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July 15, 2022

Mr. Michael Squire
Division of Environmental Remediation, Remedial Bureau C
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Periodic Review Report – July 2021 to July 2022

1-45 Orangetown Shopping Center

Orangeburg, New York

Site #C344066

Dear Mr. Squire:

Enclosed is the *Periodic Progress Report* for the above referenced site prepared by Groundwater & Environmental Services, Inc. (GES) on behalf of UB Orangeburg, LLC. This document is required as an element of the remedial program at the Orangeburg (Orangetown) Shopping Center, located in the Town of Orangetown (Orangeburg), County of Rockland, New York under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by the New York State Department of Environmental Conservation (NYSDEC).

If you have any questions or comments regarding this submittal, please contact me at (866) 839-5195, extension 3839.

Sincerely,

Groundwater & Environmental Services, Inc.

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UB Orangeburg, LLC

Periodic Review Report (Part 1)

UB Orangeburg 1-45 Orangetown Shopping Center NYSDEC Site Number C344066

July 2022

Version 1





Periodic Review Report

UB Orangeburg 1-45 Orangetown Shopping Center Orangeburg, New York NYSDEC Site #C344066

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Acronyms

BAS	bio-augmentation treatment system
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CCR-1	Construction Completion Report #1 - Source Removal
COCs	constituents of concern
DO	dissolved oxygen
DUSR	data usability summary report
ECs	engineering controls
EE	Environmental Easement
EPA	Environmental Protection Agency
GES	Groundwater & Environmental Services, Inc.
GWQS	groundwater quality standards
HVAC	heating, venting, and air conditioning
ICs	institutional controls
i.w.	inches of water column
JLJ	JLJ Management Company
KLF	Kleinfelder East, Inc.
LORCO	Lorco Petroleum Services
mg/L	milligrams per liter

NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	operation, maintenance, and monitoring
ORP	oxidation-reduction potential
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
SGS	SGS/Accutest Laboratories of Dayton, New Jersey
SMP	Site Management Plan
SSD	Sub-slab depressurization system
SVI	soil vapor intrusion
TOC	total organic carbon
μg/l	micrograms per liter
VOC	volatile organic compound



1 Executive Summary

This document is required as an element of the remedial program at the Orangeburg (Orangetown) Shopping Center, located in the Town of Orangetown (Orangeburg), County of Rockland, New York (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by the New York State Department of Environmental Conservation (NYSDEC). The Site remediation activities have been conducted in accordance with the Brownfield Cleanup Agreement (BCA) Index #A3-0563-0906, site #C344066. JLJ Management Company (hereinafter referred to as the "JLJ") entered into a BCA with the NYSDEC in January of 2007 to remediate a 1.33-acre portion of the approximately 11 acre property containing chlorinated solvent compounds above NYSDEC standards. The subject property was purchased from JLJ by UB Orangeburg, LLC in 2012. On March 28, 2012, the Certificate of Completion was officially transferred from JLJ to UB Orangeburg, LLC.

Groundwater & Environmental Services, Inc. (GES) continues to implement the remedial activities outlined in the *Site Management Plan* (SMP)¹ updated in October 2019. Groundwater concentrations of tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, and ethene (constituents of concern [COCs]) in well MW-5 have fluctuated over the monitoring period but indicate degradation of chlorinated compounds through the chlorinated solvents reductive transformation pathway.

No major non-compliance issues have been identified during the monitoring period of June 17, 2021 to June 17, 2022.



2 Site Overview

The approximate geographical coordinates for the Site are 41 degrees, 2 minutes, 41.6 seconds North (Latitude) by 73 degrees, 57 minutes, 10.4 seconds West (Longitude). The Site is comprised of one (1) parcel (Section, Lot & Block: 74.10-67-1) that covers an area of approximately 11 acres. Included are the following: a Site Location Map (**Figure 1**) for the general property location, a Site Map (**Figure 2**) showing the current key Site features and a Detail Site Map (**Figure 3**) showing the current locations of injection and monitoring well points near building #2.

COCs were first observed at the Site after a damaged sewer line exiting the former Sparkle Cleaners Dry Cleaners was identified. The first remedial activity consisted of source removal activities and the repair of the sewer line in January of 2009. After completion of the remedial work described in *Construction Completion Report #1 - Source Removal* (CCR-1)², residual contamination was left in the subsurface soil in the vicinity of the release point, which is hereafter referred to as "remaining contamination". A SMP was prepared to manage remaining contamination until the Environmental Easement (EE) is extinguished in accordance with ECL Article 71, Title 36 (EE included as **Appendix A**). Components of the selected remedy consist of sub-slab depressurization systems (SSD systems) and a bio-augmented injection gallery.

2.1 Sub-Slab Depressurization Systems

Because of the residual contaminated subsurface soil and contaminated groundwater, the SSD systems were designed to mitigate potential vapor intrusion from residual chlorinated volatile organic compound (VOC) contamination into the southern portion of building #2, which businesses include: former Sparkle Cleaners (currently a Verizon Store), former Deli Spot (currently TZ Liquors), and New China House. The SSD systems were configured to create a negative pressure (relative to the indoor environment) within the area beneath the concrete floor slabs of the businesses within the southern portion of building #2, thereby minimizing the potential for migration of contaminant vapor into the indoor air of the tenant spaces.

The SSD systems were installed between February and May 2010, and activated in May 2010. The SSD systems as originally designed did not achieve the performance standard and it was subsequently modified. Additional performance testing was completed in June 2010 and a modified plan was prepared and approved by the NYSDEC in August 2010. Modifications were implemented between August and September 2010. The SSD systems were re-started with additional blowers in place on September 29, 2010 and operation was verified with another performance (vacuum response) test. Late in 2010, it was observed that ongoing heating, venting, and air conditioning (HVAC) issues in the building potentially affected the SSD system performance. These issues were the result of foundation leaking and back draft issues associated with furnaces and other fans; these issues were resolved in early 2011. The SSD systems were re-inspected in March to verify resolution of the issues. In late April 2011, three (3) vapor-monitoring points were replaced in the New China Restaurant and another SSD system check was performed. This test verified measured vacuum of greater than 0.0025 inches of water column (i.w) was achieved across the slab of the three (3) tenant spaces.



The NYSDEC approved the temporary shutdown of the SSD systems in August 2015 and the decommissioning of two (2) of the three (3) SSD systems (former Deli Spot and Sparkle Cleaners) in January 2017 following additional soil vapor intrusion (SVI) testing which verified mitigation of the soil vapor intrusion pathway as defined by the New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*³, dated October 2006 and updates to Soil Vapor/Indoor Air Decision Matrices, dated May 2017. SSDS removal activities were completed only at the former Deli Spot tenant space in April 2017.

As requested by the NYSDEC, sub-slab and indoor air testing was conducted at the three (3) tenant spaces during the 2016/2017, 2017/2018, and 2018/2019 heating season to evaluate and monitor rebound following the SSDS shutdown. Subsequent to completing three (3) consecutive sampling events, the NYSDEC approved decommissioning of the third SSD system located at the New China House tenant space on August 19, 2019.

Based on the results of the consecutive sampling events from the 2016/2017 heating season to the 2018/2019 heating season, additional sub-slab and indoor air testing events were completed at the former Sparkle Cleaner tenant space (sample locations VP-5 and VP-6 only) in the 2019/2020, 2020/2021, and 2021/2022 heating seasons. Concentrations of select COCs at sample locations VP-5 and VP-6 were compared to the NYSDOH *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*³ Soil Vapor/Indoor Air Decision Matrices. The remedial action required based on the Soil Vapor/Indoor Air Decision Matrices, during each heating season event is summarized below:

- 2019/2020 heating season: NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York Soil Vapor/Indoor Air Decision Matrices recommended a remedial action of Monitor based on Matrix A COC concentrations at VP-6.
- 2020/2021 heating season: NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York Soil Vapor/Indoor Air Decision Matrices recommended a remedial action of Identify Source and Resample or Mitigate based on Matrix B COC concentrations at VP-6 and Matrix A and Matrix C COC concentrations at VP-5.
- 2021/2022 heating season: NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York Soil Vapor/Indoor Air Decision Matrices recommended a remedial action of No Further Action.

The sub-slab and indoor air event completed during this monitoring period (the 2021/2022 heating season) is summarized in the January 12, 2022 *Soil Vapor Intrusion Summary*⁴. In a letter dated June 24, 2022 (**Appendix B**), the NYSDEC and NYSDOH approved of the *Soil Vapor Intrusion Summary* and the recommendation to permanently shutdown and decommission the idled SSD systems and to discontinue sub-slab and ambient air testing at the Site.

A Sub-Slab Depressurization Configuration map is included as Figure 4.

2.2 Bio-Augmentation Treatment System

Because of the presence of contaminated groundwater and residual soil contamination under building #2, a bio-augmentation treatment system (BAS) was designed. This treatment promotes



in-situ microbial degradation of contaminants in saturated soil and groundwater. Addition of a bio-stimulant (molasses) to subsurface soil and groundwater acts as an electron donor that stimulates metabolic reduction of chlorinated VOCs to ethene via microorganisms that have been detected as being present at the Site, as have bacteria of the genus Dehalococcoides (in MW-5 and MW-6) and Dehalobacter (in MW-5).

Bio-augmentation injection points and manifold piping were installed following the source removal excavation between February and April 2010. A batch injection tank connects to the manifold via manual gate valves to direct electron donor solution (a 10% molasses solution) and control flow to the injection points. Additional injection points were installed during April and May of 2012 and January of 2014 in accordance with the *Remedial Action Work Plan* (RAWP)⁵, submitted by Kleinfelder East, Inc. (KLF) in December 2011. Baseline and post injection sampling (from a network of monitoring wells), monitoring, and laboratory analysis provide the means to monitor treatment effectiveness. The initial rounds of injections were completed in May, July, and November 2010. The first round of treatment indicated bio-augmentation was enhancing biodegradation and dechlorination of the contaminants. The results also suggested that additional injections of electron donor solution would enhance treatment. Twelve (12) subsequent injection events were conducted at the Site between August 2012 and September 2016.

Bio-augmentation monitoring and treatment of groundwater will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC GWQS or have become asymptotic at an acceptable level over an extended period. This treatment will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant concentrations become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment, and/or control measures will be evaluated.

Conditions that warrant discontinuing the BAS include contaminant concentrations in groundwater that: (1) reach levels that are consistently below groundwater quality standards (GWQS), (2) have become asymptotic to a low level over an extended period of time as accepted by the NYSDEC, or (3) the NYSDEC has determined that the BAS has reached the limit of its effectiveness. This assessment will be based in part on post-remediation contaminant levels in groundwater collected from monitoring wells located throughout the Site. Monitoring wells formerly associated with the BAS (MW-A, MW-B, MW-C, MW-D, and MW-F) were abandoned in August 2017 following approval from the NYSDEC. The existing systems will remain in place and operational until permission to discontinue their use is granted in writing by the NYSDEC.

The NYSDEC approved completing annual, rather than quarterly, monitoring of the BAS on August 19, 2019.

Groundwater purged from on-site monitoring wells will continue to be stored on-site in 55-gallon drum. Lorco Petroleum Services (Lorco) of Elizabeth, New Jersey transported and disposed of one (1) 55-gallon drum containing purged groundwater generated during the 2022 annual sampling event on April 29, 2022.

A copy of the non-hazardous waste manifests are provided as **Appendix C**.



3 Evaluation of Remedy Performance and Effectiveness

3.1 Sub-Slab Depressurization System Evaluation

Quarterly operation, maintenance, and monitoring (OM&M) visits were not conducted during the reporting period due to the temporary shutdown of the remaining SSD system at the former Sparkle Cleaners.

3.2 Bio-Augmentation System Evaluation

Baseline and post-injection sampling (from a network of monitoring wells), monitoring, and laboratory analysis provide the means to monitor treatment effectiveness. Overall, 12 injection events have been completed since August 2012. A total approximate volume of 8,015 gallons of 10% molasses solution has been injected since the initiation of this remedy. The last event was conducted on September 14, 2016 utilizing injection wells IP-3, IP-4, INJ-3D, and INJ-4D.

Geochemical targets for pH and total organic carbon (TOC) concentration in the BAS monitoring network wells are established to inform decision making regarding injection frequency and quantity. The optimal geochemical target range for TOC concentrations is 50 through 500 milligrams per liter (mg/L) and a pH between 6 and 8. During the April 18, 2022 annual monitoring event, bio-parameter levels for pH were 5.87 and TOC concentration was 406 mg/L, which is within the target range for TOC concentrations but below the target range for pH. Based on current site conditions, an injection of a sodium bicarbonate solution to correct pH was deemed unnecessary.

Groundwater well logs updated during each sampling event are included as **Appendix D**. Please refer to **Figure 5** and **Tables 1** and **2** for a summary of groundwater elevation and concentrations of the COCs at all sampled monitoring wells. **Figure 6** and **Tables 3** and **4** present the general chemistry analytical results and measured bioparameter readings including optimal geochemical target range for TOC concentrations (50 mg/L through 500 mg/L) and pH (6 to 8) at the monitoring wells. Groundwater trends observed at monitoring well MW-5 during the monitoring period are illustrated in **Figure 7**.



4 Institutional Control & Engineering Control Plan Compliance

GES completed a site inspection on April 29, 2022 to confirm that institutional controls (ICs) and engineering controls (ECs) at the Site were in compliance with the EE and SMP.

4.1 Institutional Controls

ICs at the Site (**Appendix E**) include compliance with the EE. The EE contains the following stipulations: no new drinking water wells can be installed and new business and residences must be connected to city water. The SMP stipulates all ECs must be operated and maintained as specified in the SMP, all ECs on the controlled property must be inspected at a frequency and in a manner defined in the SMP, groundwater and other environmental monitoring must be performed as defined in this SMP, and data and information pertinent to site management of the control property must be reported at a frequency and in a manner specified in the SMP.

During the monitoring period all ICs have been in compliance with the EE. No new drinking wells have been installed and no new businesses have been built which would require a connection to city water. All ECs have been operated and maintained as specified in the SMP or otherwise approved by the NYSDEC. ECs are inspected in accordance with the required frequency set forth by the SMP. Groundwater and other environmental monitoring have been performed as defined in the SMP. Progress reports summarizing groundwater and other environmental monitoring were submitted to the NYSDEC and the NYSDOH as they are completed. Approval to discontinue submittal of monthly progress reports was granted by the NYSDEC in a letter dated August 25, 2014.

Regulatory correspondences during the monitoring period are attached as Appendix B.

4.2 Engineering Controls

The SMP requires that three (3) separate ECs be maintained at the Site: the SSD systems, the BAS, and the composite cover system. Maintenance and inspections of the ECs at the Site are reported to the NYSDEC and NYSDOH in the annual *Periodic Review Report* or if necessary, through *Non-Routine Reports*.

Historically, exposure to vapor intrusion within the southern portion of building #2 was mitigated by the operation of the SSD systems. This system was comprised of extraction piping, sub-slab ventilation blowers and associated appurtenances at former Sparkle Cleaners, the former Deli Spot, and New China House tenant spaces. The SSD systems created a negative pressure which intercepted potential soil vapor from beneath the concrete floor using eight branches (SSD-1 through SSD-8) and transferred extracted vapors using in-line blowers to discharge locations outside the building (above the roof). Thirteen (13) extraction points were installed between the three (3) tenant spaces. Additional extraction points were added to each tenant space after the SSD systems were initially installed. Fifteen (15) vacuum monitoring points were also installed within the three (3) tenant spaces to measure and verify vacuum beneath the concrete slab. A manometer was installed on the suction side of the in-line blower on each of the SSD branches to provide a visual indicator that the SSD systems operate properly.



The SSD systems have been temporarily shut-down since August 17, 2015 following receipt of NYSDEC approval. In May 2017, following NYSDEC approval, the former Deli Spot SSDS was permanently decommissioned. The NYSDEC approved the decommissioning of the SSDS located at the New China House tenant space on August 19, 2019; however, the SSDS still remains idle. In a letter dated June 24, 2022, the NYSDEC approved of permanently shutting down and decommissioning the idled SSD systems.

Because of the presence of residual contaminated groundwater and residual soil contamination under building #2, a BAS was designed. This treatment promotes in-situ microbial degradation of contaminants in saturated soil and groundwater. Addition of a molasses solution to subsurface soil and groundwater acts as an electron donor that stimulates metabolic reduction of chlorinated VOCs to ethene. Bio-augmentation injection points and manifold piping were installed after the source removal excavation between February and April 2010. An additional nine (9) nested bio-augmentation injection points and four (4) additional monitoring wells were installed between April and May of 2012 and January of 2014 in accordance with the RAWP. Details regarding the installation of additional monitoring points and nested injection wells can be referenced in the May 2012, January 2014, and February 2014 *Monthly Progress Report* 6,7,8, submitted to the NYSDEC.

Molasses injection events were not completed during the monitoring period. The BAS monitoring network will continue to be monitored via annual sampling of wells during the 2022/2023 monitoring period to determine future injection frequency and quantity.

Maintenance and inspections of the composite cover system consisting of existing impermeable surfaces (concrete slabs and asphalt paving) were conducted during the monitoring period. No non-compliance issues with the cover system were noted during the 2021/2022 monitoring period.

IC and EC certifications are provided in **Appendix E**.



5 Exposure Assessment

EC's at the Site such as the SSD systems and the composite cover system have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment.

5.1 Historic Qualitative Exposure Assessment

5.1.1 Soil Vapor Intrusion Assessment

A Remedial Investigation (RI) report⁹ which included a SVI assessment and exposure assessment for the Site was submitted by KLF in May 2008. The SVI assessment, which included sub-slab soil vapor sampling, indoor air sampling, and ambient outdoor air sampling data was conducted on July 12, 2007 and November 27 to December 6, 2007. On-Site properties sampled included Building 1 through Building 3 and the off-Site properties sampled included 55 Highview Avenue, 1 Oak Street, 3 Oak Street, and 9 Oak Street. The SVI assessment in the RI report concluded the following:

- Building 1: Concentrations of chlorinated solvents were below laboratory detection limits for all samples.
- Building 2: Concentrations of tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, and vinyl chloride were detected in sub-slab soil vapor, indoor air, and outdoor ambient air at multiple locations in Building 2 (sample locations referred to at the time as Sparkle Cleaners, The Deli Spot, and Hikaru Restaurant).
- Building 3: Concentrations of tetrachloroethene were detected in indoor air, ambient outdoor air, outdoor soil vapor, and sub-slab soil vapor at multiple locations located in the northern portion of Building 3 (VP-207, VP-206, VP-205, and VP-203).
- 55 Highview Avenue: Concentrations of tetrachloroethene and trichloroethene were detected in an ambient outdoor air sample. Concentrations of chlorinated solvents in sub-slab soil vapor samples were below laboratory detection limits.
- 1 Oak Street: Concentrations of trichloroethene were detected in indoor air samples.
 Concentrations of chlorinated solvents in sub-slab soil vapor samples were below laboratory detection limits.
- 3 Oak Street: Concentrations of tetrachloroethene and trichloroethene were detected in upstairs indoor air and tetrachloroethene was detected in sub-slab soil vapor.
- 9 Oak Street: Concentrations of chlorinated solvents were below laboratory detection limits for all samples.

KLF determined that based on these findings, a correlation of sub-slab soil vapor and indoor air quality appears to only exist in Building 2 based on elevated concentrations of chlorinated solvents in both soil vapor and indoor air. KLF determined that the chlorinated solvent concentrations present in Building 3 and off-Site properties were negligible and due to an airborne source controlling indoor air quality.



5.1.2 Qualitative Exposure Assessment

In the 2008 RI Report, KLF includes a qualitative exposure assessment, which identifies exposure pathways on-Site. The exposure assessment concluded that a complete exposure pathway existed for soil vapor at the Site and potentially complete exposure pathways existed for groundwater in relation to the groundwater plume on-site with the potential to migrate off-site and for soils located at Building 2 (specifically, Sparkle Cleaners).

Each EC at the Site addresses these complete and potentially complete exposure pathways. The complete exposure pathway that exists for soil vapor at the Site was addressed by the SSD systems installed in Building 2 at the former Sparkle Cleaners (currently a Verizon Store), former Deli Spot (currently TZ Liquors), and New China House. The potentially complete exposure pathways for groundwater was addressed by the BAS and the quarterly/annual groundwater monitoring program and pathways for soil was addressed by the composite cover system and associated ICs.

5.2 Quantitative Exposure Assessment

Following the exposure assessment submitted for the Site in 2008, the risk of exposure at the Site has been quantitatively assessed and summarized on a routine basis in the *Progress Reports* and/or *Soil Vapor Intrusion Summary* reports submitted to the NYSDEC and NYSDOH. Soil vapor impacts present at Building 2 were addressed with the SSDS systems and quantitatively assessed with sub-slab and indoor air sampling events conducted in April 2015, December 2015, November 2016, December 2017, December 2018, December 2019, January 2021, and December 2021. The SSD systems were shut down on August 15, 2015, with all sampling events conducted with the SSD systems offline for testing. The sampling events recommended the following remedial actions (based on the NYSDOH *Guidance for Evaluation Soil Vapor Intrusion in the State of New York*) for each tenant space in Building 2:

- April 2015: No further action was recommended for each sample location (former Deli Spot, New China House, and former Sparkle Cleaners).
- December 2015: No further action was recommended for each sample location (former Deli Spot, New China House, and former Sparkle Cleaners).¹¹
- November 2016: No further action was recommended at two (2) of the tenant spaces (former Deli Spot and former Sparkle Cleaners). At the New China House space, it was recommended to identify sources and reduce exposure based on concentrations of tetrachlorethene in the indoor air samples.¹²
- December 2017: No further action was recommended for each sample location (former Deli Spot, New China House, and former Sparkle Cleaners).¹³
- December 2018: No further action was recommended at two (2) of the tenant spaces (former Deli Spot and New China House). At the former Sparkle Cleaners space, no further action was recommended for sample location VP-5 and monitor was recommended for sample location VP-6 based on concentrations of tetrachlorethene and trichloroethene in the sub-slab and indoor air samples.¹⁴



- December 2019: At the former Sparkle Cleaners space, no further action was recommended for sample location VP-5 and monitor was recommended for sample location VP-6 based on concentrations of cis-1,2-dichloroethene and trichloroethene in the sub-slab and indoor air samples.¹⁵
- January 2021: At the former Sparkle Cleaners space, it was recommended to identify source and resample or mitigate at sample location VP-5 based on concentrations of trichloroethene, cis-1,2-dichloroethene, and vinyl chloride in the indoor air samples. It was also recommended to identify source and resample or mitigate at sample location VP-6 based on concentrations of tetrachloroethene in the indoor air samples.¹⁶
- December 2021: No further action was recommended for each sample location (VP-5 and VP-6 at the former Sparkle Cleaners).⁴

Ongoing quantitative exposure assessment results show that the corrective actions completed to date have effectively reduced the presence of chlorinated compounds in the sub-surface soil and groundwater to levels that have eliminated the need for active mitigation of the historic soil vapor intrusion pathway at portions of Building 2. Additionally, the repeated testing events that were conducted every heating season after SSD system shutdown demonstrated that sub-slab vapor concentrations have not rebounded following SSD system shutdown and are not likely to do so.

GES recommended in the January 2022 *Soil Vapor Intrusion Summary*⁴ report, which summarizes the December 2021 testing event, to permanently shutdown and decommission the idled SSD systems and to discontinue sub-slab and ambient air testing at the Site. The NYSDEC and NYSDOH approved of this recommendation in a letter dated June 24, 2022 (**Appendix B**).



6 Monitoring Plan Compliance

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the composite cover system, and all affected Site media identified in the SMP. Monitoring results and performance evaluation of the ECs are reported to the NYSDEC and the NYSDOH as they are completed.

Components and schedule of the current monitoring plan are summarized in **Chart 1**.

Chart 1 – Monitoring/Inspection Schedule

Monitoring Program	Frequency	Matrix	Analysis
Composite Cover System	Annual (minimum) or during other (more frequent) inspections as time and conditions warrant	Soil	Visual Inspection of Cover
SSD Systems	Temporarily Shutdown/ Permanently Decommissioned	Soil Vapor	Negative Pressure
BAS	"As Needed", if TOC concentrations are below 50 mg/L	Groundwater	TOC
Groundwater	Annual	Groundwater	Chlorinated VOCs, ethene

6.1 Composite Cover Monitoring Compliance

On April 29, 2022, the composite cover system was inspected by a qualified environmental professional. The composite cover system was observed to be intact. No changes to the condition of the composite cover system were observed over the monitoring period.

Additional inspections occurred during one or more of the following activities: groundwater sampling and/or site visits.

6.2 Sub-Slab Depressurization System Monitoring Compliance

SSD system inspections and monitoring were not conducted this year due to the temporary shutdown of the SSD systems as of August 2015. SSDS removal activities were completed at the former Deli Spot tenant space in April 2017.

A SSDS Decommissioning Request ¹⁷ was submitted to the NYSDEC and NYSDOH (the Departments) on January 3, 2017 requesting approval to decommission two (2) of the three (3) SSD systems at the Orangetown Shopping Center. The request to decommission the former Deli Spot and former Sparkle Cleaners tenant spaces was approved by the Departments on January 20, 2017 with a contingency to collect yearly sub-slab and indoor air samples from the three (3) tenant spaces for the next two (2) heating seasons (2017/2018 and 2018/2019).

Based on the results of the consecutive sampling events, an additional sub-slab and indoor air-testing event was completed during the 2021/2022 heating season focusing on the former Sparkle Cleaner location on December 6 and 7, 2021. Indoor air and sub-slab samples were collected



from sample locations VP-5 and VP-6 as illustrated on **Figure 8**. Samples were submitted to SGS/Accutest Laboratories of Dayton, New Jersey (SGS) and were analyzed for VOCs via Environmental Protection Agency (EPA) Methods VTO15NYLL and/or VTO15NYSVLL. Laboratory analytical results were compared to the NYSDOH *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, section 3.4.2, Indoor Air Matrices A, B, and C. Based on the comparison, a recommendation of No Further Action at the former Sparkle Cleaners is supported by concentrations of COCs at VP-5 and VP-6.

The SVI investigation was summarized in the *Soil Vapor Intrusion Summary* submitted to the NYSDEC in January 2022. SVI investigation analytical results are summarized in **Table 5** and the comparison of analytical results to NYSDOH Indoor Air Matrices A, B, and C is included as **Table 6**.

6.3 Bio-Augmentation System Monitoring Compliance

Inspections and monitoring of the BAS were completed as described in the SMP. A total of 12 injection events have been completed since August 2012. A total approximate volume of 8,015 gallons of 10% molasses solution has been injected since the initial event.

Annual baseline sampling were completed at the Site on April 18, 2022. Monitoring wells MW-4, MW-5, MW-8A, and MW-E are sampled on an annual basis. NYSDEC approved removal of MW-3 from the monitoring program in a letter dated August 2, 2021. Additional updates to the groundwater sampling program were submitted as revisions to the SMP in October 2019.

Annual groundwater samples were submitted to SGS for the following analysis: VOCs, ethene, nitrate, iron (total, ferrous and ferric), sulfate, and/or TOC. Analytical data provided by SGS is included in **Appendix F** and are represented in **Table 2**, **Table 4**, and **Figure 5**. The Category B laboratory analytical reports provided by SGS was submitted to RemVer for review of data quality. Subsequent to the data review, RemVer provided a data usability summary report (DUSR), included in **Appendix G**.



7 Operation, Monitoring & Maintenance Plan Compliance

The OM&M Plans describe the measures necessary to operate, monitor, and maintain the mechanical components of the remedy selected for the Site. This section has two (2) specific OM&M plans: one (1) for the SSDS and one (1) for the BAS.

Annually, copies of the OM&M forms generated from field activities at the Site are placed inside the on-Site hazardous communications box. Additionally, a copy of the Sub-Slab Depressurization Operation, Monitoring, and Maintenance Plan, Bio-augmentation System Operation, Maintenance, and Monitoring Plan and manuals provided by the equipment manufacturer are stored in the hazardous communications box for reference.

7.1 Sub-Slab Depressurization OM&M Compliance

The SSD systems remained temporarily shutdown for the entire monitoring period. Due to the shutdown of the SSD systems, OM&M events were not completed during the June 2021 to June 2022 period.

7.2 Bio-Augmentation OM&M Compliance

A BAS OM&M visit was completed for the monitoring period either during the annual EC/IC inspection or annual groundwater sampling event and included the following activities: an inspection for security issues, vandalism, system damage, equipment or conveyance malfunction, connection integrity or environmental effects, gauging of BAS monitoring well network, collection of general groundwater chemistry parameters, visual inspection of piping stub-ups and BAS monitoring well road boxes, and inspection of well pads and injection road boxes and road pads. No non-compliance issues were identified during the reporting period.



8 Conclusions and Recommendations

8.1 SMP Compliance

Updates to the groundwater sampling, BAS, and SSD system decommissioning sections of the SMP were submitted as revisions on October 24, 2019 and approved by the NYSDEC on November 5, 2019.

During this monitoring period, all requirements set forth in the SMP have been completed. ICs described in the SMP are in place and in compliance. Monitoring and OM&M of the two (2) active ECs (composite cover and BAS) were conducted during the monitoring period as specified in the SMP. OM&M of SSD systems have been suspended while the remaining systems are temporarily shutdown. Inspection of the composite cover system was completed at a minimum frequency of once annually. Monitoring and OM&M of the BAS was completed on an annual basis during either the annual EC/IC inspection or annual groundwater sampling event.

The SMP will be updated during the next monitoring period to reflect changes approved by the NYSDEC in letters dated August 2, 2021 and June 24, 2022 (**Appendix B**). The NYSDEC has approved a modified groundwater monitoring plan, cessation of sub-slab and ambient air sampling events, and permanent shutdown and decommissioning of idled SSD systems at the Site. The SMP will be updated to reflect these changes once implemented.

8.2 Performance and Effectiveness of Remedy

8.2.1 Soil Vapor and SSDS Operation

The SSD systems have been temporarily shut-down since August 17, 2015. The NYSDEC approved the request to permanently decommission the SSD systems in the former Deli Spot and the former Sparkle Cleaners in January 2017. SSDS removal activities were completed at the former Deli Spot in May 2017 and the SSDS at the former Sparkle Cleaners remains in place but inactive. Following annual SVI studies in which no further action was recommended at sampling points within the New China House, the NYSDEC approved decommissioning of the SSDS at the New China House remains in place but inactive.

The remedial action required based on the Soil Vapor/Indoor Air Decision Matrices, during the 2021/2022 heating season event, was No Further Action based on COC concentrations at VP-6 and VP-5. Approval of the *Soil Vapor Intrusion Summary* by the NYSDEC and NYSDOH in a letter dated June 24, 2022 (**Appendix B**). Additionally, the NYSDEC approved to permanently shutdown and decommission the idled SSD systems and to no longer conduct sub-slab or ambient air testing at the Site.

8.2.2 Groundwater and Bio-Augmentation

GES evaluated VOC concentrations in groundwater at monitoring wells MW-4, MW-5, MW-8A, and MW-E over the annual monitoring period. The results of this evaluation are summarized in the table below.



Monitoring Well Identification	COC Exceedance Summary
MW-4	Increase in cis-1,2-dichloroethene [9.2 micrograms per liter (μ g/L), exceeds GWQS (5 μ g/L)]. No other COC exceedances.
MW-5	Increase in cis-1,2-dichloroethene [191 μ g/L, exceeds GWQS (5 μ g/L)], and vinyl chloride [22.9 μ g/L, exceeds GWQS (2 μ g/L)]. No other COC exceedances.
MW-8A	Stable with no COC exceedances
MW-E	Stable with no COC exceedances

The absence of tetrachloroethene and trichloroethene above standards in groundwater samples and continued generation of ethene is indicative of continued source depletion and chlorinated solvent reduction. Concentrations of dissolved-phase COCs at monitoring well MW-5 have fluctuated, but increases in concentration of vinyl chloride with the production of ethene are indicative of active reductive dechlorinization.

Concentrations of dissolved-phase COCs at MW-E and MW-8A remain below groundwater quality standards. In the letter dated August 2, 2021 (**Attachment B**), the NYSDEC approved removal of MW-3 from future monitoring and requested one (1) more round of sampling for MW-4 and MW-E to confirm groundwater trends. Based on results of the 2022 annual groundwater sampling event, GES requests monitoring well MW-E also be removed from the monitoring well network.

8.3 Recommendations

Following approval by the NYSDEC in June 2022, the idled SSD systems will be permanently shutdown and decommissioned during the third or fourth quarter 2022 in accordance with the previously Department approved Workplan for Permanent SSD System Shutdown . All on-site activities related to the decommissioning of the SSD systems will be summarized in Non-Routine reports and submitted to the NYSDEC.

GES will complete annual groundwater monitoring activities in the second quarter of 2023 at monitoring wells MW-4, MW-5, and MW-8A.

Bio-augmentation injection events are generally scheduled when TOC concentrations are outside the optimal geochemical range (50 mg/L to 500 mg/L) in monitoring well MW-5. The TOC concentration at monitoring well MW-5 during the annual groundwater sampling event was within the optimal geochemical range; therefore, no additional bio-augmentation injection events are scheduled at this time.

The SMP will be updated to reflect changes to the SSD system and the sub-slab and ambient air monitoring program. The SMP updates will be submitted to the NYSDEC to review and approve over the next monitoring period.



References

- ¹ Groundwater & Environmental Services, Inc., *Site Management Plan*, updated October 24, 2019.
- ² Kleinfelder East, Inc., Construction Completion Report #1 Source Removal, June 7, 2011.
- ³ New York State Department of Health, *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, revised May 2017.
- ⁴ Groundwater & Environmental Services, Inc., *Soil Vapor Intrusion Summary*, January 12, 2022.
- ⁵ Kleinfelder East, Inc., *Remedial Action Work Plan*, December 19, 2011.
- ⁶ Groundwater & Environmental Services, Inc., *May 2012 Monthly Progress Report*, May 31, 2012.
- ⁷ Groundwater & Environmental Services, Inc., *January 2013 Monthly Progress Report*, January 31, 2014.
- ⁸ Groundwater & Environmental Services, Inc., *February 2014 Monthly Progress Report*, February 28, 2014.
- ⁹ Kleinfelder East, Inc., Remedial Investigation, May 2008.
- ¹⁰ Groundwater & Environmental Services, Inc., *Soil Vapor Intrusion Investigation Summary*, June 4, 2015.
- ¹¹ Groundwater & Environmental Services, Inc., *Soil Vapor Intrusion Investigation Summary*, February 9, 2016.
- ¹² Groundwater & Environmental Services, Inc., *Soil Vapor Intrusion Investigation Summary*, March 10, 2017.
- ¹³ Groundwater & Environmental Services, Inc., *Soil Vapor Intrusion Summary*, January 30, 2018.
- ¹⁴ Groundwater & Environmental Services, Inc., *Soil Vapor Intrusion Summary*, February 12, 2019.
- ¹⁵ Groundwater & Environmental Services, Inc., *Soil Vapor Intrusion Summary*, January 20, 2020.
- ¹⁶ Groundwater & Environmental Services, Inc., *Soil Vapor Intrusion Summary*, February 11, 2021.
- ¹⁷ Groundwater & Environmental Services, Inc., *SSDS Decommissioning Request*, January 3, 2017.

Periodic Review Report 1-45 Orangetown Shopping Center Orangeburg, New York



Figures

USGS 7.5 Minute Series Topographic Quadrangle, 1979 Nyack, New York Contour Interval = 10'

Site Location Map

UB Orangeburg, LLC 1-45 Orangetown Shopping Center Orangeburg, New York

Drawn W.G.S. Designed



1-23-18 Figure 1

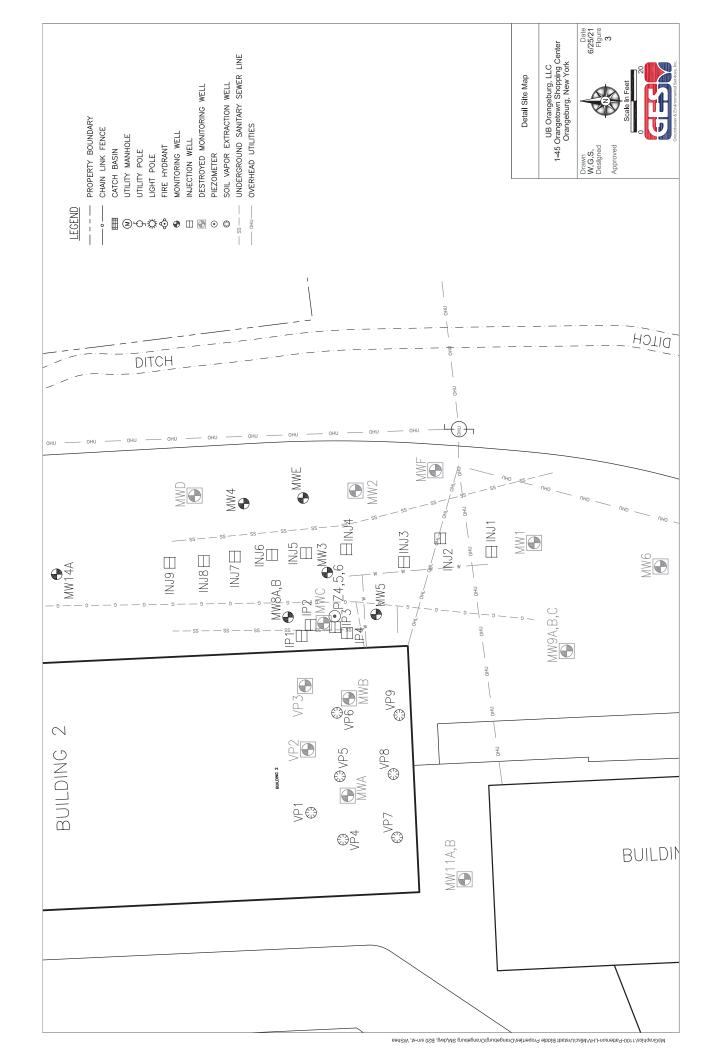
Approved

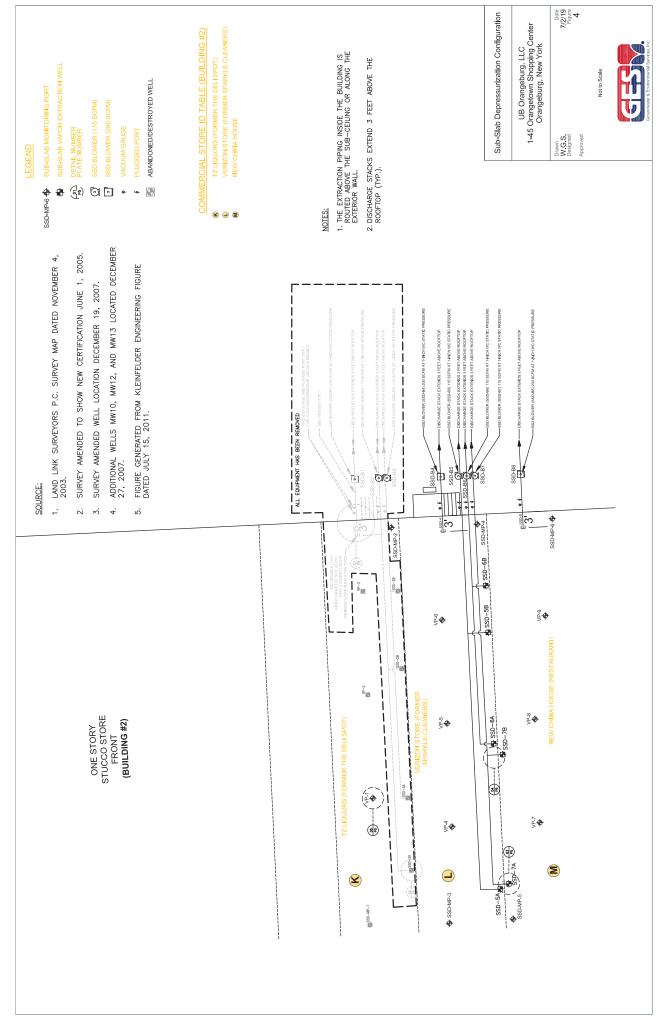


New York

Quadrangle Location







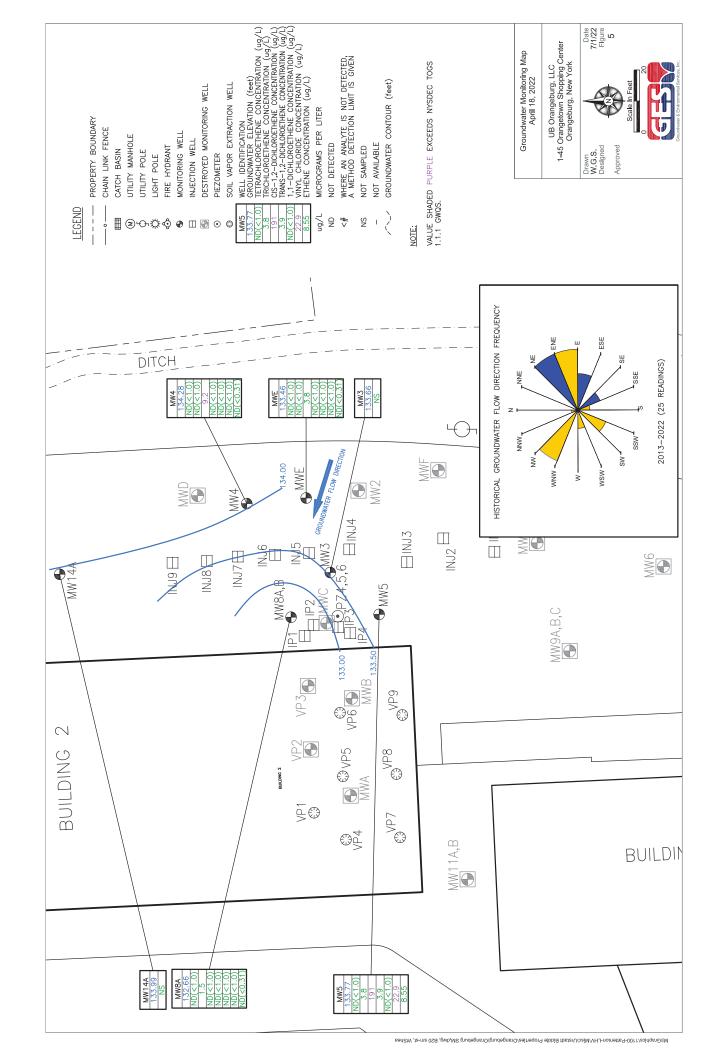
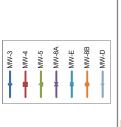


Figure 6

Total Organic Carbon Concentration

Orangetown Shopping Center/Sparkle Cleaners NYSDEC Site #C344066



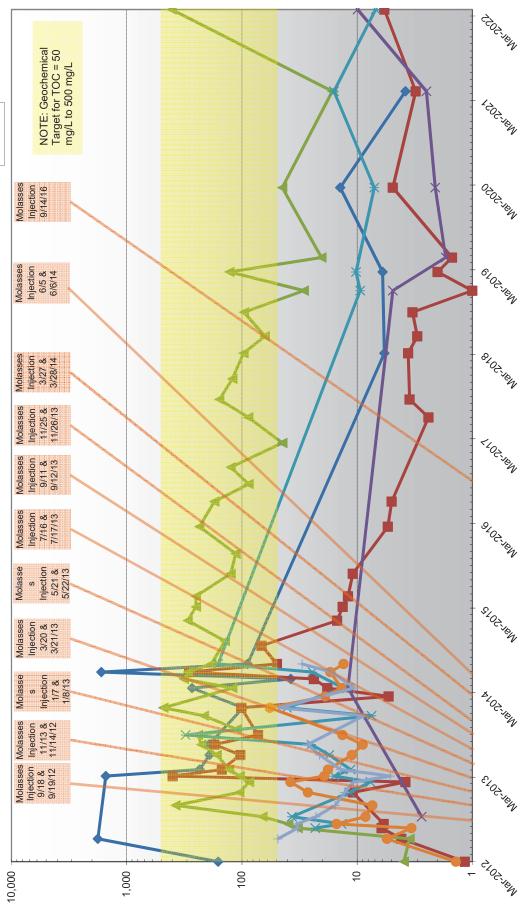
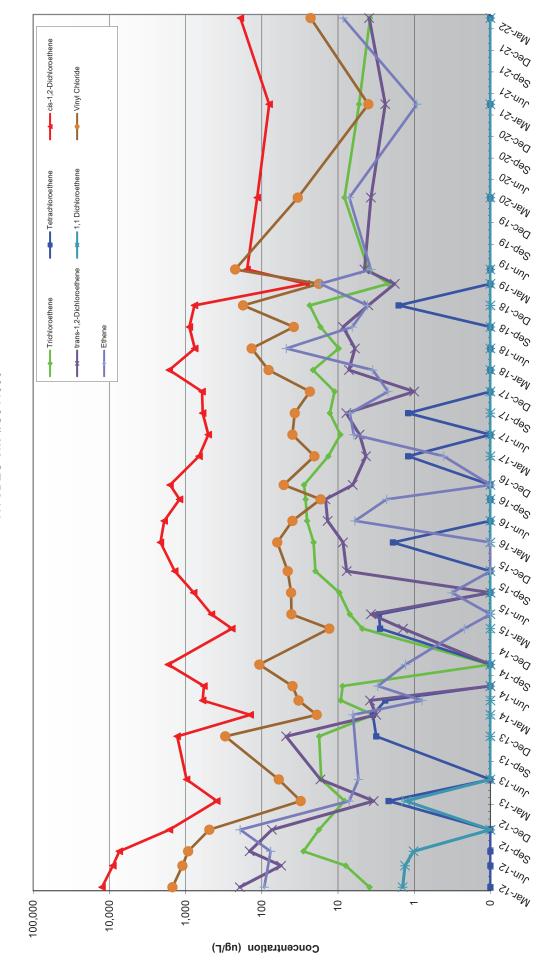




Figure 7

MW-5 Chlorinated Solvent Reductive Transformation Pathway

Orangetown Shopping Center/Sparkle Cleaners NYSDEC Site #C344066



Date 7/2/19 Figure 8 Sub-Slab and Ambient Air Sampling Map UB Orangeburg, LLC 1-45 Orangetown Shopping Center Orangeburg, New York TZ LIQUORS (FORMER THE DELI SPOT)
VERIZON STORE (FORMER SPARKLE CLEANERS)
NEW CHINA HOUSE Sub-slab and/or Ambient Air Sample Location ABANDONED/DESTROYED WELL SUB-SLAB MONITORING PORT Drawn W.G.S. Designed (12) (C) (C) ٥-**₩** SSD-MP-6 # **2 2** ADDITIONAL WELLS MW10, MW12, AND MW13 LOCATED DECEMBER 27, 2007. SURVEY AMENDED TO SHOW NEW CERTIFICATION JUNE 1, 2005. LAND LINK SURVEYORS P.C. SURVEY MAP DATED NOVEMBER 4, 2003. FIGURE GENERATED FROM KLEINFELDER ENGINEERING FIGURE DATED JULY 15, 2011. 3. SURVEY AMENDED WELL LOCATION DECEMBER 19, 2007. ALL EQUIPMENT HAS BEEN REMOVED 88 • **00** SOURCE: 2. 4. 5. SSD-MP-2 89-0SS **(** 4 M_{−−}2 ONE STORY STUCCO STORE FRONT (BUILDING #2) SSD-6A \$₩ **(** \$₩ ₹ 8 SSD-5A SSD-MP-3 M:\Graphics\1100-Patterson-LHV\Misc\Urstadt Biddle Properties\Orangeburg\Englis\begin{align*} \text{Bindeburg\Englis\} \text{AVSHEA} \\ \text{M:MEC-application-LHV\Misc\Urstadt\} \text{Demplate B\, WSHEA} \\ \text{M:MEC-application-LHV\Misc\Urstadt\} \text{Demplate B\, WSHEA} \\ \text{M:MEC-application-LHV\Misc\Urstadt\} \text{Demplate B\, WSHEA} \\ \text{M:MEC-application-LHV\Misc\Urstadt\} \text{M:Misc\Urstadt\} \text{Demplate B\, WSHEA\} \\ \text{M:MEC-application-LHV\Misc\Urstadt\} \text{M:Misc\Urstadt\} \text{M:Misc\U Periodic Review Report 1-45 Orangetown Shopping Center Orangeburg, New York



Tables



Monitoring		Top of Casing	Depth to Water	GW Elevation	Photoionizing Detector Reading
Well	Date	(ft)	(ft)	(ft)	(ppm)
MW-3	3/22/2012	166.67	38.37	128.30	0.9
	6/28/2012	166.67	41.68	124.99	0.3
	8/13/2012	166.67	-	-	0
	8/31/2012	166.67	43.20	123.47	0
	10/1/2012	166.67	42.55	124.12	0
	11/19/2012	166.67	42.47	124.20	0
	1/14/2013	166.67	42.85	123.82	0
	2/28/2013	166.67	42.40	124.27	0
	3/26/2013	166.67	39.30	127.37	0
	4/23/2013	166.67	40.00	126.67	0
	6/25/2013	166.67	36.63	130.04	•
	12/11/2013	166.67	42.39	124.28	•
	1/15/2014	166.67	42.27	124.40	-
	3/5/2014	166.67	38.76	127.91	0
	4/10/2014	166.67	38.76	127.91	0
	5/19/2014	166.67	34.95	131.72	0
	6/18/2014	166.67	35.58	131.09	0
	7/24/2014	166.67	39.60	127.07	0
	10/10/2014	166.67	DRY	-	0
	3/27/2015	166.67	34.02	132.65	0
	5/11/2015	166.67	40.10	126.57	0
	8/17/2015	166.67	42.50	124.17	0
	11/11/2015	166.67	36.14	130.53	0
	3/7/2016	166.67	41.40	125.27	0
	6/23/2016	166.67	42.50	124.17	0
	9/7/2016	166.67	42.07	124.60	0
	11/18/2016	166.67	42.61	124.06	0
	3/3/2017	166.67	40.92	125.75	0
	6/22/2017	166.67	35.79	130.88	0.2
	12/5/2017	166.67	41.17	125.50	0
	3/26/2018	166.67	38.24	128.43	0
	9/19/2018	166.67	33.45	133.22	0
	12/19/2018	166.67	32.99	133.68	0
	3/12/2019	166.67	29.62	137.05	0
	5/13/2019	166.67	29.43	137.24	0
	3/10/2020	166.67	37.69	128.98	0
	4/30/2021	166.67	34.85	131.82	0
	4/18/2022	166.67	33.01	133.66	0
MW-4	3/21/2012	165.88	37.50	128.38	4.0
	6/28/2012	165.88	42.15	123.73	0.8
	8/13/2012	165.88	43.75	122.13	0
	8/31/2012	165.88	44.55	121.33	0
	10/1/2012	165.88	46.20	119.68	0
	11/19/2012	165.88	45.60	120.28	0
	1/14/2013	165.88	44.30	121.58	0
	2/28/2013	165.88	42.12	123.76	0



Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Photoionizing Detector Reading (ppm)
MW-4	3/26/2013	165.88	38.85	127.03	0
(cont.)	4/23/2013	165.88	39.65	126.23	20.0
	6/25/2013	165.88	35.85	130.03	-
	12/11/2013	165.88	46.05	119.83	-
	1/15/2014	165.88	45.41	120.47	-
	3/5/2014	165.88	43.31	122.57	0
	4/10/2014	165.88	38.21	127.67	0
	5/19/2014	165.88	34.18	131.70	0
	6/18/2014	165.88	34.52	131.36	0
	7/23/2014	165.88	37.45	128.43	0
	10/10/2014	165.88	44.53	121.35	0
	1/26/2015	165.88	42.90	122.98	0
	3/27/2015	165.88	38.82	127.06	0
	5/11/2015	165.88	37.76	128.12	0
	8/17/2015	165.88	44.30	121.58	0
	11/11/2015	165.88	45.58	120.30	0
	3/7/2016	165.88	41.30	124.58	0
	6/23/2016	165.88	43.81	122.07	0
	9/7/2016	165.88	46.77	119.11	0
	11/18/2016	165.88	46.44	119.44	0
	3/3/2017	165.88	40.48	125.40	0
	6/22/2017	165.88	35.16	130.72	0.1
	9/7/2017	165.88	43.74	122.14	0
	12/5/2017	165.88	45.80	120.08	0
	3/26/2018	165.88	37.40	128.48	0
	6/7/2018	165.88	36.15	129.73	0
	9/19/2018	165.88	39.00	126.88	0
	12/19/2018	165.88	32.42	133.46	0
	3/12/2019	165.88	28.47	137.41	0
	5/13/2019	165.88	28.21	137.67	0
	3/10/2020	165.88	36.87	129.01	0
	4/30/2021	165.88	34.01	131.87	0
	4/18/2022	165.88	31.60	134.28	0
MW-5	3/21/2012	166.70	39.70	127.00	22.6
	6/28/2012	166.70	40.31	126.39	0.6
	8/13/2012	166.70	40.27	126.43	0.7
	8/31/2012	166.70	40.30	126.40	0
	10/1/2012	166.70	40.40	126.30	1.0
	11/19/2012	166.70	40.42	126.28	0
	1/14/2013	166.70	40.25	126.45	0
	2/28/2013	166.70	40.35	126.35	1.7
	3/26/2013	166.70	39.85	126.85	6.9
	4/23/2013	166.70	40.27	126.43	0
	6/25/2013	166.70	37.11	129.59	-
	12/11/2013	166.70	40.65	126.05	-
	1/15/2014	166.70	37.22	129.48	_
	3/5/2014	166.70	40.11	126.59	0
	4/10/2014	166.70	39.41	127.29	0
	5/19/2014	166.70	34.98	131.72	0



Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Photoionizing Detector Reading (ppm)
MW-5	6/18/2014	166.70	35.42	131.28	0
(cont.)	7/23/2014	166.70	38.44	128.26	0
	10/10/2014	166.70	40.55	126.15	0
	1/26/2015	166.70	39.01	127.69	0
	3/27/2015	166.70	34.77	131.93	0
	5/11/2015	166.70	38.76	127.94	0
	8/17/2015	166.70	41.32	125.38	0
	11/11/2015	166.70	40.81	125.89	0
	3/7/2016	166.70	40.60	126.10	0
	6/23/2016	166.70	41.26	125.44	0
	9/7/2016	166.70	41.16	125.54	0
	11/18/2016	166.70	41.26	125.44	0
	3/3/2017	166.70	40.75	125.95	0
	6/22/2017	166.70	35.65	131.05	0
	9/7/2017	166.70	40.95	125.75	0
	12/5/2017	166.70	41.10	125.60	0
	3/26/2018	166.70	38.64	128.06	0
	6/7/2018	166.70	37.26	129.44	0
	9/19/2018	166.70	35.91	130.79	0
	12/19/2018	166.70	33.70	133.00	0
	3/12/2019	166.70	29.85	136.85	0
	5/13/2019	166.70	29.70	137.00	0
	3/10/2020	166.70	38.08	128.62	0
	4/30/2021	166.70	35.15	131.55	0
	4/18/2022	166.70	32.93	133.77	0
MW-6	3/22/2012	166.14	36.85	129.29	0
	6/28/2012	166.14	41.41	124.73	0
	8/13/2012	166.14	41.11	125.03	0
	11/19/2012	166.14	47.15	118.99	0
	3/26/2013	166.14	39.65	126.49	0
	6/25/2013	166.14	36.61	129.53	-
	12/11/2013	166.14	49.83	116.31	-
	3/5/2014	166.14	41.53	124.61	0
	5/19/2014	166.14	34.71	131.43	0
	7/23/2014	166.14	36.50	129.64	0
	3/27/2015	166.14	39.22	126.92	0
MW-7	3/21/2012	171.49	39.30	132.19	0
	6/29/2012	171.49	42.18	129.31	0
	8/13/2012	171.49	46.97	124.52	0
	11/19/2012	171.49	47.80	123.69	0
	3/26/2013	171.49	44.98	126.51	0
	4/23/2013	171.49	42.73	128.76	-
	6/25/2013	171.49	38.30	133.19	-
	12/11/2013	171.49	47.27	124.22	-
	3/5/2014	171.49	46.16	125.33	0
	5/19/2014	171.49	37.32	134.17	0
	7/23/2014	171.49	39.74	131.75	0
	3/27/2015	171.49	44.72	126.77	0



Monitoring		Top of Casing	Depth to Water	GW Elevation	Photoionizing Detector Reading
Well	Date	(ft)	(ft)	(ft)	(ppm)
MW-8A	3/21/2012	166.15	41.90	124.25	38.0
	6/28/2012	166.15	42.00	124.15	43.5
	8/13/2012	166.15	DRY	-	34.6
	8/31/2012	166.15	41.80	124.35	24.0
	10/1/2012	166.15	42.10	124.05	12.2
	11/19/2012	166.15	42.40	123.75	39.4
	1/14/2013	166.15	42.95	123.13	0
	2/28/2013	166.15	42.60	123.55	37.6
	3/26/2013	166.15	-	-	0.1
	4/23/2013	166.15	42.05	124.10	35.5
	6/25/2013	166.15	39.95	126.20	-
	12/11/2013	166.15	41.80	124.35	-
	1/15/2014	166.15	42.68	123.47	-
	3/5/2014	166.15	42.63	123.52	0
	4/10/2014	166.15	39.67	126.48	0
	5/19/2014	166.15	42.83	123.32	0
	6/18/2014	166.15	37.12	129.03	0
	7/23/2014	166.15	42.05	124.10	0
	10/10/2014	166.15	DRY	-	0
	3/27/2015	166.15	40.31	125.84	0
	5/11/2015	166.15	42.08	124.07	0
	8/17/2015	166.15	42.30	123.85	0
	11/11/2015	166.15	41.82	124.33	0
	3/7/2016	166.15	41.80	124.35	0
	6/23/2016	166.15	41.91	124.24	0
	9/7/2016	166.15	41.90	124.25	0
	11/18/2016	166.15	41.80	124.35	0
	3/3/2017	166.15	41.72	124.43	0
	6/22/2017	166.15	36.69	129.46	0
	12/5/2017	166.15	41.45	124.70	0
	3/26/2018	166.15	38.91	127.24	0
	9/19/2018	166.15	40.40	125.75	0
	12/19/2018	166.15	33.94	132.21	0
	3/12/2019	166.15	30.30	135.85	0
	5/13/2019	166.15	29.64	136.51	0
	3/10/2020	166.15	38.31	127.84	0
	4/30/2021	166.15	35.56	130.59	0
	4/18/2022	166.15	33.49	132.66	0
MW-8B	3/21/2012	166.08	39.13	126.95	14.6
,_	6/28/2012	166.08	42.55	123.53	5.1
	8/13/2012	166.08	45.30	120.78	0.7
	8/31/2012	166.08	46.40	119.68	0
	10/1/2012	166.08	49.40	116.68	0.1
	11/19/2012	166.08	48.45	117.63	0
	1/14/2013	166.08	47.07	119.01	0
	2/28/2013	166.08	44.00	122.08	0
	3/26/2013	166.08	40.32	125.76	4.6
	4/23/2013	166.08	40.08	126.00	30.2
	6/25/2013	166.08	37.20	128.88	

Table 1 GROUNDWATER GAUGING



Orangetown Shopping Center NYSDEC Site # C344066

		Top of	Depth to	GW	Photoionizing
Monitoring		Casing	Water	Elevation	Detector Reading
Well	Date	(ft)	(ft)	(ft)	(ppm)
MW-8B	12/11/2013	166.08	49.63	116.45	-
(cont.)	1/15/2014	166.08	49.63	116.45	-
	3/5/2014	166.08	45.07	121.01	0
	4/10/2014	166.08	39.69	126.39	0
	5/19/2014	166.08	35.55	130.53	0
	6/18/2014	166.08	36.05	130.03	0
	7/23/2014	166.08	38.95	127.13	0
	10/10/2014	166.08	47.21	118.87	0
	3/27/2015	166.08	40.21	125.87	0
	5/11/2015	166.08	39.15	126.93	0
	8/17/2015	166.08	45.32	120.76	0
	11/11/2015	166.08	41.56	124.52	0
	3/7/2016	166.08	42.85	123.23	0
	6/23/2016	166.08	45.85	120.23	0
	9/7/2016	166.08	DRY	-	0
	11/18/2016	166.08	DRY	-	0
	3/3/2017	166.08	42.11	123.97	0
	6/22/2017	166.08	36.56	129.52	0
MW-10	3/21/2012	137.86	9.37	128.49	0
	6/29/2012	137.86	12.58	125.28	0
	8/13/2012	137.86		122.48	0
	11/19/2012	137.86	18.00	119.86	0
	3/26/2013	137.86	9.90	127.96	0
	6/25/2013	137.86	8.05	129.81	-
	12/11/2013	137.86	19.71	118.15	-
	3/5/2014	137.86	9.33	128.53	0
	4/10/2014	137.86	9.33	128.53	0
	5/19/2014	137.86	5.75	132.11	0
	7/23/2014	137.86	9.87	127.99	0
	10/10/2014	137.86	18.12	119.74	0
	3/27/2015	137.86	9.55	128.31	0
	5/11/2015	137.86	9.92	127.94	0
	8/17/2015	137.86	15.80	122.06	0
	11/11/2015	137.86	21.47	116.39	0
	3/7/2016	137.86	12.46	125.40	0
	6/23/2016	137.86	16.04	121.82	0
	9/7/2016	137.86	20.19	117.67	0
	11/18/2016	137.86	23.55 11.55	114.31 126.31	0
	3/3/2017 6/22/2017	137.86 137.86		129.39	0
N4\A4 E			8.47	128.38	U
MW-E	12/5/2017	165.03	-	-	-
	3/26/2018	165.03	-	-	-
	9/19/2018	165.03	32.37	132.66	0
	12/19/2018	165.03	31.61	133.42	0
	3/12/2019	165.03	28.04	136.99	0
	5/13/2019	165.03	28.02	137.01	0
	3/10/2020	165.03	32.70	132.33	0

Table 1 GROUNDWATER GAUGING



Orangetown Shopping Center NYSDEC Site # C344066

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Photoionizing Detector Reading (ppm)
MW-E	4/30/2021	165.03	32.65	132.38	0
(cont.)	4/18/2022	165.03	31.57	133.46	0
MW-14A	12/5/2017	166.49	33.68	132.81	0
	3/26/2018	166.49	34.61	131.88	0
	9/19/2018	166.49	41.25	125.24	0
	12/19/2018	166.49	32.93	133.56	0
	3/12/2019	166.49	-	-	0
	5/13/2019	167.49	27.64	139.85	0
	3/10/2020	167.49	37.91	129.58	0
	4/30/2021	167.49	36.27	131.22	0
	4/18/2022	167.49	33.50	133.99	0

Notes:

DRY = No water in well to gauge = Not available or measured

ft = feet

ppm = parts per million GW = groundwater NSD = No Survey Data

Table 2 CONSTITUENTS OF CONCERN



Orangetown Shopping Center NYSDEC Site # C344066

				cis-1,2-	trans-1,2-			
		Tetrachloro-	Trichloro-	Dichloro-	Dichloro-	1,1-Dichloro-	Vinyl	
Monitoring		ethene	ethene	ethene	ethene	ethene	Chloride	Ethene
Well	Date	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
NY TOGS 1.	1.1 GWQS	5	5	5	5	5	2	NA
MW-4	3/21/2012	ND<0.500	5.28	276	0.680 J	ND<0.500	1.59	ND<2.50
	6/28/2012	ND<0.500	7.71	495	4.29	ND<0.500	21.9	NA
	8/13/2012	ND<1.00	4.51	197	1.16	ND<1.00	8.66	ND<5
	8/31/2012	NS	NS	NS	NS	NS	NS	NS
	10/1/2012	NS	NS	NS	NS	NS	NS	NS
	11/19/2012	ND<1.00	3.48	200	ND<1.00	ND<1.00	13.1	ND<5
	1/14/2013	NS	NS	NS	NS	NS	NS	NS
	2/28/2013	NS	NS	NS	NS	NS	NS	NS
	3/26/2013	ND<0.250	1.20	39.8	0.634 J	ND<0.250	57.7	8.3
	4/23/2013	NS	NS	NS	NS	NS	NS	NS
	6/25/2013	ND<0.250	ND<0.200	3.88	0.288 J	ND<0.250	2.84	6.09
	12/11/2013	NS	NS	NS	NS	NS	NS	NS
	1/15/2014	NS	NS	NS	NS	NS	NS	NS
	3/5/2014	ND<1.00	ND<1.00	4.25	0.336 J	ND<1.00	5.03	ND<5.00
	4/10/2014	NS	NS	NS	NS	NS	NS	NS
	5/19/2014	ND<1.0	3.4	104	ND<1.0	ND<1.0	35.1	0.43
	7/24/2014	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.2	ND<0.31
	10/10/2014	ND<1.0	ND<1.0	2.3	ND<1.0	ND<1.0	1.8	ND<0.31
	3/27/2015	ND<1.0	ND<1.0	3.4	ND<1.0	ND<1.0	5.8	ND<0.31
	5/11/2015	ND<1.0	ND<1.0	2.1	ND<1.0	ND<1.0	1.7	ND<0.31
	8/17/2015	ND<1.0	ND<1.0	1	ND<1.0	ND<1.0	1.8	ND<0.31
	11/11/2015	ND<1.0	ND<1.0	4	ND<1.0	ND<1.0	ND<1.0	ND<0.31
	3/7/2016	ND<1.0	ND<1.0	13.6	ND<1.0	ND<1.0	2.1	ND<0.31
	6/23/2016	ND<1.0	ND<1.0	12.9	ND<1.0	ND<1.0	3.3	0.97
	9/7/2016	NS	NS	NS	NS	NS	NS	NS
	11/18/2016	ND<1.0	1.3	3.6	ND<1.0	ND<1.0	ND<1.0	NA
	3/3/2017	ND<1.0	ND<1.0	14.6	ND<1.0	ND<1.0	ND<1.0	ND<0.31
	6/22/2017	ND<1.0	1.9	20.6	ND<1.0	ND<1.0	1.0	0.21
	9/7/2017	ND<1.0	ND<1.0	19.1	ND<1.0	ND<1.0	2.4	0.40
	12/5/2017	NA	NA	NA	NA	NA	NA	NA
	3/26/2018	ND(<1.0)	ND(<1.0)	3.5	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<0.31)
	6/7/2018	ND(<1.0)	1.1	8.1	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<0.31)
	9/19/2018	ND(<1.0)	ND(<1.0)	21.8	ND(<1.0)	ND(<1.0)	4.1	0.64
	12/21/2018	ND(<1.0)	ND(<1.0)	2.9	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<0.31)
	3/12/2019	ND(<1.0)	ND(<1.0)	1.7	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<0.31)
	5/13/2019	ND(<1.0)	ND(<1.0)	2.6	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<0.31)
	3/10/2020	ND(<1.0)	ND(<1.0)	21.5	ND(<1.0)	ND(<1.0)	2.9	ND(<0.31)
	4/30/2021	ND(<1.0)	ND(<1.0)		ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<0.31)
	4/18/2022		ND(<1.0)	9.2	ND(<1.0)	ND(<1.0)	ND(<1.0)	ND(<0.31)
MW-5	3/21/2012		3.86	12,500	195	1.42	1,490	92.9
	6/28/2012	ND<0.500	7.93	9,000	55.7	1.32	1,100	NA
	8/13/2012	ND<1.00	28.4	7,410	145	1.02	928	76.6
	8/31/2012	NS	NS	NS	NS	NS	NS	NS
	10/1/2012	NS	NS	NS	NS	NS	NS	NS
	11/19/2012	ND<1.00	17.8	1,630	73.6	ND<1.00	489	192
	1/14/2013	NS	NS	NS	NS	NS	NS	NS
	2/28/2013	NS	NS	NS	NS	NS	NS	NS
	3/26/2013	2.17	8.19	389	3.40	1.29	30.9	7.12
	4/23/2013	NS	NS	NS	NS	NS	NS	NS

Table 2 CONSTITUENTS OF CONCERN



Orangetown Shopping Center NYSDEC Site # C344066

		Tetrachloro-	Trichloro-	cis-1,2- Dichloro-	trans-1,2- Dichloro-	1,1-Dichloro-	Vinyl	
Monitoring Well	Date	ethene (ug/l)	ethene (ug/l)	ethene (ug/l)	ethene (ug/l)	ethene (ug/l)	Chloride (ug/l)	Ethene (ug/l)
NY TOGS 1.		5	5	5	5	5	2	NA
MW-5	6/25/2013	ND<2.50	16.6	972	17.0	ND<2.50	60.0	5.41
(cont.)	12/11/2013	3.15 J	17.7	1,290	48.0	ND<10.0	302	NA
(00111.)	1/15/2014	NS	NS	NS	NS	NS	NS	NS
	3/5/2014	3.49 J	3.45 J	142	3.15 J	ND<10.0	19.0	6.37
	4/10/2014	NS	NS	NS	NS	NS	NS	NS
	5/19/2014	2.4	9.2	598	3.8	ND<1.0	33.0	0.79
	7/24/2014	ND<5.0	8.7	575	ND<5.0	ND<5.0	39.6	3.00
	10/10/2014	ND<10	ND<10	1,690	ND<10	ND<10	108	1.3
	3/27/2015	2.8	4.8	247	1.4	ND<1.0	13	0.22
	5/11/2015	2.9	7.0	458	3.7	ND<1.0	40.9	ND<0.31
	8/17/2015	ND<5.0	9.6	783	ND<5.0	ND<5.0	41.3	0.32
	11/11/2015	ND<5.0	19.8	1,390	7.7	ND<5.0	45.7	ND<0.31
	3/7/2016	1.9	20.9	2,140	8.6	ND<1.0	62.7	ND<0.31
	6/23/2016	ND<10	25.5	1,910	13.7	ND<10	39.7	6
	9/7/2016	ND<10	26.6	1,200	14.6	ND<10	16.9	2.3
	11/18/2016	ND<5.0	27.9	1,600	6.4	ND<5.0	51.6	ND<0.31
	3/3/2017	1.2	13.4	666	4.3	ND<1.0	20.4	0.41
	6/22/2017	ND<1.0	9.3	504	5.2	ND<1.0	39.7	6.2
	9/7/2017	1.2	12.8	597	7.8	ND<1.0	37.0	7.0
	12/5/2017	ND < 5.0	11.1	608	ND < 5.0	ND < 5.0	23.4	2.2
	3/26/2018	ND(<5.0)	21.3	1,640	7.2	ND(<5.0)	81.5	3.5
	6/7/2018	ND(<5.0)	9.8	758	6.0	ND(<5.0)	136	47.6
	9/19/2018	ND(<2.0)	17.0	893	8.6	ND(<2.0)	38.1	6.5
	12/21/2018	1.6	23.5	766	4.0	ND(<1.0)	176	4.1
	3/12/2019	ND(<1.0)	2.2	26	1.8	ND(<1.0)	17.8	17.1
	5/13/2019	ND(<1.0)	4.0	156	4.5	ND(<1.0)	224	3.7
	3/10/2020	ND(<1.0)	8.2	115	3.7	ND(<1.0)	33.7	7.1
	4/30/2021 4/18/2022	ND(<1.0) ND(<1.0)	5.3 3.8	80.1 191	2.4 3.9	ND(<1.0) ND(<1.0)	4.0 22.9	0.92 8.55
MW-8A	3/21/2012	NS NS	NS	NS	NS	NS NS	NS	NS
IVIVV-OA	6/28/2012	1.20	46.2	786	8.66	ND<0.500	29.4	NA NA
	8/13/2012	NS	NS	NS	NS	NS	NS	NS
	8/31/2012	NS	NS	NS	NS	NS	NS	NS
	10/1/2012	NS	NS	NS	NS	NS	NS	NS
	11/19/2012	NS	NS	NS	NS	NS	NS	NS
	1/14/2013	NS	NS	NS	NS	NS	NS	NS
	2/28/2013	NS	NS	NS	NS	NS	NS	NS
	3/26/2013	NS	NS	NS	NS	NS	NS	NS
	4/23/2013	NS	NS	NS	NS	NS	NS	NS
	6/25/2013	ND<0.250	14.8	358	4.17	ND<0.250	59.3	NA
	12/11/2013	ND<1.00	ND<1.00	7.70	0.300 J	ND<1.00	0.665 J	NA
	1/15/2014	NS	NS	NS	NS	NS	NS	NS
	3/5/2014	NS	NS	NS	NS	NS	NS	NS
	4/10/2014	NS	NS	NS	NS	NS	NS	NS
	5/19/2014	NS	NS	NS	NS	NS	NS	NS
	7/24/2014	NS	NS	NS	NS	NS	NS	NS
	10/10/2014	NS	NS	NS	NS	NS	NS	NS
	3/27/2015	ND<1.0	3.4	17.4	ND<1.0	ND<1.0	ND<1.0	NS

Table 2 CONSTITUENTS OF CONCERN



Orangetown Shopping Center NYSDEC Site # C344066

Monitoring Well	Date	Tetrachloro- ethene (ug/l)	Trichloro- ethene (ug/l)	cis-1,2- Dichloro- ethene (ug/l)	trans-1,2- Dichloro- ethene (ug/l)	1,1-Dichloro- ethene (ug/l)	Vinyl Chloride (ug/l)	Ethene (ug/l)
NY TOGS 1.	1.1 GWQS	5	5	5	5	5	2	NA
MW-8A (cont.)	3/27/2015 8/17/2015 11/11/2015 3/7/2016	NS NS ND<1.0 ND<1.0	NS NS ND<1.0 ND<1.0	NS NS 2.4 3.2	NS NS ND<1.0 ND<1.0	NS NS ND<1.0 ND<1.0	NS NS ND<1.0 3.2	NS NS NA NA
	9/7/2016 11/18/2016 3/3/2017 6/22/2017 3/26/2018	ND<1.0 ND<1.0 ND<1.0 ND<1.0 ND(<1.0)	1.3 1.3 1.3 7.4 1.9	2.1 2.8 ND<1.0 26.9 1.9	ND<1.0 ND<1.0 ND<1.0 ND<1.0 ND(<1.0)	ND<1.0 ND<1.0 ND<1.0 ND<1.0 ND(<1.0)	2.2 4.4 4 1.6 ND(<1.0)	NA NA NA ND<0.31 ND(<0.31)
	3/12/2019 5/13/2019 3/10/2020 4/30/2021 4/18/2022	ND(<1.0) NA ND(<1.0) ND(<1.0) ND(<1.0)	9.2 NA 5.5 5.7 1.5	9.8 NA 2.7 5.6 ND(<1.0)	ND(<1.0) NA 1.1 ND(<1.0) ND(<1.0)	ND(<1.0) NA ND(<1.0) ND(<1.0) ND(<1.0)	ND(<1.0) NA ND(<1.0) ND(<1.0) ND(<1.0)	NA ND(<0.31) ND(<0.31) ND(<0.31) ND(<0.31)
MW-E	6/28/2012 8/13/2012 8/31/2012 10/1/2012 11/19/2012 1/14/2013 2/28/2013	NS ND<1.00 U NS NS NS NS NS NS ND<0.250 U NS	NS ND<1.00 U NS NS NS NS NS 0.275 J NS 0.780 J 0.371 J ND(<1.0) ND(<1.0) ND(<1.0) ND(<1.0)	NS 7.63 NS NS NS NS NS 2.36 NS 20.9 2.94 4.5 1.9 11.1 ND(<1.0) 3.8	NS ND<1.00 U NS NS NS NS NS ND<0.230 U NS 0.760 J 0.256 J ND(<1.0) ND(<1.0) ND(<1.0) ND(<1.0)	NS ND<1.00 U NS NS NS NS NS ND<0.250 U NS ND<0.250 U ND<1.00 U ND<1.00 U ND(<1.0) ND(<1.0) ND(<1.0) ND(<1.0)	NS 6.75 NS NS NS NS NS 1.51 NS 8.86 1.48 ND(<1.0) ND(<1.0) 2.6 ND<(1.0)	NS ND<5 U NS NS NS NS NS ND<2.5 U NS ND<2.5 U NA ND(<0.31) ND(<0.31) ND(<0.31) ND(<0.31) ND(<0.31)

Notes:

µg/L = Micrograms/liter

BDL = Below Detection Limit

DRY = No water for sampling

GWQS = Groundwater Quality Standards

NA = Not Available or not analyzed for that specific compound

ND = Not detected (# is method detection limit)

J = Estimated Value
NS = Not sampled
NY = New York

TOGS = Technical and Operational Guidance Series 1.1.1

Table 3 GENERAL GROUNDWATER CHEMISTRY



Orangetown Shopping Center NYSDEC Site # C344066

Monitoring Well	Date	рН	Temperature (°C)	Specific Conductivity (uS/cm or umhos/cm)	Dissolved Oxygen (mg/L)	Oxygen Reduction Potential (mV)	Turbidity (NTUs)
MW-4	03/21/2012	7.31	15.25	1,400	1.09	147.0	6.2
	06/28/2012	6.69	19.46	764	3.61	47.9	28.1
	08/13/2012	6.59	17.75	1,621	6.21	9.1	152.1
	08/31/2012	6.07	17.45	1,450	1.08	-21.4	NA
	11/19/2012	6.32	11.63	1,126	1.59	70.6	85.28
	01/14/2013	6.36	14.62	1,486	1.75	-56.9	NA
	02/28/2013	6.51	13.92	2,014	1.45	-35.1	NA
	03/26/2013	5.90	14.32	2,212	2.16	-49.0	64.7
	04/23/2013	6.54	13.31	1,685	2.02	-24.1	NA
	06/25/2013	6.51	18.03	1,982	0.82	-70.1	55.5
	08/09/2013	6.18	17.27	1,872	1.43	-39.3	NA
	09/19/2013	6.22	14.79	2,101	0.55	-72.5	143.3
	01/15/2014	6.11	14.74	10,411	0.91	-26.4	NA
	03/05/2014	6.01	12.86	3,755	1.70	-52.2	22.4
	05/19/2014	6.28	18.76	1,300	13.01	-54.8	21.8
	06/18/2014	7.23	17.09	2,770	1.73	-29.6	NA
	07/24/2014	6.32	14.92	2,284	0.89	-155.1	9.47
	10/10/2014	6.64	19.02	2,345	1.50	-34.8	20.30
	01/26/2015	6.49	12.42	5,329	2.80	-118.7	NA
	03/27/2015	6.78	12.84	2,480	0.82	-213.0	NA
	05/11/2015	6.60	17.24	2,328	2.78	-142.2	NA
	08/17/2015	6.51	15.91	4,455	0.52	-121.9	NA
	11/11/2015	6.48	14.20	2,059	1.40	-71.1	NA
	03/07/2016	6.78	14.73	1,882	1.07	-13.5	NA
	06/23/2016	6.18	18.79	1,936	0.35	-38.5	NA
	09/07/2016	NA	NA	NA	NA	NA	NA
	11/18/2016	NA	NA	NA	NA	NA	NA
	03/03/2017	6.66	10.53	1,639	1.58	-70.2	NA
	06/22/2017	6.52	19.31	1,714	0.68	79.9	NA
	09/07/2017	6.46	16.09	1,743	0.62	71.2	NA
	12/05/2017	6.39	14.36	2,056	5.75	-48.5	NA
	03/26/2018	6.60	10.12	1,650	1.39	-69.9	NA
	06/07/2018	6.57	15.80	1,720	4.90	179.9	NA
	09/19/2018	6.50	18.42	1,890	1.72	130.7	153.6
	12/21/2018	5.87	14.19	105	10.25	212.1	0.0
	03/12/2019	6.44	11.13	2,606	2.45	242.0	295.3
	05/13/2019	6.69	14.30	8,784	2.90	240.0	101.6
	03/10/2020	6.36	15.28	1,717	2.08	495.8	341.6
	04/30/2021	6.48	15.35	2,382	2.34	45.1	98.3
	04/18/2022	6.39	15.28	2,645	4.03	124.3	156.2
MW-5	03/21/2012	7.37	16.16	3,900	3.06	-30.0	0.0
	06/28/2012	6.88	22.10	1,399	1.74	28.6	29.6
	08/13/2012	6.43	19.91	2,188	1.54	-17.6	88.0

Table 3 GENERAL GROUNDWATER CHEMISTRY



Orangetown Shopping Center NYSDEC Site # C344066

				Specific		Oxygen	
				Conductivity	Dissolved	Reduction	
Monitoring			Temperature	(uS/cm or	Oxygen	Potential	Turbidity
Well	Date	рН	(°C)	umhos/cm)	(mg/L)	(mV)	(NTUs)
MW-5	08/31/2012	6.25	20.12	1,580	2.22	-22.5	NA
(cont.)	10/01/2012	6.19	17.02	2,433	1.36	3.8	NA
	11/19/2012	6.60	14.24	13,900	1.27	70.4	1025
	01/14/2013	6.38	15.36	8,535	0.95	-103.6	NA
	02/28/2013	6.67	14.21	5,230	2.06	-63.4	NA
	03/26/2013	6.91	13.16	6,468	1.02	-27.6	171.6
	04/23/2013	6.85	14.40	6,231	1.56	-71.2	NA
	06/25/2013	6.82	20.21	8,587	0.82	-87.2	77.7
	08/09/2013	6.75	17.51	7,434	1.88	-71.7	NA
	09/19/2013	6.56	16.06	7,413	0.94	-118.8	87.9
	10/14/2013	6.51	15.93	3,671	3.55	-66.8	104.3
	12/11/2013	6.59	11.53	8,003	5.48	-135.6	52.0
	01/15/2014	6.63	12.97	19,214	1.45	-123.4	NA
	03/05/2014	6.61	11.20	14,120	0.21	-73.3	203.7
	04/10/2014	6.54	15.05	10,980	1.59	-65.5	NA
	05/19/2014	6.76	16.82	10,036	0.96	-41.4	43.0
	06/18/2014	7.94	17.14	14,984	1.00	-90.4	NA
	07/24/2014	6.72	15.85	1,271	0.51	-113.5	35.3
	10/10/2014	6.82	17.40	1,477	0.50	-66.9	147.6
	01/26/2015	6.59	9.46	17,539	1.30	-133.8	NA
	03/27/2015	7.17	12.35	15,077	0.51	-211.1	NA
	05/11/2015	6.67	24.60	16,764	0.41	-156.9	NA
	08/17/2015	6.56	16.29	9,737	0.21	-118.1	NA
	11/11/2015	6.57	13.80	9,937	1.57	-101.0	NA
	03/07/2016	7.92	14.53	2,299	1.34	-70.5	NA
	06/23/2016	6.35	17.55	11,200	0.70	-62.1	NA
	09/07/2016	5.87	17.18	11,010	0.81	-78.9	NA
	11/18/2016 03/03/2017	6.62 6.39	15.34 10.48	6,687 6,571	0.20 0.87	-11.5 -63.8	NA NA
	06/22/2017	6.66	18.33	10,841	0.04	-03.6 -110.6	NA NA
	09/07/2017	6.43	17.19	10,641	0.04	-110.6 -75.7	NA NA
	12/05/2017	6.36	14.53	6,257	4.28	-73.7 -83.8	NA NA
	03/26/2018	6.41	10.60	5,702	1.19	-63.6 -61.1	NA NA
	06/07/2018	6.54	15.78	8.579	4.28	-22.6	NA NA
	9/19/2018	6.62	17.55	7,643	1.82	-61.2	142.5
	12/21/2018	6.69	11.49	4,205	1.64	8.2	9.8
	3/12/2019	6.38	12.47	2,796	1.58	-59.2	100.8
	5/13/2019	6.31	14.09	2,764	1.51	-58.4	43.6
	3/10/2020	6.57	15.45	11,580	1.86	18.9	49.7
	4/30/2021	6.34	16.35	13,380	1.96	-57.9	55.7
	4/18/2022	5.87	15.63	12,900	4.57	-90.5	158.4
MW-8A	03/26/2018	6.41	10.56	2,980	1.10	-69.6	NA
	03/12/2019	6.75	12.96	2,512	4.91	9.2	120.6
	05/13/2019	6.65	14.41	2,896	3.89	56.1	34.6
	03/10/2020	6.55	15.27	1,501	2.55	279.8	161.7
	04/30/2021	6.63	16.30	2,245	2.46	-10.6	29.7
	04/18/2022	6.60	15.31	2,102	4.50	-31.8	128.0

Table 3 GENERAL GROUNDWATER CHEMISTRY



Orangetown Shopping Center NYSDEC Site # C344066

Monitoring Well	Date	рН	Temperature (°C)	Specific Conductivity (uS/cm or umhos/cm)	Dissolved Oxygen (mg/L)	Oxygen Reduction Potential (mV)	Turbidity (NTUs)
MW-E	03/26/2018	NA	NA	NA	NA	NA	NA
	03/12/2019	6.37	12.50	8,923	1.56	168.7	331.4
	03/10/2020	6.15	15.30	292	2.10	382.4	927
	04/30/2021	6.64	15.63	2,111	1.83	-4.1	301.2
	04/18/2022	6.30	15.04	2,932	3.42	39.7	100.9

Notes:

mg/L = Milligrams per Liter

uS/cm = Micro-Siemens per centimeter

umhos/cm = Micro-mhos/centimeter

mV = Millivolts

Spec.Cond. = Specific conductance

°C = Degrees Celsius

pH = Potential of Hydrogen

NA = Not Available or Measured

NTUs = Nephelometric Turbidity Units

Table 4 GENERAL CHEMISTRY ANALYTICAL RESULTS



Orangetown Shopping Center NYSDEC Site # C344066

							Total	
			Iron,		Nitrate		Organic	
Monitoring		Iron, Ferric	Ferrous ^{HF}	Iron, Total	Nitrogen	Sulfate	Carbon	
Well	Date	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	Ethene (mg/l)
NY TOGS 1.		NA	NA	NA	NA	NA	NA	NA
MW-4	3/21/2012	0.0560	ND<50.0 J	0.0560	0.993	24.9	1.16	ND<0.00250
	6/28/2012	NA	NA	NA	NA	NA	4.13 B	NA
	8/13/2012	NA	7.01	6.97	NA	28.9	NA	ND<0.005
	8/31/2012	NA	NA	NA	NA	NA	5.87	NA
	10/1/2012	NS	NS	NS	NS	NS	NS	NS
	11/19/2012	NA	NA	NA	NA	NA	NA	ND<0.005
	1/14/2013	NA	NA	NA	NA	NA	10.9	NA
	2/28/2013	NA	NA	NA	NA	NA	3.8	NA
	3/26/2013	0.300	10.6	10.9	NA	12.2	399 B	0.0083
	4/23/2013	NA 4.70	NA	NA	NA	NA	149	NA
	6/25/2013	1.70	12.1	13.8	NA	ND<0.6	103	0.00609
	12/11/2013	NS	NS	NS	NS	NS	NS	NS
	1/15/2014	NA ND 10 100	NA	NA 4 00 D	NA	NA	101	NA ND 10 00500
	3/5/2014		NA	4.03 B	NA	27.4	5.31	ND<0.00500
	4/10/2014	NA	NA ND 10 00	NA	NA ND 10 11	NA 10.0	18.1	NA 0.00040
	5/19/2014	4.1	ND<0.20	4.23	ND<0.11	10.6	23.7	0.00043
	6/18/2014	NA	NA 2.44	NA 5.04	NA ND 40 40	NA ND<10	287	NA ND <0.00034
	7/24/2014	3.4	2.41	5.81	ND<0.10	ND<10 ND<10	49.5	ND<0.00031
	10/10/2014	NA	NA	NA	ND<0.10	ND<10 NA	67.4	ND<0.00031
	1/26/2015 3/27/2015	NA 3.3	NA 0.50	NA 3.83	NA ND<0.10	NA ND<10	14.9 13.3	NA ND<0.00031
		3.4	0.50 ND<0.20	3.60	0.23	20.9	12.0	ND<0.00031 ND<0.00031
	5/11/2015							
	8/17/2015	NA	1.8	NA	ND<0.11	12	10.9	ND<0.00031
	11/11/2015	NA 2.2	NA ND <0.20	NA	NA ND 40 44	NA	NA 5.0	ND<0.00031
	3/7/2016	2.2	ND<0.20	2.2	ND<0.11	32.6	5.0	ND<0.00031
	6/23/2016	15.9	1.1	17 NO	ND<0.11	33.4	5.4	0.00097
	9/7/2016	NS	NS NS	NS	NS NC	NS	NS	NS NS
	11/18/2016 3/3/2017	NS 2.4	ND<0.20	NS 2.4	NS 0.13	NS 43.7	NS 3.1	ND<0.00031
	6/22/2017	4.6	ND<0.20 ND<0.20	4.620	0.13	43.7 29.5	2.4	0.21
	9/7/2017	4.6 NA	ND<0.20	4.620 NA	NA	29.5 NA	3.5	0.40
	12/5/2017	NA NA	NA NA	NA NA	NA NA	NA NA	NA	NA
	3/26/2018	6.7	ND(<0.20)	6.710	ND(<0.010)	32.1	3.6	ND(<0.00031)
	6/7/2018		NA NA	NA	NA NA	NA	3.0	ND(<0.00031)
	9/19/2018		NA NA	NA NA	NA NA	NA NA	3.3	0.64
	12/21/2018		NA NA	NA NA	NA NA	NA NA	3.3 ND(<1.0)	ND(<0.00031)
	3/12/2019		ND(<0.20)	8.370	2.1	32.8	2.0	ND(<0.00031)
	5/13/2019	2.1	ND(<0.20) ND(<0.20)	2.080	0.78	6.7	1.5	ND(<0.00031)
	3/10/2020	6.1	ND(<0.20)	6.070	ND(<0.11)	21.6	4.9	ND(<0.00031)
	4/30/2021	6.9	ND(<0.20)	7.020	1.1	30.8	3.1	ND(<0.00031)
	4/18/2022	0.88	ND(<0.20)	0.882	1.0	29.4	5.8	ND(<0.00031)
MW-5	3/21/2012	2.27	0.253 J	2.52	ND<0.0500	7.65	3.92	0.0929
IVIVV-J	6/28/2012		0.255 J NA	NA	NA NA	7.65 NA	3.5 B	0.0929 NA
	8/13/2012	NA NA	3.37	4.1	NA NA	10.1	NA	0.0766
	8/31/2012	NA	NA	NA	NA	NA	39.5	0.0700 NA
	10/1/2012		NA	NA	NA NA	NA	66.1	NA NA
	11/19/2012		6.74	7.17	NA NA	26.5	377	0.192

Table 4 GENERAL CHEMISTRY ANALYTICAL RESULTS



Orangetown Shopping Center NYSDEC Site # C344066

			Iron,		Nitrate		Total Organic	
Monitoring		Iron, Ferric	Ferrous ^{HF}	Iron, Total	Nitrogen	Sulfate	Carbon	
Well	Date	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	Ethene (mg/l)
NY TOGS 1.	1.1 GWQS	NA	NA	NA	NA	NA	NA	NA
MW-5	1/14/2013	NA	NA	NA	NA	NA	105	NA
(cont.)	2/28/2013	NA	NA	NA	NA	NA	86.6	NA
	3/26/2013	4.10	12.5	16.6	NA	15.9	104 B	0.00712
	4/23/2013	NA	NA	NA	NA	NA	129 B	NA
	6/25/2013	0.900	9.03	8.13	NA	1.47	165	0.00541
	12/11/2013	ND<0.100	NA	3.75	NA	12.8	213	NA
	1/15/2014	NA	NA	NA	NA	NA	480	NA
	3/5/2014	5.80	NA	16.5 B	NA	1.69	NA	0.00637
	4/10/2014	NA	NA	NA	NA	NA	121	NA
	5/19/2014	13.6	4.4	18	ND<0.15	14.0	319	0.00079
	6/18/2014	NA	NA	NA	NA	NA	293	NA
	7/24/2014	13.7	2	15.70	ND<0.10	ND<10	184	ND<0.00030
	10/10/2014	NA	NA	NA	ND<0.10	12.0	NA	0.0013
	10/30/2014	NA	NA	NA	NA	NA	140	0.0013
	1/26/2015	NA	NA	NA	NA	NA	295	NA
	3/27/2015	31.0	1.9	32.9	ND<0.10	94.6	250	0.00022
	5/11/2015	NS	5.8	NS	ND<0.11	ND<200	251	ND<0.00031
	8/17/2015	8.3	3.5	11.8	ND<0.11	ND<10	125	0.83
	11/11/2015	8.9	0.9	9.8	0.02	ND<10	113	ND<0.00031
	3/7/2016	61.1	18	79.1	ND<0.11	ND<10	234	ND<0.00031
	6/23/2016	14.6	3.9	18.5	ND<0.11	23.7	173	0.0006
	9/7/2016	4.3	9.8	14.1	0.23	ND<10	87.4	0.0023
	11/18/2016	3.3	3.1	6.41	ND<0.11	ND<10	125.0	ND<0.00031
	3/3/2017	11.6	19	30.6	ND<0.010	ND<10	44.4	0.00041
	6/22/2017	19.0	13.5	32,500	ND<0.11	5.8	87.8	6.2
	9/7/2017	NA	NA	NA	NA	NA	157.0	7.0
	12/5/2017	NA	NA	NA	NA	NA	121	2.2
	3/26/2018	7.6	5.1	12.7	0.011	6.6	96.6	3.5
	6/7/2018	NA	NA	NA	NA	NA	63.3	47.6
	9/19/2018	NA	NA	NA	NA	NA	95.7	6.5
	12/21/2018	NA	NA	NA	NA ND(40.44)	NA 10	29.6	0.0041
	3/12/2019	20.7	7.7	28.4	ND(<0.11)	10	128	0.0171
	5/13/2019 3/10/2020		ND(<0.20)	97.5	ND(<0.11)	34.3	20.4	0.0037
	4/30/2021	16.3 7.0	8.5 18.7	24.8 25.7	ND(<0.11) 0.22	14.0 18.1	44.6 16.4	0.0071 0.00092
	4/30/2021	45.3	13.0	58.3	0.22 ND(<0.11)	ND(<2.0)	406	0.00092
MW-8A	3/26/2018		ND(<0.20)	26.2	0.38	19.0	4.9	ND(<0.31)
IVIVV-OA	5/13/2019		ND(<0.20) ND(<0.20)	25.2 25.3	1.2	6.9	4.9 1.7	ND(<0.31) ND(<0.00031)
	3/10/2020	10.6	ND(<0.20)	10.6	0.59	12.1	2.1	ND(<0.00031)
	4/30/2021	14.1	2.3	16.4	1.3	17.0	2.5	ND(<0.00031)
	4/18/2022		ND(<0.20)	7.010	ND(<0.11)	22.4	9.9	ND(<0.00031)

Table 4 GENERAL CHEMISTRY ANALYTICAL RESULTS



Orangetown Shopping Center NYSDEC Site # C344066

Monitoring Well	Date	Iron, Ferric (mg/l)	Iron, Ferrous ^{HF} (mg/l) NA	Iron, Total (mg/l) NA	Nitrate Nitrogen (mg/l)	Sulfate (mg/l) NA	Total Organic Carbon (mg/l)	Ethene (mg/l)
MW-E	3/26/2018 3/12/2019 3/10/2020 4/30/2021 4/18/2022	1,030 35.4 1,310 181	0.64 ND(<0.20) ND(<0.20) 28.6 ND(<0.20)	1,030.64 35.5 1,310 210 2.140	2.7 0.63 179 ND(<0.11) ND(<0.11)	45.9 28.8 27.5 23.6 26.8	9.4 10.2 7.1 15.9 6.9	ND(<0.31) ND(<0.00031) ND(<0.00031) ND(<0.00031) ND(<0.00031)

Notes:

mg/L = Milligrams per liter (parts per million)

NA = Not available/not analyzed for that specific compound

ND = Not detected (# is method detection limit)
J* = Holding time for this test is immediate

HF = Field parameter with holding time of 15 minutes

B1 = Analyte was detected in the associated method blank. Analyte concentration in the sample

is greater than 10x the concentration found in the method blank.

B = Analyte was detected in associated method blank

NY = New York

TOGS = Technical and Operational Guidance Series 1.1.1 GWQS = Groundwater Quality Standards or Guidance Values

Table 5 GC/MS Volatiles (TO-15) - ug/m3



UB Orangeburg 1-45 Orangetown Shopping Center Orangeburg, New York

Comp. Comp	Client Sample ID:	OUTSIDE	VP-6	VP-6	VP-5	VP-5	REG	ULATORY GUIDA	INCE
Ambient Air Ambient Air Comp.	Late Occupied ID	IDAGGE E	IDAGGE A	IDAGGE 4	IDAGGE 4	IDAGGE A		NASDOR 3003	
Authoritimation Authoritim	•	1				1			EPA 2001
Comp. Comp	Date Sampleu.								BASE 90th
Nestocne S.S. 29 19 31 17 140 NS 88 98 98 98 98 98 98 9	Matrix:								Percentile (3)
Serzene	Acetone	-		-	-	-	140		98.9
Stronolom	1,3-Butadiene	ND<(0.35)	ND<(0.44)	ND<(0.35)	ND<(0.44)	ND<(0.35)	NS	NS	<3.0
Strongform	Benzene	0.54	1.8	0.61	2.3	0.61	29	NS	9.4
Stromorethane	Bromodichloromethane	ND<(0.54)	ND<(0.67)	ND<(0.54)	ND<(0.67)	ND<(0.54)	NS	NS	NS
Stromethene ND<	Bromoform	ND<(0.33)	ND<(0.41)	ND<(0.33)	ND<(0.41)	ND<(0.33)	NS	NS	NS
Bernyt (Plotide ND<0.82)	Bromomethane	ND<(0.62)	ND<(0.78)	ND<(0.62)	ND<(0.78)	ND<(0.62)	0.9	NS	<1.7
Dealbont disullidie	Bromoethene	ND<(0.70)	ND<(0.87)	ND<(0.70)	ND<(0.87)	ND<(0.70)	NS	NS	NS
Chlorobenzane	Benzyl Chloride	ND<(0.82)	ND<(1.0)	ND<(0.82)	ND<(1.0)	ND<(0.82)	NS	NS	<6.8
Chioroethane	Carbon disulfide	ND<(0.50)	ND<(0.62)	ND<(0.50)	ND<(0.62)	ND<(0.50)	NS	NS	4.2
Chloroform ND<(0.78) ND<(0.98) ND<(0.98) ND<(0.78) ND<(0.98) ND<(0.78) ND<(0.98) ND<(0.78) ND<(0.93) ND<(0.93) ND<(0.93) ND<(0.93) ND<(0.93) ND<(0.93) ND<(0.95) ND<	Chlorobenzene	ND<(0.74)	ND<(0.92)	ND<(0.74)	ND<(0.92)	ND<(0.74)	<0.25	NS	<0.9
Chioromethane 0.87 0.70 0.97 0.56 ND<0.33 5.2 NS 3.7	Chloroethane	ND<(0.42)	ND<(0.53)	ND<(0.42)	ND<(0.53)	ND<(0.42)	0.6	NS	<1.1
Chloromethane	Chloroform	ND<(0.78)	ND<(0.98)	ND<(0.78)	ND<(0.98)	ND<(0.78)	4.6	NS	1.1
Schloropropene ND<(0.50) ND<(0.63) ND<(0.65)	Chloromethane	0.87	0.70	0.97	0.56	ND<(0.33)			
Part	3-Chloropropene	ND<(0.50)	ND<(0.63)	ND<(0.50)	ND<(0.63)	` ′			
Carbon tetrachloride 0.50 ND<0.25) 0.49 0.47 0.43 1.1 NS <1.3 21.1 NS <1.3 22.0clohexane ND<0.55) ND<0.69) ND<0.69) ND<0.69) ND<0.65) ND<0.69) ND<0.69) ND<0.65) ND<0.69) ND<0.65) ND<0.69) ND<0.65) ND<0.68) ND<0.65) ND<0.68) ND 0.68) ND 0.88) ND 0.88) ND	2-Chlorotoluene	ND<(0.83)	ND<(1.0)	ND<(0.83)	ND<(1.0)	ND<(0.83)	NS		
Dyclohexane	Carbon tetrachloride	0.50	ND<(0.25)	0.49	0.47	0.43	1.1		
1,1-Dichloroethane	Cyclohexane	ND<(0.55)	` ′	ND<(0.55)	ND<(0.69)	ND<(0.55)	19	NS	NS
	1,1-Dichloroethane	` ′	` ′	` ′	, ,	` ′	1		
	1,1-Dichloroethylene	ND<(0.13)	ND<(0.16)	ND<(0.13)	ND<(0.16)	ND<(0.13)			
	1,2-Dibromoethane	` ′	` ′	` ,	, ,	` '			
	1,2-Dichloroethane	` ′	` ′	` ′	, ,	` ′			
1.9 1.9 1.8 1.9 1.8 26 NS 16.5	1,2-Dichloropropane	` ′	` ′	` ′	, ,	` ′	<0.25	NS	<1.6
Dibromochloromethane	1,4-Dioxane	ND<(0.58)	ND<(0.72)	ND<(0.58)	ND<(0.72)	ND<(0.58)	NS	NS	NS
Dibromochloromethane	Dichlorodifluoromethane	1.9	1.9	1.8	1.9	1.8	26	NS	16.5
ND< ND< ND< ND< ND< ND< ND< ND<	Dibromochloromethane	ND<(0.68)	ND<(0.85)	ND<(0.68)	ND<(0.85)	ND<(0.68)			
ND< ND< ND< ND< ND< ND< ND< ND<	trans-1,2-Dichloroethylene	ND<(0.63)	ND<(0.79)	ND<(0.63)	ND<(0.79)	ND<(0.63)	NS		
ND<(0.73) ND<(0.91) ND<(0.73) ND<(0.91) ND<(0.73) ND<(0.91) ND<(0.73) ND<(0.91) ND<(0.73) ND<(0.91) ND<(0.73) ND<(0.88) ND<(0.60) ND<(0.48) ND<(0.60) ND<(0.48) ND<(0.60) ND<(0.48) ND<(0.48) ND<(0.60) ND<(0.48) ND<(0.73) ND<(0.89) ND<(cis-1,2-Dichloroethylene	ND<(0.13)	0.44	0.38	0.48	0.28	1.2	NS	<1.9
ND< ND< ND< ND< ND< ND< ND< ND<	cis-1,3-Dichloropropene	ND<(0.73)	ND<(0.91)	ND<(0.73)	ND<(0.91)	ND<(0.73)			
ND< (0.48) ND< (0.60) ND< (0.48) ND< (0.60) ND< (0.48) ND< (0.60) ND< (0.48) ND< (0.48) ND< (0.60) ND< (0.48) ND<	m-Dichlorobenzene	ND<(0.48)	ND<(0.60)	ND<(0.48)	ND<(0.60)	ND<(0.48)			
ND< ND< ND< ND< ND< ND< ND< ND<	o-Dichlorobenzene	ND<(0.19)	ND<(0.24)	ND<(0.19)	ND<(0.24)	ND<(0.19)	0.9	NS	<1.2
Ethanol 7.3 269 a 163 E 349 a 169 E NS NS 210 Ethylbenzene ND<(0.69) ND<(0.69) ND<(0.69) ND<(0.69) ND<(0.69) ND<(0.69) 13.0 NS 5.7 Ethyl Acetate 3.0 209 a 6.8 319 a 9.4 NS NS NS 5.4 Ethyl Indicate ND<(0.79) ND<(0.98) ND<(0.79) ND<(0.98) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.61) NS	p-Dichlorobenzene	ND<(0.48)	ND<(0.60)	ND<(0.48)	ND<(0.60)	ND<(0.48)	2.6	NS	5.5
Ethanol	trans-1,3-Dichloropropene	ND<(0.73)	ND<(0.91)	ND<(0.73)	ND<(0.91)	ND<(0.73)	<0.25	NS	<1.3
ND<(0.69) ND<(0.69) ND<(0.69) ND<(0.69) ND<(0.69) ND<(0.69) ND<(0.69) 13.0 NS 5.7	Ethanol	7.3	269 a	163 E	349 a	169 E			
Section Sect	Ethylbenzene	ND<(0.69)	ND<(0.87)	ND<(0.69)	ND<(0.87)	ND<(0.69)	13.0		
ND<(0.79) ND<(0.98) ND<(0.79) ND<(0.98) ND<(0.79) ND<(0.98) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.79) ND<(0.61) ND<(0.66) ND<(0.66) ND<(0.56) ND<(0.56) ND<(0.56) ND<(0.56) ND<(0.56) ND<(0.56) ND<(0.56) ND<(0.66) ND<(0.66) ND<(0.66) ND<(0.66) ND<(0.66) ND<(0.66) ND<(0.66) ND<(0.66) ND<(0.66) ND<(0.67) ND<(0.66) ND<(0.67) ND<(0.96) ND<(0.77) ND<(0.96) ND<(0.77) ND<(0.96) ND<(0.77) ND<(0.96) ND<(0.56) NS NS NS NS NS NS NS N	Ethyl Acetate		209 a	, ,		9.4			
ND< ND< ND< ND< ND< ND< ND< ND<	4-Ethyltoluene	ND<(0.79)	ND<(0.98)	ND<(0.79)	ND<(0.98)	ND<(0.79)	NS		
ND< ND< ND< ND< ND< ND< ND< ND<	Freon 113	ND<(0.61)			ND<(0.77)	ND<(0.61)	NS	NS	
Heptane	Freon 114	ND<(0.56)		ND<(0.56)	ND<(0.70)	ND<(0.56)	NS		
ND< ND< ND< ND< ND< ND< ND< ND<	Heptane	ND<(0.66)				.	NS		
Hexane	Hexachlorobutadiene	ND<(0.77)	ND<(0.96)	ND<(0.77)	ND<(0.96)	ND<(0.77)	11.0		
2-Hexanone ND<(0.65) ND<(0.65) ND<(0.65) ND<(0.65) ND<(0.65) ND<(0.65) NS NS NS sopropyl Alcohol 3.2 122 a 208 E 124 a 189 E NS NS 250 Methylene chloride 0.69 0.97 0.90 0.97 1.5 45.0 60 10 Methyl ethyl ketone ND<(0.47)	Hexane	.		` ′		` ′			
Sopropyl Alcohol 3.2 122 a 208 E 124 a 189 E NS NS 250	2-Hexanone	` ′							
Wethyl end chloride 0.69 0.97 0.90 0.97 1.5 45.0 60 10 Wethyl ethyl ketone ND<(0.47)	Isopropyl Alcohol	.		208 E			NS	NS	250
Wethyl ethyl ketone ND<(0.47) 1.8 0.47 1.7 0.53 39.0 NS NS Wethyl Isobutyl Ketone ND<(0.66)	Methylene chloride								
Methyl Isobutyl Ketone ND<(0.66) 1.6 ND<(0.66) 2.5 ND<(0.66) 5.3 NS NS Methyl Tert Butyl Ether ND<(0.58)	Methyl ethyl ketone								
Methyl Tert Butyl Ether ND<(0.58) ND<(0.72) ND<(0.58) ND<(0.58) ND<(0.58) 71.0 NS 11.5 Methylmethacrylate ND<(0.66)	Methyl Isobutyl Ketone								
Vethylmethacrylate ND<(0.66) ND<(0.82) ND<(0.66) ND<(0.66) ND<(0.66) 1.1 NS NS	Methyl Tert Butyl Ether								
	Methylmethacrylate					<u> </u>			
	Propylene	ND<(0.69)		ND<(0.69)		ND<(0.69)	NS		NS

Table 5 GC/MS Volatiles (TO-15) - ug/m3



UB Orangeburg 1-45 Orangetown Shopping Center Orangeburg, New York

Client Sample ID:	OUTSIDE	VP-6	VP-6	VP-5	VP-5	REG	ULATORY GUIDA	NCE
Lab Sample ID:	JD36325-5	JD36325-3	JD36325-4	JD36325-1	JD36325-2	NYSDOH 2003	NYSDOH 2003	
Date Sampled:	12/7/2021	12/7/2021	12/7/2021	12/7/2021	12/7/2021	Soil Vapor	Soil Vapor Intrusion Air	EPA 2001 BASE 90th
Matrix:	Ambient Air	Soil Vapor	Ambient Air	Soil Vapor	Ambient Air	Indoor 95th	Guidance Value	
Wali IX.	Comp.	Comp.	Comp.	Comp.	Comp.	Percentile (1)	(2)	(-,
Styrene	ND<(0.68)	ND<(0.85)	ND<(0.68)	ND<(0.85)	ND<(0.68)	2.3	NS	1.9
1,1,1-Trichloroethane	ND<(0.44)	ND<(0.55)	ND<(0.44)	ND<(0.55)	ND<(0.44)	6.9	NS	20.6
1,1,2,2-Tetrachloroethane	ND<(0.55)	ND<(0.69)	ND<(0.55)	ND<(0.69)	ND<(0.55)	<0.25	NS	NS
1,1,2-Trichloroethane	ND<(0.44)	ND<(0.55)	ND<(0.44)	ND<(0.55)	ND<(0.44)	<0.25	NS	<1.5
1,2,4-Trichlorobenzene	ND<(0.59)	ND<(0.74)	ND<(0.59)	ND<(0.74)	ND<(0.59)	6.3	NS	<6.8
1,2,4-Trimethylbenzene	ND<(0.79)	ND<(0.98)	ND<(0.79)	ND<(0.98)	ND<(0.79)	18	NS	9.5
1,3,5-Trimethylbenzene	ND<(0.79)	ND<(0.98)	ND<(0.79)	ND<(0.98)	ND<(0.79)	6.5	NS	NS
2,2,4-Trimethylpentane	ND<(0.75)	ND<(0.93)	ND<(0.75)	ND<(0.93)	ND<(0.75)	NS	NS	NS
Tertiary Butyl Alcohol	ND<(0.49)	1.1	ND<(0.49)	1.4	ND<(0.49)	NS	NS	NS
Tetrachloroethylene	ND<(0.22)	9.5	8.1	10	6.5	4.1	30	15.9
Tetrahydrofuran	ND<(0.47)	ND<(0.59)	ND<(0.47)	ND<(0.59)	ND<(0.47)	9.4	NS	NS
Toluene	ND<(0.60)	4.9	0.87	6.4	0.90	110	NS	43
Trichloroethylene	ND<(0.17)	2.0	0.64	2.1	0.59	0.8	2	4.2
Trichlorofluoromethane	1.5	22	1.6	27	1.5	30	NS	18.1
Vinyl chloride	ND<(0.082)	ND<(0.10)	ND<(0.082)	ND<(0.10)	ND<(0.082)	<0.25	NS	<1.9
Vinyl Acetate	ND<(0.56)	2.9	ND<(0.56)	ND<(0.70)	ND<(0.56)	NS	NS	NS
m,p-Xylene	ND<(0.69)	ND<(0.87)	ND<(0.69)	ND<(0.87)	ND<(0.69)	21.0	NS	22.2
o-Xylene	ND<(0.69)	ND<(0.87)	ND<(0.69)	ND<(0.87)	ND<(0.69)	13.0	NS	7.9
Xylenes (total)	ND<(0.69)	ND<(0.87)	ND<(0.69)	ND<(0.87)	ND<(0.69)	NS	NS	NS

Note:

Results and Standards expressed in micrograms per cubic meter (µg/m3)

ND<# = Not detected, less than the laboratory reporting limit

NS = No Standard

E = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.

a = Result is from run #2.

BOLD = results exceed NYSDOH 2003 Soil Vapor Indoor Upper Fence (1) standard

ITALIC = results exceed NYSDOH 2003 Soil Vapor Intrusion Air Guidance Value (2) standard

"Gray" = results exceed EPA 2001 BASE 90th Percentile (3) standard

BOLD, ITALIC, or "Gray" indicators in the Regulatory Guidance columns indicate at least one historic exceedance was observed.

- (1) Upper fence indoor air values from "Table C1. NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes', published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C" (October 2006)
- (2) NYSDOH Air Guideline Values (AGVs) from "Table 3.1 Air guideline values derived by the NYSDOH" presented in the Final Guidance for evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 ("NYSDOH Vapor Intrusion Guidance Document")
- (3) 90th percentile indoor air values from "Table C-2. EPA 2001: Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method" published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C" (October 2006)

Table 6 Constituents of Concern Summary Comparison

UB Orangeburg 1-45 Orangetown Shopping Center Orangeburg, New York

	Samples					Chemical	Chemical Compound					Action Required	
Sample Date	Sample Date Sample Location Sample Type	Sample Type	TCE	c12-DCE	11 - DCE	Carbon Tetrachloride	PCE	1,1,1-TCA Methylene Chrloride	Methylene Chrloride	Vinyl Chloride	Matrix A (TCE, c12-DCE, 11-DCE, Carbon Tetrachloride)	(TCE, c12-DCE, 11-DCE, (PCE, 111-TCA, Methylene Carbon Tetrachloride)	Matrix C (Vinyl Chloride)
40/12/0004	9 0/7	Indoor Air	0.64	0.38	ND (<0.13)	0.49	8.1	ND (<0.44) 0.90	06:0	ND (<0.082)	oito A roito	City A	
120211	0-44	Sub-slab	2.0	0.44	ND (<0.16)	ND (<0.25)	9.6	ND (<0.55)	0.97	ND (<0.10)	NO Parurer Action	NO FULLIER ACTION	No ruitie Action
40/12/0004	3 0//	Indoor Air	0.59	0.28	ND (<0.13)	0.43	6.5	ND (<0.44)	1.5	ND (<0.082)	oito A roito	N Soft	
120211	6-14	Sub-slab	2.1	0.48	ND (<0.16)	0.47	10	ND (<0.55) ND	0.97	ND (<0.10)	NO Parurer Action	NO FULLIER ACTION	No ruitie Action

Notes:
Results and Standards expressed in micrograms per cubic meter (µg/m3)
TCE= Trichloroethene (Trichloroethylene)
c12-DCE= cis-1,2-Dichloroethene (1,1-dichloroethylene)
PCE= Tetrachloroethene (1,1-dichloroethylene)
1,1,1-TCA= 1,1,1-trichloroethane

Periodic Review Report 1-45 Orangetown Shopping Center Orangeburg, New York



Appendix A – Environmental Easement

Rockland County, NY Paul Piperato County Clerk

1 South Main St Ste 100 New City, NY 10956 Phone Number: (845) 638-5070

Official Receipt: 2011-00049305

Printed On: 10/13/2011 at 11:01:36 AM By: 76 on INDEX9

Customer:

CLASS ABSTRACT SERVICES INC 72 JERICHO TPKE SUITE 3

MINEOLA, NY 11501

Date Recorded: October 04, 2011

 Instrument ID
 Amount

 File Number: 2011-00035889
 \$101.00

Transaction: Ease, Rightway, A/Rent Name(s): JLJ MANAGEMENT CO

To: PEOPLE OF THE STATE OF NEW YORK

Remarks: HAH

Itemized Check Listing

Check Number: 13622 \$101.00

Total Due:

Paid by Check: \$101.00

Change Tendered: \$0.00

पुष्प राज्योज्य पुष्प्रश्रामक्ष्यक्रकेक र

01771174

\$101.00

Paul Piperato, County Clerk 1 South Main St Ste 100 New City, NY 10956 (845) 638-5070

Rockland County Clerk Recording Cover Sheet

Received From: CLASS ABSTRACT SERVICES INC 72 JERICHO TPKE SUITE 3 MINEOLA, NY 11501

Return To:
CLASS ABSTRACT SERVICES INC L 72 JERICHO TPKE SUITE 3 MINEOLA, NY 11501

First GRANTOR

JLJ MANAGEMENT CO

First GRANTEE

PEOPLE OF THE STATE OF NEW YORK

Index Type: Land Records

Instr Number: 2011-00035889 Book: Page:

Type of Instrument: Easement

Type of Transaction: Ease, Rightway, A/Rent

Recording Fee:

\$101.00

Recording Pages:

The Property affected by this instruction County of Rockland, New York situated in Orangetown, in the

Real Estate Transfer Tax

815 RETT#:

Deed Amount:

\$0.00

RETT Amount:

\$0.00

Total Fees:

Doc ID - 023456330011

State of New York

County of Rockland

mereby perfify that the within and foregoing was recorded in the Clerk's office for Rockland County, New York

n (Recorded Date): 10/04/2011

At (Recorded Time): 10:58:00 AM

Paul Piperato, County Clerk



This sheet constitutes the Clerks endorsement required by Section 319 of Real Property Law of the State of New York

Entered By: HAH Printed On: 10/13/2011 At: 3:11:40PM

County: Rockland

Site No: C 344066

BCA Index No: A3-0563-0906

CLC 40799Ro

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

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

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

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

WHEREAS, Grantor, is the owner of real property located at the address of 1-45 Orangetown Shopping Center in the Town of Orangetown, County of Rockland and State of New York, known and designated on the wax map of the County Clerk of Rockland as tax map parcel numbers: Section 74.00 Block I Lot 67, being the same as that property conveyed to Grantor by deed dated April 4, 1990 recorded in the Rockland County Clerk's Office in Book 0404 at Page 2555, the Environmental Easement area of which comprising approximately 1.3308 ± acres, and hereinafter more fully described in the Land Title Survey dated April 27, 2011 prepared by Joseph R. Link of Link Land Surveyors P.C., which will be attached to the Site Management Plan. The property description and survey (the "Controlled Property") is set forth in and attached hereto as Schedule A, and

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

Environmental Easement Page 1

14:10 BIK Site No: C 344066

BCA Index No: A3-0563-0906

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Number: A3-0563-0906, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

- 1. <u>Purposes.</u> Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.
- 2. <u>Institutional and Engineering Controls.</u> The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.
 - A. (1) The Controlled Property may be used for:

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

- (2) All Engineering Control stress be operated and maintained as specified in the Site Management Plan (SMP);
- (3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.
- (4) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;
- (5) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;
- (6) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- (7) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.
- (8) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.

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

Site No: C 344066

- The Controlled Property shall not be used for Residential or Restricted Residential purposes, and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.
- The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

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

- Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.
- E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

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

- covenants and agrees that this Environmental Easement shall be F. Grantor covenants and agrees that this Christian Control of the incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.
- Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require,

County; Rockland

Site No: C 344066

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

are in-place;

- are unchanged from the previous certification, or that any identified (ii) changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and
- that nothing has occurred that would impair the ability of such control to protect the public health and environment;
- the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;
- nothing has occurred that would constitute a violation or failure to comply (4)with any site management plan for such controls;
 - the report and all attachments were prepared under the direction of, and

reviewed by, the party making the certification;

- to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and
 - the information presented is accurate and complete.
- ather representatives of the Right to Enter and Inspect. Grantee, its agents, employees, o State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions
- Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:
- for all purposes not inconsistent with, or limited by Use of the Controlled Property the terms of this Environmental Egsement;
- The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, Subject and subordinate to this Environmental Easement;

Enforcement

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

County: Rockland

Site No: C 344066

BCA Index No: A3-0563-0906

- C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.
- D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.
- 6. <u>Notice</u>. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

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

Parties shall address correspondence to:

Site Number: @344066 Office of General Counsel NYSDEC 625 Broadway Albany New York 12233-5500

With a copy to:

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

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

- 7. Recordation Scantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording of their for the county or counties where the Property is situated in the manner prescribed by Article 4 of the Real Property Law.
- 8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or cauncies where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 9. Extinguishment. This Environmental Easement may be extinguished only by a release by

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

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

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

Grantor: JLJ Management Co., a New York Partnership

BCA Index No: A3-0563-0906

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF MY)
On the 2nd day of September, in the year 20 11, before me, the undersigned, personally appeared History, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.
Notary Public - State of New York Notary Public, State of New York Notary Public, State of New York No. 02k74146176 Qualified in Westchester County Certificate Filed in New York County Commission Expires October 31, 20
STATE OF NEW YORK)
COUNTY OF MY
and the undersigned

On the And day of April of the year 20 11, before me, the undersigned, personally appeared Hillow personally known to me or the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person when behalf of which the individual(s) acted, executed the instrument.

Notary Public - State of New York

JEROME KRIMERMAN
Notary Public, Siste of New York
No. 02:XAT MB175
Qualified by Westchester County
Certificate Fised in New York County
Commission expires October 31, 20

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of

Environmental Conservation as Designee of the Commissioner.

By:

Site No: C 344066

Dale A. Desnoyers, Director

Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK

COUNTY OF Allsanzi

On the day of Senting, in the year 2011, before me, the undersigned, personally appeared 1012 Doctor of personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he she excepted the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted rescuted the instrument.

David J. Chindeno
Notary Public, State of New York
No. 010H5082446
Qualified in School of Younty,
Commission Pipires August 22, 20 1

County: Rockland

Site No: C 344066

BCA Index No: A3-0563-0906

SCHEDULE "A" ENVIRONMENTAL EASEMENT PROPERTY DESCRIPTION

I-45 ORANGETOWN SHOPPING CENTER ORANGETOWN, COUNTY OF ROCKLAND, NY SECTION: 74.10 BLOCK: 1 LOT: 67

ALL THAT CERTAIN PLOT, PIECE OR PARCEL OF LAND, WITH IMPROVEMENTS THEREON ERECTED, SITUATED AND LYING AND BEING IN THE TOWN OF ORANGETOWN, COUNTY OF ROCKLAND AND STATE OF NEW YORK.

BEGINNING AT A POINT ON THE WESTERLY SIDE OF OAK STREET WHERE THE SAME IS INTERSECTED BY THE DIVISION LINE BETWEEN LAND NOW OR FORMERLY JLJ MANAGEMENT ON THE SOUTH AND LAND NOW OR FORMERLY SEEBACH ON THE NORTH, SAID POINT ALSO BEING 430.52 FEET SOUTHERLY FROM THE SOUTHERLY END OF A CURVE HAVING A RADIUS OF 36.15 LENGTH OF 56.81 FEET CONNECTING THE SOUTHERLY SIDE OF ORANGEBURG ROAD AND THE WESTERLY SIDE OF OAK STREET.

THENCE RUNNING ALONG THE WESTERLY SIDE OF OAK STREET SOUTH 7°24NUL EAST 60.89 FEET TO THE DIVISION LINE BETWEEN JLJ MANAGEMENT AND LAND NOW OR FORMERLY HOFFMAN;

THENCE ALONG SAID DIVISION LINE SOUTH 82° 36'00" WEST 100.00 FEET: THENCE CONTINUING ALONG SAID DIVISION LINE AND ALONG THE DIVISION LINE BETWEEN JLJ MANAGEMENT AND LAND NOW OR FORMERLY FARINI SOUTH 7°24'00" EAST 88.00 FEET.

THENCE RUNNING THROUGH LANDS OF JLJ MANAGEMENT THE FOLLOWING FIVE (5) COURSES AND DISTANCES;

- 1. SOUTH 82° 36' 00" WEST 168,00 FEET;
- 2. NORTH 3° 04' 00" WEST 111.00 FEET;
- 3. SOUTH 87° 02' 00" WEST 56.00 FEET;
- 4. NORTH 2° 58' 00" WEST 182.10 FEET;
- 5. NORTH 87° 02' 00" EAST 176.89 FEET TO THE WESTERLY SIDE OF LAND NOW OR FORMERLY

THENCE RUNNING ALONG LAND OF UCKER AND CONTINUING ALONG LAND OF SEEBACH SOUTH 7° 24" 00" WEST 134.00 FEET AND NORTH 82° 36° 00": EAST 125.00 FEET TO THE POINT AND PLACE OF BEGINNING.

CONTAINING 1,3308 ACRES 1,57,970 SQ. FT

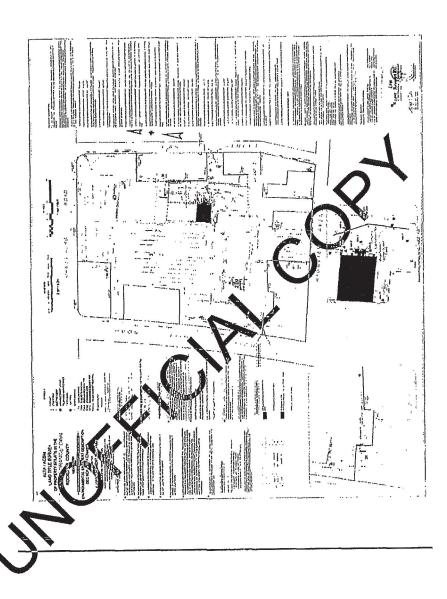
20K

County: Rockland

Site No: C 344066

BCA Index No: A3-0563-0906

SURVEY



Environmental Easement Page 10

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

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

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

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

WHEREAS, Grantor, is the owner of real property located at the address of 1-45 Orangetown Shopping Center in the Town of Orangetown, County of Rockland and State of New York, known and designated on the tax map of the County Clerk of Rockland as tax map parcel numbers: Section 74.10 Block 1 Lot 67, being the same as that property conveyed to Grantor by deed dated April 4, 1990 recorded in the Rockland County Clerk's Office in Book 0404 at Page 2555, the Environmental Easement area of which comprising approximately 1.3308 ± acres, and hereinafter more fully described in the Land Title Survey dated April 27, 2011 prepared by Joseph R. Link of Link Land Surveyors P.C., which will be attached to the Site Management Plan. The property description and survey (the "Controlled Property") is set forth in and attached hereto as Schedule A; and

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

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Number: A3-0563-0906, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

- 1. <u>Purposes</u>. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.
- 2. <u>Institutional and Engineering Controls</u>. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.
 - A. (1) The Controlled Property may be used for:

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

- (2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);
- (3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.
- (4) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;
- (5) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;
- (6) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- (7) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.
- (8) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.

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

- B. The Controlled Property shall not be used for Residential or Restricted Residential purposes, and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.
- C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

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

- D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.
- E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

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

- F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.
- G. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

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

- (2) the institutional controls and/or engineering controls employed at such site:
 - (i) are in-place;
- (ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and
- (iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;
- (3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;
- (4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;
- (5 the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
- (6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and
 - (7) the information presented is accurate and complete.
- 3. <u>Right to Enter and Inspect.</u> Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.
- 4. <u>Reserved Grantor's Rights</u>. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:
- A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;
- B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

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

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

- D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.
- 6. <u>Notice</u>. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

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

Parties shall address correspondence to: Site Number: C 344066

Office of General Counsel

NYSDEC 625 Broadway

Albany New York 12233-5500

With a copy to: Site Control Section

Division of Environmental Remediation

NYSDEC 625 Broadway Albany, NY 12233

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

- 7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 8. <u>Amendment</u>. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.
- 9. Extinguishment. This Environmental Easement may be extinguished only by a release by

County: Rockland

Site No: C 344066

BCA Index No: A3-0563-0906

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

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

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

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF MY)
On the 2 nd day of Sefember, in the year 20 11, before me, the undersigned,
personally appeared Hilton Soniker, personally known to me or proved to me on the basis
of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within
instrument and acknowledged to me that he/she/they executed the same in his/her/their
capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the
person upon behalf of which the individual(s) acted, executed the instrument.
Notary Public - State of New York Notary Public State of New York Notary Public State of New York
No. 02KAZIACAZE
Qualified in Westchester County Certificate Filed in New York
Certificate Filed in New York County Commission Expires October 31, 20
STATE OF NEW YORK)
) ss:
COUNTY OF \mathcal{N} () ss:
On the 2 nd day of September, in the year 20 11, before me, the undersigned,
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of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within
instrument and acknowledged to me that he/she/they executed the same in his/her/their
capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the
nerson whon behalf of which the individual(s) acted executed the instrument

JEROME KAMERMAN
Notary Public, State of New York
No. 02KA7146175
Qualified in Westchester County
Certificate Filed in New York County
Commission Expires October 31, 20

y Public - State of New York

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of

Environmental Conservation as Designee of the Commissioner.

By:

Dale A. Desnoyers, Director

Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK

COUNTY OF Albany) se

On the ______ day of ______, in the year 2011, before me, the undersigned, personally appeared ______, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon belial of which the individual acted/executed the instrument.

Notary Public - State of New York

David J. Chiusano Notary Public, State of New York No. 01CH5032146

Qualified in Schenectady County, Commission Expires August 22, 20 1

SCHEDULE "A" ENVIRONMENTAL EASEMENT PROPERTY DESCRIPTION

1-45 ORANGETOWN SHOPPING CENTER ORANGETOWN, COUNTY OF ROCKLAND, NY SECTION: 74.10 BLOCK: 1 LOT: 67

ALL THAT CERTAIN PLOT, PIECE OR PARCEL OF LAND, WITH IMPROVEMENTS THEREON ERECTED, SITUATED AND LYING AND BEING IN THE TOWN OF ORANGETOWN, COUNTY OF ROCKLAND AND STATE OF NEW YORK.

BEGINNING AT A POINT ON THE WESTERLY SIDE OF OAK STREET WHERE THE SAME IS INTERSECTED BY THE DIVISION LINE BETWEEN LAND NOW OR FORMERLY JLJ MANAGEMENT ON THE SOUTH AND LAND NOW OR FORMERLY SEEBACH ON THE NORTH, SAID POINT ALSO BEING 430.52 FEET SOUTHERLY FROM THE SOUTHERLY END OF A CURVE HAVING A RADIUS OF 36.15 LENGTH OF 56.81 FEET CONNECTING THE SOUTHERLY SIDE OF ORANGEBURG ROAD AND THE WESTERLY SIDE OF OAK STREET.

THENCE RUNNING ALONG THE WESTERLY SIDE OF OAK STREET SOUTH 7°24'00" EAST 60.89 FEET TO THE DIVISION LINE BETWEEN JLJ MANAGEMENT AND LAND NOW OR FORMERLY HOFFMAN;

THENCE ALONG SAID DIVISION LINE SOUTH 82° 36'00" WEST 100.00 FEET; THENCE CONTINUING ALONG SAID DIVISION LINE AND ALONG THE DIVISION LINE BETWEEN JLJ MANAGEMENT AND LAND NOW OR FORMERLY FARINI SOUTH 7°24"00" EAST 88.00 FEET.

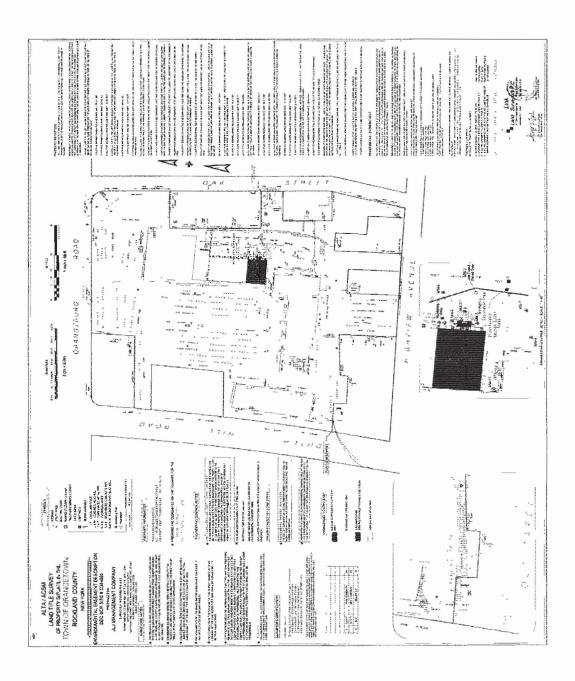
THENCE RUNNING THROUGH LANDS OF JLJ MANAGEMENT THE FOLLOWING FIVE (5) COURSES AND DISTANCES;

- 1. SOUTH 82° 36' 00" WEST 168.00 FEET;
- 2. NORTH 3° 04' 00" WEST 111.00 FEET:
- 3. SOUTH 87° 02' 00" WEST 56.00 FEET;
- 4. NORTH 2° 58' 00" WEST 182.10 FEET;
- 5. NORTH 87° 02' 00" EAST 176.89 FEET TO THE WESTERLY SIDE OF LAND NOW OR FORMERLY UCKER

THENCE RUNNING ALONG LAND OF UCKER AND CONTINUING ALONG LAND OF SEEBACH SOUTH 7° 24" 00" WEST 134.00 FEET AND NORTH 82° 36" 00": EAST 125.00 FEET TO THE POINT AND PLACE OF BEGINNING.

CONTAINING 1.3308 ACRES / 57,970 SQ. FT.

SURVEY



Periodic Review Report 1-45 Orangetown Shopping Center Orangeburg, New York



Appendix B – Regulatory Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C 625 Broadway, 12th Floor, Albany, NY 12233-7014 P: (518) 402-9662 I F: (518) 402-9679 www.dec.ny.gov

Transmitted Via Email Only

August 2, 2021

Michael DeGloria, PG Groundwater & Environmental Services, Inc. 63 E Main Street, Suite 3 Pawling, New York 12564

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter Orangeburg (Orangetown) Shopping Center, Site No.: C344066 Orangetown, Rockland County

Dear Mr. DeGloria:

The New York State Department of Environmental Conservation (NYSDEC) and Department of Health (NYSDOH) have reviewed the subject PRR and IC/EC Certification for site C344066 Orangeburg (Orangetown) Shopping Center (the site) for the following period: June 17, 2020 to June 17, 2021. The NYSDEC and NYSDOH hereby accept the PRR and associated Certification with the following modifications:

While concentrations of contaminants of concern in MW-5 have decreased since the last sampling event, concentrations of trichloroethene, cis-1,2-dichloroethene, and vinyl chloride still exceed groundwater quality standards. Also, concentrations of trichlorothene and cis-1,2-dichloroethene at MW-8A slightly exceed groundwater quality standards and have increased overall over the past four sampling events. The NYSDEC hereby rejects the recommendation to terminate groundwater monitoring.

The NYSDEC will accept the removal of MW-3 from future monitoring, as sampling results have been either non-detect or within standards for the past several sampling events. The NYSDEC also requests one more round of sampling for MW-4 and MW-E to confirm groundwater trends before removing them from future monitoring.

The NYSDEC and NYSDOH accept the recommendation that an additional soil vapor intrusion study be conducted at the former Sparkle Cleaner during the 2021-2022 heating season.

As the frequency of Periodic Reviews for this site is annually, your next PRR is due on July 19, 2022. You will receive a reminder letter and updated certification form 45 days prior to the due date. If you have any questions, or need additional forms, please contact me at 518-402-9546 or e-mail: michael.squire@dec.ny.gov.



Sincerely,
Mut Sain

Michael Squire, Project Manager,

Remedial Bureau C

Ec: Amen Omorogbe, NYSDEC Central Office

Keith Browne, NYSDEC Renata Ockerby, NYSDOH

DECDocs

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C 625 Broadway, 12th Floor, Albany, NY 12233-7014 P: (518) 402-9662 I F: (518) 402-9679 www.dec.ny.gov

June 24, 2022

Transmitted Via E-mail ONLY

Monica Roth
UB Orangeburg, LLC
321 Railroad Avenue
Greenwich, CT 06830
mroth@ubproperties.com

RE: Soil Vapor Intrusion Summary Report

NYSDEC Site No. C344066

Orangeburg (Orangetown) Shopping Center

Orangeburg, New York

Dear Ms. Roth,

The New York State Department of Environmental Conservation and Department of Health (the Departments) have reviewed the Soil Vapor Intrusion Summary Report (SVIR) for the Orangeburg (Orangetown) Shopping Center site (the site), dated January 12, 2022. The Departments herby approve the SVIR, with the following modification:

Based on a review of several rounds of sampling data obtained over the past 3 years at the former Sparkle Cleaners retail space, in which the results consistently support No Further Action, or Monitoring, the Departments have determined that additional SVI sampling is not warranted and that inhalation exposures are no longer a concern. Based on this information, and also that the source has been adequately remediated, the Departments agree with the recommendation that the idled SSDS can be permanently shut down and decommissioned.

Should you have any questions, please contact me at michael.squire@dec.ny.gov or at 518-402-9662.

Sincerely,

Michael Squire, Project Manager, Remedial Bureau C

Muth Sain

Nemediai Duleau (



Ec: Amen Omorogbe, NYSDEC Central Office, amen.omorogbe@dec.ny.gov
Daniel Bendell, NYSDEC RHWRE, daniel.bendell@dec.ny.gov
Renata Ockerby, NYSDOH, renata.ockerby@health.ny.gov
Michael DeGloria, GES, Inc., MDeGloria@gesonline.com
Jessica Thomas, GES, Inc., jthomas@gesonline.com
DecDocs



Appendix C – Waste Manifest



LIONETTI ASSOCIATES T/A LORCO PETROLEUM SERVICES 450 SOUTH FRONT STREET ELIZABETH, NJ 07202 (908) 820-8800

Inv Date	Invoice
04/29/2022	1688276

SO Date	Sales Order No		
4/15/2022	3438464		

GROUNDWATER & ENV. SER/NY
16 MOUNT EBO ROAD SOUTH
SUITE 21
Brewster, NY 10509

Ship To:

ORANGETOWN SHOPPING CENTER 1-45 ORANGETOWN SHOPPING CENTER ORANGEBURG, NY

Invoice Total:

Customer P.O.		Ship VIA	F.O.B.		Terms	Sales
					UPON RECEIPT	6OS
Description		Ordered	Shipped	Back Ordere	Price	Amount
DRUM DISPOSAL - LIQUID		1.00	1.00	0.00	125.0000	125.00
TRANSPORTATION - VAC TR		1.00	1.00	0.00	600.0000	600.00
Fuel & Insurance Surcharge 10%						72.50
PO#1121704 PROJECT # 1102783.06.206 ORG #1	100					
			1			
•						
					Net Invoice:	797.50
					Less Discount:	0.00
Manifest Number: 907891				Freight:	0.00	
ivianilest inumber: 90/891					Sales Tax:	66.79

In the event the amounts due hereunder are not paid in a timely manner, such past due amount will accrue interest at 1.5% per month. Customer agrees to pay Lorco Petroleum any and all expenses, including, without limitations, attorneys fees, incurred by Lorco Petroleum in attempting to collect amounts due hereunder.

Please print or type (Form designed for use on elite (12-pitch)(typewriter.) 450 SOUTH FRONT STREET, ELIZABETH, NJ 07202 **NON-HAZARDOUS** 1. Generator's US EPA ID No. NHZ 907891 **WASTE MANIFEST** Generator's Name and Mailing Address SAUJADIVATER AND ENVIRONMENTA PRANTETOWN SHAPPING CENTER UB ormisisund, LLC 40 1-45 ONASDEROWED SHoppings Contes SUIKS MAN STREET onaubeaunb, my 10962 4. Generator's Phone (266) 839.57 Phulinh, My 12564 6. US EPA ID Number A. Transporter's Phone (908) - 820 - 8800 12000023016 7. Transporter 2 Company Name US EPA ID Number 9. Designated Facility Name and Site Address US EPA ID Number C. Facility's Phone 450 SOUTH FRO. ST STREET Elisbeth, NJ Oroch (608) 355- 55 00 N31000023036 11. Waste Shipping Name and Description 14. Unit Total Wt/Vol a low level clorinated Solvents non ZURA NOW DOT Regulated b. G ATO D. Additional Descriptions for Materials Listed Above E. Handling Codes for Wastes Listed Above 15. Special Handling Instructions and Additional Information 24 Horn Emergency Response # 1-800-255-3924 TNUCK# 164 Decolt EAG # 27 16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste. 17. Transporter 1 Acknowledgement of Receipt of Materia 18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Day Year 19. Discrepancy Indication Space PENDING QUALITY CONTROL 20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

ORIGINAL-RETURN TO GENERATOR

Printed Typed Name Parborough, Jr.

Periodic Review Report 1-45 Orangetown Shopping Center Orangeburg, New York



Appendix D – Groundwater Well Logs

GROUNDWATER PURGE AND SAMPLING FIELD SHEET

Well ID: MW-E

1. PROJE	CT INFORM	ATION:			- 4			4 14-11
Site:	Orangetow	n Shopping	Center	Client:	UB Orang	eburg, LLC	Date: 🔩	9-18-22
Address:	1-45 Orang	etown Shop	ping Ctr.	Project #:	110274	1-06-206	Sampler:	13
	Orangebur	g, New York		NYSDEC S	ite #:	C344066	Weather:	close 50%
Depth to V	2. MONITORING WELL DATA: Depth to Water: Casing Diameter: Calculated Purge Amount: 0-653 20 gallons							
Purge Volume	Calculation:							
(DTB - DTW))*X = X Diameter	(1well volume 0.041 1"	in gallons) 0.163 2"	0.367	0.653 4"	*Remove at le	east 3 well volur	nes*
3. PURGE								
Purge Met		Dedica	ated Teflon I					recharge? Yes No □
Did well p	urge dry?		Yes □	No B		-	n to Water a	
Actual Pu	rge Amount	¥		gallons		Depth to	Water after	recharge: 3/-/5
Water Qua	ality Meter N	flodel:	751	600 mo	5	Time	elapsed for	recharge:
Observe water	er quality paran	neters following	removal of eac	ch well volume				
		pН	Temperature	Conductivity	DO	ORP	Turbidity	Comments or Observations
First Volu	me	6-32	15.47	2.811	3-73	a 3.4	16.8	Clem
Second V	olume	6-28	15.08	3064	3.59	12-1	83.0	Shan
Third Volu	ıme*	6.30	15.09	2.532	3.42	3970	100.9	Stain
* - Sample wa	ater parameters	s. If well ran dry	r, record the pa	rameters of an	y remaining sa	mple water he	re.	
4. SAMPLE DATA Sample ID: Sample Time: J230 Analyses: Was there enough sample volume to fill all sample jars' Depth to Bottom of Well (measure after sampling):				N Duj MS	lumber of Colicate Sam	13.	ed? Yes \(\sigma\) No \(\sigma\)	
5. COMME	ENTS		ni .		•			
-								

GROUNDWATER PURGE AND SAMPLING FIELD SHEET Well ID: **MW-4** mst msD 1. PROJECT INFORMATION: UB Orangeburg, LLC Date: Client: Orangetown Shopping Center Site: Project #: 1102741-06-206 Sampler: Address: 1-45 Orangetown Shopping Ctr. C344066 Weather: Orangeburg, New York NYSDEC Site #: 2. MONITORING WELL DATA: Depth to Water: Calculated Purge Amount: 2. 4 = 3 = 7. 9 gallons Casing Diameter: Purge Volume Calculation: (1well volume in gallons) (DTB - DTW)*X = 0.367 0.653 0.041 0.163 4ⁿ 2" 3" *Remove at least 3 well volumes* 1" Well Diameter 3. PURGE DATA No □ Yes 🖳 Did well recharge? **Dedicated Teflon Bailers** Purge Method: Depth to Water after purge: Did well purge dry? Yes 🗆 Depth to Water after recharge: gallons **Actual Purge Amount:** 4 rumsp Time elapsed for recharge: Water Quality Meter Model: Observe water quality parameters following removal of each well volume: DO **ORP** Turbidity **Comments or Observations** pΗ Temperature | Conductivity 4.11 133.7 4.1 First Volume 131.2 79.9 Second Volume Third Volume* *- Sample water parameters. If well ran dry, record the parameters of any remaining sample water here. 4. SAMPLE DATA Depth to Water at time of Sampling: Sample ID: 9 was Dup, ms, ms Number of Containers: Sample Time: **Duplicate Sample Collected?** Analyses: MS/MSD Sample Collected? Yes 🛛 No □ Yes ✓ No □ explain: Was there enough sample volume to fill all sample jars? 46.80 Depth to DNAPL: Depth to Bottom of Well (measure after sampling): 5. COMMENTS

GROUNDWATER PURGE AND SAMPLING FIELD SHEET

1. PROJECT INFORMATION: UB Orangeburg, LLC Date: Client: Orangetown Shopping Center Site: 1102741-06-206 Sampler: Address: 1-45 Orangetown Shopping Ctr. Project #: C344066 Weather: Orangeburg, New York NYSDEC Site #: 2. MONITORING WELL DATA: 32.93 Depth to Bottom (last round): _ グムー す ひ Depth to Water: Calculated Purge Amount: 2x3 gallons Casing Diameter: Purge Volume Calculation: (1well volume in gallons) (DTB - DTW)*X =0.367 0.653 0.041 0.163 4" 2" 3" 1" *Remove at least 3 well volumes* Well Diameter 3. PURGE DATA Yes □ No Did well recharge? **Dedicated Teflon Bailers** Purge Method: 43.55 No D Depth to Water after purge: Did well purge dry? Yes □ G gallons Depth to Water after recharge: **Actual Purge Amount:** 4CT 650 mgs Time elapsed for recharge: Water Quality Meter Model: Observe water quality parameters following removal of each well volume: ORP Turbidity **Comments or Observations** DO Hq Temperature Conductivity -769 1623 7.858 3.87 946 First Volume 15.11 7.243 4.05 -303 1372 Second Volume 158-4 15.63 12-80 Third Volume* *- Sample water parameters. If well ran dry, record the parameters of any remaining sample water here. 4. SAMPLE DATA タスコン Sample ID: Depth to Water at time of Sampling: Sample Time: /3ω Number of Containers: **Duplicate Sample Collected?** Yes □ No 🔂 Analyses: Yes □ No 🖳 MS/MSD Sample Collected? No -Was there enough sample volume to fill all sample jars? Yes X explain: Depth to DNAPL: Depth to Bottom of Well (measure after sampling): Mre 5. COMMENTS

Well ID:

MW-5

GROUNDWATER PURGE AND SAMPLING FIELD SHEET A8-WM Well ID: 1, PROJECT INFORMATION: UB Orangeburg, LLC Date: Client: Orangetown Shopping Center Site: 1102741-06-206 Sampler: Address: 1-45 Orangetown Shopping Ctr. Project #: NYSDEC Site #: C344066 Weather: Orangeburg, New York 2. MONITORING WELL DATA: Depth to Bottom (last round): Depth to Water: Calculated Purge Amount: 1-39 ×3 gallons Casing Diameter: Purge Volume Calculation: (DTB - DTW)*X =(1well volume in gallons) 0.041 0.163 0.367 0.653 2" 3" *Remove at least 3 well volumes* 1" Well Diameter 3. PURGE DATA Yes No □ Did well recharge? Purge Method: **Dedicated Teflon Bailers** Depth to Water after purge: Yes No 🗆 Did well purge dry? Depth to Water after recharge: gallons Actual Purge Amount: Time elapsed for recharge: Water Quality Meter Model: Observe water quality parameters following removal of each well volume: Turbidity **Comments or Observations** ORP Temperature Conductivity DO pН 46-1 -20.9 4.37 11.71 First Volume Second Volume 128.0 Third Volume* *- Sample water parameters. If well ran dry, record the parameters of any remaining sample water here. 4. SAMPLE DATA Sample ID: Depth to Water at time of Sampling: Sample Time: Number of Containers: No D Yes **Duplicate Sample Collected?** Analyses: Yes □ No B MS/MSD Sample Collected? Yes_ No 🗈 explain: Was there enough sample volume to fill all sample jars? 38.00 Depth to DNAPL: Depth to Bottom of Well (measure after sampling): 5. COMMENTS



Appendix E – EC/IC Form



Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION **Site Management Periodic Review Report Notice**



Institutional and Engineering Controls Certification Form

Sit	Site Details e No. C344066	Box 1					
Sit	Site Name Orangeburg (Orangetown) Shopping Center						
Site Cit Co	e Address: 1-45 Orangetown Shopping Center Zip Code: 10962 y/Town: Orangetown unty: Rockland e Acreage: 1.330						
Re	porting Period: June 17, 2021 to June 17, 2022						
		YES	NO				
1.	Is the information above correct?	X					
	If NO, include handwritten above or on a separate sheet.						
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		x				
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		x				
4.	 Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? 						
	If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form						
5.	Is the site currently undergoing development?		X				
		Box 2					
		YES	NO				
6.	Is the current site use consistent with the use(s) listed below? Commercial and Industrial	Х					
7.	Are all ICs 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	A Corrective Measures Work Plan must be submitted along with this form to address these issues.						
Sig	nature of Owner, Remedial Party or Designated Representative Date						

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

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

9. Are the assumptions in the Qualitative Exposure Assessment still valid?

(The Qualitative Exposure Assessment must be certified every five years)

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

SITE NO. C344066 Box 3

Description of Institutional Controls

<u>Parcel</u> <u>Owner</u> <u>Institutional Control</u>

74.10-1-67 UB Orangeburg, LLC

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan

IC/EC Plan

The Controlled Property may be used for: Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv).

The use of groundwater underlying the site is restricted as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH, or County DOH.

Box 4

Description of Engineering Controls

Parcel <u>Engineering Control</u>

74.10-1-67

Groundwater Treatment System

Vapor Mitigation Cover System

The site owner will be responsible for the operation and maintenance of the sub-slab depressurization systems as discussed in the Site Management Plan.

All three SSDSs are temporarily shut-down. The SSDS at 1 space (former Deli Spot) was decommissioned. Sub-slab and indoor air samples will be collected annually as determined from the former Sparkle Cleaners (locations V-5 and VP-6). If potential impacts are not observed during the sampling events then the sampling can be discontinued and no further action is needed. However, if any potential impacts are identified then monitoring must continue and/or the SSDS must be re-installed at the former Sparkle Cleaners.

The site owner will be responsible for the operation and maintenance of the composite cover system as discussed in the Site Management Plan.

R	^	~	5
О	U.	x	-

			DOX 5
	Periodic Review Report (PRR) Certification Statements		
1.	I certify by checking "YES" below that:		
	 a) the Periodic Review report and all attachments were prepared under the dire reviewed by, the party making the Engineering Control certification; 	ction of,	and
 b) to the best of my knowledge and belief, the work and conclusions described in this are in accordance with the requirements of the site remedial program, and generally ac engineering practices; and the information presented is accurate and compete. 			
	engineering practices, and the information presented is accurate and compete.	YES	NO
		Х	
2.	For each Engineering control listed in Box 4, I certify by checking "YES" below that all following statements are true:	of the	
	(a) The 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 De	partmen	t;
	(b) nothing has occurred that would impair the ability of such Control, to protect the environment;	public h	ealth and
	(c) access to the site will continue to be provided to the Department, to evaluate remedy, including access to evaluate the continued maintenance of this Control		
	(d) nothing has occurred that would constitute a violation or failure to comply wi Site Management Plan for this Control; and	th the	
	(e) if a financial assurance mechanism is required by the oversight document for mechanism remains valid and sufficient for its intended purpose established in the		
		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.

Date

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

Signature of Owner, Remedial Party or Designated Representative

IC CERTIFICATIONS SITE NO. C344066

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.

Michael DeGloria	Groundwater & Environ at 63 East Main Street, U	mental Services, Inc. nit 3, Pawling, NY 12564		
print nam	ne print business	address		
am certifying as	Remedial Party	(Owner or Remedial Party)		
for the Site named in	the Site Details Section of this form.			
Michael DeGloria Digitally signed by Michael DeGloria Date: 2022.07.13 14:45:22 -04'00'				
Signature of Owner, F Rendering Certification	Remedial Party, or Designated Representative on	Date		

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

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

Groundwater & Environmental Services, Inc.

1777 Veterans Memorial Highway, Suite 20, Islandia, NY 11749

print name print business address

am certifying as a Professional Engineer for the Remedial Party

Professional Engineer for the Remedial Party

Professional Engineer for the Remedial Party

Signature of Professional Engineer, for the Owner or

Remedial Party, Rendering Certification

(Required for PE)