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April 30, 2021

VL4 Electronic Mail

Kyle Forster
Division of Environmental Remediation
Remedial Bureau B
New York State DEC
625 Broadway, 12th Floor
Albany, New York 12233-7016

Reference: #C241089- Review Avenue Development I Site (RAD I)
Long Island City, Queens, New York
Period Review Report #5 -April 1, 2020 through March 31, 2021

Dear Mr. Forster:

Attached please find the Periodic Review Report (PRR) and IC/EC Certification Submittal for the Review Avenue Development Site I (RAD I) Site #C241089. This is the fifth PRR submitted for the Site and covers the operating period of April 2020 through March 2021. As requested, all submittals are being provided in electronic format.

Should you have any questions or comments regarding this submittal or any other aspect of this project, please do not hesitate to contact me at (610) 435-1151.

Sincerely

de maximis, inc.



R. Craig Coslett

Attachment

CC: Patrick Foster, NYSDEC
Stephanie Selmer, New York State Department of Health
Brent O'Dell, Wood Group
Alan Dern, Review Holdings LLC

Albany, NY · Allentown, PA · Clinton, NJ · Greensboro, GA · Houston, TX · Irvine, CA
Knoxville, TN · San Diego, CA · Sarasota, FL · Waltham, MA · Windsor, CT



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. C241089

Site Name Review Avenue Development I

Site Address: 37-30 Review Avenue Zip Code: 11101
City/Town: Long Island City
County: Queens County
Site Acreage: 2.733

Reporting Period: April 1 2020 to March 31, 2021

- | | YES | NO |
|--|-------------------------------------|-------------------------------------|
| 1. Is the information above correct? | ☒ | ☐ |
| 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? | ☐ | ☒ |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? | ☐ | ☒ |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | ☐ | ☒ |
| 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? | ☐ | ☒ |

Box 2

- | | YES | NO |
|---|-------------------------------------|--------------------------|
| 6. Is the current site use consistent with the use(s) listed below? | ☒ | ☐ |
| 7. Are all ICs/ECs in place and functioning as designed? | ☒ | ☐ |

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

Description of Institutional Controls

- The RAD I Site may only be used for restricted use as specified by the SMP;
- All ECs must be operated and maintained as specified in the 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 Queens County Department of Health 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 NYSDEC.
- Groundwater monitoring must be performed as defined in the SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;
- Access to the RAD I 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 noted on Figure 2, and any potential impacts that are identified must be monitored or mitigated.

Description of Engineering Controls

1. A cover system consisting of asphalt pavement
2. A LNAPL Recovery System – consisting of:
 - a. A Vacuum Enhanced/Total Fluids (VER/TF) LNAPL recovery system
 - b. A single-phase LNAPL recovery system
3. A packaged SVE, groundwater treatment, LNAPL Storage and Control system (located on the RAD II property).

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 complete.

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. C241005

Box 6

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 R. Craig Coslett at 1550 Pond Road, Suite 120, Allentown, PA 18104.
print name print business address

am certifying as Owner's Representative (Owner or Remedial Party)

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



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

04/30/2021
Date

IC/EC CERTIFICATIONS

Box 7

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.

I Brent O'Dell, P.E. at 511 Congress Street, Suite 200 Portland, ME 04112,
print name print business address

am certifying as an Engineer for the Remedial Party
(Owner or Remedial Party)

Signature of the Owner or Remedial Party, Rendering
Certification



Stamp
(Required for PE)

Digitally signed by
Brent.O'Dell
DN: cn=Brent.O'Dell
Reason: I agree to the
terms defined by the
placement of my signature
in this document
Location:
Date: 2021-04-30
12:34-04:00

Date

**REVIEW AVENUE DEVELOPMENT (RAD) I
QUEENS COUNTY
LONG ISLAND CITY, NEW YORK**

PERIODIC REVIEW REPORT No. 5 (APRIL 1, 2020 – MARCH 31, 2021)

NYSDEC Site Number: RAD I – BCP #C241089

Prepared by:

MACTEC Engineering and Geology, P.C.

7 Southside Drive - Suite 201
Clifton Park, NY 12065

and

Wood Environment & Infrastructure Solutions, Inc.

200 American Metro Boulevard – Suite 113
Hamilton, New Jersey 08619

**APRIL 2021
Rev. JUNE 2021**

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

BCA	Brownfield Cleanup Agreement	O&M	Operations and Maintenance
BCP	Brownfield Cleanup Program	OM&M	Operations, Maintenance and Monitoring
DOT	Department of Transportation	PCB	Polychlorinated Biphenyl
EC	Engineering Control	POTW	Publicly-Owned Treatment Works
EOR	Engineer of Record	PRR	Periodic Review Report
FER	Final Engineering Report	RAD	Review Avenue Development
IC	Institutional Control	RAWP	Remedial Action Work Plan
LEL	Lower Explosive Limit	RI	Remedial Investigation
LGAC	Liquid Granular Activated Carbon	ROD	Record of Decision
LNAPL	Light Non-Aqueous Phase Liquid	SCGs	Standards, Criteria Goals
LRGTB	LNAPL Recovery and Groundwater Treatment Building	SMP	Site Management Plan
MSL	Mean Sea Level	SVE	Soil-Vapor Extraction
ND	Not Detected	TSCA	Toxic Substances Control Act
NYSDEC	New York State Department of Environmental Conservation	TF	Total Fluids
NYSDOH	New York State Department of Health	UST	Underground Storage Tank
		VER	Vacuum-Enhanced Recovery

EXECUTIVE SUMMARY

This is the 5th Periodic Review Report being submitted for the Review Avenue Development I Site (RAD I). In 2020 an Amendment to Substitute the current Owner of the RAD II property, Review Holdings LLC and Review Properties LLC, to be the Volunteer under the Brownfield Cleanup Agreement (BCA) was submitted to the NYSDEC. It was approved by the NYSDEC following termination of the previous RAD I Volunteers. An Amendment to the BCA was signed by Review Properties LLC and Review Holdings LLC and the NYSDEC, effective November 12, 2020. The Amendment established Review Properties LLC and Review Holdings LLC as the Volunteer and transferred the Site to Generation 3 under the Brownfield Cleanup Program (BCP). The NYSDEC then issued the Certificate of Completion for RAD I Review Properties LLC and Review Holdings LLC on December 22, 2020.

The RAD I Site and the RAD II Site are located adjacent to each other and have the same physical setting. The RAD Sites have been investigated concurrently since the early 1980's but were entered into separate BCA and assigned different BCP numbers. A Decision Document was issued by the NYSDEC for the RAD I Site in December 2015 and a separate Final Engineering Report (FER) was provided to address the requirements of that Decision Document. The remedy selected by the NYSDEC for the RAD II Site is in the Record of Decision (ROD) issued by the NYSDEC in February 2007.

The RAD I Site is identified as Block 312 and Lot 41 on the Long Island City Tax Map and includes Preston Street, which runs from Review Avenue to the Long Island Railroad, along the property border with RAD II. To the northeast is Review Avenue and the Calvary Cemetery and to the southwest is the Long Island Railroad and the South Capasso property and the Waste Management Property. The boundaries of the RAD I Site are shown on Figure 1 and with more detail provided on Figure 2.

The RAD Sites are being remediated via LNAPL extraction. LNAPL is extracted using a combination of skimmer (product only) pumps and dual-phase extraction (total fluids) pumps. LNAPL extracted by the skimmer pumps is conveyed through underground piping to a storage tank location on the RAD II Property. Liquid (water and LNAPL) extracted through dual-phase extraction is conveyed through underground piping to the treatment system located on the RAD II property. Liquids are then processed through an oil water separator, followed by bag and carbon filters to separate LNAPL from water. The collected LNAPL is pumped to a dedicated storage tank and the treated water is discharged to the sewer system. Construction of the remediation system was deemed complete on November 15, 2015 and NYSDEC approved the start of the operation and maintenance (O&M) period on November 16, 2015.

A Site Management Plan (SMP) was prepared by MACTEC Engineering and Consulting, P.C. (MACTEC) and Amec Foster Wheeler Environment and Infrastructure, Inc. (Amec Foster Wheeler), on behalf of Cresswood Environmental Consultants, LLC and Review Ave. System, LLC, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated February 2013, and the guidelines provided by the NYSDEC. An Environmental Easement granted to NYSDEC and recorded with the County Clerk of Queens County requires compliance with the SMP and all ECs and ICs placed on the Site. The SMP addresses the means for implementing the ICs and ECs that are required by the Environmental Easement for the RAD I Site and outlines the controls established to meet the ROD requirements. Section 3.0 summarizes the EC and IC requirements and compliance. IC/EC Certification has been bound to the front end of this report. The SMP was approved by NYSDEC on August 30, 2016.

The NYSDEC issued a Certificate of Completion for the RAD I Site on December 22, 2020 following receipt of the updated Site Management Plans and Final Engineering Reports updated contacts.

This is the 5th Periodic Review Report (PRR) for the RAD I Property. The 1st PRR was submitted to the NYSDEC in April 2017 and resubmitted on June 10, 2017 following comments received on the initial submittal. Approval of the 1st PRR was provided by the NYSDEC in a letter dated September 8, 2017. The 2nd PRR was submitted to the NYSDEC on April 27, 2018 and approval was provided by the NYSDEC on February 28, 2019. The 3rd PRR was submitted to the NYSDEC on April 30, 2019 and approval was provided by the NYSDEC on September 11, 2019. The 4th PRR was submitted to the NYSDEC on April 30, 2020 and approval was provided by the NYSDEC on November 6, 2020.

1.0 SITE OVERVIEW

1.1 INTRODUCTION

The RAD I Site is being remediated in accordance with the remedy selected by the NYSDEC in the Decision Document issued December 2, 2015 and the ROD for the RAD II Site, dated February 9, 2007.

Portions of the RAD I Site were remediated under an IRM. This included the removal and offsite disposal of four underground storage tanks (USTs), a concrete trench, and a sump in May 2006. RAD I is paved and contains two buildings (Building 1 and Building 2). The components of the remedy proposed in the draft Decision Document include: the preparation of an Environmental Easement and periodic submittals, which are components addressed in the SMP. The remedy selected for the RAD I Site are listed below by media:

LNAPL

The remedy for light non-aqueous phase liquid (LNAPL) beneath the RAD I Site was recovery using single-phase skimmer pumps and vacuum enhanced (VER) recovery methods at locations where higher viscosity LNAPL is present. A long-term monitoring program to monitor the effectiveness of the LNAPL recovery system was implemented.

Soil

The remedy for the soil at the RAD I Site was to re-cover excavation areas using a paving system that was consistent with existing cover and consistent with the development of the RAD I Site. The Site Management Plan identifies restoration requirements of future development activities.

Groundwater

The remedy for groundwater was the establishment of an institutional control that restricts the use of untreated groundwater beneath the RAD I Site as a source of potable water.

Soil Vapor

The results of soil vapor investigations on the RAD I Site did not identify a threat for migration of soil vapor laterally from the limits of the LNAPL beneath the RAD I Site. Building #1 is a slab on grade structure used as a mechanics shop and open warehousing. The upper levels of building #2 are used as office space with the lower level used for maintenance and warehousing. Occupancy of both buildings remains consistent with occupancy during investigations. NYSDEC and NYSDOH will be notified of occupancy changes per the conditional approval of the soil vapor investigations performed at the RAD I Site.

Listed below are the primary elements of the selected remedy:

- Operation of the LNAPL recovery system;
- Establishment of an institutional control that restricts the use of untreated groundwater beneath the RAD I Site as a source of potable water;
- The execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the RAD I Site;
- Development and implementation of a SMP for long-term management of remaining contamination as required by the Environmental Easement, which includes plans for the following: (1) ECs and ICs, (2) monitoring, (3) operation and maintenance, and (4) reporting; and
- Periodic certification of the ECs and ICs listed above.

This is the 5th Periodic Review Report (PRR) for the RAD I Property. The 1st PRR was submitted to the NYSDEC in April 2017 and resubmitted on June 10, 2017 following comments received on the initial submittal. Approval of the 1st PRR was provided by the NYSDEC in a letter dated September 8, 2017. The second PRR was submitted to the NYSDEC on April 27, 2018 and approval was provided by the NYSDEC on February 28, 2019. The third PRR was submitted to the NYSDEC on April 30, 2020 and approval was provided by the NYSDEC on September 11, 2019. The 4th PRR was submitted to the NYSDEC on April 30, 2020 and approval was provided by the NYSDEC on November 6, 2020. This Periodic Review Report (PRR) covers the period of performance from April 1, 2020 to March 31, 2021 and includes:

- Required institutional control/engineering control (IC/EC) certification;
- Summary and documentation of site-related data to support IC/EC certification;
- A description of the LNAPL Recovery System performance; and
- Discharge monitoring data for the certification period.

1.2 SITE HISTORY AND DESCRIPTION

The RAD I Site is approximately 2.7 acres in size and located in a highly industrialized part of Long Island City, County of Queens, New York. The RAD I Site is identified as Block 312 and Lot 41 on the Long Island City Tax Map and includes Preston Street that borders the RAD II property and runs from Review Avenue to the Long Island Railroad. The address of the RAD I Site is 37–30 Review Avenue. Figure 1 presents a Site Location Map. Zoning in this area is designated as heavy manufacturing.

The RAD I Site was previously used for a variety of commercial and industrial purposes between at least 1898 and the present, including more recently, commercial vehicle and heavy equipment maintenance, office space, warehousing, and commercial parking. The RAD I Site is bounded by Review Avenue to the northeast, the Southern Line of the Long Island Railroad to the southwest, and the RAD II Site to the southeast (see Figure 2). To the northeast of Review Avenue is the Calvary Cemetery and to the southwest of the Long Island Railroad is the South Capasso property and the Waste Management Property.

Various companies currently lease portions of the RAD I Site for office space, storage, as well as parking of equipment and vehicles. This includes both buildings and the parking lots. The RAD I Site has one five-story building, (Building No. 1) and one three-story building (Building No. 2). The majority of the RAD I Site is paved and used for parking and equipment storage. Figure 2 presents a Site Layout Map for the RAD I Site. Building No. 1 is primarily used for garage/storage and warehousing. Building No. 2 is primarily used for office space on the street level and second floors. The basement level of Building No. 2 (which is below grade along Review Avenue but at ground level in the back of the property) is primarily used for warehouse and maintenance services.

1.3 PHYSICAL SETTING

The RAD I Site and the RAD II Site are adjacent to each other and have the same physical setting. A description of the geology and hydrogeology beneath the RAD I Site is provided below.

1.3.1 Geology

The stratigraphy of the RAD I Site and the adjacent properties consists of urban fill overlying glacial deposits, which in turn overlies a clay layer that has been identified as the lower Cretaceous Raritan Formation. The urban fill generally consists of heterogeneous soil ranging from sub angular, loose and compact, silty, fine sand and gravel. Intermixed with the urban fill are debris such as brick fragments, asphalt, wire, and plastic. Soil borings indicate that the urban fill ranges in thickness from 3 feet to 16 feet. The glacial deposits consist of two units distinguishable in color, but not in hydraulic characteristics. The upper section of the glacial deposits is gray to dark gray fine-to-coarse sand and fine-to-coarse gravel. There are local horizontal units of silt interbedded in the upper section of the glacial deposit. The upper section extends to approximately 30 feet below mean sea level (MSL).

The lower section of the glacial deposits is comprised of yellowish-brown, fine to coarse sand and gravel. This unit extends to 71 to 85 feet below MSL. Underlying the coarse sand and gravel is a clay unit referred to as the Lower Clay Unit. The Lower Clay Unit was identified as the Raritan Clay. The Raritan Clay or Lower Clay Unit has been described as a dark gray, finely laminated-

to-thin bedded silty clay, silt and clay layer, and white to light gray clay. The clay unit appears to be laterally continuous beneath the Site and adjacent surrounding area.

1.3.2 Hydrogeology

The RAD I Site is located between a local topographic high to the northeast and Newtown Creek, which is a tidally influenced regional groundwater discharge area. Monitoring wells screened in the upper section of the glacial deposits (where LNAPL occurs) and monitoring wells screened in the lower section of the glacial deposits (and cased off from the upper section) have been installed on the RAD I Site and offsite (including the RAD II Site). The locations of the wells are depicted on Figure 2.

The depth to groundwater beneath the RAD I Site has ranged from approximately 15 feet bgs to 20 feet bgs. Groundwater contour maps prepared from the groundwater levels measured in groundwater wells installed in the upper and lower sections of the glacial deposits have indicated a general groundwater flow direction to the south - southwest towards Newtown Creek. A localized groundwater mound, presumably a result of the discontinuous silt and clay layers in the upper section of the glacial deposits, has also been observed to the southwest of the Site between the LIRR tracks and Newtown Creek. The mounding does not appear to influence the direction of groundwater flow at the RAD I site. Groundwater fluctuations of approximately 0.05 to 0.1 feet have been observed beneath the Site as a result of tidal influence in Newtown Creek

Overall, the horizontal hydraulic gradient beneath the Site can be described as flat, at approximately 0.0015. Vertical gradients are minimal and localized. Slug test data indicates a range of hydraulic conductivity values for the glacial deposits above the Lower Clay Unit of 62.5 feet per day (ft/d) to 0.5 ft/d. A viscous LNAPL is present on the groundwater table across most of the RAD I and RAD II properties (Golder 2005a).

1.4 CLEANUP GOALS AND REMEDIAL PROGRESS

The remediation goals for the RAD I Site, as stipulated by the November 2011 RAWP (Golder 2011) are to eliminate or reduce to the extent practicable:

- The presence of LNAPL as a potential source of soil, groundwater and soil gas contamination;
- Potential further migration of LNAPL that could result in soil, groundwater or soil gas contamination;
- Exposures of persons at or around the site to VOCs or exceedances of the lower explosive level (LEL) in soil vapor;

- The potential for ingestion/direct contact with contaminated soil; and
- The release of contaminants from the urban soil and LNAPL into groundwater that may create exceedances of groundwater quality standards over time.

In addition, the remediation goals for the RAD I Site are to meet to the extent practicable:

- Ambient groundwater quality standards; and
- Standards, Criteria Goals (SCGs) for soil to the extent practicable.

The remedies selected for the RAD II site are listed below by media:

LNAPL

The remedy for LNAPL beneath the RAD I Site in areas of lower viscosity product is recovery using single-phase skimmer pumps installed in 23 recovery wells on the RAD I Site, or a total of 38 recovery wells on the combined RAD I and RAD II Sites. The remedy for higher viscosity LNAPL product is recovery using a Vacuum Enhanced Recovery/Total Fluids (VER/TF) technology at 10 recovery wells installed on the RAD I Site, or a total of 30 recovery wells on the combined RAD I and RAD II Sites. A long-term monitoring program to monitor the effectiveness of the LNAPL recovery system has been implemented.

Soil

Since the majority of the RAD I Site is paved, installation of a cover on the RAD I Site as a remedy was not needed, although restoration of any disturbances to the existing asphalt pavement on the RAD I Site, as required for system installation, was part of the remedial activities and consisted of installing new asphalt pavement to match existing.

Groundwater

The remedy for groundwater is the establishment of an institutional control that restricts the use of untreated groundwater beneath the RAD I Site as a source of potable water. Groundwater is monitored pursuant to requirements outlined in the Site Management Plan.

Soil Vapor

The results of soil vapor investigations on the RAD I Site have not identified a threat for migration of soil vapor laterally from the limits of the LNAPL beneath the RAD I Site. As such, no specific soil vapor remedy is being implemented other than the benefit of the existing site pavement system and recovery of LNAPL from the site.

Remedial Progress is summarized as follows:

- The LNAPL Recovery System, consisting of both the single-phase skimming and VER/TF recovery technologies, has been implemented and operational for 64-1/2 months. The LNAPL Recovery System has recovered 461,144 gallons of LNAPL as of March 31, 2021 after the first 64-1/2 months of operation (for both RAD I and RAD II). The volume is based on the amount of liquids disposed and includes LNAPL but also includes degraded product and water.
- All areas of existing asphalt pavement disturbance due to the LNAPL recovery system installation have been restored.
- The Institutional Controls established for the RAD I site have been maintained per the SMP and FER.

2.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

This section describes the required activities under the SMP, including ICs and ECs, the ongoing monitoring program and the implementation of the Site Operations, Maintenance and Monitoring (OM&M) Plan. A comprehensive SMP has been developed for the Site and includes plans for ICs/ECs, operation and maintenance (O&M), long-term monitoring, and associated reporting (MACTEC, 2015).

2.1 SITE MANAGEMENT STATUS

During this reporting period, MACTEC performed O&M for the LNAPL recovery and groundwater treatment system, performed quarterly treated water discharge sampling and reporting, prepared monthly O&M monitoring reports and an Annual Inspection Report. The monthly monitoring reports, which include a summary of site activities for both the RAD I and RAD II sites, are included as Appendix A. The Annual Inspection Report is included in Appendix B and the treated water quarterly compliance sampling reports have been provided in Appendix C. This PRR was completed using site-specific documentation including the Site's ROD (NYSDEC, 2015), annual site inspection and monthly monitoring reports, and the SMP. This review was conducted to confirm that established controls according to the SMP are operational and effective, that the SMP is being implemented and conducted accordingly, and that the remedy remains protective of the environment and/or public health. A summary of Site Management activities completed during this reporting period and an evaluation of the performance, protectiveness, and effectiveness of the remedy is provided below.

2.2 INSTITUTIONAL CONTROLS

A series of ICs are required to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to Track 4 restricted uses only. Adherence to these ICs on the RAD I Site is required by the Environmental Easement and is implemented under the SMP. These ICs are as follows:

- The RAD I Site may only be used for restricted use as specified by the SMP;
- All ECs must be operated and maintained as specified in the 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 Queens County Department of

Health 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 NYSDEC.

- Groundwater monitoring must be performed as defined in the SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;
- Access to the RAD I 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 noted on Figure 2, and any potential impacts that are identified must be monitored or mitigated.

2.3 ENGINEERING CONTROLS

The following ECs have been implemented at the RAD I Site:

1. A cover system consisting of asphalt pavement
2. A LNAPL Recovery System – consisting of:
 - a. A Vacuum Enhanced/Total Fluids (VER/TF) LNAPL recovery system
 - b. A single-phase LNAPL recovery system
3. A packaged VER, groundwater treatment, LNAPL Storage and Control system.

2.3.1 Asphalt Cover System

The majority of the RAD I Site was paved with asphalt prior to implementing the remedy. During installation of the components of the extraction system, disturbed areas of asphalt were restored and new asphalt was installed in areas that were not previously asphalt to serve as a cover system to prevent exposure to possible near surface remaining contamination in urban fill/soil. The extent of the cover system is documented in the as-built drawing included as Figure 2 of the SMP (MACTEC, 2015). The cover system was observed during the reporting period to be intact and continuing to function as a cover system but requires repairs at three locations in order to ensure ongoing function.

2.3.2 LNAPL Recovery System

LNAPL recovery on the RAD I property is being conducted via single-phase skimmer pump recovery wells and VER/TF recovery well subsystems. The primary purposes of using the skimmer pump and VER subsystems is to recover LNAPL to the extent practical and support the achievement of the remediation goals for the Site. The LNAPL recovery system has recovered and disposed of 461,144 gallons of LNAPL (LNAPL, degraded product, and water), or an average of 235 gallons per calendar day, (from both RAD I and RAD II) through March 31, 2021 or 64-1/2 months of operation. A total of 34,295 gallons of LNAPL, or an average of 94 gallons per calendar day, has been recovered and disposed of for the current 12-month reporting period. The current 94 gallon per calendar day average production rate represents a 74% decrease from the 355 gallon per calendar day average production rate realized during the first 16-1/2 month reporting period. When taking into account system uptime and normalizing the production per equivalent system run-day, the LNAPL recovery system averaged 106 gallons per run-day for the current period which represents a 82% decrease from the 604 gallon per run-day average realized during the first 16-1/2 month reporting period. This reduction in production rate is attributed to significant depletion of remaining recoverable LNAPL volume and associated decreasing LNAPL transmissivity as evidenced by the substantial decrease in apparent product thickness (see paragraph 2.4.1 for more detail).

Peak LNAPL recovery rates have exceeded 700 gallons per day during the 1st reporting period, 500 gallons per day during the 2nd reporting period, 400 gallons during the 3rd reporting period, 300 gallons per day during the 4th reporting period, and approached 200 gallons per day during the current reporting period within the VER/TF Zones 4 and 5 only. Using a representative specific gravity of 0.90, according to data provided in the RAWP, this represents a total recovered LNAPL mass of 3,461,347 pounds after the first 64-1/2 months of operation or an average of 1,764 pounds per day.

During the 1st reporting period (16-1/2 months of operation), the specific energy consumption of the product recovery operation averaged approximately 1.0 kWh/Gal of product recovered. During reporting period 2, when VER operations were implemented, specific energy consumption rose to 2.6 kWh/Gal. Specific energy consumption further increased to 2.9 kWh/Gal during reporting period 3 and 3.4 kWh/Gal during reporting period 4 as product recovery production continued to decrease with continued VER operation. Specific energy consumption increased to 7.5 kWh/Gal during reporting period 5. As such, a commensurate increase in specific greenhouse gas emissions has also occurred (lbs/Gal) associated with the generated grid energy utilized to power the system (i.e. 8.78 lbs CO₂/Gal of product recovered for reporting period 5 as compared to 4.0 lbs CO₂/Gal for period 4).

Monthly monitoring reports are prepared and have been included in Appendix A. A summary of offsite LNAPL disposal is included in Table 4.

2.3.2.1 Single-Phase Skimming

Twenty-three (23) single-phase skimmer pump wells are installed on RAD I and fifteen (15) single-phase skimmer pump wells are installed on the RAD II Site. Single-phase skimming wells are located in areas with lower viscosity LNAPL. Of the total recovered and disposed of LNAPL volume, 112,207 gallons have been recovered by the single-phase skimming system to date and 9,723 gallons for the reporting period. The skimming system had a monthly average production rate of 36 gallons per calendar day which represents a 60% decrease from the 91 gallons per calendar day average production rate realized during the first 16-1/2 month reporting period. During the reporting period, the skimmer system produced an average monthly peak average of 104 gallons per day and a minimum monthly average of 0.5 gallons per day. The skimming system has been operating a total of 27,994 run hours to date and 2,610 hours for the reporting period. For the reporting period, the skimmer system has been programmed to operate at 8 hours per day, rather than continuous, in an effort to maintain maximum product recovery while minimizing unnecessary equipment wear and energy consumption. Actual system uptime averaged 97.5% for the reporting period under these operational parameters.

2.3.2.2 VER/TF Recovery

Ten (10) VER/TF wells are installed on RAD I and twenty (20) VER/TF wells are installed on the RAD II Site. VER applies a vacuum at the extraction well head, creating a pneumatic gradient causing air flow and enhanced product flow through the formation towards the extraction well. TF pumping creates a hydraulic cone of depression to further enhance the recovery of LNAPL, along with the VER, in areas where higher viscosity LNAPL present. Thirty (30) VER wells were installed and associated control systems on RAD I and RAD II. Of the total recovered and disposed of LNAPL volume, 348,937 gallons were recovered by the VER/TF recovery system to date and 24,572 gallons for the reporting period. The VER/TF system had a monthly average production of 70 gallons per calendar day with a peak monthly average of 128 gallons per calendar day and a minimum monthly average of 26 gallons per calendar day for the reporting period. When taking into account system uptime and normalizing the production per equivalent system run-day, the VER/TF recovery system averaged 104 gallons per run-day which represents a 81% decrease from the 549 gallon per run-day average production rate realized during the first 16-1/2 month reporting period. The VER/TF recovery system had a total of 35,197 run hours to date and 6,053 hours for

the reporting period. Actual system uptime averaged 86.2% for the year ranged from a low of 55.8% to a high of 96.8%. System uptime has increased significantly from the 68.02% average realized during the first 16-1/2 months of operation. This uptime improvement is largely a result of upgrading the Oil/Water separation system with the addition of a Tube Skimmer and changing the type of Biocide injected which does not impact the performance of the Sequestering Agent. The following table provides a graphic summary of extraction zone operations during the reporting



period.

2.3.3 Groundwater Treatment System

Groundwater and LNAPL pumped from RAD I (and RAD II) flows through the LNAPL Recovery and Groundwater Treatment Building (LRGTB) located on RAD II. The LNAPL is collected and stored in one of two 6,000-gallon steel aboveground storage tanks located in a secondary containment dikes outside of the LRGTB on RAD II. One storage tank is configured to receive LNAPL recovered from the VER/TF System and the second storage tank is configured to receive

LNAPL recovered from the Skimmer System. Since LNAPL Recovery System startup on November 16, 2015, the groundwater treatment system has processed and discharged 13,738,866 gallons of process water (extracted by the VER/TF System) or an average of 7,003 gallons per calendar day. The peak process water treatment/discharge rate exceeded 10,000 gallons per day. The treated groundwater is sampled in accordance with the site discharge permit and discharged to the New York City Bowery Bay Publicly Owned Treatment Works (POTW). Quarterly discharge compliance sampling results have been provided in Appendix C.

The extracted groundwater/LNAPL mixture, or Total Fluids (TF) influent, produced by the VER/TF System during the current 12-month reporting period (April 1, 2020 through March 31, 2021) had an average extracted oil/water ratio of 1.36% which is less than the 4.18% average oil/water ratio observed during the first 16-1/2 months of operation (first reporting period). This represents a 67% reduction in extracted oil/water ratio between the 1st and 5th reporting periods despite the addition of full time VER operation. Furthermore, the monthly average oil/water ratio ranged from 0.84% to 1.78% in the TF/VER zones. The variability in monthly oil/water ratios is largely due to rotating TF/VER operations between various extraction zones which have different amounts of product present on the groundwater and differences in the types of product present (viscosity, slight changes in specific gravity, amount of iron bacteria, etc.). Varying groundwater elevations due to precipitation events also impacts the extracted oil/water ratio.

Recovered LNAPL, stored in both T-1401 (single-phase skimmer wells) and T-801 (VER/TF wells) is analyzed approximately once every 2 – 3 months for PCB concentrations. PCB concentrations in LNAPL recovered from the single-phase skimming wells ranged from ND to 3.69 ppm for this reporting period, while PCB concentrations in LNAPL recovered from the VER/TF system have varied between 5.40 and 21.06 ppm during this reporting period. See Table 1 for a summary of recovered LNAPL PCB concentrations.

2.3.4 SVE System

The SVE system is used to employ VER technology along with hydraulic enhancement to further increase radius of influence and recoverability of higher viscosity LNAPL. The SVE system, or VER enhancement, was operated during the reporting period to counter diminishing product recovery rates from each of the seven (7) TF Zones. VER enhancement operated for a total of 6,053 hours during the reporting period through March 2021.

2.3.5 System Operational Challenges and Actions

- Phased out the use of emulsion breaker since installing the tube skimmer (December 2016) as part of our Oil/Water Separation process. Periodic QC testing indicates that we generally meet

sewer discharge compliance for SGT-HEM (≤ 50 ppm SGT-HEM) upstream of our liquid phase carbon treatment.

- Increased VER activity to enhance TF product recovery – have switched to full time VER operation since mid-September 2017.
- Installed additional auto air relief vents in the skimmer system header network at key high point locations (S-4A, S-5A and 5B) during 2017 in order to eliminate air lock and improve product flow through the skimmer system process lines.
- The recovery pumps within two of the TF wells (TF-7A and B) were determined to be stuck and un-removable with heavy duty hoist equipment. In addition, a significant amount of coarse sand is delivered to the GWTS when these pumps are operated. As such, we have concluded that the screens may have failed in these wells. Re-drilling operations have not been conducted. Additional stuck recovery pumps were identified during the fifth reporting period at wells TF-1C, TF-2B and D, TF-5A and TF-6A.
- **Biological growth/Grey Matter** – Iron related bacteria growth is rapid during warm weather operation and is controlled adequately with the use of biocide. Without biocide, fouling of the bag filters, the LGAC treatment units and the strainers cause significantly reduced run-time. During cooler weather operations, the biocide has not been needed. A new biocide (Redux 620) was employed during the Spring of 2017 (replacing the Verox 8 Biocide) and is designed to limit negative impact to the sequestering agent effectiveness. The new biocide has proven to work effectively during the warmer weather months of 2017, 2018, 2019 and 2020 with no significant grey matter formation and impact to the iron sequestration process. As such, the biological growth was successfully controlled and high system up-time was maintained throughout the warmer months of 2017, 2018, 2019 and 2020. During the Fall of 2017, 2018, 2019 and 2020 we once again ceased injection of the biocide with no adverse effects to system up-time.
- **Variable LNAPL characteristics** - Different product characteristics and associated separation difficulties were resolved in late 2016 with the addition of a tube skimmer in the primary separation tank of the two-stage oil water separation process. The addition of the tube skimmer has allowed for excellent oil/water separation at varied flow rates and LNAPL consistencies and has continued to operate extremely well through this reporting period. Operational uptime for the VER/TF and groundwater treatment system has improved to $>95\%$ uptime since installing and optimizing the tube skimmer on December 22, 2016. In addition, product recovered from the TF Zones during 2017 has begun to change from a mostly dark colored, medium viscosity product to a mostly light brown colored product with significantly higher viscosity. Viscosity has increased to a level near and above typical petroleum industry pumpability standards based on laboratory and field viscosity testing. We believe this is an

indication that most of the more mobile (darker, less viscous) product has been recovered and more of the less mobile (light brown, more viscous) product is now being recovered with the help of the VER. Since August of 2018 we have noticed that a significantly greater portion of the recovered product appears to be highly degraded with a smaller portion of pure product. The degraded product also has a high-water content which then phases out into the product storage tank (T-801) and has to be pumped out and back into the treatment system. This phenomenon has been ongoing to the end of the 5th reporting period since August 2018.

- **Recovery Well LNAPL PCB Sampling** – COMPLETED - All four (4) identified TSCA PCB impacted recovery wells (TF-3D, 4D, 5D and 6D) were managed separately by pumping and collecting the high PCB product (>50 PPM) independently from the automated Total Fluids system via a Specific Gravity Skimmer Pump into a 55-gallon DOT shippable drum. This process continued at each of the four recovery wells until PCB concentrations in the recovered product was reduced to < 50 PPM for three consecutive rounds of pumping and sampling. The process of managing this LNAPL separate from the rest of the recovery system was approved in the SMP and completed including disposal in February 2018.
- **Aging Equipment and Recovery Wells** – Aging equipment with significant run-hours such as recovery pumps, the air compressor requires increasing effort maintain and has impacted system uptime. Several wells are suspected to be damaged causing pumps to become stuck which prevents them from being pulled for cleaning and maintenance. Several TF/VER recovery wells may require re-development and/or replacement if continued aggressive recovery is warranted from these wells.

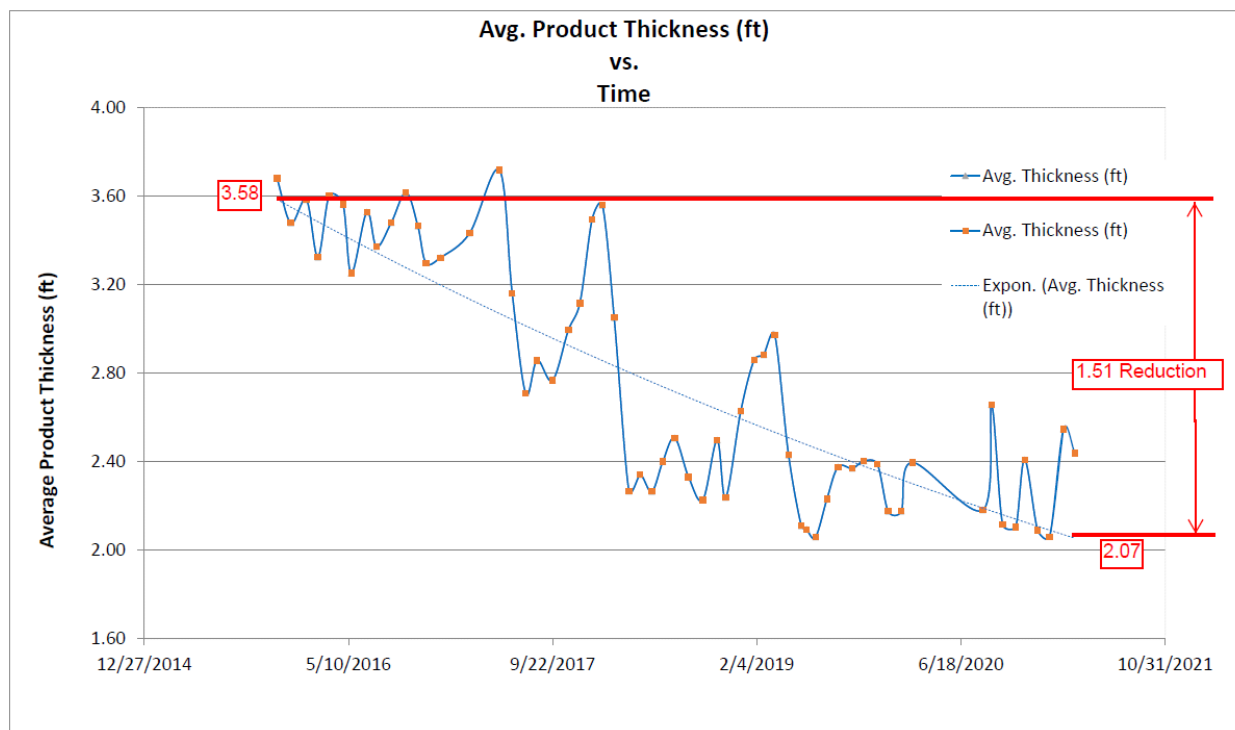
2.4 ADDITIONAL ACTIVITIES

In addition to system operation activities, other SMP required activities are also underway to monitor remediation progress and effectiveness as outlined below.

2.4.1 LNAPL Gauging

Site wide LNAPL gauging events at thirty-three (33) LNAPL monitoring wells on RAD I and RAD II provide evidence that average LNAPL thickness is trending downwards across the site and has decreased by approximately 1.51 feet (on average) at the end of March 2021 as illustrated in the figure below (note that the March through June 2020 gauging events were canceled due to COVID 19 safety concerns). This average thickness decrease is significantly greater than the 0.17 feet average decrease presented approximately four (4) years earlier at the end of March 2017, 0.68 feet average decrease presented three (3) years earlier at the end of March 2018, 1.44 feet average decrease presented two (2) years earlier at the end of March 2019. Although the average decrease at the end of March 2021 does not show a reduction as compared to 1 year earlier, a recent

sudden drop in groundwater elevations may have contributed to a temporary increase in apparent product thickness during February, 2021. We believe that this apparent product thickness increase will reverse as it has already begun to do so based on the March 2021 gauging data. We also believe that the overall downward product thickness trend will continue during the 6th reporting period.



2.4.2 LNAPL Disposal Summary

The total volume of RCRA Nonhazardous LNAPL with PCBs <50 ppm disposed offsite from RAD I and RAD II combined was 461,144 gallons through March 31, 2021. This waste stream was transported by Cycle Chem, Inc. to their facility in Elizabeth, NJ for solidification then was transported by Cycle Chem, Inc. to Conestoga Landfill in New Morgan Borough, Pennsylvania for disposal.

The total volume of LNAPL with PCBs $\geq$ 50 ppm disposed offsite from RAD II was approximately 78 gallons all of which was recovered and disposed of during the 2nd reporting period. This waste stream was transported by Cycle Chem, Inc. to Veolia ES in Flanders, New Jersey and Port Arthur, Texas for incineration.

2.4.3 Groundwater Monitoring

The seventh groundwater monitoring event occurred on December 16th through 19th, 2020. A groundwater monitoring event, originally scheduled for June, 2020 was cancelled due to COVID 19 safety concerns. The results of the eighth sampling event were found to be consistent with historic results and were submitted under separate cover in advance of this report.

3.0 IC/EC PLAN COMPLIANCE

3.1 IC/EC REQUIREMENTS AND COMPLIANCE

3.1.1 IC/EC Requirements Summary

A summary of the ICs and ECs implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by the Site Management Plan are outlined below.

Site Identification: RAD I - BCP #C241089, Long Island City, Queens, NY

Institutional Controls:	The property may be used for commercial use;
	• The RAD I Site may only be used for restricted use. • All EC's must be operated and maintained as specified in the SMP. All EC's 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 Queens County Department of Health 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 NYSDEC. This IC is outlined in the deed restriction recorded on 10/21/15 paragraph 2.A.(4). Groundwater monitoring must be performed as defined in the SMP. • Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP. • All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP. • Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP. • Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP. • Access to the RAD I Site must be provided to agents, employees or other representatives of the State of New York

Site Identification: RAD I - BCP #C241089, Long Island City, Queens, NY

	with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement. This IC is outlined in the above referenced deed restriction paragraph 2.A.(10). • The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 2, and any potential impacts that are identified must be monitored or mitigated. • All ECs must be inspected at a frequency and in a manner defined in the SMP.
Engineering Controls:	Cover system – 6-inch asphalt paving system
	LNAPL Recovery and Treatment System • Two 6,000 gallon LNAPL Storage Tanks • Two 8' x 40' Equipment Enclosures • 38 Skimmer well pumps and piping • 30 VER Well pumps, SVE blower air treatment and piping, liquid treatment equipment and discharge piping.
<u>Inspections:</u>	
Cover inspection	Frequency
Treatment System and Equipment Inspections per OM&M Manual	Annually
	Monthly, Quarterly and Semi-Annual Per OM&M Manual
<u>Monitoring:</u>	
Presence and Absence of LNAPL in Wells Identified on Table 3 of SMP for RAD I	Monthly, Quarterly and Semi-Annual as indicated on Table 3 of SMP for RAD I
Groundwater Monitoring/Sampling of Monitoring Wells Identified on Table 3 of the SMP for RAD I	Semi-Annual as indicated on Table 3 of SMP for RAD I
<u>Maintenance:</u>	
Equipment maintenance per Table of SMP	Per Table 4 of SMP

Site Identification: RAD I - BCP #C241089, Long Island City, Queens, NY

<u>Reporting:</u>	
LNAPL Monitoring	Per Table 3 of SMP
Treated Water Discharge Sampling and Reporting	Quarterly
Periodic Review Report	Annually

3.1.2 Status of IC/ECs

All ICs and ECs have been implemented and are being monitored and maintained in accordance with the SMP. The LNAPL Recovery and Treatment system will continue to be operated, monitored and maintained until such time that the remedial objectives as outlined in the SMP have been achieved. Treated Water quarterly compliance sampling reports are provided in Appendix C. As described above in section 2.4.1, monthly LNAPL gauging events indicate that the LNAPL Recovery System is effective.

3.1.3 Corrective Measures

New Access Gate - A new access gate was installed along Review Avenue in October 2020 in the area adjacent to the sidewalk. A report of the work conducted, including the disposal of materials, was provided to the NYSDEC in December 2020.

Cap/Pavement system on RAD I – A significant portion of the asphalt pavement was replaced by the site owner during the Spring of 2019 in areas of greatest traffic which had degraded to an unacceptable state. Per the December 21, 2020 inspection, the Cap Repairs identified in previous inspections were completed. However, ongoing and continued maintenance is necessary since there is evidence of grass growing through the pavement. Requires inspections and maintenance to ensure it stays protective.

3.1.4 Conclusions and Recommendations for Changes

- Section 4.3 outlines several identified recommended actions in order to ensure ongoing effective protection for site occupants as well as to enhance, optimize and minimize the duration of the remedy.
- The addition of concrete barriers has improved the fence integrity with fewer repairs needed in the treatment compound since installation. the integrity of fence in other areas of the site needs attention and repairs.

- TF/VER Recovery well integrity is questionable in certain areas of RAD I and II which may be the cause of TF pump discharge line fouling and clogging. A program of well re-development is being evaluated.
- Bailing or redevelopment of monitoring wells associated with the long term LNAPL Monitoring plan is also being evaluated to confirm apparent product thickness measurements.
- Requires inspections and maintenance to ensure cap stays protective.
- A new gate was installed on the north side of RAD I.
- A new tenant appears to store lube oil (based on labeling) in drums on top of the protective cap, however, it is unknown if these contain product as they appear to be configured for job site use. There also appear to be job site portable diesel tanks (likely in the 275 to 300 gal capacity range) placed on the protective cap, however, it is unknown whether they contain any product. Adequate spill containment and maintenance/housekeeping should be performed by the tenant to ensure no accidental spills could occur that could damage the cap per IC/EC Certification.

3.1.5 IC/EC Certification

The NYSDEC Site Management PRR IC/EC Certification Form has been completed and provided and attached at the front this report.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on this review, the remedy continues to be protective of the public health and the environment and is compliant with the Site Management Plan.

4.1 INSTITUTIONAL CONTROLS

The current ICs are adequate to achieve the objective for protection of human health and the environment based on current site use.

4.2 ENGINEERING CONTROLS

The current ECs are adequate to achieve the objectives for protection of human health and the environment based on current site use.

4.3 OTHER SITE-RELATED ACTIVITIES

Based on the information presented in this PRR, the following activities are recommended to be completed within the next annual reporting period in efforts to maintain the asphalt cover system, optimize LNAPL recovery system operations and accelerate the timeframe to site delisting.

- CAC area cap repair/completion.
- Continue to optimize production by adjusting the duration and rotation of active VER/TF system zones to maximize product recovery rates while minimizing groundwater discharge to sewer and energy consumption.
- A program of well re-development is being evaluated.
- Bailing or redevelopment of monitoring wells associated with the long term LNAPL Monitoring plan is being evaluated.

5.0 REFERENCES

Golder Associates, Inc. (Golder), 2005. *Remedial Investigation Report, Quanta Resources Site, Long Island City, New York, June 2005*

Golder Associates, Inc. (Golder), 2011. *Remedial Action Work Plan, Review Avenue Development, Long Island City, Queens, New York, November, 2011*

MACTEC Engineering and Consulting, P.C. (MACTEC), 2015. *Site Management Plan, Review Avenue Development (RAD) I, Queens County, Long Island City, New York, December, 2015.*

New York State Department of Environmental Conservation (NYSDEC), 2007. *Declaration Statement – Record of Decision, Quanta Resources Inactive Hazardous Waste Disposal Site (a.k.a. Review Avenue Development II), Long Island City, Queens, New York, Site No. 2-41-005, February 2007.*

TABLES

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	T-801-0116	T-1401-0116	T-801	T-1401	T-801-0416	T-1401-0416
Sample Date:		1/25/2016	1/25/2016	3/7/2016	3/7/2016	4/5/2016	4/5/2016
Lab Sample ID:		460-108101-8	460-108101-7	JC15542-1	JC15542-2	JC17676-2	JC17676-3
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	15	5.2	12.7	0.5 U	0.5 U	0.5 U
Aroclor 1248	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	9.35	2.03
Aroclor 1254	mg/kg	4.9	0.5 U	0.5 U	0.5 U	5.11	0.5 U
Aroclor 1260	mg/kg	0.5 U	3.3	0.5 U	0.5 U	5.22	0.5 U
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	19.9	8.5	12.7	0.5 U	19.68	2.03

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	T-801-052716	T-1401-052716	T-801-071116	T-1401-071116	T-801-083016	T-1401-083016
Sample Date:		5/27/2016	5/27/2016	7/11/2016	7/11/2016	8/30/2016	8/30/2016
Lab Sample ID:		JC21238-1	JC21238-2	JC23844-1	JC23844-2	JC26784-1	JC26784-2
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	4.37	1.24
Aroclor 1248	mg/kg	6.87	0.5 U	4.32	0.5 U	0.5 U	0.5 U
Aroclor 1254	mg/kg	0.5 U	0.5 U	7.28	0.5 U	0.5 U	0.5 U
Aroclor 1260	mg/kg	5.99	0.5 U	6.23	0.5 U	5.29	2.87
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	12.86	0.5 U	17.83	0.5 U	9.66	4.11

w/ Permanganate
Cleanup Procedure ⁽¹⁾

w/ Permanganate
Cleanup Procedure ⁽¹⁾

w/ Permanganate
Cleanup Procedure ⁽¹⁾

w/ Permanganate
Cleanup Procedure ⁽¹⁾

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	RA-T801-102116	T-801-010617	T-1401-010617	T-801-031717	T-801P-041017	T-1401-042517
Sample Date:		10/21/2016	1/6/2017	1/6/2017	3/17/2017	4/10/2017	4/25/2017
Lab Sample ID:		JC30289-2	JC35069-2	JC35069-3	JC39231-2	JC40858-1	JC42010-1
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	0.5 U	2.86	0.976	3.37	0.5 U	0.5 U
Aroclor 1248	mg/kg	2.85	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1254	mg/kg	0.5 U	4.16	3.96	0.5 U	0.5 U	0.5 U
Aroclor 1260	mg/kg	4.01	2.22	2.08	0.5 U	0.5 U	0.5 U
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	6.86	9.24	7.016	3.37	0.5 U	0.5 U
		w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	T-801-050917	T-801-070317	T-801-101017	T-1401-101017	T-801-0118	T-1401-0118
Sample Date:		5/9/2017	7/3/2017	10/10/2017	10/10/2017	1/3/2018	1/3/2018
Lab Sample ID:		JC42990-1	JC35069-3	JC52795-4	JC52795-5	JC58353-1	JC58353-2
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	0.5 U	1.08	0.5 U	0.5 U	2.23	0.5 U
Aroclor 1248	mg/kg	0.5 U	0.5 U	20.4	0.5 U	0.5 U	0.5 U
Aroclor 1254	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	7.27	0.5 U
Aroclor 1260	mg/kg	0.5 U	2.18	10.4	0.5 U	0.5 U	0.5 U
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	0.5 U	3.26	30.8	0.5 U	9.5	0.5 U
		w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	T-801-031318	T-1401-031318	T-801-050118	T-1401-050118	T-801-0618	T-1401-0618
Sample Date:		3/13/2018	3/13/2018	5/1/2018	5/1/2018	6/5/2018	6/5/2018
Lab Sample ID:		JC62277-1	JC62277-2	JC65251-1	JC65251-2	JC67478-1	JC67478-2
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.2 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.13 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	0.5 U	0.5 U	0.08 U	0.5 U	0.5 U	0.5 U
Aroclor 1248	mg/kg	2.89	4.04 U	7.01	0.5 U	0.5 U	0.5 U
Aroclor 1254	mg/kg	0.5 U	0.5 U	0.12 U	0.5 U	0.5 U	0.5 U
Aroclor 1260	mg/kg	1.95	2.71 U	6.53	0.5 U	0.5 U	0.5 U
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.074 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.038 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	4.84	4.04 U	13.54	0.5 U	0.5 U	0.5 U
		w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	T-801-0918	T-1401-0918	T-801-0119	T-1401-0119	T-801-0319	T-1401-0319	T-801-G
Sample Date:		9/5/2018	9/5/2018	1/2/2019	1/2/2019	3/14/2019	3/14/2019	8/13/2019
Lab Sample ID:		JC73140-1	JC73140-2	JC80741-1	JC80741-2	JC84564-1	JC84564-2	JC93220-1
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	9.7	0.5 U	11.9	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1248	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.65
Aroclor 1254	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.22
Aroclor 1260	mg/kg	10.2	0.5 U	0.5 U	0.5 U	10.7	0.5 U	4.07
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	19.9	0.5 U	11.9	0.5 U	10.7	0.5 U	9.94
w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	T-1401-G	PCB 801 2-13	PCB 1401 2-13	801-G	1401-G	801-G
Sample Date:		8/13/2019	2/13/2020	2/13/2020	9/10/2020	9/10/2020	1/14/2021
Lab Sample ID:		JC93220-2	JD3464-2	JD3464-1	JD12923-1	JD12923-2	JD19072-1 ⁽²⁾
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	0.5 U	7.42	0.5 U	0.5 U	0.5 U	5.46
Aroclor 1248	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1254	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1260	mg/kg	0.5 U	0.5 U	0.5 U	21.06	3.69	0.5 U
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	0.5 U	7.42	0.5 U	21.06	3.69	5.46
w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾	

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	1401-G	
Sample Date:		1/14/2021	
Lab Sample ID:		JD19072-2	
Aroclor 1016	mg/kg	0.5	U
Aroclor 1221	mg/kg	0.5	U
Aroclor 1232	mg/kg	0.5	U
Aroclor 1242	mg/kg	9.61	
Aroclor 1248	mg/kg	0.5	U
Aroclor 1254	mg/kg	0.5	U
Aroclor 1260	mg/kg	0.5	U
Aroclor 1268	mg/kg	0.5	U
Aroclor 1262	mg/kg	0.5	U
Total PCBs	mg/kg	9.61	

w/ Permanganate Cleanup
Procedure ⁽¹⁾

Table 1
Summary of PCB Analytical Data - LNAPL Storage Tanks
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Notes:

Bold = PCB Concentration > 50 mg/kg

Definitions:

mg/kg = milligrams per kilogram

PCB = Polychlorinated Biphenyl

RL = Reporting Limit

Data Qualifiers:

J = Indicates an estimated value

U = Not detected at the indicated Reporting Limit

Footnotes:

(1) Samples analyzed using SW-846 EPA Test Method 3665A Sulfuric Acid/Permanganate Cleanup

(2) Dilution required due to matrix interference

Table 2
Summary of PCB Analytical Data - Baseline Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-1A	TF-1B	TF-1C	TF-1D	TF-2A	TF-2B	TF-2C
Sample Date:		12/23/2014	3/25/2015	3/25/2015	12/23/2014	12/23/2014	3/25/2015	12/23/2014
Lab Sample ID:		460-88367-14	460-92207-2	460-92207-1	460-88367-13	460-88367-10	460-92207-3	460-88367-11
Aroclor 1016	mg/kg	0.33 U	0.16 U	0.16 U	0.33 U	0.33 U	0.16 U	0.33 U
Aroclor 1221	mg/kg	0.43 U	0.21 U	0.21 U	0.43 U	0.43 U	0.21 U	0.43 U
Aroclor 1232	mg/kg	0.51 U	0.25 U	0.25 U	0.51 U	0.51 U	0.25 U	0.51 U
Aroclor 1242	mg/kg	0.33 U	0.16 U	0.16 U	9.9	0.33 U	0.16 U	0.33 U
Aroclor 1248	mg/kg	0.33 U	0.16 U	0.16 U	0.33 U	0.33 U	0.16 U	0.33 U
Aroclor 1254	mg/kg	0.33 U	0.16 U	0.16 U	0.33 U	0.33 U	0.16 U	0.33 U
Aroclor 1260	mg/kg	0.33 U	0.16 U *	0.16 U *	9.6	0.33 U	5.1 *	17
Aroclor 1268	mg/kg	0.56 U	0.27 U	0.27 U	0.56 U	0.56 U	0.27 U	0.56 U
Aroclor 1262	mg/kg	0.56 U	0.27 U	0.27 U	0.56 U	0.56 U	0.27 U	0.56 U
Total PCBs	mg/kg	0.56 U	0.27 U *	0.27 U *	19.5	0.56 U	5.1 *	17

Table 2
Summary of PCB Analytical Data - Baseline Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-2D	TF-3A	TF-3B	TF-3C	TF-3D	TF-4A	TF-4B
Sample Date:		12/23/2014	4/27/2015	12/23/2014	12/23/2014	4/30/2015	12/23/2014	12/23/2014
Lab Sample ID:		460-88367-12	460-93882-2	460-88367-9	460-88367-8	460-94094-1	460-88367-4	460-88367-5
Aroclor 1016	mg/kg	0.33 U	0.16 U *	0.34 U	0.33 U	0.17 U	0.33 U	0.33 U
Aroclor 1221	mg/kg	0.43 U	0.21 U	0.43 U	0.43 U	0.22 U	0.43 U	0.43 U
Aroclor 1232	mg/kg	0.51 U	0.25 U	0.51 U	0.51 U	0.26 U	0.51 U	0.51 U
Aroclor 1242	mg/kg	18	0.16 U	8.9	18	21	0.33 U	5.3
Aroclor 1248	mg/kg	0.33 U	0.16 U	0.34 U	0.33 U	0.17 U	0.33 U	0.33 U
Aroclor 1254	mg/kg	0.33 U	0.16 U	0.34 U	0.33 U	0.17 U	0.33 U	0.33 U
Aroclor 1260	mg/kg	14	0.16 U *	2	4.9	16	0.33 U	5.8
Aroclor 1268	mg/kg	0.56 U	0.27 U	0.56 U	0.56 U	0.28 U	0.56 U	0.56 U
Aroclor 1262	mg/kg	0.56 U	0.27 U	0.56 U	0.56 U	0.28 U	0.56 U	0.56 U
Total PCBs	mg/kg	32	0.27 U	10.9	22.9	37	0.56 U	11.1

Table 2
Summary of PCB Analytical Data - Baseline Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-4C	TF-4D	TF-5A	TF-5B	TF-5C	TF-5D	TF-6A
Sample Date:		12/23/2014	12/23/2014	12/23/2014	12/23/2014	12/23/2014	12/23/2014	1/23/2015
Lab Sample ID:		460-88367-6	460-88367-7	460-88367-3	460-88367-2	460-88367-1	460-88367-24	460-89644-1
Aroclor 1016	mg/kg	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.33 U	0.17 U
Aroclor 1221	mg/kg	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.22 U
Aroclor 1232	mg/kg	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.26 U
Aroclor 1242	mg/kg	29	30	0.33 U	0.34 U	27	30	9.2
Aroclor 1248	mg/kg	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.33 U	0.17 U
Aroclor 1254	mg/kg	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.33 U	0.17 U
Aroclor 1260	mg/kg	7.7	15	0.33 U	1.5 J	15	14	11
Aroclor 1268	mg/kg	0.56 U	0.56 U	0.56 U	0.57 U	0.56 U	0.56 U	0.28 U
Aroclor 1262	mg/kg	0.56 U	0.56 U	0.56 U	0.57 U	0.56 U	0.56 U	0.28 U
Total PCBs	mg/kg	36.7	45	0.56 U	1.5	42	44	20.2

Table 2
Summary of PCB Analytical Data - Baseline Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-6B	TF-6C	TF-6D	TF-7A	TF-7B	TF-7C	TF-7D
Sample Date:		1/23/2015	1/23/2015	1/23/2015	1/23/2015	1/23/2015	4/27/2015	1/23/2015
Lab Sample ID:		460-89644-3	460-89644-5	460-89644-7	460-89644-2	460-89644-4	460-93882-1	460-89644-6
Aroclor 1016	mg/kg	0.16 U	0.17 U	0.33 U	0.17 U	0.17 U	0.16 U *	0.17 U
Aroclor 1221	mg/kg	0.21 U	0.22 U	0.43 U	0.22 U	0.22 U	0.21 U	0.22 U
Aroclor 1232	mg/kg	0.25 U	0.26 U	0.51 U	0.26 U	0.26 U	0.25 U	0.26 U
Aroclor 1242	mg/kg	17	9.1	30	3.4	8	0.16 U	11
Aroclor 1248	mg/kg	0.16 U	0.17 U	0.33 U	0.17 U	0.17 U	0.16 U	0.17 U
Aroclor 1254	mg/kg	0.16 U	0.17 U	0.33 U	0.17 U	0.17 U	0.16 U	0.17 U
Aroclor 1260	mg/kg	13	11	22	4.4	12	0.16 U *	13
Aroclor 1268	mg/kg	0.27 U	0.28 U	0.56 U	0.28 U	0.28 U	0.27 U	0.28 U
Aroclor 1262	mg/kg	0.27 U	0.28 U	0.56 U	0.28 U	0.28 U	0.27 U	0.28 U
Total PCBs	mg/kg	30	20.1	52	7.8	20	0.27 U	24

Table 2
Summary of PCB Analytical Data - Baseline Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-7E	TF-7F	S-1B	S-1C	S-2A	S-2B	S-2C
Sample Date:		1/23/2015	1/30/2015	12/23/2014	12/23/2014	12/23/2014	12/23/2014	12/23/2014
Lab Sample ID:		460-89644-8	460-89873-1	460-88367-20	460-88367-19	460-88367-21	460-88367-23	460-88367-22
Aroclor 1016	mg/kg	0.17 U	0.33 U	0.33 U	0.34 U	0.33 U	0.17 U	0.17 U
Aroclor 1221	mg/kg	0.21 U	0.42 U	0.43 U	0.43 U	0.43 U	0.22 U	0.22 U
Aroclor 1232	mg/kg	0.25 U	0.5 U	0.51 U	0.51 U	0.51 U	0.26 U	0.26 U
Aroclor 1242	mg/kg	20	27	0.33 U	0.34 U	0.33 U	0.17 U	0.17 U
Aroclor 1248	mg/kg	0.17 U	0.33 U	0.33 U	0.34 U	0.33 U	0.17 U	0.17 U
Aroclor 1254	mg/kg	0.17 U	0.33 U	0.33 U	0.34 U	0.33 U	0.17 U	0.17 U
Aroclor 1260	mg/kg	17	9.8	0.33 U	0.34 U	0.33 U	0.17 U	6.3
Aroclor 1268	mg/kg	0.28 U	0.55 U	0.56 U	0.57 U	0.56 U	0.28 U	0.28 U
Aroclor 1262	mg/kg	0.28 U	0.55 U	0.56 U	0.57 U	0.56 U	0.28 U	0.28 U
Total PCBs	mg/kg	37	36.8	0.56 U	0.57 U	0.56 U	0.28 U	6.3

Table 2
Summary of PCB Analytical Data - Baseline Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	S-3A	S-3B	S-3C	S-3E
Sample Date:		12/23/2014	12/23/2014	12/23/2014	12/23/2014
Lab Sample ID:		460-88367-18	460-88367-15	460-88367-16	460-88367-17
Aroclor 1016	mg/kg	0.33 U	0.33 U	0.34 U	0.33 U
Aroclor 1221	mg/kg	0.43 U	0.43 U	0.43 U	0.43 U
Aroclor 1232	mg/kg	0.51 U	0.51 U	0.51 U	0.51 U
Aroclor 1242	mg/kg	0.33 U	0.33 U	0.34 U	0.33 U
Aroclor 1248	mg/kg	0.33 U	0.33 U	0.34 U	0.33 U
Aroclor 1254	mg/kg	0.33 U	0.33 U	0.34 U	0.33 U
Aroclor 1260	mg/kg	0.33 U	0.33 U	0.34 U	0.33 U
Aroclor 1268	mg/kg	0.56 U	0.56 U	0.57 U	0.56 U
Aroclor 1262	mg/kg	0.56 U	0.56 U	0.57 U	0.56 U
Total PCBs	mg/kg	0.56 U	0.56 U	0.57 U	0.56 U

Table 2
Summary of PCB Analytical Data - Baseline Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Notes:

Bold = PCB Concentration > 50 mg/kg

Definitions:

mg/kg = milligrams per kilogram

PCB = Polychlorinated Biphenyl

RL = Reporting Limit

Data Qualifiers:

J = Indicates an estimated value

U = Not detected at the indicated Reporting Limit

* = Recovery or RPD exceeds control limits

Table 3
Summary of PCB Analytical Data - Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-2D-083016	TF-3D-061516	TF-3D-061516	TF-3D-090116	TF-3D-082517	TF-3D	TF-3D
Sample Date:		8/30/2016	6/15/2016	6/15/2016	9/1/2016	8/25/2017	10/25/2017	11/14/2017
Lab Sample ID:		JC26783-5	JC22334-1	JC22334-1R	JC26925-1	JC49684-2		
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	12.3	25.3	21.9	3.03	11.5	0.5 U	9.33
Aroclor 1248	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	28.7	0.5 U
Aroclor 1254	mg/kg	9.58	26.7	18	0.5 U	20.4	16.7	11
Aroclor 1260	mg/kg	10.0	0.5 U	14.1	3.2	0.5 U	0.5 U	0.5 U
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	31.88	52	54	6.18	31.9	45.4	20.33
w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 3
Summary of PCB Analytical Data - Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-4C-061516	TF-4C-061516	TF-4C-083016	TF-4D-061516	TF-4D-061516	TF-4D-070517	TF-4D-071417
Sample Date:		6/15/2016	6/15/2016	8/30/2016	6/15/2016	6/15/2016	7/3/2017	7/14/2017
Lab Sample ID:		JC22334-2	JC22334-2R	JC26783-6	JC22334-3	JC22334-3R	JC46386-2	JC47048-1
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	26.4	17.6	18.6	43.2	25.1	13.2	0.5
Aroclor 1248	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13.7 U
Aroclor 1254	mg/kg	18.2	9.28	0.5 U	50	20.9	0.5 U	18
Aroclor 1260	mg/kg	0.5 U	8.0	8.1	0.5 U	18.1	9.04	0.5 U
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	44.6	34.9	26.7	93.2	64.1	22.24	18.5
		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 3
Summary of PCB Analytical Data - Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-4D-072017	TF-5C-061516	TF-5C-061516	TF-5C-083016	TF-5D-061516	TF-5D-061516	TF-5D-083016
Sample Date:		7/20/2017	6/15/2016	6/15/2016	8/30/2016	6/15/2016	6/15/2016	8/30/2016
Lab Sample ID:		JC47416-1	JC22334-4	JC22334-4R	JC26783-7	JC22334-5	JC22334-5R	JC26783-1
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	13.6	15.9	10.9	22.2	36.7	22.1	29.2
Aroclor 1248	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1254	mg/kg	0.5 U	19.6	10.9	12.9	21.1	16.9	20.5
Aroclor 1260	mg/kg	9.91	0.5 U	8.4	14.2	0.5 U	11.8	11.8
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	23.51	35.5	30.16	49.3	57.8	50.8	61.5
w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 3
Summary of PCB Analytical Data - Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-5D-010617	TF-5D-020717	TF-5D-030617	TF-5D-033017	TF-5D-041417	TF-5D-042817	TF-6B-083016
Sample Date:		1/6/2017	2/7/2017	3/6/2017	3/30/2017	4/14/2017	4/28/2017	8/30/2016
Lab Sample ID:		JC35069-1	JC37014-1	JC38433-1	JC40133-1	JC41331-1	JC42594-1	JC26783-4
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	32.6	57.6	34.3	10.3	13.3	0.5 U	8.45
Aroclor 1248	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	27	0.5 U
Aroclor 1254	mg/kg	14.2	23.5	0.5 U	7.73	0.5 U	13	0.5 U
Aroclor 1260	mg/kg	9.8	14.7	16.8	5.5	0.5 U	8.68	5.3
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	56.56	95.8	51.1	23.51	13.3	48.68	13.72
		w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾	w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 3
Summary of PCB Analytical Data - Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-6D-0416	TF-6D-041316	TF-6D-042616	TF-6D-050516	TF-6D-051216	TF-6D-052716	TF-6D-053116
Sample Date:		4/5/2016	4/13/2016	4/26/2016	5/5/2016	5/12/2016	5/27/2016	5/31/2016
Lab Sample ID:		JC17616-1	JC18303-1	JC19129-1	JC19787-1	JC20188-1	JC21237-1	JC21329-1
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	0.5 U	0.5 U	0.5 U	23.9	22.4	0.5 U	21.4
Aroclor 1248	mg/kg	31.4	21.6	17.9	0.5 U	0.5 U	17.9	0.5 U
Aroclor 1254	mg/kg	16	0.5 U	14.5	18.1	0.5 U	5 U	21.2
Aroclor 1260	mg/kg	0.5 U	12.5	14.3	12.5	15.0	15.3	12.7
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	47.4	34.1	46.7	54.5	37.4	33.2	55.3

Table 3
Summary of PCB Analytical Data - Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-6D-053116	TF-6D-061616	TF-6D-061616	TF-6D-062216	TF-6D-063016	TF-6D-070716	TF-6D-071116
Sample Date:		6/7/2016	6/16/2016	6/16/2016	6/22/2016	6/30/2016	7/7/2016	7/11/2016
Lab Sample ID:		JC21329-1	JC22334-8	JC22334-8R	JC22828-1	JC23438-1	JC23724-2	JC23844-3
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	21.2	18.2	7.78	0.5 U	10.7	8.47	9.32
Aroclor 1248	mg/kg	5 U	0.5 U	0.5 U	23.6	0.5 U	0.5 U	0.5 U
Aroclor 1254	mg/kg	13.4	21.4	8.05	25.7	9.49	9.86	11.4
Aroclor 1260	mg/kg	11.7	100.0 U	3.9	8.2	8.0	5.6	6.3
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	46.3	39.6	19.73	57.5	28.17	23.92	27.06
		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾

Table 3
Summary of PCB Analytical Data - Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	TF-7E-061516	TF-7E-061516	TF-7E-073016	TF-7F-061516	TF-7F-061516	TF-7F-083016
Sample Date:		6/15/2016	6/15/2016	8/30/2016	6/15/2016	6/15/2016	8/30/2016
Lab Sample ID:		JC22334-6	JC22334-6R	JC26783-3	JC22334-7	JC22334-7R	JC26783-2
Aroclor 1016	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1221	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1232	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1242	mg/kg	17.1	16	7.59	35.2	13.9	15.6
Aroclor 1248	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1254	mg/kg	26.1	16.3	12.9	27.7	15.9	20.3
Aroclor 1260	mg/kg	0.5 U	0.5 U	5.3	15.6	13.4	7.5
Aroclor 1268	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor 1262	mg/kg	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total PCBs	mg/kg	43.2	32.3	25.74	78.5	43.2	43.41
		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾		w/ Permanganate Cleanup Procedure ⁽¹⁾	

Table 3
Summary of PCB Analytical Data - Recovery Well Samples
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Notes:

Bold = PCB Concentration > 50 mg/kg after Permanganate Cleanup

Definitions:

mg/kg = milligrams per kilogram

PCB = Polychlorinated Biphenyl

RL = Reporting Limit

Data Qualifiers:

J = Indicates an estimated value

U = Not detected at the indicated Reporting Limit

Footnotes:

(1) Samples analyzed using SW-846 EPA Test Method 3665A Sulfuric Acid/Permanganate Cleanup

Table 4
Summary of Offsite LNAPL Disposal Quantities
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

LNAPL Waste Oil Disposal Summary (<50 ppm PCBs):

Date	BOL Number	T-801	T-1401	Total
12/18/15	0277706	5,000 gal		5,000 gal
01/11/16	0277790		4,767 gal	4,767 gal
02/02/16	0277924	5,032 gal		5,032 gal
02/04/16	0277942		4,900 gal	4,900 gal
03/02/16	278269	2,703 gal	2,592 gal	5,295 gal
03/17/16	0278392	4,613 gal		4,613 gal
03/31/16	278518	5,000 gal		5,000 gal
04/13/16	278574	5,000 gal		5,000 gal
04/27/16	278823	4,880 gal		4,880 gal
05/05/16	278889		5,000 gal	5,000 gal
05/12/16	278941	5,000 gal		5,000 gal
05/26/16	279054	4,998 gal		4,998 gal
05/31/16	099965		3,103 gal	3,103 gal
06/07/16	279111	4,810 gal		4,810 gal
07/01/16	283085	5,026 gal		5,026 gal
07/18/16	283124	4,900 gal		4,900 gal
07/26/16	283125		5,000 gal	5,000 gal
08/09/16	283446	4,800 gal		4,800 gal
08/31/16	283592	5,052 gal		5,052 gal
09/01/16	283600		4,280 gal	4,280 gal
09/22/16	283745	4,950 gal		4,950 gal
10/07/16	180754	4,964 gal		4,964 gal
10/17/16	180744		4,800 gal	4,800 gal
11/04/16	104535	5,500 gal		5,500 gal
11/29/16	104145	5,300 gal		5,300 gal
12/01/16	258577		4,565 gal	4,565 gal
12/20/16	258731	4,869 gal		4,869 gal
01/06/17	258823	4,900 gal		4,900 gal
01/16/17	258893	4,875 gal		4,875 gal
01/25/17	259005	4,850 gal		4,850 gal
02/07/17	259108	4,900 gal		4,900 gal
02/14/17	259137		4,900 gal	4,900 gal
02/16/17	259170	4,860 gal		4,860 gal
03/01/17	259226	4,960 gal		4,960 gal
03/17/17	280224	4,837 gal		4,837 gal
03/30/17	280327	4,960 gal		4,960 gal
04/10/17	280370	3,436 gal		3,436 gal
04/25/17	280486		5,000 gal	5,000 gal
04/28/17	280485	5,000 gal		5,000 gal
05/12/17	280663	4,081 gal		4,081 gal
05/30/17	280874	4,964 gal		4,964 gal
06/23/17	238017	4,936 gal		4,936 gal
07/14/17	238326		4,884 gal	4,884 gal
07/20/17	238302	4,964 gal		4,964 gal
08/25/17	179863	4,936 gal		4,936 gal
09/05/17	179864	4,195 gal		4,195 gal
09/15/17	179956		4,859 gal	4,859 gal
09/26/17	180208	4,936 gal		4,936 gal
10/12/17	284001	4,838 gal		4,838 gal
10/27/17	284113	4,892 gal		4,892 gal
11/15/17	284446	4,857 gal		4,857 gal
12/06/17	256622	4,636 gal		4,636 gal
01/03/18	256810	4,633 gal		4,633 gal
01/22/18	257014	5,032 gal		5,032 gal
02/08/18	257162	4,936 gal		4,936 gal
02/23/18	257266	4,936 gal		4,936 gal
03/09/18	257369		4,964 gal	4,964 gal
03/13/18	257409	4,857 gal		4,857 gal
03/30/18	276735	4,857 gal		4,857 gal
04/18/18	276899	4,645 gal		4,645 gal
05/10/18	ACV002088	4,810 gal		4,810 gal
05/29/18	ACV002204	4,969 gal		4,969 gal
06/08/18	ACV002257	5,068 gal		5,068 gal
06/19/18	ACV002312	4,857 gal		4,857 gal
06/25/18	ACV002336		5,068 gal	5,068 gal
07/13/18	ACV002428	4,946 gal		4,946 gal
08/14/18	ACV002699	4,998 gal		4,998 gal
08/29/18	ACV002794		4,657 gal	4,657 gal
08/31/18	ACV002809	4,857 gal		4,857 gal
09/25/18	ACV002977	4,998 gal		4,998 gal
10/12/18	ACV022156	5,000 gal		5,000 gal
11/12/18	ACV033513	5,028 gal		5,028 gal
12/07/18	ACV023259	4,964 gal		4,964 gal
01/04/19	ACV023419	4,964 gal		4,964 gal
01/10/19	ACV0234756		4,837 gal	4,837 gal
02/08/19	ACV022841	4,900 gal		4,900 gal
02/20/19	ACV022896		4,630 gal	4,630 gal
03/20/19	ACV045063	4,613 gal		4,613 gal
04/05/19	ACV045150		4,692 gal	4,692 gal
07/16/19	ACV044897	5,170 gal		5,170 gal
08/13/19	ACV045767	4,964 gal		4,964 gal
08/29/19	ACV059072		4,964 gal	4,964 gal
09/30/19	ACV059303	4,857 gal		4,857 gal
10/09/19	ACV059356		5,068 gal	5,068 gal
10/17/19	ACV059387	4,964 gal		4,964 gal
11/27/19	ACV041988	4,406 gal		4,406 gal
01/29/20	ACV058282		4,954 gal	4,954 gal
02/20/20	ACV058282	4,926 gal		4,926 gal
04/21/20	ACV073540	4,908 gal		4,908 gal
06/23/20	ACV073978	4,856 gal		4,856 gal
07/21/20	ACV070767		4,796 gal	4,796 gal
08/05/20	ACV070820	4,775 gal		4,775 gal
10/08/20	ACV084102	4,950 gal		4,950 gal
10/13/20	ACV084125		4,927 gal	4,927 gal
01/26/21	ACV086093	5,083 gal		5,083 gal
	TOTALS:	348,937 gal	112,207 gal	461,144 gal

LNAPL Waste Oil Disposal Summary (>= 50 ppm PCBs):

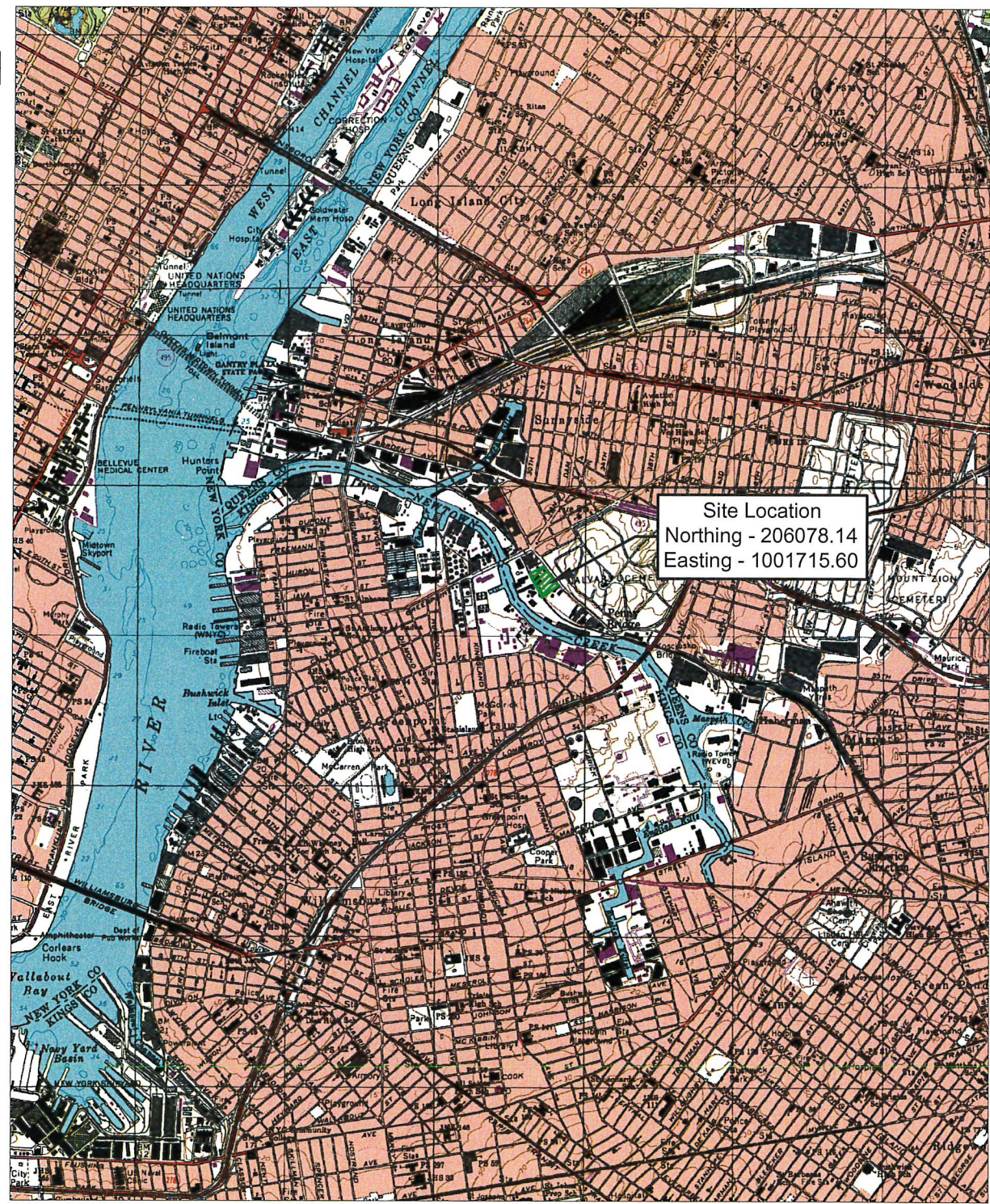
Date	Manifest Number	TF-3D	TF-4D	TF-5D	TF-6D	Total
08/30/16	016113060 JJK	0 gal	0 gal	0 gal	50 gal	50 gal
08/08/17	015633471 JJK	0 gal	20 gal	35 gal	0 gal	55 gal
02/06/18	017955324 JJK	23 gal	0 gal	0 gal	0 gal	23 gal
	TOTALS:	23 gal	20 gal	35 gal	50 gal	128 gal

FIGURES

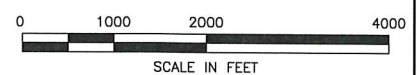
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N



Coordinate System: NAD 1983 StatePlane New York Long Island. Units: Foot US



Amec Foster Wheeler PROJECT No. 3480160502 DRAWING: 3480160502-0600-SLM0-0000	
PREPARED/DATE: VMW 2/28/2017	CHECKED/DATE: TCK 2/28/2017

 **MACTEC**
MACTEC Engineering and Consulting, P.C.
511 Congress Street, Suite 200
Portland, Maine 04112
(207) 775-5401

FIGURE 1
SITE LOCATION MAP
REVIEW AVENUE DEVELOPMENT SITES
RAD I AND RAD II
LONG ISLAND CITY, NEW YORK

Path: C:\QD\QUANTA\Review Avenue\working drawings\3480150502-0600-SP00-0000.dwg Thu, 16 Mar 2017 -- 9:30am vincent.whelan Layout: SITE PLAN

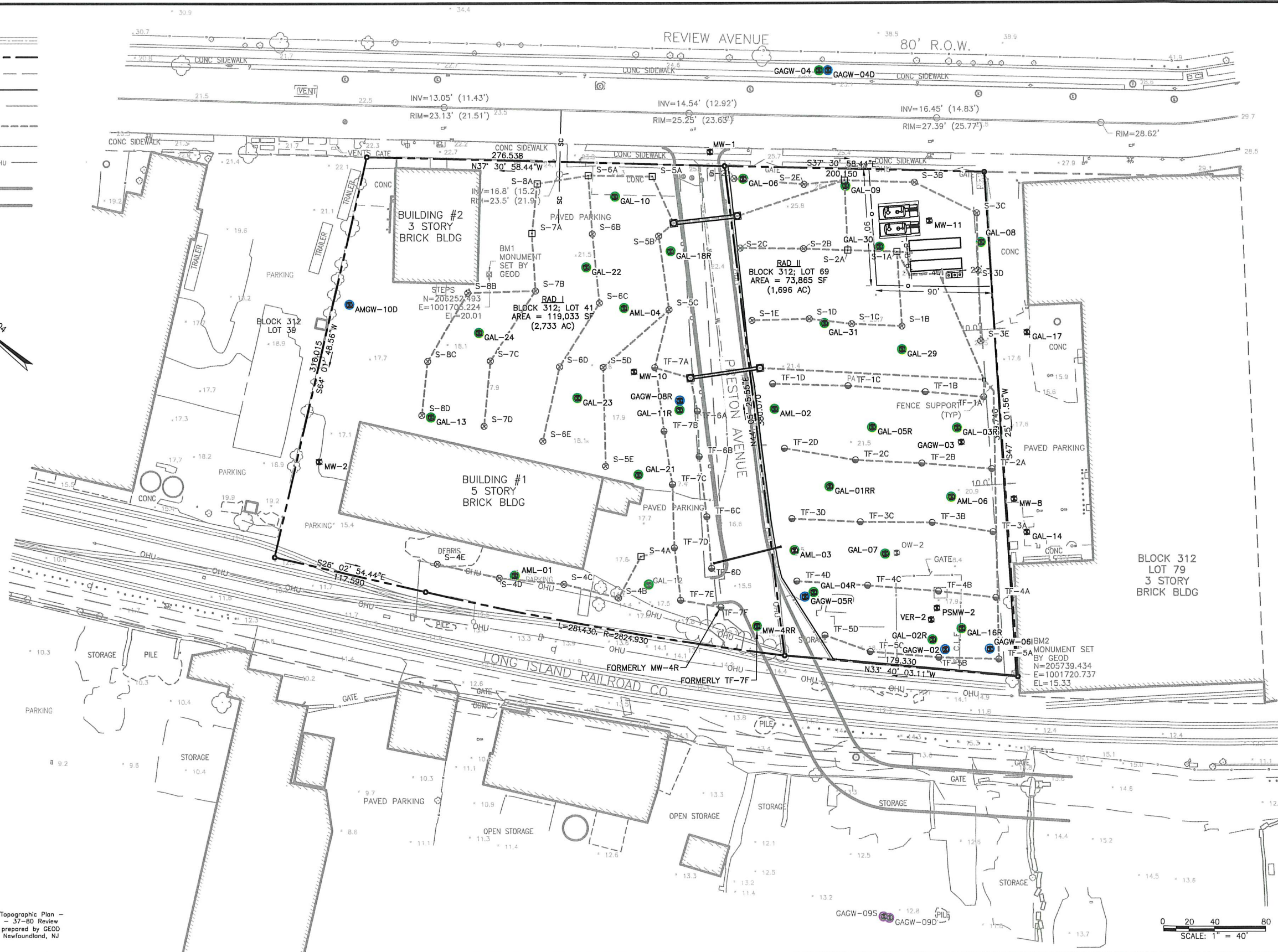
LINE LEGEND

- | | |
|-------------------------------------|---|
| RAIL ROAD TRACKS |  |
| PROPERTY LINE |  |
| ADJOINER PROPERTY LINE |  |
| CURBING |  |
| EASEMENT LINE |  |
| REMEDATION SYSTEM
PROCESS PIPING |  |
| CHAIN LINK FENCE |  |
| OVERHEAD WIRES |  |
| PRESTON AVE |  |

NAD 83-96 N.Y.L.I. 3104

NOTES:

- 1) This drawing references the "Topographic Plan - Block 312 Lots #1, 69 & 79 - 37-80 Review Avenue", dated 12/22/2014, prepared by GEDJ Corporation, 24 Kanouse Rd., Newfoundland, NJ 07435.
- 2) Recovery well locations (except where noted) are per survey drawings named "Property Survey, Block 312 Lot #1 - 37-80 Review Avenue" and "Property Survey, Block 312 Lot #69, 37-80 Review Avenue", by GEOD Corporation, dated January 29, 2015. Recovery Wells TF-6 and TF-7C were located via field measurement methods.
- 3) Horizontal datum is North American Datum of 1983 (NAD83). New York State Plane coordinates, Long Island zone 3104. Vertical datum is North American Vertical Datum of 1988 (NAVD88).



1	03/15/17	PERIODIC REVIEW REPORT	VMW BY	TCK CHKD BY
REV.	DATE	STATUS		



MACTEC Engineering and Consulting, P.C.
511 Congress Street, Suite 200
Portland, Maine 04112
(207) 775-5401

FIGURE 2
SITE PLAN
REVIEW AVENUE DEVELOPMENT SITES
RAD I AND RAD II
LONG ISLAND CITY, QUEENS, NY 11101

APPENDIX A

Monthly Reports

Review Ave. LNAPL Recovery System Monthly Summary

April 2020

Work completed in April 2020:

Week of Wed 4/1 – Sat 4/4

- O&M site visit on 4/2

Week of Sun 4/5 – Sat 4/11

- O&M site visit on 4/9

Week of Sun 4/12 – Sat 4/18

- O&M site visits on 4/14 & 4/17

Week of Sun 4/19 – Sat 4/25

- O&M site visits on 4/21 & 4/23
- Product load-out from T-801 on 4/21
 - o 4,908 GAL product removed (offsite) according to Bill of Landing

Week of Sun 4/26 – Thu 4/30

- O&M site visit on 4/30

O&M Activities:

Week of Wed 4/1 – Sat 4/4

- Operating on TF Zone 5
- Changed bag filters and cleaned basket strainer on 4/2
- Backwashed carbon on 4/2
- Processed water from totes on 4/2
- Viscosity testing of product in OWS day tank on 4/2

Week of Sun 4/5 – Sat 4/11

- Operating on TF Zone 5
- Changed bag filters and cleaned basket strainer on 4/9
- Switched active carbon vessel to LGAC-1102 on 4/9
- Viscosity testing of product in OWS day tank on 4/9
- Reset IP camera on 4/9

Week of Sun 4/12 – Sat 4/18

- Operating on TF Zone 5 until 4/13
 - o Switched to TF Zones 4 & 5 on 4/13
- Water removal from T-801 & T-1401 on 4/14
- Repaired IP camera mount on 4/14
- Rebuilt chemical metering pumps on 4/14
- Cleaned basket strainer on 4/14
- Cleaned flow transducer and reset flow meter k-factor on 4/14
- Changed bag filters and cleaned basket strainer on 4/17
- Backwashed carbon on 4/17
- Processed water from totes on 4/17
- Viscosity testing of product in OWS day tank on 4/17

Week of Sun 4/19 – Sat 4/25

- Operating on TF Zones 4 & 5
- Product load-out from T-801 on 4/21
- Repaired chemical feed pump (replaced 3-way valve with check valve) on 4/21
- Set chemical feed pumps to 20% auto on 4/21

Review Ave. LNAPL Recovery System Monthly Summary
April 2020

- Load out trash on 4/21
- Reset camera on 4/21
- Rebooted HMI on 4/21
- Changed bag filters and cleaned basket strainer on 4/23
- Backwashed carbon on 4/23
- Processed water from totes on 4/23
- Viscosity testing of product in OWS day tank on 4/23

Week of Sun 4/26 – Thu 4/30

- Operating on TF Zones 4 & 5
- Backwashed carbon on 4/30
- Blow-down LGAC-1101 on 4/30
- Changed bag filters and cleaned basket strainer on 4/30
- Viscosity testing of product in OWS day tank on 4/30

VER/TF System Production Results:

- TF System uptime for April was 647.37 Actual Run Hours out of 710.51 Available Hours, or 91.11%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
 - System shut down on 4/23 via high water level alarm in OWS; restarted same day after changing bag filters and backwashing carbon.
 - System shut down on 4/28 via high water level alarm in OWS; restarted on 4/30 after changing bag filters and backwashing carbon.
- Approximately 2,588 GAL Product Recovered in April from Zones 4 and 5.
 - Average TF Product recovery rate for April was 86.3 GPD (calendar days), or 95.9 GPD (run days) accounting for system downtime.
- Approximately 327,511 GAL Product Recovered Total since system start-up.
- 4,908 GAL Product from T-801 disposed of offsite in April.
 - 329,273 GAL Product from T-801 disposed of Total since start-up.
- Approximately 196,370 GAL Effluent discharged in April.
 - Average 6,546 GPD at an avg rate of 7,280 GPD considering downtime.
- 12,032,356 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.32%

Skimmer System Production Results:

- Skimmer System uptime for April was 240 Actual Run Hours out of 240 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 1,140 GAL Product Recovered in April.
 - Average Skimmer Product recovery rate for April was 38 GPD (calendar days), or 38 GPD (run days) accounting for system downtime.
- Approximately 106,166 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in April.
 - 102,484 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 3,728 GAL Product recovered in April.

Review Ave. LNAPL Recovery System Monthly Summary
April 2020

- Average Product recovery rate for April was 124.3 GPD.
- 433,678 GAL Product Recovered Total since system start-up.
- 4,908 GAL Product shipped off-site for disposal in April (see attached summary table).
- 431,757 GAL Product shipped off-site for disposal since system start-up as of the end of April 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

May 2020

Work completed in May 2020:

Week of Fri 5/1 – Sat 5/9

- O&M site visit on 5/4, 5/5 and 5/6
- Carbon change-out completed by Carbon Filtration Systems, Inc. on 5/5

Week of Sun 5/10 – Sat 5/16

- O&M site visit on 5/13
- 2Q 2020 Effluent Discharge Compliance Sampling completed 5/14

Week of Sun 5/17 – Sat 5/23

- O&M site visit on 5/19

Week of Sun 5/24 – Sun 5/31

- O&M site visits on 5/27 and 5/28

O&M Activities:

Week of Fri 5/1 – Sat 5/9

- Operating on TF Zones 4 & 5 until 5/5
 - Switched to TF Zones 1 & 2 on 5/5
- Changed bag filters and cleaned basket strainer on 4/2
- Backwashed carbon on 4/2
- Processed water from totes on 4/2
- Viscosity testing of product in OWS day tank on 4/2

Week of Sun 5/10 – Sat 5/16

- Operating on TF Zones 1 & 2
- Changed bag filters and cleaned basket strainer on 4/9
- Switched active carbon vessel to LGAC-1102 on 4/9
- Viscosity testing of product in OWS day tank on 4/9
- Reset IP camera on 4/9

Week of Sun 5/17 – Sat 5/23

- Operating on TF Zones 1 & 2
- Water removal from T-801 & T-1401 on 4/14
- Repaired IP camera mount on 4/14
- Rebuilt chemical metering pumps on 4/14
- Cleaned basket strainer on 4/14
- Cleaned flow transducer and reset flow meter k-factor on 4/14
- Changed bag filters and cleaned basket strainer on 4/17
- Backwashed carbon on 4/17
- Processed water from totes on 4/17
- Viscosity testing of product in OWS day tank on 4/17

Week of Sun 5/24 – Sun 5/31

- Operating on TF Zones 1 & 2 until 5/27
 - Switched to TF Zones 1, 2 & 3 on 5/27
- Backwashed carbon on 4/30
- Blow-down LGAC-1101 on 4/30
- Changed bag filters and cleaned basket strainer on 4/30
- Viscosity testing of product in OWS day tank on 4/30

Review Ave. LNAPL Recovery System Monthly Summary

May 2020

VER/TF System Production Results:

- TF System uptime for May was 647.37 Actual Run Hours out of 710.51 Available Hours, or 91.11%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
 - System shut down on 4/23 via high water level alarm in OWS; restarted same day after changing bag filters and backwashing carbon.
 - System shut down on 4/28 via high water level alarm in OWS; restarted on 4/30 after changing bag filters and backwashing carbon.
- Approximately 2,588 GAL Product Recovered in May from Zones 4 and 5.
 - Average TF Product recovery rate for May was 86.3 GPD (calendar days), or 95.9 GPD (run days) accounting for system downtime.
- Approximately 327,511 GAL Product Recovered Total since system start-up.
- 4,908 GAL Product from T-801 disposed of offsite in May.
 - 329,273 GAL Product from T-801 disposed of Total since start-up.
- Approximately 196,370 GAL Effluent discharged in May.
 - Average 6,546 GPD at an avg rate of 7,280 GPD considering downtime.
- 12,032,356 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.32%

Skimmer System Production Results:

- Skimmer System uptime for May was 240 Actual Run Hours out of 240 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 1,140 GAL Product Recovered in May.
 - Average Skimmer Product recovery rate for May was 38 GPD (calendar days), or 38 GPD (run days) accounting for system downtime.
- Approximately 106,166 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in May.
 - 102,484 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 3,728 GAL Product recovered in May.
 - Average Product recovery rate for May was 124.3 GPD.
- 433,678 GAL Product Recovered Total since system start-up.
- 4,908 GAL Product shipped off-site for disposal in May (see attached summary table).
- 431,757 GAL Product shipped off-site for disposal since system start-up as of the end of May 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

June 2020

Work completed in June 2020:

Week of Tue 6/2 – Sat 6/6

- O&M site visit on 6/2
- OWS Cleanout/flush line to sewer completed by ACV Environmental Services on 6/2

Week of Sun 6/7 – Sat 6/13

- O&M site visit on 6/9

Week of Sun 6/14 – Sat 6/20

- O&M site visit on 6/17

Week of Sun 6/21 – Sun 6/27

- O&M site visit on 6/23
- T-801 Product Loadout by ACV Environmental Services on 6/23

Week of Sun 6/28 – Tues 6/30

- O&M site visits on 6/30
- Re-pipe Inlet strainer to Effluent Pump 901

O&M Activities:

Week of Fri 6/2 – Sat 6/6

- Operating on TF Zone 1, 2, and 3 until 6/2
 - Switched to TF Zone 1 on 6/2
- Changed bag filters and cleaned basket strainer on 6/2
- Operating LGAC-1102 on 6/2
- Backwashed carbon on 6/2
- OWS Cleanout/flush line to sewer completed by ACV Environmental Services on 6/2

Week of Sun 6/7 – Sat 6/13

- Operating on TF Zone 1 until 6/9
 - Switched to TF Zone 2 & 3 on 6/9
- Changed bag filters and cleaned basket strainer on 6/9
- Backwash Carbon and Operating active carbon vessel LGAC-1101 on 6/9
- Effluent HL-water alarm/system shutdown; replace bag filters & restart system on 6/9

Week of Sun 6/14 – Sat 6/20

- Operating on TF Zones 2 & 3
- Operating active carbon vessel LGAC-1101 on 6/17
- Changed bag filters and clean strainers on 6/17
- Backwashed carbon on 6/17

Week of Sun 6/21 – Sun 6/27

- Operating on TF Zones 2 & 3
- Backwashed carbon on 6/23
- Operating active carbon vessel LGAC-1101 on 6/23
- Changed bag filters and strainer on 6/23
- Pump backwash holding tank/pump wastewater on 6/23
- Sequesterant R-330 delivered and chemical transfer conducted on 6/23
- T-801 product load-out on 6/23

Review Ave. LNAPL Recovery System Monthly Summary

June 2020

Week of Sun 6/28 – Tues 6/30

- Operating on TF Zones 2 & 3 until 6/30
 - Switched to TF Zones 3 & 4 on 6/30
- Active vessel LGAC-1102 on 6/30
- Changed bag filters and cleaned basket strainer on 6/30
- Re-pipe inlet strainer to Effluent pump 901 on 6/30

VER/TF System Production Results:

- TF System uptime for June was 656.93 Actual Run Hours out of 687.60 Available Hours, or 95.54%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
 - System shut down on 6/9 via high water level alarm in OWS; restarted same day after changing bag filters and backwashing carbon.
- Approximately 2,145 GAL Product Recovered in June from Zones 2 and 3.
 - Average TF Product recovery rate for June was 71.5 GPD (calendar days), or 78.4 GPD (run days) accounting for system downtime.
- Approximately 332,257 GAL Product Recovered Total since system start-up.
- 4,856 GAL Product from T-801 disposed of offsite in June.
 - 334,129 GAL Product from T-801 disposed of Total since start-up.
- Approximately 195,666 GAL Effluent discharged in June.
 - Average 6,522 GPD at an avg rate of 7,148 GPD considering downtime.
- 12,445,263 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.10%

Skimmer System Production Results:

- Skimmer System uptime for June was 240 Actual Run Hours out of 240 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 1,151 GAL Product Recovered in June.
 - Average Skimmer Product recovery rate for June was 38.4 GPD (calendar days), or 38.4 GPD (run days) accounting for system downtime.
- Approximately 108,402 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in June.
 - 102,484 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 3,297 GAL Product recovered in June.
 - Average Product recovery rate for June was 109.9 GPD.
- 440,659 GAL Product Recovered Total since system start-up.
- 4,856 GAL Product shipped off-site for disposal in June (see attached summary table).
- 436,613 GAL Product shipped off-site for disposal since system start-up as of the end of June 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

July 2020

Work completed in July 2020:

Week of Sun 7/4 – Sat 7/10

- O&M site visit on 7/7
- Pipe change-out to suction line effluent/discharge effluent on 7/7

Week of Sun 7/11 – Sat 7/17

- O&M site visit on 7/14

Week of Sun 7/18 – Sat 7/24

- Load-out by ACV Environmental Services on 7/21

Week of Sun 7/25 – Fri 7/31

- O&M site visits on 7/28

O&M Activities:

Week of Sun 7/4 – Sat 7/10

- Operating on TF Zones 3 & 4 on 7/7
- Changed bag filters and cleaned strainers on 7/7
- Operating active carbon vessel LGAC-1102 on 7/7
- Backwashed carbon on 7/7
- Change-out pipes for Effluent, Suction, and Discharge lines on 7/7
- Collection of TF 3 and 4 Samples on 7/7

Week of Sun 7/11 – Sat 7/17

- Operating on TF Zones 3 & 4 on 7/14
- Changed bag filters and cleaned strainers on 7/14
- Operating active carbon vessel LGAC-1102 on 7/14
- Backwash carbon on 7/14
- Collect samples from TF 3 and 4 on 7/14

Week of Sun 7/18 – Sat 7/24

- Removed Non-DOT PCB by ACV Environmental Services on 7/21 TF Zones 2 & 3

Week of Sun 7/25 – Fri 7/31

- Operating on TF Zone 3 & 4 until 7/28
 - Switched to TF Zone 4 & 5 on 7/28
- Backwashed carbon and cleaned strainers on 7/28
- Operating active carbon vessel LGAC-1102 on 7/28
- Changed bag filters and flush water line to city on 7/28
- Sequesterant R-330 delivered and chemical transfer conducted on 7/28
- Samples collected from TF 4 and 5 on 7/28.

VER/TF System Production Results:

- TF System uptime for July was 566.04 Actual Run Hours out of 662.79 Available Hours, or 85.40%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).

Review Ave. LNAPL Recovery System Monthly Summary
July 2020

- Approximately 3,973 GAL Product Recovered in July from Zones 3 and 4.
 - Average TF Product recovery rate for July was 128.2 GPD (calendar days), or 168.4 GPD (run days) accounting for system downtime.
- Approximately 336,230 GAL Product Recovered Total since system start-up.
- 0 GAL Product from T-801 disposed of offsite in July.
 - 334,129 GAL Product from T-801 disposed of Total since start-up.
- Approximately 223,303 GAL Effluent discharged in July.
 - Average 7,203 GPD at an avg rate of 9,468 GPD considering downtime.
- 12,668,566 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.78%

Skimmer System Production Results:

- Skimmer System uptime for July was 248 Actual Run Hours out of 248 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 652 GAL Product Recovered in July.
 - Average Skimmer Product recovery rate for July was 21.0 GPD (calendar days), or 21.0 GPD (run days) accounting for system downtime.
- Approximately 109,054 GAL Product Recovered Total since start-up.
- 4,796 GAL Product from T-1401 disposed of offsite in July.
 - 107,280 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 4,624 GAL Product recovered in July.
 - Average Product recovery rate for July was 149.2 GPD.
- 445,284 GAL Product Recovered Total since system start-up.
- 4,796 GAL Product shipped off-site for disposal in July (see attached summary table).
- 441,409 GAL Product shipped off-site for disposal since system start-up as of the end of July 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

August 2020

Work completed in August 2020:

Week of Sun 8/2 – Sat 8/8

- Load-out by ACV Environmental Services on 8/5
- Carbon Filtration Systems, Inc. – remove and replace GAC on 8/7

Week of Sun 8/9 – Sat 8/15

- O&M site visit on 8/11
- Load-out by ACV Environmental Services on 8/11

Week of Sun 8/16 – Sat 8/22

- Load-out by ACV Environmental Services on 8/21

Week of Sun 8/23 – Sat 8/29

- O&M site visits on 8/28

O&M Activities:

Week of Sun 8/9 – Sat 8/15

- Operating on TF Zone 4 & 5 until 7/28
 - Switched to TF Zone 5 on 8/11
- OWS Cleanout on 8/11
- Changed bag filters and cleaned strainers on 8/11
- Operating active carbon vessel LGAC-1102 and LGAC-1102 on 8/11
- Backwash carbon on 8/11
- Collect samples from TF 5 on 8/11

Week of Sun 8/16 – Sat 8/22

- Changed bag filters and cleaned strainers on 8/18
- Backwash carbon on 8/18
- Pump backwash holding tank on 8/18
- Change product pump; re-pipe; install/replace drain hoses from skimmer system and tube skimmer timer; check flow meter on 8/18 and 8/19
- Extinguish fire on 8/19

Week of Sun 8/23 – Sat 8/29

- Operating on TF Zone 4 & 5 until 8/25
 - Switched to TF Zones 1 - 5 on 8/25
- Backwashed carbon and cleaned strainers on 8/25
- Operating active carbon vessel LGAC-1101 on 8/25
- Changed bag filters on 8/25
- Skimmer well maintenance on 8/25

VER/TF System Production Results:

- TF System uptime for August was 508.84 Actual Run Hours out of 557.13 Available Hours, or 91.33%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).

Review Ave. LNAPL Recovery System Monthly Summary
August 2020

- Approximately 2,561 GAL Product Recovered in August from Zones 4 and 5.
 - Average TF Product recovery rate for August was 82.6GPD (calendar days), or 120.8 GPD (run days) accounting for system downtime.
- Approximately 338,791 GAL Product Recovered Total since system start-up.
- 4,775 GAL Product from T-801 disposed of offsite in August.
 - 338,904 GAL Product from T-801 disposed of Total since start-up.
- Approximately 146,665 GAL Effluent discharged in August.
 - Average 4,731 GPD at an avg rate of 6,918 GPD considering downtime.
- 12,815,231 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.75%

Skimmer System Production Results:

- Skimmer System uptime for August was 248 Actual Run Hours out of 248 Available Hours, or 100%.
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 1,057 GAL Product Recovered in August.
 - Average Skimmer Product recovery rate for August was 34.1 GPD (calendar days), or 34.1 GPD (run days) accounting for system downtime.
- Approximately 110,111 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in August.
 - 107,280 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 3,618 GAL Product recovered in August.
 - Average Product recovery rate for August was 116.7 GPD.
- 448,902 GAL Product Recovered Total since system start-up.
- 4,775 GAL Product shipped off-site for disposal in August (see attached summary table).
- 446,184 GAL Product shipped off-site for disposal since system start-up as of the end of August 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

September 2020

Work completed in September 2020:

Week of Tues 9/1 – Sat 9/5

- TF-2 line has no flow as of 8/28; checked equipment on 9/2

Week of Sun 9/6 – Sat 9/12

- O&M site visit on 9/8
- Quarterly PCB Sampling of T-801 and T-1301 on 9/10

Week of Sun 9/13 – Sat 9/19

- O&M site visit on 9/14
- Repair LC-K hoses and change bag filters on 9/17

Week of Sun 9/20 – Sat 9/26

- Reset system; reprime effluent pump and clean basket strainers on 9/21
- O&M site visits on 9/22

Week of Sun 9/27 – Wed 9/30

- O&M site visits on 9/29

O&M Activities:

Week of Tues 9/1 – Sat 9/5

- Operating on TF Zones 1 - 5 on 8/25
 - o TF Zone 2 down on 8/28 through 9/2
 - o Operating TF Zones 1, 3, 4, & 5 on 9/2
- Check TF Zone 2 line on 9/2

Week of Sun 9/6 – Sat 9/12

- Changed bag filters and cleaned strainers on 9/8
- Backwash carbon (both LGAC-1101 and LGAC-1102) on 9/8
- Check TF Zone 2 line on 9/8
- Quarterly Sampling T-801 and T-1301/PCB Sampling on 9/10

Week of Sun 9/13 – Sat 9/19

- Backwashed carbon (LGAC-1101) and cleaned strainers on 9/14
- Operating active carbon vessel LGAC-1101 on 9/14
- Changed bag filters on 9/14
- Backwashed carbon (LGAC-1102) and cleaned strainers on 9/15
- Repair LC-K hoses and change bag filters on 9/17
- Resample on 9/17

Week of Sun 9/20 – Sat 9/26

- Reset System; reprime effluent pump and clean strainers on 9/21
- Changed bag filters and cleaned strainers on 9/22
- Operating TF Zones 1, 3, 4, & 5 on 9/2
 - o Switched from LGAC-1102 to LGAC-1102 on 9/22
- Backwash carbon (both LGAC-1101 and LGAC-1102) on 9/8

Review Ave. LNAPL Recovery System Monthly Summary

September 2020

Week of Sun 9/27 – Wed 9/30

- Backwashed carbon and cleaned strainers on 9/29
- Changed bag filters on 9/29

VER/TF System Production Results:

- TF System uptime for September was 550.15 Actual Run Hours out of 642.94 Available Hours, or 85.57%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
- Approximately 2,323 GAL Product Recovered in September from Zones 1, 3, 4 and 5.
 - Average TF Product recovery rate for September was 77.4 GPD (calendar days), or 101.3 GPD (run days) accounting for system downtime.
- Approximately 341,114 GAL Product Recovered Total since system start-up.
- 0 GAL Product from T-801 disposed of offsite in September.
 - 338,904 GAL Product from T-801 disposed of Total since start-up.
- Approximately 184,836 GAL Effluent discharged in September.
 - Average 6,161.2 GPD at an avg rate of 8,063.4 GPD considering downtime.
- 13,000,066 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.26%

Skimmer System Production Results:

- Skimmer System uptime for September was 168 Actual Run Hours out of 240 Available Hours, or 70%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 3,111 GAL Product Recovered in September.
 - Average Skimmer Product recovery rate for September was 103.7 GPD (calendar days), or 148.1 GPD (run days) accounting for system downtime.
- Approximately 113,222 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in September.
 - 107,280 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 5,434 GAL Product recovered in September.
 - Average Product recovery rate for September was 181.1 GPD.
- 454,336 GAL Product Recovered Total since system start-up.
- 0 GAL Product shipped off-site for disposal in September (see attached summary table).
- 446,184 GAL Product shipped off-site for disposal since system start-up as of the end of September 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

October 2020

Work completed in October 2020:

Week of Sun 10/4 – Sat 10/10

- O&M site visit on 10/6
- Removed Non-DOT PCB by ACV Environmental Services on 10/8 TF Zones 1, 3, 4, & 5

Week of Sun 10/11 – Sat 10/17

- O&M site visit on 10/13
- Removed Non-DOT PCB by ACV Environmental Services on 10/13 TF Zones 1, 3, 4, 5, & 6

Week of Sun 10/18 – Sat 10/24

- O&M site visit on 10/20

O&M Activities:

Week of Sun 10/4 – Sat 10/10

- Operating TF Zones 1, 3, 4, & 5 on 9/2
 - Switched to TF Zones 1, 3, 4, 5, & 6 on 10/6
- Cleaned strainers on 10/6
- Change oil regulators in TF-2A on 10/6
- Pump water from 801 and 1401 on 10/6
- Product load-out from T-801 on 10/8

Week of Sun 10/11 – Sat 10/17

- Changed bag filters and cleaned strainers on 10/13
- Backwash carbon (LGAC-1102) on 10/13
- Product load-out from T-1401 on 10/13
- Maintenance of AC 1501 on 10/13

Week of Sun 10/18 – Sat 10/24

- Changed bag filters and cleaned strainers on 10/20
- Backwash carbon on 10/20

Week of Sun 10/25 – Sat 10/30

- Changed bag filters and cleaned strainers on 10/26
- Backwash carbon on 10/26
- Reset S4-D at 12 on 10/26
- Drain carbon LGAC 1101 on 10/29

VER/TF System Production Results:

- TF System uptime for October was 496.73 Actual Run Hours out of 662.26 Available Hours, or 75.01%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
- Approximately 2,696 GAL Product Recovered in October from Zones 1, 3, 4 and 5.
 - Average TF Product recovery rate for October was 87.0 GPD (calendar days), or 130.3 GPD (run days) accounting for system downtime.
- Approximately 343,810 GAL Product Recovered Total since system start-up.
- 4,950 GAL Product from T-801 disposed of offsite in October.
 - 343,854 GAL Product from T-801 disposed of Total since start-up.

Review Ave. LNAPL Recovery System Monthly Summary
October 2020

- Approximately 177,220 GAL Effluent discharged in October.
 - Average 5,716.8 GPD at an avg rate of 8,562.6 GPD considering downtime.
- 13,177,286 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.52%

Skimmer System Production Results:

- Skimmer System uptime for October was 248 Actual Run Hours out of 248 Available Hours, or 100%.
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 2,072 GAL Product Recovered in October.
 - Average Skimmer Product recovery rate for October was 66.8 GPD (calendar days), or 66.8 GPD (run days) accounting for system downtime.
- Approximately 115,293 GAL Product Recovered Total since start-up.
- 4,927 GAL Product from T-1401 disposed of offsite in October.
 - 112,207 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 4,767 GAL Product recovered in October.
 - Average Product recovery rate for October was 153.8 GPD.
- 459,103 GAL Product Recovered Total since system start-up.
- 9,877 GAL Product shipped off-site for disposal in October (see attached summary table).
- 456,061 GAL Product shipped off-site for disposal since system start-up as of the end of October 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

November 2020

Work completed in November 2020:

Week of Sun 11/1 – Sat 11/7

- Restart System
- O&M site visit on 11/3
- Removed Non-DOT PCB by ACV Environmental Services on 11/3 TF Zones 1, 3, 4, 5, & 6

Week of Sun 11/8 – Sat 11/14

- Carbon change-out on 11/10
- OWS cleanout on 11/11
- Removed Non-DOT PCB by ACV Environmental Services on 11/11 TF Zones 1, 3, 4, 5, & 6

Week of Sun 11/15 – Sat 11/21

- Repairs to System on 11/16
- Repairs to System and restart system on 11/17

Week of Sun 11/22 – Sat 11/28

- O&M site visit on 11/23
- Discharge compliance sampling on 11/23
- O&M site visit on 11/24

O&M Activities:

Week of Sun 11/1 – Sat 11/7

- Restart system on 11/2
- Backwash Carbon on 11/2
- Complete blowdown of LGAC-1101
- Operating TF Zones 1, 3, 4, 5, & 6 on 10/6
- Change bag filters and cleaned strainers on 11/3
- Backwash Carbon on 11/3
- Removed Non-DOT PCB by ACV Environmental Services on 11/3 TF Zones 1, 3, 4, 5, & 6

Week of Sun 11/8 – Sat 11/14

- Blowdown of LGAC-1102 on 11/9
- Carbon change-out on 11/10
- OWS cleanout on 11/11
- Removed Non-DOT PCB by ACV Environmental Services on 11/11 TF Zones 1, 3, 4, 5, & 6

Week of Sun 11/15 – Sat 11/21

- Repairs to System on 11/16
- Repairs to System and restart system on 11/17

Week of Sun 11/22 – Sat 11/28

- Change bag filters and cleaned strainers on 11/23
- Backwash Carbon on 11/23
- Influent check on 11/23
- Discharge Compliance sampling on 11/23
- Change bag filters and cleaned strainers on 11/24
- Backwash Carbon on 11/24
- Paint floor in OWS on 11/24

Review Ave. LNAPL Recovery System Monthly Summary
November 2020

VER/TF System Production Results:

- TF System uptime for November was 301.55 Actual Run Hours out of 359.60 Available Hours, or 83.86%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
- Approximately 1,559 GAL Product Recovered in November from Zones 1, 3, 4 and 5.
 - Average TF Product recovery rate for November was 52.0 GPD (calendar days), or 124.1 GPD (run days) accounting for system downtime.
- Approximately 345,369 GAL Product Recovered Total since system start-up.
- 0 GAL Product from T-801 disposed of offsite in November.
 - 343,854 GAL Product from T-801 disposed of Total since start-up.
- Approximately 95,931 GAL Effluent discharged in November.
 - Average 3,197.7 GPD at an avg rate of 7,635.1 GPD considering downtime.
- 13,273,218 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.63%

Skimmer System Production Results:

- Skimmer System uptime for November was 240 Actual Run Hours out of 240 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 973 GAL Product Recovered in November.
 - Average Skimmer Product recovery rate for November was 32.4 GPD (calendar days), or 32.4 GPD (run days) accounting for system downtime.
- Approximately 116,266 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in November.
 - 112,207 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 2,532 GAL Product recovered in November.
 - Average Product recovery rate for November was 84.4 GPD.
- 461,635 GAL Product Recovered Total since system start-up.
- 0 GAL Product shipped off-site for disposal in November (see attached summary table).
- 456,061 GAL Product shipped off-site for disposal since system start-up as of the end of November 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

December 2020

Work completed in December 2020:

Week of Tues 12/1 – Sat 12/5

- Sampling on 12/1
- O&M on 12/2

Week of Sun 12/6 – Sat 12/12

- Rebuild Transfer Pump on 12/7
- Tap plugs for Vac Test on 12/7

Week of Sun 12/27 – Thurs 12/31

- Replace GFCI and rewire for VFD on 12/29
- Repair frozen Transfer Pump on 12/29
- Remove water from T-801 and T-1401 on 12/29

O&M Activities:

Week of Tues 12/1 – Sat 12/5

- Sampling on 12/1
- Change bag filters and cleaned strainers on 12/2
- Backwash Carbon on 12/2

Week of Sun 12/6 – Sat 12/12

- Rebuild Transfer Pump on 12/7
- Tap plugs for Vac Test on 12/7

Week of Sun 12/27 – Thurs 12/31

- Replace GFCI and rewire for VFD on 12/29
- Repair frozen Transfer Pump on 12/29

VER/TF System Production Results:

- TF System uptime for December was 147.08 Actual Run Hours out of 151.89 Available Hours, or 96.83%
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
 - Down time for planned vacuum testing.
- Approximately 795 GAL Product Recovered in December from Zones 1, 3, 4, 5 and 6.
 - Average TF Product recovery rate for December was 25.6 GPD (calendar days), or 129.7 GPD (run days) accounting for system downtime.
- Approximately 346,164 GAL Product Recovered Total since system start-up.
- 0 GAL Product from T-801 disposed of offsite in December.
 - 343,854 GAL Product from T-801 disposed of Total since start-up.
- Approximately 45,159 GAL Effluent discharged in December.
 - Average 1,456.7 GPD at an avg rate of 7,368.8 GPD considering downtime.
- 13,318,376 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.76%

Review Ave. LNAPL Recovery System Monthly Summary
December 2020

Skimmer System Production Results:

- Skimmer System uptime for December was 48 Actual Run Hours out of 48 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 14 GAL Product Recovered in December.
 - Average Skimmer Product recovery rate for December was 0.5 GPD (calendar days), or 2.4 GPD (run days) accounting for system downtime.
- Approximately 116,281 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in December.
 - 112,207 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 809 GAL Product recovered in December.
 - Average Product recovery rate for December was 26.1 GPD.
- 462,445 GAL Product Recovered Total since system start-up.
- 0 GAL Product shipped off-site for disposal in December (see attached summary table).
- 456,061 GAL Product shipped off-site for disposal since system start-up as of the end of December 2020 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

January 2021

Work completed in January 2021:

Week of Sun 1/3 – Sat 1/9

- Change Product Pump on 1/5
- O&M site visit on 1/6
 - o System on LGAC

Week of Sun 1/10 – Sat 1/16

- Repair effluent line from Carbon and repair belt to Skimmer System on 1/11
- Complete Discharge Sampling on 1/11
- O&M site visit on 1/12

Week of Sun 1/17 – Sat 1/23

- O&M site visit on 1/19
- TF Pump cleaning on 1/19
- Pump water from tanks, T-801 and T-1401 on 1/19

Week of Sun 1/24 – Sat 1/30

- Removed Non-DOT PCB by ACV Environmental Services on 1/26

O&M Activities:

Week of Sun 1/3 – Sat 1/9

- Change Product Pump on 1/5
- Strainers cleaned on 1/6
- Remove water from T-1401 on 1/6
-

Week of Sun 1/10 – Sat 1/16

- Repair effluent line from Carbon on 1/11
- Repair/replace belt to Skimmer System on 1/11
- Complete Discharge Sampling on 1/11
- Switch to and Carbon backwash LGAC-1102 on 1/12
- Change bag filters and cleaned strainers on 1/12

Week of Sun 1/17 – Sat 1/23

- TF Pump cleaning on 1/19
- Pump water from tanks, T-801 and T-1401 on 1/19

VER/TF System Production Results:

- TF System uptime for January was 542.18 Actual Run Hours out of 613.04 Available Hours, or 88.44 %
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
- Approximately 2,208 GAL Product Recovered in January from Zones 1, 3, 4, 5 and 6.
 - Average TF Product recovery rate for January was 71.2 GPD (calendar days), or 97.7 GPD (run days) accounting for system downtime.
- Approximately 348,372 GAL Product Recovered Total since system start-up.

Review Ave. LNAPL Recovery System Monthly Summary
January 2021

- 5,083 GAL Product from T-801 disposed of offsite in January.
 - 348,937 GAL Product from T-801 disposed of Total since start-up.
- Approximately 182,398 GAL Effluent discharged in January.
 - Average 5,883.8 GPD at an avg rate of 8,074.0 GPD considering downtime.
- 13,500,774 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 1.21 %

Skimmer System Production Results:

- Skimmer System uptime for January was 210 Actual Run Hours out of 210 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 741 GAL Product Recovered in January.
 - Average Skimmer Product recovery rate for January was 23.9 GPD (calendar days), or 28.2 GPD (run days) accounting for system downtime.
- Approximately 117,022 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in January.
 - 112,207 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 2,949 GAL Product recovered in January.
 - Average Product recovery rate for January was 95.1 GPD.
- 465,393 GAL Product Recovered Total since system start-up.
- 5,083 GAL Product shipped off-site for disposal in January (see attached summary table).
- 461,144 GAL Product shipped off-site for disposal since system start-up as of the end of January 2021 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

February 2021

Work completed in February 2021:

Week of Sun 2/1 – Sat 2/6

- O&M site visit on 2/4

Week of Sun 2/7 – Sat 2/13

- O&M site visit on 2/9
- Maintenance/repair overheated compressor on 2/9

Week of Sun 2/21 – Sat 2/27

- O&M site visit on 2/23
- TF Line 4 – issues turn line off on 2/23

O&M Activities:

Week of Sun 2/1 – Sat 2/6

- Change bag filters and cleaned strainers on 2/4
- No backwash of carbon/hydrant frozen on 2/4
- Operating TF Zones 1, 3, 4, 5, & 6 from 10/6

Week of Sun 2/7 – Sat 2/13

- Maintenance/repair overheated compressor on 2/9
- Collect Samples from TF-1, 3, 4, 5, & 6 on 2/9
- Backwash carbon LGAC-1102 on 2/9
- Change bag filters and cleaned strainers on 2/9
- Maintenance/repair overheated compressor on 2/9

Week of Sun 2/21 – Sat 2/27

- Operating TF Zones 1, 3, 4, 5, & 6 from 10/6
 - Switched to TF Zones 1, 3, 5, & 6 on 2/23
- Backwash carbon LGAC-1102 on 2/23
- Change bag filters and cleaned strainers on 2/23
- Maintenance/repair overheated compressor on 2/23
- Collect Samples from TF-1, 3, 4, 5, & 6 on 2/23

VER/TF System Production Results:

- TF System uptime for February was 368.10 Actual Run Hours out of 659.36 Available Hours, or 55.83 %
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
 - Downtime due to OWS system off (compressor issues/solenoid issues and O&M – clogged strainers).
- Approximately 1,090 GAL Product Recovered in February from Zones 1, 3, 4, 5 and 6.
 - Average TF Product recovery rate for February was 38.9 GPD (calendar days), or 71.7 GPD (run days) accounting for system downtime.
- Approximately 349,462 GAL Product Recovered Total since system start-up.
- 0 GAL Product from T-801 disposed of offsite in February.
 - 348,937 GAL Product from T-801 disposed of Total since start-up.
- Approximately 117,596 GAL Effluent discharged in February.
 - Average 4,199.9 GPD at an avg rate of 7,667.2 GPD considering downtime.

Review Ave. LNAPL Recovery System Monthly Summary
February 2021

- 13,618,370 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 0.93%

Skimmer System Production Results:

- Skimmer System uptime for February was 224 Actual Run Hours out of 224 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
 - OWS was off due to compressor issues.
- Approximately 347 GAL Product Recovered in February.
 - Average Skimmer Product recovery rate for February was 12.4 GPD (calendar days), or 12.4 GPD (run days) accounting for system downtime.
- Approximately 117,368 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in February.
 - 112,207 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 1,437 GAL Product recovered in February.
 - Average Product recovery rate for February was 51.3 GPD.
- 466,830 GAL Product Recovered Total since system start-up.
- 0 GAL Product shipped off-site for disposal in February (see attached summary table).
- 461,144 GAL Product shipped off-site for disposal since system start-up as of the end of February 2021 (see attached summary table).

Review Ave. LNAPL Recovery System Monthly Summary

March 2021

Work completed in March 2021:

Week of Sun 3/4 – Sat 3/10

- O&M site visit on 3/9
- Replace TF – Zone 5 – Replace Pump at 5D on 3/9

Week of Sun 3/14 – Sat 3/20

- O&M site visit on 3/17

Week of Sun 3/21 – Sat 3/27

- O&M site visit on 3/23

O&M Activities:

Week of Sun 3/4 – Sat 3/10

- Change bag filters and cleaned strainers on 3/9
- Backwash of carbon LGAC-1102 on 3/9
- Operating TF Zone 5 – collect samples from TF-5

Week of Sun 3/11 – Sat 3/17

- Backwash carbon LGAC-1102 on 3/17
- Change bag filters and cleaned strainers on 3/17
- Clean TF Pumps on 3/17

Week of Sun 3/21 – Sat 3/27

- Operating TF Zone 5
- Backwash carbon LGAC-1102 on 3/23
- Change bag filters and cleaned strainers on 3/23

VER/TF System Production Results:

- TF System uptime for March was 614.5 Actual Run Hours out of 564.64 Available Hours, or 91.94 %
 - Available Hours = Scheduled Daily Operating Hours – scheduled maintenance time – product removal time – force majeure time (power outage, weather, etc.).
 - Pump replacement on TF-Zone 5.
- Approximately 1,008 GAL Product Recovered in March from Zone 5.
 - Average TF Product recovery rate for March was 32.5 GPD (calendar days), or 42.8 GPD (run days) accounting for system downtime.
- Approximately 350,470 GAL Product Recovered Total since system start-up.
- 0 GAL Product from T-801 disposed of offsite in March.
 - 348,937 GAL Product from T-801 disposed of Total since start-up.
- Approximately 120,496 GAL Effluent discharged in March.
 - Average 3,887.0 GPD at an avg rate of 5,121.7GPD considering downtime.
- 13,738,866 GAL Effluent discharged Total since start-up.
- Recovered Oil/Extracted Groundwater Ratio = 0.84%

Review Ave. LNAPL Recovery System Monthly Summary
March 2021

Skimmer System Production Results:

- Skimmer System uptime for March was 248 Actual Run Hours out of 248 Available Hours, or 100%
 - Skimmer system running @ 8 hrs/day schedule (7AM – 3PM)
- Approximately 704 GAL Product Recovered in March.
 - Average Skimmer Product recovery rate for March was 22.7 GPD (calendar days), or 22.7 GPD (run days) accounting for system downtime.
- Approximately 118,073 GAL Product Recovered Total since start-up.
- 0 GAL Product from T-1401 disposed of offsite in March.
 - 112,207 GAL Product from T-1401 disposed of Total since start-up.

Total Product Recovery System Results:

- 1,712 GAL Product recovered in March.
 - Average Product recovery rate for March was 55.2 GPD.
- 468,542 GAL Product Recovered Total since system start-up.
- 0 GAL Product shipped off-site for disposal in March (see attached summary table).
- 461,144 GAL Product shipped off-site for disposal since system start-up as of the end of March 2021 (see attached summary table).

APPENDIX B

Annual Inspection Report

Site Inspection Form – RAD I

I. Site Information		
Site Name:	Review Avenue Development Site I (RAD I)	
NYSDEC Site Number:	BCP #C241089	
Site Address:	37-30 Review Avenue, Long Island City, NY	
Block/Lot:	Block 312; Lot 41	
Date of Inspection:	12/21/20	
Type of Inspection:	Regular ☒	Emergency ☐
Inspected By:	Brent O'Dell	

II. General Information	
Current Site Use: (Warehouse, Parking Lot, Vacant, etc.):	Commercial
Summary of Previous Inspections: See Attached	
Repairs to triangular area were needed, ongoing required. Repaving or concrete patching was still required, some pavement repairs or rehabilitation was needed. Some of these items have been completed.	

III. Weather Conditions			
Time	Temperature	Condition (Sunny, Overcast, Precipitation, etc.)	Wind (Light, Moderate, Heavy, etc.)
925	30s	Partly Cloudy, snow on ground	Light to moderate wind

Site Inspection Form – RAD I

IV. On-Site Documents & Records (Stored at RAD II)				
Description	Readily available	Up to date	N/A	Remarks
O&M Documents: on RAD II				
O&M Manual	X	yes		
As-built drawings	X	yes		
Maintenance logs	X	yes		
Site Health & Safety Plan: on RAD II				
Contingency Plan/Emergency response plan	X	yes		
O&M and OSHA Training Records: on RAD II				
O&M and OSHA Training Records	X	yes		
Permits and Service Agreements: on RAD II				
NYSDEC Air Permit Exemption	X	yes		
NYSDEC Petroleum Bulk Storage Certification	X	yes		
NYSDEC Erosion and Sediment Control Exemption		yes		
NYSDEC Tidal Wetlands Jurisdiction Determination Letter	X	yes		
NYCDEP Groundwater Discharge LOA		yes		Being renewed
NYCDEP Air Permit Informational Notice	X	yes		
NYCDEP Dewatering Scheme and Indemnity Agreement		yes		Being renewed
NYCDEP Bureau of Customer Service Groundwater Discharge Permit		yes		Being renewed
NYCDOB Certificates of Occupancy	X	yes		
Other:				

V. Site Conditions					
Description		Inspected			Comments, Field Observations and Measurements (Dimensions and Depth of Disturbance of Cap), Reference Photo #
		Yes	No	N/A	
Engineering Control: Pavement Cover System					
a.	Asphalt Condition (Check for cracking, spalling, and potholes)	X			Identified areas in need of repair.

Site Inspection Form – RAD I

b.	Differential Settlement (Check for settlement or subsidence)	X			None identified
c.	Disturbance (Check for disturbance e.g. construction or utility repair, etc.)	X			None Identified
Engineering Control: LNAPL Recovery System					
a.	Recovery Well Vaults and Pumps (Check for leaks, operation, vault security, etc.)	X			Check list and photo's on file
Other:					
a.	Monitoring Wells (Check if secured, inspect condition of well, well cap, etc.)	X			Check list of photos on file
b.	Security (Check fence, gates, locks, etc.)	X			Fence line is fine.
c.	Site Use (Has site use changed? If so, is it still used for restricted use as specified in the SMP?)	X			Same. No.

Site Inspection Form – RAD I

VI. Institutional Controls				
Status of Institutional Controls:				
Description	Yes	No	N/A	Remarks
Site conditions imply Institutional Controls not properly implemented		X		
Site conditions imply Institutional Controls not being fully enforced		X		
Permits and records are onsite and up-to-date	X			
Violations (if any) have been reported			X	
Previous suggested correction(s) have been made	X			Patching was completed.
Other problems or suggestions:				
Signs of wear on pavement, cracks have formed in the cap main area. Do not go completely thru but should be sealed.				

VII. Groundwater and LNAPL Elevations							
Monthly LNAPL Thickness Measurements: SEE ATTACHED							
Well ID Location	Date	Time	Depth from TOC to			Measured by:	Remarks: Calibration data found on Instrument Calibration Record
			Product (ft)	Water (ft)	Bottom (ft)		
AML-01							
AML-04							
GAL-10							
GAL-11R							
GAL-12							
GAL-13R							
GAL-18R							
GAL-21							
GAL-22							
GAL-23							
GAL-24							
GAL-32							
MW-2							
MW-4R							

Site Inspection Form – RAD I

VII. Groundwater and LNAPL Elevations (Continued)							
Semi-Annual Groundwater Elevation Measurements: SEE ATTACHED							
Well ID Location	Date	Time	Depth from TOC to		Measured by:	Sampled? (Y/N)	Remarks: Calibration data found on Instrument Calibration Record
			Water (ft)	Bottom (ft)			
GAGW-02							
GAGW-02							
GAGW-04D							
GAGW-04D							
GAGW-05R							
GAGW-05R							
GAGW-6I							
GAGW-6I							
GAGW-08R							
GAGW-08R							
AMGW-10D							
AMGW-10D							
Semi-Annual LNAPL Thickness Measurements (12 TF LNAPL Recovery Wells from RAD I & RAD II): SEE ATTACHED							
Well ID Location	Date	Time	Depth from TOC to			Measured by:	Remarks: Calibration data found on Instrument Calibration Record
			Product (ft)	Water (ft)	Bottom (ft)		
TF3A							
TF3B							
TF3C							
TF3D							
TF4A							
TF4B							
TF4C							
TF4D							
TF5A							
TF5B							
TF5C							
TF5D							

Site Inspection Form – RAD I

IX. Overall Observations on Remedy Implementation & Site Conditions

Cap Repairs referenced in previous inspections were completed. Triangular area repairs were completed, however ongoing and continued maintenance is necessary. Evidence of grass growing thru pavement and compacted soils in some areas. No evidence of material exposure. Repairs to cap in the middle of the site have been completed and coverage is in better shape than in the past. Requires inspections and maintenance to ensure it stays protective.

A new tenant stores petroleum products on top of the protective covers. Adequate spill containment and maintenance/housekeeping should be performed to ensure no accidental spills could occur that could damage the cap.

Site Inspection Form – RAD I



Site Inspection Form – RAD I



Site Inspection Form – RAD I



Review Avenue LNAPL Recovery System
Well Gauging Data - April 2020 Through March 2021

Well ID	8/11/2020			9/1/2020			9/28/2020			10/30/2020			11/21/2020			12/23/2020	
	Depth to top of product	Depth to top of water	Product Thickness	Depth to top of product	Depth to top of water	Product Thickness	Depth to top of product	Depth to top of water	Product Thickness	Depth to top of product	Depth to top of water	Product Thickness	Depth to top of product	Depth to top of water	Product Thickness	Depth to top of product	Depth to top of water
										Dan Sanchez			Dan Sanchez				
AML-01	12.39	15.75	3.36	Inaccessible	Inaccessible		12.5	16.9	4.40	12.69	15.54	2.85	12.90	14.21	1.31	Inaccessible	Inaccessible
AML-04	16.88	18.95	2.07	17.14	19.28	2.14	17.07	18.32	1.25	17.25	19.13	1.88	Inaccessible	Inaccessible		17.24	18.31
GAL-10	20.06	21.95	1.89	20.68	21.70	1.02	20.27	21.15	0.88	20.48	21.62	1.14	20.49	21.88	1.39	20.37	21.07
GAL-11R	14.98	19.37	4.39	15.32	18.22	2.55	15.10	17.5	2.40	Inaccessible	Inaccessible		15.42	17.88	2.46	Inaccessible	Inaccessible
GAL-13	14.72	16.69	1.97	15.1	17	1.90	14.85	16.4	1.55	15.11	16.90	1.79	15.14	16.93	1.79	15.00	16.48
GAL-18R	18.18	19.9	1.72	Inaccessible	Inaccessible		18.45	16.4	-2.05	18.57	20.21	1.64	18.60	20.32	1.72	18.50	19.72
GAL-21	Inaccessible	Inaccessible		14.71	17.92	3.21	14.55	17.85	3.30	14.60	17.80	3.20	Inaccessible	Inaccessible		Inaccessible	Inaccessible
GAL-22	17.96	19.40	1.44	18.42	20.06	1.64	18.15	19.28	1.13	18.36	19.70	1.34	18.40	19.69	1.29	18.30	19.03
GAL-23	14.46	16.38	1.92	14.83	17.33	2.50	14.79	17.26	2.47	14.83	17.60	2.77	14.88	16.19	1.31	Inaccessible	Inaccessible
GAL-24	14.82	16.24	1.42	15.06	16.48	1.42	15.06	16.47	1.41	15.17	16.50	1.33	15.21	16.60	1.39	15.11	16.19
MW-4RR	11.00	14.59	3.59	11.31	14.93	3.62	11.32	14.30	2.98	11.30	13.21	1.91	11.60	14.51	2.91	Inaccessible	Inaccessible
GAGW-04	22.22	24.06	1.84	22.53	24.87	2.34	22.59	24.15	1.56	22.68	23.90	1.22	22.80	24.00	1.20	22.71	24.40
AML-02	17.21	19.18	1.97	17.87	20.24	2.37	18.60	20.30	1.70	18.19	20.20	2.01	18.06	20.44	2.38	18.02	20.21
AML-03	15.80	19.31	3.51	18.03	19.35	1.32	16.04	18.90	2.86	16.16	18.56	2.40	16.30	18.95	2.65	16.25	18.60
AML-06	18.60	19.83	1.23	18.00	21.30	3.30	18.35	21.50	3.15	18.45	21.17	2.72	18.52	22.24	3.72	18.51	20.92
GAL-01RR	18.43	21.21	2.78	18.74	28.00	9.26	18.66	21.70	3.04	18.80	21.11	2.31	18.92	21.71	2.79	18.34	21.42
GAL-02R	14.04	17.25	3.21	13.61	17.64	4.03	13.60	17.10	3.50	13.59	14.70	1.11	13.91	16.79	2.88	13.85	18.10
GAL-03R	20.8	22.90	2.10	20.03	23.17	3.14	21.15	22.98	1.83	20.35	23.30	2.95	20.48	23.02	2.54	Inaccessible	Inaccessible
GAL-04R	14.35	16.25	1.90	14.6	17.37	2.77	14.55	17.49	2.94	14.70	17.44	2.74	14.80	17.65	2.85	Inaccessible	Inaccessible
GAL-05R	22.50	24.10	1.60	20.93	23.75	2.82	20.83	23.56	2.73	20.95	23.15	2.20	21.10	23.49	2.39	21.01	23.03
GAL-06	Bottom	Bottom		Dry	Dry		22.05	22.1	0.05	22.00	22.00	0.00	Dry	Dry		Dry	Dry
GAL-07	16.31	18.89	2.58	16.68	19.25	2.57	16.6	19.07	2.47	16.77	19.10	2.33	Inaccessible	Inaccessible		16.82	18.98
GAL-08	16.67	18.30	1.63	16.22	17.35	1.13	17.40	17.59	0.19	16.44	16.60	0.16	13.31	16.50	3.19	Inaccessible	Inaccessible
GAL-09	23.00	24.5	1.50	23.03	25.15	2.12	23.03	24.94	1.91	17.80	17.80	0.00	23.39	25.25	1.86	23.25	25.17
GAL-16R	14.31	17.82	3.51	13.65	17.30	3.65	13.67	17.45	3.78	9.48	16.86	7.38	13.96	17.74	3.78	14.00	16.96
GAL-29	23.10	24.05	0.95	23.10	25.75	2.65	23.19	25.48	2.29	23.28	25.75	2.47	Inaccessible	Inaccessible		Inaccessible	Inaccessible
GAL-30	23.48	24.52	1.04	24.77	26.00	1.23	23.81	26.07	2.26	23.90	25.60	1.70	23.92	23.92	0.00	23.79	25.49
GAL-31	23.10	24.7	1.60	21.57	23.30	1.73	21.20	23.25	2.05	21.50	23.72	2.22	21.56	23.71	2.15	21.47	23.23
VER-2	-	-		-	-		14.35	17.72	3.37	14.35	17.52	3.17	14.50	22.37	7.87	11.11	16.06

Review Avenue LNAPL Recovery System
Well Gauging Data - April 2020 Through March 2021

Well ID		1/21/2021			2/24/2021			3/24/2021		
	Product Thickness	Depth to top of product	Depth to top of water	Product Thickness	Depth to top of product	Depth to top of water	Product Thickness	Depth to top of product	Depth to top of water	Product Thickness
AML-01		12.78	13.82	1.04	12.45	13.97	1.52	12.56	16.29	3.73
AML-04	1.07	17.16	18.40	1.24	16.97	18.01	1.04	16.97	18.67	1.70
GAL-10	0.70	20.30	21.08	0.78	20.40	21.19	0.79	20.06	21.38	1.32
GAL-11R		15.20	17.52	2.32	14.49	17.02	2.53	15.23	17.94	2.71
GAL-13	1.48	14.50	16.60	2.10	14.85	16.30	1.45	14.97	16.64	1.67
GAL-18R	1.22	18.41	19.80	1.39	Inaccessible	Inaccessible	Inaccessible - Crane re		Inaccessible	
GAL-21		Inaccessible	Inaccessible		Inaccessible	Inaccessible	Inaccessible - Crane P		Inaccessible	
GAL-22	0.73	18.24	18.89	0.65	18.33	19.52	1.19	18.03	19.39	1.36
GAL-23		14.79	17.35	2.56	14.34	16.32	1.98	14.51	16.93	2.42
GAL-24	1.08	15.02	16.44	1.42	Inaccessible	Inaccessible	Inaccessible - Crane Boor		Inaccessible	
MW-4RR		11.30	15.38	4.08	11.96	13.91	1.95	11.24	14.33	3.09
GAGW-04	1.69	22.54	23.94	1.40	22.40	23.44	1.04	22.29	23.66	1.37
AML-02	2.19	17.81	20.07	2.26	17.58	19.80	2.22	17.68	20.43	2.75
AML-03	2.35	16.00	18.32	2.32	15.75	18.25	2.50	15.92	20.01	4.09
AML-06	2.41	18.30	22.21	3.91	Inaccessible	Inaccessible	Inaccessible - Personal		Inaccessible	
GAL-01RR	3.08	18.60	21.11	2.51	18.59	21.15	2.56	18.54	22.64	4.10
GAL-02R	4.25	13.51	18.16	4.65	13.30	15.15	1.85	14.46	20.17	5.71
GAL-03R		Inaccessible	Inaccessible		Inaccessible	Inaccessible		20.03	22.45	2.42
GAL-04R		14.50	16.72	2.22	14.54	16.71	2.17	13.66	16.78	3.12
GAL-05R	2.02	20.80	23.38	2.58	13.35	20.84	7.49	20.64	23.09	2.45
GAL-06		Dry	Dry		16.33	18.45	2.12	Dry	Dry	
GAL-07	2.16	16.49	18.60	2.11	16.26	18.45	2.19	16.43	18.78	2.35
GAL-08		16.38	16.56	0.18	13.75	25.55	11.80	16.43	18.78	2.35
GAL-09	1.92	23.00	24.56	1.56	22.70	25.25	2.55	22.94	24.53	1.59
GAL-16R	2.96	Inaccessible	Inaccessible		13.45	16.71	3.26	13.57	16.91	3.34
GAL-29		23.08	25.20	2.12	22.88	21.60	-1.28	22.95	24.97	2.02
GAL-30	1.70	23.70	25.34	1.64	17.17	17.32	0.15	23.56	25.42	1.86
GAL-31	1.76	21.22	23.05	1.83	16.99	22.63	5.64	21.07	23.20	2.13
VER-2	4.95	14.17	16.80	2.63	14.03	16.45	2.42	14.11	16.86	2.75

APPENDIX C

Discharge Compliance Reports



Wood Environment & Infrastructure Solutions, Inc.
200 American Metro Blvd., Suite 113
Hamilton, NJ 08619
Phone: (609) 689-2829 Fax: (609) 689-2838

LETTER OF TRANSMITTAL

To: Mr. Sean H. Hulbert Assistant Chemical Engineer NYCDEP, Bureau of Wastewater Treatment 96-05 Horace Harding Expressway, 1 st Floor Corona, New York 11368 FROM: Timothy Kessler	DATE: 7/29/20 PROJECT NO.: 3480160502 PROJ. NAME: Review Avenue LNAPL Recovery System SUBJECT: Review Avenue Development Sites 37-30 and 37-80 Review Avenue File # C-5652 2 nd Quarter 2020 Effluent Discharge Compliance Report
--	---

WE TRANSMIT TO YOU: ☒ HEREWITH ☐ UNDER SEPARATE COVER

SUBJECT:

- ☐ DRAWINGS
☐ SPECIFICATIONS
☐ CALCULATIONS
☒ REPORT
☐ COST ESTIMATE
☐ CD

ACTION:

- ☐ FOR YOUR INFORMATION
☐ FOR YOUR COMMENT OR APPROVAL
☐ RETURNED FOR CORRECTION: RESUBMIT
☐ APPROVED AS NOTED
☐ AS REQUESTED
☐ PAYMENT FEE ENCLOSED

SENT BY:

- ☒ MAIL E-Mail
☐ CERTIFIED MAIL
☐ EXPRESS
☐ COURIER
☐ HAND DELIVERED
☐ FACSIMILE:
of pages (including transmittal sheet) _____

COPIES	DATE	DESCRIPTION
1	7/7/20	Compliance Monitoring Report for 2 nd Quarter 2020

REMARKS: This report has been revised to include the result for Carbon Tetrachloride. Table 1 has been revised as well as the corrected laboratory report package. de maximis, Inc. will forward report to NYSDEC.

CC: Craig Coslett, de maximis, Inc.

By: Tim Kessler

609-631-2927

CONFIDENTIALITY NOTICE: This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address via the U.S. Postal Service. Thank you.

If transmission is not received in good order, please call Anne at 609-689-2829



de maximis, inc.

1550 Pond Road
Suite 120
Allentown, PA 18104
(610) 435-1151
FAX (610) 435-8459

July 13, 2020

Mr. Sean H. Hulbert
Assistant Chemical Engineer
NYCDEP, Bureau of Wastewater Treatment
96-05 Horace Harding Expressway, 1st Floor
Corona, New York 11368

**RE: Review Avenue Development Sites - 37-30 and 37-80 Review Avenue
File # C-5652
2nd Quarter 2020 Effluent Discharge Compliance Report**

Dear Mr. Hulbert:

Enclosed is the 2nd Quarter 2020 - Effluent Discharge Compliance Report for the Review Avenue Development Sites. This report is being submitted on behalf of the Review Avenue System LLC administering the Review Avenue Development Site Brownfield Projects identified as RAD I and RAD II.

I would like to call to your attention the following, relative to discharge for the 2nd Quarter 2020:

- Approximately 696,640 gallons of water have been discharged to the sewer system since the last reporting period – March 2020.
- No constituents were reported above discharge criteria.

Please contact me with any questions at (610) 435-1151.

Sincerely,

de maximis, inc.

A handwritten signature in blue ink, appearing to read "R. Craig Coslett", is written over a light blue rectangular background.

R. Craig Coslett
Project Coordinator for RAD I and RAD II

Mr. Sean H. Hulbert
July 13, 2020
Page 2

Enclosures: Compliance Monitoring Report for 2nd Quarter 2020
CC: K Forester, NYDEC (electronic mail only)
Tim Kessler, Wood Group (electronic mail only)
Brent O'Dell, Wood Group (electronic mail only)

File: 3216 / 2020 2nd Quarter Cover Page



July 16, 2020

Mr. Sean H. Hulbert - Assistant Chemical Engineer
NYCDEP, Bureau of Wastewater Treatment
96-05 Horace Harding Expressway, 1st Floor
Corona, NY 11368

Subject: **2nd Quarter 2020 Effluent Discharge Compliance
Review Avenue Development Sites
37-30 and 37-80 Review Avenue
Long Island City, Queens, New York, File # C-5652**

Dear Mr. Hulbert:

Wood Environment and Infrastructure Solutions, Inc. (Wood), on behalf of Review Avenue System LLC, submits the effluent laboratory analysis data in connection with the letter of approval (LOA) for groundwater discharge to sanitary or combined sewer for the Review Avenue Development (RAD) Sites and LOA Extension dated September 30, 2019.

Wood collected the 2nd Quarter 2020 discharge compliance samples on June 4, 2020. Analytical results indicate no exceedances of the daily discharge limits for all parameters and no exceedances of the monthly discharge limits for all parameters, and therefore the discharge is in compliance with our LOA requirements. The analytical results collected for the 2nd quarter 2020 compliance sampling are summarized on Table 1 attached. The total volume of groundwater discharged to the sanitary or combined sewer, since system start-up was 12,104,540 gallons as of the June 4th sampling event and 724,610 gallons since the last quarterly sampling event on February 20th.

If you have any questions, please contact either of the undersigned at (609) 689-2829.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

Digitally signed by Brent.O'Dell
DN: cn=Brent.O'Dell
Date: 2020.07.16 11:22:19
-04'00'

Brent C. O'Dell, P.E.
Principal Engineer – Civil

Timothy C. Kessler
Senior Associate Engineer/PM

Attachments: Table 1 – Summary of Groundwater Analytical Results

cc: R. Craig Coslett – Review Avenue System LLC

Table 1
Summary of Analytical Results - Groundwater Treatment System
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	NYCDEP Daily Limit	NYCDEP Monthly Limit	RA-EFF-G		RA-EFF-C	
Compliance Period:				2Q 2020		2Q 2020	
Sample Date:				6/4/2020		6/4/2020	
Lab Sample ID:				JD8092-1		JD8092-2	
Non-polar material ¹	mg/L	50	NL	5.0	U	-	
pH ²	SUs	5 - 12	NL	6.33		-	
Temperature ²	°F	150	NL	64.40		-	
Flash Point ³	°F	> 140	NL	> 200		-	
Cadmium (Instantaneous)	mg/L	2	NL	0.003	U	-	
Cadmium (Composite)	mg/L	0.69	NL	-		0.003	U
Chromium (VI)	mg/L	5	NL	0.01	U	-	
Copper	mg/L	5	NL	0.01	U	-	
Lead	mg/L	2	NL	0.003	U	-	
Mercury	mg/L	0.05	NL	0.0002	U	-	
Nickel	mg/L	3	NL	0.01	U	-	
Zinc	mg/L	5	NL	0.02	U	-	
Benzene	µg/L	134	57	0.34	U	-	
Carbon Tetrachloride	µg/L	NL	NL	-		0.55	U
Chloroform	µg/L	NL	NL	-		0.50	U
1,4-Dichlorobenzene	µg/L	NL	NL	0.63	U	-	
Ethylbenzene	µg/L	380	142	0.30	U	-	
MTBE (Methyl-Tert-Butyl-Ether)	µg/L	50	NL	1.7		-	
Napthalene	µg/L	47	19	-		0.23	U
Phenol	µg/L	NL	NL	-		0.39	U
Tetrachloroethylene (Perc)	µg/L	20	NL	0.9	U	-	
Toluene	µg/L	74	28	0.36	U	-	
1,2,4-Trichlorobenzene	µg/L	NL	NL	-		0.25	U
1,1,1-Trichloroethane	µg/L	NL	NL	-		0.54	U
Xylenes (Total)	µg/L	74	28	0.35	U	-	
PCBs (Total)	µg/L	1	NL	-		0.034	U
Total Suspended Solids (TSS)	mg/L	350	NL	4.0	U	-	
CBOD	mg/L	NL	NL	-		1.4	
Chloride	mg/L	NL	NL	117		-	
Total Nitrogen	mg/L	NL	NL	-		1.2	
Total Solids	mg/L	NL	NL	597		-	

Table 1
Summary of Analytical Results - Groundwater Treatment System
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Notes:

RA-EFF-G: Instantaneous (Grab) Sample

RA-EFF-C: 4-Hour Flow Weighted Composite Sample

Bold/Shaded: Concentration exceeds daily limit

Underline: Concentration exceeds monthly limit

1. Non-polar Material reported by lab as "Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)"
2. pH and Temperature measured in field
3. Flash Point reported by lab as Ignitability
4. Temperature was estimated

Definitions:

MDL: Method Detection Limit

RL: Reporting Limit

NL: No Limit

Data Qualifiers:

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U: Indicates the analyte was not detected at the indicated MDL.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Wood Environment & Infrastructure Solut.

Review Avenue, Long Island City, NY

3480160502 PO#C01270035

SGS Job Number: JD8092

Sampling Date: 06/04/20



Report to:

Wood Environment & Infrastructure Soln.
200 American Metro Boulevard Suite 113
Hamilton, NJ 08619
Timothy.Kessler@woodplc.com; Vincent.Whelan@woodplc.com
ATTN: Tim Kessler

Total number of pages in report: 31



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Hemex Patel
Appointed Deputy for GM

Client Service contact: Kelly Ramos 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.



July 24, 2020

Mr. Tim Kessler
Wood Environment & Infrastructure Solution
200 American Metro Boulevard Suite 113
Hamilton, NJ 08619

RE: SGS – Dayton, Jobs # JD8092 – Reissues

Dear Mr. Kessler,

The final report for SGS jobs number JD8092 has been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached.

Specifically, the Carbon Tetrachloride has been reported for sample JD8092-2T per your request on 7/23/2020. The attached revised report incorporates these revisions.

SGS apologizes for this occurrence and for any inconvenience this situation may have caused. Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.



CONTINUOUS SERVICE IMPROVEMENT!

Our goal is to continuously improve our service to you. Please share your ideas about how we can serve you better at

EHS.US.CustomerCare@sgs.com. Your feedback is appreciated!



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Sample Summary

Wood Environment & Infrastructure Solut.

Job No: JD8092

Review Avenue, Long Island City, NY
Project No: 3480160502 PO#C01270035

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
---------------	----------------	---------	----------	-------------	------	------------------

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

JD8092-1	06/04/20	11:15 DB	06/04/20	AQ	Effluent	RA-EFF-G
JD8092-1R	06/04/20	11:15 DB	06/04/20	AQ	Effluent	RA-EFF-G
JD8092-2	06/04/20	12:15 DB	06/04/20	AQ	Effluent	RA-EFF-C
JD8092-2R	06/04/20	12:15 DB	06/04/20	AQ	Effluent	RA-EFF-C
JD8092-2T	06/04/20	12:15 DB	06/04/20	AQ	Effluent	RA-EFF-C

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Wood Environment & Infrastructure Solut.

Job No JD8092

Site: Review Avenue, Long Island City, NY

Report Date 7/24/2020 12:26:57 P

On 06/04/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD8092 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method EPA 624.1

Matrix: AQ

Batch ID: VT10157

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8657-1MS, JD8657-1MSD were used as the QC samples indicated.

MS Semi-volatiles By Method EPA 625.1

Matrix: AQ

Batch ID: OP27883

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

GC/LC Semi-volatiles By Method EPA 608.3

Matrix: AQ

Batch ID: OP27899

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method EPA 200.7

Matrix: AQ

Batch ID: MP21357

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8097-1MS, JD8097-1SDL, JD8097-1MSD were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Lead are outside control limits for sample MP21357-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP21357-SD1 for Zinc: Serial dilution indicates possible matrix interference.

Metals Analysis By Method EPA 245.1

Matrix: AQ

Batch ID: MP21375

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8047-8AMS, JD8047-8AMSD were used as the QC samples for metals.

Friday, July 24, 2020

Page 1 of 3

General Chemistry By Method EPA 1664A

Matrix: AQ

Batch ID: GP28591

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8666-2DUP, JD8224-1MS were used as the QC samples for HEM Petroleum Hydrocarbons.
- Matrix Spike Recovery(s) for HEM Petroleum Hydrocarbons are outside control limits. Spike recovery indicates possible matrix interference.

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ

Batch ID: GP28457

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8041-1DUP, JD8041-1MS were used as the QC samples for Chloride.

General Chemistry By Method EPA 351.2/LACHAT

Matrix: AQ

Batch ID: GP28484

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8281-2DUP, JD8281-2MS were used as the QC samples for Nitrogen, Total Kjeldahl.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ

Batch ID: GP28536

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD7995-3DUP, JD7995-3MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ

Batch ID: R185798

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JD8092-2 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM2540 B-11

Matrix: AQ

Batch ID: GN8525

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8092-1DUP were used as the QC samples for Solids, Total.

General Chemistry By Method SM2540 D-11

Matrix: AQ

Batch ID: GN8528

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8210-1DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM3500CR B-11

Matrix: AQ

Batch ID: GN8447

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8092-1DUP, JD8092-1MS were used as the QC samples for Chromium, Hexavalent.

General Chemistry By Method SM4500 A-11

Matrix: AQ

Batch ID: R185797

- The data for SM4500 A-11 meets quality control requirements.
- JD8092-2 for Nitrogen, Total: Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ

Batch ID: GN8442

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8075-1MS, JD8075-1MSD were used as the QC samples for Nitrogen, Nitrite.

General Chemistry By Method SM5210 B-11

Matrix: AQ

Batch ID: GP28429

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD8092-2DUP were used as the QC samples for Carbonaceous Bod, 5 Day.
- JD8092-2 for Carbonaceous Bod, 5 Day: Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution.

General Chemistry By Method SW846 1010A/ASTM D93

Matrix: AQ

Batch ID: GN8674

- Sample(s) JD8502-1DUP were used as the QC samples for Ignitability (Flashpoint).

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Page 1 of 1

Job Number: JD8092
Account: Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Collected: 06/04/20



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JD8092-1 RA-EFF-G

Methyl Tert Butyl Ether	1.7	1.0	0.87	ug/l	EPA 624.1
Chloride	117	2.0		mg/l	EPA 300/SW846 9056A
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
Solids, Total	597	10		mg/l	SM2540 B-11

JD8092-1R RA-EFF-G

No hits reported in this sample.

JD8092-2 RA-EFF-C

Carbonaceous Bod, 5 Day ^a	1.4	1.0		mg/l	SM5210 B-11
Nitrogen, Total ^b	1.2	0.30		mg/l	SM4500 A-11
Nitrogen, Total Kjeldahl	1.2	0.20		mg/l	EPA 351.2/LACHAT

JD8092-2R RA-EFF-C

No hits reported in this sample.

JD8092-2T RA-EFF-C

No hits reported in this sample.

(a) Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution.

(b) Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-1	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T245387.D	1	06/17/20 17:25	CSF	n/a	n/a	VT10157
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-88-3	Toluene	ND	1.0	0.36	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.7	1.0	0.87	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.63	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	104%		76-122%
2037-26-5	Toluene-D8 (SUR)	95%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	97%		80-120%
1868-53-7	Dibromofluoromethane (S)	94%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-1	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method	
Cadmium	< 3.0	3.0	ug/l	1	06/08/20	06/09/20	ND	EPA 200.7 ²	EPA 200.7 ⁴
Copper	< 10	10	ug/l	1	06/08/20	06/09/20	MET	EPA 200.7 ³	EPA 200.7 ⁴
Lead	< 3.0	3.0	ug/l	1	06/08/20	06/09/20	ND	EPA 200.7 ²	EPA 200.7 ⁴
Mercury	< 0.20	0.20	ug/l	1	06/08/20	06/08/20	LL	EPA 245.1 ¹	EPA 245.1 ⁵
Nickel	< 10	10	ug/l	1	06/08/20	06/09/20	ND	EPA 200.7 ²	EPA 200.7 ⁴
Zinc	< 20	20	ug/l	1	06/08/20	06/09/20	ND	EPA 200.7 ²	EPA 200.7 ⁴

- (1) Instrument QC Batch: MA48780
- (2) Instrument QC Batch: MA48785
- (3) Instrument QC Batch: MA48792
- (4) Prep QC Batch: MP21357
- (5) Prep QC Batch: MP21375

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-1	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	117	2.0	mg/l	1	06/09/20 23:35	JW	EPA 300/SW846 9056A
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	06/04/20 22:08	EB	SM3500CR B-11
Ignitability (Flashpoint)	> 200		Deg. F	1	06/13/20 16:00	TM	SW846 1010A/ASTM D93
Solids, Total	597	10	mg/l	1	06/09/20 10:12	RI	SM2540 B-11
Solids, Total Suspended	< 4.0	4.0	mg/l	1	06/09/20 12:08	RI	SM2540 D-11

RL = Reporting Limit

4.1
4

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-1R	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Petroleum Hydrocarbons	< 5.0	5.0	mg/l	1	06/17/20 17:00	LX	EPA 1664A

RL = Reporting Limit

4.2
4

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-2	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T245388.D	1	06/17/20 17:56	CSF	n/a	n/a	VT10157
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	106%		76-122%
2037-26-5	Toluene-D8 (SUR)	96%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	97%		80-120%
1868-53-7	Dibromofluoromethane (S)	94%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Page 1 of 1

Client Sample ID:	RA-EFF-C	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-2	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 625.1 EPA 625		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P491445.D	1	06/12/20 15:18	JC	06/10/20 07:00	OP27883	E6P3009
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-95-2	Phenol	ND	2.0	0.39	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		10-110%
4165-62-2	Phenol-d5	23%		10-110%
118-79-6	2,4,6-Tribromophenol	80%		35-147%
4165-60-0	Nitrobenzene-d5	80%		32-132%
321-60-8	2-Fluorobiphenyl	88%		40-117%
1718-51-0	Terphenyl-d14	88%		33-126%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-2	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	06/08/20	06/09/20 ND	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA48785
(2) Prep QC Batch: MP21357

RL = Reporting Limit

4.3
4

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-2	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Carbonaceous Bod, 5 Day ^a	1.4	1.0	mg/l	1	06/05/20 21:02	EB	SM5210 B-11
Nitrogen, Nitrate ^b	< 0.11	0.11	mg/l	1	06/15/20 12:33	KI	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	06/15/20 12:33	KI	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	06/04/20 22:11	KB	SM4500NO2 B-11
Nitrogen, Total ^c	1.2	0.30	mg/l	1	06/15/20 12:33	KI	SM4500 A-11
Nitrogen, Total Kjeldahl	1.2	0.20	mg/l	1	06/11/20 12:08	KI	EPA 351.2/LACHAT

- (a) Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution.
- (b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
- (c) Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)

RL = Reporting Limit

4.3
4

Report of Analysis

Page 1 of 1

Client Sample ID:	RA-EFF-C	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-2R	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 608.3 EPA 608		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX2450113.D	1	06/11/20 02:34	CP	06/10/20 13:00	OP27899	GXX7047
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.050	0.034	ug/l	
11104-28-2	Aroclor 1221	ND	0.050	0.029	ug/l	
11141-16-5	Aroclor 1232	ND	0.050	0.020	ug/l	
53469-21-9	Aroclor 1242	ND	0.050	0.027	ug/l	
12672-29-6	Aroclor 1248	ND	0.050	0.025	ug/l	
11097-69-1	Aroclor 1254	ND	0.050	0.034	ug/l	
11096-82-5	Aroclor 1260	ND	0.050	0.027	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		10-156%
877-09-8	Tetrachloro-m-xylene	74%		10-156%
2051-24-3	Decachlorobiphenyl	56%		10-143%
2051-24-3	Decachlorobiphenyl	66%		10-143%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	06/04/20
Lab Sample ID:	JD8092-2T	Date Received:	06/04/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T245388R.D	1	06/17/20 17:56	CSF	n/a	n/a	VT10157
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	106%		76-122%
2037-26-5	Toluene-D8 (SUR)	96%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	97%		80-120%
1868-53-7	Dibromofluoromethane (S)	94%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.5
4

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Parameter Certification Exceptions

Job Number: JD8092
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Ignitability (Flashpoint)		SW846 1010A/ASTM D93	AQ	SGS is not certified for this parameter. ^a
Nitrogen, Total		SM4500 A-11	AQ	SGS is not certified for this parameter. ^b

- (a) Lab cert for analyte/method not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.



CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsausa

JD8092

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(0114)
/C

Client / Reporting Information		Project Information		FED-EX Tracking #		Bottle Order Grouped #	
Company Name: Wood EHS		Project Name: Review Ave GWM		SGS Quote #		SGS Job #	
Street Address: 200 American Metro Blvd #113		Street: Review Ave		Matrix Codes		Matrix Codes	
City: Hamilton State: NJ Zip: 08619		City: Long Island City State: NY		Request for Analysis		Request for Analysis	
Project Contact: Vincent Whelan @woodplc.com		Project #		Request for Analysis		Request for Analysis	
Phone #		Client Purchase Order #		Request for Analysis		Request for Analysis	
Sample(s) Name(s): Dan Baron 732-425-0962		Project Manager: Tim Keyler		Request for Analysis		Request for Analysis	
Phone #		Attention:		Request for Analysis		Request for Analysis	
Field ID / Point of Collection		Collection		Request for Analysis		Request for Analysis	
MECH/DI Val #		Date		Request for Analysis		Request for Analysis	
Time		Sampled by		Request for Analysis		Request for Analysis	
Matrix		GWS (G) / Comp (C)		Request for Analysis		Request for Analysis	
# of bottles		Matrix		Request for Analysis		Request for Analysis	
H2O		Matrix		Request for Analysis		Request for Analysis	
H2O2		Matrix		Request for Analysis		Request for Analysis	
H2O3		Matrix		Request for Analysis		Request for Analysis	
H2O4		Matrix		Request for Analysis		Request for Analysis	
H2O5		Matrix		Request for Analysis		Request for Analysis	
H2O6		Matrix		Request for Analysis		Request for Analysis	
H2O7		Matrix		Request for Analysis		Request for Analysis	
H2O8		Matrix		Request for Analysis		Request for Analysis	
H2O9		Matrix		Request for Analysis		Request for Analysis	
H2O10		Matrix		Request for Analysis		Request for Analysis	
H2O11		Matrix		Request for Analysis		Request for Analysis	
H2O12		Matrix		Request for Analysis		Request for Analysis	
H2O13		Matrix		Request for Analysis		Request for Analysis	
H2O14		Matrix		Request for Analysis		Request for Analysis	
H2O15		Matrix		Request for Analysis		Request for Analysis	
H2O16		Matrix		Request for Analysis		Request for Analysis	
H2O17		Matrix		Request for Analysis		Request for Analysis	
H2O18		Matrix		Request for Analysis		Request for Analysis	
H2O19		Matrix		Request for Analysis		Request for Analysis	
H2O20		Matrix		Request for Analysis		Request for Analysis	
H2O21		Matrix		Request for Analysis		Request for Analysis	
H2O22		Matrix		Request for Analysis		Request for Analysis	
H2O23		Matrix		Request for Analysis		Request for Analysis	
H2O24		Matrix		Request for Analysis		Request for Analysis	
H2O25		Matrix		Request for Analysis		Request for Analysis	
H2O26		Matrix		Request for Analysis		Request for Analysis	
H2O27		Matrix		Request for Analysis		Request for Analysis	
H2O28		Matrix		Request for Analysis		Request for Analysis	
H2O29		Matrix		Request for Analysis		Request for Analysis	
H2O30		Matrix		Request for Analysis		Request for Analysis	
H2O31		Matrix		Request for Analysis		Request for Analysis	
H2O32		Matrix		Request for Analysis		Request for Analysis	
H2O33		Matrix		Request for Analysis		Request for Analysis	
H2O34		Matrix		Request for Analysis		Request for Analysis	
H2O35		Matrix		Request for Analysis		Request for Analysis	
H2O36		Matrix		Request for Analysis		Request for Analysis	
H2O37		Matrix		Request for Analysis		Request for Analysis	
H2O38		Matrix		Request for Analysis		Request for Analysis	
H2O39		Matrix		Request for Analysis		Request for Analysis	
H2O40		Matrix		Request for Analysis		Request for Analysis	
H2O41		Matrix		Request for Analysis		Request for Analysis	
H2O42		Matrix		Request for Analysis		Request for Analysis	
H2O43		Matrix		Request for Analysis		Request for Analysis	
H2O44		Matrix		Request for Analysis		Request for Analysis	
H2O45		Matrix		Request for Analysis		Request for Analysis	
H2O46		Matrix		Request for Analysis		Request for Analysis	
H2O47		Matrix		Request for Analysis		Request for Analysis	
H2O48		Matrix		Request for Analysis		Request for Analysis	
H2O49		Matrix		Request for Analysis		Request for Analysis	
H2O50		Matrix		Request for Analysis		Request for Analysis	
H2O51		Matrix		Request for Analysis		Request for Analysis	
H2O52		Matrix		Request for Analysis		Request for Analysis	
H2O53		Matrix		Request for Analysis		Request for Analysis	
H2O54		Matrix		Request for Analysis		Request for Analysis	
H2O55		Matrix		Request for Analysis		Request for Analysis	
H2O56		Matrix		Request for Analysis		Request for Analysis	
H2O57		Matrix		Request for Analysis		Request for Analysis	
H2O58		Matrix		Request for Analysis		Request for Analysis	
H2O59		Matrix		Request for Analysis		Request for Analysis	
H2O60		Matrix		Request for Analysis		Request for Analysis	
H2O61		Matrix		Request for Analysis		Request for Analysis	
H2O62		Matrix		Request for Analysis		Request for Analysis	
H2O63		Matrix		Request for Analysis		Request for Analysis	
H2O64		Matrix		Request for Analysis		Request for Analysis	
H2O65		Matrix		Request for Analysis		Request for Analysis	
H2O66		Matrix		Request for Analysis		Request for Analysis	
H2O67		Matrix		Request for Analysis		Request for Analysis	
H2O68		Matrix		Request for Analysis		Request for Analysis	
H2O69		Matrix		Request for Analysis		Request for Analysis	
H2O70		Matrix		Request for Analysis		Request for Analysis	
H2O71		Matrix		Request for Analysis		Request for Analysis	
H2O72		Matrix		Request for Analysis		Request for Analysis	
H2O73		Matrix		Request for Analysis		Request for Analysis	
H2O74		Matrix		Request for Analysis		Request for Analysis	
H2O75		Matrix		Request for Analysis		Request for Analysis	
H2O76		Matrix		Request for Analysis		Request for Analysis	
H2O77		Matrix		Request for Analysis		Request for Analysis	
H2O78		Matrix		Request for Analysis		Request for Analysis	
H2O79		Matrix		Request for Analysis		Request for Analysis	
H2O80		Matrix		Request for Analysis		Request for Analysis	
H2O81		Matrix		Request for Analysis		Request for Analysis	
H2O82		Matrix		Request for Analysis		Request for Analysis	
H2O83		Matrix		Request for Analysis		Request for Analysis	
H2O84		Matrix		Request for Analysis		Request for Analysis	
H2O85		Matrix		Request for Analysis		Request for Analysis	
H2O86		Matrix		Request for Analysis		Request for Analysis	
H2O87		Matrix		Request for Analysis		Request for Analysis	
H2O88		Matrix		Request for Analysis		Request for Analysis	
H2O89		Matrix		Request for Analysis		Request for Analysis	
H2O90		Matrix		Request for Analysis		Request for Analysis	
H2O91		Matrix		Request for Analysis		Request for Analysis	
H2O92		Matrix		Request for Analysis		Request for Analysis	
H2O93		Matrix		Request for Analysis		Request for Analysis	
H2O94		Matrix		Request for Analysis		Request for Analysis	
H2O95		Matrix		Request for Analysis		Request for Analysis	
H2O96		Matrix		Request for Analysis		Request for Analysis	
H2O97		Matrix		Request for Analysis		Request for Analysis	
H2O98		Matrix		Request for Analysis		Request for Analysis	
H2O99		Matrix		Request for Analysis		Request for Analysis	
H2O100		Matrix		Request for Analysis		Request for Analysis	

Turn Around Time (Business Days)

Approved By (SGS PM) / Date:

Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ Commercial "C" (Level 3) ☐ Full Tier I (Level 4) ☐ Commercial "C" ☐ NJ DKOP ☐

Deliverable

NYASP Category A ☐ NYASP Category B ☒ MA MCP Criteria ☐ CT RCP Criteria ☐ State Forms ☒ EDO Forms ☒ NYSDEC

Comments / Special Instructions

Composit RA-VOL-C1 to RA-VOL-C4 in Lab to be used for RA-EFF-C VOC analysis.

Hold SGT - Ham + PCB samples

Hex Chrome test Method only allows 24hr

PH 6.33

Temp 18°C

Initial Assessment 205

Label Verification

EHS-A-GAC-0023-02-FORM-Dayton - Standard COC.docx

JD8092: Chain of Custody

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Client / Reporting Information Company Name: Wood E+IS Street Address: 200 American Metro Blvd #113 City: Hamilton, NY State: 08619 Project Contact: Vincent Whelan E-mail: vincent.whelan@woodplc.com Phone: 609-689-2832		Project Name: Review Ave GWM Review Avenue Project # 3480160502 Count Purchase Order # CO1270035 Project Manager: Tim Messler		Matrix Code DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LQ - Other Liquid AS - Air SOL - Other Solid WP - Waste FB - Feed Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Billing Information (if different from Report to) Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Attention: _____		Requested Analysis Total Nitrogen (TKN, N _{org} , N _{am}) Composite VOCs (4:1 Ratio) VOC (VOC _{4:1} FRM, EPA 609)			
Collection SCS Sample # _____ Field ID / Point of Collection _____ MECH/DI Val # _____ Date _____ Time _____ Sampled by _____ GWS (ID) _____ Matrix _____ # of bottles _____ HCl _____ NaOH _____ HNO ₃ _____ H ₂ SO ₄ _____ HNO ₂ _____ DI Water _____ MCH ₂ _____ ENDORE _____		1 RA-EFF-6 RA-EFF-C RA-VOL-C1 RA-VOL-C2 RA-VOL-C3 RA-VOL-C4			
Turn Around Time (Business Days) ☐ 10 Business Days ☐ 5 Business Days ☐ 3 Business Days ☐ 2 Business Days ☒ Other: standard All data available via LCRS.		Deliverable ☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ NJ Reduced (Level 3) ☐ Full Test 1 (Level 4) ☐ Commercial "C" ☐ NJ DRGP ☐ NYASP Category A ☒ NYASP Category B ☐ MA MCP Criteria ☐ CT RCP Criteria ☐ State Forms ☒ EDO Format NYSDEC ☐ DOD-QSWS Commercial "A" = Results only, Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data		Comments / Special Instructions Composite RA-VOL-C1 to RA-VOL-C4 in Lab to be used for RA-EFF-C analysis. Hold SGT-Hem + PCB samples Hex Chrome Test Method only allows 2	
Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by: 1 Date / Time: 6/4/2020 14:15 Relinquished by: 3 Date / Time: _____ Relinquished by: 4 Date / Time: _____		Relinquished by: 2 Date / Time: _____ Relinquished by: 4 Date / Time: _____ Custody Seal # _____ ☐ Inset ☐ Nighttime Preserved when applicable: ☐ Alter ☐ Therm ☐ On Ice ☐ Cooler Temp. °C			

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

JD8092: Chain of Custody

Page 2 of 5

SGS Sample Receipt Summary

Job Number: JD8092

Client: WOOD ENVIRONMENT & INFRASTRUCT

Project: REVIEW AVENUE, LONG ISLAND CITY, NY

Date / Time Received: 6/4/2020 2:15:00 PM

Delivery Method:

Airbill #s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.9); Cooler 2: (3.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.6); Cooler 2: (2.9);

Cooler Security

Y or N

1. Custody Seals Present:

☒ ☐

3. COC Present:

☒ ☐

2. Custody Seals Intact:

☒ ☐

4. Smpl Dates/Time OK

☒ ☐

Cooler Temperature

Y or N

1. Temp criteria achieved:

☒ ☐

2. Cooler temp verification:

IR Gun

3. Cooler media:

Ice (Bag)

4. No. Coolers:

2

Quality Control Preservation

Y or N

N/A

1. Trip Blank present / cooler:

☐ ☒ ☐

2. Trip Blank listed on COC:

☐ ☒ ☐

3. Samples preserved properly:

☒ ☐ ☐

4. VOCs headspace free:

☒ ☐ ☐

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles:

☒ ☐

2. Container labeling complete:

☒ ☐

3. Sample container label / COC agree:

☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT:

☒ ☐

2. All containers accounted for:

☒ ☐

3. Condition of sample:

Intact

Sample Integrity - Instructions

Y or N

N/A

1. Analysis requested is clear:

☒ ☐

2. Bottles received for unspecified tests

☐ ☒

3. Sufficient volume recvd for analysis:

☒ ☐

4. Compositing instructions clear:

☐ ☐

☒

5. Filtering instructions clear:

☐ ☐

☒

Test Strip Lot #s:

pH 1-12:

229517

pH 12+:

208717

Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD8092: Chain of Custody

Page 3 of 5

Job Change Order: JD8092

Requested Date: 6/8/2020 Received Date: 6/4/2020
Account Name: Wood Environment & Infrastructure Due Date: 6/18/2020
Project Description: Review Avenue, Long Island City, NY Deliverable: NYASPB
C/O Initiated By: KR PM: KR TAT (Days): 14

Sample #: JD8092-1 Change:
Dept: Please relog for PHC1664

TAT: 14

RA-EFF-G

Sample #: JD8092-2 Change:
Dept: Please relog for P608PCBLL

TAT: 14

RA-EFF-C

Above Changes Per: Tim Kessler Date/Time: 6/8/2020 3:10:35 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Job Change Order: JD8092

Requested Date: 7/23/2020 Received Date: 6/4/2020
Account Name: Wood Environment & Infrastructu Due Date: 6/18/2020
Project Description: Review Avenue, Long Island City, NY Deliverable: NYASPB
C/O Initiated By: MICHELLD PM: KR TAT (Days): 1

Sample #: JD8092-2 Change:
Dept: Relog/retrieve for VR624CTC

TAT: 1

RA-EFF-C

Above Changes Per: Tim Kessler Date/Time: 7/23/2020 11:48:28 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Internal Sample Tracking Chronicle

Wood Environment & Infrastructure Solut.

Job No: JD8092

Review Avenue, Long Island City, NY
Project No: 3480160502 PO#C01270035

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD8092-1 Collected: 04-JUN-20 11:15 By: DB Received: 04-JUN-20 By: JP RA-EFF-G						
JD8092-1	SM3500CR B-11	04-JUN-20 22:08	EB			XCRSM
JD8092-1	EPA 245.1	08-JUN-20 14:15	LL	08-JUN-20	LL	HG
JD8092-1	EPA 200.7	09-JUN-20 00:22	ND	08-JUN-20	CH	CD,NI,PB,ZN
JD8092-1	SM2540 B-11	09-JUN-20 10:12	RI			TS
JD8092-1	SM2540 D-11	09-JUN-20 12:08	RI			TSS
JD8092-1	EPA 200.7	09-JUN-20 15:36	MET	08-JUN-20	CH	CU
JD8092-1	EPA 300/SW846 9056A09	09-JUN-20 23:35	JW	09-JUN-20	JW	CHL
JD8092-1	SW846 1010A/ASTM D883	09-JUN-20 16:00	TM			IGN
JD8092-1	EPA 624.1	17-JUN-20 17:25	CSF			V624BTXM
JD8092-2 Collected: 04-JUN-20 12:15 By: DB Received: 04-JUN-20 By: JP RA-EFF-C						
JD8092-2	SM4500NO2 B-11	04-JUN-20 22:11	KB			NO2
JD8092-2	SM5210 B-11	05-JUN-20 21:02	EB	05-JUN-20	EB	CBOD5
JD8092-2	EPA 200.7	09-JUN-20 00:27	ND	08-JUN-20	CH	CD
JD8092-2	EPA 351.2/LACHAT	11-JUN-20 12:08	KI	10-JUN-20	MP	TKN
JD8092-2	EPA 625.1	12-JUN-20 15:18	JC	10-JUN-20	VP	AB625SL2
JD8092-2	SM4500 A-11	15-JUN-20 12:33	KI			TNIT
JD8092-2	EPA353.2/SM4500NO2B	15-JUN-20 12:33	KI			NO3O
JD8092-2	EPA 353.2/LACHAT	15-JUN-20 12:33	KI	15-JUN-20	KI	NO32
JD8092-2	EPA 624.1	17-JUN-20 17:56	CSF			V624CHLFRM,VMS+ TCA
JD8092-1R Collected: 04-JUN-20 11:15 By: DB Received: 04-JUN-20 By: JP RA-EFF-G						
JD8092-1R	EPA 1664A	17-JUN-20 17:00	LX	17-JUN-20	LX	PHC1664
JD8092-2R Collected: 04-JUN-20 12:15 By: DB Received: 04-JUN-20 By: JP RA-EFF-C						
JD8092-2R	EPA 608.3	11-JUN-20 02:34	CP	10-JUN-20	VP	P608PCBLL
JD8092-2T Collected: 04-JUN-20 12:15 By: DB Received: 04-JUN-20 By: JP RA-EFF-C						
JD8092-2T	EPA 624.1	17-JUN-20 17:56	CSF			VR624CTC

SGS Internal Chain of Custody

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Job Number: JD8092
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 06/04/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD8092-1.2	Secured Storage	Omar Khalid	06/17/20 14:14	Retrieve from Storage
JD8092-1.2	Omar Khalid	Secured Staging Area	06/17/20 14:14	Return to Storage
JD8092-1.2	Secured Staging Area	Lixiao Xu	06/17/20 15:37	Retrieve from Storage
JD8092-1.2	Lixiao Xu		06/17/20 18:00	Depleted
JD8092-1.3	Secured Storage	Benjamin Gaines	06/07/20 13:59	Retrieve from Storage
JD8092-1.3	Benjamin Gaines	Secured Staging Area	06/07/20 13:59	Return to Storage
JD8092-1.3	Secured Staging Area	Lindsey Lee	06/08/20 06:00	Retrieve from Storage
JD8092-1.3	Lindsey Lee	Colleen Hill	06/08/20 07:16	Custody Transfer
JD8092-1.3	Colleen Hill	Secured Storage	06/08/20 10:28	Return to Storage
JD8092-1.3	Dave Hunkele		07/18/20 07:00	Disposed
JD8092-1.3.1	Colleen Hill	Metals Digestion	06/08/20 10:21	Digestate from JD8092-1.3
JD8092-1.3.1	Metals Digestion	Colleen Hill	06/08/20 10:21	Digestate from JD8092-1.3
JD8092-1.3.1	Colleen Hill	Metals Digestate Storage	06/08/20 10:21	Return to Storage
JD8092-1.4	Secured Storage	Todd Shoemaker	06/09/20 08:19	Retrieve from Storage
JD8092-1.4	Todd Shoemaker	Secured Staging Area	06/09/20 08:19	Return to Storage
JD8092-1.4	Secured Staging Area	Rie Iwasaki	06/09/20 08:54	Retrieve from Storage
JD8092-1.4	Rie Iwasaki		06/09/20 13:03	Depleted
JD8092-1.6	Secured Storage	Omar Khalid	06/08/20 20:43	Retrieve from Storage
JD8092-1.6	Omar Khalid	Secured Staging Area	06/08/20 20:43	Return to Storage
JD8092-1.6	Secured Staging Area	Jennell Webber	06/09/20 12:12	Retrieve from Storage
JD8092-1.6	Jennell Webber	Secured Storage	06/09/20 16:34	Return to Storage
JD8092-1.6	Secured Storage	Todd Shoemaker	06/10/20 08:41	Retrieve from Storage
JD8092-1.6	Todd Shoemaker	Secured Staging Area	06/10/20 08:41	Return to Storage
JD8092-1.6	Secured Staging Area	Jennell Webber	06/10/20 16:53	Retrieve from Storage
JD8092-1.6	Jennell Webber	Secured Storage	06/10/20 16:53	Return to Storage
JD8092-1.6	Secured Storage	Matthew Robbins	06/11/20 18:22	Retrieve from Storage
JD8092-1.6	Matthew Robbins	Secured Staging Area	06/11/20 18:22	Return to Storage
JD8092-1.6	Secured Storage	Matthew Robbins	06/12/20 20:21	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JD8092-1.6	Matthew Robbins	Secured Staging Area	06/12/20 20:21	Return to Storage
JD8092-1.6	Secured Staging Area	Tharun Murali	06/13/20 11:33	Retrieve from Storage
JD8092-1.6	Tharun Murali	Secured Storage	06/13/20 17:54	Return to Storage
JD8092-1.6	Dave Hunkele		07/18/20 07:00	Disposed
JD8092-1.6.1	Tharun Murali	TCLP	06/13/20 11:33	Leachate from JD8092-1.6
JD8092-1.6.1	TCLP	Tharun Murali	06/20/20 15:07	Leachate from JD8092-1.6
JD8092-1.6.1	Tharun Murali		06/20/20 15:08	Depleted
JD8092-1.7	Secured Storage	Omar Khalid	06/04/20 20:02	Retrieve from Storage
JD8092-1.7	Omar Khalid	Secured Staging Area	06/04/20 20:02	Return to Storage

SGS Internal Chain of Custody

Page 2 of 4

Job Number: JD8092
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 06/04/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD8092-1.7	Secured Staging Area	Todd Shoemaker	06/05/20 11:52	Retrieve from Storage
JD8092-1.7	Todd Shoemaker	Secured Storage	06/05/20 11:53	Return to Storage
JD8092-1.7	Secured Storage	Todd Shoemaker	06/09/20 08:19	Retrieve from Storage
JD8092-1.7	Todd Shoemaker	Secured Staging Area	06/09/20 08:19	Return to Storage
JD8092-1.7	Secured Staging Area	Rie Iwasaki	06/09/20 08:54	Retrieve from Storage
JD8092-1.7	Rie Iwasaki	Secured Storage	06/09/20 13:04	Return to Storage
JD8092-1.7	Dave Hunkele		07/18/20 07:00	Disposed
JD8092-1.10	Secured Storage	Chelsea San Filippo	06/17/20 10:45	Retrieve from Storage
JD8092-1.10	Chelsea San Filippo	GCMST	06/17/20 10:45	Load on Instrument
JD8092-1.10	GCMST	Chelsea San Filippo	06/18/20 15:24	Unload from Instrument
JD8092-1.10	Chelsea San Filippo	Secured Storage	06/18/20 15:24	Return to Storage
JD8092-1.10	Dave Hunkele		07/18/20 07:00	Disposed
JD8092-2.3	Secured Storage	Todd Shoemaker	06/09/20 13:18	Retrieve from Storage
JD8092-2.3	Todd Shoemaker	Secured Staging Area	06/09/20 13:18	Return to Storage
JD8092-2.3	Secured Staging Area	Nicholas Weigand	06/09/20 23:15	Retrieve from Storage
JD8092-2.3	Nicholas Weigand		06/09/20 23:47	Depleted
JD8092-2.3.1	Nicholas Weigand	Organics Prep	06/09/20 23:15	Extract from JD8092-2.3
JD8092-2.3.1	Organics Prep	Vikas Parikh	06/10/20 12:36	Extract from JD8092-2.3
JD8092-2.3.1	Vikas Parikh	Extract Storage	06/10/20 12:36	Return to Storage
JD8092-2.3.1	Extract Storage	James Canas	06/10/20 17:00	Retrieve from Storage
JD8092-2.3.1	James Canas	GCMS6P	06/10/20 17:00	Load on Instrument
JD8092-2.3.1	GCMS6P	James Canas	06/11/20 13:33	Unload from Instrument
JD8092-2.3.1	James Canas	Extract Freezer	06/11/20 13:33	Return to Storage
JD8092-2.3.1	Extract Freezer		07/20/20 09:00	Disposed
JD8092-2.4	Secured Storage	Omar Khalid	06/09/20 20:10	Retrieve from Storage
JD8092-2.4	Omar Khalid	Secured Staging Area	06/09/20 20:10	Return to Storage
JD8092-2.4	Secured Staging Area	Vikas Parikh	06/10/20 10:56	Retrieve from Storage
JD8092-2.4	Vikas Parikh		06/10/20 14:07	Depleted
JD8092-2.4.1	Vikas Parikh	Organics Prep	06/10/20 10:56	Extract from JD8092-2.4
JD8092-2.4.1	Organics Prep	Vikas Parikh	06/10/20 19:00	Extract from JD8092-2.4
JD8092-2.4.1	Vikas Parikh	Extract Storage	06/10/20 19:00	Return to Storage
JD8092-2.4.1	Extract Storage	Christine Phillips	06/10/20 23:23	Retrieve from Storage
JD8092-2.4.1	Christine Phillips	GCXX	06/10/20 23:23	Load on Instrument
JD8092-2.5	Secured Storage	Benjamin Gaines	06/07/20 13:50	Retrieve from Storage
JD8092-2.5	Benjamin Gaines	Secured Staging Area	06/07/20 13:50	Return to Storage
JD8092-2.5	Secured Staging Area	Colleen Hill	06/08/20 06:10	Retrieve from Storage
JD8092-2.5	Colleen Hill	Secured Storage	06/08/20 10:28	Return to Storage
JD8092-2.5	Dave Hunkele		07/18/20 07:00	Disposed

SGS Internal Chain of Custody

Page 3 of 4

Job Number: JD8092
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 06/04/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD8092-2.5.1	Colleen Hill	Metals Digestion	06/08/20 10:21	Digestate from JD8092-2.5
JD8092-2.5.1	Metals Digestion	Colleen Hill	06/08/20 10:21	Digestate from JD8092-2.5
JD8092-2.5.1	Colleen Hill	Metals Digestate Storage	06/08/20 10:21	Return to Storage
JD8092-2.6	Secured Storage	Benjamin Gaines	06/09/20 15:41	Retrieve from Storage
JD8092-2.6	Benjamin Gaines	Secured Staging Area	06/09/20 15:41	Return to Storage
JD8092-2.6	Secured Staging Area	Mahendra Patel	06/10/20 13:18	Retrieve from Storage
JD8092-2.6	Secured Storage	Matthew Robbins	06/10/20 16:05	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JD8092-2.6	Matthew Robbins	Secured Staging Area	06/10/20 16:05	Return to Storage
JD8092-2.6	Secured Storage	Todd Shoemaker	06/12/20 08:20	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JD8092-2.6	Todd Shoemaker	Secured Staging Area	06/12/20 08:20	Return to Storage
JD8092-2.6	Secured Storage	Todd Shoemaker	06/15/20 10:56	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JD8092-2.6	Todd Shoemaker	Secured Staging Area	06/15/20 10:56	Return to Storage
JD8092-2.6	Secured Staging Area	Kimberly Ignace	06/15/20 11:00	Retrieve from Storage
JD8092-2.6	Kimberly Ignace	Secured Storage	06/15/20 16:31	Return to Storage
JD8092-2.6	Dave Hunkele		07/18/20 07:00	Disposed
JD8092-2.7	Secured Storage	Omar Khalid	06/04/20 20:02	Retrieve from Storage
JD8092-2.7	Omar Khalid	Secured Staging Area	06/04/20 20:02	Return to Storage
JD8092-2.7	Secured Staging Area	Todd Shoemaker	06/05/20 11:52	Retrieve from Storage
JD8092-2.7	Todd Shoemaker	Secured Storage	06/05/20 11:53	Return to Storage
JD8092-2.7	Secured Storage	Todd Shoemaker	06/05/20 14:16	Retrieve from Storage
JD8092-2.7	Todd Shoemaker	Secured Staging Area	06/05/20 14:16	Return to Storage
JD8092-2.7	Secured Staging Area	Elaine Banting	06/06/20 00:20	Retrieve from Storage
JD8092-2.7	Elaine Banting	Secured Storage	06/06/20 00:20	Return to Storage
JD8092-2.7	Secured Storage	Elaine Banting	06/10/20 00:40	Retrieve from Storage
JD8092-2.7	Elaine Banting		06/10/20 00:40	Depleted
JD8092-2.8	Secured Storage	Omar Khalid	06/04/20 20:02	Retrieve from Storage
JD8092-2.8	Omar Khalid	Secured Staging Area	06/04/20 20:02	Return to Storage
JD8092-2.8	Secured Staging Area	Todd Shoemaker	06/05/20 11:52	Retrieve from Storage
JD8092-2.8	Todd Shoemaker	Secured Storage	06/05/20 11:53	Return to Storage
JD8092-2.8	Dave Hunkele		07/18/20 07:00	Disposed
JD8092-2.10	Secured Storage	Chelsea San Filippo	06/17/20 15:03	Retrieve from Storage
JD8092-2.10	Chelsea San Filippo		06/17/20 15:04	Depleted
JD8092-2.11	Secured Storage	Chelsea San Filippo	06/17/20 15:04	Retrieve from Storage
JD8092-2.11	Chelsea San Filippo	GCM SN	06/17/20 15:04	Load on Instrument
JD8092-2.11	GCM SN	Chelsea San Filippo	06/18/20 15:23	Unload from Instrument

SGS Internal Chain of Custody

Job Number: JD8092
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 06/04/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD8092-2.11	Chelsea San Filippo	Secured Storage	06/18/20 15:23	Return to Storage
JD8092-2.11	Dave Hunkele		07/18/20 07:00	Disposed

5.4
5



October 14, 2020

Mr. Sean H. Hulbert - Assistant Chemical Engineer
NYCDEP, Bureau of Wastewater Treatment
96-05 Horace Harding Expressway, 1st Floor
Corona, NY 11368

Subject: **3rd Quarter 2020 Effluent Discharge Compliance
Review Avenue Development Sites
37-30 and 37-80 Review Avenue
Long Island City, Queens, New York, File # C-5652**

Dear Mr. Hulbert:

Wood Environment and Infrastructure Solutions, Inc. (Wood), on behalf of Review Avenue System LLC, submits the effluent laboratory analysis data in connection with the letter of approval (LOA) for groundwater discharge to sanitary or combined sewer for the Review Avenue Development (RAD) Sites and LOA Extension dated September 30, 2019.

Wood collected the 3rd Quarter 2020 discharge compliance samples on September 17, 2020. Analytical results indicate no exceedances of the daily discharge limits for all parameters and no exceedances of the monthly discharge limits for all parameters, and therefore the discharge is in compliance with our LOA requirements. The analytical results collected for the 3rd Quarter 2020 compliance sampling are summarized on Table 1 attached. The total volume of groundwater discharged to the sanitary or combined sewer, since system start-up was 12,735,320 gallons as of the September 17th sampling event and 630,780 gallons since the last quarterly sampling event on June 4th.

If you have any questions, please contact either of the undersigned at (609) 689-2829.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

A handwritten signature in blue ink, appearing to read "Brent O'Dell", is located below the company name on the left side.

Brent C. O'Dell, P.E.
Principal Engineer – Civil

A handwritten signature in blue ink, appearing to read "Timothy C. Kessler", is located below the company name on the right side.

Timothy C. Kessler
Senior Associate Engineer/PM

Attachments: Table 1 – Summary of Groundwater Analytical Results

cc: R. Craig Coslett – Review Avenue System LLC

Table 1
Summary of Analytical Results - Groundwater Treatment System
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	NYCDEP Daily Limit	NYCDEP Monthly Limit	RA-EFF-G	RA-EFF-C
Compliance Period:				3Q 2020	3Q 2020
Sample Date:				9/17/2020	9/17/2020
Lab Sample ID:				JD13228-1	JD13228-2
Non-polar material ¹	mg/L	50	NL	13.0	-
pH ²	SUs	5 - 12	NL	6.693	-
Temperature ²	°F	150	NL	69.7	-
Flash Point ³	°F	> 140	NL	> 200	-
Cadmium (Instantaneous)	mg/L	2	NL	0.003 U	-
Cadmium (Composite)	mg/L	0.69	NL	-	0.003 U
Chromium (VI)	mg/L	5	NL	0.010 U	-
Copper	mg/L	5	NL	0.01 U	-
Lead	mg/L	2	NL	0.003 U	-
Mercury	mg/L	0.05	NL	0.0002 U	-
Nickel	mg/L	3	NL	0.01 U	-
Zinc	mg/L	5	NL	0.02 U	-
Benzene	µg/L	134	57	0.34 U	-
Carbon Tetrachloride	µg/L	NL	NL	-	0.55 U
Chloroform	µg/L	NL	NL	-	3.9
1,4-Dichlorobenzene	µg/L	NL	NL	0.63 U	-
Ethylbenzene	µg/L	380	142	0.30 U	-
MTBE (Methyl-Tert-Butyl-Ether)	µg/L	50	NL	0.87 U	-
Napthalene	µg/L	47	19	-	0.22 U
Phenol	µg/L	NL	NL	-	0.37 U
Tetrachloroethylene (Perc)	µg/L	20	NL	0.90 U	-
Toluene	µg/L	74	28	0.36 U	-
1,2,4-Trichlorobenzene	µg/L	NL	NL	-	0.24 U
1,1,1-Trichloroethane	µg/L	NL	NL	-	0.54 U
Xylenes (Total)	µg/L	74	28	0.35 U	-
PCBs (Total)	µg/L	1	NL	-	0.033 U
Total Suspended Solids (TSS)	mg/L	350	NL	4.0	-
CBOD	mg/L	NL	NL	-	1.0 U
Chloride	mg/L	NL	NL	70.8	-
Total Nitrogen	mg/L	NL	NL	-	0.30 U
Total Solids	mg/L	NL	NL	330	-

Table 1
Summary of Analytical Results - Groundwater Treatment System
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Notes:

RA-EFF-G: Instantaneous (Grab) Sample

RA-EFF-C: 4-Hour Flow Weighted Composite Sample

Bold/Shaded: Concentration exceeds daily limit

Underline: Concentration exceeds monthly limit

1. Non-polar Material reported by lab as "Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)"
2. pH and Temperature measured in field
3. Flash Point reported by lab as Ignitability
4. Temperature was estimated

Definitions:

MDL: Method Detection Limit

RL: Reporting Limit

NL: No Limit

Data Qualifiers:

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U: Indicates the analyte was not detected at the indicated MDL.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Wood Environment & Infrastructure Solut.

Review Avenue, Long Island City, NY

3480160502 PO#C01270035

SGS Job Number: JD13228

Sampling Date: 09/17/20



Report to:

Wood Environment & Infrastructure Soln.
200 American Metro Boulevard Suite 113
Hamilton, NJ 08619
Timothy.Kessler@woodplc.com; Vincent.Whelan@woodplc.com;
michelle.jenkins@sgs.com; william.whitacre@woodplc.com
ATTN: Tim Kessler

Total number of pages in report: 25



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Caitlin Brice, M.S.
General Manager

Client Service contact: Kelly Ramos 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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Sample Summary

Wood Environment & Infrastructure Solut.

Job No: JD13228

Review Avenue, Long Island City, NY
Project No: 3480160502 PO#C01270035

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
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This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

JD13228-1	09/17/20	12:40	WTW	09/17/20	AQ	Effluent	RA-EFF-G
JD13228-1R	09/17/20	12:40	WTW	09/17/20	AQ	Effluent	RA-EFF-G
JD13228-2	09/17/20	12:26	WTW	09/17/20	AQ	Effluent	RA-EFF-C
JD13228-2R	09/17/20	12:26	WTW	09/17/20	AQ	Effluent	RA-EFF-C

Summary of Hits

Page 1 of 1

Job Number: JD13228
Account: Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Collected: 09/17/20

2

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JD13228-1 RA-EFF-G

Chloride	70.8	2.0		mg/l	EPA 300/SW846 9056A
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
Solids, Total	330	10		mg/l	SM2540 B-11
Solids, Total Suspended ^a	4.0	4.0		mg/l	SM2540 D-11

JD13228-1R RA-EFF-G

HEM Petroleum Hydrocarbons	13.0	5.0		mg/l	EPA 1664A
----------------------------	------	-----	--	------	-----------

JD13228-2 RA-EFF-C

Chloroform	3.9	1.0	0.50	ug/l	EPA 624.1
Carbonaceous Bod, 5 Day	< 1.0	1.0		mg/l	SM5210 B-11
Nitrogen, Total Kjeldahl	0.28	0.20		mg/l	EPA 351.2/LACHAT

JD13228-2R RA-EFF-C

No hits reported in this sample.

(a) Reported sample aliquot obtained from filtration of 50 mL of sample. Volume was reduced from 1 liter due to nature of sample matrix.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	09/17/20
Lab Sample ID:	JD13228-1	Date Received:	09/17/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A204222.D	1	09/22/20 16:12	ED	n/a	n/a	V1A8823
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-88-3	Toluene	ND	1.0	0.36	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.87	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.63	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	92%		76-122%
2037-26-5	Toluene-D8 (SUR)	93%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	98%		80-120%
1868-53-7	Dibromofluoromethane (S)	109%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	09/17/20
Lab Sample ID:	JD13228-1	Date Received:	09/17/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By		Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	09/21/20	09/21/20	ND	EPA 200.7 ¹	EPA 200.7 ³
Copper	< 10	10	ug/l	1	09/21/20	09/21/20	ND	EPA 200.7 ¹	EPA 200.7 ³
Lead	< 3.0	3.0	ug/l	1	09/21/20	09/21/20	ND	EPA 200.7 ¹	EPA 200.7 ³
Mercury	< 0.20	0.20	ug/l	1	09/29/20	09/29/20	LL	EPA 245.1 ²	EPA 245.1 ⁴
Nickel	< 10	10	ug/l	1	09/21/20	09/21/20	ND	EPA 200.7 ¹	EPA 200.7 ³
Zinc	< 20	20	ug/l	1	09/21/20	09/21/20	ND	EPA 200.7 ¹	EPA 200.7 ³

- (1) Instrument QC Batch: MA49330
- (2) Instrument QC Batch: MA49376
- (3) Prep QC Batch: MP22844
- (4) Prep QC Batch: MP23008

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	09/17/20
Lab Sample ID:	JD13228-1	Date Received:	09/17/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	70.8	2.0	mg/l	1	09/29/20 18:05	EB	EPA 300/SW846 9056A
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	09/18/20 08:54	RI	SM3500CR B-11
Ignitability (Flashpoint)	> 200		Deg. F	1	09/21/20 13:00	DG	SW846 1010A/ASTM D93
Solids, Total	330	10	mg/l	1	09/23/20 17:43	TB	SM2540 B-11
Solids, Total Suspended ^a	4.0	4.0	mg/l	1	09/22/20 17:15	TB	SM2540 D-11

(a) Reported sample aliquot obtained from filtration of 50 mL of sample. Volume was reduced from 1 liter due to nature of sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	09/17/20
Lab Sample ID:	JD13228-1R	Date Received:	09/17/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Petroleum Hydrocarbons	13.0	5.0	mg/l	1	09/25/20 18:00	LX	EPA 1664A

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	09/17/20
Lab Sample ID:	JD13228-2	Date Received:	09/17/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A204223.D	1	09/22/20 16:37	ED	n/a	n/a	V1A8823
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
67-66-3	Chloroform	3.9	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	92%		76-122%
2037-26-5	Toluene-D8 (SUR)	92%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	98%		80-120%
1868-53-7	Dibromofluoromethane (S)	109%		80-120%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	09/17/20
Lab Sample ID:	JD13228-2	Date Received:	09/17/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 625.1 EPA 625		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P493609.D	1	09/21/20 15:04	HSS	09/18/20 17:00	OP29564	E6P3119
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-95-2	Phenol	ND	1.9	0.37	ug/l	
91-20-3	Naphthalene	ND	0.95	0.22	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		10-110%
4165-62-2	Phenol-d5	33%		10-110%
118-79-6	2,4,6-Tribromophenol	94%		35-147%
4165-60-0	Nitrobenzene-d5	106%		32-132%
321-60-8	2-Fluorobiphenyl	88%		40-117%
1718-51-0	Terphenyl-d14	105%		33-126%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	09/17/20
Lab Sample ID:	JD13228-2	Date Received:	09/17/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	09/21/20	09/21/20 ND	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA49330
(2) Prep QC Batch: MP22844

RL = Reporting Limit

Report of Analysis

Client Sample ID: RA-EFF-C**Lab Sample ID:** JD13228-2**Matrix:** AQ - Effluent**Date Sampled:** 09/17/20**Date Received:** 09/17/20**Percent Solids:** n/a**Project:** Review Avenue, Long Island City, NY

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Carbonaceous Bod, 5 Day	< 1.0	1.0	mg/l	1	09/17/20 21:42	EB	SM5210 B-11
Nitrogen, Nitrate ^a	< 0.11	0.11	mg/l	1	09/28/20 18:32	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	09/28/20 18:32	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	09/17/20 09:22	MP	SM4500NO2 B-11
Nitrogen, Total ^b	< 0.30	0.30	mg/l	1	09/29/20 16:05	BM	SM4500 A-11
Nitrogen, Total Kjeldahl	0.28	0.20	mg/l	1	09/29/20 16:05	BM	EPA 351.2/LACHAT

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

(b) Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	09/17/20
Lab Sample ID:	JD13228-2R	Date Received:	09/17/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 608.3 EPA 608		
Project:	Review Avenue, Long Island City, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX2454916.D	1	10/08/20 11:38	VDT	09/29/20 17:15	OP29694	GXX7187
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.049	0.033	ug/l	
11104-28-2	Aroclor 1221	ND	0.049	0.028	ug/l	
11141-16-5	Aroclor 1232	ND	0.049	0.020	ug/l	
53469-21-9	Aroclor 1242	ND	0.049	0.026	ug/l	
12672-29-6	Aroclor 1248	ND	0.049	0.024	ug/l	
11097-69-1	Aroclor 1254	ND	0.049	0.033	ug/l	
11096-82-5	Aroclor 1260	ND	0.049	0.026	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	147%		10-156%
877-09-8	Tetrachloro-m-xylene	89%		10-156%
2051-24-3	Decachlorobiphenyl	68%		10-143%
2051-24-3	Decachlorobiphenyl	68%		10-143%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Parameter Certification Exceptions

Job Number: JD13228
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Ignitability (Flashpoint)		SW846 1010A/ASTM D93	AQ	SGS is not certified for this parameter. ^a
Nitrogen, Total		SM4500 A-11	AQ	SGS is not certified for this parameter. ^b

- (a) Lab cert for analyte/method not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

4.1
4



CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

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E/Comp

Client / Reporting Information				Project Information				Requested Analysis												Matrix Codes	
Company Name: Wood E&S				Project Name: Review Avenue GWM																	
Street Address: 200 American Metro Blvd #113				Street: Review Avenue																	
City: Hamilton, NJ State: 08619				City: Long Island City State: NY																	
Project Contact: Timothy Kessler@woodplc.com				Project #: 3480160502																	
Phone #: 609-689-2829				Client Purchase Order #: C01270035																	
Sampler(s) Name(s): William Whitacre 646-831-5662				Project Manager: Tim Kessler																	
Field ID / Point of Collection				MEQHD/ Val #																	
Date				Time																	
Sampled by				Grab (G) / Composite (C)																	
Matrix				# of bottles																	
ID				HNO ₃																	
H ₂ O ₂				NONE																	
DI Water				MEQHD																	
ENCORE																					
Flashpoint (Ignitability) - SW946 1010A				Metals (Cd, Cu, Pb, Ni, Zn) - EPA 200.7																	
Mercury (Hg) - EPA 245.1				SGT-HEM - EPA 1664A SGT																	
Total Solids, (SM 2540 B-11), Chloride (EPA 300.0 / SM4500 Cl-C)				Total Suspended Solids - SM 2540 D-11																	
VOC (V624B7M, VMS+PCE, VMS+4DCB) - EPA 824				Hexavalent Chromium (SM 8260 Cr B)																	
Phenol, Naphthalene, 1,2,4-Trichlorobenzene - EPA 825				CBOD ₅ - SM 5210 B-11																	
Metals (Cadmium Only) - EPA 200.7				PCBs, Low Level (RC9PCBLL) - EPA 808																	
LAB USE ONLY																					
1 RA-EFF-G				9/17/2020 1240																L29	
2 RA-EFF-C				9/17/2020 1220																A31	
RA-VOC-C1				9/17/2020 0900																C34	
RA-VOC-C2				9/17/2020 1000																	
RA-VOC-C3				9/17/2020 1100																	
RA-VOC-C4				9/17/2020 1200																	
INITIAL ASSESSMENT				3A																	
LABEL VERIFICATION																					
Turn Around Time (Business Days)				Deliverable				Comments / Special Instructions													
☐ 10 Business Days ☐ 5 Business Days ☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day ☒ Other Standard				Approved By (SGS PM): / Date:				☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ NJ Reduced (Level 3) ☐ Full Tier 1 (Level 4) ☐ Commercial "C" ☐ NJ DKQP				☐ NYASP Category A ☒ NYASP Category B ☐ MA MCP Criteria ☐ CT RCP Criteria ☐ State Forms ☒ EDD Format ☐ NYSDEC				☐ DOD-QSM5 Composite RA-VOC-C1 to RA-VOC-C4 in lab to be used for RA-EFF-C VOC analysis. Hold SGT-HEM + PCB Samples. Hex Chrome Test Method Only Allows 24HR Hold Time Custody seal 15752 & 15750 http://www.sgs.com/en/terms-and-conditions					
All data available via Lablink				* Approval needed for 1-3 Business Day TAT				Commercial "A" = Results only; Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data													
Sample Custody must be documented below each time samples change possession, including courier delivery.																					
Received By: Aditya Redwood				Date / Time: 9/17/2020 12:40				Received By: Padmesh Kumar P				Date / Time: 9/17/2020 12:40									
Relinquished By: Aditya Redwood				Date / Time: 9/17/2020 12:40				Received By: Padmesh Kumar P				Date / Time: 9/17/2020 12:40									
Relinquished By: Aditya Redwood				Date / Time: 9/17/2020 12:40				Received By: Padmesh Kumar P				Date / Time: 9/17/2020 12:40									
Relinquished By: Aditya Redwood				Date / Time: 9/17/2020 12:40				Received By: Padmesh Kumar P				Date / Time: 9/17/2020 12:40									
Custody Seal # 15750				☒ Intact ☐ Not Intact				☐ Preserved where applicable ☐ Absent				Therm ID: 124 On Ice: 3.2 Cooler Temp: 3.4									

9.17.20 COC for Q3 2020.xlsx

JD13228: Chain of Custody

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[illegible]

4.2

JD13228: Chain of Custody

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SGS Sample Receipt Summary

Job Number: JD13228

Client: WOOD ENVIRONMENT & INFRASTRUCT

Project: REVIEW AVENUE, LONG ISLAND CITY, NY

Date / Time Received: 9/17/2020 2:50:00 PM

Delivery Method:

Airbill #s:

Cooler Temps (Raw Measured) °C: Cooler : (3.4); Cooler 1: (3.2);

Cooler Temps (Corrected) °C: Cooler : (3.1); Cooler 1: (2.9);

Cooler Security

Y or N

1. Custody Seals Present:

☒ ☐

3. COC Present:

☒ ☐

2. Custody Seals Intact:

☒ ☐

4. Smpl Dates/Time OK

☒ ☐

Cooler Temperature

Y or N

1. Temp criteria achieved:

☒ ☐

2. Cooler temp verification:

IR Gun

3. Cooler media:

Ice (Bag)

4. No. Coolers:

1

Quality Control Preservation

Y or N

N/A

1. Trip Blank present / cooler:

☐ ☒ ☐

2. Trip Blank listed on COC:

☐ ☒ ☐

3. Samples preserved properly:

☒ ☐

4. VOCs headspace free:

☒ ☐ ☐

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles:

☒ ☐

2. Container labeling complete:

☒ ☐

3. Sample container label / COC agree:

☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT:

☒ ☐

2. All containers accounted for:

☒ ☐

3. Condition of sample:

Intact

Sample Integrity - Instructions

Y or N

N/A

1. Analysis requested is clear:

☒ ☐

2. Bottles received for unspecified tests

☐ ☒

3. Sufficient volume recvd for analysis:

☒ ☐

4. Compositing instructions clear:

☐ ☐ ☒

5. Filtering instructions clear:

☐ ☐ ☒

Test Strip Lot #s:

pH 1-12: 229517

pH 12+: 208717

Other: (Specify)

Comments

SM089-03

Rev. Date 12/7/17

JD13228: Chain of Custody

Page 3 of 4

Job Change Order: JD13228

Requested Date: 9/23/2020 Received Date: 9/17/2020
Account Name: Wood Environment & Infrastructure Due Date: 10/1/2020
Project Description: Review Avenue, Long Island City, NY Deliverable: NYASPA
C/O Initiated By: MICHELLE D PM: KR TAT (days): 14

Sample #: JD13228-1 Change:
Dept: Relog for PHC1664

TAT: 14

RA-EFF-G

Sample #: JD13228-2 Change:
Dept: Relog for P608PCBLL

TAT: 14

RA-EFF-C

Above Changes Per: Tim Kessler Date/Time: 9/23/2020 5:21:49 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Internal Sample Tracking Chronicle

Wood Environment & Infrastructure Solut.

Job No: JD13228

Review Avenue, Long Island City, NY
Project No: 3480160502 PO#C01270035

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD13228-1 Collected: 17-SEP-20 12:40 By: WTW Received: 17-SEP-20 By: JP RA-EFF-G						
JD13228-1	SM3500CR B-11	18-SEP-20 08:54	RI			XCRSM
JD13228-1	SW846 1010A/ASTM D20	18-SEP-20 13:00	DG			IGN
JD13228-1	EPA 200.7	21-SEP-20 21:31	ND	21-SEP-20	TG	CD,CU,NI,PB,ZN
JD13228-1	EPA 624.1	22-SEP-20 16:12	ED			V624BTXM
JD13228-1	SM2540 D-11	22-SEP-20 17:15	TB			TSS
JD13228-1	SM2540 B-11	23-SEP-20 17:43	TB			TS
JD13228-1	EPA 245.1	29-SEP-20 15:05	LL	29-SEP-20	LL	HG
JD13228-1	EPA 300/SW846 9056A29	29-SEP-20 18:05	EB	28-SEP-20	EB	CHL
JD13228-2 Collected: 17-SEP-20 12:26 By: WTW Received: 17-SEP-20 By: JP RA-EFF-C						
JD13228-2	SM4500NO2 B-11	17-SEP-20 09:22	MP			NO2
JD13228-2	SM5210 B-11	17-SEP-20 21:42	EB	17-SEP-20	EB	CBOD5
JD13228-2	EPA 625.1	21-SEP-20 15:04	HSS	18-SEP-20	AS	AB625SL2
JD13228-2	EPA 200.7	21-SEP-20 21:41	ND	21-SEP-20	TG	CD
JD13228-2	EPA 624.1	22-SEP-20 16:37	ED			V624CHLFRM,VMS+ CTC,VMS+ TCA
JD13228-2	EPA353.2/SM4500NO2B	28-SEP-20 18:32	BM			NO3O
JD13228-2	EPA 353.2/LACHAT	28-SEP-20 18:32	BM	28-SEP-20	BM	NO32
JD13228-2	SM4500 A-11	29-SEP-20 16:05	BM			TNIT
JD13228-2	EPA 351.2/LACHAT	29-SEP-20 16:05	BM	28-SEP-20	MP	TKN
JD13228-1RCollected: 17-SEP-20 12:40 By: WTW Received: 17-SEP-20 By: JP RA-EFF-G						
JD13228-1R	EPA 1664A	25-SEP-20 18:00	LX	25-SEP-20	LX	PHC1664
JD13228-2RCollected: 17-SEP-20 12:26 By: WTW Received: 17-SEP-20 By: JP RA-EFF-C						
JD13228-2R	EPA 608.3	08-OCT-20 11:38	VDT	29-SEP-20	NW	P608PCBLL

SGS Internal Chain of Custody

Page 1 of 4

Job Number: JD13228
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 09/17/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD13228-1.1	Matthew Robbins	Secured Storage	09/17/20 19:41	Return to Storage
JD13228-1.1	Secured Storage	Todd Shoemaker	09/25/20 09:25	Retrieve from Storage
JD13228-1.1	Todd Shoemaker	Secured Staging Area	09/25/20 09:25	Return to Storage
JD13228-1.1	Secured Staging Area	Lixiao Xu	09/25/20 10:04	Retrieve from Storage
JD13228-1.1	Lixiao Xu		09/25/20 16:51	Depleted
JD13228-1.2	Matthew Robbins	Secured Storage	09/17/20 19:41	Return to Storage
JD13228-1.3	Matthew Robbins	Secured Storage	09/17/20 17:55	Return to Storage
JD13228-1.3	Secured Storage	Benjamin Gaines	09/20/20 15:53	Retrieve from Storage
JD13228-1.3	Benjamin Gaines	Secured Staging Area	09/20/20 15:53	Return to Storage
JD13228-1.3	Secured Staging Area	Taylor Gorman	09/21/20 04:48	Retrieve from Storage
JD13228-1.3	Taylor Gorman	Secured Storage	09/21/20 11:47	Return to Storage
JD13228-1.3	Secured Storage	Benjamin Gaines	09/27/20 15:02	Retrieve from Storage
JD13228-1.3	Benjamin Gaines	Secured Staging Area	09/27/20 15:02	Return to Storage
JD13228-1.3	Secured Staging Area	Lindsey Lee	09/28/20 08:00	Retrieve from Storage
JD13228-1.3	Lindsey Lee	Secured Storage	09/28/20 16:37	Return to Storage
JD13228-1.3	Secured Storage	Omar Khalid	09/28/20 17:21	Retrieve from Storage
JD13228-1.3	Omar Khalid	Secured Staging Area	09/28/20 17:21	Return to Storage
JD13228-1.3	Secured Staging Area	Lindsey Lee	09/29/20 08:03	Retrieve from Storage
JD13228-1.3	Lindsey Lee	Secured Storage	09/29/20 12:49	Return to Storage
JD13228-1.3.1	Taylor Gorman	Metals Digestion	09/21/20 11:33	Digestate from JD13228-1.3
JD13228-1.3.1	Metals Digestion	Taylor Gorman	09/21/20 11:33	Digestate from JD13228-1.3
JD13228-1.3.1	Taylor Gorman	Metals Digestate Storage	09/21/20 11:33	Return to Storage
JD13228-1.4	Matthew Robbins	Secured Storage	09/17/20 17:44	Return to Storage
JD13228-1.5	Matthew Robbins	Secured Storage	09/17/20 17:44	Return to Storage
JD13228-1.5	Secured Storage	Todd Shoemaker	09/22/20 11:41	Retrieve from Storage
JD13228-1.5	Todd Shoemaker	Secured Staging Area	09/22/20 11:42	Return to Storage
JD13228-1.5	Secured Staging Area	Tayler Barone	09/22/20 14:07	Retrieve from Storage
JD13228-1.5	Tayler Barone	Secured Storage	09/23/20 00:59	Return to Storage
JD13228-1.6	Matthew Robbins	Secured Storage	09/17/20 17:44	Return to Storage
JD13228-1.6	Secured Storage	Todd Shoemaker	09/22/20 11:41	Retrieve from Storage
JD13228-1.6	Todd Shoemaker	Secured Staging Area	09/22/20 11:42	Return to Storage
JD13228-1.6	Secured Staging Area	Tayler Barone	09/22/20 14:07	Retrieve from Storage
JD13228-1.6	Tayler Barone	Secured Storage	09/23/20 00:59	Return to Storage
JD13228-1.6	Secured Storage	Benjamin Gaines	09/23/20 13:43	Retrieve from Storage
JD13228-1.6	Benjamin Gaines	Secured Staging Area	09/23/20 13:43	Return to Storage
JD13228-1.6	Secured Staging Area	Tayler Barone	09/23/20 14:38	Retrieve from Storage
JD13228-1.6	Tayler Barone	Secured Storage	09/23/20 21:55	Return to Storage
JD13228-1.6	Secured Storage	Benjamin Gaines	09/24/20 13:21	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JD13228
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 09/17/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD13228-1.6	Benjamin Gaines	Secured Staging Area	09/24/20 13:21	Return to Storage
JD13228-1.6	Secured Staging Area	Elaine Banting	09/29/20 04:18	Retrieve from Storage
JD13228-1.6	Elaine Banting	Secured Storage	09/29/20 04:18	Return to Storage
JD13228-1.7	Secured Storage	Matthew Robbins	09/17/20 17:34	Retrieve from Storage
JD13228-1.7	Matthew Robbins	Secured Staging Area	09/17/20 17:34	Return to Storage
JD13228-1.7	Secured Staging Area	Elaine Banting	09/18/20 03:38	Retrieve from Storage
JD13228-1.7	Elaine Banting	Secured Storage	09/18/20 03:39	Return to Storage
JD13228-1.7	Secured Storage	Todd Shoemaker	09/18/20 08:00	Retrieve from Storage
JD13228-1.7	Todd Shoemaker	Secured Staging Area	09/18/20 08:00	Return to Storage
JD13228-1.7	Secured Staging Area	Rie Iwasaki	09/18/20 08:09	Retrieve from Storage
JD13228-1.7	Rie Iwasaki	Secured Storage	09/18/20 17:11	Return to Storage
JD13228-1.8	Matthew Robbins	Secured Storage	09/17/20 17:44	Return to Storage
JD13228-1.8	Secured Storage	Todd Shoemaker	09/18/20 09:09	Retrieve from Storage
JD13228-1.8	Todd Shoemaker	Secured Staging Area	09/18/20 09:09	Return to Storage
JD13228-1.8	Secured Staging Area	Devin Gomez	09/18/20 09:15	Retrieve from Storage
JD13228-1.8	Devin Gomez	Secured Storage	09/18/20 15:26	Return to Storage
JD13228-1.8	Secured Storage	Todd Shoemaker	09/21/20 09:13	Retrieve from Storage
JD13228-1.8	Todd Shoemaker	Secured Staging Area	09/21/20 09:13	Return to Storage
JD13228-1.8	Secured Staging Area	Devin Gomez	09/21/20 09:17	Retrieve from Storage
JD13228-1.8	Devin Gomez	Secured Storage	09/21/20 17:06	Return to Storage
JD13228-1.9	Secured Storage	Edward Durner	09/22/20 15:18	Retrieve from Storage
JD13228-1.9	Edward Durner	GCMS1A	09/22/20 15:18	Load on Instrument
JD13228-1.9	GCMS1A	Edward Durner	09/23/20 08:16	Unload from Instrument
JD13228-1.9	Edward Durner	Secured Storage	09/23/20 08:16	Return to Storage
JD13228-2.1	Matthew Robbins	Secured Storage	09/17/20 17:55	Return to Storage
JD13228-2.1	Secured Storage	Todd Shoemaker	09/18/20 15:10	Retrieve from Storage
JD13228-2.1	Todd Shoemaker	Secured Staging Area	09/18/20 15:10	Return to Storage
JD13228-2.1	Secured Staging Area	Alexandra Silecchia	09/18/20 15:37	Retrieve from Storage
JD13228-2.1	Alexandra Silecchia		09/19/20 00:05	Depleted
JD13228-2.1.1	Alexandra Silecchia	Organics Prep	09/18/20 15:37	Extract from JD13228-2.1
JD13228-2.1.1	Organics Prep	Alexandra Silecchia	09/19/20 00:04	Extract from JD13228-2.1
JD13228-2.1.1	Alexandra Silecchia		09/19/20 00:05	Depleted
JD13228-2.2	Matthew Robbins	Secured Storage	09/17/20 17:55	Return to Storage
JD13228-2.3	Matthew Robbins	Secured Storage	09/17/20 17:55	Return to Storage
JD13228-2.3	Secured Storage	Nicholas Weigand	09/18/20 17:36	Retrieve from Storage
JD13228-2.3	Nicholas Weigand		09/25/20 23:08	Depleted

SGS Internal Chain of Custody

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Job Number: JD13228
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 09/17/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD13228-2.3.1	Nicholas Weigand	Organics Prep	09/18/20 17:37	Extract from JD13228-2.3
JD13228-2.3.1	Organics Prep	Alexandra Silecchia	09/19/20 00:04	Extract from JD13228-2.3
JD13228-2.3.1	Alexandra Silecchia		09/19/20 00:05	Depleted
JD13228-2.4	Matthew Robbins	Secured Storage	09/17/20 17:55	Return to Storage
JD13228-2.4	Secured Storage	Todd Shoemaker	09/29/20 15:18	Retrieve from Storage
JD13228-2.4	Todd Shoemaker	Secured Staging Area	09/29/20 15:18	Return to Storage
JD13228-2.4	Secured Staging Area	Nicholas Weigand	09/29/20 15:59	Retrieve from Storage
JD13228-2.4	Nicholas Weigand		09/29/20 23:52	Depleted
JD13228-2.4.1	Nicholas Weigand	Organics Prep	09/29/20 16:00	Extract from JD13228-2.4
JD13228-2.4.1	Organics Prep	Nicholas Weigand	09/29/20 23:51	Extract from JD13228-2.4
JD13228-2.4.1	Nicholas Weigand	Extract Storage	09/29/20 23:51	Return to Storage
JD13228-2.4.1	Extract Storage	Vincent Drago	10/06/20 17:05	Retrieve from Storage
JD13228-2.4.1	Vincent Drago	GC5G	10/06/20 17:05	Load on Instrument
JD13228-2.5	Matthew Robbins	Secured Storage	09/17/20 17:55	Return to Storage
JD13228-2.5	Secured Storage	Benjamin Gaines	09/20/20 15:53	Retrieve from Storage
JD13228-2.5	Benjamin Gaines	Secured Staging Area	09/20/20 15:53	Return to Storage
JD13228-2.5	Secured Staging Area	Taylor Gorman	09/21/20 04:48	Retrieve from Storage
JD13228-2.5	Taylor Gorman	Secured Storage	09/21/20 11:47	Return to Storage
JD13228-2.5.1	Taylor Gorman	Metals Digestion	09/21/20 11:33	Digestate from JD13228-2.5
JD13228-2.5.1	Metals Digestion	Taylor Gorman	09/21/20 11:33	Digestate from JD13228-2.5
JD13228-2.5.1	Taylor Gorman	Metals Digestate Storage	09/21/20 11:33	Return to Storage
JD13228-2.6	Matthew Robbins	Secured Storage	09/17/20 17:44	Return to Storage
JD13228-2.6	Secured Storage	Todd Shoemaker	09/28/20 12:14	Retrieve from Storage
JD13228-2.6	Todd Shoemaker	Secured Staging Area	09/28/20 12:14	Return to Storage
JD13228-2.6	Secured Staging Area	Mahendra Patel	09/28/20 12:42	Retrieve from Storage
JD13228-2.6	Mahendra Patel	Secured Storage	09/28/20 18:49	Return to Storage
JD13228-2.7	Secured Storage	Matthew Robbins	09/17/20 17:34	Retrieve from Storage
JD13228-2.7	Matthew Robbins	Secured Staging Area	09/17/20 17:34	Return to Storage
JD13228-2.7	Secured Staging Area	Elaine Banting	09/18/20 03:38	Retrieve from Storage
JD13228-2.7	Elaine Banting	Secured Storage	09/18/20 03:39	Return to Storage
JD13228-2.8	Secured Storage	Matthew Robbins	09/17/20 17:34	Retrieve from Storage
JD13228-2.8	Matthew Robbins	Secured Staging Area	09/17/20 17:34	Return to Storage
JD13228-2.8	Secured Staging Area	Elaine Banting	09/18/20 03:38	Retrieve from Storage
JD13228-2.8	Elaine Banting	Secured Storage	09/18/20 03:39	Return to Storage
JD13228-2.8	Secured Storage	Todd Shoemaker	09/18/20 08:23	Retrieve from Storage
JD13228-2.8	Todd Shoemaker	Secured Staging Area	09/18/20 08:23	Return to Storage
JD13228-2.8	Secured Staging Area	Mahendra Patel	09/18/20 08:31	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JD13228
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 09/17/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD13228-2.8	Mahendra Patel	Secured Storage	09/18/20 10:08	Return to Storage
JD13228-2.9	Matthew Robbins	Secured Storage	09/17/20 17:55	Return to Storage
JD13228-2.12	Secured Storage	Edward Durner	09/22/20 15:18	Retrieve from Storage
JD13228-2.12	Edward Durner	GCMS1A	09/22/20 15:18	Load on Instrument
JD13228-2.12	GCMS1A	Edward Durner	09/23/20 08:16	Unload from Instrument
JD13228-2.12	Edward Durner	Secured Storage	09/23/20 08:16	Return to Storage

4.4
4



de maximis, inc.

1550 Pond Road
Suite 120
Allentown, PA 18104
(610) 435-1151
FAX (610) 435-8459

January 5, 2021

Via U.S. Mail

Mr. Sean H. Hulbert
Assistant Chemical Engineer
NYCDEP, Bureau of Wastewater Treatment
96-05 Horace Harding Expressway, 1st Floor
Corona, New York 11368

**RE: Review Avenue Development Sites - 37-30 and 37-80 Review Avenue
File # C-5652
4th Quarter 2020 Effluent Discharge Compliance Report**

Dear Mr. Hulbert:

Enclosed is the 4th Quarter 2020 - Effluent Discharge Compliance Report for the Review Avenue Development Sites. This report is being submitted on behalf of the Review Avenue System LLC administering the Review Avenue Development Site Brownfield Projects identified as RAD I and RAD II.

I would like to call to your attention the following, relative to discharge for the 4th Quarter 2020:

- Approximately 369,080 gallons of water have been discharged to the sewer system since the last reporting period – September 17, 2020.
- No constituents were reported above discharge criteria.

Please contact me with any questions at (610) 435-1151.

Sincerely,

de maximis, inc.

R. Craig Coslett
Project Coordinator for RAD I and RAD II

Enclosure: Compliance Monitoring Report for 4th Quarter 2020

CC: K Forester, NYDEC (electronic mail only)
Tim Kessler, Wood Group (electronic mail only)
Brent O'Dell, Wood Group (electronic mail only)



January 4, 2021

Mr. Sean H. Hulbert - Assistant Chemical Engineer
NYCDEP, Bureau of Wastewater Treatment
96-05 Horace Harding Expressway, 1st Floor
Corona, NY 11368

Subject: **4th Quarter 2020 Effluent Discharge Compliance
Review Avenue Development Sites
37-30 and 37-80 Review Avenue
Long Island City, Queens, New York, File # C-5652**

Dear Mr. Hulbert:

Wood Environment and Infrastructure Solutions, Inc. (Wood), on behalf of Review Avenue System LLC, submits the effluent laboratory analysis data in connection with the letter of approval (LOA) for groundwater discharge to sanitary or combined sewer for the Review Avenue Development (RAD) Sites and LOA Extension dated September 30, 2019.

Wood collected the 4th Quarter 2020 discharge compliance samples on December 1, 2020. Analytical results indicate no exceedances of the daily discharge limits for all parameters and no exceedances of the monthly discharge limits for all parameters, and therefore the discharge is in compliance with our LOA requirements. The analytical results collected for the 4th Quarter 2020 compliance sampling are summarized on Table 1 attached. The total volume of groundwater discharged to the sanitary or combined sewer, since system start-up was 13,004,400 gallons as of the December 1st sampling event and 369,080 gallons since the last quarterly sampling event on September 17th.

If you have any questions, please contact either of the undersigned at (609) 689-2829.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

A handwritten signature in blue ink, appearing to read "Brent O'Dell", with a stylized, cursive script.

Brent C. O'Dell, P.E.
Principal Engineer – Civil

A handwritten signature in blue ink, appearing to read "Timothy C. Kessler", with a stylized, cursive script.

Timothy C. Kessler
Senior Associate Engineer/PM

Attachments: Table 1 – Summary of Groundwater Analytical Results

cc: R. Craig Coslett – Review Avenue System LLC

Table 1
Summary of Analytical Results - Groundwater Treatment System
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	NYCDEP Daily Limit	NYCDEP Monthly Limit	RA-EFF-G		RA-EFF-C	
Compliance Period:				4Q 2020		4Q 2020	
Sample Date:				12/1/2020		12/1/2020	
Lab Sample ID:				JD16912-1		JD16912-2	
Non-polar material ¹	mg/L	50	NL	5.0	U	-	
pH ²	SUs	5 - 12	NL	7.01		-	
Temperature ²	°F	150	NL	37.2		-	
Flash Point ³	°F	> 140	NL	> 200		-	
Cadmium (Instantaneous)	mg/L	2	NL	0.003	U	-	
Cadmium (Composite)	mg/L	0.69	NL	-		0.003	U
Chromium (VI)	mg/L	5	NL	0.010	U	-	
Copper	mg/L	5	NL	0.01	U	-	
Lead	mg/L	2	NL	0.003	U	-	
Mercury	mg/L	0.05	NL	0.0002	U	-	
Nickel	mg/L	3	NL	0.01	U	-	
Zinc	mg/L	5	NL	0.02	U	-	
Benzene	µg/L	134	57	0.34	U	-	
Carbon Tetrachloride	µg/L	NL	NL	-		0.55	U
Chloroform	µg/L	NL	NL	-		16.1	
1,4-Dichlorobenzene	µg/L	NL	NL	0.63	U	-	
Ethylbenzene	µg/L	380	142	0.30	U	-	
MTBE (Methyl-Tert-Butyl-Ether)	µg/L	50	NL	0.37	U	-	
Napthalene	µg/L	47	19	-		0.23	U
Phenol	µg/L	NL	NL	-		0.39	U
Tetrachloroethylene (Perc)	µg/L	20	NL	0.41	U	-	
Toluene	µg/L	74	28	0.36	U	-	
1,2,4-Trichlorobenzene	µg/L	NL	NL	-		0.25	U
1,1,1-Trichloroethane	µg/L	NL	NL	-		0.54	U
Xylenes (Total)	µg/L	74	28	0.35	U	-	
PCBs (Total)	µg/L	1	NL	-		0.034	U
Total Suspended Solids (TSS)	mg/L	350	NL	10.0		-	
CBOD	mg/L	NL	NL	-		1.3	
Chloride	mg/L	NL	NL	16.7		-	
Total Nitrogen	mg/L	NL	NL	-		0.34	
Total Solids	mg/L	NL	NL	12.0		-	

Table 1
Summary of Analytical Results - Groundwater Treatment System
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Notes:

RA-EFF-G: Instantaneous (Grab) Sample

RA-EFF-C: 4-Hour Flow Weighted Composite Sample

Bold/Shaded: Concentration exceeds daily limit

Underline: Concentration exceeds monthly limit

1. Non-polar Material reported by lab as "Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)"
2. pH and Temperature measured in field
3. Flash Point reported by lab as Ignitability
4. Temperature was estimated

Definitions:

MDL: Method Detection Limit

RL: Reporting Limit

NL: No Limit

Data Qualifiers:

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U: Indicates the analyte was not detected at the indicated MDL.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Wood Environment & Infrastructure Solut.

Review Avenue, Long Island City, NY

3480160502 PO#C01270035

SGS Job Number: JD16912

Sampling Date: 12/01/20



Report to:

Wood Environment & Infrastructure Soln.
200 American Metro Boulevard Suite 113
Hamilton, NJ 08619
Timothy.Kessler@woodplc.com; Vincent.Whelan@woodplc.com;
michelle.jenkins@sgs.com; william.whitacre@woodplc.com
ATTN: Tim Kessler

Total number of pages in report: **24**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Kelly Ramos 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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Sample Summary

Wood Environment & Infrastructure Solut.

Job No: JD16912

Review Avenue, Long Island City, NY
Project No: 3480160502 PO#C01270035

Sample Number	Collected		Matrix		Client	
	Date	Time By	Received	Code Type	Sample ID	

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

JD16912-1	12/01/20	10:15 WTW	12/01/20	AQ	Effluent	RA-EFF-G
JD16912-1R	12/01/20	10:15 WTW	12/01/20	AQ	Effluent	RA-EFF-G
JD16912-2	12/01/20	10:30 WTW	12/01/20	AQ	Effluent	RA-EFF-C
JD16912-2R	12/01/20	10:30 WTW	12/01/20	AQ	Effluent	RA-EFF-C

Summary of Hits

Page 1 of 1

Job Number: JD16912
Account: Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Collected: 12/01/20

2

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JD16912-1 RA-EFF-G

Chloride	16.7	2.0		mg/l	EPA 300/SW846 9056A
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
Solids, Total	12.0	10		mg/l	SM2540 B-11
Solids, Total Suspended	10.0	4.0		mg/l	SM2540 D-11

JD16912-1R RA-EFF-G

No hits reported in this sample.

JD16912-2 RA-EFF-C

Chloroform	16.1	1.0	0.50	ug/l	EPA 624.1
Carbonaceous Bod, 5 Day ^a	1.3	1.0		mg/l	SM5210 B-11
Nitrogen, Total ^b	0.34	0.30		mg/l	SM4500 A-11
Nitrogen, Total Kjeldahl	0.34	0.20		mg/l	EPA 351.2/LACHAT

JD16912-2R RA-EFF-C

No hits reported in this sample.

(a) Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution.

(b) Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	12/01/20
Lab Sample ID:	JD16912-1	Date Received:	12/01/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T248519.D	1	12/04/20 19:08	ED	n/a	n/a	VT10302
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-88-3	Toluene	ND	1.0	0.36	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.63	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	99%		76-122%
2037-26-5	Toluene-D8 (SUR)	99%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	99%		80-120%
1868-53-7	Dibromofluoromethane (S)	108%		80-120%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	12/01/20
Lab Sample ID:	JD16912-1	Date Received:	12/01/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	12/02/20	12/02/20 ND	EPA 200.7 ¹	EPA 200.7 ³
Copper	< 10	10	ug/l	1	12/02/20	12/02/20 ND	EPA 200.7 ¹	EPA 200.7 ³
Lead	< 3.0	3.0	ug/l	1	12/02/20	12/02/20 ND	EPA 200.7 ¹	EPA 200.7 ³
Mercury	< 0.20	0.20	ug/l	1	12/07/20	12/08/20 LL	EPA 245.1 ²	EPA 245.1 ⁴
Nickel	< 10	10	ug/l	1	12/02/20	12/02/20 ND	EPA 200.7 ¹	EPA 200.7 ³
Zinc	< 20	20	ug/l	1	12/02/20	12/02/20 ND	EPA 200.7 ¹	EPA 200.7 ³

- (1) Instrument QC Batch: MA49736
- (2) Instrument QC Batch: MA49748
- (3) Prep QC Batch: MP24051
- (4) Prep QC Batch: MP24151

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	12/01/20
Lab Sample ID:	JD16912-1	Date Received:	12/01/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	16.7	2.0	mg/l	1	12/04/20 18:26	MH	EPA 300/SW846 9056A
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	12/01/20 22:20	EB	SW846 7196A
Ignitability (Flashpoint)	> 200		Deg. F	1	12/02/20 12:59	ER	SW846 1010A/ASTM D93
Solids, Total	12.0	10	mg/l	1	12/07/20 19:31	TB	SM2540 B-11
Solids, Total Suspended	10.0	4.0	mg/l	1	12/02/20 15:29	TB	SM2540 D-11

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	12/01/20
Lab Sample ID:	JD16912-1R	Date Received:	12/01/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Petroleum Hydrocarbons	< 5.0	5.0	mg/l	1	12/05/20 13:00	JOO	EPA 1664A

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	12/01/20
Lab Sample ID:	JD16912-2	Date Received:	12/01/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T248520.D	1	12/04/20 19:38	ED	n/a	n/a	VT10302
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
67-66-3	Chloroform	16.1	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	98%		76-122%
2037-26-5	Toluene-D8 (SUR)	99%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	97%		80-120%
1868-53-7	Dibromofluoromethane (S)	106%		80-120%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	12/01/20
Lab Sample ID:	JD16912-2	Date Received:	12/01/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 625.1 EPA 625		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P140902.D	1	12/03/20 20:35	HSS	12/03/20 07:00	OP30848	EP6424
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-95-2	Phenol	ND	2.0	0.39	ug/l	
91-20-3	Naphthalene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	68%		10-110%
4165-62-2	Phenol-d5	74%		10-110%
118-79-6	2,4,6-Tribromophenol	76%		35-147%
4165-60-0	Nitrobenzene-d5	79%		32-132%
321-60-8	2-Fluorobiphenyl	76%		40-117%
1718-51-0	Terphenyl-d14	80%		33-126%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	12/01/20
Lab Sample ID:	JD16912-2	Date Received:	12/01/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	12/02/20	12/02/20 ND	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA49736
(2) Prep QC Batch: MP24051

RL = Reporting Limit

Report of Analysis

Client Sample ID: RA-EFF-C	Date Sampled: 12/01/20
Lab Sample ID: JD16912-2	Date Received: 12/01/20
Matrix: AQ - Effluent	Percent Solids: n/a
Project: Review Avenue, Long Island City, NY	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Carbonaceous Bod, 5 Day ^a	1.3	1.0	mg/l	1	12/01/20 17:55	MH	SM5210 B-11
Nitrogen, Nitrate ^b	< 0.11	0.11	mg/l	1	12/03/20 20:51	EB	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	12/03/20 20:51	EB	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	12/01/20 16:25	MH	SM4500NO2 B-11
Nitrogen, Total ^c	0.34	0.30	mg/l	1	12/07/20 12:47	BM	SM4500 A-11
Nitrogen, Total Kjeldahl	0.34	0.20	mg/l	1	12/07/20 12:47	BM	EPA 351.2/LACHAT

(a) Sample set up with 3 separate dilutions, but DO difference is less than 2 on all of the dilutions. Results reported are from the lowest dilution.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

(c) Calculated as: (Nitrogen, Total Kjeldahl) - (Nitrogen, Nitrate + Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	12/01/20
Lab Sample ID:	JD16912-2R	Date Received:	12/01/20
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 608.3 EPA 608		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G101997.D	1	12/10/20 01:12	VDT	12/09/20 07:00	OP30894	G5G2542
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.050	0.034	ug/l	
11104-28-2	Aroclor 1221	ND	0.050	0.029	ug/l	
11141-16-5	Aroclor 1232	ND	0.050	0.020	ug/l	
53469-21-9	Aroclor 1242	ND	0.050	0.027	ug/l	
12672-29-6	Aroclor 1248	ND	0.050	0.025	ug/l	
11097-69-1	Aroclor 1254	ND	0.050	0.034	ug/l	
11096-82-5	Aroclor 1260	ND	0.050	0.027	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	45%		10-156%
877-09-8	Tetrachloro-m-xylene	41%		10-156%
2051-24-3	Decachlorobiphenyl	37%		10-143%
2051-24-3	Decachlorobiphenyl	39%		10-143%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Parameter Certification Exceptions

Job Number: JD16912
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Ignitability (Flashpoint)		SW846 1010A/ASTM D93	AQ	SGS is not certified for this parameter. ^a
Nitrogen, Total		SM4500 A-11	AQ	SGS is not certified for this parameter. ^b

- (a) Lab cert for analyte/method not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

4.1
4



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FED-EX Tracking #	Bottle Order Control # JD 16912
SGS Quote #	SGS Job # HLANJPR67753

[illegible]

4.2

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SGS Sample Receipt Summary

Job Number: JD16912

Client: WOOD ENVIRONMENT & INFRASTRUCT

Project: REVIEW AVENUE, LONG ISLAND CITY, NY

Date / Time Received: 12/1/2020 10:38:00 AM

Delivery Method:

Airbill #s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.9);

Cooler Temps (Corrected) °C: Cooler 1: (2.4);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | ☒ | ☐ | 3. COC Present: | ☒ | ☐ |
| 2. Custody Seals Intact: | ☒ | ☐ | 4. Smpl Dates/Time OK | ☒ | ☐ |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | ☒ | ☐ |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| 1. Trip Blank present / cooler: | ☐ | ☒ | ☐ |
| 2. Trip Blank listed on COC: | ☐ | ☒ | ☐ |
| 3. Samples preserved properly: | ☒ | ☐ | |
| 4. VOCs headspace free: | ☒ | ☐ | ☐ |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | ☒ | ☐ |
| 2. Container labeling complete: | ☒ | ☐ |
| 3. Sample container label / COC agree: | ☒ | ☐ |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | ☒ | ☐ |
| 2. All containers accounted for: | ☒ | ☐ |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | ☒ | ☐ | |
| 2. Bottles received for unspecified tests | ☐ | ☒ | |
| 3. Sufficient volume recvd for analysis: | ☒ | ☐ | |
| 4. Compositing instructions clear: | ☐ | ☐ | ☒ |
| 5. Filtering instructions clear: | ☐ | ☐ | ☒ |

Test Strip Lot #s:

pH 1-12: 212820

pH 12+: 203117A

Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD16912: Chain of Custody

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Job Change Order: JD16912

Requested Date: 12/3/2020 Received Date: 12/1/2020
Account Name: Wood Environment & Infrastructure Due Date: 12/8/2020
Project Description: Review Avenue, Long Island City, NY Deliverable: NYASPA
C/O Initiated By: MICHELLED PM: KR TAT (Days): 7

Sample #: JD16912-1 Change:
Relog/take off hold for PHC1664

Dept:

TAT: 7

RA-EFF-G

Sample #: JD16912-2 Change:
Relog/take off hold for P608PCBLL

Dept:

TAT: 7

RA-EFF-C

Above Changes Per: Tim Kessler Date/Time: 12/3/2020 4:16:19 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Internal Sample Tracking Chronicle

Wood Environment & Infrastructure Solut.

Job No: JD16912

Review Avenue, Long Island City, NY
Project No: 3480160502 PO#C01270035

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD16912-1 Collected: 01-DEC-20 10:15 By: WTW Received: 01-DEC-20 By: JP RA-EFF-G						
JD16912-1	SW846 7196A	01-DEC-20 22:20	EB			XCR
JD16912-1	SW846 1010A/ASTM D92	02-DEC-20 12:59	ER			IGN
JD16912-1	SM2540 D-11	02-DEC-20 15:29	TB			TSS
JD16912-1	EPA 200.7	02-DEC-20 17:26	ND	02-DEC-20 MS		CD, CU, NI, PB, ZN
JD16912-1	EPA 300/SW846 9056A	04-DEC-20 18:26	MH	04-DEC-20 MH		CHL
JD16912-1	EPA 624.1	04-DEC-20 19:08	ED			V624BTXM
JD16912-1	SM2540 B-11	07-DEC-20 19:31	TB			TS
JD16912-1	EPA 245.1	08-DEC-20 09:19	LL	07-DEC-20 LL		HG
JD16912-2 Collected: 01-DEC-20 10:30 By: WTW Received: 01-DEC-20 By: JP RA-EFF-C						
JD16912-2	SM4500NO2 B-11	01-DEC-20 16:25	MH			NO2
JD16912-2	SM5210 B-11	01-DEC-20 17:55	MH	01-DEC-20 MH		CBOD5
JD16912-2	EPA 200.7	02-DEC-20 17:31	ND	02-DEC-20 MS		CD
JD16912-2	EPA 625.1	03-DEC-20 20:35	HSS	03-DEC-20 VP		AB625SL2
JD16912-2	EPA353.2/SM4500NO2B	03-DEC-20 20:51	EB			NO3O
JD16912-2	EPA 353.2/LACHAT	03-DEC-20 20:51	EB	03-DEC-20 EB		NO32
JD16912-2	EPA 624.1	04-DEC-20 19:38	ED			V624CHLFRM, VMS+ CTC, VMS+ TCA
JD16912-2	SM4500 A-11	07-DEC-20 12:47	BM			TNIT
JD16912-2	EPA 351.2/LACHAT	07-DEC-20 12:47	BM	03-DEC-20 MP		TKN
JD16912-1R Collected: 01-DEC-20 10:15 By: WTW Received: 01-DEC-20 By: JP RA-EFF-G						
JD16912-1R	EPA 1664A	05-DEC-20 13:00	JOO	05-DEC-20 JOO		PHC1664
JD16912-2R Collected: 01-DEC-20 10:30 By: WTW Received: 01-DEC-20 By: JP RA-EFF-C						
JD16912-2R	EPA 608.3	10-DEC-20 01:12	VDT	09-DEC-20 HW		P608PCBLL

SGS Internal Chain of Custody

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Job Number: JD16912
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 12/01/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD16912-1.1	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.1	Secured Storage	Todd Shoemaker	12/04/20 10:28	Retrieve from Storage
JD16912-1.1	Todd Shoemaker	Secured Staging Area	12/04/20 10:28	Return to Storage
JD16912-1.1	Secured Staging Area	Jared O. Onindo	12/04/20 10:59	Retrieve from Storage
JD16912-1.1	Jared O. Onindo	Secured Storage	12/04/20 18:10	Return to Storage
JD16912-1.2	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.2	Secured Storage	Jared O. Onindo	12/05/20 13:29	Retrieve from Storage
JD16912-1.2	Jared O. Onindo		12/05/20 13:29	Depleted
JD16912-1.3	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.3	Secured Storage	Todd Shoemaker	12/02/20 08:20	Retrieve from Storage
JD16912-1.3	Todd Shoemaker	Secured Staging Area	12/02/20 08:20	Return to Storage
JD16912-1.3	Secured Staging Area	Madellyne Sanchez@sgs	12/02/20 08:44	Retrieve from Storage
JD16912-1.3	Madellyne Sanchez@sgs	Secured Storage	12/02/20 09:59	Return to Storage
JD16912-1.3	Secured Storage	Benjamin Gaines	12/03/20 12:36	Retrieve from Storage
JD16912-1.3	Benjamin Gaines	Secured Staging Area	12/03/20 12:36	Return to Storage
JD16912-1.3	Secured Staging Area	Gulcag Temizau	12/03/20 13:41	Retrieve from Storage
JD16912-1.3	Gulcag Temizau	Secured Storage	12/03/20 14:39	Return to Storage
JD16912-1.3	Secured Storage	Benjamin Gaines	12/06/20 15:49	Retrieve from Storage
JD16912-1.3	Benjamin Gaines	Secured Staging Area	12/06/20 15:49	Return to Storage
JD16912-1.3	Secured Staging Area	Lindsey Lee	12/07/20 08:32	Retrieve from Storage
JD16912-1.3	Lindsey Lee	Secured Storage	12/07/20 13:44	Return to Storage
JD16912-1.3.1	Madellyne Sanchez@sgs	Metals Digestion	12/02/20 09:54	Digestate from JD16912-1.3
JD16912-1.3.1	Metals Digestion	Madellyne Sanchez@sgs	12/02/20 09:54	Digestate from JD16912-1.3
JD16912-1.3.1	Madellyne Sanchez@sgs	Metals Digestate Storage	12/02/20 09:54	Return to Storage
JD16912-1.4	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.5	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.5	Secured Storage	Todd Shoemaker	12/02/20 10:52	Retrieve from Storage
JD16912-1.5	Todd Shoemaker	Secured Staging Area	12/02/20 10:52	Return to Storage
JD16912-1.5	Secured Staging Area	Tayler Barone	12/02/20 13:54	Retrieve from Storage
JD16912-1.5	Tayler Barone	Secured Storage	12/02/20 19:14	Return to Storage
JD16912-1.6	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.6	Secured Storage	Omar Khalid	12/03/20 19:35	Retrieve from Storage
JD16912-1.6	Omar Khalid	Secured Staging Area	12/03/20 19:35	Return to Storage
JD16912-1.6	Secured Staging Area	Dave Hunkele	12/08/20 07:17	Retrieve from Storage
JD16912-1.6	Dave Hunkele	Secured Storage	12/08/20 07:23	Return to Storage
JD16912-1.7	Secured Storage	Benjamin Gaines	12/01/20 15:00	Retrieve from Storage
JD16912-1.7	Benjamin Gaines	Secured Staging Area	12/01/20 15:00	Return to Storage

SGS Internal Chain of Custody

Job Number: JD16912
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 12/01/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD16912-1.7	Secured Staging Area	Elaine Banting	12/02/20 02:21	Retrieve from Storage
JD16912-1.7	Elaine Banting	Secured Storage	12/02/20 02:22	Return to Storage
JD16912-1.7	Secured Storage	Todd Shoemaker	12/07/20 11:53	Retrieve from Storage
JD16912-1.7	Todd Shoemaker	Secured Staging Area	12/07/20 11:54	Return to Storage
JD16912-1.7	Secured Staging Area	Tayler Barone	12/07/20 15:20	Retrieve from Storage
JD16912-1.7	Tayler Barone	Secured Storage	12/07/20 22:46	Return to Storage
JD16912-1.8	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.8	Secured Storage	Todd Shoemaker	12/02/20 10:52	Retrieve from Storage
JD16912-1.8	Todd Shoemaker	Secured Staging Area	12/02/20 10:52	Return to Storage
JD16912-1.8	Secured Staging Area	Tayler Barone	12/02/20 13:54	Retrieve from Storage
JD16912-1.8	Tayler Barone	Secured Storage	12/02/20 19:14	Return to Storage
JD16912-1.8	Secured Storage	Omar Khalid	12/03/20 22:14	Retrieve from Storage
JD16912-1.8	Omar Khalid	Secured Staging Area	12/03/20 22:14	Return to Storage
JD16912-1.8	Secured Staging Area	Tayler Barone	12/04/20 00:00	Retrieve from Storage
JD16912-1.8	Tayler Barone		12/04/20 00:01	Depleted
JD16912-1.9	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.9	Secured Storage	Todd Shoemaker	12/02/20 09:14	Retrieve from Storage
JD16912-1.9	Todd Shoemaker	Secured Staging Area	12/02/20 09:15	Return to Storage
JD16912-1.9	Secured Staging Area	Elijah Rick	12/02/20 11:54	Retrieve from Storage
JD16912-1.9	Elijah Rick	Secured Storage	12/02/20 18:15	Return to Storage
JD16912-1.10	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.10	Secured Storage	Edward Durner	12/04/20 14:41	Retrieve from Storage
JD16912-1.10	Edward Durner	GCMST	12/04/20 14:42	Load on Instrument
JD16912-1.10	GCMST	Edward Durner	12/07/20 09:45	Unload from Instrument
JD16912-1.10	Edward Durner	Secured Storage	12/07/20 09:45	Return to Storage
JD16912-1.11	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-1.12	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.1	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.2	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.2	Secured Storage	Omar Khalid	12/02/20 18:58	Retrieve from Storage
JD16912-2.2	Omar Khalid	Secured Staging Area	12/02/20 18:58	Return to Storage
JD16912-2.2	Secured Staging Area	Huachi Wu	12/03/20 06:38	Retrieve from Storage
JD16912-2.2	Huachi Wu		12/03/20 11:44	Depleted
JD16912-2.2.1	Huachi Wu	Organics Prep	12/03/20 06:40	Extract from JD16912-2.2
JD16912-2.2.1	Organics Prep	Huachi Wu	12/03/20 11:44	Extract from JD16912-2.2
JD16912-2.2.1	Huachi Wu	Extract Storage	12/03/20 11:44	Return to Storage

SGS Internal Chain of Custody

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Job Number: JD16912
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 12/01/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD16912-2.2.1	Extract Storage	Henny Salim	12/03/20 15:54	Retrieve from Storage
JD16912-2.2.1	Henny Salim	GCMSP	12/03/20 15:54	Load on Instrument
JD16912-2.2.1	GCMSP	Kristi Schollenberger	12/04/20 12:11	Unload from Instrument
JD16912-2.2.1	Kristi Schollenberger	Extract Freezer	12/04/20 12:11	Return to Storage
JD16912-2.3	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.4	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.4	Jeemit Patel	Secured Staging Area	12/08/20 19:08	Return to Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JD16912-2.4	Secured Staging Area	Huachi Wu	12/09/20 07:17	Retrieve from Storage
JD16912-2.4	Huachi Wu		12/09/20 13:27	Depleted
JD16912-2.4.1	Huachi Wu	Organics Prep	12/09/20 07:17	Extract from JD16912-2.4
JD16912-2.4.1	Organics Prep	Huachi Wu	12/09/20 13:25	Extract from JD16912-2.4
JD16912-2.4.1	Huachi Wu	Extract Storage	12/09/20 13:25	Return to Storage
JD16912-2.4.1	Extract Storage	Vincent Drago	12/09/20 17:11	Retrieve from Storage
JD16912-2.4.1	Vincent Drago	GC5G	12/09/20 17:11	Load on Instrument
JD16912-2.5	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.5	Secured Storage	Todd Shoemaker	12/02/20 08:20	Retrieve from Storage
JD16912-2.5	Todd Shoemaker	Secured Staging Area	12/02/20 08:20	Return to Storage
JD16912-2.5	Secured Staging Area	Madellyne Sanchez@sgs	12/02/20 08:44	Retrieve from Storage
JD16912-2.5	Madellyne Sanchez@sgs	Secured Storage	12/02/20 09:59	Return to Storage
JD16912-2.5.1	Madellyne Sanchez@sgs	Metals Digestion	12/02/20 09:54	Digestate from JD16912-2.5
JD16912-2.5.1	Metals Digestion	Madellyne Sanchez@sgs	12/02/20 09:54	Digestate from JD16912-2.5
JD16912-2.5.1	Madellyne Sanchez@sgs	Metals Digestate Storage	12/02/20 09:54	Return to Storage
JD16912-2.6	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.6	Secured Storage	Benjamin Gaines	12/03/20 09:29	Retrieve from Storage
JD16912-2.6	Benjamin Gaines	Secured Staging Area	12/03/20 09:29	Return to Storage
JD16912-2.6	Secured Staging Area	Mahendra Patel	12/03/20 14:49	Retrieve from Storage
JD16912-2.6	Mahendra Patel	Secured Storage	12/03/20 16:47	Return to Storage
JD16912-2.6	Dominic Guerriero	Secured Staging Area	12/05/20 09:50	Return to Storage
Analyst chain of custody update error.				
JD16912-2.6	Secured Staging Area	Dave Hunkele	12/08/20 07:23	Retrieve from Storage
JD16912-2.6	Dave Hunkele	Secured Storage	12/08/20 07:23	Return to Storage
JD16912-2.7	Secured Storage	Benjamin Gaines	12/01/20 15:00	Retrieve from Storage
JD16912-2.7	Benjamin Gaines	Secured Staging Area	12/01/20 15:00	Return to Storage
JD16912-2.7	Secured Staging Area	Elaine Banting	12/02/20 02:21	Retrieve from Storage
JD16912-2.7	Elaine Banting	Secured Storage	12/02/20 02:22	Return to Storage

SGS Internal Chain of Custody

Page 4 of 4

Job Number: JD16912
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 12/01/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD16912-2.8	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.8	Secured Storage	Todd Shoemaker	12/02/20 14:03	Retrieve from Storage
JD16912-2.8	Todd Shoemaker	Secured Staging Area	12/02/20 14:06	Return to Storage
JD16912-2.8	Secured Staging Area	Elaine Banting	12/04/20 00:25	Retrieve from Storage
JD16912-2.8	Elaine Banting	Secured Storage	12/04/20 00:25	Return to Storage
JD16912-2.9	Secured Storage	Benjamin Gaines	12/01/20 15:00	Retrieve from Storage
JD16912-2.9	Benjamin Gaines	Secured Staging Area	12/01/20 15:00	Return to Storage
JD16912-2.9	Secured Staging Area	Elaine Banting	12/02/20 02:21	Retrieve from Storage
JD16912-2.9	Elaine Banting	Secured Storage	12/02/20 02:22	Return to Storage
JD16912-2.10	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.11	Todd Shoemaker	Secured Storage	12/01/20 15:02	Return to Storage
JD16912-2.12	Secured Storage	Edward Durner	12/04/20 14:41	Retrieve from Storage
JD16912-2.12	Edward Durner	GCMST	12/04/20 14:42	Load on Instrument
JD16912-2.12	GCMST	Edward Durner	12/07/20 09:45	Unload from Instrument
JD16912-2.12	Edward Durner	Secured Storage	12/07/20 09:45	Return to Storage



1550 Pond Road
Suite 120
Allentown, PA 18104
(610) 435-1151
FAX (610) 435-8459

February 22, 2021

Via Electronic Mail

Mr. Sean H. Hulbert
Assistant Chemical Engineer
NYCDEP, Bureau of Wastewater Treatment
96-05 Horace Harding Expressway, 1st Floor
Corona, New York 11368

**RE: Review Avenue Development Sites - 37-30 and 37-80 Review Avenue
File # C-5652
1st Quarter 2021 Effluent Discharge Compliance Report**

Dear Mr. Hulbert:

Enclosed is the 1st Quarter 2021 - Effluent Discharge Compliance Report for the Review Avenue Development Sites. This report is being submitted on behalf of the Review Avenue System LLC administering the Review Avenue Development Site Brownfield Projects identified as RAD I and RAD II.

I would like to call to your attention the following, relative to discharge for the 1st Quarter 2021:

- Approximately 101,950 gallons of water have been discharged to the sewer system since the last reporting period – December 1, 2020.
- No constituents were reported above discharge criteria.

Please contact me with any questions at (610) 435-1151.

Sincerely,

de maximis, inc.

A handwritten signature in blue ink, appearing to read "R. Craig Coslett", is written over a light blue rectangular background.

R. Craig Coslett
Project Coordinator for RAD I and RAD II

Albany, NY · Allentown, PA · Clinton, NJ · Greensboro, GA · Houston, TX · Irvine, CA
Knoxville, TN · San Diego, CA · Sarasota, FL · Waltham, MA · Windsor, CT

February 22, 2021

Page 2

Enclosures: Compliance Monitoring Report for 1st Quarter 2021

CC: K Forester, NYDEC (electronic mail only)

Tim Kessler, Wood Group (electronic mail only)

Brent O'Dell, Wood Group (electronic mail only)

File: 3242 / 1st Qrt Compliance Report 2021



February 17, 2021

Mr. Sean H. Hulbert - Assistant Chemical Engineer
NYCDEP, Bureau of Wastewater Treatment
96-05 Horace Harding Expressway, 1st Floor
Corona, NY 11368

Subject: **1st Quarter 2021 Effluent Discharge Compliance
Review Avenue Development Sites
37-30 and 37-80 Review Avenue
Long Island City, Queens, New York, File # C-5652**

Dear Mr. Hulbert:

Wood Environment and Infrastructure Solutions, Inc. (Wood), on behalf of Review Avenue System LLC, submits the effluent laboratory analysis data in connection with the letter of approval (LOA) for groundwater discharge to sanitary or combined sewer for the Review Avenue Development (RAD) Sites and LOA Extension dated November 2, 2020.

Wood collected the 1st Quarter 2021 discharge compliance samples on January 11, 2021. Analytical results indicate no exceedances of the daily discharge limits for all parameters and no exceedances of the monthly discharge limits for all parameters, and therefore the discharge is in compliance with our LOA requirements. The analytical results collected for the 1st Quarter 2021 compliance sampling are summarized on Table 1 attached. The total volume of groundwater discharged to the sanitary or combined sewer, since system start-up was 13,106,350 gallons as of the January 11th sampling event and 101,950 gallons since the last quarterly sampling event on December 1, 2020.

If you have any questions, please contact either of the undersigned at (609) 689-2829.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

A handwritten signature in blue ink, appearing to read "Brent O'Dell".

Brent C. O'Dell, P.E.
Principal Engineer – Civil

A handwritten signature in blue ink, appearing to read "Timothy C. Kessler".

Timothy C. Kessler
Senior Associate Engineer/PM

Attachments: Table 1 – Summary of Groundwater Analytical Results

cc: R. Craig Coslett – Review Avenue System LLC

Table 1
Summary of Analytical Results - Groundwater Treatment System
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Field Sample ID:	Unit	NYCDEP Daily Limit	NYCDEP Monthly Limit	RA-EFF-G	RA-EFF-C
Compliance Period:				1Q 2021	1Q 2021
Sample Date:				1/11/2021	1/11/2021
Lab Sample ID:				JD18875-1	JD18875-2
Non-polar material ¹	mg/L	50	NL	< 5.0	-
pH ²	SUs	5 - 12	NL	7.04	-
Temperature ²	°F	150	NL	37.6	-
Flash Point ³	°F	> 140	NL	> 200	-
Cadmium (Instantaneous)	mg/L	2	NL	< 0.003	-
Cadmium (Composite)	mg/L	0.69	NL	-	< 0.003
Chromium (VI)	mg/L	5	NL	< 0.010	-
Copper	mg/L	5	NL	0.0107	-
Lead	mg/L	2	NL	< 0.003	-
Mercury	mg/L	0.05	NL	< 0.0002	-
Nickel	mg/L	3	NL	< 0.01	-
Zinc	mg/L	5	NL	0.0538	-
Benzene	µg/L	134	57	0.34 U	-
Carbon Tetrachloride	µg/L	NL	NL	-	0.55 U
Chloroform	µg/L	NL	NL	-	0.50 U
1,4-Dichlorobenzene	µg/L	NL	NL	0.63 U	-
Ethylbenzene	µg/L	380	142	0.30 U	-
MTBE (Methyl-Tert-Butyl-Ether)	µg/L	50	NL	0.37 U	-
Napthalene	µg/L	47	19	-	0.23 U
Phenol	µg/L	NL	NL	-	0.39 U
Tetrachloroethylene (Perc)	µg/L	20	NL	0.41 U	-
Toluene	µg/L	74	28	0.36 U	-
1,2,4-Trichlorobenzene	µg/L	NL	NL	-	0.25 U
1,1,1-Trichloroethane	µg/L	NL	NL	-	0.54 U
Xylenes (Total)	µg/L	74	28	0.35 U	-
PCBs (Total)	µg/L	1	NL	-	0.034 U
Total Suspended Solids (TSS)	mg/L	350	NL	< 4.0	-
CBOD	mg/L	NL	NL	-	< 1.0
Chloride	mg/L	NL	NL	25.6	-
Total Nitrogen	mg/L	NL	NL	-	0.90
Total Solids	mg/L	NL	NL	129.0	-

Table 1
Summary of Analytical Results - Groundwater Treatment System
Review Avenue Development Sites, NYCDEP File # C-5652
Long Island City, Queens, New York

Notes:

RA-EFF-G: Instantaneous (Grab) Sample

RA-EFF-C: 4-Hour Flow Weighted Composite Sample

Bold/Shaded: Concentration exceeds daily limit

Underline: Concentration exceeds monthly limit

1. Non-polar Material reported by lab as "Silica Gel Treated n-Hexane Extractable Material (SGT-HEM)"
2. pH and Temperature measured in field
3. Flash Point reported by lab as Ignitability
4. Total Nitrogen calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)
5. Temperature was estimated

Definitions:

MDL: Method Detection Limit

RL: Reporting Limit

NL: No Limit

- : Not Analyzed

Data Qualifiers:

J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U: Indicates the analyte was not detected at the indicated MDL.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Wood Environment & Infrastructure Solut.

Review Avenue, Long Island City, NY

3480160502 PO#C01270035

SGS Job Number: JD18875

Sampling Date: 01/11/21



Report to:

Wood Environment & Infrastructure Soln.
200 American Metro Boulevard Suite 113
Hamilton, NJ 08619
Timothy.Kessler@woodplc.com; Vincent.Whelan@woodplc.com;
michelle.jenkins@sgs.com; william.whitacre@woodplc.com
ATTN: Tim Kessler

Total number of pages in report: 24



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Kelly Ramos 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.



January 26, 2020

Mr. Tim Kessler
Wood Environment & Infrastructure Solution
200 American Metro Boulevard Suite 113
Hamilton, NJ 08619

RE: SGS – Dayton, Job # JD18875 - Reissues

Dear Mr. Kessler,

The final report for SGS jobs number JD18875 has been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached. .

Specifically, all results from JD18875R has been combined with original job per client's request. The attached revised report incorporates these revisions.

SGS apologizes for this occurrence and for any inconvenience this situation may have caused. Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.



CONTINUOUS SERVICE IMPROVEMENT!

Our goal is to continuously improve our service to you. Please share your ideas about how we can serve you better at

EHS.US.CustomerCare@sgs.com. Your feedback is appreciated!



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Sample Summary

Wood Environment & Infrastructure Solut.

Job No: JD18875

Review Avenue, Long Island City, NY
Project No: 3480160502 PO#C01270035

Sample Number	Collected		Matrix		Client	
	Date	Time By	Received	Code Type	Sample ID	

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

JD18875-1	01/11/21	15:00 WTW	01/11/21	AQ	Effluent	RA-EFF-G
JD18875-1R	01/11/21	15:00 WTW	01/11/21	AQ	Effluent	RA-EFF-G
JD18875-2	01/11/21	17:00 WTW	01/11/21	AQ	Effluent	RA-EFF-C
JD18875-2R	01/11/21	17:00 WTW	01/11/21	AQ	Effluent	RA-EFF-C

Summary of Hits

Page 1 of 1

Job Number: JD18875
Account: Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Collected: 01/11/21

2

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JD18875-1 RA-EFF-G

Copper	10.7	10		ug/l	EPA 200.7
Zinc	53.8	20		ug/l	EPA 200.7
Chloride	25.6	2.0		mg/l	EPA 300/SW846 9056A
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010A/ASTM D93
Solids, Total	129	10		mg/l	SM2540 B-11

JD18875-1R RA-EFF-G

No hits reported in this sample.

JD18875-2 RA-EFF-C

Carbonaceous Bod, 5 Day	< 1.0	1.0		mg/l	SM5210 B-11
Nitrogen, Nitrate ^a	0.37	0.11		mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.37	0.10		mg/l	EPA 353.2/LACHAT
Nitrogen, Total ^b	0.90	0.30		mg/l	SM4500 A-11
Nitrogen, Total Kjeldahl	0.53	0.20		mg/l	EPA 351.2/LACHAT

JD18875-2R RA-EFF-C

No hits reported in this sample.

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

(b) Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	01/11/21
Lab Sample ID:	JD18875-1	Date Received:	01/11/21
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T249250.D	1	01/12/21 17:35	ED	n/a	n/a	VT10340
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-88-3	Toluene	ND	1.0	0.36	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.37	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.63	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	96%		76-122%
2037-26-5	Toluene-D8 (SUR)	98%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	100%		80-120%
1868-53-7	Dibromofluoromethane (S)	98%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	01/11/21
Lab Sample ID:	JD18875-1	Date Received:	01/11/21
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method	
Cadmium	< 3.0	3.0	ug/l	1	01/13/21	01/14/21	ND	EPA 200.7 ²	EPA 200.7 ³
Copper	10.7	10	ug/l	1	01/13/21	01/14/21	ND	EPA 200.7 ²	EPA 200.7 ³
Lead	< 3.0	3.0	ug/l	1	01/13/21	01/14/21	ND	EPA 200.7 ²	EPA 200.7 ³
Mercury	< 0.20	0.20	ug/l	1	01/14/21	01/14/21	LL	EPA 245.1 ¹	EPA 245.1 ⁴
Nickel	< 10	10	ug/l	1	01/13/21	01/14/21	ND	EPA 200.7 ²	EPA 200.7 ³
Zinc	53.8	20	ug/l	1	01/13/21	01/14/21	ND	EPA 200.7 ²	EPA 200.7 ³

- (1) Instrument QC Batch: MA49931
- (2) Instrument QC Batch: MA49936
- (3) Prep QC Batch: MP24653
- (4) Prep QC Batch: MP24676

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	01/11/21
Lab Sample ID:	JD18875-1	Date Received:	01/11/21
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	25.6	2.0	mg/l	1	01/13/21 21:53	MH	EPA 300/SW846 9056A
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	01/11/21 23:50	EB	SW846 7196A
Ignitability (Flashpoint)	> 200		Deg. F	1	01/13/21 17:07	JZ	SW846 1010A/ASTM D93
Solids, Total	129	10	mg/l	1	01/13/21 15:51	TB	SM2540 B-11
Solids, Total Suspended	< 4.0	4.0	mg/l	1	01/13/21 16:21	TB	SM2540 D-11

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-G	Date Sampled:	01/11/21
Lab Sample ID:	JD18875-1R	Date Received:	01/11/21
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Petroleum Hydrocarbons	< 5.0	5.0	mg/l	1	01/20/21 11:30	ER	EPA 1664A

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	01/11/21
Lab Sample ID:	JD18875-2	Date Received:	01/11/21
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T249251.D	1	01/12/21 18:05	ED	n/a	n/a	VT10340
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	94%		76-122%
2037-26-5	Toluene-D8 (SUR)	97%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	101%		80-120%
1868-53-7	Dibromofluoromethane (S)	99%		80-120%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	01/11/21
Lab Sample ID:	JD18875-2	Date Received:	01/11/21
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 625.1 EPA 625		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6P496724.D	1	01/13/21 14:55	HSS	01/12/21 17:30	OP31482	E6P3268
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-95-2	Phenol	ND	2.0	0.39	ug/l	
91-20-3	Naphthalene	ND	0.99	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.99	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		10-110%
4165-62-2	Phenol-d5	41%		10-110%
118-79-6	2,4,6-Tribromophenol	119%		35-147%
4165-60-0	Nitrobenzene-d5	111%		32-132%
321-60-8	2-Fluorobiphenyl	109%		40-117%
1718-51-0	Terphenyl-d14	111%		33-126%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	01/11/21
Lab Sample ID:	JD18875-2	Date Received:	01/11/21
Matrix:	AQ - Effluent	Percent Solids:	n/a
Project:	Review Avenue, Long Island City, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	01/13/21	01/14/21 ND	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA49936
(2) Prep QC Batch: MP24653

RL = Reporting Limit

Report of Analysis

Client Sample ID: RA-EFF-C**Lab Sample ID:** JD18875-2**Matrix:** AQ - Effluent**Date Sampled:** 01/11/21**Date Received:** 01/11/21**Percent Solids:** n/a**Project:** Review Avenue, Long Island City, NY

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Carbonaceous Bod, 5 Day	< 1.0	1.0	mg/l	1	01/12/21 18:22	MH	SM5210 B-11
Nitrogen, Nitrate ^a	0.37	0.11	mg/l	1	01/14/21 13:13	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.37	0.10	mg/l	1	01/14/21 13:13	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	01/12/21 17:35	MH	SM4500NO2 B-11
Nitrogen, Total ^b	0.90	0.30	mg/l	1	01/25/21 15:30	BM	SM4500 A-11
Nitrogen, Total Kjeldahl	0.53	0.20	mg/l	1	01/25/21 15:30	BM	EPA 351.2/LACHAT

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

(b) Calculated as: (Nitrogen, Total Kjeldahl) + (Nitrogen, Nitrate + Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RA-EFF-C	Date Sampled:	01/11/21
Lab Sample ID:	JD18875-2R	Date Received:	01/11/21
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 608.3 EPA 608		
Project:	Review Avenue, Long Island City, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G103106.D	1	01/20/21 02:54	VDT	01/19/21 06:00	OP31536	G5G2576
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.050	0.034	ug/l	
11104-28-2	Aroclor 1221	ND	0.050	0.029	ug/l	
11141-16-5	Aroclor 1232	ND	0.050	0.020	ug/l	
53469-21-9	Aroclor 1242	ND	0.050	0.027	ug/l	
12672-29-6	Aroclor 1248	ND	0.050	0.025	ug/l	
11097-69-1	Aroclor 1254	ND	0.050	0.034	ug/l	
11096-82-5	Aroclor 1260	ND	0.050	0.027	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	71%		10-156%
877-09-8	Tetrachloro-m-xylene	86%		10-156%
2051-24-3	Decachlorobiphenyl	76%		10-143%
2051-24-3	Decachlorobiphenyl	98%		10-143%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Parameter Certification Exceptions

Job Number: JD18875
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Ignitability (Flashpoint)		SW846 1010A/ASTM D93	AQ	SGS is not certified for this parameter. ^a
Nitrogen, Total		SM4500 A-11	AQ	SGS is not certified for this parameter. ^b

- (a) Lab cert for analyte/method not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.
- (b) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

4.1
4



GW

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

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JD18875 E/Comp

Client / Reporting Information		Project Information		Requested Analysis		Matrix Codes	
Company Name: Wood E&S		Project Name: Review Avenue GWM		Bottle Order Control #		HLANJPR67753	
Street Address: 200 American Metro Blvd #113		Street: Review Avenue		SGS Quote #			
City: Hamilton, NJ State: 08619 Zip: 08619		City: Long Island City State: NY		SGS Job #			
Project Contact: Timothy Kessler@woodplc.com		Project #: 3480160502		Billing Information (if different from Report to)			
Phone #: 609-889-2829		Client Purchase Order #: C01270035		Street Address			
Sampler(s) Name(s): William Whitacre 646-831-5662		Project Manager: Tim Kessler		City: _____ State: _____ Zip: _____			
Phone #		Attention:					
SGS Sample #		Collection		Number of preserved Bottles		LAB USE ONLY	
Field ID / Point of Collection		MEOHDI Val #		Date		Time	
1		RA-EFF-G		1/11/2021		1500	
2		RA-EFF-C		1/11/2021		1700	
3		RA-VOC-C1		1/11/2021		1300	
4		RA-VOC-C2		1/11/2021		1400	
5		RA-VOC-C3		1/11/2021		1500	
6		RA-VOC-C4		1/11/2021		1600	
Turn Around Time (Business Days)		Deliverable		Comments / Special Instructions			
☐ 10 Business Days ☐ 5 Business Days ☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day ☒ Other Standard		Approved By (SGS PM) / Date:		☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ NJ Reduced (Level 3) ☐ Full Tier I (Level 4) ☐ Commercial "C" ☐ NJ DKQP		☐ NYASP Category A ☒ NYASP Category B ☐ MA MCP Criteria ☐ CT RCP Criteria ☐ State Forms ☒ EDD Format <u>NYSDEC</u>	
All data available via Lablink		Approval needed for 1-3 Business Day TAT		Commercial "A" = Results only, Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data		Composite RA-VOC-C1 to RA-VOC-C4 in lab to be used for RA-EFF-C VOC analysis. Hold PHC1664 + PCB Samples. Hex Chrome Test Method Only Allows 24HR Hold Time FILL 7.04	
Sample Custody must be documented below each time samples change possession, including courier delivery.		SGS Sample #		Date / Time		Received By:	
1		1/11/2021 6:54		Received By:		2	
2		1/11/2021 6:54		Received By:		3	
3		1/11/2021 6:54		Received By:		4	
4		1/11/2021 6:54		Received By:		5	
5		1/11/2021 6:54		Received By:		6	
6		1/11/2021 6:54		Received By:		7	
7		1/11/2021 6:54		Received By:		8	
8		1/11/2021 6:54		Received By:		9	
9		1/11/2021 6:54		Received By:		10	
10		1/11/2021 6:54		Received By:		11	
11		1/11/2021 6:54		Received By:		12	
12		1/11/2021 6:54		Received By:		13	
13		1/11/2021 6:54		Received By:		14	
14		1/11/2021 6:54		Received By:		15	
15		1/11/2021 6:54		Received By:		16	
16		1/11/2021 6:54		Received By:		17	
17		1/11/2021 6:54		Received By:		18	
18		1/11/2021 6:54		Received By:		19	
19		1/11/2021 6:54		Received By:		20	
20		1/11/2021 6:54		Received By:		21	
21		1/11/2021 6:54		Received By:		22	
22		1/11/2021 6:54		Received By:		23	
23		1/11/2021 6:54		Received By:		24	
24		1/11/2021 6:54		Received By:		25	
25		1/11/2021 6:54		Received By:		26	
26		1/11/2021 6:54		Received By:		27	
27		1/11/2021 6:54		Received By:		28	
28		1/11/2021 6:54		Received By:		29	
29		1/11/2021 6:54		Received By:		30	
30		1/11/2021 6:54		Received By:		31	
31		1/11/2021 6:54		Received By:		32	
32		1/11/2021 6:54		Received By:		33	
33		1/11/2021 6:54		Received By:		34	
34		1/11/2021 6:54		Received By:		35	
35		1/11/2021 6:54		Received By:		36	
36		1/11/2021 6:54		Received By:		37	
37		1/11/2021 6:54		Received By:		38	
38		1/11/2021 6:54		Received By:		39	
39		1/11/2021 6:54		Received By:		40	
40		1/11/2021 6:54		Received By:		41	
41		1/11/2021 6:54		Received By:		42	
42		1/11/2021 6:54		Received By:		43	
43		1/11/2021 6:54		Received By:		44	
44		1/11/2021 6:54		Received By:		45	
45		1/11/2021 6:54		Received By:		46	
46		1/11/2021 6:54		Received By:		47	
47		1/11/2021 6:54		Received By:		48	
48		1/11/2021 6:54		Received By:		49	
49		1/11/2021 6:54		Received By:		50	
50		1/11/2021 6:54		Received By:		51	
51		1/11/2021 6:54		Received By:		52	
52		1/11/2021 6:54		Received By:		53	
53		1/11/2021 6:54		Received By:		54	
54		1/11/2021 6:54		Received By:		55	
55		1/11/2021 6:54		Received By:		56	
56		1/11/2021 6:54		Received By:		57	
57		1/11/2021 6:54		Received By:		58	
58		1/11/2021 6:54		Received By:		59	
59		1/11/2021 6:54		Received By:		60	
60		1/11/2021 6:54		Received By:		61	
61		1/11/2021 6:54		Received By:		62	
62		1/11/2021 6:54		Received By:		63	
63		1/11/2021 6:54		Received By:		64	
64		1/11/2021 6:54		Received By:		65	
65		1/11/2021 6:54		Received By:		66	
66		1/11/2021 6:54		Received By:		67	
67		1/11/2021 6:54		Received By:		68	
68		1/11/2021 6:54		Received By:		69	
69		1/11/2021 6:54		Received By:		70	
70		1/11/2021 6:54		Received By:		71	
71		1/11/2021 6:54		Received By:		72	
72		1/11/2021 6:54		Received By:		73	
73		1/11/2021 6:54		Received By:		74	
74		1/11/2021 6:54		Received By:		75	
75		1/11/2021 6:54		Received By:		76	
76		1/11/2021 6:54		Received By:		77	
77		1/11/2021 6:54		Received By:		78	
78		1/11/2021 6:54		Received By:		79	
79		1/11/2021 6:54		Received By:		80	
80		1/11/2021 6:54		Received By:		81	
81		1/11/2021 6:54		Received By:		82	
82		1/11/2021 6:54		Received By:		83	
83		1/11/2021 6:54		Received By:		84	
84		1/11/2021 6:54		Received By:		85	
85		1/11/2021 6:54		Received By:		86	
86		1/11/2021 6:54		Received By:		87	
87		1/11/2021 6:54		Received By:		88	
88		1/11/2021 6:54		Received By:		89	
89		1/11/2021 6:54		Received By:		90	
90		1/11/2021 6:54		Received By:		91	
91		1/11/2021 6:54		Received By:		92	
92		1/11/2021 6:54		Received By:		93	
93		1/11/2021 6:54		Received By:		94	
94		1/11/2021 6:54		Received By:		95	
95		1/11/2021 6:54		Received By:		96	
96		1/11/2021 6:54		Received By:		97	
97		1/11/2021 6:54		Received By:		98	
98		1/11/2021 6:54		Received By:		99	
99		1/11/2021 6:54		Received By:		100	

Review Ave_COC 011121

JD18875: Chain of Custody

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Job Change Order: JD18875

Requested Date:	1/14/2021	Received Date:	1/11/2021
Account Name:	Wood Environment & Infrastructure	Due Date:	1/18/2021
Project Description:	Review Avenue, Long Island City, NY	Deliverable:	NYASPA
C/O Initiated By:	JADONS	PM:	KR
		TAT (Days):	7
=====			
Sample #:	JD18875-1	Change:	
Dept:		Please relog for PHC1664	
TAT:	7		
RA-EFF-G			
=====			
Sample #:	JD18875-2	Change:	
Dept:		Please relog for P608PCBLL	
TAT:	7		
RA-EFF-C			
=====			

Above Changes Per: Tim Kessler Date/Time: 1/14/2021 11:36:32 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

SGS Sample Receipt Summary

Job Number: JD18875

Client: WOOD ENVIRONMENT & INFRASTRUCT

Project: REVIEW AVENUE, LONG ISLAND CITY, NY

Date / Time Received: 1/11/2021 6:54:00 PM

Delivery Method:

Airbill #s:

Cooler Temps (Raw Measured) °C: Cooler 1: (3.1); Cooler 2: (2.6);

Cooler Temps (Corrected) °C: Cooler 1: (2.6); Cooler 2: (2.1);

Cooler Security	Y or N
1. Custody Seals Present:	☒ ☐
2. Custody Seals Intact:	☒ ☐
3. COC Present:	☒ ☐
4. Smpl Dates/Time OK	☒ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☒ ☐
2. Cooler temp verification:	IR Gun
3. Cooler media:	Ice (Bag)
4. No. Coolers:	2

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☐ ☒	☐
2. Trip Blank listed on COC:	☐ ☒	☐
3. Samples preserved properly:	☒ ☐	
4. VOCs headspace free:	☒ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☒ ☐
2. Container labeling complete:	☒ ☐
3. Sample container label / COC agree:	☒ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☒ ☐
2. All containers accounted for:	☒ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☒ ☐	
2. Bottles received for unspecified tests	☐ ☒	
3. Sufficient volume recvd for analysis:	☒ ☐	
4. Compositing instructions clear:	☐ ☐	☒
5. Filtering instructions clear:	☐ ☐	☒

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD18875: Chain of Custody

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Internal Sample Tracking Chronicle

Wood Environment & Infrastructure Solut.

Job No: JD18875

 Review Avenue, Long Island City, NY
 Project No: 3480160502 PO#C01270035

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD18875-1 Collected: 11-JAN-21 15:00 By: WTW Received: 11-JAN-21 By: JP RA-EFF-G						
JD18875-1	SW846 7196A	11-JAN-21 23:50	EB			XCR
JD18875-1	EPA 624.1	12-JAN-21 17:35	ED			V624BTXM
JD18875-1	SM2540 B-11	13-JAN-21 15:51	TB			TS
JD18875-1	SM2540 D-11	13-JAN-21 16:21	TB			TSS
JD18875-1	SW846 1010A/ASTM D883	13-JAN-21 17:07	JZ			IGN
JD18875-1	EPA 300/SW846 9056A13	13-JAN-21 21:53	MH	13-JAN-21	MH	CHL
JD18875-1	EPA 245.1	14-JAN-21 10:07	LL	14-JAN-21	LL	HG
JD18875-1	EPA 200.7	14-JAN-21 22:52	ND	13-JAN-21	MS	CD,CU,NI,PB,ZN
JD18875-2 Collected: 11-JAN-21 17:00 By: WTW Received: 11-JAN-21 By: JP RA-EFF-C						
JD18875-2	SM4500NO2 B-11	12-JAN-21 17:35	MH			NO2
JD18875-2	EPA 624.1	12-JAN-21 18:05	ED			V624CHLFRM,VMS+ CTC,VMS+ TCA
JD18875-2	SM5210 B-11	12-JAN-21 18:22	MH	12-JAN-21	MH	CBOD5
JD18875-2	EPA 625.1	13-JAN-21 14:55	HSS	12-JAN-21	NW	AB625SL2
JD18875-2	EPA353.2/SM4500NO2B-11	14-JAN-21 13:13	BM			NO3O
JD18875-2	EPA 353.2/LACHAT	14-JAN-21 13:13	BM	14-JAN-21	BM	NO32
JD18875-2	EPA 200.7	14-JAN-21 23:02	ND	13-JAN-21	MS	CD
JD18875-2	SM4500 A-11	25-JAN-21 15:30	BM			TNIT
JD18875-2	EPA 351.2/LACHAT	25-JAN-21 15:30	BM	13-JAN-21	MH	TKN
JD18875-1RCollected: 11-JAN-21 15:00 By: WTW Received: 11-JAN-21 By: JP RA-EFF-G						
JD18875-1R	EPA 1664A	20-JAN-21 11:30	ER	19-JAN-21	ER	PHC1664
JD18875-2RCollected: 11-JAN-21 17:00 By: WTW Received: 11-JAN-21 By: JP RA-EFF-C						
JD18875-2R	EPA 608.3	20-JAN-21 02:54	VDT	19-JAN-21	HW	P608PCBLL

SGS Internal Chain of Custody

Page 1 of 3

Job Number: JD18875
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 01/11/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD18875-1.1	Manish Kewalramani	Secured Storage	01/11/21 20:21	Return to Storage
JD18875-1.2	Manish Kewalramani	Secured Storage	01/11/21 20:21	Return to Storage
JD18875-1.2	Secured Storage	Todd Shoemaker	01/19/21 08:21	Retrieve from Storage
JD18875-1.2	Todd Shoemaker	Secured Staging Area	01/19/21 08:22	Return to Storage
JD18875-1.2	Secured Staging Area	Elijah Rick	01/19/21 09:19	Retrieve from Storage
JD18875-1.2	Elijah Rick		01/19/21 17:52	Depleted
JD18875-1.3	Manish Kewalramani	Secured Storage	01/11/21 20:21	Return to Storage
JD18875-1.3	Secured Storage	Dave Hunkele	01/13/21 10:58	Retrieve from Storage
JD18875-1.3	Dave Hunkele	Secured Staging Area	01/13/21 11:20	Return to Storage
JD18875-1.3	Secured Staging Area	Madellyne Sanchez@sgs	01/13/21 11:37	Retrieve from Storage
JD18875-1.3	Madellyne Sanchez@sgs	Secured Storage	01/13/21 13:04	Return to Storage
JD18875-1.3	Secured Storage	Dave Hunkele	01/13/21 15:39	Retrieve from Storage
JD18875-1.3	Dave Hunkele	Secured Staging Area	01/13/21 15:40	Return to Storage
JD18875-1.3	Secured Staging Area	Lindsey Lee	01/14/21 06:29	Retrieve from Storage
JD18875-1.3	Lindsey Lee	Secured Storage	01/14/21 09:07	Return to Storage
JD18875-1.3.1	Madellyne Sanchez@sgs	Metals Digestion	01/13/21 12:59	Digestate from JD18875-1.3
JD18875-1.3.1	Metals Digestion	Madellyne Sanchez@sgs	01/13/21 12:59	Digestate from JD18875-1.3
JD18875-1.3.1	Madellyne Sanchez@sgs	Metals Digestate Storage	01/13/21 12:59	Return to Storage
JD18875-1.4	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-1.5	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-1.5	Secured Storage	Dave Hunkele	01/13/21 12:03	Retrieve from Storage
JD18875-1.5	Dave Hunkele	Secured Staging Area	01/13/21 12:04	Return to Storage
JD18875-1.5	Secured Staging Area	Tayler Barone	01/13/21 14:34	Retrieve from Storage
JD18875-1.5	Tayler Barone		01/14/21 00:51	Depleted
JD18875-1.6	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-1.6	Secured Storage	Dave Hunkele	01/13/21 11:52	Retrieve from Storage
JD18875-1.6	Dave Hunkele	Secured Staging Area	01/13/21 11:52	Return to Storage
JD18875-1.6	Secured Staging Area	Elaine Banting	01/14/21 03:21	Retrieve from Storage
JD18875-1.6	Elaine Banting	Secured Storage	01/14/21 03:22	Return to Storage
JD18875-1.7	Secured Storage	Dave Hunkele	01/13/21 10:41	Retrieve from Storage
JD18875-1.7	Dave Hunkele	Secured Staging Area	01/13/21 11:21	Return to Storage
JD18875-1.7	Secured Staging Area	Julio Zelaya	01/13/21 13:51	Retrieve from Storage
JD18875-1.7	Julio Zelaya	Secured Storage	01/13/21 19:16	Return to Storage
JD18875-1.8	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-1.8	Secured Storage	Dave Hunkele	01/13/21 12:03	Retrieve from Storage
JD18875-1.8	Dave Hunkele	Secured Staging Area	01/13/21 12:04	Return to Storage

SGS Internal Chain of Custody

Page 2 of 3

Job Number: JD18875
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 01/11/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD18875-1.8	Secured Staging Area	Taylor Barone	01/13/21 14:34	Retrieve from Storage
JD18875-1.8	Taylor Barone	Secured Storage	01/14/21 00:52	Return to Storage
JD18875-1.9	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-1.10	Secured Storage	Edward Durner	01/12/21 15:20	Retrieve from Storage
JD18875-1.10	Edward Durner	GCMST	01/12/21 15:20	Load on Instrument
JD18875-1.10	GCMST	Edward Durner	01/13/21 10:03	Unload from Instrument
JD18875-1.10	Edward Durner	Secured Storage	01/13/21 10:03	Return to Storage
JD18875-2.1	Manish Kewalramani	Secured Storage	01/11/21 20:14	Return to Storage
JD18875-2.2	Manish Kewalramani	Secured Storage	01/11/21 20:14	Return to Storage
JD18875-2.3	Manish Kewalramani	Secured Storage	01/11/21 20:14	Return to Storage
JD18875-2.3	Secured Storage	Huachi Wu	01/19/21 07:38	Retrieve from Storage
JD18875-2.3	Huachi Wu		01/19/21 15:14	Depleted
JD18875-2.3.1	Huachi Wu	Organics Prep	01/19/21 07:38	Extract from JD18875-2.3
JD18875-2.3.1	Organics Prep	Huachi Wu	01/19/21 15:11	Extract from JD18875-2.3
JD18875-2.3.1	Huachi Wu	Extract Storage	01/19/21 15:12	Return to Storage
JD18875-2.3.1	Extract Storage	Vincent Drago	01/19/21 18:04	Retrieve from Storage
JD18875-2.3.1	Vincent Drago	GC5G	01/19/21 18:04	Load on Instrument
JD18875-2.4	Manish Kewalramani	Secured Storage	01/11/21 20:14	Return to Storage
JD18875-2.5	Manish Kewalramani	Secured Storage	01/11/21 20:21	Return to Storage
JD18875-2.5	Secured Storage	Dave Hunkele	01/13/21 10:58	Retrieve from Storage
JD18875-2.5	Dave Hunkele	Secured Staging Area	01/13/21 11:20	Return to Storage
JD18875-2.5	Secured Staging Area	Madellyne Sanchez@sgs	01/13/21 11:37	Retrieve from Storage
JD18875-2.5	Madellyne Sanchez@sgs	Secured Storage	01/13/21 13:04	Return to Storage
JD18875-2.5.1	Madellyne Sanchez@sgs	Metals Digestion	01/13/21 12:59	Digestate from JD18875-2.5
JD18875-2.5.1	Metals Digestion	Madellyne Sanchez@sgs	01/13/21 12:59	Digestate from JD18875-2.5
JD18875-2.5.1	Madellyne Sanchez@sgs	Metals Digestate Storage	01/13/21 12:59	Return to Storage
JD18875-2.6	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-2.6	Secured Storage	Benjamin Gaines	01/12/21 14:45	Retrieve from Storage
JD18875-2.6	Benjamin Gaines	Secured Staging Area	01/12/21 14:45	Return to Storage
JD18875-2.6	Secured Staging Area	Nicholas Weigand	01/12/21 15:27	Retrieve from Storage
JD18875-2.6	Nicholas Weigand		01/12/21 23:23	Depleted
JD18875-2.6	Secured Storage	Dave Hunkele	01/13/21 14:28	Retrieve from Storage
Sample not depleted, volume intact				
JD18875-2.6	Dave Hunkele	Secured Staging Area	01/13/21 14:28	Return to Storage

SGS Internal Chain of Custody

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Job Number: JD18875
Account: HLANJPR Wood Environment & Infrastructure Solut.
Project: Review Avenue, Long Island City, NY
Received: 01/11/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD18875-2.6	Secured Staging Area	Madeline Hummel	01/13/21 17:12	Retrieve from Storage
JD18875-2.6	Madeline Hummel	Secured Storage	01/13/21 17:12	Return to Storage
JD18875-2.6.1	Nicholas Weigand	Organics Prep	01/12/21 15:28	Extract from JD18875-2.6
JD18875-2.6.1	Organics Prep	Nicholas Weigand	01/12/21 23:23	Extract from JD18875-2.6
JD18875-2.6.1	Nicholas Weigand	Extract Storage	01/12/21 23:23	Return to Storage
JD18875-2.6.1	Extract Storage	Henny Salim	01/13/21 11:34	Retrieve from Storage
JD18875-2.6.1	Henny Salim	GCMS6P	01/13/21 11:34	Load on Instrument
JD18875-2.6.1	GCMS6P	Henny Salim	01/15/21 11:49	Unload from Instrument
JD18875-2.6.1	Henny Salim	Extract Freezer	01/15/21 11:49	Return to Storage
JD18875-2.8	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-2.8	Secured Storage	Benjamin Gaines	01/13/21 15:55	Retrieve from Storage
JD18875-2.8	Benjamin Gaines	Secured Staging Area	01/13/21 15:55	Return to Storage
JD18875-2.8	Secured Staging Area	Beatrice Marcelino	01/14/21 15:04	Retrieve from Storage
JD18875-2.8	Beatrice Marcelino	Secured Storage	01/14/21 15:05	Return to Storage
JD18875-2.10	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-2.11	Manish Kewalramani	Secured Storage	01/11/21 20:07	Return to Storage
JD18875-2.12	Secured Storage	Edward Durner	01/12/21 15:20	Retrieve from Storage
JD18875-2.12	Edward Durner	GCMST	01/12/21 15:20	Load on Instrument
JD18875-2.12	GCMST	Edward Durner	01/13/21 10:03	Unload from Instrument
JD18875-2.12	Edward Durner	Secured Storage	01/13/21 10:03	Return to Storage