	2.02	--
RW-2	9.81	--	7.02	2.79	--	--	6.77	3.04	--	--	6.25	3.56	--	--	6.39	3.42	--	--	6.66	3.15	--	--	6.79	3.02	--	--	6.52	3.29	--
RW-3	9.83	--	7.48	2.35	--	--	7.51	2.32	--	--	6.64	3.19	--	--	6.82	3.01	--	--	7.30	2.53	--	--	6.92	2.91	--	--	7.01	2.82	--
RW-4	10.2	--	7.69	2.51	--	--	7.82	2.38	--	--	6.95	3.25	--	--	7.24	2.96	--	--	7.62	2.58	--	--	7.70	2.50	--	--	7.31	2.89	--
RW-5	10.27	--	7.5	2.77	--	--	7.59	2.68	--	--	6.76	3.51	--	--	7.01	3.26	--	--	7.58	2.69	--	--	6.98	3.29	--	--	7.1	3.17	--

Notes:

LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NC - Not Calculated[12]
NM - Not Measured

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.

REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

209 SHAFTER STREET
ISLANDIA, NEW YORK 11749
TEL: 631-232-2600
FAX: 631 232-9898

August 23, 2017

Ms. Sondra Martinkat
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation
Region Two
47-40 21st Street
Long Island City, New York 11101

Re: Quarterly Inspection and Monitoring Report - April to June 2017
Paragon Paint and Varnish Corp., Long Island, New York, Site No. C241108

Dear Ms. Martinkat:

Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering), on behalf of CSC 4540 Property Co. LLC, have generated this quarterly inspection and monitoring report to summarize operation, maintenance and monitoring activities being performed at the Paragon Paint and Varnish Corp. located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard, Long Island City, Queens, New York (Site). The Site is currently under site management pursuant to Site Management Plan (SMP) approved by the New York State Department of Environmental Conservation (NYSDEC) in November 2016 under the NYSDEC Brownfield Cleanup Program (BCP), Site No. C241108. During this reporting period (April to June 2017), the composite cover system and institutional controls (ICs) were not modified. In addition, the following activities, as described herein, were specifically performed:

- Monthly operation and maintenance (O&M) of the Light Non-Aqueous Phase Liquid (LNAPL) recovery system (as necessary);
- Monthly gauging of SMP monitoring network to assess presence of LNAPL;
- Monthly LNAPL recovery using manual bailing techniques, where applicable, within SMP monitoring network;
- Quarterly monitoring (gauging and sampling) of Site monitoring wells;
- Preparation and submittal Design Plan for 1st post-remediation in-situ chemical oxidation (ISCO) treatment;
- Implementation of 1st post-remediation ISCO injection event; and
- Implementation and completion of bi-weekly ISCO performance monitoring.

Site-Wide Inspection and O&M of the LNAPL Recovery System

Based on the lack of recoverable amounts of product identified during the previous reporting period, the operation and monthly maintenance of the LNAPL recovery system has been temporarily paused starting March 30, 2017 as documented in prior monthly progress report to the NYSDEC. Inspection of the Site and the system itself, while not operating, are included in Attachment 1. Monthly monitoring of the recovery wells (RW-1 through RW-5) was continued to confirm the lack of LNAPL. Gauging data generated during the reporting period for each recovery well is presented in tabular form in Attachment 2. If the presence of recoverable LNAPL returns at these recovery wells, operation of the LNAPL recovery system will resume.

Gauging and Manual LNAPL Recovery

To continue the ongoing assessment of measureable LNAPL in on-site and off-site monitoring and recovery wells, the SMP monitoring well network is gauged on a monthly basis. Additional monitoring wells outside this network were gauged periodically to determine the presence of LNAPL.

Consistent with the requirements of the SMP, LNAPL monitoring and manual recovery efforts will continue to be performed on a monthly basis at all recovery wells (RW-1 through RW-5) and monitoring wells (MW-3, MW-7, and MW-19) where LNAPL continued to be present throughout the entirety of the reporting period. As necessary, monitoring wells can be added to this LNAPL assessment network.

If the presence of LNAPL in the monitoring wells was observed to be greater than trace amounts (i.e., >0.01'), the monitoring well was manually bailed with a total of approximately 3 gallons of LNAPL recovered this reporting period. Note, oil absorbing socks were installed at monitoring wells MW-2R, MW-3, MW-7, MW-17, MW-19, and MW-42 to facilitate removal of trace product at those locations.

All gauging and manual LNAPL recovery data generated during the reporting period is provided in tabular form in Attachment 3 with a more focused and condensed summary of monitoring wells with the presence of LNAPL provided below:

Monitoring Well ID	LNAPL Thickness Measurements					LNAPL Recovered	
	April 2017 (1 event)	May 2017 (2 events)		June 2017 (2 events)		Absorbent Sock **	Manual Bailing
MW-2R*	0.0 feet	0.0 feet	0.0 feet	0.0 feet	0.0 feet	0.20 gallons	N/A
MW-3* (Off-Site)	1.13 feet	0.99 feet	1.21 feet	1.37 feet	1.78 feet	0.938 gallons	1.625 gallons
MW-7*	0.13 feet	0.01 feet (trace)	0.01 feet (trace)	0.01 feet (trace)	0.01 feet (trace)	0.025 gallons	N/A
MW-17	0.0 feet	0.01 feet (trace)	0.0 feet	0.0 feet	0.0 feet	N/A	N/A
MW-19*	0.0 feet	0.01 feet (trace)	0.0 feet	0.0 feet	0.0 feet	0.20 gallons	N/A
MW-42*	0.0 feet	0.0 feet	0.0 feet	0.0 feet	0.0 feet	0.075 gallons	N/A

* - Absorbent sock was removed and/or changed out of the monitoring well on April 24 and May 18, 2017.
** - LNAPL recovered was calculated based on percent-saturation of absorbent socks following removal.

Based on a review of the gauging and manual LNAPL recovery data generated during the reporting period, the following key observations and trends are provided below:

- The presence of LNAPL was noted at one point during the monitoring period at four (4) monitoring wells: MW-3, MW-7, MW-17, and MW-19.
- LNAPL recovery noted at monitoring wells MW-2R and MW-42 was due to removal of oil absorbent sock installed the previous reporting period. No LNAPL has been detected following removal of the oil absorbent socks.
- Based on the June 2017 gauging event, the presence of LNAPL is as follows:
  - Trace amounts of LNAPL is present at one (1) on-site location (MW-7).
  - LNAPL thickness at one (1) off-site location is currently 1.78 feet.
- Manual bailing and installation of oil absorbent socks are effectively removing residual LNAPL at the on-site monitoring wells.

In general, LNAPL recovery efforts have been successful as only trace LNAPL remains on-Site.

Based on the summary provided herein, manual bailing of LNAPL and the installation of oil absorbent socks at various monitoring wells highlighted herein appears to be effective. These LNAPL recovery techniques will continue to be utilized during the next quarter.

<u>ISCO Treatment</u>

On April 11, 2017, the in-situ chemical oxidation (ISCO) Design Plan (Design Plan) required by the SMP was submitted via email and hardcopy to the NYSDEC. Roux Associates also submitted Form 7250-16 to the United States Environmental Protection Agency (USEPA) as part of this Design Plan. As noted in the Design Plan, the implementation of the ISCO injection events would be performed in a phased approach at the Site.

The phased approach described in the approved-Design Plan was chosen so that treatment could be evaluated in representative areas of the Site that continued to have impacts following the performance of the Site remediation activities in 2015 and 2016. The areas that were chosen were a mix of saturated and unsaturated areas where gross contamination was present and observed during source excavation, and areas where groundwater impacts were observed in the March 2016 sampling event. Following implementation of this first-phase of injections, the post-injection data would be evaluated to determine if, and where, continued ISCO treatment would be effective in similarly impacted areas.

The SMP stated that the chemical oxidant that would potentially be used in ISCO events would be RegenOx™ manufactured by Regenesis, Inc. (Regenesis). Due to the nature of the material being treated (i.e., residual grossly contaminated material), a different and more aggressive treatment material manufactured by Regenesis was utilized for the ISCO injection event. Specifications for the injection material utilized, PersulfOx™, were included in the Design Plan. The advantages of using PersulfOx™ is that the material is able to be injected at much higher concentrations, up to 20% to react directly with the organic materials in both residual grossly contaminated material as well impacted groundwater. This injection material also supports the degradation of target chemicals of concern (COCs) for an extended period of time (two-month period) following completion of ISCO injections due to the generation of sulfate as a residual bi-product, which supports additional biodegradation processes.

On April 24 to 26, 2017, Roux Associates completed the first-phase of the Design Plan. This initial treatment consisted of 17 injections completed at representative areas across the Site that had either residual gross contamination in soil and/ or NYSDEC Ambient Water-Quality Standards and Guidance Values (AWQSGVs) exceedances in groundwater (Refer to Figure 1).

The representative treatment areas included:

- Residual Gross Contamination in Unsaturated Soil in the Courtyard Area (GC Area 5);
- Residual Gross Contamination in Saturated Soil in the Courtyard Area (GC Areas 2 and 4);
- Residual Gross Contamination in Saturated Soil in the Driveway (GC Area 3);
- Residual Gross Contamination in Saturated Soil in the Garage (GC Areas 8 and 9);
- Groundwater Impacts at the Previously Treated Warehouse (Near MW-38);
- Groundwater Impacts at the Courtyard (Near Monitoring Wells MW-44 and MW-47);
- Groundwater Impacts at the Garage (Near Monitoring Well MW-40).

Details pertaining to the field activities, including injection point locations, were provided via the Daily Construction Report submitted to the NYSDEC via email on April 27, 2017. A total of 2,975.40 lbs of PersulfOx™ was mixed with 1,690 gallons of water, and the concentrations and mixture volumes in the targeted areas is summarized in the table below:

Area of Concern	No. of Points	Injection Interval (ft bls)	PersulfOx™ lbs Per Area	Gallons of Water Per Area	Mixture Concentration
GC Area 2	3	8 – 16	1065.27	540	26.11%
GC Area 3	1	17.5 – 20	110.2	70	15.85%
GC Area 4	1	11 – 16	110.2	70	15.85%
GC Area 5	1	4 – 9	110.2	120	9.91%
GC Area 8	2	8 – 13	257.13	200	15.58%
GC Area 9	2	8 – 13	551	200	20.86%
Courtyard (near MW-47)	3	8 – 13	330.6	210	15.85%
Warehouse (near MW-38)	4	0 - 5	440.8	280	15.85%

The injectate manufacturer used Site-specific soil and groundwater data to conservatively calculate treatment volumes that would theoretically liberate and treat grossly contaminated soil and reduce contaminant concentration to, or below, the NYSDEC AWQSGVs, where applicable. For reference purposes, it is important to note that the groundwater table at the site is approximately 7 to 8 feet below land surface (ft bls).

Post-Injection Performance Monitoring
In accordance with the SMP, ISCO monitoring was conducted bi-weekly starting the week of May 15, 2017, with four (4) monitoring events in total completed. The monitoring well network for this first ISCO injection event consisted of monitoring wells MW-36, MW-38, MW-40, MW-41, MW-42, MW-44, and MW-47. The groundwater parameters that were specifically monitored to determine ISCO material influence were: pH, oxidation-reduction potential (ORP), conductivity, and dissolved oxygen (DO). Upon groundwater parameters returning to approximate baseline conditions, these monitoring wells were sampled during the quarterly groundwater monitoring and sampling event, discussed below.

Post-Injection Groundwater Monitoring
Groundwater is monitored by a combination of gauging and sampling of groundwater monitoring wells within the SMP monitoring network. As discussed earlier, groundwater monitoring wells are gauged monthly to check for the presence of LNAPL and confirm thickness of LNAPL, if present. Site monitoring wells are then sampled on a quarterly basis to determine the presence of volatile organic compounds (VOCs), in particular the four Site-specific COCs: benzene, ethylbenzene, isopropylbenzene and total xylenes. The monitoring wells were sampled for Target Compound List (TCL) of VOCs using USEPA SW846 Method 8260.

Water/ LNAPL level data was collected during the June 2017 gauging event (Attachment 3). If the presence of LNAPL was noted in a groundwater monitoring well, the product thickness was noted and the monitoring well was manually bailed to the extent practical. The respective LNAPL measurements collected from the June 2017 gauging round is highlighted on Figure 1.

On June 22, 2017, the required quarterly groundwater gauging and sampling round was performed. The current NYSDEC-approved monitoring well network consists of the following:

- Three off-site monitoring wells along the southern perimeter of the site (MW-3, MW-21, and MW-34); and

- 18 on-site monitoring wells (MW-2R, MW-4, MW-7, MW-10, MW-11, MW-15, MW-19, MW-33, MW-38, MW-40, MW-41, MW-42, MW-43, MW-44, MW-45, MW-46, MW-47, and MW-48).

For each event, if the presence of product was noted at a monitoring well to be sampled within the respective monitoring network, the monitoring well was not sampled. Instead of being sampled, LNAPL was manually recovered to the extent practical as noted above. For this monitoring round, one (1) of the twenty-one (21) monitoring wells within the NYSDEC-approved monitoring network was not sampled due to the continued presence of LNAPL (offsite well MW-3). Another monitoring well was not sampled because it would continuously go "dry" during purging activities (MW-15) and would not yield enough water to sample. If this condition continues to be a problem in future monitoring events, MW-14, which is in close proximity to MW-15, will be sampled instead.

Groundwater samples were collected using low-flow groundwater sampling procedures. The pump intake was set within the saturated portion of the well screen during purging and sampling activities. Prior to collecting groundwater samples, each monitoring well was purged at a flow rate of approximately .12 liters per minute (L/min). Flow rates were adjusted to maintain minimal drawdown in the well during purging activities. A portable water-quality meter, equipped with an in-line flow-through cell, was used to monitor water quality indicator parameters (pH, conductivity, DO, ORP, temperature, and turbidity). Groundwater quality measurements were collected every three to five minutes until the field parameters stabilized (Attachment 4).

Purging was considered complete when the field parameters had stabilized, after which groundwater samples were collected and submitted for TCL VOC analysis.

Groundwater Monitoring Results

The analytical results of the June 2017 quarterly groundwater monitoring event are summarized in Table 1 and presented in Figure 1. A review of the groundwater data generated during this reporting period indicated the following:

- VOCs were analyzed, but not detected, at two (2) monitoring wells (MW-10 and MW-21).
- VOCs were detected, but at concentrations below AWQSGVs in five (5) monitoring wells (MW-11, MW-33, MW-42, MW-46 and MW-48).
- **All groundwater exceedances were less than an order of magnitude above their respective AWQSGV.** The specific COC exceedances of AWQSGVs are noted below:
  - Benzene results exceeded their respective AWQSGV of 1 μg/L at one monitoring well location (5.8 μg/L at MW-40).
  - Ethylbenzene results exceeded their respective AWQSGV of 5 μg/L at three (3) moni4toring well locations (an estimated 5.4 μg/L at MW-2R, 22 μg/L at MW-45, and 9.4 μg/L at MW-47).
  - Isopropylbenzene results exceeded their respective AWQSGV of 5 μg/L at 10 m4onitoring well locations. Exceedances ranged from 5.8 μg/L (MW-44) to 40 μg/L (MW-40).
  - Xylene results exceeded their respective AWQSGV of 5 μg/L at four (4) moni4toring well locations (11.9 μg/L at MW-2R, 18.3 μg/L at MW-44, 30.4 μg/L at MW-45 and 38 μg/L at MW-47).
- While the analytical quality results at MW-38 are referenced and evaluated herein, it is important to note that the results were probably biased **low** based on the respective laboratory analysis of VOCs at this monitoring well. Specifically, headspace was

noted in the sample containers submitted for analysis that was collected from MW-38. Headspace in a sample container could allow VOCs to volatilize prior to laboratory analysis.

This groundwater sampling round was the first of the SMP-required quarterly events to be performed following the performance of the initial ISCO treatment event described in the Design Plan. The effectiveness of this initial, post-remediation ISCO injection event at addressing grossly contaminated soil and impacted groundwater is discussed below.

ISCO Treatment Evaluation and Recommendations

Roux Associates has completed an evaluation of the Site-wide groundwater analytical and LNAPL data summarized on Table 1 and presented on Figure 1 for Site-specific COCs that has been generated prior to and following the performance of the recent ISCO injection event. Based on that evaluation, the following key observations and recommendations are noted below for the following areas of concern:

Treatment of Residual Groundwater Contamination (at driveway):

Based on the historical presence of LNAPL in and around driveway at Monitoring Wells 2/2R, Roux Associates believes that the performance of ISCO at this area of the Site could potentially prove beneficial to address impacted groundwater now that LNAPL has been removed. While Site trends indicate that ISCO may not be successful in reducing COC concentrations to their respective NYSDEC AWQSGV, this is a representative area of the Site that was not included in the recent treatment event that was performed. As such, treatment at this area of the Site is recommended.

Key Takeaway ⇨ ISCO may be potentially effective at treating impacted groundwater at the driveway.

Treatment of Grossly Contaminated Areas:

Following the ISCO injection event, LNAPL releases were not observed at any monitoring well (MW-40, MW-41, MW-42 and MW-44) or recovery well (RW-3) in close proximity to grossly contaminated areas in unsaturated soil (GC Area 5) and saturated soil (GC Areas 2, 3, 4, 8 and 9) that were specifically targeted for treatment. Based on these results, it is Roux Associates' recommendation that the areas of gross contamination that have not shown a release of LNAPL where ISCO injections were performed, should not be re-treated in upcoming ISCO injection events. Furthermore, these observations do not support the need to perform ISCO treatment in all remaining grossly contaminated areas, which exhibit similar characteristics in terms of product type (i.e., mineral spirits) and lithology, that were not included in this first-phase of ISCO treatment (GC Areas 1, 6 and 7).

Key Takeaway ⇨ ISCO is not effective at remediating residual, grossly contaminated areas at this Site.

<u>Treatment of Residual Groundwater Contamination (at the Courtyard)</u>:

Isopropylbenzene decreased by 25% from a pre-injection event concentration of 51 ug/L to 38 ug/L at MW-45, and from a concentration of 13 ug/L to a below standard concentration of 1.9 ug/L at MW-43. Note, these monitoring wells are in areas where no ISCO was performed in the courtyard. The respective reductions observed in these untreated areas are attributed to the removal of all LNAPL and accessible source area soils during the previously completed remedial action and subsequent successful operation of the on-site LNAPL recovery system. Although there was an improvement in groundwater quality at a portion of the Courtyard following this ISCO treatment event, COCs at MW-47 were still in exceedance of their respective NYSDEC AWQSGVs. For example, the pre-injection concentration of isopropylbenzene (16 ug/L) decreased by 20% to 13 ug/L after this treatment, which is still above its respective NYSDEC AWQSGV of 5 ug/L. Therefore, based on Roux Associates' experience at this Site and other similar sites, it is unlikely that further ISCO treatments will yield the necessary reductions required to meet the targeted NYSDEC AWQSGVs for Site COCs. As such, it is Roux Associates' recommendation that continued ISCO treatments at the courtyard to address residual groundwater impacts is not performed. However, it is expected that COCs in groundwater at the Courtyard will continue to attenuate towards their respective NYSDEC AWQSGVs based on the post-remediation groundwater data trends associated with MW-43 and MW-45 regardless if additional ISCO treatments will be performed or not.

Key Takeaway ⇨ Remediation of COCs at the courtyard to NYSDEC AWQSGVs utilizing ISCO is highly unlikely.

<u>Treatment of Residual Groundwater Contamination (at the Garage)</u>:

With regards to the overall groundwater quality at the garage area, COCs at MW-41 and MW-42, two of the three monitoring wells in the garage, are already below their respective NYSDEC AWQSGVs and have consistently been below those standards following the completion of the remedial action. Although there was an improvement in groundwater quality following this ISCO treatment event, COCs at the other well in the garage, MW-40, were still in exceedance of their respective NYSDEC AWQSGVs. Note, the pre-injection concentration of isopropylbenzene (47 ug/L) decreased by only 15% to 40 ug/L after this treatment, which is still above its respective NYSDEC AWQSGV of 5 ug/L. Therefore, based on Roux Associates' experience at this Site and other similar sites, it is unlikely that further ISCO treatments will yield the necessary reductions required to meet the targeted NYSDEC AWQSGVs for Site COCs. As such, it is Roux Associates' recommendation that continued ISCO treatments at the garage to address residual groundwater impacts is not performed.

Key Takeaway ⇨ Remediation of COCs at the garage to NYSDEC AWQSGVs utilizing ISCO is highly unlikely.

Treatment of Residual Groundwater Contamination (at the Warehouse):

As documented in the FER, the entire Warehouse area was previously treated with ISCO in 2015 during the performance of the remedial action. In general, COC levels decreased slightly following the 2015 injection event, but COC concentrations were still above their respective NYSDEC AWQSGVs. As a result, the NYSDEC recommended that a second round of ISCO treatments be performed in the post-remediation phase considering the fact that there was no soil excavation performed within the warehouse footprint during the remedial action. Although there was an improvement in groundwater quality at a portion of the previously treated warehouse following the recent 2017 ISCO treatment event, the following concerns regarding the effectiveness of this treatment event are noted below:

- The 2017 pre-injection concentration of isopropylbenzene (36 ug/L) at MW-38 only decreased to 24 ug/L after this treatment, which is still above its respective NYSDEC AWQSGV of 5 ug/L.
- The 2017 post-treatment isopropylbenzene concentration of 24 ug/L at MW-38 was similar to recent concentrations (i.e., 23 ug/L at MW-19 and 19 ug/L at MW-7) in Site monitoring wells within the footprint of the warehouse that were not treated by ISCO. On an equally important note, the 2017 results were consistent with the results from the 2015 ISCO event. Specifically, isopropylbenzene analytical results ranged from 5 ug/L to 23 ug/L across the entire warehouse area.

Although there was an improvement in groundwater quality at a representative portion of the previously treated warehouse following the recent 2017 ISCO treatment event, Roux Associates does not consider that improvement significant enough to warrant a second injection across the entire remaining footprint of the Warehouse Area. As highlighted above, it has already been demonstrated that it will be highly unlikely that NYSDEC AWQSGVs will be achieved utilizing ISCO in the basement area. As such, it is Roux Associates' recommendation that continued ISCO treatment at the warehouse to address residual groundwater impacts is not performed.

Key Takeaway ⇨ It is highly unlikely that utilizing multiple ISCO treatments at the warehouse to achieve NYSDEC AWQSGVs in groundwater will be possible.

Treatment of Residual Groundwater Contamination (at the Paint Factory Building):

Though treatment was not completed within the paint factory building during this phase of the Design Plan, evaluation of results observed in both the courtyard and the garage post-injection, with similar COC concentrations noted at the paint factory building, can be applied. As such, Roux Associates does not recommend implementing future ISCO treatments within the footprint of the paint factory building as COCs at MW-48 continue to be below their respective AWQSGVs. Note, while well construction logs for MW-4 and MW-22 that are in close proximity to MW-48 indicate the potential presence of residual soil contamination, it is unlikely that ISCO will effectively treat this contamination as the recent ISCO event has generally demonstrated that it is unlikely LNAPL will be liberated by utilizing ISCO.

Key Takeaway ⇨ COC detections at MW-48 continue to be below their respective AWQSGV.

Modifications or Amendments to the SMP

No modifications or amendments to the SMP were implemented this reporting period.

Actions Planned for the Next Quarterly Reporting Period

The following actions are planned for the next reporting period:

- Continued monthly operation and maintenance of LNAPL recovery system (as necessary);
- Continued monthly gauging and manual LNAPL recovery of monitoring wells within the SMP monitoring network (as necessary);
- Continued use of alternative (i.e., oil absorbing socks), practical methods to supplement recovery of LNAPL at Site monitoring wells where manual recovery efforts become ineffective; and
- Preparation and submission of the design plan for the next phase of planned injections that will target the driveway area near MW-2/2R.

After you have completed your review of this quarterly inspection and status report, Roux Associates would like to setup a conference call or meeting to discuss actions planned for the next reporting period considering the fact that future redevelopment activities may be initiated as early as the second quarter of 2018.

Sincerely,

REMEDIAL ENGINEER, P.C.

Omar Ramotar, P.E.
Principal Engineer

Attachments

cc: Jane O'Connell, NYSDEC
Andrew Till, Simon Baron Development
Robert Hendrickson, Quadrum Global
Lawrence Schnapf, Esq., Schnapf LLC
Joseph Duminuco, Roux Associates, Inc.
Glenn Netuschil, P.E., Remedial Engineering, P.C.

TABLE

1. Summary of Volatile Organic Compounds in Groundwater

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-2R	MW-4	MW-4	MW-5	MW-7	MW-7R	MW-7R
Sample Date:			06/22/2017	03/30/2017	06/22/2017	09/08/2016	06/22/2017	09/08/2016	03/30/2017
Normal or Field Duplicate:			N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,1,2,2-Tetrachloroethane	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,1,2-Trichloroethane	1	UG/L	3.8 U	1.5 U	1.5 U	1.5 U	7.5 U	1.5 U	15 U
1,1-Dichloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,1-Dichloroethene	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
1,2,3-Trichlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,2,4-Trichlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	5 U	2 U	2 U	2 U	10 U	2 U	20 U
1,2-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,2-Dichloroethane	0.6	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
1,2-Dichloropropane	1	UG/L	2.5 U	1 U	1 U	1 U	5 U	1 U	10 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**76**	**14**	**14**	2.5 U	12 U	2.5 U	25 U
1,3-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,4-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
1,4-Dioxane (P-Dioxane)	--	UG/L	620 U	250 U	250 U	250 U	1200 U	250 U	2500 U
2-Hexanone	50	UG/L	12 U	5 U	5 U	5 U	25 U	5 U	50 U
Acetone	**50**	UG/L	6.2 J	5 U	5 U	5 U	25 U	14	50 U
Benzene	**1**	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
Bromochloromethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Bromodichloromethane	50	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
Bromoform	50	UG/L	5 U	2 U	2 U	2 U	10 U	2 U	20 U
Bromomethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Carbon Disulfide	60	UG/L	23	5 U	5 U	5 U	8.6 J	5 U	50 U
Carbon Tetrachloride	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
Chlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Chloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Chloroform	7	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Chloromethane	--	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Cis-1,2-Dichloroethylene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Cis-1,3-Dichloropropene	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
Dibromochloromethane	50	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-2R	MW-4	MW-4	MW-5	MW-7	MW-7R	MW-7R
		Sample Date:	06/22/2017	03/30/2017	06/22/2017	09/08/2016	06/22/2017	09/08/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	12 U	5 U	5 U	5 U	25 U	5 U	50 U
Dichloroethylenes	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Ethylbenzene	**5**	UG/L	**5.4 J**	1.6 J	1.7 J	2.5 U	12 U	2.5 U	25 U
Isopropylbenzene (Cumene)	**5**	UG/L	**17**	**5.4**	**6.5**	2.5 U	**19**	**11**	**14 J**
m,p-Xylene	**5**	UG/L	**6.7**	1.6 J	1.9 J	2.5 U	12 U	2.5 U	25 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	7.6 J	5 U	5 U	5 U	25 U	5.5	50 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	12 U	5 U	5 U	5 U	25 U	5 U	50 U
Methylene Chloride	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
N-Propylbenzene	**5**	UG/L	**29**	**5.8**	**7.6**	2.5 U	**21**	**19**	**25**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**5.2 J**	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Sec-Butylbenzene	**5**	UG/L	**8.5**	**6.6**	**6.7**	2.5 U	**23**	**12**	**12 J**
Styrene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
T-Butylbenzene	**5**	UG/L	5 J	**7.3**	**5.7**	2.5 U	**16**	**6**	**7 J**
Tert-Butyl Methyl Ether	10	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Tetrachloroethylene (PCE)	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	1.6 J	0.5 U	5 U
Toluene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	0.99 J	25 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
Trans-1,2-Dichloroethene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Trans-1,3-Dichloropropene	--	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
Trichloroethylene (TCE)	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	2.5 U	0.5 U	5 U
Trichlorofluoromethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	12 U	2.5 U	25 U
Vinyl Chloride	2	UG/L	2.5 U	1 U	1 U	1 U	5 U	1 U	10 U
Xylenes	**5**	UG/L	**12 J**	1.6 J	1.9 J	2.5 U	12 U	2.5 U	25 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11	MW-11
		Sample Date:	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	2.2 J
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.64	0.68	1
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11	MW-11
		Sample Date:	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	4.7	4.1	4.4
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-11	MW-11	MW-19	MW-19	MW-21	MW-21	MW-21
		Sample Date:	03/30/2017	06/22/2017	09/08/2016	06/22/2017	09/08/2016	09/08/2016	12/01/2016
		Normal or Field Duplicate:	FD	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	3.8 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	5 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	2.5 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	**7**	6.2 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	620 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	12 U	5 U	5 U	5 U
Acetone	**50**	UG/L	1.9 J	1.7 J	5.6	8.8 J	5 U	5 U	5 U
Benzene	**1**	UG/L	1	0.55	0.46 J	1.2 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	5 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	12 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-11	MW-11	MW-19	MW-19	MW-21	MW-21	MW-21
		Sample Date:	03/30/2017	06/22/2017	09/08/2016	06/22/2017	09/08/2016	09/08/2016	12/01/2016
		Normal or Field Duplicate:	FD	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	12 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	3.4 J	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	**25**	**23**	2.5 U	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5	5.4 J	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	12 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	**33**	**36**	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	**23**	**14**	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	4.5	4	**13**	**8.6**	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.46 J
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	2.5 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-21	MW-33	MW-33	MW-33	MW-34	MW-34
		Sample Date:	03/30/2017	06/22/2017	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	3 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	4 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	3	5 U	2.5 U	1.3 J	0.98 J
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	500 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	23	5.7 J	5 U	5 U	5 U
Benzene	**1**	UG/L	**1.4**	0.5 U	0.5 U	1 U	0.5 U	0.42 J	0.26 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	4 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-21	MW-33	MW-33	MW-33	MW-34	MW-34
		Sample Date:	03/30/2017	06/22/2017	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	0.76 J	2.3 J	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	1.3 J	4.2 J	0.87 J	**30**	**22**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	1.1 J	5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	3.2 J	9.9 J	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.2 J	**8.2**	1.5 J	**39**	**33**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	1.5 J	5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.6	4.6 J	1.4 J	**16**	**15**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	1.8 J	2.3 J	0.89 J	**7**	**6.9**
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.35 J	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.6 J	5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
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FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-34	MW-34	MW-37	MW-37	MW-37	MW-38	MW-38
		Sample Date:	03/30/2017	06/22/2017	09/08/2016	12/01/2016	03/30/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	7.5 U	7.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	0.74 J	12 U	12 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	10 U	10 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	5 U	5 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	0.94 J	0.86 J	2.5 U	3.6 J	12 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	1200 U	1200 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	25 U	25 U	5 U	5 U
Acetone	**50**	UG/L	2.4 J	2.2 J	3.4 J	39	25 U	3.5 J	1.6 J
Benzene	**1**	UG/L	0.5	0.23 J	0.19 J	2.5 U	2.5 U	0.27 J	0.28 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	10 U	10 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	1.4 J	5 U	25 U	25 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-34	MW-34	MW-37	MW-37	MW-37	MW-38	MW-38
		Sample Date:	03/30/2017	06/22/2017	09/08/2016	12/01/2016	03/30/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	25 U	25 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**18**	**23**	**14**	**28**	**34**	**15**	**26**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	3 J	5 U	7.4	25 U	25 U	6.8	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	1.2 J	5 U	5 U	25 U	25 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**25**	**32**	**20**	**50**	**68**	**16**	**34**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**13**	**14**	**5.1**	**21**	**30**	5	**11**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	**7.2**	**6.6**	2.8	**7.1 J**	**8.8 J**	2.5	4.3
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	1.2 J	12 U	12 U	1 J	0.97 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	5 U	5 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-38	MW-38	MW-40	MW-40	MW-40	MW-41	MW-41
		Sample Date:	03/30/2017	06/22/2017	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	0.27 J	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	**53**	2 J	2.3 J	**260**	5 U	5 U
Benzene	**1**	UG/L	0.5 U	0.43 J	**8.6**	**9.3**	**5.8**	0.26 J	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	2.8 J	5 U	5 U	4.6 J	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	1.2 J	2.5 U	2.5 U	4.2	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-38	MW-38	MW-40	MW-40	MW-40	MW-41	MW-41
		Sample Date:	03/30/2017	06/22/2017	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**36**	**24**	**44**	**47**	**40**	1.3 J	0.73 J
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	1 J	1 J	1.1 J	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	16	5 U	5 U	39	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	1.7 J	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	1.5 J	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**55**	**31**	**69**	**38**	**64**	1.7 J	0.8 J
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	0.78 J	0.72 J	0.79 J	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**16**	**8.2**	**16**	**20**	**19**	2.3 J	1.1 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	**6.8**	4.2	3.5	**5.3**	4.2	1.2 J	0.78 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	1.7 J	2.5 U	0.72 J	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.22 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	1.8 J	1.7 J	1.9 J	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
 - - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-41	MW-41	MW-42	MW-42	MW-42	MW-43	MW-43
Sample Date:			03/30/2017	06/22/2017	09/08/2016	03/30/2017	06/22/2017	12/01/2016	03/30/2017
Normal or Field Duplicate:			N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	4 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	**0.74**	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,2-Dichloropropane	1	UG/L	1 U	0.52 J	1 U	1 U	1 U	1 U	2 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**12**	**78**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	500 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Acetone	**50**	UG/L	5 U	**96**	5 U	5 U	5 U	7.4	28
Benzene	**1**	UG/L	0.62	0.43 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	4 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroethane	5	UG/L	2.5 U	2.8	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-41	MW-41	MW-42	MW-42	MW-42	MW-43	MW-43
Sample Date:			03/30/2017	06/22/2017	09/08/2016	03/30/2017	06/22/2017	12/01/2016	03/30/2017
Normal or Field Duplicate:			N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**6.8**
Isopropylbenzene (Cumene)	**5**	UG/L	2.5	1.1 J	4.7	0.73 J	2.5 U	1.4 J	**13**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.3 J	**15**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Methylene Chloride	5	UG/L	2.5 U	1.2 J	2.5 U	2.5 U	2.5 U	2.5 U	5 U
N-Propylbenzene	**5**	UG/L	3.1	1.3 J	3.5	2.5 U	2.5 U	1.9 J	**22**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.8 J	**7.2**
Sec-Butylbenzene	**5**	UG/L	3.9	1.7 J	2.9	1.4 J	1.1 J	2.5 U	**5.8**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
T-Butylbenzene	**5**	UG/L	2.4 J	1.3 J	1.2 J	1.7 J	1.2 J	2.5 U	2.4 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 J	**22**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
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- - No NYSDEC AWQSGV available
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Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-45
		Sample Date:	06/22/2017	12/01/2016	03/30/2017	06/22/2017	03/30/2017	06/22/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	FD
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	3.8 U	7.5 U	7.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	5 U	10 U	10 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	2.5 U	5 U	5 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**7.1**	**41**	**81**	**42**	**230**	**150**	**180**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	620 U	1200 U	1200 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	12 U	25 U	25 U
Acetone	**50**	UG/L	7	**98**	**53**	**61**	32	45	31
Benzene	**1**	UG/L	0.5 U	1	0.63	0.19 J	0.78 J	2.5 U	2.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	5 U	10 U	10 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	12 U	25 U	25 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-45
		Sample Date:	06/22/2017	12/01/2016	03/30/2017	06/22/2017	03/30/2017	06/22/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	FD
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	12 U	25 U	25 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Ethylbenzene	**5**	UG/L	0.82 J	**9.9**	**9.7**	3.2	**39**	**22**	**22**
Isopropylbenzene (Cumene)	**5**	UG/L	1.9 J	**6.8**	**13**	**5.8**	**51**	**38**	**41**
m,p-Xylene	**5**	UG/L	1.7 J	**24**	**30**	**9.5**	**47**	**25**	**24**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	12	5 U	5 U	12 U	25 U	25 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	12 U	25 U	25 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
N-Propylbenzene	**5**	UG/L	2.9	**8.5**	**19**	**9.6**	**88**	**59**	**63**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	0.87 J	**17**	**22**	**8.8**	**7.4**	**5.4 J**	**6.4 J**
Sec-Butylbenzene	**5**	UG/L	0.83 J	1.8 J	**6.2**	3.9	**16**	**12**	**12**
Styrene	5	UG/L	2.5 U	2.5 U	1.1 J	2.5 U	6.2 U	12 U	12 U
T-Butylbenzene	**5**	UG/L	2.5 U	1.2 J	2.4 J	1.7 J	4.8 J	3.9 J	4 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.23 J	0.5 U	1.2 U	2.5 U	2.5 U
Toluene	5	UG/L	2.5 U	3.8	3.6	0.99 J	6.2 U	12 U	12 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	2.5 U	5 U	5 U
Xylenes	**5**	UG/L	2.6 J	**41**	**52**	**18**	**54**	**30 J**	**30 J**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-46	MW-46	MW-46	MW-47	MW-47	MW-47	MW-47
Sample Date:			12/01/2016	03/30/2017	06/22/2017	12/01/2016	12/01/2016	03/30/2017	06/22/2017
Normal or Field Duplicate:			N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	4 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2 J	**40**	**41**	**78**	**67**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	500 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	1.1 J	5 U	10 U
Acetone	**50**	UG/L	4.2 J	5 U	4.2 J	**110**	**110**	39	27
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	0.98	**1.1**	0.66	0.42 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	4 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	1.2 J	2.5 U	5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-46	MW-46	MW-46	MW-47	MW-47	MW-47	MW-47
		Sample Date:	12/01/2016	03/30/2017	06/22/2017	12/01/2016	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**11**	**11**	**15**	**9.4**
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	**9.2**	**9.9**	**16**	**13**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**24**	**25**	**36**	**24**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	14	16	5 U	4.2 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	1.1 J	5 U	5 U	10 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**13**	**14**	**23**	**20**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	**14**	**15**	**20**	**14**
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.1 J	2.2 J	4.6	4.2 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1 J	5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	0.95 J	0.99 J	2 J	1.7 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	3.8	4	2.9	2.2 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	**38**	**40**	**56**	**38**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-48	MW-48	MW-48
		Sample Date:	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N
Parameter	NYSDEC AWQSGVs	Units			
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.2 J	0.92 J	2.8
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	5 U
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-48	MW-48	MW-48
		Sample Date:	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N
Parameter	NYSDEC AWQSGVs	Units			
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	4	2.6	1.9 J
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	3.1	2.4 J	2.1 J
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	4.7	4.3	3
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	4.1	3.1	1.8 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
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ATTACHMENTS

1. Site-Wide Inspection and Maintenance
2. Recovery Well Operating Logs
3. Monitoring Well Gauging Logs
4. 2017 Purge Logs

ATTACHMENT 1

Site-Wide Inspection and Maintenance

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Monday, April 24, 2017**

Site Observations: Performed by (MS) on (4/24/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (4/24/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (4/24/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (4/24/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (4/24/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **4/24/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Wednesday, May 24, 2017**

Site Observations: Performed by (MS) on (5/24/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (5/24/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (5/24/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (5/24/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (5/24/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **5/24/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Thursday, June 22, 2017**

Site Observations: Performed by (MS) on (6/22/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (6/22/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (6/22/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (6/22/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (6/22/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **6/22/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ATTACHMENT 2

Recovery Well Operating Logs

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - April 24, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.48	--	
Recovery Well RW-2	N	--	6.77	--	
Recovery Well RW-3	N	--	7.51	--	
Recovery Well RW-4	N	--	7.82	--	
Recovery Well RW-5	N	--	7.59	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - May 25, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.05	--	
Recovery Well RW-2	N	--	6.39	--	
Recovery Well RW-3	N	--	6.82	--	
Recovery Well RW-4	N	--	7.24	--	
Recovery Well RW-5	N	--	7.01	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - June 22, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.29	--	
Recovery Well RW-2	N	--	6.79	--	
Recovery Well RW-3	N	--	6.92	--	
Recovery Well RW-4	N	--	7.70	--	
Recovery Well RW-5	N	--	6.98	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

ATTACHMENT 3

Monitoring Well Gauging Logs

Groundwater Gauging Former Paragon Paint Varnish Corp - April 24, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Monitoring Well ID	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
4/24/2017	MW-2R	--	7.28	4	--	0.20	1.60
4/24/2017	MW-3*	6.81	7.94	2	1.13	0.25	3.40
4/24/2017	MW-4	--	9.72	2	--	--	0.63
4/24/2017	MW-7*	2.35	2.48	1	0.13	trace removal	0.40
4/24/2017	MW-7R	--	2.37	1.96	--	--	
4/24/2017	MW-10	--	5.36	2	--	--	
4/24/2017	MW-11	--	5.72	2	--	--	
4/24/2017	MW-14	--	9.57	2	--	--	
4/24/2017	MW-15	--	9.48	2	--	--	
4/24/2017	MW-17	--	6.21	4	--	--	
4/24/2017	MW-18	--	6.76	4	--	--	
4/24/2017	MW-19	--	2.37	2	--	0.2	0.50
4/24/2017	MW-20	--	9.85	2	--	--	
4/24/2017	MW-21	--	6.01	4	--	--	
4/24/2017	MW-22	--	9.78	2	--	--	0.58
4/24/2017	MW-33	--	6.79	2	--	--	
4/24/2017	MW-34	--	6.69	4	--	--	
4/24/2017	MW-36	--	6.69	4	--	--	
4/24/2017	MW-37	--	2.28	2	--	--	
4/24/2017	MW-38	--	2.32	2	--	--	
4/24/2017	MW-40	--	6.81	2	--	--	
4/24/2017	MW-41	--	6.3	2	--	--	
4/24/2017	MW-42	--	7.33	2	--	0.025	0.08
4/24/2017	MW-43	--	5.78	2	--	--	
4/24/2017	MW-44	--	7.05	2	--	--	
4/24/2017	MW-45	--	6.58	2	--	--	0.53
4/24/2017	MW-46	--	5.6	2	--	--	
4/24/2017	MW-47	--	5.94	2	--	--	
4/24/2017	MW-48	--	9.55	2	--	--	
						Total	**7.72**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - May 18, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Monitoring Well ID	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
5/18/2017	MW-2R	--	6.53	4	--		1.60
5/18/2017	MW-3*	6.7	7.69	2	0.99	0.25	3.65
5/18/2017	MW-4	--	9.38	2	--		0.63
5/18/2017	MW-7*	1.79	1.8	1	0.01	0.025	0.43
5/18/2017	MW-7R	--	1.91	1.96	--	--	
5/18/2017	MW-10	--	7.66	2	--	--	
5/18/2017	MW-11	--	6.03	2	--	--	
5/18/2017	MW-14	--	9.01	2	--	--	
5/18/2017	MW-15	--	8.98	2	--	--	
5/18/2017	MW-17*	5.68	5.69	4	0.01	--	
5/18/2017	MW-18	--	6.54	4	--	--	
5/18/2017	MW-19*	1.93	1.94	2	0.01	--	0.50
5/18/2017	MW-20	--	9.48	2	--	--	
5/18/2017	MW-21	--	5.8	4	--	--	
5/18/2017	MW-22	--	9.44	2	--	--	0.58
5/18/2017	MW-33	--	5.95	2	--	--	
5/18/2017	MW-34	--	6.29	4	--	--	
5/18/2017	MW-36	--	5.91	4	--	--	
5/18/2017	MW-37	--	1.95	2	--	--	
5/18/2017	MW-38	--	1.98	2	--	--	
5/18/2017	MW-40	--	6.36	2	--	--	
5/18/2017	MW-41	--	6.02	2	--	--	
5/18/2017	MW-42	--	NM	2	--	0.05	0.13
5/18/2017	MW-43	--	4.99	2	--	--	
5/18/2017	MW-44	--	6.2	2	--	--	
5/18/2017	MW-45	--	5.71	2	--	--	0.53
5/18/2017	MW-46	--	4.7	2	--	--	
5/18/2017	MW-47	--	5.08	2	--	--	
5/18/2017	MW-48	--	9.19	2	--	--	
						Total	**8.05**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

Groundwater Gauging Former Paragon Paint Varnish Corp - May 25, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Monitoring Well ID	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
5/25/2017	MW-2R	--	6.72	4	--	--	1.60
5/25/2017	MW-3*	6.77	7.98	2	1.21	--	3.65
5/25/2017	MW-4	--	9.5	2	--	--	0.63
5/25/2017	MW-7	2.02	2.03	1	0.01	trace removal	0.43
5/25/2017	MW-7R	--	1.84	2	--	--	
5/25/2017	MW-10	--	4.7	2	--	--	
5/25/2017	MW-11	--	5.16	2	--	--	
5/25/2017	MW-14	--	9.21	2	--	--	
5/25/2017	MW-15	--	9.17	2	--	--	
5/25/2017	MW-17	--	5.74	4	--	--	
5/25/2017	MW-18	--	6.6	4	--	--	
5/25/2017	MW-19	--	1.79	2	--	--	0.50
5/25/2017	MW-20	--	9.61	2	--	--	
5/25/2017	MW-21	--	5.74	4	--	--	
5/25/2017	MW-22	--	9.54	2	--	--	0.58
5/25/2017	MW-33	--	6.18	2	--	--	
5/25/2017	MW-34	--	6.67	4	--	--	
5/25/2017	MW-36	--	5.82	4	--	--	
5/25/2017	MW-37	--	1.84	2	--	--	
5/25/2017	MW-38	--	1.98	2	--	--	
5/25/2017	MW-40	--	6.5	2	--	--	
5/25/2017	MW-41	--	6.17	2	--	--	
5/25/2017	MW-42*	--	7.14	2	--	--	0.13
5/25/2017	MW-43	--	5.19	2	--	--	
5/25/2017	MW-44	--	6.46	2	--	--	
5/25/2017	MW-45	--	5.99	2	--	--	0.53
5/25/2017	MW-46	--	5.01	2	--	--	
5/25/2017	MW-47	--	5.35	2	--	--	
5/25/2017	MW-48	--	9.32	2	--	--	
						Total	**8.05**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

* -An oil absorbent sock was installed within the well at the height of the groundwater table instead of bailing due to trace amounts of product.

Groundwater Gauging Former Paragon Paint Varnish Corp - June 8, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Monitoring Well ID	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
6/8/2017	MW-2R	--	7.05	4	--	--	1.60
6/8/2017	MW-3*	7.04	8.41	2	1.37	0.44	4.09
6/8/2017	MW-4	--	9.77	2	--	--	0.63
6/8/2017	MW-7	1.01	1.02	1	0.01	trace removal	0.43
6/8/2017	MW-7R	--	2.27	2	--	--	
6/8/2017	MW-10	--	5.82	2	--	--	
6/8/2017	MW-11	--	5.79	2	--	--	
6/8/2017	MW-14	--	9.56	2	--	--	
6/8/2017	MW-15	--	9.5	2	--	--	
6/8/2017	MW-17	--	6.08	4	--	--	
6/8/2017	MW-18	--	6.96	4	--	--	
6/8/2017	MW-19	--	2.17	2	--	--	0.50
6/8/2017	MW-20	--	9.89	2	--	--	
6/8/2017	MW-21	--	6.26	4	--	--	
6/8/2017	MW-22	--	9.8	2	--	--	0.58
6/8/2017	MW-33	--	6.79	2	--	--	
6/8/2017	MW-34	--	6.84	4	--	--	
6/8/2017	MW-36	--	6.53	4	--	--	
6/8/2017	MW-37	--	2.04	2	--	--	
6/8/2017	MW-38	--	2.26	2	--	--	
6/8/2017	MW-40	--	7.09	2	--	--	
6/8/2017	MW-41	--	6.52	2	--	--	
6/8/2017	MW-42	--	7.4	2	--	--	0.13
6/8/2017	MW-43	--	5.57	2	--	--	
6/8/2017	MW-44	--	6.85	2	--	--	
6/8/2017	MW-45	--	6.4	2	--	--	0.53
6/8/2017	MW-46	--	5.39	2	--	--	
6/8/2017	MW-47	--	5.7	2	--	--	
6/8/2017	MW-48	--	9.89	2	--	--	
						Total	**8.49**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

* -An oil absorbent sock was installed within the well at the height of the groundwater table instead of bailing due to trace amounts of product.

Groundwater Gauging Former Paragon Paint Varnish Corp - June 22, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Monitoring Well ID	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged* (g)	Cumulative (g)
6/22/2017	MW-2R	--	6.95	4	--	--	1.60
6/22/2017	MW-3*	7.08	8.86	2	1.78	0.2	5.71
6/22/2017	MW-4	--	9.79	2	--	--	0.63
6/22/2017	MW-7*	2.32	2.33	1	0.01	trace removal	0.43
6/22/2017	MW-7R	--	2.14	2	--	--	
6/22/2017	MW-10	--	6.4	2	--	--	
6/22/2017	MW-11	--	5.85	2	--	--	
6/22/2017	MW-14	--	9.33	2	--	--	
6/22/2017	MW-15	--	9.36	2	--	--	
6/22/2017	MW-17	--	6.18	4	--	--	
6/22/2017	MW-18	--	7.06	4	--	--	
6/22/2017	MW-19	--	2.24	2	--	--	0.50
6/22/2017	MW-20	--	9.88	2	--	--	
6/22/2017	MW-21	--	6.03	4	--	--	
6/22/2017	MW-22	--	9.81	2	--	--	0.58
6/22/2017	MW-33	--	6.19	2	--	--	
6/22/2017	MW-34	--	7.07	4	--	--	
6/22/2017	MW-36	--	6.19	4	--	--	
6/22/2017	MW-37	--	2.30	2	--	--	
6/22/2017	MW-38	--	2.41	2	--	--	
6/22/2017	MW-40	--	7.16	2	--	--	
6/22/2017	MW-41	--	6.78	2	--	--	
6/22/2017	MW-42	--	7.54	2	--	--	0.13
6/22/2017	MW-43	--	5.19	2	--	--	
6/22/2017	MW-44	--	6.43	2	--	--	
6/22/2017	MW-45	--	5.84	2	--	--	0.53
6/22/2017	MW-46	--	4.96	2	--	--	
6/22/2017	MW-47	--	5.32	2	--	--	
6/22/2017	MW-48	--	9.53	2	--	--	
						Total	**10.11**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable

* -An oil absorbent sock was installed within the well at the height of the groundwater table instead of bailing due to trace amounts of product.

ATTACHMENT 4

2017 Purge Logs

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 80° F, Sunny Date: 6/22/2017

Well ID: MW-2R Intake depth: Approx. 11'

DTW: 6.89 Vol Purged: 0.8

DTB: 14.20

Sampler: AF

Purge Start: 11:19 Purge End Time: 11:49

Purge Water Description: Clear

Sample Time 11:50

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:22	7.04	100	18.13	1.120	0.83	6.95	-12	27.6
11:25	7.08	100	18.47	2.000	0.09	6.93	-23	24.7
11:28	7.10	100	18.57	2.000	0.00	6.93	-43	23.5
11:31	7.10	100	18.62	2.000	0.00	6.93	-49	23.1
11:34	7.11	100	18.68	1.990	0.00	6.93	-53	22.6
11:37	7.11	100	18.72	1.990	0.00	6.93	-59	21.4
11:40	7.12	100	18.73	1.990	0.00	6.93	-62	20.7
11:43	7.12	100	18.76	1.990	0.00	6.93	-62	20.1
11:46	7.12	100	18.79	1.990	0.00	6.93	-63	19.7
11:49	7.12	100	18.81	1.990	0.00	6.93	-63	19.2

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 78° F, Mostly Sunny
Date: 6/22/2017
Well ID: MW-4
Intake depth: Approx. 15 ft
DTW: 9.89
Vol Purged: 2.5
DTB: 17.70
Sampler: RH
Purge Start: 10:35
Purge End Time: 11:05
Purge Water Description: Clear, odor
Sample Time: 11:10

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:40	9.89	200	17.06	0.197	0.90	5.60	-10	15
10:45	9.89	200	17.00	0.197	0.98	5.50	-10	5.5
10:50	9.89	200	16.84	0.197	0.33	5.50	-12	5.6
10:55	9.89	200	16.66	0.198	0.18	5.48	-12	5.2
10:58	9.89	200	16.55	0.198	0.06	5.48	-12	5.8
11:01	9.89	200	16.59	0.197	0.00	5.49	-12	3.9
11:04	9.89	200	16.59	0.196	0.00	5.48	-13	3.7

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 83° F, Sunny
Date: 6/22/2017
Well ID: MW-7
Intake depth: Approx. 6'
DTW: 2.18
Vol Purged: 0.2
DTB: 6.25
Sampler: RH
Purge Start: 12:55
Purge End Time: 12:59
Purge Water Description: turbid
Sample time: 12:55
Parameters not accurate; not enough purge water to get reading from Horiba

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
12:58	5.63	100	18.24	1.30	6.68	4.72	241	248

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 73° F, Sunny
Date: 6/22/2017
Well ID: MW-10
Intake depth: Approx. 8'
DTW: 5.23
Vol Purged: .6 gal
DTB: 10.77
Sampler: AF
Purge Start: 8:47
Purge End Time: 9:11
Purge Water Description: Clear
Sample time 9:15
Duplicate Sample(DUP-062217-2 Time:0920)

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:50	5.23	100	20.09	21.2	4.40	7.08	86	31.8
8:53	5.23	100	20.35	21.4	4.04	6.93	87	20.4
8:56	5.23	100	20.42	21.4	4.01	6.93	89	13.2
8:59	5.23	100	20.49	21.4	3.97	6.94	90	7.1
9:02	5.23	100	20.53	21.5	3.94	6.94	91	5.9
9:05	5.23	100	20.55	21.5	3.91	6.94	92	5.2
9:08	5.23	100	20.57	21.5	3.88	6.94	92	4.3
9:11	5.23	100	20.59	21.5	3.89	6.94	92	4.2

SITE NAME:	Former Paragon Site	**Project Number:**	2051.0001Y002

Weather:	73°F, Sunny	Date:	6/22/2017
Well ID:	MW-11	Intake depth:	Approx. 20'
DTW:	5.64	Vol Purged:	0.8 gal
DTB:	23.95		
Sampler:	AF		
Purge Start:	8:00	Purge End Time:	8:30
Purge Water Description:	Clear		

Sample time: 8:35
MW-11-MS (Time: 8:40), MW-11-MSD (Time: 8:45)

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:03	6.81	100	17.48	3.56	1.89	7.09	101	147
8:06	6.96	100	17.47	3.47	1.03	7.18	64	97.3
8:09	6.99	100	17.49	3.48	0.46	7.27	31	89.2
8:12	7.00	100	17.51	3.47	0.11	7.36	26	77.1
8:15	7.02	100	17.51	3.47	0.00	7.42	19	53.9
8:18	7.03	100	17.51	3.46	0.00	7.44	-5	52.4
8:21	7.04	100	17.50	3.46	0.00	7.45	-7	46.3
8:24	7.04	100	17.47	3.45	0.00	7.45	-7	41.2
8:27	7.05	100	17.43	3.45	0.00	7.46	-8	40.7
8:30	7.03	100	17.44	3.45	0.00	7.46	-8	39.8

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 78°F, Mostly Sunny
Date: 6/22/2017
Well ID: MW-19
Intake depth: Approx. 5.4'
DTW: 2.24
Vol Purged: 1.5 gal
DTB: 5.95
Sampler: RH
Purge Start: 12:05
Purge End Time: 12:21
Purge Water Description: clear
Sample time: 12:30

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
12:10	2.55	200	16.05	0.991	0.00	6.96	-34	20.7
12:15	3.33	200	16.27	0.979	0.00	6.93	-44	49.6
12:18	4.00	200	16.31	0.981	0.00	6.93	-45	57.5
12:21	5.46	200	16.29	0.994	0.00	6.94	-48	49.7

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 76°F, Sunny
Date: 6/22/2017
Well ID: MW-21
Intake depth: Approx. 12'
DTW: 6.06
Vol Purged: 0.9 gal
DTB: 15.3
Sampler: AF
Purge Start: 9:33
Purge End Time: 10:00
Purge Water Description: Clear
Sample time: 10:00

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:36	6.17	125	21.10	2.97	2.76	7.14	109	52.7
9:39	6.19	125	20.22	2.62	1.31	7.02	96	33.4
9:42	6.21	125	20.14	2.59	0.44	6.83	83	19.6
9:45	6.23	125	19.96	2.59	0.11	6.81	74	13.8
9:48	6.24	125	19.91	2.58	0.00	6.80	71	13.1
9:51	6.24	125	19.83	2.58	0.00	6.80	68	12.6
9:54	6.24	125	19.80	2.58	0.00	6.79	67	12.4
9:57	6.25	125	19.79	2.58	0.00	6.79	66	12.0
10:00	6.25	125	19.77	2.58	0.00	6.79	66	11.9

SITE NAME:	Former Paragon Site	**Project Number:**	2051.0001Y002

Weather:	79°F, Sunny	Date:	6/22/2017
Well ID:	MW-33	Intake depth:	Approx. 10'
DTW:	6.19	Vol Purged:	1 gal
DTB:	13.23		
Sampler:	AF		
Purge Start:	10:41	Purge End Time:	11:08
Purge Water Description:	Clear		
	Sample time: 11:10		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:44	6.32	125	18.51	0.491	0.93	7.30	-37	35.5
10:47	6.40	125	18.53	0.491	0.12	7.18	-13	26.4
10:50	6.45	125	18.59	0.503	0.00	7.16	-2	24.8
10:53	6.47	125	18.64	0.507	0.00	7.16	3	21.7
10:56	6.49	125	18.68	0.509	0.00	7.15	5	20.9
10:59	6.50	125	18.71	0.510	0.00	7.15	5	18.2
11:02	6.51	125	18.74	0.510	0.00	7.15	6	17.3
11:05	6.52	125	18.74	0.510	0.00	7.15	6	17.0
11:08	6.53	125	18.76	0.510	0.00	7.15	6	16.8

SITE NAME:	Former Paragon Site	**Project Number:**	2051.0001Y002
Weather:	79°F, Sunny	Date:	6/22/2017
Well ID:	MW-34	Intake depth:	Approx. 11'
DTW:	7.06	Vol Purged:	0.75 gal
DTB:	13.76		
Sampler:	AF		
Purge Start:	10:07	Purge End Time:	10:34
Purge Water Description:	Clear		
	Sample time: 10:35		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:10	7.32	150	20.04	2.78	1.46	6.70	-8	14.4
10:13	7.40	150	20.01	2.78	0.79	6.77	-26	12.3
10:16	7.41	100	19.82	2.77	0.15	6.78	-45	11.6
10:19	7.43	100	19.80	2.75	0.00	6.78	-48	10.4
10:22	7.44	100	19.77	2.75	0.00	6.79	-50	9.1
10:25	7.45	100	19.76	2.74	0.00	6.79	-52	8.6
10:28	7.46	100	19.74	2.74	0.00	6.79	-52	7.1
10:31	7.47	100	19.73	2.74	0.00	6.79	-52	6.8
10:34	7.47	100	19.70	2.74	0.00	6.79	-52	6.5

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 84°F, Sunny
Date: 6/22/2017
Well ID: MW-38
Intake depth: past screen
DTW: 2.41
Vol Purged: 2 gal
DTB: 5.25
Sampler: MS
Purge Start: 12:00
Purge End Time: 12:30
Purge Water Description: clear
Sample time 12:30
YSI 11:50 temp: 16.31, cond: 4800, DO: 0.33, pH: 6.19, ORP: 176.1

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
12:00	2.41	100	17.66	2.87	0.47	6.42	8	226.0
12:03	2.41	100	17.63	2.59	0.00	6.43	1	111.0
12:06	2.41	100	17.65	2.48	0.00	6.46	-9	82.4
12:09	2.41	100	17.65	2.37	0.00	6.49	-22	65.5
12:12	2.41	100	17.65	2.33	0.00	6.52	-31	49.5
12:15	2.41	100	17.62	2.33	0.00	6.53	-44	41.0
12:18	2.41	100	17.60	2.35	0.00	6.54	-49	40.9
12:21	2.41	100	17.58	2.36	0.00	6.54	-52	39.4
12:24	2.41	100	17.53	2.40	0.00	6.54	-56	40.2
12:27	2.41	100	17.49	2.43	0.00	6.55	-58	39.8
12:30	2.41	100	17.48	2.44	0.00	6.55	-59	39.6

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 89°9F, Sunny Date: 6/22/2017
Well ID: MW-40 Intake depth: past screen
DTW: 7.16 Vol Purged: Approx. 2 gal
DTB: 19
Sampler: MS
Purge Start: 11:15 Purge End Time: 11:45
Purge Water Description: clear
Sample time: 11:45
YSI 11:06 temp: 14.18, cond: 54.21, DO: 0.13, pH: 6.99, ORP: -44.3

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:15	7.16	100	15.02	10.1	2.61	6.70	-68	67.2
11:18	7.16	100	15.06	10.4	1.90	6.70	-72	49.1
11:21	7.16	100	15.11	10.5	1.44	6.70	-73	46.8
11:24	7.16	100	15.13	10.6	0.98	6.70	-73	42.1
11:27	7.16	100	15.05	10.8	0.73	6.71	-75	40.2
11:30	7.16	100	15.04	10.9	0.64	6.72	-76	37.0
11:33	7.16	100	15.00	11.0	0.60	6.72	-76	36.5
11:36	7.16	100	14.96	11.1	0.25	6.72	-77	36.1
11:39	7.16	100	14.93	11.1	0.33	6.73	-78	35.8
11:42	7.16	100	14.92	11.2	0.41	6.73	-78	35.6
11:45	7.16	100	14.92	11.2	0.40	6.73	-78	35.5

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 84°F, Sunny Date: 6/22/2017
Well ID: MW-41 Intake depth: past screen
DTW: 6.78 Vol Purged: Approx. 2 gal
DTB: 17.3
Sampler: MS
Purge Start: 10:35 Purge End Time: 11:05
Purge Water Description: light orange/brown to clear; no odor
Sample time: 11:05
YSI 10:30 temp: 13.31, cond: 5047, DO: 2.59, pH: 8.23, ORP: 183.9

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
10:35	6.78	100	15.41	2.41	4.13	6.96	18	800
10:38	6.78	100	15.23	2.60	3.75	6.86	12	660
10:41	6.78	100	15.17	3.01	2.87	6.60	-11	455
10:44	6.78	100	15.15	3.61	1.77	6.46	-31	384
10:47	6.78	100	15.14	4.03	1.15	6.42	-54	322
10:50	6.78	100	15.12	4.37	0.80	6.40	-61	330
10:53	6.78	100	15.09	4.75	0.41	6.56	-67	190
10:56	6.78	100	15.10	5.11	0.00	6.57	-79	163
10:59	6.78	100	15.09	5.14	0.00	6.58	-81	151
11:02	6.78	100	15.10	5.15	0.00	6.59	-82	154
11:05	6.78	100	15.09	5.15	0.00	6.60	-81	157

SITE NAME:	Former Paragon Site	**Project Number:**	2051.0001Y002
Weather:	84°F, Sunny	Date:	6/22/2017
Well ID:	MW-42	Intake depth:	past screen
DTW:	7.54	Vol Purged:	Approx. 2 gal
DTB:	11.08		
Sampler:	MS		
Purge Start:	9:50	Purge End Time:	10:15
Purge Water Description:	clear		

Sample time 10:15
YSI 9:40 temp: 13.53, cond: 647 µS/cm, DO: 4.0, pH:9.75, ORP= -84.1

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:50	7.54	100	14.66	0.915	0.00	7.94	-153	198.0
9:53	7.54	100	14.32	0.944	0.00	7.53	-156	69.8
9:56	7.54	100	14.29	0.941	0.00	7.44	-154	47.1
9:59	7.54	100	14.20	0.937	0.00	7.35	-152	31.1
10:02	7.54	100	14.15	0.933	0.00	7.23	-151	19.0
10:05	7.54	100	14.11	0.933	0.00	7.15	-146	14.5
10:08	7.54	100	14.07	0.933	0.00	7.11	-140	13.7
10:12	7.54	100	14.03	0.933	0.00	7.08	-138	13.0
10:15	7.54	100	14.02	0.933	0.00	7.07	-136	12.1

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather:	74°F, Mostly Sunny	Date:	6/22/2017
Well ID:	MW-43	Intake depth:	Approx. 18
DTW:	5.07	Vol Purged:	1.5 gal
DTB:	20.00		
Sampler:	RH		
Purge Start:	9:08	Purge End Time:	9:40
Purge Water Description:	Clear, no odor		
	Sample time: 9:40		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:10	5.19	200	16.54	0.632	9.24	8.32	224	7.4
9:15	5.19	200	16.71	0.635	8.60	8.39	212	7.5
9:20	5.19	200	16.80	0.636	7.72	8.38	207	7.5
9:25	5.19	200	16.88	0.635	7.69	8.37	200	7.5
9:30	5.19	200	16.82	0.642	7.19	8.06	191	7.6
9:33	5.19	200	16.86	0.648	6.32	8.51	184	7.2
9:36	5.19	200	16.96	0.650	6.31	8.60	181	7.1
9:39	5.19	200	16.96	0.646	6.09	8.55	179	6.6

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 84°F, Sunny
Date: 6/22/2017
Well ID: MW-44
Intake depth: Approx. 17'
DTW: 6.43
Vol Purged: Approx. 2 gal.
DTB: 19.10
Sampler: MS
Purge Start: 9:00
Purge End Time: 9:30
Purge Water Description: clear
Sample time: 9:30
YSI 8:55 temp: 14.34, cond: 11.79, DO: 0.24, pH: 11.86, ORP: 59.7

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
9:00	6.43	100	16.71	1.70	0.00	11.55	-16	16.5
9:03	6.43	100	16.74	1.70	0.00	11.53	-20	14.1
9:06	6.43	100	16.75	1.70	0.00	11.52	-25	15.0
9:09	6.43	100	16.76	1.70	0.00	11.52	-29	15.9
9:12	6.43	100	16.67	1.70	0.00	11.50	-33	16.1
9:15	6.43	100	16.67	1.69	0.00	11.50	-37	18.2
9:18	6.43	100	16.63	1.69	0.00	11.51	-41	21.4
9:21	6.43	100	16.59	1.69	0.00	11.51	-44	23.1
9:24	6.43	100	16.60	1.69	0.00	11.51	-50	25.1
9:27	6.43	100	16.61	1.69	0.00	11.51	-51	26.1
9:30	6.43	100	16.59	1.69	0.00	11.51	-52	20.9

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 70°F, Mostly Sunny
Date: 6/22/2017
Well ID: MW-45
Intake depth: approx. 12'
DTW: 6.02
Vol Purged: 3 gal
DTB: 18.30
Sampler: RH
Purge Start: 7:13
Purge End Time: 7:40
Purge Water Description: clear, no odor
Sample time: 7:40
DUP062217 collected at MW-45 @ 0745

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
7:15	6.02	200	18.23	--	0.00	11.78	240	23.4
7:20	6.02	200	17.82	1.10	0.00	12.42	167	17.0
7:25	6.02	200	17.74	1.12	0.00	12.52	132	17.4
7:30	6.02	200	17.71	1.19	0.00	12.49	118	15.4
7:33	6.02	200	17.66	1.16	0.00	12.43	105	20.2
7:36	6.02	200	17.68	1.17	0.00	12.35	101	19.6
7:39	6.02	200	17.70	1.18	0.00	12.32	100	17.8

SITE NAME:	Former Paragon Site	**Project Number:**	2051.0001Y002

Weather:	75°F, Mostly Sunny	Date:	6/22/2017
Well ID:	MW-46	Intake depth:	9 ft. bls
DTW:	4.94	Vol Purged:	3 gal
DTB:	19.00		
Sampler:	RH		
Purge Start:	8:10	Purge End Time:	8:40
Purge Water Description:	clear, no odor		

Sample time 8:40
MS/MSD collected @ MW-46; MS - 8:42; MSD - 8:44

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:15	4.94	200	15.78	0.750	0.00	7.55	151	13.4
8:20	4.96	200	16.00	0.769	0.00	7.59	126	12.3
8:25	4.96	200	16.09	0.768	0.00	7.60	119	10.6
8:30	4.95	200	16.41	0.759	0.00	7.60	93	10.0
8:33	4.95	200	16.62	0.761	0.00	7.60	88	12.2
8:36	4.95	200	16.72	0.754	0.00	7.60	85	14.8
8:39	4.95	200	16.77	0.752	0.00	7.59	85	14.0

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather: 84°F, Sunny
Date: 6/22/2017
Well ID: MW-47
Intake depth: Approx. 18'
DTW: 5.32
Vol Purged: Approx. 1 gal
DTB: 20.22
Sampler: MS
Purge Start: 8:15
Purge End Time: 8:50
Purge Water Description: clear
Sample time 8:50
YSI 8:00 temp: 15.14, cond: 1231, DO: 0.53, pH: 11.55, ORP: 83.6

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
8:15	5.32	100	17.17	1.75	0.30	11.41	11	19.9
8:18	5.32	100	17.34	1.74	0.31	11.41	-2	24.7
8:21	5.32	100	17.53	1.73	0.29	11.42	-21	28.5
8:24	5.32	100	17.56	1.74	0.05	11.43	-29	26.6
8:27	5.32	100	17.63	1.74	0.07	11.43	-36	27.1
8:30	5.32	100	17.70	1.74	0.00	11.44	-44	26.0
8:33	5.32	100	17.71	1.74	0.00	11.44	-46	27.7
8:36	5.32	100	17.72	1.74	0.00	11.44	-49	26.7
8:39	5.32	100	17.73	1.73	0.00	11.44	-50	27.3
8:41	5.32	100	17.74	1.74	0.00	11.44	-52	27.0
8:44	5.32	100	17.75	1.74	0.00	11.44	-53	27.5
8:47	5.32	100	17.76	1.73	0.00	11.44	-54	26.8
8:50	5.32	100	17.77	1.74	0.00	11.44	-55	27.0

SITE NAME: Former Paragon Site **Project Number:** 2051.0001Y002

Weather:	78°F, Mostly Sunny	Date:	6/22/2017
Well ID:	MW-48	Intake depth:	Approx. 13'
DTW:	9.8	Vol Purged:	2.5 gal
DTB:	18.14		
Sampler:	RH		
Purge Start:	11:15	Purge End Time:	11:45
Purge Water Description:	clear, slight odor Sample time: 11:40		

Time	DTW (ft bls) (+/- 0.3 ft)	Flow Rate (ml/Min)	Temp (Degree C) (+/- 3%)	Conductivity (mS/cm) (+/- 3%)	DO (mg/L) (+/- 10%)	pH (+/- 0.1 SU)	ORP (mV) (+/- 10)	Turbidity (NTU) (+/- 10%)
11:20	9.82	200	16.30	0.178	0.00	5.35	5	60.2
11:25	9.82	200	16.15	0.178	0.00	5.21	5	45.1
11:30	9.82	200	16.01	0.172	0.00	5.18	16	44.5
11:35	9.82	200	15.94	0.173	0.00	5.17	21	28.2
11:38	9.82	200	15.93	0.174	0.00	5.17	26	24.2
11:41	9.82	200	15.92	0.174	0.21	5.18	26	23.9
11:44	9.82	200	16.00	0.175	0.24	5.17	29	15.9

PLATE

1. VOCs and LNAPL Detected in Groundwater
   March 2017 to June 2017

MW-11	03/30/2017	03/30/2017 DUP	06/22/2017
Acetone	2.2 J	1.9 J	1.7 J
Benzene	1	1	0.55
T-Butylbenzene	4.4	4.5	4

MW-46	03/30/2017	06/22/2017
1,3,5-Trimethylbenzene (Mesitylene)	NS	2 J
Acetone	NS	4.2 J

MW-45	03/30/2017	06/22/2017	06/22/2017 DUP
1,3,5-Trimethylbenzene (Mesitylene)	**230**	**150**	**180**
Acetone	32	45	31
Benzene	0.78 J	ND	ND
Ethylbenzene	**39**	**22**	**22**
Isopropylbenzene (Cumene)	**51**	**38**	**41**
m,p-Xylene	**47**	**25**	**24**
N-Propylbenzene	**88**	**59**	**63**
O-Xylene (1,2-Dimethylbenzene)	**7.4**	**5.4 J**	**6.4 J**
Sec-Butylbenzene	**16**	**12**	**12**
T-Butylbenzene	4.8 J	3.9 J	4 J
Xylenes	**54**	**30 J**	**30 J**

MW-43	03/30/2017	06/22/2017
1,3,5-Trimethylbenzene (Mesitylene)	**78**	**7.1**
Acetone	28	7
Benzene	0.5 J	ND
Ethylbenzene	**6.8**	0.82 J
Isopropylbenzene (Cumene)	**13**	1.9 J
m,p-Xylene	**15**	1.7 J
N-Propylbenzene	**22**	2.9
O-Xylene (1,2-Dimethylbenzene)	**7.2**	0.87 J
Sec-Butylbenzene	**5.8**	0.83 J
T-Butylbenzene	2.4 J	ND
Xylenes	**22**	2.6 J

MW-47	03/30/2017	06/22/2017
1,3,5-Trimethylbenzene (Mesitylene)	**78**	**67**
Acetone	39	27
Benzene	0.66	0.42 J
Ethylbenzene	**15**	**9.4**
Isopropylbenzene (Cumene)	**16**	**13**
m,p-Xylene	**36**	**24**
Methyl Ethyl Ketone (2-Butanone)	ND	4.2 J
N-Propylbenzene	**23**	**20**
O-Xylene (1,2-Dimethylbenzene)	**20**	**14**
Sec-Butylbenzene	4.6	4.2 J
Styrene	1.1 J	ND
T-Butylbenzene	2 J	1.7 J
Toluene	2.9	2.2 J
Xylenes	**56**	**38**

MW-44	03/30/2017	06/22/2017
1,3,5-Trimethylbenzene (Mesitylene)	**81**	**42**
Acetone	**53**	**61**
Benzene	0.63	0.19 J
Ethylbenzene	**9.7**	3.2
Isopropylbenzene (Cumene)	**13**	**5.8**
m,p-Xylene	**30**	**9.5**
N-Propylbenzene	**19**	**9.6**
O-Xylene (1,2-Dimethylbenzene)	**22**	**8.8**
Sec-Butylbenzene	**6.2**	3.9
Styrene	1.1 J	ND
T-Butylbenzene	2.4 J	1.7 J
Tetrachloroethylene (PCE)	0.23 J	ND
Toluene	3.6	0.99 J
Xylenes	**52**	**18**

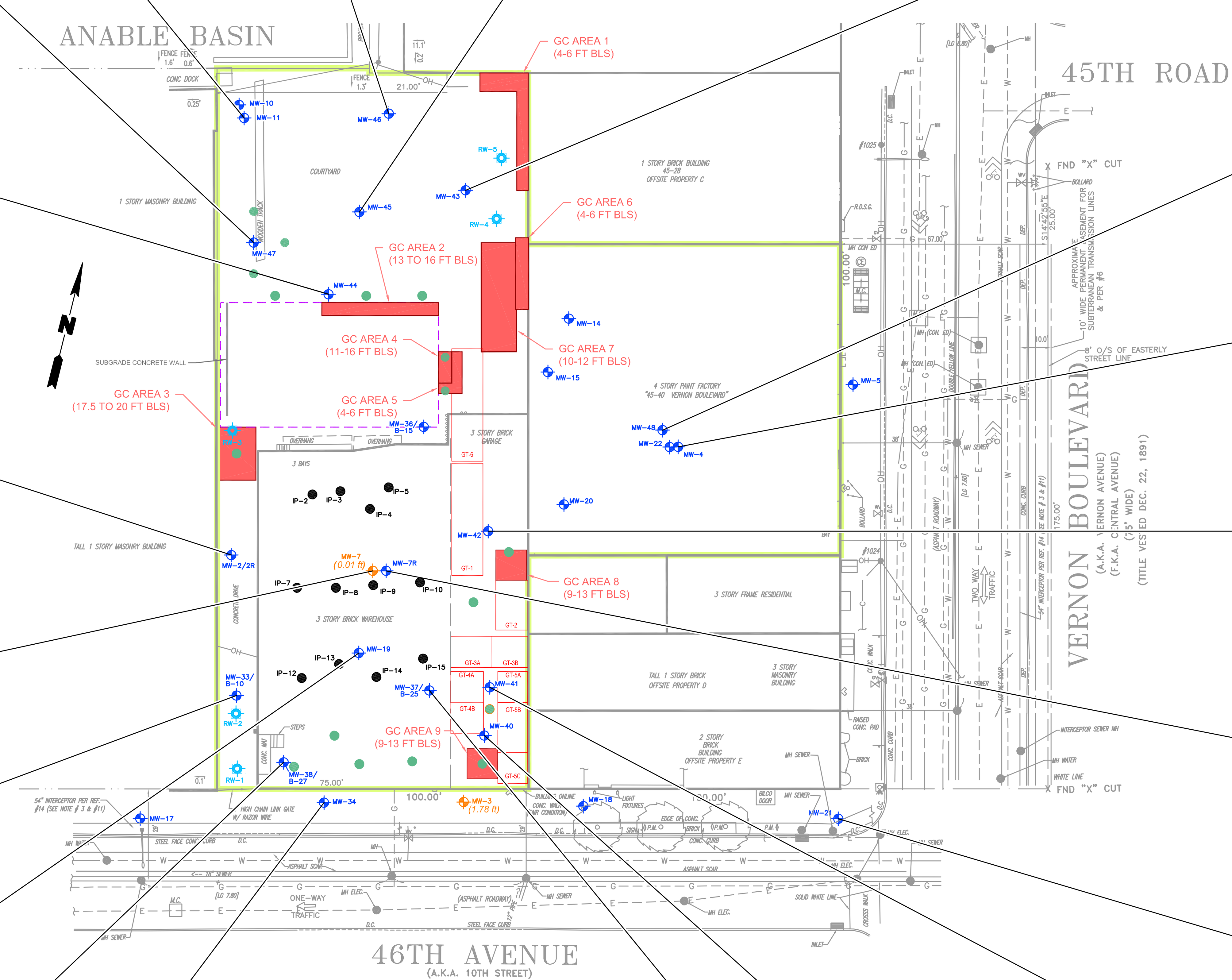
MW-2R	03/30/2017	06/22/2017
1,3,5-Trimethylbenzene (Mesitylene)	NS	**76**
Acetone	NS	6.2 J
Carbon Disulfide	NS	23
Ethylbenzene	NS	**5.4 J**
Isopropylbenzene (Cumene)	NS	**17**
m,p-Xylene	NS	**6.7**
Methyl Ethyl Ketone (2-Butanone)	NS	7.6 J
N-Propylbenzene	NS	**29**
O-Xylene (1,2-Dimethylbenzene)	NS	**5.2 J**
Sec-Butylbenzene	NS	**8.5**
T-Butylbenzene	NS	5 J
Xylenes	NS	**12 J**

MW-7	03/30/2017	06/22/2017
Carbon Disulfide	NS	8.6 J
Isopropylbenzene (Cumene)	NS	**19**
N-Propylbenzene	NS	**21**
Sec-Butylbenzene	NS	**23**
T-Butylbenzene	NS	**16**
Tetrachloroethylene (PCE)	NS	1.6 J

MW-33	03/30/2017	06/22/2017
Acetone	5.7 J	ND
Ethylbenzene	2.3 J	ND
Isopropylbenzene (Cumene)	4.2 J	0.87 J
Methyl Ethyl Ketone (2-Butanone)	9.9 J	ND
N-Propylbenzene	**8.2**	1.5 J
Sec-Butylbenzene	4.6 J	1.4 J
T-Butylbenzene	2.3 J	0.89 J

MW-19	03/30/2017	06/22/2017
Acetone	NS	8.8 J
Ethylbenzene	NS	3.4 J
Isopropylbenzene (Cumene)	NS	**23**
Methyl Ethyl Ketone (2-Butanone)	NS	5.4 J
N-Propylbenzene	NS	**36**
Sec-Butylbenzene	NS	**14**
T-Butylbenzene	NS	**8.6**

MW-38	03/30/2017	06/22/2017
Acetone	ND	**53**
Benzene	ND	0.43 J
Carbon Disulfide	ND	2.8 J
Chloroethane	ND	1.2 J
Isopropylbenzene (Cumene)	**36**	**24**
Methyl Ethyl Ketone (2-Butanone)	ND	16
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ND	1.7 J
N-Propylbenzene	**55**	**31**
Sec-Butylbenzene	**16**	**8.2**
T-Butylbenzene	**6.8**	4.2
Trichloroethylene (TCE)	ND	0.22 J



MW-48	03/30/2017	06/22/2017
1,3,5-Trimethylbenzene (Mesitylene)	0.92 J	2.8
Isopropylbenzene (Cumene)	2.6	1.9 J
N-Propylbenzene	2.4 J	2.1 J
Sec-Butylbenzene	4.3	3
T-Butylbenzene	3.1	1.8 J

MW-4	03/30/2017	06/22/2017
1,3,5-Trimethylbenzene (Mesitylene)	**14**	**14**
Ethylbenzene	1.6 J	1.7 J
Isopropylbenzene (Cumene)	**5.4**	**6.5**
m,p-Xylene	1.6 J	1.9 J
N-Propylbenzene	**5.8**	**7.6**
Sec-Butylbenzene	**6.6**	**6.7**
T-Butylbenzene	**7.3**	**5.7**
Xylenes	1.6 J	1.9 J

MW-42	03/30/2017	06/22/2017
Isopropylbenzene (Cumene)	0.73 J	ND
Sec-Butylbenzene	1.4 J	1.1 J
T-Butylbenzene	1.7 J	1.2 J

MW-7R	03/30/2017	06/22/2017
Isopropylbenzene (Cumene)	**14 J**	NS
N-Propylbenzene	**25**	NS
Sec-Butylbenzene	**12 J**	NS
T-Butylbenzene	**7 J**	NS

MW-21	03/30/2017	06/22/2017
Benzene	**1.4**	ND
Tetrachloroethylene (PCE)	ND	0.35 J

MW-34	03/30/2017	06/22/2017
1,3,5-Trimethylbenzene (Mesitylene)	0.94 J	0.86 J
Acetone	2.4 J	2.2 J
Benzene	0.5	0.23 J
Carbon Disulfide	ND	1.4 J
Isopropylbenzene (Cumene)	**18**	**23**
Methyl Ethyl Ketone (2-Butanone)	3 J	ND
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.2 J	ND
N-Propylbenzene	**25**	**32**
Sec-Butylbenzene	**13**	**14**
T-Butylbenzene	**7.2**	**6.6**

MW-37	03/30/2017	06/22/2017
Isopropylbenzene (Cumene)	**34**	NS
N-Propylbenzene	**68**	NS
Sec-Butylbenzene	**30**	NS
T-Butylbenzene	**8.8 J**	NS

MW-40	03/30/2017	06/22/2017
1,2-Dichloroethane	ND	**1.2**
1,2-Dichloropropane	ND	0.27 J
Acetone	2.3 J	**260**
Benzene	**9.3**	**5.8**
Carbon Disulfide	ND	4.6 J
Chloroethane	ND	4.2
Isopropylbenzene (Cumene)	**47**	**40**
m,p-Xylene	1 J	1.1 J
Methyl Ethyl Ketone (2-Butanone)	ND	39
Methylene Chloride	ND	1.5 J
N-Propylbenzene	**38**	**64**
O-Xylene (1,2-Dimethylbenzene)	0.72 J	0.79 J
Sec-Butylbenzene	**20**	**19**
T-Butylbenzene	**5.3**	4.2
Toluene	ND	0.72 J
Xylenes	1.7 J	1.9 J

MW-41	03/30/2017	06/22/2017
1,2-Dichloroethane	ND	**0.74**
1,2-Dichloropropane	ND	0.52 J
Acetone	ND	**96**
Benzene	0.62	0.43 J
Chloroethane	ND	2.8
Isopropylbenzene (Cumene)	2.5	1.1 J
Methylene Chloride	ND	1.2 J
N-Propylbenzene	3.1	1.3 J
Sec-Butylbenzene	3.9	1.7 J
T-Butylbenzene	2.4 J	1.3 J

LEGEND

- MW-5 — LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
- MW-3 — LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
- RW-1 — LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
- IP-2 — LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
- LOCATION OF FIRST ROUND ISCO INJECTION POINT
- (0.38 ft) — LNAPL THICKNESS
- GC AREA 1 (4-6 FT BLS) — DESIGNATION AND INFERRED HORIZONTAL AND VERTICAL LIMITS OF REMAINING GROSSLY CONTAMINATED MATERIAL BASED ON FIELD OBSERVATION AND RESULTS OF POST-EXCAVATION SAMPLING AND FIELD SCREENING
- ft — FEET
- LNAPL — LIGHT NON-AQUEOUS PHASE LIQUID
- ISCO — IN-SITU CHEMICAL OXIDATION
- CONCRETE VAULT
- PROPERTY BOUNDARY
- GT-6 — APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
- CONCRETE SLAB

TYPICAL DATA BOX INFORMATION

SAMPLE ID. → MW-11; SAMPLE DATE ← Mar-17

ANALYTES / CONCENTRATIONS (IN µg/L)

MW-11	Mar-17
Analyte	
Acetone	2.2 J
Benzene	1
T-Butylbenzene	4.4

PARAMETER	STANDARDS*
VOCs	
1,2-Dichloroethane	0.6
1,2-Dichloropropane	1
1,3,5-Trimethylbenzene (Mesitylene)	5
Acetone	50
Benzene	1
Carbon Disulfide	60
Chloroethane	5
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
m,p-Xylene	5
Methyl Ethyl Ketone (2-Butanone)	50
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	(3)
Methylene Chloride	5
N-Propylbenzene	5
O-Xylene (1,2-Dimethylbenzene)	5
Sec-Butylbenzene	5
Styrene	5
T-Butylbenzene	5
Tetrachloroethylene (PCE)	5
Toluene	5
Trichloroethylene (TCE)	5
Xylenes	5

CONCENTRATIONS IN µg/L

µg/L — MICROGRAMS PER LITER
* — NYSDEC AWQSGVs
NYSDEC — NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AWQSGVs — AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES
B — FOUND IN LABORATORY BLANK
D — DILUTION
DUP — DUPLICATE SAMPLE
E — EXCEEDS CALIBRATION LIMIT
J — ESTIMATED VALUE
VOCs — VOLATILE ORGANIC COMPOUND
ND — NO DETECTION
NS — NOT SAMPLED
BOLD — INDICATES THAT PARAMETER WAS DETECTED ABOVE THE NYSDEC AWQSGVS

30' 0 30'

NO.	DATE	REVISION DESCRIPTION	INT.

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REMEDIAL ENGINEERING, P.C.
209 Shafter Street
Islandia, New York 11749 (631) 232-2600

PROJECT NAME:
QUARTERLY MONITORING REPORT Q2 OF 2017
PARAGON PAINT AND VARNISH CORPORATION

PROJECT FOR:
VERNON 4540 REALTY LLC

TITLE:
VOCs AND LNAPL DETECTED IN GROUNDWATER MARCH 2017 TO JUNE 2017

DRAWING NO.
1

DRAWING 1 OF 1

V:\CAD\PROJECTS\2051\0001\Y247\2051.0001Y247.01.DWG

From: Christian Hoelzli
Sent: Wednesday, October 18, 2017 5:21 PM
To: 'Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)'
Cc: 'O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov)'; 'Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov)'; 'Brent Carrier (CRE Development) (bcarrier@credevelopment.com)'; 'mbogin@sprlaw.com'; Omar Ramotar; Richard Maxwell; Joe Duminuco; Charlie McGuckin; 'atill@simonbaron.com'; 'Robert Hendrickson'
Subject: Progress Report September 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (September 26, 2017).pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Routine Operation, Maintenance, and Reporting Activities:

On September 26, 2017, Roux Associates completed the quarterly gauging and sampling of the 21 monitoring wells included in the SMP monitoring network. If the presence of free-product was observed, the monitoring well was not sampled. The remaining monitoring wells within the network were sampled and analyzed for VOCs. In addition the five (5) recovery wells (RW-1 through RW-5) onsite and an additional nine (9) monitoring wells both onsite and offsite were gauged to determine the presence of LNAPL. The gauging of these additional monitoring wells has been performed monthly for the six (6) month period following Certificate of Completion issuance. A summary of the gauging data collected during the reporting period is provided in the attached table.

Trace free-product was present in on-site monitoring wells MW-7, MW-19, MW-34, MW-40 and MW-45; with free-product continuing to be present in off-site monitoring well MW-3. Absorbent socks were installed in these monitoring wells, with approximately 0.488 gallons of free-product absorbed in total from these monitoring wells based on the saturation of the sock absorbency. An additional 1.0 gallon of product was manually bailed from monitoring well MW-3, with the recovered product and saturated absorbent socks being temporarily stored on-Site in a 55-gallon drum until it is required to be disposed. These monitoring wells will continue to be gauged and monitored, with manual bailing and absorbent sock replacement implemented as necessary.

MW-14 and MW-15 went dry within minutes of purging and thus were unable to be sampled.

Due to the lack of free-product in the recovery wells (RW-1 to RW-5), Roux Associates has continued to pause the operation of the LNAPL recovery system until recoverable levels of product become present in the recovery system wells.

Sampling / Sample Results

During this reporting period, 15 groundwater samples were collected from the following monitoring wells:

- MW-2R
- MW-4
- MW-7R
- MW-10
- MW-11
- MW-21
- MW-33
- MW-38
- MW-41
- MW-42
- MW-43
- MW-44

- MW-46
- MW-47
- MW-48

The results of this quarterly sampling round will be presented and discussed in a Quarterly Status Report. This report will be submitted under separate cover in the upcoming reporting period (October 2017).

Planned Actions:

The following activities are scheduled for the next reporting period (October 1 through October 31, 2017):

- Preparation and submittal of quarterly status report;
- Continued monthly gauging of monitoring wells within the SMP monitoring network; and
- Continued monthly O&M of LNAPL recovery system (as necessary).

Work Plan Modifications

No modifications made to the Work Plan during this reporting period.

Please do not hesitate to contact me or Omar Ramotar with any questions or concerns.

Thank you,

Christian Hoelzli | Staff Engineer | Roux Associates, Inc.
209 Shafter Street, Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2477 | Mobile: 516.589.4604
Email: choelzli@rouxinc.com | Website: www.rouxinc.com

Summary of Water Level Elevations and LNAPL Thickness; September 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

Well ID	MPE (ft)	March 30, 2017				April 24, 2017				May 18, 2017				May 25, 2017				June 8, 2017				June 22, 2017			
		DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																									
MW-2R	9.23	4.31	4.32	4.92	0.01	--	7.28	1.95	--	--	6.53	2.70	--	--	6.72	2.51	--	--	7.05	2.18	--	--	6.95	2.28	--
MW-3	8.40	6.79	7.81	1.36	1.02	6.81	7.94	1.31	1.13	6.70	7.69	1.45	0.99	6.77	7.98	1.33	1.21	7.04	8.41	1.02	1.37	7.08	8.86	0.88	1.78
MW-4	11.57	--	9.7	1.87	--	--	9.72	1.85	--	--	9.38	2.19	--	--	9.5	2.07	--	--	9.77	1.80	--	--	9.79	1.78	--
MW-7	4.48	2.72	3.10	1.67	0.38	2.35	2.48	2.10	0.13	1.79	1.80	2.69	0.01	2.02	2.03	2.46	0.01	1.01	1.02	3.47	0.01	2.32	2.33	2.16	0.01
MW-7R	4.48	--	2.75	1.73	--	--	2.37	2.11	--	--	1.91	2.57	--	--	1.84	2.64	--	--	2.27	2.21	--	--	2.14	2.34	--
MW-10	7.82	--	5.91	1.91	--	--	5.36	2.46	--	--	7.66	0.16	--	--	4.70	3.12	--	--	5.82	2.00	--	--	6.40	1.42	--
MW-11	7.82	--	6.69	1.13	--	--	5.72	2.10	--	--	6.03	1.79	--	--	5.16	2.66	--	--	5.79	2.03	--	--	5.85	1.97	--
MW-14	11.63	--	6.37	5.26	--	--	9.57	2.06	--	--	9.01	2.62	--	--	9.21	2.42	--	--	9.56	2.07	--	--	9.33	2.30	--
MW-15	11.51	--	6.38	5.13	--	--	9.48	2.03	--	--	8.98	2.53	--	--	9.17	2.34	--	--	9.50	2.01	--	--	9.36	2.15	--
MW-17	8.78	--	6.64	2.14	--	--	6.21	2.57	--	5.68	5.69	3.10	0.01	--	5.74	3.04	--	--	6.08	2.70	--	--	6.18	2.60	--
MW-18	8.40	--	6.77	1.63	--	--	6.76	1.64	--	--	6.54	1.86	--	--	6.60	1.80	--	--	6.96	1.44	--	--	7.06	1.34	--
MW-19	4.41	2.82	2.9	1.57	0.08	--	2.37	2.04	--	1.93	1.94	2.48	0.01	--	1.79	2.62	--	--	2.17	2.24	--	--	2.24	2.17	--
MW-20	11.69	--	9.81	1.88	--	--	9.85	1.84	--	--	9.48	2.21	--	--	9.61	2.08	--	--	9.89	1.80	--	--	9.88	1.81	--
MW-21	8.17	--	5.89	2.28	--	--	6.01	2.16	--	--	5.80	2.37	--	--	5.74	2.43	--	--	6.26	1.91	--	--	6.03	2.14	--
MW-22	11.63	--	9.74	1.89	--	--	9.78	1.85	--	--	9.44	2.19	--	--	9.54	2.09	--	--	9.80	1.83	--	--	9.81	1.82	--
MW-33	9.49	--	7.00	2.49	--	--	6.79	2.7	--	--	5.95	3.54	--	--	6.18	3.31	--	--	6.79	2.70	--	--	6.19	3.30	--
MW-34	8.30	--	7.03	1.27	--	--	6.69	1.61	--	--	6.29	2.01	--	--	6.67	1.63	--	--	6.84	1.46	--	--	7.07	1.23	--
MW-36	9.11	--	6.47	2.64	--	--	6.69	2.42	--	--	5.91	3.20	--	--	5.82	3.29	--	--	6.53	2.58	--	--	6.19	2.92	--
MW-37	4.45	--	2.64	1.81	--	--	2.28	2.17	--	--	1.95	2.50	--	--	1.84	2.61	--	--	2.04	2.41	--	--	2.30	2.15	--
MW-38	4.44	--	2.83	1.61	--	--	2.32	2.12	--	--	1.98	2.46	--	--	1.98	2.46	--	--	2.26	2.18	--	--	2.41	2.03	--
MW-40	8.49	--	6.98	1.51	--	--	6.81	1.68	--	--	6.36	2.13	--	--	6.50	1.99	--	--	7.09	1.40	--	--	7.16	1.33	--
MW-41	8.51	--	6.75	1.76	--	--	6.30	2.21	--	--	6.02	2.49	--	--	6.17	2.34	--	--	6.52	1.99	--	--	6.78	1.73	--
MW-42	9.37	--	7.60	1.77	--	--	7.33	2.04	--	--	NM	NM	--	--	7.14	2.23	--	--	7.40	1.97	--	--	7.54	1.83	--
MW-43	7.81	--	5.71	2.1	--	--	5.78	2.03	--	--	4.99	2.82	--	--	5.19	2.62	--	--	5.57	2.24	--	--	5.19	2.62	--
MW-44	9.15	--	6.95	2.2	--	--	7.05	2.10	--	--	6.20	2.95	--	--	6.46	2.69	--	--	6.85	2.3	--	--	6.43	2.72	--
MW-45	8.69	--	6.49	2.2	--	--	6.58	2.11	--	--	5.71	2.98	--	--	5.99	2.70	--	--	6.40	2.29	--	--	5.84	2.85	--
MW-46	7.69	--	5.52	2.17	--	--	5.60	2.09	--	--	4.70	2.99	--	--	5.01	2.68	--	--	5.39	2.30	--	--	4.96	2.73	--
MW-47	8.03	--	5.84	2.19	--	--	5.94	2.09	--	--	5.08	2.95	--	--	5.35	2.68	--	--	5.70	2.33	--	--	5.32	2.71	--
MW-48	11.43	--	9.47	1.96	--	--	9.55	1.88	--	--	9.19	2.24	--	--	9.32	2.11	--	--	9.89	1.54	--	--	9.53	1.90	--
Recovery Wells																									
RW-1	8.26	--	6.66	1.6	--	--	6.48	1.78	--	--	5.97	2.29	--	--	6.05	2.21	--	--	6.36	1.90	--	--	6.29	1.97	--
RW-2	9.81	--	7.02	2.79	--	--	6.77	3.04	--	--	6.25	3.56	--	--	6.39	3.42	--	--	6.66	3.15	--	--	6.79	3.02	--
RW-3	9.83	--	7.48	2.35	--	--	7.51	2.32	--	--	6.64	3.19	--	--	6.82	3.01	--	--	7.30	2.53	--	--	6.92	2.91	--
RW-4	10.2	--	7.69	2.51	--	--	7.82	2.38	--	--	6.95	3.25	--	--	7.24	2.96	--	--	7.62	2.58	--	--	7.70	2.50	--
RW-5	10.27	--	7.5	2.77	--	--	7.59	2.68	--	--	6.76	3.51	--	--	7.01	3.26	--	--	7.58	2.69	--	--	6.98	3.29	--

Notes:

LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NC - Not Calculated[12]
NM - Not Measured

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.

Summary of Water Level Elevations and LNAPL Thickness; September 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

Well ID	MPE (ft)	July 27, 2017				August 29, 2017				September 26, 2017			
		DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells													
MW-2R	9.23	6.92	6.94	2.31	0.02	--	6.69	2.54	--	--	7.78	1.45	--
MW-3	8.40	6.78	8.39	1.22	1.61	6.70	7.88	1.41	1.18	6.81	8.13	1.26	1.32
MW-4	11.57	--	9.76	1.81	--	--	9.39	2.18	--	--	9.98	1.59	--
MW-7	4.48	2.75	2.76	1.73	0.01	1.09	1.10	3.39	0.01	2.59	2.86	1.82	0.27
MW-7R	4.48	--	NM	NC	--	--	2.19	2.29	--	--	2.35	2.13	--
MW-10	7.82	--	NM	NC	--	--	5.79	2.03	--	--	8.36	-0.54	--
MW-11	7.82	--	NM	NC	--	--	5.71	2.11	--	--	6.68	1.14	--
MW-14	11.63	--	NM	NC	--	--	9.48	2.15	--	--	9.88	1.75	--
MW-15	11.51	--	NM	NC	--	--	9.46	2.05	--	--	9.74	1.77	--
MW-17	8.78	--	5.90	2.88	--	--	6.04	2.74	--	--	6.62	2.16	--
MW-18	8.40	--	NM	NC	--	--	6.87	1.53	--	--	6.85	1.55	--
MW-19	4.41	--	2.33	2.08	--	--	2.09	2.32	--	--	2.52	1.89	--
MW-20	11.69	--	NM	NC	--	--	9.82	1.87	--	--	10.06	1.63	--
MW-21	8.17	--	NM	NC	--	--	6.19	1.98	--	--	5.99	2.18	--
MW-22	11.63	--	NM	NC	--	--	9.79	1.84	--	--	10.01	1.62	--
MW-33	9.49	--	NM	NC	--	--	6.79	2.70	--	--	7.19	2.30	--
MW-34	8.30	--	NM	NC	--	--	6.83	1.47	--	7.04	7.15	1.23	0.11
MW-36	9.11	--	NM	NC	--	--	6.43	2.68	--	--	7.02	2.09	--
MW-37	4.45	--	NM	NC	--	--	1.99	2.46	--	--	2.71	1.74	--
MW-38	4.44	--	NM	NC	--	--	2.31	2.13	--	--	2.73	1.71	--
MW-40	8.49	--	NM	NC	--	--	6.98	1.51	--	7.02	7.04	1.47	0.02
MW-41	8.51	--	NM	NC	--	--	6.41	2.10	--	--	6.92	1.59	--
MW-42	9.37	--	NM	NC	--	--	7.29	2.08	--	--	7.57	1.80	--
MW-43	7.81	--	NM	NC	--	--	5.56	2.25	--	--	6.10	1.71	--
MW-44	9.15	--	NM	NC	--	--	6.80	2.35	--	--	7.38	1.77	--
MW-45	8.69	--	NM	NC	--	--	6.37	2.32	--	--	6.92	1.77	--
MW-46	7.69	--	NM	NC	--	--	5.33	2.36	--	--	5.99	1.70	--
MW-47	8.03	--	NM	NC	--	--	5.62	2.41	--	--	6.31	1.72	--
MW-48	11.43	--	NM	NC	--	--	9.69	1.74	--	--	9.77	1.66	--
Recovery Wells													
RW-1	8.26	--	6.24	2.02	--	--	6.07	2.19	--	--	6.87	1.39	--
RW-2	9.81	--	6.52	3.29	--	--	6.38	3.43	--	--	7.16	2.65	--
RW-3	9.83	--	7.01	2.82	--	--	6.80	3.03	--	--	7.99	1.84	--
RW-4	10.2	--	7.31	2.89	--	--	7.30	2.90	--	--	8.19	2.01	--
RW-5	10.27	--	7.1	3.17	--	--	7.10	3.17	--	--	7.96	2.31	--

Notes:
LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NC - Not Calculated[12]
NM - Not Measured

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.

From: Christian Hoelzli
Sent: Friday, November 10, 2017 11:37 AM
To: 'Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)'
Cc: 'O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov)'; 'Perretta, Anthony C (HEALTH) (anthony.perretta@health.ny.gov)'; 'Brent Carrier (CRE Development) (bcarrier@credevelopment.com)'; 'mbogin@sprlaw.com'; Omar Ramotar; Joe Duminuco; 'atill@simonbaron.com'; Robert Hendrickson
Subject: Progress Report October 2017 - Former Paragon Paint (NYSDEC Site No. C241108)
Attachments: Water Level Elevations and LNAPL thickness (October 31, 2017).pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a periodic update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No. C241108).

Routine Operation, Maintenance, and Reporting Activities:

On October 31, 2017, the wells within the SMP sampling network were gauged. A summary of the gauging data collected during the reporting period is provided in the table attached.

Trace free-product was present in on-site monitoring well MW-7, with free-product continuing to be present in off-site monitoring well MW-3. Absorbent socks were installed in these monitoring wells, with approximately 0.422 gallons of free-product absorbed in total based on the saturation of the socks. An additional 0.125 gallons of product was manually bailed from MW-3, with the recovered product and saturated absorbent socks being temporarily stored on-Site in a 55-gallon drum until it is required to be disposed. These monitoring wells will continue to be gauged and monitored, with manual bailing and absorbent sock replacement implemented as necessary.

Due to the lack of free-product in the recovery wells (RW-1 to RW-5), Roux Associates has continued to pause the operation of the LNAPL recovery system until recoverable levels of product become present in the recovery wells.

Sampling/Sample Results:

No samples were collected during this reporting period.

Planned Actions:

The following activities are scheduled for the next reporting period (November 1 through November 30)

- Submittal of quarterly status report;
- Continued monthly gauging of monitoring wells within the SMP monitoring network; and
- Continued monthly O&M of LNAPL recovery system (as necessary).

As you are aware, per the previously submitted quarterly status report, additional ISCO is not planned due to its limited effectiveness at the Site. That said, Roux Associates is still waiting for a response to what was specifically conveyed in that report.

Work Plan Modifications:

No modifications made to the Work Plan during this reporting period.

Please contact myself or Omar Ramotar with any questions or concerns.

Thank you,

Christian Hoelzli | Staff Engineer | Roux Associates, Inc.
209 Shafter Street, Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2477 | Mobile: 516.589.4604
Email: choelzli@rouxinc.com | Website: www.rouxinc.com

Summary of Water Level Elevations and LNAPL Thickness; October 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

Well ID	MPE (ft)	March 30, 2017				April 24, 2017				May 18, 2017				May 25, 2017				June 8, 2017				June 22, 2017			
		DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																									
MW-2R	9.23	4.31	4.32	4.92	0.01	--	7.28	1.95	--	--	6.53	2.70	--	--	6.72	2.51	--	--	7.05	2.18	--	--	6.95	2.28	--
MW-3	8.40	6.79	7.81	1.36	1.02	6.81	7.94	1.31	1.13	6.70	7.69	1.45	0.99	6.77	7.98	1.33	1.21	7.04	8.41	1.02	1.37	7.08	8.86	0.88	1.78
MW-4	11.57	--	9.7	1.87	--	--	9.72	1.85	--	--	9.38	2.19	--	--	9.5	2.07	--	--	9.77	1.80	--	--	9.79	1.78	--
MW-7	4.48	2.72	3.10	1.67	0.38	2.35	2.48	2.10	0.13	1.79	1.80	2.69	0.01	2.02	2.03	2.46	0.01	1.01	1.02	3.47	0.01	2.32	2.33	2.16	0.01
MW-7R	4.48	--	2.75	1.73	--	--	2.37	2.11	--	--	1.91	2.57	--	--	1.84	2.64	--	--	2.27	2.21	--	--	2.14	2.34	--
MW-10	7.82	--	5.91	1.91	--	--	5.36	2.46	--	--	7.66	0.16	--	--	4.70	3.12	--	--	5.82	2.00	--	--	6.40	1.42	--
MW-11	7.82	--	6.69	1.13	--	--	5.72	2.10	--	--	6.03	1.79	--	--	5.16	2.66	--	--	5.79	2.03	--	--	5.85	1.97	--
MW-14	11.63	--	6.37	5.26	--	--	9.57	2.06	--	--	9.01	2.62	--	--	9.21	2.42	--	--	9.56	2.07	--	--	9.33	2.30	--
MW-15	11.51	--	6.38	5.13	--	--	9.48	2.03	--	--	8.98	2.53	--	--	9.17	2.34	--	--	9.50	2.01	--	--	9.36	2.15	--
MW-17	8.78	--	6.64	2.14	--	--	6.21	2.57	--	5.68	5.69	3.10	0.01	--	5.74	3.04	--	--	6.08	2.70	--	--	6.18	2.60	--
MW-18	8.40	--	6.77	1.63	--	--	6.76	1.64	--	--	6.54	1.86	--	--	6.60	1.80	--	--	6.96	1.44	--	--	7.06	1.34	--
MW-19	4.41	2.82	2.9	1.57	0.08	--	2.37	2.04	--	1.93	1.94	2.48	0.01	--	1.79	2.62	--	--	2.17	2.24	--	--	2.24	2.17	--
MW-20	11.69	--	9.81	1.88	--	--	9.85	1.84	--	--	9.48	2.21	--	--	9.61	2.08	--	--	9.89	1.80	--	--	9.88	1.81	--
MW-21	8.17	--	5.89	2.28	--	--	6.01	2.16	--	--	5.80	2.37	--	--	5.74	2.43	--	--	6.26	1.91	--	--	6.03	2.14	--
MW-22	11.63	--	9.74	1.89	--	--	9.78	1.85	--	--	9.44	2.19	--	--	9.54	2.09	--	--	9.80	1.83	--	--	9.81	1.82	--
MW-33	9.49	--	7.00	2.49	--	--	6.79	2.7	--	--	5.95	3.54	--	--	6.18	3.31	--	--	6.79	2.70	--	--	6.19	3.30	--
MW-34	8.30	--	7.03	1.27	--	--	6.69	1.61	--	--	6.29	2.01	--	--	6.67	1.63	--	--	6.84	1.46	--	--	7.07	1.23	--
MW-36	9.11	--	6.47	2.64	--	--	6.69	2.42	--	--	5.91	3.20	--	--	5.82	3.29	--	--	6.53	2.58	--	--	6.19	2.92	--
MW-37	4.45	--	2.64	1.81	--	--	2.28	2.17	--	--	1.95	2.50	--	--	1.84	2.61	--	--	2.04	2.41	--	--	2.30	2.15	--
MW-38	4.44	--	2.83	1.61	--	--	2.32	2.12	--	--	1.98	2.46	--	--	1.98	2.46	--	--	2.26	2.18	--	--	2.41	2.03	--
MW-40	8.49	--	6.98	1.51	--	--	6.81	1.68	--	--	6.36	2.13	--	--	6.50	1.99	--	--	7.09	1.40	--	--	7.16	1.33	--
MW-41	8.51	--	6.75	1.76	--	--	6.30	2.21	--	--	6.02	2.49	--	--	6.17	2.34	--	--	6.52	1.99	--	--	6.78	1.73	--
MW-42	9.37	--	7.60	1.77	--	--	7.33	2.04	--	--	NM	NM	--	--	7.14	2.23	--	--	7.40	1.97	--	--	7.54	1.83	--
MW-43	7.81	--	5.71	2.1	--	--	5.78	2.03	--	--	4.99	2.82	--	--	5.19	2.62	--	--	5.57	2.24	--	--	5.19	2.62	--
MW-44	9.15	--	6.95	2.2	--	--	7.05	2.10	--	--	6.20	2.95	--	--	6.46	2.69	--	--	6.85	2.3	--	--	6.43	2.72	--
MW-45	8.69	--	6.49	2.2	--	--	6.58	2.11	--	--	5.71	2.98	--	--	5.99	2.70	--	--	6.40	2.29	--	--	5.84	2.85	--
MW-46	7.69	--	5.52	2.17	--	--	5.60	2.09	--	--	4.70	2.99	--	--	5.01	2.68	--	--	5.39	2.30	--	--	4.96	2.73	--
MW-47	8.03	--	5.84	2.19	--	--	5.94	2.09	--	--	5.08	2.95	--	--	5.35	2.68	--	--	5.70	2.33	--	--	5.32	2.71	--
MW-48	11.43	--	9.47	1.96	--	--	9.55	1.88	--	--	9.19	2.24	--	--	9.32	2.11	--	--	9.89	1.54	--	--	9.53	1.90	--
Recovery Wells																									
RW-1	8.26	--	6.66	1.6	--	--	6.48	1.78	--	--	5.97	2.29	--	--	6.05	2.21	--	--	6.36	1.90	--	--	6.29	1.97	--
RW-2	9.81	--	7.02	2.79	--	--	6.77	3.04	--	--	6.25	3.56	--	--	6.39	3.42	--	--	6.66	3.15	--	--	6.79	3.02	--
RW-3	9.83	--	7.48	2.35	--	--	7.51	2.32	--	--	6.64	3.19	--	--	6.82	3.01	--	--	7.30	2.53	--	--	6.92	2.91	--
RW-4	10.2	--	7.69	2.51	--	--	7.82	2.38	--	--	6.95	3.25	--	--	7.24	2.96	--	--	7.62	2.58	--	--	7.70	2.50	--
RW-5	10.27	--	7.5	2.77	--	--	7.59	2.68	--	--	6.76	3.51	--	--	7.01	3.26	--	--	7.58	2.69	--	--	6.98	3.29	--

Notes:
LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
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NC - Not Calculated[12]
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1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.

Summary of Water Level Elevations and LNAPL Thickness; October 2017
Former Paragon Paint and Varnish Corp., Long Island City, New York

		July 27, 2017				August 29, 2017				September 26, 2017				October 31, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																	
MW-2R	9.23	6.92	6.94	2.31	0.02	--	6.69	2.54	--	--	7.78	1.45	--	--	6.78	2.45	--
MW-3	8.40	6.78	8.39	1.22	1.61	6.70	7.88	1.41	1.18	6.81	8.13	1.26	1.32	6.58	7.10	1.69	0.52
MW-4	11.57	--	9.76	1.81	--	--	9.39	2.18	--	--	9.98	1.59	--	--	9.25	2.32	--
MW-7	4.48	2.75	2.76	1.73	0.01	1.09	1.10	3.39	0.01	2.59	2.86	1.82	0.27	1.67	1.68	2.81	0.01
MW-7R	4.48	--	NM	NC	--	--	2.19	2.29	--	--	2.35	2.13	--	--	2.11	2.37	--
MW-10	7.82	--	NM	NC	--	--	5.79	2.03	--	--	8.36	-0.54	--	--	5.89	1.93	--
MW-11	7.82	--	NM	NC	--	--	5.71	2.11	--	--	6.68	1.14	--	--	5.85	1.97	--
MW-14	11.63	--	NM	NC	--	--	9.48	2.15	--	--	9.88	1.75	--	--	9.36	2.27	--
MW-15	11.51	--	NM	NC	--	--	9.46	2.05	--	--	9.74	1.77	--	--	9.30	2.21	--
MW-17	8.78	--	5.90	2.88	--	--	6.04	2.74	--	--	6.62	2.16	--	--	6.15	2.63	--
MW-18	8.40	--	NM	NC	--	--	6.87	1.53	--	--	6.85	1.55	--	--	6.91	1.49	--
MW-19	4.41	--	2.33	2.08	--	--	2.09	2.32	--	--	2.52	1.89	--	--	2.18	2.23	--
MW-20	11.69	--	NM	NC	--	--	9.82	1.87	--	--	10.06	1.63	--	--	9.80	1.89	--
MW-21	8.17	--	NM	NC	--	--	6.19	1.98	--	--	5.99	2.18	--	--	6.39	1.78	--
MW-22	11.63	--	NM	NC	--	--	9.79	1.84	--	--	10.01	1.62	--	--	9.83	1.80	--
MW-33	9.49	--	NM	NC	--	--	6.79	2.70	--	--	7.19	2.30	--	--	6.80	2.69	--
MW-34	8.30	--	NM	NC	--	--	6.83	1.47	--	7.04	7.15	1.23	0.11	--	6.84	1.46	--
MW-36	9.11	--	NM	NC	--	--	6.43	2.68	--	--	7.02	2.09	--	--	6.56	2.55	--
MW-37	4.45	--	NM	NC	--	--	1.99	2.46	--	--	2.71	1.74	--	--	2.02	2.43	--
MW-38	4.44	--	NM	NC	--	--	2.31	2.13	--	--	2.73	1.71	--	--	2.38	2.06	--
MW-40	8.49	--	NM	NC	--	--	6.98	1.51	--	7.02	7.04	1.47	0.02	--	7.09	1.40	--
MW-41	8.51	--	NM	NC	--	--	6.41	2.10	--	--	6.92	1.59	--	--	6.51	2.00	--
MW-42	9.37	--	NM	NC	--	--	7.29	2.08	--	--	7.57	1.80	--	--	7.37	2.00	--
MW-43	7.81	--	NM	NC	--	--	5.56	2.25	--	--	6.10	1.71	--	--	5.59	2.22	--
MW-44	9.15	--	NM	NC	--	--	6.80	2.35	--	--	7.38	1.77	--	--	6.85	2.30	--
MW-45	8.69	--	NM	NC	--	--	6.37	2.32	--	--	6.92	1.77	--	--	6.41	2.28	--
MW-46	7.69	--	NM	NC	--	--	5.33	2.36	--	--	5.99	1.70	--	--	5.38	2.31	--
MW-47	8.03	--	NM	NC	--	--	5.62	2.41	--	--	6.31	1.72	--	--	5.73	2.30	--
MW-48	11.43	--	NM	NC	--	--	9.69	1.74	--	--	9.77	1.66	--	--	9.79	1.64	--
Recovery Wells																	
RW-1	8.26	--	6.24	2.02	--	--	6.07	2.19	--	--	6.87	1.39	--	--	6.15	2.11	--
RW-2	9.81	--	6.52	3.29	--	--	6.38	3.43	--	--	7.16	2.65	--	--	6.42	3.39	--
RW-3	9.83	--	7.01	2.82	--	--	6.80	3.03	--	--	7.99	1.84	--	--	6.98	2.85	--
RW-4	10.2	--	7.31	2.89	--	--	7.30	2.90	--	--	8.19	2.01	--	--	7.47	2.73	--
RW-5	10.27	--	7.1	3.17	--	--	7.10	3.17	--	--	7.96	2.31	--	--	7.30	2.97	--

Notes:
LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NC - Not Calculated[12]
NM - Not Measured

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.

REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

209 SHAFTER STREET
ISLANDIA, NEW YORK 11749
TEL: 631-232-2600
FAX: 631 232-9898

December 1, 2017

Ms. Sondra Martinkat
Project Manager
Division of Environmental Remediation
New York State Department of Environmental Conservation
Region Two
47-40 21st Street
Long Island City, New York 11101

Re: Quarterly Inspection and Monitoring Report
July to September 2017
Paragon Paint and Varnish Corp., Long Island, New York, Site No. C241108

Dear Ms. Martinkat:

Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering), on behalf of CSC 4540 Property Co. LLC, have generated this quarterly inspection and monitoring report to summarize operation, maintenance and monitoring activities being performed at the Paragon Paint and Varnish Corp. located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard, Long Island City, Queens, New York (Site). The Site is currently under site management pursuant to Site Management Plan (SMP) approved by the New York State Department of Environmental Conservation (NYSDEC) in November 2016 under the NYSDEC Brownfield Cleanup Program (BCP), Site No. C241108. During this reporting period (July to September 2017), the composite cover system and institutional controls (ICs) were not modified. In addition, the following activities, as described herein, were specifically performed:

- Monthly operation and maintenance (O&M) of the Light Non-Aqueous Phase Liquid (LNAPL) recovery system (as necessary);
- Monthly gauging of SMP monitoring network to assess presence of LNAPL;
- Monthly LNAPL recovery using manual bailing techniques, where applicable, within SMP monitoring network;
- Quarterly monitoring (gauging and sampling) of Site monitoring wells; and
- ISCO treatment evaluations and recommendations were proposed in the previous Quarterly Inspection and Monitoring Report, dated August 23, 2017.

Site-Wide Inspection and O&M of the LNAPL Recovery System

Based on the lack of recoverable amounts of product identified during the previous reporting period, the operation and monthly maintenance of the LNAPL recovery system has been temporarily paused starting March 30, 2017 as documented in a prior monthly progress report to the NYSDEC.

Inspections of the Site and the system itself, while not operating, are included in Attachment 1. Monthly monitoring of the recovery wells (RW-1 through RW-5) was continued to confirm the lack of LNAPL. Gauging data generated during the reporting period for each recovery well is presented in tabular form in Attachment 2. If the presence of recoverable LNAPL returns at these recovery wells, operation of the LNAPL recovery system will resume.

Gauging and Manual LNAPL Recovery

To continue the ongoing assessment of measurable LNAPL in on-site and off-site monitoring and recovery wells, the SMP monitoring well network is gauged on a monthly basis. Additional monitoring wells outside this network were gauged periodically to determine the presence of LNAPL.

Consistent with the requirements of the SMP, LNAPL monitoring and manual recovery efforts will continue to be performed on a monthly basis at all recovery wells (RW-1 through RW-5) and monitoring wells (MW-3, MW-7, and MW-19) where LNAPL continued to be present throughout the entirety of the reporting period. As necessary, monitoring wells can be added or removed, when applicable, to this LNAPL assessment network.

If the presence of LNAPL in the monitoring wells was observed to be greater than trace amounts (i.e., >0.01'), the monitoring well was manually bailed or oil absorbent socks were installed. During the reporting period, a total of 3.41 gallons of LNAPL was recovered by bailing or by using oil absorbent socks or pads. Note, oil absorbent socks were replaced or installed at monitoring wells MW-2R, MW-3, MW-19, MW-34, MW-40, and MW-45 to facilitate removal of trace product at those locations.

All gauging and manual LNAPL recovery data generated during the reporting period is provided in tabular form in Attachment 3 with a more focused and condensed summary of monitoring wells with the presence of LNAPL provided below:

Monitoring Well ID	LNAPL Thickness Measurements			LNAPL Recovered	
	July 2017 (1 event)	August 2017 (1 event)	September 2017 (1 event)	Absorbent Sock/ Pad ***	Manual Bailing
MW-2R*	0.02 feet	0.0 feet	0.0 feet	0 gallons	0.1 gallons
MW-3* (Off-Site)	1.61 feet	1.18 feet	1.32 feet	0.26 gallons	2.75 gallons
MW-7**	0.01 feet (trace)	0.01 feet (trace)	0.27 feet	0.10 gallons	0.20 gallons
MW-34* (off-Site)	Not Measured	0.0 feet	0.11 feet	0 gallons	0 gallons
MW-40*	Not Measured	0.0 feet	0.02 feet	0 gallons	0 gallons

* - Absorbent sock was added, removed or changed out of the monitoring well during each gauging event.
** - Absorbent pad was utilized to remove trace product at monitoring well during July 2017 gauging event.
*** - LNAPL recovered was calculated based on percent-saturation of absorbent sock/ pad following removal.

Based on a review of the gauging and manual LNAPL recovery data generated during the reporting period, the following key observations and trends are provided below:

- The presence of LNAPL was noted at one point during the monitoring period at five (5) monitoring wells: MW-2R, MW-3, MW-7, MW-34, and MW-40.

- Based on the September 2017 gauging event, the presence of LNAPL is as follows:
  - Trace amounts of LNAPL is present at two (2) on-site locations (MW-7 [0.27 feet] and MW-40 [0.02 feet]).

  - LNAPL is present at two (2) off-site locations (MW-3 [1.32 feet] and MW-34 [0.11 feet]).

- LNAPL recovery noted at monitoring wells MW-2R and MW-42 was due to removal of oil absorbent sock installed during the previous reporting period. No LNAPL has been detected following removal of the oil absorbent socks.

- Manual bailing and installation of oil absorbent socks/ pads are effectively removing residual LNAPL at the on-site monitoring wells.

Based on the summary provided herein, manual bailing of LNAPL and the installation of oil absorbent socks at various monitoring wells highlighted herein continues to be effective. These LNAPL recovery techniques will continue to be utilized during the next quarter.

Groundwater Monitoring

Groundwater is monitored by a combination of gauging and sampling of groundwater monitoring wells within the SMP monitoring network. As discussed earlier, groundwater monitoring wells are gauged monthly to check for the presence of LNAPL and confirm thickness of LNAPL, if present. Site monitoring wells are then sampled on a quarterly basis to determine the presence of volatile organic compounds (VOCs), in particular the four Site-specific COCs: benzene, ethylbenzene, isopropylbenzene and total xylenes. The monitoring wells were sampled for Target Compound List (TCL) of VOCs using USEPA SW846 Method 8260.

Water/LNAPL level data was collected during the September 2017 gauging event (Attachment 3). If the presence of LNAPL was noted in a groundwater monitoring well, the product thickness was noted and the monitoring well was manually bailed to the extent practical. The respective LNAPL measurements collected from the September 2017 gauging round is highlighted on Figure 1.

On September 26, 2017, the required quarterly groundwater gauging and sampling round was performed. The current NYSDEC-approved monitoring well network consists of the following:

- Three off-site monitoring wells along the southern perimeter of the site (MW-3, MW-21, and MW-34); and

- 18 on-site monitoring wells (MW-2R, MW-4, MW-7, MW-10, MW-11, MW-15, MW-19, MW-33, MW-38, MW-40, MW-41, MW-42, MW-43, MW-44, MW-45, MW-46, MW-47, and MW-48).

For each event, if the presence of product was noted at a monitoring well to be sampled within the respective monitoring network, the monitoring well was not sampled. Instead of being sampled, LNAPL was manually recovered to the extent practical as noted above. For this monitoring round, four (4) of the twenty-one (21) monitoring wells within the NYSDEC-approved monitoring network were not sampled due to the continued presence of LNAPL (offsite wells MW-3 and MW-34, and onsite wells MW-7 and MW-40). Two (2) monitoring wells were not sampled due to the presence of LNAPL sheen during purging activities (MW-19 and MW-45). Another monitoring well was not sampled because it would continuously go “dry” during purging activities (MW-15) and would not yield enough water to sample. Because this occurred during the prior monitoring event, an attempt was made to sample nearby well MW-14; however, MW-14 was not sampled as it also could not yield enough water to sample. Moving forward, MW-15 will removed from the planned monitoring network.

Groundwater samples were collected using low-flow groundwater sampling procedures. The pump intake was set within the saturated portion of the well screen during purging and sampling activities. Prior to collecting groundwater samples, each monitoring well was purged at a flow rate of approximately 0.20 liters per minute (L/min). Flow rates were adjusted to maintain minimal drawdown in the well during purging activities. A portable water-quality meter, equipped with an in-line flow-through cell, was used to monitor water quality indicator parameters (pH, conductivity, DO, ORP, temperature, and turbidity). Groundwater quality measurements were collected every three to five minutes until the field parameters stabilized (Attachment 4).

Purging was considered complete when the field parameters had stabilized, after which groundwater samples were collected and submitted for TCL VOC analysis.

Groundwater Monitoring Results

The analytical results of the September 2017 quarterly groundwater monitoring event are summarized in Table 1 and presented in Figure 1. A review of the groundwater data generated during this reporting period indicated the following:

- **All groundwater exceedances were less than an order of magnitude above their respective AWQSGV.**
- The specific COC exceedances of AWQSGVs are noted below:
  - There were no benzene exceedances. Ethylbenzene results exceeded their respective AWQSGV of 5 μg/L at three (3) monitoring well locations (an estimated 5.9 μg/L at MW-43, 6 μg/L at MW-44, and 5.2 μg/L at MW-47).
  - Isopropylbenzene results exceeded their respective AWQSGV of 5 μg/L at 7 monitoring well locations. Exceedances ranged from 6.2 μg/L (MW-4) to 25 μg/L (MW-38).
  - Xylene results exceeded their respective AWQSGV of 5 μg/L at three (3) monitoring well locations (28 μg/L at MW-43, 28 μg/L at MW-44 and 22 μg/L at MW-47).

Modifications or Amendments to the SMP

No modifications or amendments to the SMP were implemented this reporting period.

Actions Planned for the Next Quarterly Reporting Period

The following actions are planned for the next reporting period:

- Continued monthly operation and maintenance of LNAPL recovery system (as necessary);
- Continued monthly gauging and manual LNAPL recovery of monitoring wells within the SMP monitoring network (as necessary);
- Continued use of alternative (i.e., oil absorbing socks), practical methods to supplement recovery of LNAPL at Site monitoring wells where manual recovery efforts become ineffective; and
- Continued discussion with the NYSDEC concerning Roux's recommendations regarding the elimination of further ISCO treatment at the Site, as proposed in the previous quarterly report.

Sincerely,

REMEDIAL ENGINEERING, P.C.

Omar Ramotar, P.E.
Principal Engineer

Christian Hoelzli
Staff Engineer

Attachments

cc: Jane O'Connell, NYSDEC
Andrew Till, Simon Baron Development
Robert Hendrickson, Quadrum Global
Lawrence Schnapf, Esq., Schnapf LLC
Joseph Duminuco, Roux Associates, Inc.
Glenn Netuschil, P.E., Remedial Engineering, P.C.

TABLE

1. Summary of Volatile Organic Compounds in Groundwater

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-2R	MW-2R	MW-4	MW-4	MW-4	MW-4	MW-5
		Sample Date:	06/22/2017	09/26/2017	03/30/2017	06/22/2017	09/26/2017	09/26/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	3.8 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	5 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**76**	**39**	**14**	**14**	**8.2**	**6.8**	2.5 U
1,3-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	620 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	12 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	6.2 J	7.6	5 U	5 U	4.1 J	3.9 J	5 U
Benzene	**1**	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	5 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	23	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-2R	MW-2R	MW-4	MW-4	MW-4	MW-4	MW-5
		Sample Date:	06/22/2017	09/26/2017	03/30/2017	06/22/2017	09/26/2017	09/26/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	12 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**5.4 J**	2.5 U	1.6 J	1.7 J	0.89 J	0.73 J	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**17**	**11**	**5.4**	**6.5**	**6.9**	**6.2**	2.5 U
m,p-Xylene	**5**	UG/L	**6.7**	1.1 J	1.6 J	1.9 J	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	7.6 J	3.3 J	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	12 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**29**	**18**	**5.8**	**7.6**	**5.8**	4.9	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**5.2 J**	0.73 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**8.5**	4.9	**6.6**	**6.7**	**11**	**10**	2.5 U
Styrene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	5 J	3	**7.3**	**5.7**	**8.6**	**8.4**	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	**12 J**	1.8 J	1.6 J	1.9 J	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-7	MW-7R	MW-7R	MW-7R	MW-10	MW-10	MW-10
		Sample Date:	06/22/2017	09/08/2016	03/30/2017	09/26/2017	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	7.5 U	1.5 U	15 U	6 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	10 U	2 U	20 U	8 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	5 U	1 U	10 U	4 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	1200 U	250 U	2500 U	1000 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	25 U	5 U	50 U	20 U	5 U	5 U	5 U
Acetone	**50**	UG/L	25 U	14	50 U	19 J	5 U	5 U	5 U
Benzene	**1**	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	10 U	2 U	20 U	8 U	2 U	2 U	2 U
Bromomethane	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	8.6 J	5 U	50 U	20 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-7	MW-7R	MW-7R	MW-7R	MW-10	MW-10	MW-10
		Sample Date:	06/22/2017	09/08/2016	03/30/2017	09/26/2017	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	25 U	5 U	50 U	20 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**19**	**11**	**14 J**	**19**	2.5 U	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	25 U	5.5	50 U	20 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	25 U	5 U	50 U	20 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**21**	**19**	**25**	**34**	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**23**	**12**	**12 J**	**15**	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	**16**	**6**	**7 J**	**9.1 J**	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	1.6 J	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	12 U	0.99 J	25 U	10 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	2.5 U	0.5 U	5 U	2 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	5 U	1 U	10 U	4 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	12 U	2.5 U	25 U	10 U	2.5 U	2.5 U	2.5 U

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- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-10	MW-10	MW-11	MW-11	MW-11	MW-11	MW-11
		Sample Date:	06/22/2017	09/26/2017	09/08/2016	12/01/2016	03/30/2017	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	4.5 J	5 U	5 U	2.2 J	1.9 J	1.7 J
Benzene	**1**	UG/L	0.5 U	0.5 U	0.64	0.68	1	1	0.55
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-10	MW-10	MW-11	MW-11	MW-11	MW-11	MW-11
		Sample Date:	06/22/2017	09/26/2017	09/08/2016	12/01/2016	03/30/2017	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	4.7	4.1	4.4	4.5	4
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

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Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-11	MW-19	MW-19	MW-21	MW-21	MW-21	MW-21
		Sample Date:	09/26/2017	09/08/2016	06/22/2017	09/08/2016	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	3.8 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	5 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	2.5 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	**7**	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	620 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	12 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	4.1 J	5.6	8.8 J	5 U	5 U	5 U	5 U
Benzene	**1**	UG/L	0.5 U	0.46 J	1.2 U	0.5 U	0.5 U	0.5 U	**1.4**
Bromochloromethane	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	5 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	12 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-11	MW-19	MW-19	MW-21	MW-21	MW-21	MW-21
		Sample Date:	09/26/2017	09/08/2016	06/22/2017	09/08/2016	09/08/2016	12/01/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	12 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	3.4 J	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	**25**	**23**	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5	5.4 J	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	12 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	**33**	**36**	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	**23**	**14**	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	**5.1**	**13**	**8.6**	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.46 J	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	2.5 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-21	MW-33	MW-33	MW-33	MW-33	MW-34
		Sample Date:	06/22/2017	09/26/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	3 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	4 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	3	5 U	2.5 U	2.5 U	1.3 J
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	500 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	3.8 J	23	5.7 J	5 U	5.6	5 U
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.23 J	0.42 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	4 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-21	MW-21	MW-33	MW-33	MW-33	MW-33	MW-34
		Sample Date:	06/22/2017	09/26/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	0.76 J	2.3 J	2.5 U	1.3 J	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	1.3 J	4.2 J	0.87 J	4.2	**30**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	1.1 J	5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	3.2 J	9.9 J	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.2 J	**8.2**	1.5 J	**8.2**	**39**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	1.5 J	5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.6	4.6 J	1.4 J	**5.2**	**16**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	1.8 J	2.3 J	0.89 J	2.3 J	**7**
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.35 J	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	**1.2**	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1.2	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.6 J	5 U	2.5 U	2.5 U	2.5 U

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AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-34	MW-34	MW-34	MW-37	MW-37	MW-37	MW-38
		Sample Date:	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016	03/30/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	7.5 U	7.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	0.74 J	12 U	12 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	10 U	10 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	5 U	5 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	0.98 J	0.94 J	0.86 J	2.5 U	3.6 J	12 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	1200 U	1200 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	25 U	25 U	5 U
Acetone	**50**	UG/L	5 U	2.4 J	2.2 J	3.4 J	39	25 U	3.5 J
Benzene	**1**	UG/L	0.26 J	0.5	0.23 J	0.19 J	2.5 U	2.5 U	0.27 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	10 U	10 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	1.4 J	5 U	25 U	25 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-34	MW-34	MW-34	MW-37	MW-37	MW-37	MW-38
		Sample Date:	12/01/2016	03/30/2017	06/22/2017	09/08/2016	12/01/2016	03/30/2017	09/08/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	25 U	25 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**22**	**18**	**23**	**14**	**28**	**34**	**15**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	3 J	5 U	7.4	25 U	25 U	6.8
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	1.2 J	5 U	5 U	25 U	25 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
N-Propylbenzene	**5**	UG/L	**33**	**25**	**32**	**20**	**50**	**68**	**16**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**15**	**13**	**14**	**5.1**	**21**	**30**	5
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
T-Butylbenzene	**5**	UG/L	**6.9**	**7.2**	**6.6**	2.8	**7.1 J**	**8.8 J**	2.5
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	1.2 J	12 U	12 U	1 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	2.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	5 U	5 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	12 U	12 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
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Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-38	MW-38	MW-38	MW-38	MW-40	MW-40	MW-40
		Sample Date:	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.2**
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	0.27 J
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	1.6 J	5 U	**53**	12	2 J	2.3 J	**260**
Benzene	**1**	UG/L	0.28 J	0.5 U	0.43 J	0.62	**8.6**	**9.3**	**5.8**
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	2.8 J	5 U	5 U	5 U	4.6 J
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	1.2 J	2.5 U	2.5 U	2.5 U	4.2
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-38	MW-38	MW-38	MW-38	MW-40	MW-40	MW-40
		Sample Date:	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**26**	**36**	**24**	**25**	**44**	**47**	**40**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	1 J	1 J	1.1 J
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	16	5 U	5 U	5 U	39
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	1.7 J	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.5 J
N-Propylbenzene	**5**	UG/L	**34**	**55**	**31**	**34**	**69**	**38**	**64**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	0.78 J	0.72 J	0.79 J
Sec-Butylbenzene	**5**	UG/L	**11**	**16**	**8.2**	**14**	**16**	**20**	**19**
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	4.3	**6.8**	4.2	**5.4**	3.5	**5.3**	4.2
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	0.97 J	2.5 U	2.5 U	0.74 J	1.7 J	2.5 U	0.72 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.22 J	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	1.8 J	1.7 J	1.9 J

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-41	MW-41	MW-41	MW-41	MW-41	MW-42	MW-42
		Sample Date:	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017	09/08/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	**0.74**	0.48 J	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	0.52 J	0.29 J	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	5 U	5 U	**96**	10	5 U	5 U
Benzene	**1**	UG/L	0.26 J	0.5 U	0.62	0.43 J	0.62	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.8	0.76 J	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-41	MW-41	MW-41	MW-41	MW-41	MW-42	MW-42
		Sample Date:	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017	09/08/2016	03/30/2017
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	1.3 J	0.73 J	2.5	1.1 J	1.4 J	4.7	0.73 J
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	1.2 J	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	1.7 J	0.8 J	3.1	1.3 J	1.5 J	3.5	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.3 J	1.1 J	3.9	1.7 J	2.2 J	2.9	1.4 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	1.2 J	0.78 J	2.4 J	1.3 J	2.1 J	1.2 J	1.7 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
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FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-42	MW-42	MW-43	MW-43	MW-43	MW-43	MW-44
		Sample Date:	06/22/2017	09/26/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	3 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	4 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	**12**	**78**	**7.1**	**49**	**41**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	500 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Acetone	**50**	UG/L	5 U	2.5 J	7.4	28	7	**57**	**98**
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	0.5 J	0.5 U	0.69	1
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	4 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	10 U	5 U	1.3 J	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-42	MW-42	MW-43	MW-43	MW-43	MW-43	MW-44
		Sample Date:	06/22/2017	09/26/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**6.8**	0.82 J	**5.9**	**9.9**
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	1.4 J	**13**	1.9 J	**12**	**6.8**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	1.3 J	**15**	1.7 J	**18**	**24**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	10 U	5 U	9	12
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	10 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	1.9 J	**22**	2.9	**18**	**8.5**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	0.8 J	**7.2**	0.87 J	**10**	**17**
Sec-Butylbenzene	**5**	UG/L	1.1 J	2.5 U	2.5 U	**5.8**	0.83 J	4	1.8 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	1.2 J	1.2 J	2.5 U	2.4 J	2.5 U	2.1 J	1.2 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	1.3 J	3.8
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	2 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.1 J	**22**	2.6 J	**28**	**41**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-44	MW-44	MW-44	MW-45	MW-45	MW-45	MW-46
		Sample Date:	03/30/2017	06/22/2017	09/26/2017	03/30/2017	06/22/2017	06/22/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	3.8 U	7.5 U	7.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	5 U	10 U	10 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	2.5 U	5 U	5 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**81**	**42**	**57**	**230**	**150**	**180**	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	620 U	1200 U	1200 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	12 U	25 U	25 U	5 U
Acetone	**50**	UG/L	**53**	**61**	11	32	45	31	4.2 J
Benzene	**1**	UG/L	0.63	0.19 J	0.37 J	0.78 J	2.5 U	2.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	5 U	10 U	10 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	12 U	25 U	25 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-44	MW-44	MW-44	MW-45	MW-45	MW-45	MW-46
		Sample Date:	03/30/2017	06/22/2017	09/26/2017	03/30/2017	06/22/2017	06/22/2017	12/01/2016
		Normal or Field Duplicate:	N	N	N	N	N	FD	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	12 U	25 U	25 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Ethylbenzene	**5**	UG/L	**9.7**	3.2	**6**	**39**	**22**	**22**	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**13**	**5.8**	**9.3**	**51**	**38**	**41**	2.5 U
m,p-Xylene	**5**	UG/L	**30**	**9.5**	**15**	**47**	**25**	**24**	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	2.6 J	12 U	25 U	25 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	12 U	25 U	25 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
N-Propylbenzene	**5**	UG/L	**19**	**9.6**	**15**	**88**	**59**	**63**	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**22**	**8.8**	**13**	**7.4**	**5.4 J**	**6.4 J**	2.5 U
Sec-Butylbenzene	**5**	UG/L	**6.2**	3.9	4.2	**16**	**12**	**12**	2.5 U
Styrene	5	UG/L	1.1 J	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
T-Butylbenzene	**5**	UG/L	2.4 J	1.7 J	1.9 J	4.8 J	3.9 J	4 J	2.5 U
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.23 J	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
Toluene	5	UG/L	3.6	0.99 J	1.6 J	6.2 U	12 U	12 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	2.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	6.2 U	12 U	12 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	2.5 U	5 U	5 U	1 U
Xylenes	**5**	UG/L	**52**	**18**	**28**	**54**	**30 J**	**30 J**	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
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- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-46	MW-46	MW-46	MW-47	MW-47	MW-47	MW-47
		Sample Date:	03/30/2017	06/22/2017	09/26/2017	12/01/2016	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	4 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2 J	0.88 J	**40**	**41**	**78**	**67**
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	500 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	1.1 J	5 U	10 U
Acetone	**50**	UG/L	5 U	4.2 J	2.7 J	**110**	**110**	39	27
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	0.98	**1.1**	0.66	0.42 J
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	4 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	1.2 J	2.5 U	5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-46	MW-46	MW-46	MW-47	MW-47	MW-47	MW-47
		Sample Date:	03/30/2017	06/22/2017	09/26/2017	12/01/2016	12/01/2016	03/30/2017	06/22/2017
		Normal or Field Duplicate:	N	N	N	N	FD	N	N
Parameter	NYSDEC AWQSGVs	Units							
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**11**	**11**	**15**	**9.4**
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	**9.2**	**9.9**	**16**	**13**
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**24**	**25**	**36**	**24**
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	14	16	5 U	4.2 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	1.1 J	5 U	5 U	10 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	**13**	**14**	**23**	**20**
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	**14**	**15**	**20**	**14**
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.1 J	2.2 J	4.6	4.2 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1 J	5 U
T-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	2.5 U	0.95 J	0.99 J	2 J	1.7 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	3.8	4	2.9	2.2 J
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	**38**	**40**	**56**	**38**

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-47	MW-48	MW-48	MW-48	MW-48
		Sample Date:	09/26/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017
		Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units					
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**49**	2.2 J	0.92 J	2.8	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	13	5 U	5 U	5 U	3.9 J
Benzene	**1**	UG/L	0.31 J	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		Sample Designation:	MW-47	MW-48	MW-48	MW-48	MW-48
		Sample Date:	09/26/2017	12/01/2016	03/30/2017	06/22/2017	09/26/2017
		Normal or Field Duplicate:	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units					
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	**5.2**	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**9.1**	4	2.6	1.9 J	1.5 J
m,p-Xylene	**5**	UG/L	**13**	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	**15**	3.1	2.4 J	2.1 J	0.81 J
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	**8.6**	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	3.5	4.7	4.3	3	2.3 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	1.5 J	4.1	3.1	1.8 J	1.5 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	1.7 J	2.5 U	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	**22**	2.5 U	2.5 U	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

ATTACHMENTS

1. Site-Wide Inspection and Maintenance
2. Recovery Well Operating Logs
3. Monitoring Well Gauging Logs
4. 2017 Purge Logs

ATTACHMENT 1

Site-Wide Inspection and Maintenance

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Thursday, July 27, 2017**

Site Observations: Performed by (MS) on (7/27/2017)

Yes	**No**	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (7/27/2017)

Yes	**No**	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (7/27/2017)

Yes	**No**	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (7/27/2017)

Yes	**No**	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (7/27/2017)

Yes	**No**	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **7/27/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **Tuesday, August 29, 2017**

Site Observations: Performed by (MS) on (8/29/2017)

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: Performed by (MS) on (8/29/2017)

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: Performed by (MS) on (8/29/2017)

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: Performed by (MS) on (8/29/2017)

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : Performed by (MS) on (8/29/2017)

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**

Location: **5-49 46th Avenue, Long Island City, Queens, New York**

Inspector: **Michael Sarni**

Date: **8/29/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **Tuesday, September 26, 2017**

Site Observations: **Performed by (MS) on (9/26/2017)**

Yes	No	
[ ]	[X]	Have any Site improvements been made since last inspection?
[ ]	[X]	Has there been any maintenance activity impacting engineering controls?
[X]	[ ]	Are monitoring wells intact?
		-Include sketches or photos of observations (as necessary)

Inspection of RCA Cap: **Performed by (MS) on (9/26/2017)**

Yes	No	
[ ]	[X]	Underlying demarcation barrier exposed?
[X]	[ ]	Are soil caps sloped to allow for drainage away from the peak?

Inspection of Asphalt/Concrete Caps: **Performed by (MS) on (9/26/2017)**

Yes	No	
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
		-Include sketches or photos of observations (as necessary)

Inspection of Building Covers: **Performed by (MS) on (9/26/2017)**

Yes	No	
[X]	[ ]	Were all buildings inspected?
[ ]	[X]	Significant cracks observed?
[ ]	[X]	Other damage observed? If yes, refer to Page 2 for additional clarification.
[ ]	[X]	Any new slab penetrations observed? If yes, include description on page 2.
		-Include sketches or photos of observations (as necessary)

Inspection of LNAPL Recovery System : **Performed by (MS) on (9/26/2017)**

Yes	No	
[X]	[ ]	Were all five (5) Recovery wells intact?
[ ]	**[X]**	Were all five (5) AC Sipper reels operating properly? **See pg. 2**
[ ]	[X]	Were there any signs of corrosion on the 55 gallon drum?
[X]	[ ]	Were the fill alarm and spill alarms operating properly?
[X]	[ ]	Was the secondary containment pallet intact?
[X]	[ ]	Is the AC Sipper control panel intact?

ROUX ASSOCIATES, INC. / REMEDIAL ENGINEERING, P.C.

SITE-WIDE MONITORING, INSPECTION AND MAINTENANCE FORM

Client: **Vernon 4540 Realty LLC**
Location: **5-49 46th Avenue, Long Island City, Queens, New York**
Inspector: **Michael Sarni**
Date: **9/26/2017**

Site Observations

See pg. 1

Additional Comments or Clarification Where Corrective Actions May Be Required:

LNAPL Recovery system has been off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

ATTACHMENT 2

Recovery Well Operating Logs

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - July 27, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.24	--	
Recovery Well RW-2	N	--	6.52	--	
Recovery Well RW-3	N	--	7.01	--	
Recovery Well RW-4	N	--	7.31	--	
Recovery Well RW-5	N	--	7.10	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - August 29, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	Value	Unit			Comments
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.07	--	
Recovery Well RW-2	N	--	6.38	--	
Recovery Well RW-3	N	--	6.80	--	
Recovery Well RW-4	N	--	7.30	--	
Recovery Well RW-5	N	--	7.10	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum				3.3 Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

LNAPL Recovery System Monitoring Log Former Paragon Paint Varnish Corp - September 26, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Source of Reading	**Value**		**Unit**		**Comments**
Recovery Well Network -Presence of Product	Product Present?	DTP	DTW	FTP	
Recovery Well RW-1	N	--	6.87	--	
Recovery Well RW-2	N	--	7.16	--	
Recovery Well RW-3	N	--	7.99	--	
Recovery Well RW-4	N	--	8.19	--	
Recovery Well RW-5	N	--	7.96	--	
Product Volume in Recovery Drum					
0-55 gallons in Recovery Drum			3.3	Gallons	

Is the system operating within the acceptable conditions? N/A

If no, was the condition corrected and how?

LNAPL Recovery system has been shut off since March 30, 2017. Operation and maintenance activities will resume upon presence of LNAPL in recovery wells.

Form Completed By:

Michael Sarni

ATTACHMENT 3

Monitoring Well Gauging Logs

Groundwater Gauging Former Paragon Paint Varnish Corp - July 27, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Monitoring Well ID	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
7/27/2017	MW-2R*	6.92	6.94	4	0.02	0.10	1.70
7/27/2017	MW-3*	6.78	8.39	2	1.61	1.63	7.34
7/27/2017	MW-4	--	9.76	2	--	--	0.63
7/27/2017	MW-7	2.75	2.76	1	0.01	0.10	0.53
7/27/2017	MW-7R	NG	NG	2	NM		
7/27/2017	MW-10	NG	NG	2	NM		
7/27/2017	MW-11	NG	NG	2	NM		
7/27/2017	MW-14	NG	NG	2	NM		
7/27/2017	MW-15	NG	NG	2	NM		
7/27/2017	MW-17	--	5.90	4	--	--	
7/27/2017	MW-18	NG	NG	4	NM		
7/27/2017	MW-19	--	2.33	2	--	--	0.50
7/27/2017	MW-20	NG	NG	2	NM		
7/27/2017	MW-21	NG	NG	4	NM		
7/27/2017	MW-22	NG	NG	2	NM		0.58
7/27/2017	MW-33	NG	NG	2	NM		
7/27/2017	MW-34	NG	NG	4	NM		
7/27/2017	MW-36	NG	NG	4	NM		
7/27/2017	MW-37	NG	NG	2	NM		
7/27/2017	MW-38	NG	NG	2	NM		
7/27/2017	MW-40	NG	NG	2	NM		
7/27/2017	MW-41	NG	NG	2	NM		
7/27/2017	MW-42	NG	NG	2	NM		0.13
7/27/2017	MW-43	NG	NG	2	NM		
7/27/2017	MW-44	NG	NG	2	NM		
7/27/2017	MW-45	NG	NG	2	NM		0.53
7/27/2017	MW-46	NG	NG	2	NM		
7/27/2017	MW-47	NG	NG	2	NM		
7/27/2017	MW-48	NG	NG	2	NM		
						Total	**11.94**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable
NG - Not gauged

Groundwater Gauging Former Paragon Paint Varnish Corp - August 29, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Monitoring Well ID	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
8/29/2017	MW-2R	--	6.69	4	--	--	1.70
8/29/2017	MW-3*	6.70	7.88	2	1.18	0.38	7.72
8/29/2017	MW-4	--	9.39	2	--	--	0.63
8/29/2017	MW-7	1.09	1.10	1	0.01	0.10	0.63
8/29/2017	MW-7R	--	2.19	2	--	--	
8/29/2017	MW-10	--	5.77	2	--	--	
8/29/2017	MW-11	--	5.71	2	--	--	
8/29/2017	MW-14	--	9.48	2	--	--	
8/29/2017	MW-15	--	9.46	2	--	--	
8/29/2017	MW-17	--	6.09	4	--	--	
8/29/2017	MW-18	--	6.87	4	--	--	
8/29/2017	MW-19	--	2.09	2	--	--	0.50
8/29/2017	MW-20	--	9.82	2	--	--	
8/29/2017	MW-21	--	6.19	4	--	--	
8/29/2017	MW-22	--	9.79	2	--	--	0.58
8/29/2017	MW-33	--	6.79	2	--	--	
8/29/2017	MW-34	--	6.83	4	--	--	
8/29/2017	MW-36	--	6.43	4	--	--	
8/29/2017	MW-37	--	1.99	2	--	--	
8/29/2017	MW-38	--	2.31	2	--	--	
8/29/2017	MW-40	--	6.98	2	--	--	
8/29/2017	MW-41	--	6.41	2	--	--	
8/29/2017	MW-42	--	7.29	2	--	--	0.13
8/29/2017	MW-43	--	5.56	2	--	--	
8/29/2017	MW-44	--	6.80	2	--	--	
8/29/2017	MW-45	--	6.37	2	--	--	0.53
8/29/2017	MW-46	--	5.33	2	--	--	
8/29/2017	MW-47	--	5.62	2	--	--	
8/29/2017	MW-48	--	9.69	2	--	--	
						Total	**12.42**

Notes:

ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable
NG - Not gauged

Groundwater Gauging Former Paragon Paint Varnish Corp - September 26, 2017
5-43 to 5-49 46th Ave. and 45-38 to 45-40 Vernon Blvd.
Long Island City, New York, NYSDEC Site No. C241108

Date	Monitoring Well ID	Depth to Product (ft)	Depth to Water (ft)	Well Diameter (inch)	Product Thickness (ft)	Purged (g)	Cumulative (g)
9/26/2017	MW-2R	--	7.98	4	--	--	1.70
9/26/2017	MW-3*	6.81	8.13	2	1.32	1.00	8.72
9/26/2017	MW-4	--	9.98	2	--	--	0.63
9/26/2017	MW-7	2.59	2.86	1	0.27	0.10	0.73
9/26/2017	MW-7R	--	2.35	2	--	--	
9/26/2017	MW-10	--	8.36	2	--	--	
9/26/2017	MW-11	--	6.68	2	--	--	
9/26/2017	MW-14	--	9.88	2	--	--	
9/26/2017	MW-15	--	9.74	2	--	--	
9/26/2017	MW-17	--	6.62	4	--	--	
9/26/2017	MW-18	--	6.85	4	--	--	
9/26/2017	MW-19*	--	2.52	2	--	--	0.50
9/26/2017	MW-20	--	10.06	2	--	--	
9/26/2017	MW-21	--	5.99	4	--	--	
9/26/2017	MW-22	--	10.01	2	--	--	0.58
9/26/2017	MW-33	--	7.19	2	--	--	
9/26/2017	MW-34*	7.04	7.15	4	0.11	--	
9/26/2017	MW-36	--	7.02	4	--	--	
9/26/2017	MW-37	--	2.71	2	--	--	
9/26/2017	MW-38	--	2.73	2	--	--	
9/26/2017	MW-40*	7.02	7.04	2	0.02	--	
9/26/2017	MW-41	--	6.92	2	--	--	
9/26/2017	MW-42	--	7.57	2	--	--	0.13
9/26/2017	MW-43	--	6.1	2	--	--	
9/26/2017	MW-44	--	7.38	2	--	--	
9/26/2017	MW-45*	--	6.92	2	--	--	0.53
9/26/2017	MW-46	--	5.99	2	--	--	
9/26/2017	MW-47	--	6.31	2	--	--	
9/26/2017	MW-48	--	9.77	2	--	--	
						Total	**13.52**

Notes:
ft - Feet
g - Gallons
ND - Not detected
NM - Not measured
NA - Not applicable
NG - Not gauged

ATTACHMENT 4

2017 Purge Logs

Well Sampling Purge Log

Client:	Vernon 4540 Realty LLC	**Project Number:**	2051.0002Y000
Site Location:	5-49 46th Avenue, Long Island City, Queens, New York		

Well No:	MW-2R	Weather:	Sunny, Humid 58° F
Date:	9/26/2017	Purge Water Disposal:	55-gallon drum
Sampled By:	Rebecca Lowy	Well Diameter / Type:	4 inch PVC
Depth to Bottom (ft):	14.20	Water Column (ft):	6.42
Depth to Water(ft):	7.78	Volume of Water in Well (gal)	4.19
Depth to Product (ft):	--		

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging:	12:13	Purge Rate:	250 mL/min
End Purging:	12:34	Volume of Water Removed (gal):	1.50
Method of Purge:	Peristaltic Pump	Method of Sampling:	Low-Flow

Physical Appearance/ Comments: Cloudy, mild product odor, no sheen

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 12:40

Duplicate Sample:

Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
12:13	--	7.78	8.32	2.110	3.6	1.96	21.43	-165
12:16	--	7.95	7.76	2.120	4.5	1.00	20.82	-162
12:19	--	8.08	7.39	2.130	3.7	0.73	20.7	-167
12:22	--	8.29	7.12	2.120	3.5	0.63	20.77	-177
12:25	--	8.38	6.92	2.130	5.7	0.56	20.78	-178
12:28	--	8.52	6.79	2.130	4.0	0.52	20.79	-183
12:31	--	8.61	6.69	2.130	4.5	0.48	20.89	-187
12:34	--	8.69	6.62	2.090	5.2	0.46	20.73	-188
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End of Parameter Measurements

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC **Project Number:** 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-4 Weather: Cloudy 75° F

Date: 9/26/2017 Purge Water Disposal: 55-gallon drum

Sampled By: Alfredo Fernandez Well Diameter / Type: 2 inch PVC

Depth to Bottom (ft): 17.70 Water Column (ft): 7.72

Depth to Water(ft): 9.98 Volume of Water in Well (gal) 1.26

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 10:28 Purge Rate: 150 mL/min

End Purging: 10:58 Volume of Water Removed (gal): 1.25

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: Clear

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 11:00

Duplicate Sample: DUP-092617, 11:05 Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C^o**	**ORP** mV
10:31	--	10.82	7.11	0.244	8.9	2.63	17.67	-139
10:34	--	10.86	6.98	0.232	8.0	1.77	17.54	-140
10:37	--	10.91	6.75	0.215	7.4	1.04	17.46	-140
10:40	--	10.93	6.70	0.215	7.1	1.00	17.34	-140
10:43	--	10.95	6.66	0.215	6.7	0.97	17.22	-140
10:46	--	10.96	6.63	0.213	6.2	0.96	17.15	-140
10:49	--	10.96	6.61	0.212	6.1	0.94	17.11	-140
10:52	--	10.96	6.61	0.212	5.4	0.93	17.08	-140
10:55	--	10.97	6.61	0.212	5.2	0.91	17.06	-140
10:58	--	10.98	6.61	0.211	5.0	0.91	17.04	-140
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End of Parameter Measurements								

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC **Project Number:** 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-7R Weather: Cloudy 80° F

Date: 9/26/2017 Purge Water Disposal: 55-gallon drum

Sampled By: Alfredo Fernandez Well Diameter / Type: 2 inch PVC

Depth to Bottom (ft): 6.00 Water Column (ft): 3.65

Depth to Water(ft): 2.35 Volume of Water in Well (gal) 0.60

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 13:43 Purge Rate: 100

End Purging: 13:52 Volume of Water Removed (gal): 0.10

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: Well dry after 9 minutes of purge. Wait for Recharge and collected Sample. Very silty and Dark Gray

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 14:00

Duplicate Sample: Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
13:46	--	3.76	6.48	2.080	334.0	2.30	19.62	-22
13:49	--	4.32	6.24	2.190	402.0	0.66	18.77	-91
13:52	--	5.98	6.24	2.210	713.0	0.57	18.61	-97
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End of Parameter Measurements								

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC **Project Number:** 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-10 Weather: Cloudy 72° F

Date: 9/26/2017 Purge Water Disposal: 55-gallon drum

Sampled By: Christian Hoelzli Well Diameter / Type: 2 inch PVC

Depth to Bottom (ft): 10.70 Water Column (ft): 2.34

Depth to Water(ft): 8.36 Volume of Water in Well (gal) 0.38

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 09:28 Purge Rate: 175

End Purging: 10:00 Volume of Water Removed (gal): 2.00

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: Light grey at start, turns clear after 10 minutes

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 10:00

Duplicate Sample: Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C^o**	**ORP** mV
09:34	--	8.35	6.42	34.600	0.0	1.33	21.72	3
09:37	--	8.31	6.41	34.600	0.0	1.13	21.60	5
00:94	--	8.35	6.41	34.600	0.0	1.44	21.54	-24
09:43	--	8.33	6.44	34.600	0.0	1.35	21.45	-71
09:46	--	8.34	6.48	34.600	0.0	1.18	21.38	-115
09:49	--	8.20	6.50	34.500	0.0	1.27	21.48	-139
09:52	--	8.15	6.51	34.600	0.0	1.52	21.51	-145
09:55	--	8.12	6.51	34.500	0.0	1.53	21.52	-152
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	--							
End of Parameter Measurements								

Well Sampling Purge Log

Client:	Vernon 4540 Realty LLC	**Project Number:**	2051.0002Y000
Site Location:	5-49 46th Avenue, Long Island City, Queens, New York		
Well No:	MW-11	Weather:	Cloudy 72° F
Date:	9/26/2017	Purge Water Disposal:	55-gallon drum
Sampled By:	Christian Hoelzli	Well Diameter / Type:	2 inch PVC
Depth to Bottom (ft):	23.90	Water Column (ft):	17.22
Depth to Water(ft):	6.68	Volume of Water in Well (gal)	2.81
Depth to Product (ft):	--		

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging:	8:07	Purge Rate:	175 mL/min
End Purging:	9:00	Volume of Water Removed (gal):	2.50
Method of Purge:	Peristaltic Pump	Method of Sampling:	Low-Flow

Physical Appearance/ Comments: Clear, no odor

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 09:00

Duplicate Sample:

Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
08:13	--	8.37	7.30	2.930	--	7.41	21.30	-71
08:28	--	8.50	7.02	2.860	0.0	4.16	21.08	-53
08:34	--	9.10	7.37	2.860	0.0	5.03	20.57	-84
08:37	--	9.24	7.25	3.870	0.0	2.21	19.95	-116
08:40	--	9.18	7.13	5.630	0.0	1.13	19.72	-136
08:43	--	9.07	7.04	8.100	0.0	0.95	19.56	-148
08:46	--	9.02	7.01	8.700	0.0	0.16	19.31	-158
08:49	--	8.99	7.01	8.830	0.0	1.08	19.21	-161
08:52	--	8.99	7.01	8.880	0.0	1.05	19.08	-166
08:55	--	9.00	7.01	8.880	0.0	1.09	19.00	-169
End of Parameter Measurements								

Well Sampling Purge Log

Client:	Vernon 4540 Realty LLC	**Project Number:**	2051.0002Y000
Site Location:	5-49 46th Avenue, Long Island City, Queens, New York		
Well No:	MW-21	Weather:	Sunny 80° F
Date:	9/26/2017	Purge Water Disposal:	55-gallon drum
Sampled By:	Christian Hoelzli	Well Diameter / Type:	4 inch PVC
Depth to Bottom (ft):	15.03	Water Column (ft):	9.04
Depth to Water(ft):	5.99	Volume of Water in Well (gal)	5.90
Depth to Product (ft):	--		

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging:	12:20	Purge Rate:	150 mL/min
End Purging:	13:00	Volume of Water Removed (gal):	2.00
Method of Purge:	Peristaltic Pump	Method of Sampling:	Low-Flow

Physical Appearance/ Comments: Clear, no odor

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 13:00

Duplicate Sample:

Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
12:25	--	6.31	6.94	1.180	5.9	4.87	25.75	113
12:28	--	6.51	6.98	1.140	5.1	4.32	25.66	106
12:31	--	6.56	6.98	1.120	4.7	4.17	25.68	109
12:34	--	6.64	6.98	1.060	4.4	4.40	25.80	120
12:37	--	6.73	6.98	1.040	4.2	4.61	25.86	125
12:40	--	6.82	6.97	1.040	4.1	3.48	25.84	97
12:43	--	6.97	6.97	1.060	4.0	2.28	25.85	46
12:46	--	7.06	6.97	1.080	3.8	2.55	25.95	26
12:49	--	7.15	6.97	1.110	3.8	2.32	25.97	17
12:52	--	7.24	6.97	1.140	3.7	2.05	26.00	6
12:55	--	7.30	6.96	1.150	3.4	2.03	26.04	8
12:58	--	7.37	6.96	1.200	3.5	1.89	26.01	3
End of Parameter Measurements								

Well Sampling Purge Log

Client:	Vernon 4540 Realty LLC	**Project Number:**	2051.0002Y000
Site Location:	5-49 46th Avenue, Long Island City, Queens, New York		
Well No:	MW-33	Weather:	Sunny 85° F
Date:	9/26/2017	Purge Water Disposal:	55-gallon drum
Sampled By:	Rebecca Lowy	Well Diameter / Type:	4 inch PVC
Depth to Bottom (ft):	13.25	Water Column (ft):	6.06
Depth to Water(ft):	7.19	Volume of Water in Well (gal)	3.96
Depth to Product (ft):	--		

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging:	13:30	Purge Rate:	250 mL/min
End Purging:	13:42	Volume of Water Removed (gal):	2.00
Method of Purge:	Peristaltic Pump	Method of Sampling:	Low-Flow

Physical Appearance/ Comments: Clear, slight product odor

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 14:00

Duplicate Sample:

Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
13:30	--	7.20	7.15	1.060	5.8	1.92	24.88	-42
13:33	--	8.20	6.53	1.090	4.3	0.42	20.38	-133
13:36	--	8.50	6.44	1.090	5.2	0.38	20.82	-145
13:39	--	8.82	6.39	1.090	6.7	0.35	21.24	-151
13:42	--	9.08	6.35	1.090	6.3	0.33	21.60	-153
End of Parameter Measurements								

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC

Project Number: 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-38

Weather: Cloudy 80° F

Date: 9/26/2017

Purge Water Disposal: 55-gallon drum

Sampled By: Alfredo Fernandez

Well Diameter / Type: 2 inch PVC

Depth to Bottom (ft): 4.98

Water Column (ft): 2.25

Depth to Water(ft): 2.73

Volume of Water in Well (gal) 0.37

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 13:43

Purge Rate: 100 mL/min

End Purging: 13:52

Volume of Water Removed (gal): 0.75

Method of Purge: Peristaltic Pump

Method of Sampling: Low-Flow

Physical Appearance/ Comments: Dark gray at start, turns clear after 5 minutes

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 1340

Duplicate Sample:

Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
13:15	--	2.99	6.45	1.910	395.0	3.41	21.10	-12
13:18	--	3.02	6.24	1.860	63.6	1.36	21.03	-33
13:21	--	3.06	6.20	1.860	22.3	0.91	21	-58
13:24	--	3.09	6.17	1.850	17.5	0.82	20.96	-64
13:27	--	3.13	6.15	1.850	12.9	0.73	20.94	-77
13:30	--	3.17	6.14	1.850	11.3	0.66	20.91	-85
13:33	--	3.21	6.14	1.850	9.4	0.63	20.87	-93
13:36	--	3.25	6.14	1.840	8.9	0.61	20.85	-95
13:39	--	3.28	6.14	1.840	8.8	0.60	20.84	-96
	--							
	--							
End of Parameter Measurements								

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC **Project Number:** 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-41 Weather: Cloudy 71° F

Date: 9/26/2017 Purge Water Disposal: 55-gallon drum

Sampled By: Alfredo Fernandez Well Diameter / Type: 2 inch PVC

Depth to Bottom (ft): 10.38 Water Column (ft): 3.46

Depth to Water(ft): 6.92 Volume of Water in Well (gal) 0.56

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 09:01 Purge Rate: 150 mL/min

End Purging: 09:28 Volume of Water Removed (gal): 1.10

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: Clear

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 09:30

Duplicate Sample: Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C^o**	**ORP** mV
09:04	--	6.98	6.47	2.080	28.3	5.85	18.98	143
09:07	--	6.99	6.54	2.060	28.1	4.20	18.82	106
09:10	--	6.99	6.55	2.430	26.2	3.36	18.76	62
09:13	--	7.00	6.57	3.060	23.7	1.57	18.64	2.1
09:16	--	7.01	6.59	3.190	20.4	1.51	18.59	3
09:19	--	7.01	6.60	3.230	18.2	1.50	18.55	-5
09:22	--	7.02	6.61	3.260	16.1	1.44	18.47	-9
09:25	--	7.02	6.61	3.280	15.8	1.42	18.44	-10
09:28	--	7.02	6.62	3.300	15.7	1.42	18.40	-11
	--							
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End of Parameter Measurements								

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC **Project Number:** 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-42 Weather: Cloudy 71° F

Date: 9/26/2017 Purge Water Disposal: 55-gallon drum

Sampled By: Alfredo Fernandez Well Diameter / Type: 2 inch PVC

Depth to Bottom (ft): 11.19 Water Column (ft): 3.62

Depth to Water(ft): 7.57 Volume of Water in Well (gal) 0.59

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 09:34 Purge Rate: 175 mL/min

End Purging: 10:04 Volume of Water Removed (gal): 1.50

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: Clear

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 10:05

Duplicate Sample: Laboratory : Alpha Analytical

Field Measurements:

Time	DTP	DTW	pH	Conductivity	Turbidity	Dissolved O_2	Temperature	ORP
	ft	ft	SU	**mS/cm** - S/m	NTU	mg/L	**C°**	mV
09:37	--	7.62	6.82	0.953	13.4	3.04	18.17	-111
09:40	--	7.64	6.82	0.888	4.3	2.13	18.01	-139
09:43	--	7.67	6.82	0.879	3.1	1.47	17.98	-144
09:46	--	7.68	6.83	0.887	1.9	1.36	17.95	-147
09:49	--	7.68	6.84	0.887	1.2	1.33	17.93	-151
09:52	--	7.69	6.84	0.887	1.1	1.29	17.92	-155
09:55	--	7.69	6.86	0.887	0.9	1.26	17.89	-159
09:58	--	7.69	6.86	0.887	0.8	1.22	17.87	-162
10:01	--	7.70	6.86	0.887	0.9	1.20	17.85	-163
10:04	--	7.70	6.86	0.887	0.9	1.19	17.84	-164
	--							
End of Parameter Measurements								

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC **Project Number:** 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-43 Weather: Humid 80° F

Date: 9/26/2017 Purge Water Disposal: 55-gallon drum

Sampled By: Rebecca Lowy Well Diameter / Type: 4 inch PVC

Depth to Bottom (ft): 19.93 Water Column (ft): 13.83

Depth to Water(ft): 6.10 Volume of Water in Well (gal) 9.03

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 11:10 Purge Rate: 300 mL/min

End Purging: 11:28 Volume of Water Removed (gal): 2.50

Method of Purge: Peristaltic Pump Method of Sampling: Low-Flow

Physical Appearance/ Comments: Clear, no odor

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 11:40

Duplicate Sample: Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
11:10	--	6.10	9.48	1.780	1.9	1.86	20.88	-82
11:13	--	6.28	10.49	1.690	1.6	0.80	19.26	-129
11:16	--	6.34	10.61	1.610	2.0	0.59	18.95	-145
11:19	--	6.34	10.61	1.600	2.0	0.54	18.95	-147
11:22	--	6.38	10.59	1.600	2.4	0.48	19.01	-149
11:25	--	6.38	10.59	1.620	2.5	0.45	19.00	-150
11:28	--	6.34	10.59	1.620	2.7	0.44	18.94	-150
End of Parameter Measurements								

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC | **Project Number:** 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-44 | Weather: Foggy, Humid

Date: 9/26/2017 | Purge Water Disposal: 55-gallon drum

Sampled By: Rebecca Lowy | Well Diameter / Type: 4 inch PVC

Depth to Bottom (ft): 19.10 | Water Column (ft): 11.66

Depth to Water(ft): 7.44 | Volume of Water in Well (gal) 7.61

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 08:51 | Purge Rate: 250 mL/min

End Purging: 09:09 | Volume of Water Removed (gal): 2.00

Method of Purge: Peristaltic Pump | Method of Sampling: Low-Flow

Physical Appearance/ Comments: Clear, no odor

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 09:20

Duplicate Sample: | Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
08:51	--	7.44	10.73	1.740	4.1	2.86	19.67	-53
08:54	--	7.44	10.91	1.760	3.6	1.34	19.15	-68
08:57	--	7.43	10.98	1.760	3.6	0.90	19.26	-85
09:00	--	7.44	10.99	1.760	3.4	0.78	19.27	-96
09:03	--	7.45	11.00	1.760	2.8	0.70	19.29	-106
09:06	--	7.45	11.00	1.760	2.8	0.63	19.32	-114
09:09	--	7.40	11.00	1.760	2.1	0.59	19.35	-121
End of Parameter Measurements								

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC

Project Number: 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-46

Weather: Foggy, Humid 72° F

Date: 9/26/2017

Purge Water Disposal: 55-gallon drum

Sampled By: Rebecca Lowy

Well Diameter / Type: 4 inch PVC

Depth to Bottom (ft): 18.90

Water Column (ft): 12.91

Depth to Water(ft): 5.99

Volume of Water in Well (gal) 8.43

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 09:43

Purge Rate: 300 mL/min

End Purging: 10:04

Volume of Water Removed (gal): 2.50

Method of Purge: Peristaltic Pump

Method of Sampling: Low-Flow

Physical Appearance/ Comments: Clear, no odor

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 10:10

Duplicate Sample:

Laboratory : Alpha Analytical

Field Measurements:

Time	DTP	DTW	pH	Conductivity	Turbidity	Dissolved O_2	Temperature	ORP
	ft	ft	SU	**mS/cm** - S/m	NTU	mg/L	**C°**	mV
09:43	--	5.99	9.03	8.040	10.4	2.11	21.22	40
09:46	--	6.15	8.47	8.530	7.0	0.97	20.99	-151
09:49	--	6.20	8.12	8.800	6.6	0.71	20.96	-192
09:52	--	6.28	7.93	9.090	5.2	0.60	20.96	-209
09:55	--	6.32	7.84	9.130	4.8	0.56	20.93	-217
09:58	--	6.40	7.78	8.990	5.8	0.54	20.93	-221
10:01	--	6.48	7.63	9.200	4.3	0.56	20.23	-205
10:04	--	6.35	7.58	9.580	5.2	0.54	21.48	-207

Well Sampling Purge Log

Client:	Vernon 4540 Realty LLC	**Project Number:**	2051.0002Y000
Site Location:	5-49 46th Avenue, Long Island City, Queens, New York		
Well No:	MW-47	Weather:	Sunny, Clear
Date:	9/26/2017	Purge Water Disposal:	55-gallon drum
Sampled By:	Rebecca Lowy	Well Diameter / Type:	4 inch PVC
Depth to Bottom (ft):	20.50	Water Column (ft):	14.15
Depth to Water(ft):	6.35	Volume of Water in Well (gal)	9.24
Depth to Product (ft):	--		

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging:	07:57	Purge Rate:	350 mL/min
End Purging:	08:15	Volume of Water Removed (gal):	2.50
Method of Purge:	Peristaltic Pump	Method of Sampling:	Low-Flow

Physical Appearance/ Comments: Clear, no odor

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 08:20

Duplicate Sample:

Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
07:57	--	6.35	9.88	1.680	1.6	1.86	20.70	-54
08:00	--	6.35	10.71	1.710	1.3	1.17	20.39	-78
08:03	--	6.35	10.83	1.710	1.2	0.98	20.3	-91
08:06	--	6.35	10.87	1.680	1.3	0.88	20.23	-106
08:09	--	6.35	10.90	1.650	1.1	0.79	20.17	-116
08:12	--	6.35	10.89	1.650	1.1	0.72	20.09	-122
08:15	--	6.35	10.89	1.630	1.0	0.70	20.07	-130

End of Parameter Measurements

Well Sampling Purge Log

Client: Vernon 4540 Realty LLC | **Project Number:** 2051.0002Y000

Site Location: 5-49 46th Avenue, Long Island City, Queens, New York

Well No: MW-48 | Weather: Cloudy 71° F

Date: 9/26/2017 | Purge Water Disposal: 55-gallon drum

Sampled By: Alfredo Fernandez | Well Diameter / Type: 2 inch PVC

Depth to Bottom (ft): 18.17 | Water Column (ft): 8.40

Depth to Water(ft): 9.77 | Volume of Water in Well (gal) 1.37

Depth to Product (ft): --

well diameter:	1 in	2 in	4 in	6 in	8 in
gallons per foot:	0.041	0.163	0.653	1.469	2.611

Start Purging: 11:07 | Purge Rate: 125 mL/min

End Purging: 11:35 | Volume of Water Removed (gal): 1.00

Method of Purge: Peristaltic Pump | Method of Sampling: Low-Flow

Physical Appearance/ Comments: Light grey at start, turns clear after 10 minutes

Samples Collected: (analyses / no. bottles) TCL VOCs+ (8260):3 (40mL) VOAs (HCL)

Sample Time: 11:35

Duplicate Sample: | Laboratory : Alpha Analytical

Field Measurements:

Time	**DTP** ft	**DTW** ft	**pH** SU	**Conductivity** **mS/cm** - S/m	**Turbidity** NTU	**Dissolved O_2** mg/L	**Temperature** **C°**	**ORP** mV
11:10	--	10.69	6.47	0.172	87.4	3.11	17.45	-27
11:13	--	10.73	6.38	0.171	71.6	2.20	17.30	-27
11:14	--	10.73	6.36	0.171	56.9	2.03	17.24	-33
11:17	--	10.74	6.35	0.171	47.7	1.85	17.21	-39
11:20	--	10.75	6.35	0.171	42.3	1.66	17.20	-43
11:23	--	10.76	6.34	0.171	38.2	1.29	17.20	-48
11:26	--	10.76	6.34	0.171	31.5	1.10	17.18	-49
11:29	--	10.76	6.33	0.171	22.9	1.08	17.16	-51
11:32	--	10.76	6.32	0.171	20.7	1.02	17.16	-51
11:35	--	10.76	6.32	0.171	20.4	1.02	17.15	-52
	--							
End of Parameter Measurements								

PLATE

1. VOCs and LNAPL Detected in Groundwater
   March 2017 to June 2017

MW-11	09/08/2016	12/01/2016	03/30/2017	03/30/2017	06/22/2017	09/26/2017
COCs				DUP		
Benzene	0.64	0.68	1	1	0.55	0.5 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-10	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-46	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	NS	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	NS	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	NS	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	NS	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	NS	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	NS	2.5 U	2.5 U	2.5 U	2.5 U

MW-45	09/08/2016	12/01/2016	03/30/2017	06/22/2017	06/22/2017	09/26/2017
COCs					DUP	
Benzene	NS	NS	0.78 J	2.5 U	2.5 U	NS
Ethylbenzene	NS	NS	**39**	**22**	**22**	NS
Isopropylbenzene (Cumene)	NS	NS	**51**	**38**	**41**	NS
m,p-Xylene	NS	NS	**47**	**25**	**24**	NS
O-Xylene (1,2-Dimethylbenzene)	NS	NS	**7.4**	**5.4 J**	**6.4 J**	NS
Xylenes	NS	NS	**54**	**30 J**	**30 J**	NS

MW-47	09/08/2016	12/01/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs			DUP			
Benzene	NS	0.98	**1.1**	0.66	0.42 J	0.31 J
Ethylbenzene	NS	**11**	**11**	**15**	**9.4**	**5.2**
Isopropylbenzene (Cumene)	NS	**9.2**	**9.9**	**16**	**13**	**9.1**
m,p-Xylene	NS	**24**	**25**	**36**	**24**	**13**
O-Xylene (1,2-Dimethylbenzene)	NS	**14**	**15**	**20**	**14**	**8.6**
Xylenes	NS	**38**	**40**	**56**	**38**	**22**

MW-44	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	NS	1	0.63	0.19 J	0.37 J
Ethylbenzene	NS	**9.9**	**9.7**	3.2	**6**
Isopropylbenzene (Cumene)	NS	**6.8**	**13**	**5.8**	**9.3**
m,p-Xylene	NS	**24**	**30**	**9.5**	**15**
O-Xylene (1,2-Dimethylbenzene)	NS	**17**	**22**	**8.8**	**13**
Xylenes	NS	**41**	**52**	**18**	**28**

MW-7	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	NS	NS	NS	2.5 U	NS
Ethylbenzene	NS	NS	NS	12 U	NS
Isopropylbenzene (Cumene)	NS	NS	NS	**19**	NS
m,p-Xylene	NS	NS	NS	12 U	NS
O-Xylene (1,2-Dimethylbenzene)	NS	NS	NS	12 U	NS
Xylenes	NS	NS	NS	12 U	NS

MW-2R	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	NS	NS	NS	1.2 U	0.5 U
Ethylbenzene	NS	NS	NS	**5.4 J**	2.5 U
Isopropylbenzene (Cumene)	NS	NS	NS	**17**	**11**
m,p-Xylene	NS	NS	NS	**6.7**	1.1 J
O-Xylene (1,2-Dimethylbenzene)	NS	NS	NS	**5.2 J**	0.73 J
Xylenes	NS	NS	NS	**12 J**	1.8 J

MW-19	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.46 J	NS	NS	1.2 U	NS
Ethylbenzene	2.5 U	NS	NS	3.4 J	NS
Isopropylbenzene (Cumene)	**25**	NS	NS	**23**	NS
m,p-Xylene	2.5 U	NS	NS	6.2 U	NS
O-Xylene (1,2-Dimethylbenzene)	2.5 U	NS	NS	6.2 U	NS
Xylenes	2.5 U	NS	NS	6.2 U	NS

MW-33	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	NS	0.5 U	1 U	0.5 U	0.23 J
Ethylbenzene	NS	0.76 J	2.3 J	2.5 U	1.3 J
Isopropylbenzene (Cumene)	NS	1.3 J	4.2 J	0.87 J	4.2
m,p-Xylene	NS	1.1 J	5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	NS	1.5 J	5 U	2.5 U	2.5 U
Xylenes	NS	2.6 J	5 U	2.5 U	2.5 U

MW-38	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.27 J	0.28 J	0.5 U	0.43 J	0.62
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**15**	**26**	**36**	**24**	**25**
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-34	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.42 J	0.26 J	0.5	0.23 J	NS
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	NS
Isopropylbenzene (Cumene)	**30**	**22**	**18**	**23**	NS
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	NS
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	NS
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	NS

MW-37	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.19 J	2.5 U	2.5 U	NS	NS
Ethylbenzene	2.5 U	12 U	12 U	NS	NS
Isopropylbenzene (Cumene)	**14**	**28**	**34**	NS	NS
m,p-Xylene	2.5 U	12 U	12 U	NS	NS
O-Xylene (1,2-Dimethylbenzene)	2.5 U	12 U	12 U	NS	NS
Xylenes	2.5 U	12 U	12 U	NS	NS

MW-40	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	NS	**8.6**	**9.3**	**5.8**	NS
Ethylbenzene	NS	2.5 U	2.5 U	2.5 U	NS
Isopropylbenzene (Cumene)	NS	**44**	**47**	**40**	NS
m,p-Xylene	NS	1 J	1 J	1.1 J	NS
O-Xylene (1,2-Dimethylbenzene)	NS	0.78 J	0.72 J	0.79 J	NS
Xylenes	NS	1.8 J	1.7 J	1.9 J	NS

MW-43	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	NS	0.5 U	0.5 J	0.5 U	0.69
Ethylbenzene	NS	2.5 U	**6.8**	0.82 J	**5.9**
Isopropylbenzene (Cumene)	NS	1.4 J	**13**	1.9 J	**12**
m,p-Xylene	NS	1.3 J	**15**	1.7 J	**18**
O-Xylene (1,2-Dimethylbenzene)	NS	0.8 J	**7.2**	0.87 J	**10**
Xylenes	NS	2.1 J	**22**	2.6 J	**28**

MW-48	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	NS	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	NS	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	NS	4	2.6	1.9 J	1.5 J
m,p-Xylene	NS	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	NS	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	NS	2.5 U	2.5 U	2.5 U	2.5 U

MW-5	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.5 U	NS	NS	NS	NS
Ethylbenzene	2.5 U	NS	NS	NS	NS
Isopropylbenzene (Cumene)	2.5 U	NS	NS	NS	NS
m,p-Xylene	2.5 U	NS	NS	NS	NS
O-Xylene (1,2-Dimethylbenzene)	2.5 U	NS	NS	NS	NS
Xylenes	2.5 U	NS	NS	NS	NS

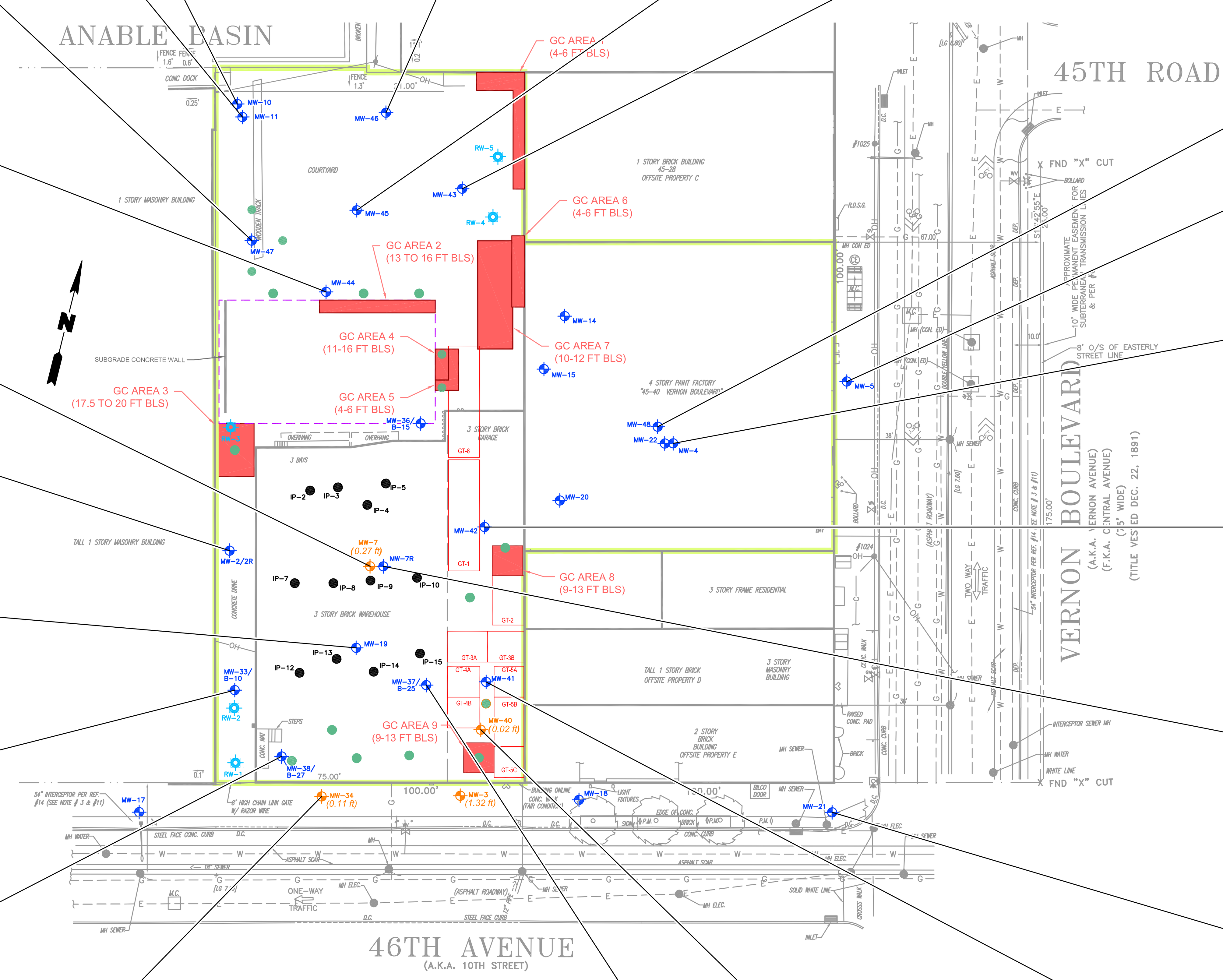
MW-4	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017	09/26/2017
COCs						DUP
Benzene	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	NS	NS	1.6 J	1.7 J	0.89 J	0.73 J
Isopropylbenzene (Cumene)	NS	NS	**5.4**	**6.5**	**6.9**	**6.2**
m,p-Xylene	NS	NS	1.6 J	1.9 J	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	NS	NS	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	NS	NS	1.6 J	1.9 J	2.5 U	2.5 U

MW-42	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.5 U	NS	0.5 U	0.5 U	0.5 U
Ethylbenzene	2.5 U	NS	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	4.7	NS	0.73 J	2.5 U	2.5 U
m,p-Xylene	2.5 U	NS	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	NS	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	NS	2.5 U	2.5 U	2.5 U

MW-7R	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.5 U	NS	5 U	NS	2 U
Ethylbenzene	2.5 U	NS	25 U	NS	10 U
Isopropylbenzene (Cumene)	**11**	NS	**14 J**	NS	**19**
m,p-Xylene	2.5 U	NS	25 U	NS	10 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	NS	25 U	NS	10 U
Xylenes	2.5 U	NS	25 U	NS	10 U

MW-21	09/08/2016	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs		DUP				
Benzene	0.5 U	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U

MW-41	09/08/2016	12/01/2016	03/30/2017	06/22/2017	09/26/2017
COCs					
Benzene	0.26 J	0.5 U	0.62	0.43 J	0.62
Ethylbenzene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	1.3 J	0.73 J	2.5	1.1 J	1.4 J
m,p-Xylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Xylenes	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U



LEGEND

- LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
- LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
- LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
- LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
- LOCATION OF FIRST ROUND ISCO INJECTION POINT
- (0.38 ft) LNAPL THICKNESS
- GC AREA 1 (4-6 FT BLS) DESIGNATION AND INFERRED HORIZONTAL AND VERTICAL LIMITS OF REMAINING GROSSLY CONTAMINATED MATERIAL BASED ON FIELD OBSERVATION AND RESULTS OF POST-EXCAVATION SAMPLING AND FIELD SCREENING
- ft FEET
- LNAPL LIGHT NON-AQUEOUS PHASE LIQUID
- ISCO IN-SITU CHEMICAL OXIDATION
- CONCRETE VAULT
- PROPERTY BOUNDARY
- APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
- CONCRETE SLAB

TYPICAL DATA BOX INFORMATION

MW-11	09/08/2016
COCs	
Benzene	0.64
Ethylbenzene	2.5 U
Isopropylbenzene (Cumene)	2.5 U
m,p-Xylene	2.5 U
O-Xylene (1,2-Dimethylbenzene)	2.5 U
Xylenes	2.5 U

SAMPLE ID. — SAMPLE DATE — ANALYTES — CONCENTRATIONS (IN µg/L)

PARAMETER	STANDARDS*
Benzene	1
Ethylbenzene	5
Isopropylbenzene (Cumene)	5
m,p-Xylene	5
O-Xylene (1,2-Dimethylbenzene)	5
Xylenes	5

CONCENTRATIONS IN µg/L

µg/L – MICROGRAMS PER LITER
* – NYSDEC AWQSGVs
NYSDEC – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AWQSGVs – AMBIENT WATER-QUALITY STANDARDS AND GUIDANCE VALUES
– – NO NYSDEC AWQSGV AVAILABLE
DUP – DUPLICATE SAMPLE
J – ESTIMATED VALUE
NS – NOT SAMPLED
U – COMPOUND WAS ANALYZED FOR BUT NOT DETECTED
BOLD – INDICATES THAT PARAMETER WAS DETECTED ABOVE THE NYSDEC AWQSGVS

NOTES

1. AN OBSERVABLE SHEEN WAS RECORDED DURING PURGE AT MONITORING WELLS MW–19 AND MW–45, AND WERE NOT SAMPLED.
2. MONITORING WELLS MW–14 AND MW–15 WENT DRY DURING PURGE AND WERE NOT SAMPLED.

30' 0 30'

NO.	DATE	REVISION DESCRIPTION	INT.

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REMEDIAL ENGINEERING, P.C.
209 Shafter Street
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PROJECT NAME:
QUARTERLY MONITORING REPORT Q3 OF 2017
PARAGON PAINT AND VARNISH CORPORATION

PROJECT FOR:
VERNON 4540 REALTY LLC

TITLE:
VOCs AND LNAPL DETECTED IN GROUNDWATER SEPTEMBER 2016 TO SEPTEMBER 2017

DRAWING NO.
1
DRAWING 1 OF 1

V:\CAD\PROJECTS\2051\(0001Y)\249\2051.0001Y249.01.DWG

Christian Hoelzli

From: Christian Hoelzli
Sent: Wednesday, March 7, 2018 1:07 PM
To: 'Martinkat, Sondra (DEC) (sondra.martinkat@dec.ny.gov)'
Cc: 'O'Connell, Jane H (DEC) (jane.oconnell@dec.ny.gov) (jane.oconnell@dec.ny.gov)'; 'Andrew Till'; Robert Hendrickson; Larry Schnapf; arustgi@quadrumglobal.com; jwhite@quadrumglobal.com; Omar Ramotar; Joe Duminuco
Subject: Paragon Paint and Varnish 4Q Quarterly Progress Report (NYSDEC Site No. C241108)
Attachments: Paragon Paint C241108 Dec 2017 Quarterly.pdf

Ms. Martinkat,

In accordance with the Brownfield Cleanup Agreement, Roux Associates has prepared this email to serve as a quarterly update for the former Paragon Paint and Varnish Corp. facility located at 5-43 to 5-49 46th Avenue and 45-38 to 45-40 Vernon Boulevard in Long Island City, New York (Site) (NYSDEC Site No C241108).

Routine Operation, Maintenance, and Reporting Activities:

On December 21, 2017, Roux Associates completed the quarterly gauging and sampling of the 21 monitoring wells included in the SMP monitoring network. If the presence of free-product was observed, the monitoring well was not sampled. The remaining monitoring wells within the network were sampled and analyzed for VOCs. In addition the five (5) recovery wells (RW-1 through RW-5) and an additional nine (9) monitoring wells both onsite and offsite were gauged to determine the presence of LNAPL. A summary of the gauging data collected during the reporting period is provided in Table 2 attached.

Trace free-product was present in on-site monitoring wells MW-19, MW-34, MW-40, and MW-45; with free-product present in monitoring wells MW-2R, MW-3, and MW-7. Absorbent socks were installed in these monitoring wells, with approximately 0.486 gallons of free-product absorbed in total from these monitoring wells based on the saturation of the sock absorbency. An additional 1.4 gallons of product was manually bailed from the latter mentioned monitoring wells. The recovered product and saturated absorbent socks are temporarily stored on-Site in a 55-gallon drum until it is required to be disposed. These monitoring wells will continue to be gauged and monitored, with manual bailing and absorbent sock replacement implemented as necessary.

MW-15 went dry within minutes of purging and thus were unable to be sampled.

Due to the lack of free-product in the recovery wells (RW-1 to RW-5), Roux Associates has continued to pause the operation of the LNAPL recovery system until recoverable levels of product become present in the recovery system wells.

Sampling / Sample Results

During this reporting period, 15 groundwater samples were collected from the following monitoring wells:

- MW-4
- MW-10
- MW-11
- MW-19
- MW-21
- MW-33
- MW-38
- MW-40
- MW-41
- MW-42
- MW-43
- MW-44
- MW-46
- MW-47
- MW-48

Groundwater Monitoring Results

The analytical results of the December 2017 quarterly groundwater monitoring event are summarized in Table 1 and the well locations are presented in Figure 1. A review of the groundwater data generated during this reporting period indicated the following:

- The specific COC exceedances of AWQSGVs are noted below:
  - Benzene results exceeded their respective ASQSGV of 1 µg/L at two (2) monitoring well locations (8.4 µg/L at MW-40 and 1.2 µg/L at MW-41).
  - Ethylbenzene results exceeded their respective AWQSGV of 5 µg/L at three (3) monitoring well locations (an estimated 5.3 µg/L at MW-19, 5.4 µg/L at MW-43, and 7.6 µg/L at MW-47).
  - Isopropylbenzene results exceeded their respective AWQSGV of 5 µg/L at 7 monitoring well locations. Exceedances ranged from an estimated 6.0 µg/L (MW-33) to 63 µg/L (MW-19).
  - Xylene results exceeded their respective AWQSGV of 5 µg/L at three (3) monitoring well locations (18 µg/L at MW-43, 23 µg/L at MW-44 and 31 µg/L at MW-47).

Planned Actions:

The following activities are scheduled for the next reporting period (January 1 through March 31, 2018):

- Preparation and submittal of quarterly status report;
- Continued quarterly gauging of monitoring wells within the SMP monitoring network; and
- Continued monthly O&M of LNAPL recovery system (as necessary).

Work Plan Modifications

No modifications made to the Work Plan during this reporting period.

Please contact myself or Omar Ramotar with any questions or concerns.

Thank you,

Christian Hoelzli | Staff Engineer | Roux Environmental Engineering and Geology, D.P.C.
209 Shafter Street, Islandia, New York 11749
Main: 631.232.2600 | Direct: 631.630.2477 | Mobile: 516.589.4604
Email: choelzli@rouxinc.com | Website: www.rouxinc.com

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-4	MW-4	MW-10	MW-10	MW-10	MW-11	MW-11	MW-19	MW-19	MW-21	MW-21	MW-33	MW-33	MW-38	MW-38	MW-40	MW-40	MW-41	MW-41
Sample Date:			09/26/2017	12/21/2017	09/26/2017	12/21/2017	12/21/2017	09/26/2017	12/21/2017	06/22/2017	12/21/2017	09/26/2017	12/21/2017	09/26/2017	12/21/2017	09/26/2017	12/21/2017	06/22/2017	12/21/2017	09/26/2017	12/21/2017
Normal or Field Duplicate:			FD	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units																			
1,1,1-Trichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	3.8 U	7.5 U	1.5 U	1.5 U	1.5 U	3.8 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	**1.2**	0.34 J	0.48 J	0.51
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.5 U	5 U	1 U	1 U	1 U	2.5 U	1 U	1 U	0.27 J	0.38 J	0.29 J	0.23 J
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	**6.8**	4.8	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	**14**	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U	620 U	1200 U	250 U	250 U	250 U	620 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	12 U	25 U	5 U	5 U	5 U	12 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	3.9 J	5 U	4.5 J	5 U	5 U	4.1 J	5 U	8.8 J	21 J	3.8 J	5 U	5.6	12 U	12	14	**260**	3.1 J	10	19
Benzene	**1**	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.23 J	1.2 U	0.62	0.36 J	**5.8**	**8.4**	0.62	**1.2**
Bromochloromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5 U	10 U	2 U	2 U	2 U	5 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	12 U	25 U	5 U	5 U	5 U	12 U	5 U	5 U	4.6 J	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	4.2	2.5 U	0.76 J	2.5 U
Chloroform	7	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	12 U	25 U	5 U	5 U	5 U	12 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	0.73 J	0.74 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3.4 J	**5.3 J**	2.5 U	2.5 U	1.3 J	1.9 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	**6.2**	4.7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**23**	**63**	2.5 U	2.5 U	4.2	**6 J**	**25**	**10**	**40**	**32**	1.4 J	1.4 J
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	1.1 J	0.8 J	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.4 J	25 U	5 U	5 U	5 U	12 U	5 U	18	39	5 U	5 U	4.4 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	12 U	25 U	5 U	5 U	5 U	12 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	1.5 J	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	4.9	3.7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**36**	**120**	2.5 U	2.5 U	**8.2**	**12**	**34**	**12**	**64**	**6.8**	1.5 J	1 J
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	0.79 J	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	**10**	**8.6**	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	**14**	**41**	2.5 U	2.5 U	**5.2**	**7.5**	**14**	**10**	**19**	**15**	2.2 J	2.2 J
Styrene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	**8.4**	**7.6**	2.5 U	2.5 U	2.5 U	**5.1**	3.9	**8.6**	**14**	2.5 U	2.5 U	2.3 J	2.8 J	**5.4**	**5.6**	4.2	4.5	2.1 J	1.8 J
Tert-Butyl Methyl Ether	10	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	0.74 J	2.5 U	0.72 J	2.5 U	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	**1.2**	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	1.2	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	1.2 U	2.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.5 U	5 U	1 U	1 U	1 U	2.5 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	6.2 U	12 U	2.5 U	2.5 U	2.5 U	6.2 U	2.5 U	2.5 U	1.9 J	0.8 J	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
- - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 1. Summary of Volatile Organic Compounds in Groundwater
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Sample Designation:			MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-46	MW-46	MW-47	MW-47	MW-48	MW-48
Sample Date:			09/26/2017	12/21/2017	09/26/2017	12/21/2017	09/26/2017	12/21/2017	09/26/2017	12/21/2017	09/26/2017	12/21/2017	09/26/2017	12/21/2017
Normal or Field Duplicate:			N	N	N	N	N	N	N	N	N	N	N	N
Parameter	NYSDEC AWQSGVs	Units												
1,1,1-Trichloroethane	5	UG/L	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	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	UG/L	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	0.5 U	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	--	UG/L	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	2.5 U	2.5 U	2.5 U
1,1,2-Trichloroethane	1	UG/L	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	5	UG/L	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	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	UG/L	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	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	5	UG/L	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	2.5 U	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	UG/L	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	2.5 U	2.5 U	2.5 U
1,2-Dibromo-3-Chloropropane	0.04	UG/L	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	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane (Ethylene Dibromide)	--	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	3	UG/L	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	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	UG/L	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	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene (Mesitylene)	**5**	UG/L	2.5 U	2.5 U	**49**	**47**	**57**	**48**	0.88 J	2.5 U	**49**	**65**	2.5 U	2.5 U
1,3-Dichlorobenzene	3	UG/L	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	2.5 U	2.5 U	2.5 U
1,4-Dichlorobenzene	3	UG/L	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	2.5 U	2.5 U	2.5 U
1,4-Dioxane (P-Dioxane)	--	UG/L	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U
2-Hexanone	50	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	**50**	UG/L	2.5 J	5 U	**57**	41	11	**56**	2.7 J	4.8 J	13	47	3.9 J	5 U
Benzene	**1**	UG/L	0.5 U	0.5 U	0.69	0.45 J	0.37 J	0.36 J	0.5 U	0.5 U	0.31 J	0.47 J	0.5 U	0.5 U
Bromochloromethane	5	UG/L	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	2.5 U	2.5 U	2.5 U
Bromodichloromethane	50	UG/L	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	0.5 U	0.5 U	0.5 U
Bromoform	50	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bromomethane	5	UG/L	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	2.5 U	2.5 U	2.5 U
Carbon Disulfide	60	UG/L	5 U	5 U	1.3 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5	UG/L	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	0.5 U	0.5 U	0.5 U
Chlorobenzene	5	UG/L	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	2.5 U	2.5 U	2.5 U
Chloroethane	5	UG/L	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	2.5 U	2.5 U	2.5 U
Chloroform	7	UG/L	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	2.5 U	2.5 U	2.5 U
Chloromethane	--	UG/L	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	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethylene	5	UG/L	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	2.5 U	2.5 U	2.5 U
Cis-1,3-Dichloropropene	5	UG/L	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	0.5 U	0.5 U	0.5 U
Dibromochloromethane	50	UG/L	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	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	5	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichloroethylenes	5	UG/L	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	2.5 U	2.5 U	2.5 U
Ethylbenzene	**5**	UG/L	2.5 U	2.5 U	**5.9**	**5.4**	**6**	4.4	2.5 U	2.5 U	**5.2**	**7.6**	2.5 U	2.5 U
Isopropylbenzene (Cumene)	**5**	UG/L	2.5 U	2.5 U	**12**	**12**	**9.3**	**7.4**	2.5 U	2.5 U	**9.1**	**11**	1.5 J	1.2 J
m,p-Xylene	**5**	UG/L	2.5 U	2.5 U	**18**	**12**	**15**	**13**	2.5 U	2.5 U	**13**	**19**	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	UG/L	5 U	5 U	9	6.5	2.6 J	7.8	5 U	5 U	5 U	8	5 U	5 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	--	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	5	UG/L	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	2.5 U	2.5 U	2.5 U
N-Propylbenzene	**5**	UG/L	2.5 U	2.5 U	**18**	**18**	**15**	**11**	2.5 U	2.5 U	**15**	**17**	0.81 J	2.5 U
O-Xylene (1,2-Dimethylbenzene)	**5**	UG/L	2.5 U	2.5 U	**10**	**6.4**	**13**	**10**	2.5 U	2.5 U	**8.6**	**12**	2.5 U	2.5 U
Sec-Butylbenzene	**5**	UG/L	2.5 U	2.5 U	4	4.9	4.2	4.1	2.5 U	2.5 U	3.5	4.3	2.3 J	1.7 J
Styrene	5	UG/L	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	2.5 U	2.5 U	2.5 U
T-Butylbenzene	**5**	UG/L	1.2 J	1.2 J	2.1 J	2 J	1.9 J	1.8 J	2.5 U	2.5 U	1.5 J	2 J	1.5 J	1.4 J
Tert-Butyl Methyl Ether	10	UG/L	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	2.5 U	2.5 U	2.5 U
Tetrachloroethylene (PCE)	5	UG/L	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	0.5 U	0.5 U	0.5 U
Toluene	5	UG/L	2.5 U	2.5 U	1.3 J	0.95 J	1.6 J	1.8 J	2.5 U	2.5 U	1.7 J	2.2 J	2.5 U	2.5 U
Total, 1,3-Dichloropropene (Cis And Trans)	0.4	UG/L	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	0.5 U	0.5 U	0.5 U
Trans-1,2-Dichloroethene	5	UG/L	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	2.5 U	2.5 U	2.5 U
Trans-1,3-Dichloropropene	--	UG/L	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	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	5	UG/L	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	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	5	UG/L	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	2.5 U	2.5 U	2.5 U
Vinyl Chloride	2	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes	**5**	UG/L	2.5 U	2.5 U	**28**	**18**	**28**	**23**	2.5 U	2.5 U	**22**	**31**	2.5 U	2.5 U

NYSDEC - New York State Department of Environmental Conservation
AWQSGVs - Ambient Water-Quality Standards and Guidance Values
µg/L -Micrograms per liter
J - Estimated Value
U - Compound was analyzed for but not detected
FD - Duplicate
 - - No NYSDEC AWQSGV available
Bold data indicates that parameter was detected above the NYSDEC AWQSGVs

Table 2. Summary of Water Level Elevations and LNAPL Thickness; December 2017
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

Well ID	MPE (ft)	April 24, 2017				May 18, 2017				May 25, 2017				June 8, 2017				June 22, 2017				July 27, 2017			
		DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																									
MW-2R	9.23	--	7.28	1.95	--	--	6.53	2.70	--	--	6.72	2.51	--	--	7.05	2.18	--	--	6.95	2.28	--	6.92	6.94	2.31	0.02
MW-3	8.40	6.81	7.94	1.31	1.13	6.70	7.69	1.45	0.99	6.77	7.98	1.33	1.21	7.04	8.41	1.02	1.37	7.08	8.86	0.88	1.78	6.78	8.39	1.22	1.61
MW-4	11.57	--	9.72	1.85	--	--	9.38	2.19	--	--	9.5	2.07	--	--	9.77	1.80	--	--	9.79	1.78	--	--	9.76	1.81	--
MW-7	4.48	2.35	2.48	2.10	0.13	1.79	1.80	2.69	0.01	2.02	2.03	2.46	0.01	1.01	1.02	3.47	0.01	2.32	2.33	2.16	0.01	2.75	2.76	1.73	0.01
MW-7R	4.48	--	2.37	2.11	--	--	1.91	2.57	--	--	1.84	2.64	--	--	2.27	2.21	--	--	2.14	2.34	--	--	NM	NC	--
MW-10	7.82	--	5.36	2.46	--	--	7.66	0.16	--	--	4.70	3.12	--	--	5.82	2.00	--	--	6.40	1.42	--	--	NM	NC	--
MW-11	7.82	--	5.72	2.10	--	--	6.03	1.79	--	--	5.16	2.66	--	--	5.79	2.03	--	--	5.85	1.97	--	--	NM	NC	--
MW-14	11.63	--	9.57	2.06	--	--	9.01	2.62	--	--	9.21	2.42	--	--	9.56	2.07	--	--	9.33	2.30	--	--	NM	NC	--
MW-15	11.51	--	9.48	2.03	--	--	8.98	2.53	--	--	9.17	2.34	--	--	9.50	2.01	--	--	9.36	2.15	--	--	NM	NC	--
MW-17	8.78	--	6.21	2.57	--	5.68	5.69	3.10	0.01	--	5.74	3.04	--	--	6.08	2.70	--	--	6.18	2.60	--	--	5.90	2.88	--
MW-18	8.40	--	6.76	1.64	--	--	6.54	1.86	--	--	6.60	1.80	--	--	6.96	1.44	--	--	7.06	1.34	--	--	NM	NC	--
MW-19	4.41	--	2.37	2.04	--	1.93	1.94	2.48	0.01	--	1.79	2.62	--	--	2.17	2.24	--	--	2.24	2.17	--	--	2.33	2.08	--
MW-20	11.69	--	9.85	1.84	--	--	9.48	2.21	--	--	9.61	2.08	--	--	9.89	1.80	--	--	9.88	1.81	--	--	NM	NC	--
MW-21	8.17	--	6.01	2.16	--	--	5.80	2.37	--	--	5.74	2.43	--	--	6.26	1.91	--	--	6.03	2.14	--	--	NM	NC	--
MW-22	11.63	--	9.78	1.85	--	--	9.44	2.19	--	--	9.54	2.09	--	--	9.80	1.83	--	--	9.81	1.82	--	--	NM	NC	--
MW-33	9.49	--	6.79	2.7	--	--	5.95	3.54	--	--	6.18	3.31	--	--	6.79	2.70	--	--	6.19	3.30	--	--	NM	NC	--
MW-34	8.30	--	6.69	1.61	--	--	6.29	2.01	--	--	6.67	1.63	--	--	6.84	1.46	--	--	7.07	1.23	--	--	NM	NC	--
MW-36	9.11	--	6.69	2.42	--	--	5.91	3.20	--	--	5.82	3.29	--	--	6.53	2.58	--	--	6.19	2.92	--	--	NM	NC	--
MW-37	4.45	--	2.28	2.17	--	--	1.95	2.50	--	--	1.84	2.61	--	--	2.04	2.41	--	--	2.30	2.15	--	--	NM	NC	--
MW-38	4.44	--	2.32	2.12	--	--	1.98	2.46	--	--	1.98	2.46	--	--	2.26	2.18	--	--	2.41	2.03	--	--	NM	NC	--
MW-40	8.49	--	6.81	1.68	--	--	6.36	2.13	--	--	6.50	1.99	--	--	7.09	1.40	--	--	7.16	1.33	--	--	NM	NC	--
MW-41	8.51	--	6.30	2.21	--	--	6.02	2.49	--	--	6.17	2.34	--	--	6.52	1.99	--	--	6.78	1.73	--	--	NM	NC	--
MW-42	9.37	--	7.33	2.04	--	--	NM	NM	--	--	7.14	2.23	--	--	7.40	1.97	--	--	7.54	1.83	--	--	NM	NC	--
MW-43	7.81	--	5.78	2.03	--	--	4.99	2.82	--	--	5.19	2.62	--	--	5.57	2.24	--	--	5.19	2.62	--	--	NM	NC	--
MW-44	9.15	--	7.05	2.10	--	--	6.20	2.95	--	--	6.46	2.69	--	--	6.85	2.3	--	--	6.43	2.72	--	--	NM	NC	--
MW-45	8.69	--	6.58	2.11	--	--	5.71	2.98	--	--	5.99	2.70	--	--	6.40	2.29	--	--	5.84	2.85	--	--	NM	NC	--
MW-46	7.69	--	5.60	2.09	--	--	4.70	2.99	--	--	5.01	2.68	--	--	5.39	2.30	--	--	4.96	2.73	--	--	NM	NC	--
MW-47	8.03	--	5.94	2.09	--	--	5.08	2.95	--	--	5.35	2.68	--	--	5.70	2.33	--	--	5.32	2.71	--	--	NM	NC	--
MW-48	11.43	--	9.55	1.88	--	--	9.19	2.24	--	--	9.32	2.11	--	--	9.89	1.54	--	--	9.53	1.90	--	--	NM	NC	--
Recovery Wells																									
RW-1	8.26	--	6.48	1.78	--	--	5.97	2.29	--	--	6.05	2.21	--	--	6.36	1.90	--	--	6.29	1.97	--	--	6.24	2.02	--
RW-2	9.81	--	6.77	3.04	--	--	6.25	3.56	--	--	6.39	3.42	--	--	6.66	3.15	--	--	6.79	3.02	--	--	6.52	3.29	--
RW-3	9.83	--	7.51	2.32	--	--	6.64	3.19	--	--	6.82	3.01	--	--	7.30	2.53	--	--	6.92	2.91	--	--	7.01	2.82	--
RW-4	10.2	--	7.82	2.38	--	--	6.95	3.25	--	--	7.24	2.96	--	--	7.62	2.58	--	--	7.70	2.50	--	--	7.31	2.89	--
RW-5	10.27	--	7.59	2.68	--	--	6.76	3.51	--	--	7.01	3.26	--	--	7.58	2.69	--	--	6.98	3.29	--	--	7.1	3.17	--

Notes:
LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NC - Not Calculated[12]
NM - Not Measured

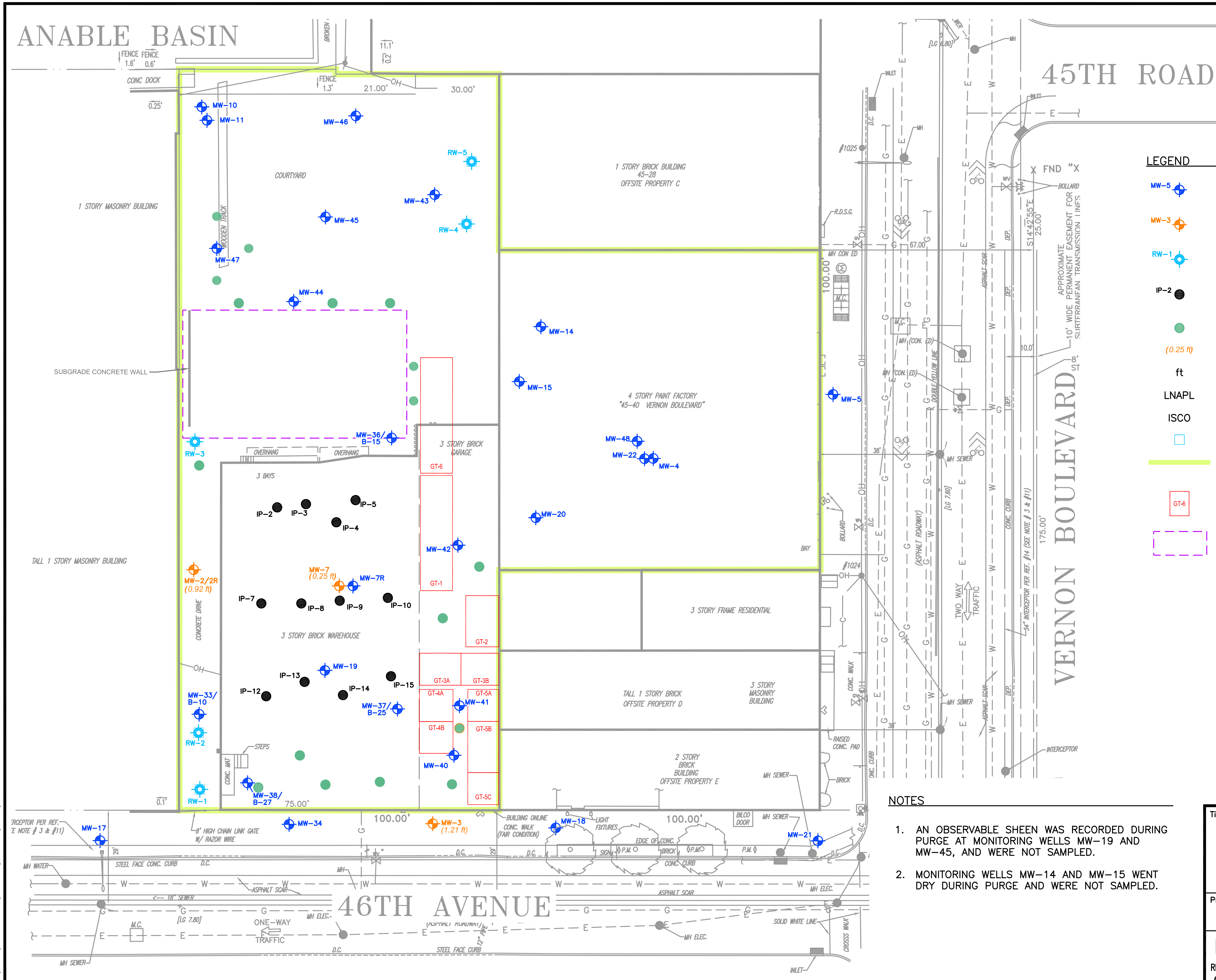
1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.

Table 2. Summary of Water Level Elevations and LNAPL Thickness; December 2017
Vernon 4540 Realty, LLC-Former Paragon Paint Varnish Co., 46th Ave Vernon Blvd., Long Island City, New York

		August 29, 2017				September 26, 2017				October 31, 2017				November 14, 2017				December 21, 2017			
Well ID	MPE (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)	DTP (ft)	DTW (ft)	GWE (ft)	FPT (ft)
Monitoring Wells																					
MW-2R	9.23	--	6.69	2.54	--	--	7.78	1.45	--	--	6.78	2.45	--	--	6.99	2.24	--	8.14	9.06	0.86	0.92
MW-3	8.40	6.70	7.88	1.41	1.18	6.81	8.13	1.26	1.32	6.58	7.10	1.69	0.52	6.62	7.25	1.62	0.63	7.02	8.23	1.08	1.21
MW-4	11.57	--	9.39	2.18	--	--	9.98	1.59	--	--	9.25	2.32	--	--	9.40	2.17	--	--	9.99	1.58	--
MW-7	4.48	1.09	1.10	3.39	0.01	2.59	2.86	1.82	0.27	1.67	1.68	2.81	0.01	1.85	1.86	2.63	0.01	3.44	3.69	0.98	0.25
MW-7R	4.48	--	2.19	2.29	--	--	2.35	2.13	--	--	2.11	2.37	--	--	2.27	2.21	--	--	3.34	1.14	--
MW-10	7.82	--	5.79	2.03	--	--	8.36	-0.54	--	--	5.89	1.93	--	--	6.04	1.78	--	--	8.51	-0.69	--
MW-11	7.82	--	5.71	2.11	--	--	6.68	1.14	--	--	5.85	1.97	--	--	6.02	1.80	--	--	7.06	0.76	--
MW-14	11.63	--	9.48	2.15	--	--	9.88	1.75	--	--	9.36	2.27	--	--	9.53	2.10	--	--	9.80	1.83	--
MW-15	11.51	--	9.46	2.05	--	--	9.74	1.77	--	--	9.30	2.21	--	--	9.48	2.03	--	--	9.72	1.79	--
MW-17	8.78	--	6.04	2.74	--	--	6.62	2.16	--	--	6.15	2.63	--	--	6.29	2.49	--	--	7.22	1.56	--
MW-18	8.40	--	6.87	1.53	--	--	6.85	1.55	--	--	6.91	1.49	--	--	7.10	1.30	--	--	7.07	1.33	--
MW-19	4.41	--	2.09	2.32	--	--	2.52	1.89	--	--	2.18	2.23	--	2.26	2.37	2.12	0.11	--	3.46	0.95	--
MW-20	11.69	--	9.82	1.87	--	--	10.06	1.63	--	--	9.80	1.89	--	--	9.99	1.70	--	--	10.18	1.51	--
MW-21	8.17	--	6.19	1.98	--	--	5.99	2.18	--	--	6.39	1.78	--	--	6.62	1.55	--	--	6.39	1.78	--
MW-22	11.63	--	9.79	1.84	--	--	10.01	1.62	--	--	9.83	1.80	--	--	10.03	1.60	--	--	10.04	1.59	--
MW-33	9.49	--	6.79	2.70	--	--	7.19	2.30	--	--	6.80	2.69	--	--	7.01	2.48	--	--	7.79	1.70	--
MW-34	8.30	--	6.83	1.47	--	7.04	7.15	1.23	0.11	--	6.84	1.46	--	--	7.05	1.25	--	--	7.80	0.50	--
MW-36	9.11	--	6.43	2.68	--	--	7.02	2.09	--	--	6.56	2.55	--	--	6.76	2.35	--	--	7.68	1.43	--
MW-37	4.45	--	1.99	2.46	--	--	2.71	1.74	--	--	2.02	2.43	--	--	2.27	2.18	--	--	3.19	1.26	--
MW-38	4.44	--	2.31	2.13	--	--	2.73	1.71	--	--	2.38	2.06	--	--	2.59	1.85	--	--	3.32	1.12	--
MW-40	8.49	--	6.98	1.51	--	7.02	7.04	1.47	0.02	--	7.09	1.40	--	--	7.30	1.19	--	--	7.43	1.06	--
MW-41	8.51	--	6.41	2.10	--	--	6.92	1.59	--	--	6.51	2.00	--	--	6.77	1.74	--	--	7.23	1.28	--
MW-42	9.37	--	7.29	2.08	--	--	7.57	1.80	--	--	7.37	2.00	--	--	7.59	1.78	--	--	7.94	1.43	--
MW-43	7.81	--	5.56	2.25	--	--	6.10	1.71	--	--	5.59	2.22	--	--	5.72	2.09	--	--	6.64	1.17	--
MW-44	9.15	--	6.80	2.35	--	--	7.38	1.77	--	--	6.85	2.30	--	--	7.07	2.08	--	--	7.98	1.17	--
MW-45	8.69	--	6.37	2.32	--	--	6.92	1.77	--	--	6.41	2.28	--	--	6.66	2.03	--	--	7.56	1.13	--
MW-46	7.69	--	5.33	2.36	--	--	5.99	1.70	--	--	5.38	2.31	--	--	5.71	1.98	--	--	7.10	0.59	--
MW-47	8.03	--	5.62	2.41	--	--	6.31	1.72	--	--	5.73	2.30	--	--	5.99	2.04	--	--	6.98	1.05	--
MW-48	11.43	--	9.69	1.74	--	--	9.77	1.66	--	--	9.79	1.64	--	--	9.96	1.47	--	--	9.77	1.66	--
Recovery Wells																					
RW-1	8.26	--	6.07	2.19	--	--	6.87	1.39	--	--	6.15	2.11	--	--	6.35	1.91	--	--	7.22	1.04	--
RW-2	9.81	--	6.38	3.43	--	--	7.16	2.65	--	--	6.42	3.39	--	--	6.60	3.21	--	--	7.78	2.03	--
RW-3	9.83	--	6.80	3.03	--	--	7.99	1.84	--	--	6.98	2.85	--	--	7.12	2.71	--	--	8.51	1.32	--
RW-4	10.2	--	7.30	2.90	--	--	8.19	2.01	--	--	7.47	2.73	--	--	7.50	2.70	--	--	8.70	1.50	--
RW-5	10.27	--	7.10	3.17	--	--	7.96	2.31	--	--	7.30	2.97	--	--	7.34	2.93	--	--	8.52	1.75	--

Notes:
LNAPL - Light Non-Aqueous Phase Liquid
MPE - Measuring Point Elevation (top of well casing)
DTW - Depth to Water
DTP - Depth to Product
GWE - Groundwater Elevation (corrected for presence of LNAPL when applicable[1,2])
FPT - Free Product Thickness
NC - Not Calculated[12]
NM - Not Measured

1. The elevation datum used for the MPE is NAVD 88.
2. For monitoring wells that contained LNAPL the following formula was used to calculate the corrected water table elevation:
   Corrected GWE = MPE - DTW + (LNAPL thickness * LNAPL specific gravity)
   Assumes a specific gravity of 0.75
3. The following monitoring wells were destroyed during the performance of the remedial action from October 9, 2015 to March 11, 2016:
   MW-1/1R, MW-5, MW-6, MW-6R, MW-8, MW-9, MW-12, MW-13, MW-16, MW-23, MW-24, MW-25, MW-27, MW-28, MW-30, MW-31, MW-32, and MW-35.



LEGEND

MW-5	LOCATION AND DESIGNATION OF MONITORING WELL (NO LNAPL PRESENT)
MW-3	LOCATION AND DESIGNATION OF MONITORING WELL (LNAPL PRESENT)
RW-1	LOCATION AND DESIGNATION OF LNAPL RECOVERY WELL (LNAPL THICKNESS SHOWN IF PRESENT)
IP-2	LOCATION AND DESIGNATION OF PERMANENT ISCO INJECTION POINT
	LOCATION OF FIRST ROUND ISCO INJECTION POINT
(0.25 ft)	LNAPL THICKNESS
ft	FEET
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
ISCO	IN-SITU CHEMICAL OXIDATION
	CONCRETE VAULT
	PROPERTY BOUNDARY
GT-6	APPROXIMATE LOCATION AND DESIGNATION OF UNDERGROUND STORAGE TANK (ABANDONED IN PLACE)
	CONCRETE SLAB

NOTES

1. AN OBSERVABLE SHEEN WAS RECORDED DURING PURGE AT MONITORING WELLS MW-19 AND MW-45, AND WERE NOT SAMPLED.
2. MONITORING WELLS MW-14 AND MW-15 WENT DRY DURING PURGE AND WERE NOT SAMPLED.

Title:

LNAPL DETECTED IN GROUNDWATER

PARAGON PAINT AND VARNISH CORPORATION

Prepared For:

VERNON 4540 REALTY LLC

Remedial
REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

Compiled by: C.H.	Date: 27FEB18	FIGURE
Prepared by: G.M.	Scale: AS SHOWN	1
Project Mgr:	Project: 2051.0001Y002	
File: 2051.0001Y252.02.DWG		

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