



Former Newsday Facility

235 Pinelawn Road
Melville, Suffolk County, New York
Tax Map Number 0400-270.00-01.00-024.001

REMEDIAL INVESTIGATION WORK PLAN

JANUARY 17, 2019

PREPARED FOR:

235 Pinelawn Road South LLC
400 Plaza Drive, P.O. Box 1515
Secaucus, New Jersey 07096-1515

PREPARED BY:

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PROJECT NO: 54600

January 17, 2019

Mr. Walter Parish
New York State Department of Environmental Conservation
Division of Environmental Remediation – Region 1
50 Circle Road
Stony Brook, New York 11790
Email: walter.parish@dec.ny.gov

**RE: Remedial Investigation Work Plan
Former Newsday Facility
235 Pinelawn Road
Melville, Suffolk County, New York 11747
Tax Map Number 0400-270.00-01.00-024.001**

Dear Mr. Parish:

Vertex Engineering, PC (VERTEX) is pleased to submit this proposed Remedial Investigation Work Plan (RIWP) for the above-referenced property (the site) on behalf of the Volunteer (235 Pinelawn Road South LLC). The RIWP is being submitted along with the Brownfield Cleanup Program (BCP) application.

Please do not hesitate to contact us at your convenience should you have any questions or comments regarding this RIWP.

Sincerely,
Vertex Engineering, PC



Joseph J.C. Dultz
Vice President

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LIST OF ACRONYMS

Acronym	Definition
AAR	Alternative Analysis Report
AWQS	Ambient Water Quality Standards
BCP	Brownfield Cleanup Program
BGS	Below Ground Surface
CLASS GA	Groundwater Effluent Limitations
CP PLAN	Citizens Participation Plan
DER	Division of Environmental Remediation
DNAPL	Dense Non-Aqueous Phase Liquid
DOT	Department of Transportation
DUSR	Data Usability Summary Report
ESA	Environmental Site Assessment
ELAP	Environmental Laboratory Accreditation Program
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographic Information System
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations Emergency Response
IDW	Investigation-Derived Waste
LNAPL	Light Non-Aqueous Phase Liquid
NYCRR	New York Codes Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ORP	Oxidation-Reduction Potential
OSHA	United States Occupational Health and Safety Administration
PFAS	Per-and Polyfluoroalkyl Substances
PCB	Polychlorinated Biphenyls
PID	Photo-Ionization Detector
PPE	Personal Protective Equipment
PPM	Parts Per Million
PVC	Poly Vinyl Chloride

Acronym	Definition
QAPP	Quality Assurance Project Plan
QA / QC	Quality Assurance / Quality Control
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
SCOs	Soil Cleanup Objectives
SIM	Select Ion Monitoring
SPDES	State Pollutant Discharge Elimination System
SVOC	Semi-Volatile Organic Compounds
TAL	Target Analyte List
TCL	Target Compound List
TOGS	Technical and Operational Guidance Series
UG/L	Micrograms Per Liter
USEPA	United States Environmental Protection Agency
VI	Vapor Intrusion
VOCs	Volatile Organic Compounds

REMEDIAL INVESTIGATION WORK PLAN
Former Newsday Facility
235 Pinelawn Road
Melville, Suffolk County, New York 11747
Tax Map Number 0400-270.00-01.00-024.001

1.0 INTRODUCTION

This Remedial Investigation Work Plan (RIWP) has been developed for the Former Newsday Facility property located at 235 Pinelawn Road in Melville, Town of Huntington, Suffolk County, New York (the site). The RIWP is being submitted in concurrence with the New York State Brownfield Cleanup Program (BCP) application submittal for the Requestor, 235 Pinelawn Road South LLC.

This RIWP has been prepared in general accordance with New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER)-10 / Technical Guidance for Site Investigation and Remediation (May 3, 2010).

1.1 Site Description

The site consists of one parcel identified as Tax Map Number 0400-270.00-01.00-024.001. A Site Location Map is provided as Figure 1. The site is located in a commercial, residential, and light industrial area, to the west of Pinelawn Road, south of Ruland Road, and east of Deshon Drive. The approximate site area is 1,420,056 square feet (32.6 acres).

The site is improved with a one and two-story Newsday facility (main building), a wastewater treatment plant (WWTP; wastewater building), and two guard sheds. The main building was constructed in 1978 and 1986 and consists of approximately 523,000 square feet of space situated on the central portion of the site. The main building is constructed of steel framing with concrete block, corrugated metal, exterior finishes and a flat roof on a primarily slab-on-grade

foundation. A small section of the eastern portion of the main building is underlain by a basement.

The wastewater building was constructed in 1978 and consists of approximately 900 square feet of floor space situated on the western portion of the site. The wastewater building is constructed of steel framing with concrete block exterior finishes and a flat roof on a slab-on-grade foundation.

Two guard shacks are located on the west-central and southeastern portions of the site. These buildings were constructed in the 2000s and consist of less than 600 square feet of combined floor space.

The site buildings are serviced by municipal water (South Huntington Water District), electricity (PSE&G), and natural gas (National Grid).

Exterior areas include asphalt-paved parking areas and driveways, a WWTP and associated tanks, aerators, and membranes, storage sheds, landscaped areas, concrete sidewalks, loading areas, emergency generators, underground storage tanks (USTs), aboveground storage tanks (ASTs), and a truck fueling area. The majority of the site is surrounded by fencing. For a layout of the site, please refer to Figure 2.

The site is currently operated by Newsday administrative functions. Printing operations ceased at the site in June 2018 and the remaining production operations ceased in December 2018. Based on a review of the Town of Huntington Geographic Information System (GIS) mapping website, the site is zoned I-1 (Light Industry). The I-1 (Light Industry) zone allows for the following uses: farming; nurseries/greenhouse; laboratories; office buildings; dairies; warehouse and distribution facilities; light manufacturing; day-care center; business or trade school; radio, recording, or television/movie production studio; and library, museum, and art gallery. The

neighboring properties are currently used for a combination of commercial, residential, and light industrial uses (Figure 3).

The topography of the site slopes gradually to the south and southeast. Exterior areas at the site include asphalt-paved parking areas and driveways, building footprints, concrete sidewalks, loading/unloading areas, and landscaped areas. Storm water drainage is expected to discharge to greater than 50 storm water basins (dry wells) located primarily in the parking areas and driveways at the site. The storm water discharges are regulated under the existing State Pollutant Discharge Elimination System (SPDES) permit identified as Outfall 002 (NYSDEC Permit No. 1-4726-00157/0001, SPDES Facility No. NY-0136751), which expires on November 30, 2021.

1.2 Surrounding Land Use

The site is located in a primarily commercial, residential, and light industrial area in Melville, Town of Huntington, New York (Figure 3). Properties to the north include a parking lot and ball field, followed by Ruland Road, a racquet club to the northeast and residences to the northwest. East of the site, beyond Pinelawn Road, is a cemetery. Deshon Road is located to the west, followed by a BAPS temple and residences. Adjoining properties to the south include three light industrial buildings occupied by Clare Rose beer distributor, Baby King and Pet King, and a vacant building.

Based on visual observations during a site reconnaissance and a review of the Suffolk County GIS mapping program, the following sensitive human receptors (residences and/or schools) were identified in the vicinity of the site:

Sensitive Human Receptors			
Name	Address	Distance/Direction from the Site	Gradient in Relation to the Site
The Club at Melville Apartment	25 Deshon Drive	130 feet West	Crossgradient to Downgradient
Private Residences	44 Duryea Road and 127 Ruland Road	850 feet North	Crossgradient to Downgradient

A map depicting the sensitive receptors in the vicinity of the site is provided as Figure 3.

1.3 Historic Use of the Site

According to the Phase I Environmental Site Assessment (ESA) performed by VERTEX in 2018, the site was primarily unimproved agricultural land with farm-related structures from the late 1800s to the mid-1970s. An unpaved road also traversed the site from at least the 1940s to early 1970s. The original portion of the current site building was constructed in 1978, which was expanded in 1986 bringing the site building into its current configuration. The site building has been occupied by Newsday since it was developed. Operations included newspaper printing until June 2018, when the operations were reduced to administrative and packaging only. All production activities at the site ceased in December 2018 and only administrative operations are performed at the site as of the date of this workplan.

1.4 Site Geology and Hydrogeology

Subsurface soils at the site consist of course, medium, and fine-grained sands brown to light brown in color with stone and cobbles. Asphalt fragments, crushed brick, and concrete were observed at depths up to three feet below ground surface (bgs) in portions of the site.

Groundwater has been encountered at depths of approximately 40 feet bgs. The groundwater flow direction at the site has not been confirmed through the installation and surveying of

permanent monitoring wells; however, topography in the area of the site indicates groundwater flow is likely to the southeast. On-site groundwater flow direction will be confirmed during the proposed Remedial Investigation (RI) activities outlined in this report.

In accordance with New York Codes, Rules and Regulations Title 6 (6 NYCRR) Part 701: Classifications-Surface Waters and Groundwater, groundwater at the site is identified as Class GA (fresh groundwater). There are no known groundwater supply wells on the site, and currently there are no known deed restrictions on the use of groundwater at the site. Groundwater in the vicinity of the site is not utilized for industrial, agriculture, or public supply purposes.

1.5 Wetlands and Floodplain

Review of the U.S. Fish & Wildlife Service, National Wetlands Inventory, Wetlands Mapper program identified no Federally-regulated wetlands on the site. The closest wetland area is located approximately 6,200 feet to the east. A wetland map is included as Figure 4. No State-regulated wetlands were identified on the site or close in proximity to the site, based on a review of the NYSDEC tidal wetlands map.

No naturally-occurring surface water bodies were observed on or adjoining the site. The closest waterbody is Belmont Lake, located approximately 3.75 miles to the southeast.

Based on the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM) 3604970038F, the site is not located in a 100- or 500-year floodplain.

2.0 PREVIOUS VAPOR INTRUSION, SOIL, GROUNDWATER, SEDIMENT, AND CONCRETE CHARACTERIZATION

The following provides a summary of the site characterization activities completed to date at the site. These activities include soil vapor, soil, concrete, and groundwater sampling performed in January and September 2018. These investigation activities were documented in the Draft Limited Phase II Site Investigation Report (RPS, March 2018) and the Phase II Limited Subsurface Investigation Report (VERTEX, October 2018).

2.1 Vapor Intrusion Investigation

RPS conducted vapor intrusion (VI) sampling during the heating season in January 2018, which included the collection of five sub-slab soil vapor samples (SS-1 through SS-5) and one exterior soil gas sample on-site. Indoor air samples were not collected as part of this investigation. All samples were analyzed for the presence of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method TO-15.

Evaluation of the soil vapor analytical data identified a concentration of carbon tetrachloride in excess of the New York State Department of Health (NYSDOH) matrix sub-slab soil vapor concentration criteria. This detection is likely associated with historical operations within the site building and a related source area underlying the site building. None of the other detected soil vapor concentrations were identified in exceedance of the NYSDOH matrix sub-slab soil vapor concentrations criteria. Results of the soil gas samples did not identify concentrations in exceedance of the NYSDOH matrix sub-slab soil vapor concentrations criteria.

A Soil Vapor Results Map of concentrations exceeding the NYSDOH matrix is included as Figure 5, and the analytical results are summarized in Table 1.

2.2 Soil and Groundwater Investigation

RPS (January 2018)

The soil and groundwater investigation conducted by RPS in January 2018 included the installation of two soil borings (GP-1 and GP-2) on the interior of the site building and two soil borings on the exterior of the site building in an area of former USTs (GP-3) and in the vicinity of the WWTP (GP-4). A temporary monitoring well was also installed at boring GP-4 for the collection of a groundwater sample. Soil and groundwater samples were collected and analyzed for VOCs, polynuclear aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) Metals (dissolved metals in groundwater).

Review of the soil analytical results identified no VOCs, PAHs, or metals in exceedance of the most stringent NYSDEC Soil Cleanup Objectives (SCOs). Review of the groundwater analytical results identified no VOCs and metals in exceedance of the NYSDEC Ambient Water Quality Standard (AWQS) and NYSDEC Groundwater Effluent Limitations (Class GA) standard of 0.002 micrograms per liter (ug/l). The PAH benzo(b)fluoranthene was detected in sample GP-4 at a concentration of 0.00424 ug/l, which is above the AWQS and Class GA standard.

VERTEX (September 2018)

The soil and groundwater investigation conducted by VERTEX in September 2018 included the installation of five soil borings on the interior of the site building (VTX-1 through VTX-5) in operational and chemical storage areas. Eleven soil borings (VTX-6 through VTX-16) were installed on the exterior of the site building in leaching basin areas, adjacent to a hazardous materials storage shed, downgradient of the WWTP, in areas of current USTs, and in former spill areas.

Temporary monitoring wells were installed at borings VTX-5, VTX-7, VTX-8, VTX-10, VTX-11, VTX-12, and VTX-14 for the collection of groundwater samples. Soil samples were collected and analyzed for VOCs, semi-volatile organic compounds (SVOCs), and target analyte list (TAL) Metals. Groundwater samples were collected and analyzed for VOCs, SVOCs, and total/dissolved metals.

Review of the soil analytical results identified no VOCs, SVOCs, or metals in exceedance of the most stringent NYSDEC SCOs with the exception of acetone in sample VTX-9. The concentration of acetone was only in exceedance of the NYSDEC unrestricted-use SCO and below the commercial use SCO.

Several PAHs including benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene were detected in three or more wells at concentrations ranging from 0.02 to 0.06 ug/l, which exceed the AWQS of 0.002 ug/l. These samples were collected from the WWTP area, leaching basins, underneath the main building, and downgradient of the WWTP. Several metals were detected above the AWQS and Class GA standards in four groundwater samples collected in areas of leaching basins, and downgradient of the WWTP. Notable metals detected above the AWQS included silver (59.28 ug/l), antimony (4.44 ug/l), chromium (up to 1,933 ug/l), lead (up to 163.7 ug/l), and selenium (up to 38.1 ug/l). No other analytes were detected in the groundwater samples at concentrations exceeding the AWQS or Class GA standards.

The soil analytical results are summarized in Table 2. A Groundwater Results Map is included as Figure 7, and the groundwater results are presented in Table 3.

2.3 Sediment Investigation

During the VERTEX Phase II LSI in September 2018, sediment samples were collected from two dry wells located on the northern exterior of the basement area (DW-1) and southern exterior of

the basement area (DW-2). The sediment samples collected were analyzed for VOCs, SVOCs, and TAL Metals. Review of the soil analytical results identified several PAHs detected above the commercial and/or industrial use SCOs in sediment sample DW-2. Specifically, benzo(a)pyrene (3.7 mg/kg) was detected above the commercial SCO (1.0 mg/kg) and industrial SCO (1.1 mg/kg), and dibenzo(a,h)anthracene (0.62 mg/kg) was detected above the commercial SCO (0.56 mg/kg). Silver was also detected above the protection of groundwater and unrestricted-use SCO in sediment sample DW-1. Given the historical use of the site as a printing operation, silver is considered a contaminant of concern. No VOCs or metals were detected above the NYSDEC commercial use SCOs.

A Sediment Results Map is included as Figure 6 and the sediment results are presented in Table 4.

2.4 Concrete Investigation

During the VERTEX Phase II LSI in September 2018, a total of five concrete chip samples (CC-1 through CC-5) were collected from stained areas within the building. Arsenic (24.4 mg/kg) was detected in sample CC-3 collected from a drum storage area at a concentration above the commercial SCO (16 mg/kg). Total xylenes, 1,2,4-trimethylbenzene (1,2,4-TMB), and phenols were also detected in concrete samples at concentrations exceeding the protection of groundwater SCOs or unrestricted use SCOs. Additionally, acetone (one sample), copper (two samples), and zinc (three samples) were detected above the unrestricted use SCOs. Soil samples were not collected beneath these areas to determine if soils are impacted above NYSDEC SCOs.

A Concrete Results Map is included as Figure 8 and the concrete results are presented in Table 5.

2.5 RCRA Closure Plan

A RCRA Closure Plan was submitted to the NYSDEC by H2M in July 2018 to formally cease and document completion of regulated waste activities. The closure plan was approved by the NYSDEC in August 2018. The purpose of completing the closure is to eliminate post-closure maintenance of hazardous waste generation sources and hazardous waste storage areas at the site and to minimize the potential for a post-closure release of hazardous waste to the environment. The closure of the facility will include the removal of all hazardous wastes, decontamination of the hazardous waste storage areas, confirmatory rinsate and subsurface soil sampling, and removal of all wastes generated during closure. The plan outlined proposed rinsate and soil sampling procedures in the former silver recovery room and photo waste room within the basement, and in the ink recovery room. The plan also described proposed removal and sampling of several areas of industrial waste piping associated with spent fixer and developer.

Areas subject to RCRA closure, as outlined in the July 2018 plan, will not be addressed as areas of concern in this RIWP.

2.5 Underground Storage Tanks

Three 20,000-gallon diesel fuel USTs and associated dispensers are currently located on the southwestern portion of the site. These USTs have reportedly been emptied but remain and have not been closed in accordance with applicable regulations. In addition, one 2,500-gallon No. 2 fuel oil UST remains in operation along the west-central exterior of the site building. All four USTs will reportedly be closed and removed by the current operator and therefore will not be addressed as an area of concern in this RIWP.

2.7 Wastewater Treatment Plant

The WWTP located on the west-central portion of the site will remain in operation until current Newsday operations at the site cease in 2019. Decommissioning activities associated with this WWTP will be completed following cessation of operations and therefore will not be addressed in this RIWP.

3.0 QUALITY ASSURANCE PROJECT PLAN

A Quality Assurance Project Plan (QAPP) was prepared to guide the implementation of the proposed RI activities. Quality assurance/quality control (QA/QC) procedures will be used to provide performance information with regard to accuracy, precision, sensitivity, representation, completeness, and comparability associated with the sampling and analysis for the RI at the site.

3.1 Project Technical Personnel and Contractors

The table below summarizes the planned principal personnel to participate in the RI activities.

Project Technical Personnel and Contractors			
Name	Company	Responsibility	Contact Information
Christopher K. Cook	The Vertex Companies, Inc.	Project Manager	(908) 333-4303
Joseph J.C. Dultz	Vertex Engineering, PC	Project Manager / Technical Support	(908) 333-4312
Richard J. Tobia, P.E.	Vertex Engineering, PC	New York-licensed Professional Engineer	(908) 458-9604
John Charles	Hawk Drilling, Inc.	Drilling Services	(908) 323-2187
Martin Ebel	All Clear Site Safety Services	Geophysical Contractor	(908) 323-2193
Ethan Leighton	Alpha Analytical Inc.	Laboratory Contact	(508) 439-5146

3.2 Sampling Methodology

All sampling will be conducted in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 3, 2010, and Sampling Guidelines and Protocols, dated March 1991.

Soil samples will be collected by VERTEX from discrete, six-inch intervals, from unique borings advanced at the site via a track-mounted direct-push drill rig (e.g., Geoprobe®) and a jack-hammer probe. The direct-push drill rig will advance a five-foot long stainless steel macro-core sampler, while the jack-hammer probe advances two-foot samplers. Per each advancement, a dedicated, disposable polybutyl acetate liner will be used in which the soil samples are held for field assessment. Continuous soil cores will be screened with a photo-ionization detector (PID) and visually and olfactory inspected. Disposable nitrile gloves will be worn during the soil screening process and sampling collection. The soil samples will be collected in dedicated laboratory-provided Encore samplers and laboratory-provided containers.

For the collection of groundwater samples from permanent monitoring wells by VERTEX, the wells will be purged with disposable polyethylene tubing and a stainless-steel submersible pump. Three well volumes will be purged using the volume averaged sampling method. Following purging, a grab groundwater sample will be collected using a polyethylene disposable bailer.

Sediment samples will be collected from the bottom of dry wells utilizing extended hand coring devices with handles or similar equipment. The sediment will be screened with a PID and visually and olfactory inspected. Disposable nitrile gloves will be worn during the sediment screening process and sample collection. The sediment samples will be collected in dedicated laboratory-provided Encore samplers and laboratory-provided containers.

Concrete samples will be collected from the surface of the concrete (0.0-0.5 inches into the surface of the concrete) using a hammer and chisel. The technique will produce concrete chips that can be placed in laboratory supplied glassware for analysis.

Equipment will be operated in accordance with the manufacturer's specifications, including calibration of all field instruments, which will be performed prior to the initiation of field work and on a schedule indicated by the manufacturer.

Following the soil, groundwater, sediment, and concrete sample collection, the sample containers will be secured, labeled, and placed in a storage/transportation cooler and cooled to acceptable temperatures (e.g., four degrees Celsius) with ice. Samples will then be transported by a field courier to the laboratory following proper chain of custody procedures. The courier will relinquish custody to the log-in sample custodian upon arrival at the laboratory.

3.3 Report Logs

Field logs and borings logs will be completed during the course of RI activities. A field log will be completed on a daily basis, which will describe all field activities including: project number and site address; date and time; weather conditions; on-site personnel and associated affiliations; description of field activities; pertinent sample collection information (sample identification, description of sample, sample location, sample collection time, sampling methodology, name of collector, field screening results, and analysis to be conducted). A boring log will be completed for each soil boring/monitoring well, which will include the following: project number and site address; date and time; drilling company name and drilling method; boring/monitoring well identification, total boring depth and water table depth; and pertinent sample collection information (sample identification, sample depth, interval, recovery amount, color, composition, percent moisture, PID readings, and visual/olfactory observations).

3.4 Laboratory Summary

All samples collected during the RI activities will be submitted under proper chain-of-custody protocols to Alpha Analytical, Inc. (Alpha) in Westborough, Massachusetts (New York Environmental Laboratory Approval Program [ELAP] No. 11148).

3.5 Analytical Method/Quality Assurance

As part of the RI activities, soil, sediment, concrete, and groundwater samples will be collected. The sampling, including matrix, frequency of collection, analytical parameter, analytical method, sample preservation, sample container volume and type, and holding time are provided in the summary tables below.

In accordance with NYSDEC requests for BCP projects, analysis of all soil, sediment, concrete, and groundwater samples will be conducted for the complete target compound list (TCL) / TAL suite of analyses, which includes VOCs via USEPA Method 8260, SVOCs via USEPA Method 8270, pesticides/polychlorinated biphenyls (PCBs) via USEPA Methods 8081/8082, TAL metals via USEPA Methods 6010/7471, and cyanide via USEPA Method 9012. To address the NYSDEC's concern with emerging contaminants, initial groundwater samples will also be analyzed for 1,4-dioxane via USEPA Method 8270 selective ion monitoring (SIM) and per-and polyfluoroalkyl substances (PFAS) via USEPA Method 537. Following the review of the initial PFAS results in groundwater, consideration will be made to analyze soil samples for PFAS and/or the continued analysis of additional groundwater samples for PFAS.

Soil / Sediment / Concrete Sampling Summary				
Analytical Parameter	Analytical Method	Sample Preservation	Sample Container	Sample Holding Time
VOC	8260	Cool, 4°C	Encore	48 Hours
SVOC	8270	Cool, 4°C	8 oz Glass Jar	14 Days
Pesticides/ PCB	8081/8082	Cool, 4°C	8 oz Glass Jar	14 Days
TAL Metals	6010/7471	None	8 oz Glass Jar	6 Months
Cyanide	9012	Cool, 4°C	8 oz Glass Jar	14 Days
*1,4-Dioxane	8270	Cool, 4°C	8 oz Glass Jar	14 Days
*PFAS	537 (m)	Cool, 4°C	8 oz Glass Jar	28 Days

* = These analytes will not be analyzed on concrete samples.

Groundwater Sampling Summary				
Analytical Parameter	Analytical Method	Sample Preservation	Sample Container	Sample Holding Time
VOC	8260	HCl, Cool, 4°C	40 ml Vials	14 days
SVOC	8270	Cool, 4°C	500 mL Amber Glass	7/40 days
Pesticides/ PCB	8081/8082	Cool, 4°C	500 mL Amber Glass	7/40 days
TAL Metals	6010/7471	HNO ₃ , Cool, 4°C	500 mL plastic	6 months
Cyanide	9012	NaOH, Cool, 4°C	500 mL plastic	14 days
1,4-Dioxane	8270	Cool, 4°C	500 mL Amber Glass	7/40 days

Groundwater Sampling Summary				
Analytical Parameter	Analytical Method	Sample Preservation	Sample Container	Sample Holding Time
PFAS	537	Trizma, Cool, 4°C	(2) 250 ml Vials	14 Days

If either Light Non-Aqueous Phase Liquid (LNAPL) and/or Dense Non-Aqueous Phase Liquid (DNAPL) are detected, appropriate samples will be collected for characterization and “fingerprint analysis” and required regulatory reporting (i.e. spills hotline) will be performed.

A thorough evaluation of the laboratory data will be completed and a Data Usability Summary Report (DUSR) will be prepared. The primary objective for the evaluation of analytical data will be to determine whether or not the data, as presented, meets the site-specific criteria for data quality and use. The preparation of the DUSR will be prepared by a qualified, independent data validation expert. The DUSR will be prepared in accordance with *Appendix 2B, Guidance for Data Deliverables and the Development of Data Usability Summary Reports* included in NYSDEC DER-10: *Technical Guidance for Site Investigation and Remediation*.

3.6 Quality Assurance Samples

Field blanks and trip blanks will be submitted to the laboratory to evaluate the quality and performance of the analytical laboratory’s analysis and reporting of the soil, sediment, concrete, and groundwater sample results. Field (equipment) blanks will be analyzed to assess any contamination contributed from sampling location conditions, and the transport, handling, and storage of the samples. The trip blank will be analyzed to determine if sample containers may have been contaminated during transportation and storage. In accordance with DER-10, field duplicates, aqueous trip blanks, and field blanks will be collected at a frequency of 1 per 20 samples and will be analyzed for the complete TCL / TAL suite of analyses.

4.0 HEALTH AND SAFETY PLAN

A Health and Safety Plan (HASP) was prepared to guide the conduct of the RI work in the event that petroleum hydrocarbons and/or hazardous substances are encountered during the performance of the field activities. A copy of the HASP is included as Appendix A. The purpose of the HASP is to minimize the likelihood of exposure of VERTEX employees to hazardous concentrations of chemicals encountered during field activities, minimize impacts to the environment, and provide safety guidelines for subcontractors.

Investigative work performed under this RIWP will be in full compliance with applicable health and safety laws and regulations, including site and Occupational Safety & Health Administration (OSHA) worker safety requirements and Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements. Confined space entry, if any, will comply with OSHA requirements and industry standards, and will address potential risks. The parties performing the investigation work will ensure that performance of work is in compliance with the HASP and applicable laws and regulations. Field activities will be completed with OSHA level D personal protective equipment (PPE) consisting of hard hats, safety glasses, protective gloves and steel toed boots.

An emergency contact sheet with names and phone numbers for all pertinent project personnel as well as regulatory hotline information is included in the HASP. That document will define the specific project contacts for use in case of emergency.

Health and safety activities will be monitored throughout the RI activities, and the HASP will be subject to change, as necessary, based on new conditions that may be encountered during the field investigation.

5.0 REMEDIAL INVESTIGATION WORK PLAN

The objective of the RI is to further characterize soil, sediment, concrete, and groundwater conditions. These activities include the following:

- Installation of soil borings and the collection of soil samples to evaluate:
 - Soil quality below the footprint of the site building;
 - The location a potential source area of the previous detection of carbon tetrachloride in soil gas beneath the building slab;
 - A former ink unloading area;
 - A former 2,000-gallon solvent/spill containment UST;
 - Leaching/recharge basins associated with the WWTP;
 - Exterior industrial wastewater piping;
 - The area of former closed in place USTs;
 - An area of former gasoline and diesel fuel USTs removed in 1985; and
 - A former spill area located to the southeast of the site building.
- Installation of permanent monitoring wells and the collection of groundwater samples to confirm groundwater flow direction and evaluate potential groundwater impacts associated with historical operations and spill incidents.
- Collection of grab sediment samples at select dry well locations adjacent to operational areas.
- Collection of surface concrete samples from within the site building to further characterize concrete for potential disposal or re-use.

5.1 Citizen Participation

In accordance with BCP requirements, a Citizens Participation Plan (CP Plan) will be prepared and submitted to the NYSDEC under separate cover. The CP Plan will provide a summary of the BCP and citizen participation activities, site information, project contacts, and the RI process.

5.2 Utility Clearance and Geophysical Evaluation

As part of the subsurface investigation, VERTEX's drilling subcontractor will contact the New York one call system prior to initiating the drilling activities. VERTEX will also retain the services of a geophysics subcontractor to conduct a geophysical survey using ground penetrating radar (GPR) and electromagnetic evaluation to mark-out subsurface utilities, evaluate drains and subsurface piping, evaluate current and former UST areas, evaluate leaching basins, and "clear" any proposed soil boring locations prior to drilling. VERTEX will also coordinate with the property owners or site contacts, and/or obtain existing utility plans, if available, in an attempt to confirm that all drilling locations, if warranted, are free of underground utilities.

5.3 Soil Boring Installation

This task will involve advancing up to 33 soil borings at the site. Nine (9) of the borings are proposed on interior portions of the building utilizing concrete coring equipment and direct push (i.e., Geoprobe®) drilling techniques. These borings will be advanced to a maximum depth of 30 feet below the first-floor slab. The remaining 24 soil borings are proposed on exterior portions of the site utilizing direct push (i.e., Geoprobe®) or jack-hammer probe drilling techniques. Twelve of the exterior borings will be advanced to a maximum depth of 35 feet bgs. One of the exterior borings located adjacent to the basement and an area-way dry well sampled during previous investigations will be advanced to a depth of 15 feet below grade. The following table provides a summary of the proposed soil boring locations:

Proposed Soil Boring Location Summary		
Area of Concern	Location	Proposed Number of Borings
Former printing reel rooms	First floor of the main building.	Four
Fountain solution waste area	Northern portion of the first floor of the main building.	One
Former stripping rooms	Northern portion of the first floor of the main building.	Two
Former carbon tetrachloride soil gas exceedance	Former collating area of the first floor of the main building.	One
Former diesel fuel and gasoline USTs removed in 1985	Northwestern interior and exterior areas of main building.	Four
Former ink unloading area	Western exterior of the main building.	One
Former 2,000-gallon solvent/spill containment UST	Western exterior of the main building.	One
WWTP leaching basins	Two borings to the north of the WWTP in a leaching basin area. Six borings to the west of the WWTP building in a leaching basin area. One boring to the southeast of the WWTP building in a former temporary leaching basin area.	Nine
Industrial wastewater piping	Between the WWTP and southwestern corner of the site building in a parking area/driveway.	Five
Former spill area impacting dry wells/basins	Southeast of the main building.	Two
Closed-in-place 25,000-gallon fuel oil USTs	Along the southeastern exterior of the main building.	Two
Area-way dry well	Area-way adjacent to the southern portion of the basement.	One

The proposed interior and exterior boring locations are depicted on Figures 9 and 10, respectively. The location of the soil borings may need to be adjusted in the field, based on the findings of the geophysical evaluation and/or due to site access limitations (i.e. tenant operations, structural obstructions, etc.).

5.3.1 Soil Sampling

Soil samples will be collected continuously and screened in the field for the presence of total volatile organic vapors using a PID calibrated to 100 parts per million (ppm) by volume of isobutylene. The PID readings, soil lithology, and field observations will be documented in the field by VERTEX. Samples will be biased to the interval with the strongest evidence of suspected impacts based on PID readings, odors, staining, etc. In the event no field evidence of hazardous constituents is observed, soil samples will be collected from the first six-inch interval of soil present above the soil/groundwater interface or drilling refusal, as warranted by field observations and conditions.

Soil samples will be collected and analyzed for TCL/TAL and the emerging contaminants PFAS and 1,4-dioxane. All soil samples will be grab samples; no composite soil samples are proposed. Following soil sample collection, boreholes will be backfilled with soil cuttings with an upper bentonite plug and capped with concrete patch.

5.4 Monitoring Well Installation

This task will involve the installation of nine permanent on-site groundwater monitoring wells utilizing hollow-stem auger drilling techniques, to the maximum depth of 55 feet bgs. The proposed monitoring well locations are depicted on Figure 11. The locations of the soil borings/monitoring wells may need to be adjusted in the field, based on the findings of the

geophysical evaluation, due to site access limitations (i.e. parked vehicles, equipment, etc.), and/or impacts identified in soil borings proposed in this RIWP. The following table provides a summary of the proposed monitoring well locations:

Proposed Monitoring Well Location Summary	
Well ID	Rationale for Monitoring Well Location
MW-1	The monitoring well is positioned up-gradient of the Main Building and Wastewater Building, and in the vicinity of the northwest leaching basin. Sampling will be conducted to further investigate elevated SVOCs and metals identified during the September 2018 VERTEX investigation, and evaluate any potential contaminants coming onto the site from an off-site source.
MW-2	The monitoring well is positioned in the approximate area of the former gasoline and diesel fuel USTs removed in 1985.
MW-3	The monitoring well is positioned down-gradient of the Wastewater Building to investigate potential releases from the treatment plant.
MW-4	The monitoring well is positioned in the vicinity of temporary monitoring well TW-11 and will be sampled to further investigate elevated SVOCs and metals identified during VERTEX's September 2018 investigation.
MW-5	The monitoring well will be installed in the interior of the Main Building, in the vicinity of soil gas sample SS-3, to further investigate the elevated carbon tetrachloride detection in soil gas.
MW-6	The monitoring well is positioned in the vicinity of temporary monitoring well TW-5 and will be sampled to further investigate elevated SVOCs identified during VERTEX's September 2018 investigation.
MW-7	The monitoring well will be installed in the vicinity of the southeast leaching basin, in a location down-gradient of the Main Building.
MW-8	The monitoring well is positioned adjacent to the closed-in-place 25,000-gallon fuel oil USTs.
MW-9	The monitoring well is positioned at the assumed most down-gradient location on-site, to evaluate any potential contaminants migrating off the site.

Details of the monitoring well completion depths and construction information will be recorded by VERTEX in the field. The monitoring wells will be constructed of 2-inch diameter Schedule 40

slotted (0.010 inch) polyvinyl chloride (PVC) screen and 2-inch diameter PVC riser to grade. The well screen annulus will be filled with sand pack from the base of the screen to 1 to 2 feet above the top of the screen. A bentonite/grout slurry will be installed from the top of the sand pack to ground surface. VERTEX assumes that the monitoring wells will be installed to a depth no greater than 55 feet bgs. The screened interval for the monitoring wells (10 feet) will be installed to intersect the shallow groundwater table and will extend to the completion depth of the well. Surface finishing will consist of a flush-mount traffic-rated manhole with a bolt-on lid set into a concrete pad. Additionally, an expandable locking cap will be fitted to the top of the PVC riser in the well.

The monitoring wells will be developed following installation to improve the hydraulic efficiency, by the removal of the fine-grained material generated during the drilling process. Groundwater will be purged from the monitoring wells using disposable polyethylene tubing and a submersible pump, until turbid-free water is observed.

The monitoring wells are positioned so that groundwater flow direction can be triangulated from the elevation information obtained following the gauging and surveying of the wells. VERTEX will coordinate with a licensed surveyor to obtain the position and elevation of each monitoring well casing.

5.4.1 Groundwater Sampling

The newly installed monitoring wells will be allowed to stabilize and sampled a minimum of one week following installation and development. The groundwater sampling event will begin with groundwater level measurements from each well using a product/water interface probe. Purging of the wells prior to sampling will be conducted using low-flow purging methodologies with disposable polyethylene tubing and a stainless-steel submersible pump. Field parameters to be measured before and during the sampling will consist of pH, specific conductance, oxidation-

reduction potential (ORP), temperature, dissolved oxygen, and turbidity. The groundwater will be inspected for the presence of any odor and/or surface sheen. Sample collection will be conducted following a three well volume purge.

Groundwater samples will initially be analyzed for TCL/TAL and the emerging contaminants PFAS and 1,4-dioxane. A second groundwater sampling event will be conducted 90 days following the initial sampling event. The monitoring well sampling will be conducted as outlined above.

5.5 Sediment Sampling

This task will involve the collection of up to 12 sediment samples from the bottom of dry wells/leaching basins at the site (ranging from approximately eight to 20 feet bgs). Dry wells/leaching basins to be sampled will be selected based on field observations, locations of former spill incidents, location of USTs, location of the WWTP, and the location of WWTP leaching basins. The proposed sampling locations are depicted on Figure 12. The location of the dry well samples may need to be adjusted in the field, based on the findings of the geophysical evaluation and/or due to site access limitations (i.e. tenant operations, structural obstructions, etc.). The following table provides a summary of the proposed sediment sampling locations:

Sediment Dry Well Sampling Location Summary	
Area of Concern	Location
WWTP catch basins	South and southeast of the WWTP building.
WWTP leaching basin area	North of the WWTP.
Former diesel fuel and gasoline UST area	Northwest of the main building.

Sediment Dry Well Sampling Location Summary	
Area of Concern	Location
Former ink unloading area	Between the fire water pond and the former ink unloading area.
Active 20,000-gallon diesel fuel USTs	Northeast of the fueling area.
Basement dry well	Area-way adjacent to the southern basement
Former spill incident	Catch basins southeast of the site building.
Parking area/driveways	Adjacent to a shed south of the main building.

Sediment samples will be collected and analyzed for TCL/TAL and the emerging contaminants PFAS and 1,4-dioxane. All sediment samples will be grab samples; no composite sediment samples are proposed.

5.6 Concrete Sampling

This task will involve the collection of up to 10 concrete samples from interior locations of the site building. Concrete areas to be sampled will be biased to stained areas and former process areas located on the first and second floors of the site building. For purposes of this work plan, the specific locations of the concrete samples have not been determined and will be field-determined based on visual observations.

Concrete samples will be collected from the surface of the concrete (0.0-0.5 inches into the surface of the concrete) using hammer and chisel. The technique will produce concrete chips that can be placed in laboratory supplied glassware for analysis.

Concrete samples will be collected and analyzed for TCL/TAL. All concrete samples will be grab samples; no composite sediment samples are proposed. Following concrete sample collection, boreholes will be backfilled with removed concrete and capped with concrete patch.

5.7 Investigation-Derived Waste Management

Investigation-derived waste (IDW) generated during the RI activities would include soil cuttings generated during the soil boring and/or monitoring well installations and purge development water generated during monitoring well development and sampling.

Soil cuttings generated during the installation of the permanent monitoring wells will be placed in sealed and labeled U.S. Department of Transportation (DOT)-approved 55-gallon drums pending off-site disposal at a permitted facility.

If groundwater impacts are identified at the site, purge development water will be containerized in DOT-approved 55-gallon drums for off-site disposal at a permitted facility.

During the installation of soil borings, the soil will be disposed at the site, within the borehole that generated them, unless free product or grossly contaminated soil are present in the cuttings. Contaminated soil cuttings, if encountered, will be placed in sealed and labeled DOT-approved 55-gallon drums pending off-site disposal at a permitted facility. All boreholes which require drill cuttings disposal would ultimately be filled with bentonite chips and hydrated.

Disposable sampling equipment including, spoons, gloves, bags, paper towels, etc. that came in contact with environmental media will be double bagged and disposed as municipal trash in a facility trash dumpster as general refuse.

5.8 Reporting

VERTEX will prepare a Remedial Investigation Report (RIR) / Alternative Analysis Report (AAR) in accordance with NYSDEC *DER-10: Technical Guidance for Site Investigation and Remediation*. The RIR/AAR will present the findings of the RI activities, evaluate remedial alternatives, and provide a recommendation for a remedial strategy to address soil, sediment, concrete, groundwater, and/or vapor intrusion concerns.

Soil, sediment, and concrete analytical results will be compared to the NYSDEC Part 375-6.8(a) Unrestricted Used Soil Cleanup Objectives and appropriate Part 375-6.8(b) Restricted Soil Cleanup Objectives. Groundwater analytical results will be compared to the NYSDEC Part 703 Groundwater Quality Standards (Class GA) and Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 AWQS.

A thorough evaluation of the laboratory data will be completed and a DUSR will be prepared by a qualified, independent data validation expert. The DUSR will be prepared in accordance with *Appendix 2B, Guidance for Data Deliverables and the Development of Data Usability Summary Reports* included in NYSDEC *DER-10: Technical Guidance for Site Investigation and Remediation*.

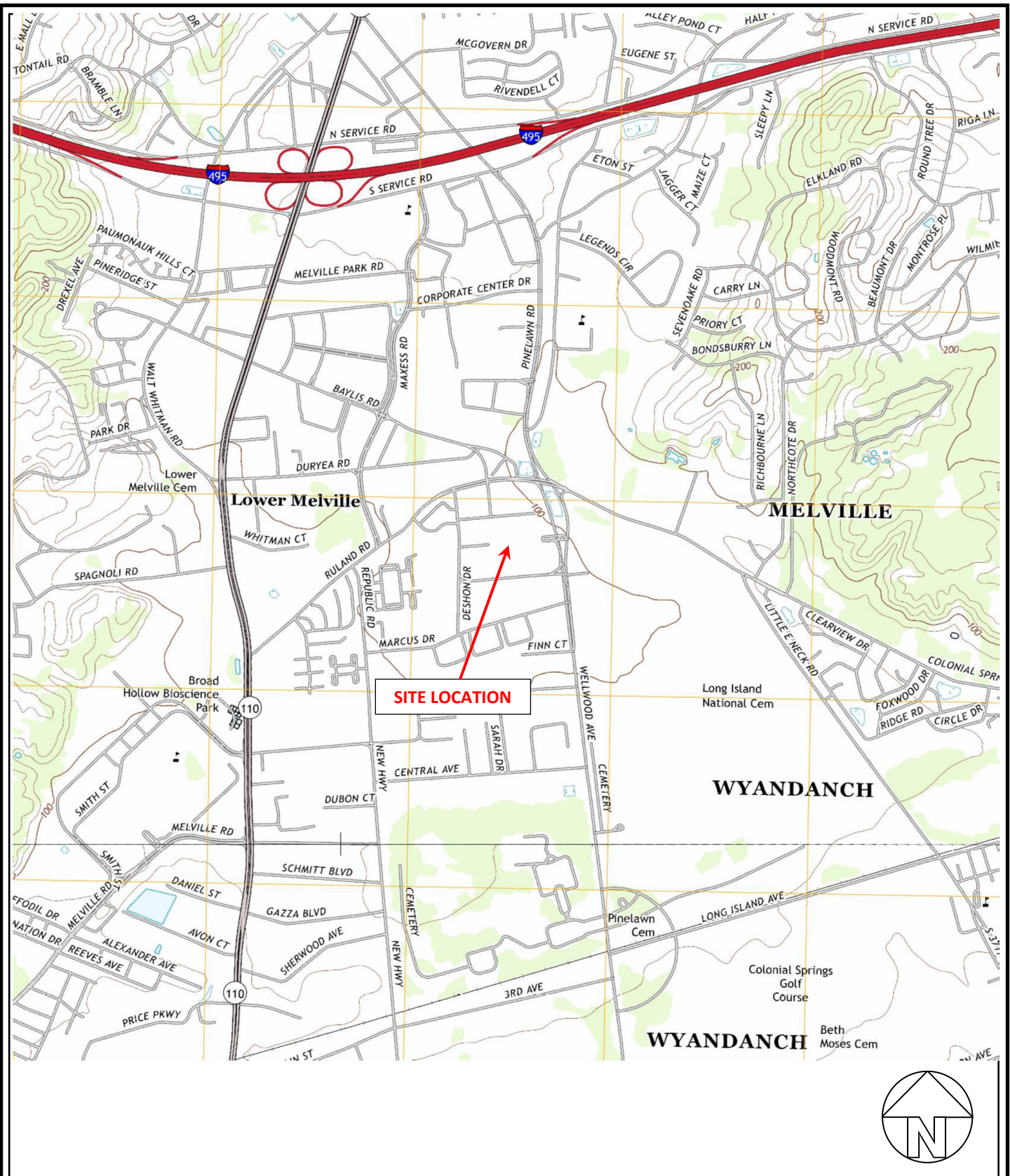
The report will include site location and sample location figures, color photographic documentation, summary of methods, laboratory reports and data summaries, and other pertinent support documentation as required by applicable NYSDEC and NYSDOH regulations.

5.9 Implementation Schedule

The following is the estimated schedule to implement the RI activities.

Implementation Schedule	
Task	Estimated Completion Date
Submit RIWP and BCP Application to NYSDEC	January 17, 2019
NYSDEC Approval of BCP Application	February 18, 2019
30-Day Public Comment Period (BCP Application) and Execution of BCA	March 18, 2019
Submit Revised RIWP and CP Plan	March 26, 2019
30-Day Public Comment Period (RIWP)	April 26, 2019
NYSDEC Approval of RIWP	May 1, 2019
Implement RI Activities	June 3, 2019
Submit RIR/AAR	July 5, 2019

FIGURES



Source: USGS, 2013
Huntington, NY Quadrangle
Contour Interval: 20 feet

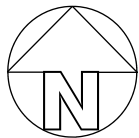
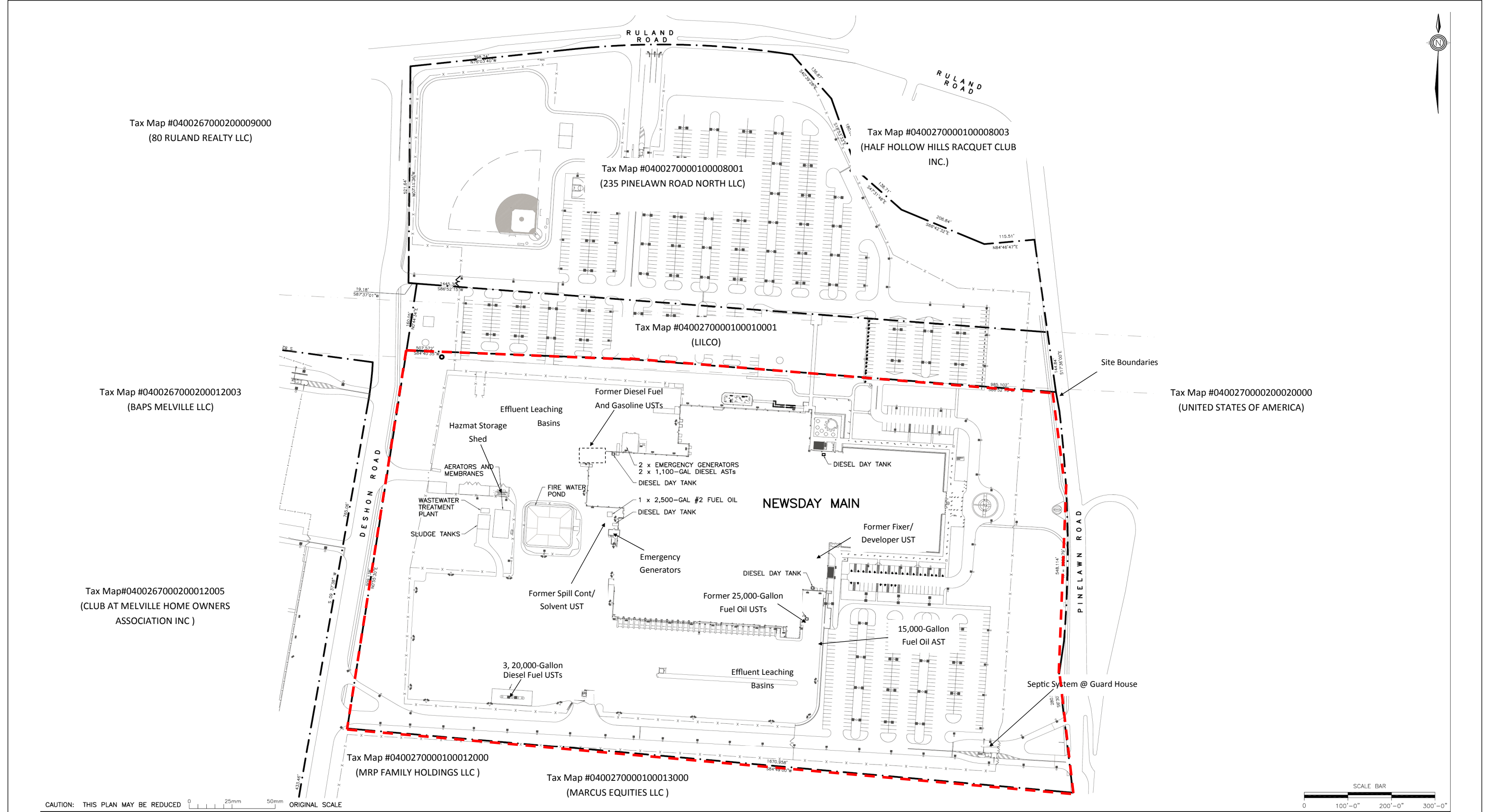
SITE LOCATION MAP

235 Pinelawn Road
Melville, New York

VERTEX Project No. 54600

VERTEX ENGINEERING, PC

FIGURE NO. 1



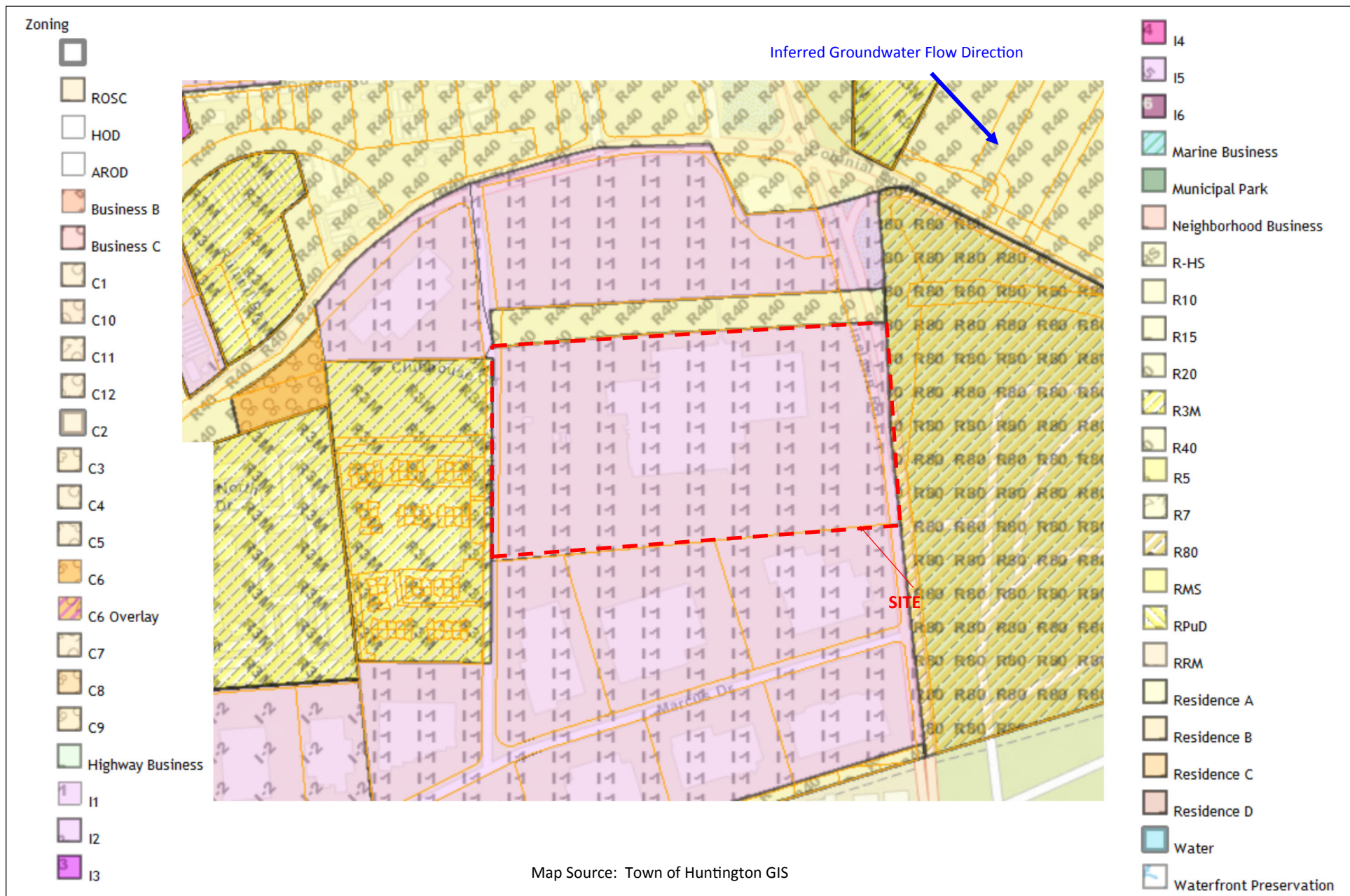
Base Map Source:
GEOMATRIX PHASE I ESA FIGURE 2
DATED MARCH 2008

SITE SCHEMATIC
235 PINELAWN ROAD
MELVILLE, NY

VERTEX ENGINEERING, PC

FIGURE NO. 2

VERTEX Project No. 54600





U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetland Map



December 19, 2018

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

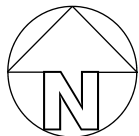
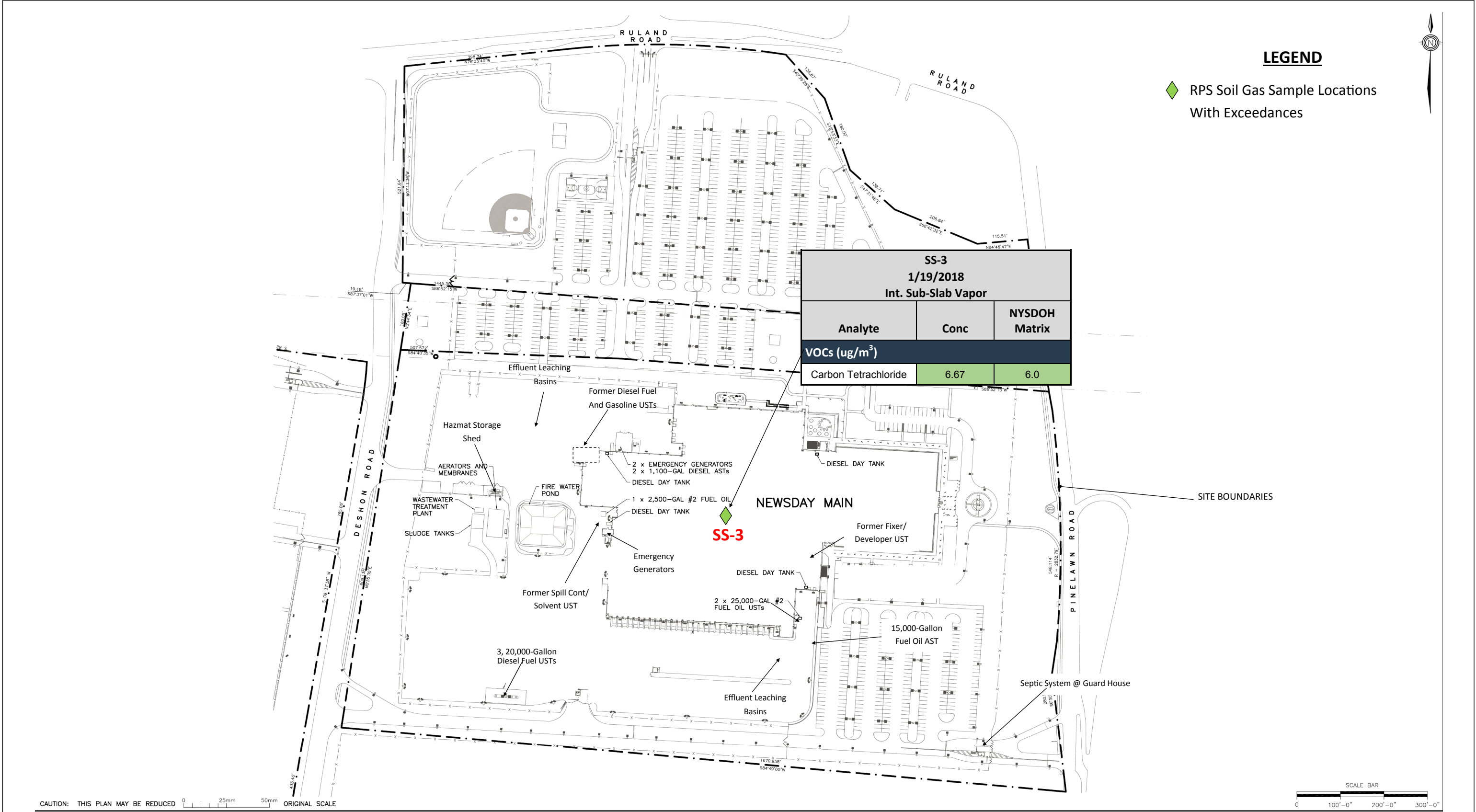


WETLANDS MAP
235 PINELAWN ROAD
MELVILLE, NEW YORK

VERTEX ENGINEERING, PC

FIGURE NO. 4

VERTEX Project Number
54600



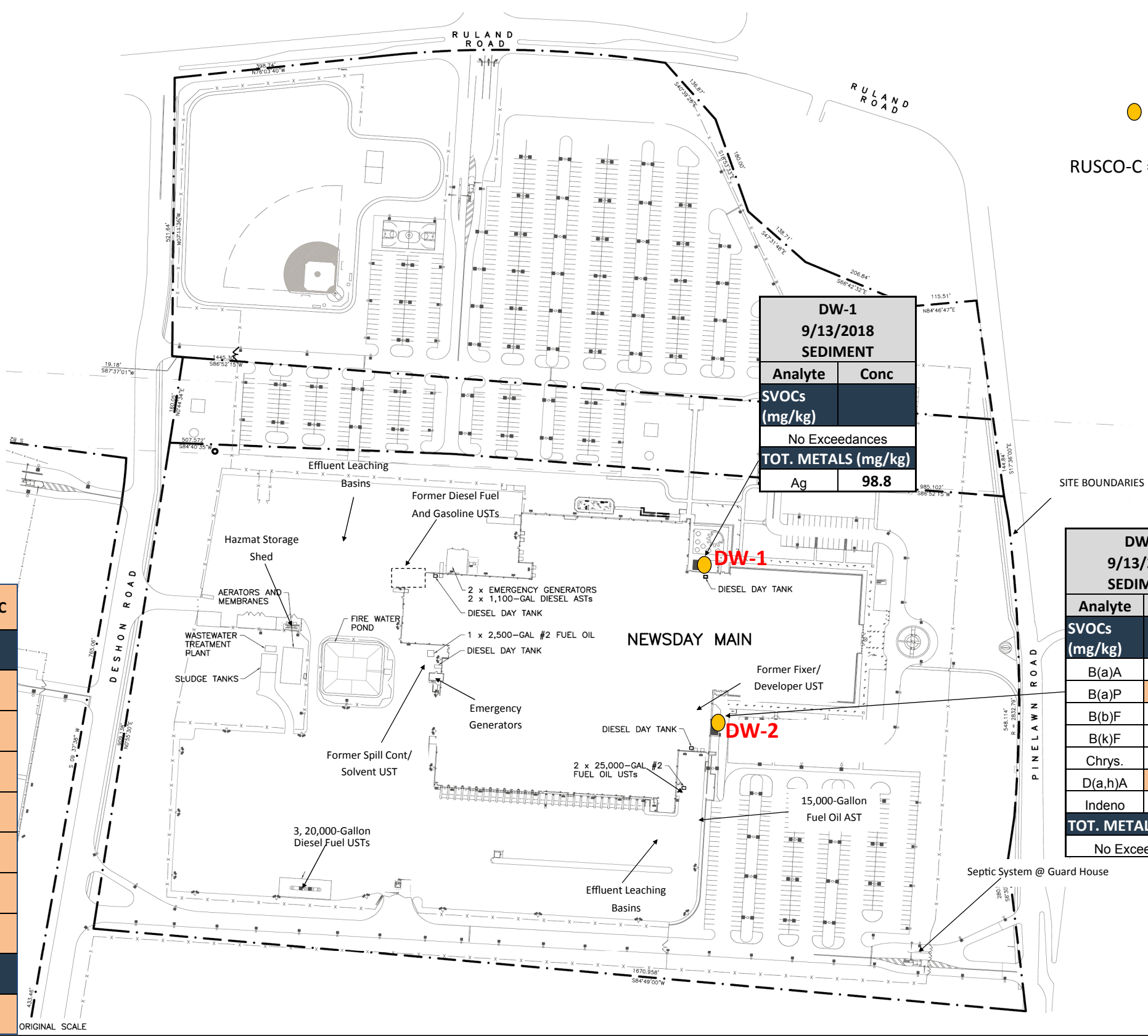
Base Map Source:
GEOMATRIX PHASE I ESA FIGURE 2
DATED MARCH 2008

SOIL VAPOR RESULTS MAP
235 PINELAWN ROAD
MELVILLE, NY

VERTEX ENGINEERING, PC

FIGURE NO. 5

VERTEX Project No. 54600



LEGEND

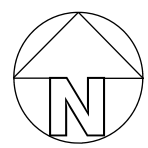
● VERTEX Dry Well Sample Locations (2)

RUSCO-C = Commercial Use Soil Cleanup Objective

ANALYTE		RUSCO-C
SVOCs (mg/kg)		
Benzo(a)anthracene	B(a)A	5.6
Benzo(a)pyrene	B(a)P	1
Benzo(b)fluoranthene	B(b)F	5.6
Benzo(k)fluoranthene	B(k)F	56
Chrysene	Chrys.	56
Dibenzo(a,h)anthracene	D(a,h)A	0.56
Indeno(1,2,3-cd)pyrene	Indeno	5.6
TOT. METALS (mg/kg)		
Silver, Total	Ag	1,500

DW-1 9/13/2018 SEDIMENT	
Analyte	Conc
SVOCs (mg/kg)	No Exceedances
TOT. METALS (mg/kg)	Ag 98.8

DW-2 9/13/2018 SEDIMENT	
Analyte	Conc
SVOCs (mg/kg)	
B(a)A	3.1
B(a)P	3.7
B(b)F	5.2
B(k)F	1.8
Chrys.	3.7
D(a,h)A	0.62
Indeno	3
TOT. METALS (mg/kg)	No Exceedances



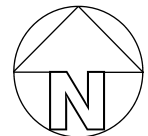
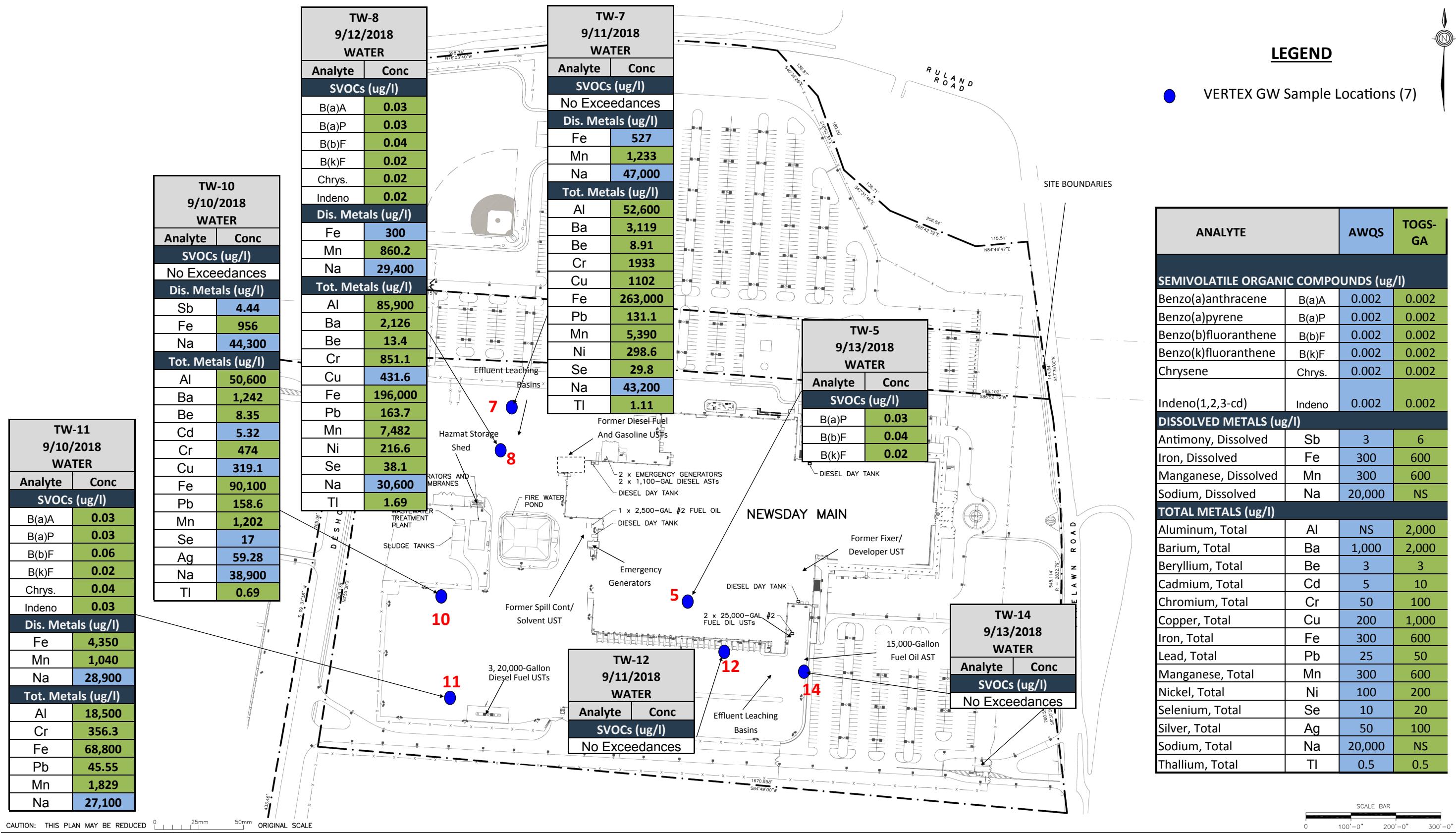
Base Map Source:
GEOMATRIX PHASE I ESA FIGURE 2
DATED MARCH 2008

SEDIMENT RESULTS MAP
235 PINELAWN ROAD
MELVILLE, NY

VERTEX ENGINEERING, PC

FIGURE NO. 6

VERTEX Project No. 54600



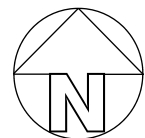
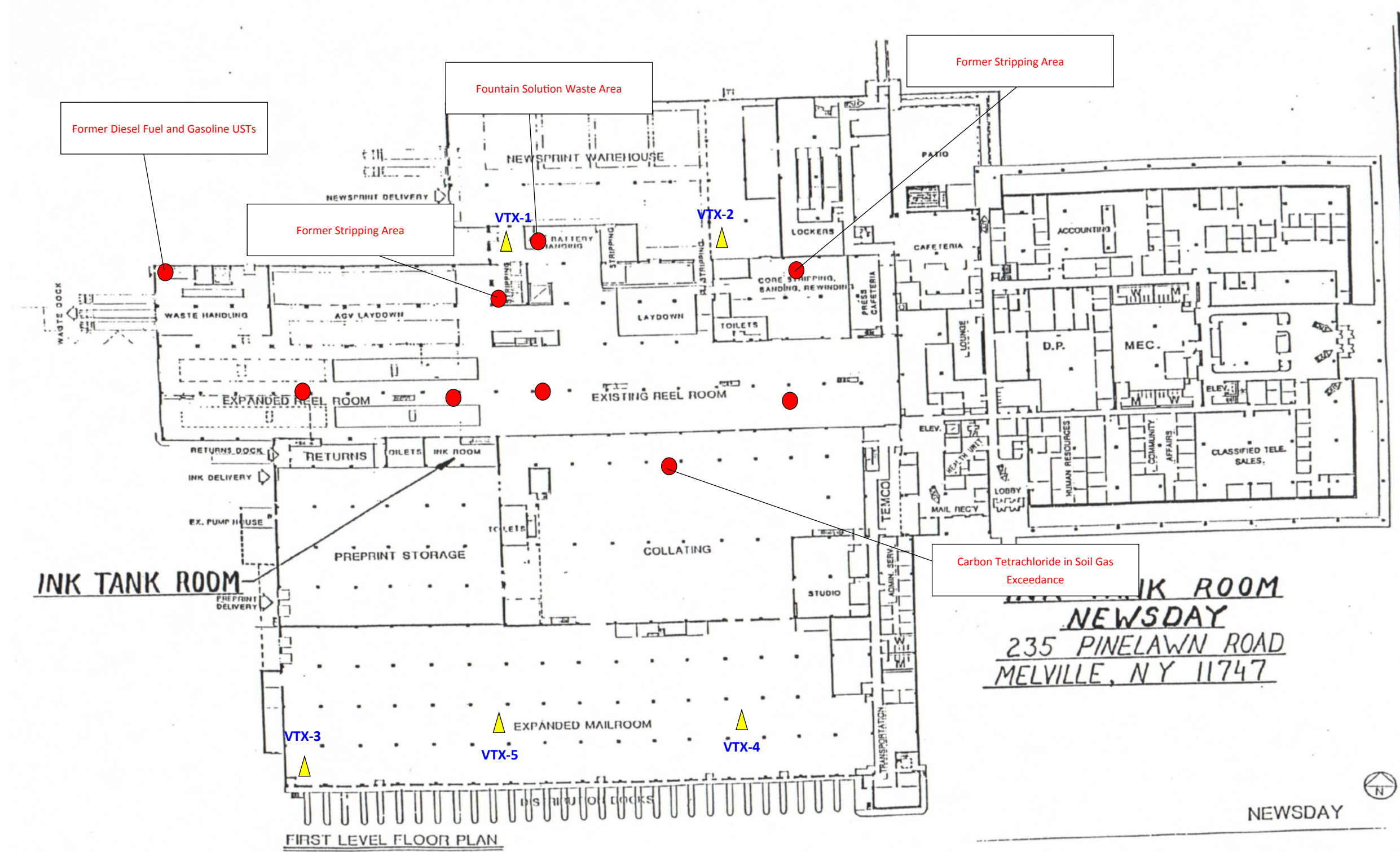
Base Map Source:
GEOMATRIX PHASE I ESA FIGURE 2
DATED MARCH 2008

GROUNDWATER RESULTS MAP
235 PINELAWN ROAD
MELVILLE, NY

VERTEX ENGINEERING, PC

FIGURE NO. 7

VERTEX Project No. 54600



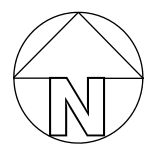
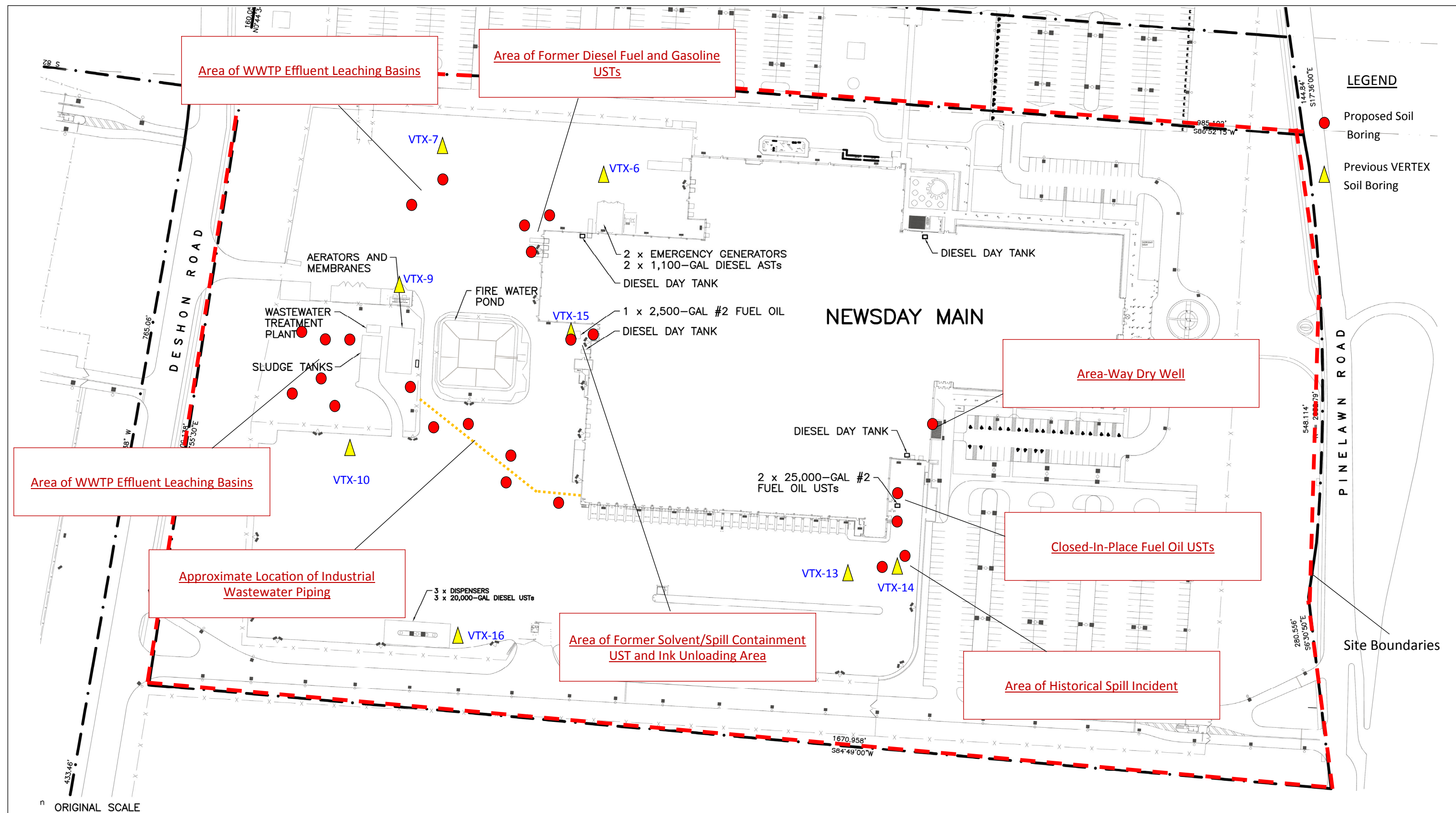
Base Map Source:
NEWSDAY INK TANK ROOM MAP,
NOT DATED

PROPOSED INTERIOR SOIL BORING MAP
235 PINELAWN ROAD
MELVILLE, NY

VERTEX ENGINEERING, PC

FIGURE NO. 9

VERTEX Project No. 54600



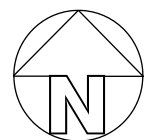
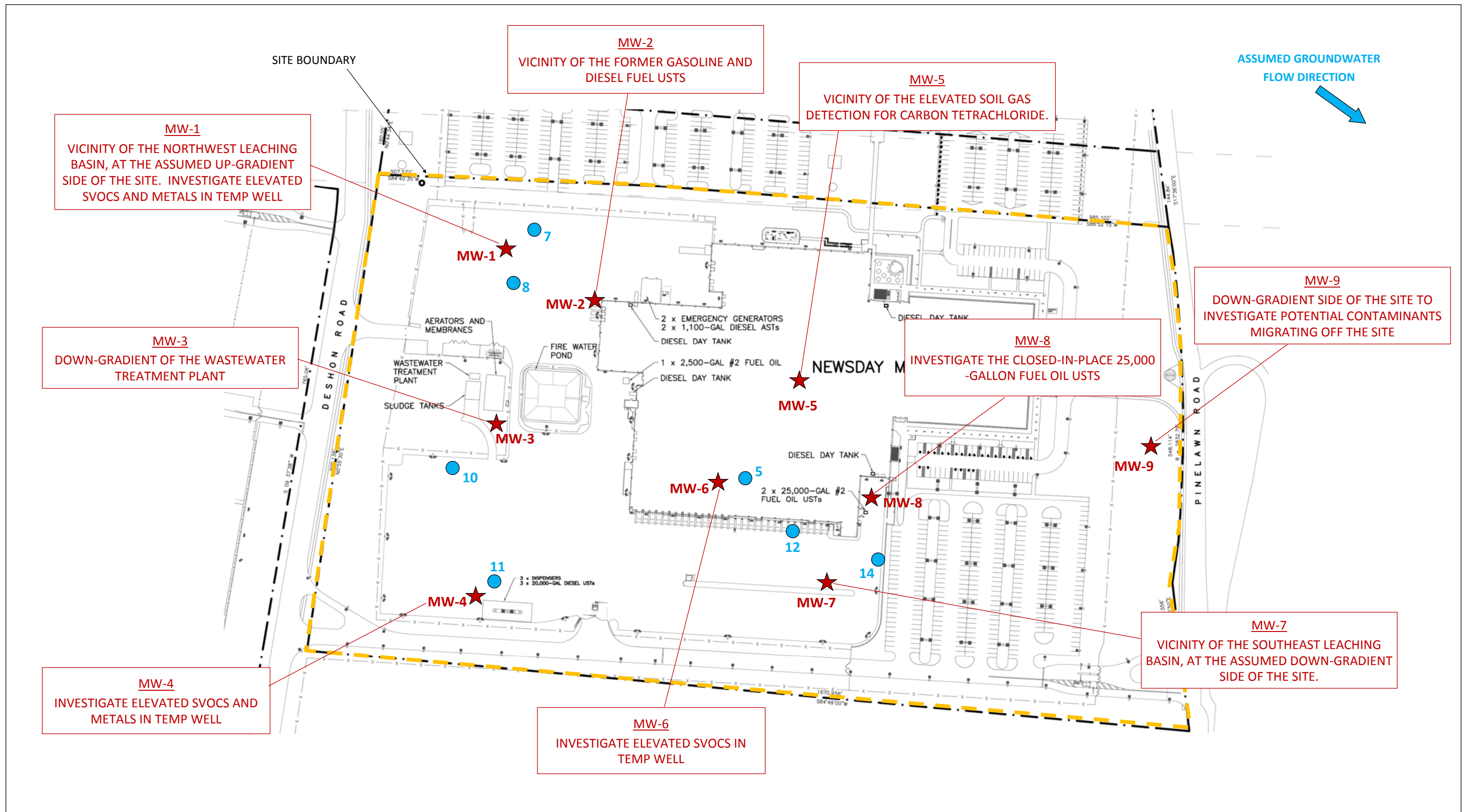
Base Map Source:
GEOMATRIX PHASE I ESA FIGURE 2
DATED MARCH 2008

PROPOSED EXTERIOR SOIL BORING MAP
235 PINELAWN ROAD
MELVILLE, NY

VERTEX ENGINEERING, PC

FIGURE NO. 10

VERTEX Project No. 54600



Base Map Source:
GEOMATRIX PHASE I ESA FIGURE 2
DATED MARCH 2008

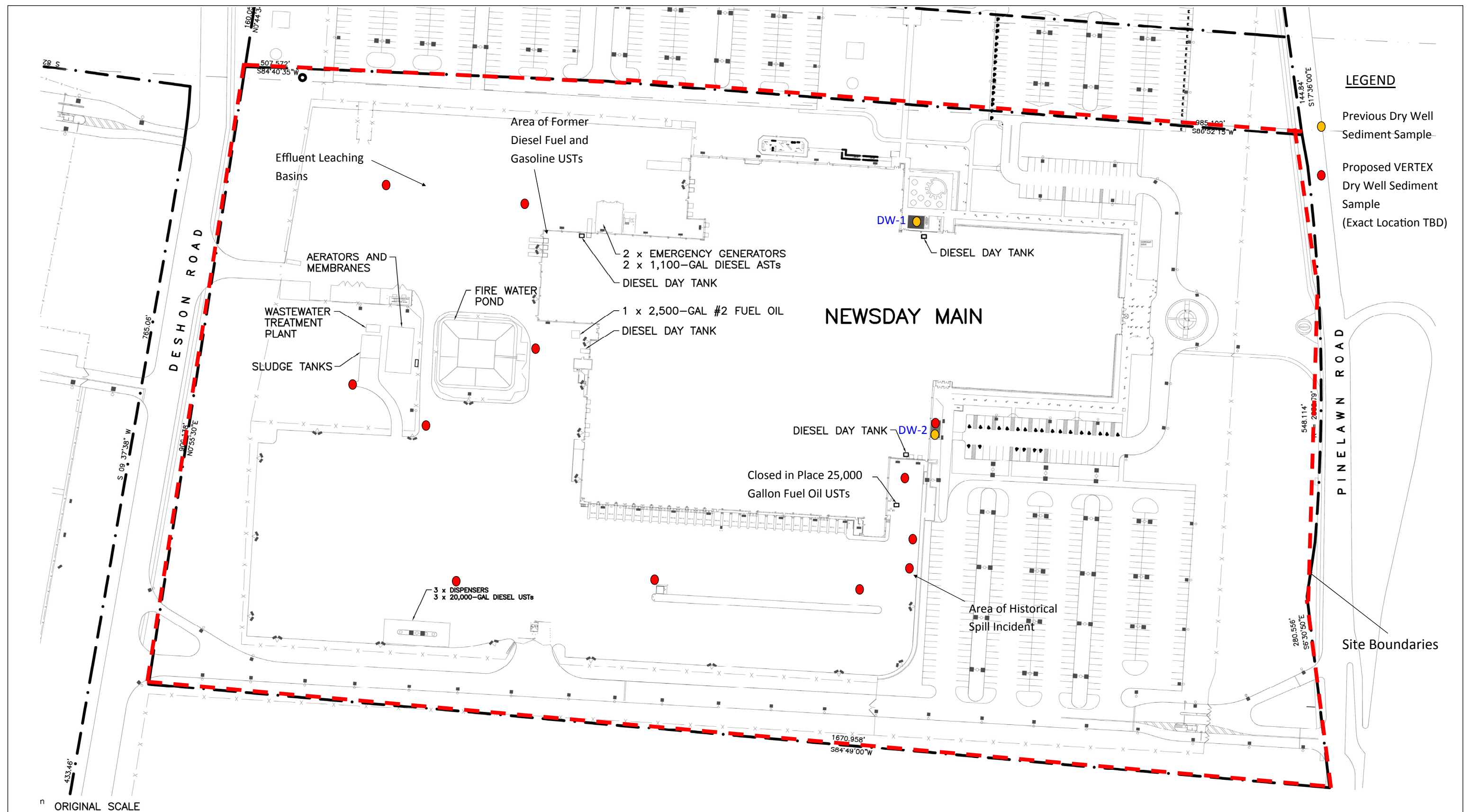
PROPOSED MONITORING WELL LOCATION MAP

235 PINELAWN ROAD
MELVILLE, NY

VERTEX ENGINEERING, PC

FIGURE NO. 11

VERTEX Project No. 54600



	Base Map Source: GEOMATRIX PHASE I ESA FIGURE 2 DATED MARCH 2008	PROPOSED DRY WELL SEDIMENT SAMPLING MAP 235 PINELAWN ROAD MELVILLE, NY	VERTEX ENGINEERING, PC	FIGURE NO. 12 VERTEX Project No. 54600
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TABLES

Table 1: Summary of Soil Vapor Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	NYSDOH Soil Vapor Matrix	SS-1	SS-2	SS-3	SS-4	SS-5
COLLECTION DATE:		1/18/2018	1/18/2018	1/19/2018	1/19/2018	1/19/2018
SAMPLE MATRIX:		VAPOR	VAPOR	VAPOR	VAPOR	VAPOR
		Conc	Conc	Conc	Conc	Conc
VOLATILE ORGANIC COMPOUNDS (ug/m³)						
Methylene chloride	100	ND	ND	ND	1.06	ND
Carbon tetrachloride	6	ND	ND	6.67	ND	ND
Tetrachloroethene	100	3.04	ND	10.6	3.67	16.2
1,1,1-Trichloroethane	100	ND	ND	11.8	ND	ND
Vinyl chloride	6	ND	ND	ND	ND	ND
1,1-Dichloroethene	6	ND	ND	ND	ND	ND
Trichloroethene	6	ND	ND	2.91	ND	ND
cis-1,2-Dichloroethene	6	ND	ND	ND	ND	ND

Notes:

NYSDOH Soil Vapor Matrix: Values taken from the NYSDOH Soil Vapor/Indoor Air Matrices, dated May 2017

ug/m³: micrograms per cubic meter

Conc: Concentration

Highlighted and bolded concentrations exceed one or more of applicable standards

ND: Non-Detect

Analytical results obtained from the RPS March 2018 Draft Limited Phase II Site Investigation Report

Table 2: Summary of Soil Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	VTX-1				VTX-2				VTX-3				VTX-4				VTX-5				VTX-7				VTX-7 (17.5-18.0)				VTX-9																																
LAB ID:						L1836162-04				L1836162-05				L1836518-01				L1836162-01				L1836518-02				L1835942-01				L1835942-03				L1835720-04																																
COLLECTION DATE:						9/12/2018				9/12/2018				9/13/2018				9/12/2018				9/13/2018				9/11/2018				9/11/2018				9/10/2018																																
SAMPLE MATRIX:						SOIL				SOIL				SOIL				SOIL				SOIL				SOIL				SOIL				SOIL																																
						Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL																									
VOLATILE ORGANIC COMPOUNDS (mg/kg)																																																																		
Methylene chloride	500		1000		51		100		0.05		ND			0.0044		0.002		ND			0.0046		0.0021		ND			0.0047		0.0022		ND			0.11		0.05		ND			0.0057		0.0026		ND			0.0021		0.001		ND			0.0038		0.0017		0.0019		J		0.0032		0.0015
1,1-Dichloroethane	240		480		19		26		0.27		ND			0.0009		0.0001		ND			0.0009		0.0001		ND			0.001		0.0001		ND			0.022		0.0032		ND			0.0011		0.0002		ND			0.0004		6E-05		ND			0.0008		0.0001		ND			0.0006		9E-05	
Chloroform	350		700		10		49		0.37		ND			0.0013		0.0001		ND			0.0014		0.0001		ND			0.0014		0.0001		ND			0.033		0.0031		ND			0.0017		0.0002		ND			0.0006		6E-05		ND			0.0011		0.0001		ND			0.001		9E-05	
Carbon tetrachloride	22		44		1.4		2.4		0.76		ND			0.0009		0.0002		ND			0.0009		0.0002		ND			0.001		0.0002		ND			0.022		0.005		ND			0.0011		0.0003		ND			0.0004		0.0001		ND			0.0008		0.0002		ND			0.0006		0.0002	
1,2-Dichloropropane	NS		NS		NS		NS		NS		ND			0.0009		0.0001		ND			0.0009		0.0001		ND			0.001		0.0001		ND			0.022		0.0027		ND			0.0011		0.0001		ND			0.0004		5E-05		ND			0.0008		0.0001		ND			0.0006		8E-05	
Dibromochloromethane	NS		NS		NS		NS		NS		ND			0.0009		0.0001		ND			0.0009		0.0001		ND			0.001		0.0001		ND			0.022		0.0031		ND			0.0011		0.0002		ND			0.0004		6E-05		ND			0.0008		0.0001		ND			0.0006		9E-05	
1,1,2-Trichloroethane	NS		NS		NS		NS		NS		ND			0.0009		0.0002		ND			0.0009		0.0003		ND			0.001		0.0003		ND			0.022		0.0059		ND			0.0011		0.0003		ND			0.0004		0.0001		ND			0.0008		0.0002		ND			0.0006		0.0002	
Tetrachloroethene	150		300		5.5		19		1.3		ND			0.0004		0.0002		ND			0.0005		0.0002		ND			0.0005		0.0002		ND			0.011		0.0043		ND			0.0006		0.0002		ND			0.0002		8E-05		ND			0.0004		0.0002		ND			0.0003		0.0001	
Chlorobenzene	500		1000		100		100		1.1		ND			0.0004		0.0001		ND			0.0005		0.0001		ND			0.0005		0.0001		ND			0.011		0.0028		ND			0.0006		0.0001		ND			0.0002		5E-05		ND			0.0004		0.0001		ND			0.0003		8E-05	
Trichlorofluoromethane	NS		NS		NS		NS		NS		ND			0.0035		0.0006		ND			0.0037		0.0007		ND			0.0038		0.0007		ND			0.088		0.015		ND			0.0046		0.0008		ND			0.0017		0.0003		ND			0.003		0.0005		ND			0.0026		0.0005	
1,2-Dichloroethane	30		60		2.3		3.1		0.02		ND			0.0009		0.0002		ND			0.0009		0.0002		ND			0.001		0.0002		ND			0.022		0.0056		ND			0.0011		0.0003		ND			0.0004		0.0001		ND			0.0008		0.0002		ND			0.0006		0.0002	
1,1,1-Trichloroethane	500		1000		100		100		0.68		ND			0.0004		0.0002		ND			0.0005		0.0002		ND			0.0005		0.0002		ND			0.011		0.0037		ND			0.0006		0.0002		ND			0.0002		7E-05		ND			0.0004		0.0001		ND			0.0003		0.0001	
Bromodichloromethane	NS		NS		NS		NS		NS		ND			0.0004		0.0001		ND			0.0005		0.0001		ND			0.0005		0.0001		ND			0.011		0.0024		ND			0.0006		0.0001		ND			0.0002		5E-05		ND			0.0004		8E-05		ND			0.0003		7E-05	
trans-1,3-Dichloropropene	NS		NS		NS		NS		NS		ND			0.0009		0.0002		ND			0.0009		0.0003		ND			0.001		0.0003		ND			0.022		0.006		ND			0.0011		0.0003		ND			0.0004		0.0001		ND			0.0008		0.0002		ND			0.0006		0.0002	
cis-1,3-Dichloropropene	NS		NS		NS		NS		NS		ND			0.0004		0.0001		ND			0.0005		0.0002		ND			0.0005		0.0002		ND			0.011		0.0035		ND			0.0006		0.0002		ND			0.0002		7E-05		ND			0.0004		0.0001		ND			0.0003		0.0001	
1,3-Dichloropropene, Total	NS		NS		NS		NS		NS		ND			0.0004		0.0001		ND			0.0005		0.0002		ND			0.0005		0.0002		ND			0.011		0.0035		ND			0.0006		0.0002		ND			0.0002		7E-05		ND			0.0004		0.0001		ND			0.0003		0.0001	
1,1-Dichloropropene	NS		NS		NS		NS		NS		ND			0.0004		0.0001		ND			0.0005		0.0002		ND			0.0005		0.0002		ND			0.011		0.0035		ND			0.0006		0.0002		ND			0.0002		7E-05		ND			0.0004		0.0001		ND			0.0003		0.0001	
Bromoform	NS		NS		NS		NS		NS		ND			0.0035		0.0002		ND			0.0037		0.0002		ND			0.0038		0.0002		ND			0.088		0.0054		ND			0.0046		0.0003		ND			0.0017		0.0001		ND			0.003		0.0002		ND			0.0026		0.0002	
1,1,2,2-Tetrachloroethane	NS		NS		NS		NS		NS		ND			0.0004		0.0001		ND			0.0005		0.0002		ND			0.0005		0.0002		ND			0.011		0.0036		ND			0.0006		0.0002		ND			0.0002		7E-05		ND			0.0004		0.0001		ND			0.0003		0.0001	
Benzene	44		89		2.9		4.8		0.06		ND			0.0004		0.0001		ND			0.0005		0.0002		ND			0.0005		0.0002		ND			0.011		0.0036		ND			0.0006		0.0002		ND			0.0002		7E-05		ND			0.0004		0.0001		ND			0.0003		0.0001	
Toluene	500		1000		100		100		0.7		ND			0.0009		0.0005		ND			0.0009		0.0005		ND			0.001		0.0																																				

Table 2: Summary of Soil Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	VTX-1				VTX-2				VTX-3				VTX-4				VTX-5				VTX-7				VTX-7 (17.5-18.0)				VTX-9																
LAB ID:						L1836162-04				L1836162-05				L1836518-01				L1836162-01				L1836518-02				L1835942-01				L1835942-03				L1835720-04																
COLLECTION DATE:						9/12/2018				9/12/2018				9/13/2018				9/12/2018				9/13/2018				9/11/2018				9/11/2018				9/10/2018																
SAMPLE MATRIX:						SOIL				SOIL				SOIL				SOIL				SOIL				SOIL				SOIL				SOIL																
						Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL									
1,2,3-Trichlorobenzene	NS		NS		NS		NS		ND		0.0018		0.0003	ND		0.0019		0.0003	ND		0.0019		0.0003	ND		0.044		0.0071	ND		0.0023		0.0004	ND		0.0009		0.0001	ND		0.0015		0.0002	ND		0.0013		0.0002		
1,2,4-Trichlorobenzene	NS		NS		NS		NS		ND		0.0018		0.0002	ND		0.0019		0.0003	ND		0.0019		0.0003	ND		0.044		0.006	ND		0.0023		0.0003	ND		0.0009		0.0001	ND		0.0015		0.0002	ND		0.0013		0.0002		
1,3,5-Trimethylbenzene	190		380		47		52		8.4		ND		0.0018		0.0002	ND		0.0019		0.0002	ND		0.0019		0.0002	0.079		0.044		0.0042	ND		0.0023		0.0002	ND		0.0009		8E-05	ND		0.0015		0.0002	ND		0.0013		0.0001
1,2,4-Trimethylbenzene	190		380		47		52		3.6		ND		0.0018		0.0003	ND		0.0019		0.0003	ND		0.0019		0.0003	0.18		0.044		0.0073	ND		0.0023		0.0004	ND		0.0009		0.0001	ND		0.0015		0.0003	ND		0.0013		0.0002
1,4-Dioxane	130		250		9.8		13		0.1		ND		0.088		0.031	ND		0.093		0.033	ND		0.095		0.033	ND		2.2		0.77	ND		0.11		0.04	ND		0.043		0.015	ND		0.076		0.027	ND		0.064		0.022
p-Diethylbenzene	NS		NS		NS		NS		NS		ND		0.0018		0.0002	ND		0.0019		0.0002	ND		0.0019		0.0002	0.084		0.044		0.0039	ND		0.0023		0.0002	ND		0.0009		8E-05	ND		0.0015		0.0001	ND		0.0013		0.0001
p-Ethyltoluene	NS		NS		NS		NS		NS		ND		0.0018		0.0003	ND		0.0019		0.0004	ND		0.0019		0.0004	0.14		0.044		0.0084	ND		0.0023		0.0004	ND		0.0009		0.0002	ND		0.0015		0.0003	ND		0.0013		0.0003
1,2,4,5-Tetramethylbenzene	NS		NS		NS		NS		NS		ND		0.0018		0.0002	ND		0.0019		0.0002	ND		0.0019		0.0002	0.033	J	0.044		0.0042	ND		0.0023		0.0002	ND		0.0009		8E-05	ND		0.0015		0.0001	ND		0.0013		0.0001
Ethyl ether	NS		NS		NS		NS		NS		ND		0.0018		0.0003	ND		0.0019		0.0003	ND		0.0019		0.0003	ND		0.044		0.0075	ND		0.0023		0.0004	ND		0.0009		0.0002	ND		0.0015		0.0003	0.0002	J	0.0013		0.0002
trans-1,4-Dichloro-2-butene	NS		NS		NS		NS		NS		ND		0.0044		0.0012	ND		0.0046		0.0013	ND		0.0047		0.0013	ND		0.11		0.031	ND		0.0057		0.0016	ND		0.0021		0.0006	ND		0.0038		0.0011	ND		0.0032		0.0009
Total VOCs	NS		NS		NS		NS		NS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9327	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	0.0414	-	-	-	-	0.0641	-	-	-	
SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg)																																																		
Acenaphthene	500		1000		100		100		20		ND		0.13		0.017	ND		0.13		0.017	ND		0.13		0.017	ND		0.13		0.017	ND		0.17		0.022	ND		0.14		0.018	ND		0.14		0.018	ND		0.14		0.018
1,2,4-Trichlorobenzene	NS		NS		NS		NS		NS		ND		0.17		0.019	ND		0.16		0.019	ND		0.16		0.019	ND		0.16		0.019	ND		0.21		0.024	ND		0.17		0.019	ND		0.17		0.019	ND		0.17		0.02
Hexachlorobenzene	6		12		0.33		1.2		0.33		ND		0.1		0.019	ND		0.098		0.018	ND		0.098		0.018	ND		0.099		0.018	ND		0.12		0.023	ND		0.1		0.019	ND		0.1		0.019	ND		0.1		0.02
Bis(2-chloroethyl)ether	NS		NS		NS		NS		NS		ND		0.15		0.022	ND		0.15		0.022	ND		0.15		0.022	ND		0.15		0.022	ND		0.19		0.028	ND		0.15		0.023	ND		0.15		0.023	ND		0.16		0.024
2-Chloronaphthalene	NS		NS		NS		NS		NS		ND		0.17		0.016	ND		0.16		0.016	ND		0.16		0.016	ND		0.16		0.016	ND		0.21		0.021	ND		0.17		0.017	ND		0.17		0.017	ND		0.17		0.017
1,2-Dichlorobenzene	500		1000		100		100		1.1		ND		0.17		0.03	ND		0.16		0.029	ND		0.16		0.029	ND		0.16		0.03	ND		0.21		0.038	ND		0.17		0.03	ND		0.17		0.03	ND		0.17		0.031
1,3-Dichlorobenzene	280		560		17		49		2.4		ND		0.17		0.029	ND		0.16		0.028	ND		0.16		0.028	ND		0.16		0.028	ND		0.21		0.036	ND		0.17		0.029	ND		0.17		0.029	ND		0.17		0.03
1,4-Dichlorobenzene	130		250		9.8		13		1.8		ND		0.17		0.029	ND		0.16		0.028	ND		0.16		0.029	ND		0.16		0.029	ND		0.21		0.036	ND		0.17		0.03	ND		0.17		0.03	ND		0.17		0.03
3,3'-Dichlorobenzidine	NS		NS		NS		NS		NS		ND		0.17		0.044	ND		0.16		0.043	ND		0.16		0.044	ND		0.16		0.044	ND		0.21		0.056	ND		0.17		0.045	ND		0.17		0.045	ND		0.17		0.046
2,4-Dinitrotoluene	NS		NS		NS		NS		NS		ND		0.17		0.033	ND		0.16		0.033	ND		0.16		0.033	ND		0.16		0.033	ND		0.21		0.042	ND		0.17		0.034	ND		0.17		0.034	ND		0.17		0.035
2,6-Dinitrotoluene	NS		NS		NS		NS		NS		ND		0.17		0.028	ND		0.16		0.028	ND		0.16		0.028	ND		0.16		0.028	ND		0.21		0.036	ND		0.17		0.029	ND		0.17		0.029	ND		0.17		0.03
Fluoranthene	500		1000		100		100		100		0.16		0.1		0.019	ND		0.098		0.019	ND		0.098		0.019	ND		0.099		0.019	ND		0.12		0.024	ND		0.1		0.02	ND		0.1		0.019	ND		0.1		0.02
4-Chlorophenyl phenyl ether	NS		NS		NS		NS		NS		ND		0.17		0.018	ND		0.16		0.017	ND		0.16		0.018	ND		0.16		0.018	ND		0.21		0.022	ND		0.17		0.018	ND		0.17		0.018	ND		0.17		0.019
4-Bromophenyl phenyl ether	NS		NS		NS		NS		NS		ND		0.17		0.025	ND		0.16		0.025	ND		0.16		0.025	ND		0.16		0.025	ND		0.21		0.032	ND		0.17		0.026	ND		0.17		0.026	ND		0.17		

Table 2: Summary of Soil Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	VTX-1			VTX-2			VTX-3			VTX-4			VTX-5			VTX-7			VTX-7 (17.5-18.0)			VTX-9		
LAB ID:						L1836162-04			L1836162-05			L1836518-01			L1836162-01			L1836518-02			L1835942-01			L1835942-03			L1835720-04		
COLLECTION DATE:						9/12/2018			9/12/2018			9/13/2018			9/12/2018			9/13/2018			9/11/2018			9/11/2018			9/10/2018		
SAMPLE MATRIX:						SOIL			SOIL			SOIL			SOIL			SOIL			SOIL			SOIL			SOIL		
						Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
2,4-Dichlorophenol	NS	NS	NS	NS	NS	ND		0.15	0.027	ND		0.15	0.026	ND		0.15	0.026	ND		0.15	0.034	ND		0.15	0.027	ND		0.15	0.028
2,4-Dimethylphenol	NS	NS	NS	NS	NS	ND		0.17	0.055	ND		0.16	0.054	ND		0.16	0.054	ND		0.16	0.069	ND		0.17	0.056	ND		0.17	0.058
2-Nitrophenol	NS	NS	NS	NS	NS	ND		0.36	0.062	ND		0.35	0.061	ND		0.35	0.062	ND		0.35	0.078	ND		0.37	0.064	ND		0.37	0.066
4-Nitrophenol	NS	NS	NS	NS	NS	ND		0.23	0.068	ND		0.23	0.067	ND		0.23	0.067	ND		0.23	0.085	ND		0.24	0.069	ND		0.24	0.071
2,4-Dinitrophenol	NS	NS	NS	NS	NS	ND		0.8	0.078	ND		0.78	0.076	ND		0.79	0.076	ND		0.79	0.076	ND		0.82	0.079	ND		0.81	0.081
4,6-Dinitro-o-cresol	NS	NS	NS	NS	NS	ND		0.43	0.08	ND		0.42	0.078	ND		0.43	0.079	ND		0.43	0.079	ND		0.44	0.082	ND		0.44	0.084
Pentachlorophenol	6.7	55	2.4	6.7	0.8	ND		0.13	0.037	ND		0.13	0.036	ND		0.13	0.036	ND		0.13	0.046	ND		0.14	0.037	ND		0.14	0.038
Phenol	500	1000	100	100	0.33	ND		0.17	0.025	ND		0.16	0.025	ND		0.16	0.025	ND		0.16	0.032	ND		0.17	0.026	ND		0.17	0.026
2-Methylphenol	500	1000	100	100	0.33	ND		0.17	0.026	ND		0.16	0.025	ND		0.16	0.025	ND		0.16	0.032	ND		0.17	0.026	ND		0.17	0.027
3-Methylphenol/4-Methylphenol	500	1000	34	100	0.33	ND		0.24	0.026	ND		0.24	0.026	ND		0.24	0.026	ND		0.24	0.033	ND		0.24	0.027	ND		0.24	0.027
2,4,5-Trichlorophenol	NS	NS	NS	NS	NS	ND		0.17	0.032	ND		0.16	0.031	ND		0.16	0.031	ND		0.16	0.04	ND		0.17	0.033	ND		0.17	0.033
Benzoic Acid	NS	NS	NS	NS	NS	ND		0.54	0.17	ND		0.53	0.16	ND		0.53	0.17	ND		0.53	0.21	ND		0.55	0.17	ND		0.55	0.18
Benzyl Alcohol	NS	NS	NS	NS	NS	ND		0.17	0.051	ND		0.16	0.05	ND		0.16	0.05	ND		0.16	0.064	ND		0.17	0.052	ND		0.17	0.053
Carbazole	NS	NS	NS	NS	NS	ND		0.17	0.016	ND		0.16	0.016	ND		0.16	0.016	ND		0.16	0.02	ND		0.17	0.016	ND		0.17	0.017
Total SVOCs	NS	NS	NS	NS	NS	0.949	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL METALS (mg/kg)																													
Aluminum, Total	NS	NS	NS	NS	NS	3540		7.94	2.14	1630		7.89	2.13	1860		7.62	2.06	2060		8.01	2.16	2220		9.86	2.66	1940		8.24	2.24
Antimony, Total	NS	NS	NS	NS	NS	ND		3.97	0.302	ND		3.94	0.3	ND		3.81	0.29	ND		4	0.304	ND		4.93	0.375	0.412	J	4.12	0.316
Arsenic, Total	16	16	16	16	13	2.35		0.794	0.165	1.81		0.789	0.164	1.37		0.762	0.159	3.64		0.801	0.167	1.75		0.986	0.205	1.48		0.824	0.173
Barium, Total	400	10000	350	400	350	13.7		0.794	0.138	6.43		0.789	0.137	4.85		0.762	0.133	8.38		0.801	0.139	7.14		0.986	0.172	6.6		0.824	0.145
Beryllium, Total	590	2700	14	72	7.2	0.111	J	0.397	0.026	0.071	J	0.394	0.026	0.053	J	0.381	0.025	0.112	J	0.4	0.026	0.039	J	0.493	0.033	0.107	J	0.412	0.027
Cadmium, Total	9.3	60	2.5	4.3	2.5	0.103	J	0.794	0.078	ND		0.789	0.077	ND		0.762	0.075	0.104	J	0.801	0.079	ND		0.986	0.097	0.107	J	0.824	0.082
Calcium, Total	NS	NS	NS	NS	NS	6750		7.94	2.78	1060		7.89	2.76	106		7.62	2.67	6940		8.01	2.8	124		9.86	3.45	4210		8.24	2.91
Chromium, Total	NS	NS	NS	NS	NS	9.27		0.794	0.076	5		0.789	0.076	3.37		0.762	0.073	5.18		0.801	0.077	3.66		0.986	0.095	8.66		0.824	0.08
Cobalt, Total	NS	NS	NS	NS	NS	2.28		1.59	0.132	1.49	J	1.58	0.131	0.724	J	1.52	0.126	1.69		1.6	0.133	1.26	J	1.97	0.164	1.38	J	1.65	0.138
Copper, Total	270	10000	270	270	50	4.41		0.794	0.205	3.52		0.789	0.203	1.81		0.762	0.197	4.46		0.801	0.207	1.65		0.986	0.254	2.74		0.824	0.214
Iron, Total	NS	NS	NS	NS	NS	6400		3.97	0.717	4670		3.94	0.712	2590		3.81	0.688	7870		4	0.723	2870		4.93	0.89	5360		4.12	0.751
Lead, Total	1000	3900	400	400	63	3.78	J	3.97	0.213	1.61	J	3.94	0.211	1.25	J	3.81	0.204	2.05	J	4	0.215	2.01	J	4.93	0.264	1.94	J	4.12	0.223
Magnesium, Total	NS	NS	NS	NS	NS	835		7.94	1.22	412		7.89	1.21	52.3		7.62	1.17	1070		8.01	1.23	123		9.86	1.52	456		8.24	1.28
Manganese, Total	10000	10000	2000	2000	1600	94.8		0.794	0.126	76.8		0.789	0.125	28.3		0.762	0.121	81.9		0.801	0.127	53.7		0.986	0.157	84.7		0.824	0.132
Mercury, Total	2.8	5.7	0.81	0.81	0.18	ND		0.064	0.014	ND		0.063	0.013	ND		0.064	0.013	ND		0.063	0.013	ND		0.08	0.017	ND		0.065	0.014
Nickel, Total	310	10000	140	310	30	3.74		1.98	0.192	2.05		1.97	0.191	0.747	J	1.91	0.184	2.13		2	0.194	1.12	J	2.46	0.238	2.21		2.06	0.201
Potassium, Total	NS	NS	NS	NS	NS	434		198	11.4	208		197	11.4	67.6	J	191	11	219		200	11.5	139	J	246	14.2	196	J	206	12
Selenium, Total	1500	6800	36	180	3.9	0.309	J	1.59	0.205	0.284	J	1.58	0.203	ND		1.52	0.197	0.304	J	1.6	0.207	ND		1.97	0.254	ND		1.65	0.214
Silver, Total	1500	6800	36	180	2	ND		0.794	0.224	ND		0.789	0.223	ND		0.762	0.216	ND		0.801	0.227	ND		0.986	0.279	ND		0.824	0.235
Sodium, Total	NS	NS	NS	NS	NS	70.6	J	159	2.5	22.2	J	158	2.48	10.4	J	152	2.4	71.2	J	160	2.52	13.6	J	197	3.1	34.5	J	165	2.62
Thallium, Total	NS	NS	NS	NS	NS	ND		1.59	0.25	ND		1.58	0.248	ND		1.52	0.24	ND		1.6	0.252	ND		1.97	0.31	ND		1.65	0.262
Vanadium, Total	NS	NS	NS	NS	NS	7.42		0.794	0.161	3.87		0.789	0.16	5.43		0.762	0.155	9.53		0.801	0.163	5.01		0.986	0.2	4.17		0.824	0.169
Zinc, Total	10000	10000	2200	10000	109	41.3		3.97	0.232	8.17		3.94	0.231	2.16	J	3.81	0.223	7.91		4	0.235	15.2		4.93	0.289	5.9		4.12	0.244
GENERAL CHEMISTRY																													
Solids, Total	NS	NS	NS	NS	NS	99.3		0.1	NA	98.9		0.1	NA	98.6		0.1	NA	99.3		0.1	NA	77.9		0.1	NA	96.5		0.1	NA

* Comparison is not performed on parameters with non-numeric criteria.
RUSCO-C: New York NYCRR Part 375 Commercial Criteria, New York Restricted Use Criteria
RUSCO-I: New York NYCRR Part 375 Industrial Criteria, New York Restricted Use Criteria
RSUCO-R: New York NYCRR Part 375 Residential Criteria, New York Restricted Use Criteria
RUSCO-RR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted Use Criteria
UUSCO: New York NYCRR Part 375 New York Unrestricted Use Criteria Criteria
mg/kg: milligrams per kilogram
Conc: Concentration
Q: Laboratory Qualifier
RL: Reporting Limit
MDL: Method Detection Limit
Highlighted and bolded concentrations exceed one or more of applicable standards
NS: No Standard
ND: Non-Detect
J: Laboratory reported at an estimated concentration

Table 2: Summary of Soil Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	VTX-10				VTX-14				VTX-16			
LAB ID:						L1835720-01				L1835942-06				L1836518-03			
COLLECTION DATE:						9/10/2018				9/11/2018				9/13/2018			
SAMPLE MATRIX:						SOIL				SOIL				SOIL			
						Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
VOLATILE ORGANIC COMPOUNDS (mg/kg)																	
Methylene chloride	500	1000	51	100	0.05	ND		0.0028	0.0013	ND		0.0021	0.001	ND		0.005	0.0023
1,1-Dichloroethane	240	480	19	26	0.27	ND		0.0006	8E-05	ND		0.0004	6E-05	ND		0.001	0.0001
Chloroform	350	700	10	49	0.37	ND		0.0008	8E-05	ND		0.0006	6E-05	ND		0.0015	0.0001
Carbon tetrachloride	22	44	1.4	2.4	0.76	ND		0.0006	0.0001	ND		0.0004	0.0001	ND		0.001	0.0002
1,2-Dichloropropane	NS	NS	NS	NS	NS	ND		0.0006	7E-05	ND		0.0004	5E-05	ND		0.001	0.0001
Dibromochloromethane	NS	NS	NS	NS	NS	ND		0.0006	8E-05	ND		0.0004	6E-05	ND		0.001	0.0001
1,1,2-Trichloroethane	NS	NS	NS	NS	NS	ND		0.0006	0.0002	ND		0.0004	0.0001	ND		0.001	0.0003
Tetrachloroethene	150	300	5.5	19	1.3	ND		0.0003	0.0001	ND		0.0002	8E-05	ND		0.0005	0.0002
Chlorobenzene	500	1000	100	100	1.1	ND		0.0003	7E-05	ND		0.0002	5E-05	ND		0.0005	0.0001
Trichlorofluoromethane	NS	NS	NS	NS	NS	ND		0.0022	0.0004	ND		0.0016	0.0003	ND		0.004	0.0007
1,2-Dichloroethane	30	60	2.3	3.1	0.02	ND		0.0006	0.0001	ND		0.0004	0.0001	ND		0.001	0.0003
1,1,1-Trichloroethane	500	1000	100	100	0.68	ND		0.0003	9E-05	ND		0.0002	7E-05	ND		0.0005	0.0002
Bromodichloromethane	NS	NS	NS	NS	NS	ND		0.0003	6E-05	ND		0.0002	5E-05	ND		0.0005	0.0001
trans-1,3-Dichloropropene	NS	NS	NS	NS	NS	ND		0.0006	0.0002	ND		0.0004	0.0001	ND		0.001	0.0003
cis-1,3-Dichloropropene	NS	NS	NS	NS	NS	ND		0.0003	9E-05	ND		0.0002	7E-05	ND		0.0005	0.0002
1,3-Dichloropropene, Total	NS	NS	NS	NS	NS	ND		0.0003	9E-05	ND		0.0002	7E-05	ND		0.0005	0.0002
1,1-Dichloropropene	NS	NS	NS	NS	NS	ND		0.0003	9E-05	ND		0.0002	7E-05	ND		0.0005	0.0002
Bromoform	NS	NS	NS	NS	NS	ND		0.0022	0.0001	ND		0.0016	0.0001	ND		0.004	0.0002
1,1,2,2-Tetrachloroethane	NS	NS	NS	NS	NS	ND		0.0003	9E-05	ND		0.0002	7E-05	ND		0.0005	0.0002
Benzene	44	89	2.9	4.8	0.06	ND		0.0003	9E-05	ND		0.0002	7E-05	ND		0.0005	0.0002
Toluene	500	1000	100	100	0.7	0.0006		0.0006	0.0003	ND		0.0004	0.0002	ND		0.001	0.0005
Ethylbenzene	390	780	30	41	1	ND		0.0006	8E-05	ND		0.0004	6E-05	ND		0.001	0.0001
Chloromethane	NS	NS	NS	NS	NS	ND		0.0022	0.0005	ND		0.0016	0.0004	ND		0.004	0.0009
Bromomethane	NS	NS	NS	NS	NS	ND		0.0011	0.0003	ND		0.0008	0.0002	ND		0.002	0.0006
Vinyl chloride	13	27	0.21	0.9	0.02	ND		0.0006	0.0002	ND		0.0004	0.0001	ND		0.001	0.0003
Chloroethane	NS	NS	NS	NS	NS	ND		0.0011	0.0003	ND		0.0008	0.0002	ND		0.002	0.0005
1,1-Dichloroethene	500	1000	100	100	0.33	ND		0.0006	0.0001	ND		0.0004	0.0001	ND		0.001	0.0002
trans-1,2-Dichloroethene	500	1000	100	100	0.19	ND		0.0008	8E-05	ND		0.0006	6E-05	ND		0.0015	0.0001
Trichloroethene	200	400	10	21	0.47	ND		0.0003	8E-05	ND		0.0002	6E-05	ND		0.0005	0.0001
1,2-Dichlorobenzene	500	1000	100	100	1.1	ND		0.0011	8E-05	ND		0.0008	6E-05	ND		0.002	0.0001
1,3-Dichlorobenzene	280	560	17	49	2.4	ND		0.0011	8E-05	ND		0.0008	6E-05	ND		0.002	0.0002
1,4-Dichlorobenzene	130	250	9.8	13	1.8	ND		0.0011	0.0001	ND		0.0008	7E-05	ND		0.002	0.0002
Methyl tert butyl ether	500	1000	62	100	0.93	ND		0.0011	0.0001	ND		0.0008	8E-05	ND		0.002	0.0002
p/m-Xylene	NS	NS	NS	NS	NS	ND		0.0011	0.0003	ND		0.0008	0.0002	ND		0.002	0.0006
o-Xylene	NS	NS	NS	NS	NS	ND		0.0006	0.0002	ND		0.0004	0.0001	ND		0.001	0.0003
Xylenes, Total	500	1000	100	100	0.26	ND		0.0006	0.0002	ND		0.0004	0.0001	ND		0.001	0.0003
cis-1,2-Dichloroethene	500	1000	59	100	0.25	ND		0.0006	0.0001	ND		0.0004	7E-05	ND		0.001	0.0002
1,2-Dichloroethene, Total	NS	NS	NS	NS	NS	ND		0.0006	8E-05	ND		0.0004	6E-05	ND		0.001	0.0001
Dibromomethane	NS	NS	NS	NS	NS	ND		0.0011	0.0001	ND		0.0008	0.0001	ND		0.002	0.0002
Styrene	NS	NS	NS	NS	NS	ND		0.0006	0.0001	ND		0.0004	8E-05	ND		0.001	0.0002
Dichlorodifluoromethane	NS	NS	NS	NS	NS	ND		0.0055	0.0005	ND		0.0041	0.0004	ND		0.0099	0.0009
Acetone	500	1000	100	100	0.05	0.015		0.0055	0.0027	ND		0.0041	0.002	ND		0.0099	0.0048
Carbon disulfide	NS	NS	NS	NS	NS	ND		0.0055	0.0025	ND		0.0041	0.0019	ND		0.0099	0.0045
2-Butanone	500	1000	100	100	0.12	ND		0.0055	0.0012	ND		0.0041	0.0009	ND		0.0099	0.0022
Vinyl acetate	NS	NS	NS	NS	NS	ND		0.0055	0.0012	ND		0.0041	0.0009	ND		0.0099	0.0021
4-Methyl-2-pentanone	NS	NS	NS	NS	NS	ND		0.0055	0.0007	ND		0.0041	0.0005	ND		0.0099	0.0013
1,2,3-Trichloropropane	NS	NS	NS	NS	NS	ND		0.0011	7E-05	ND		0.0008	5E-05	ND		0.002	0.0001
2-Hexanone	NS	NS	NS	NS	NS	ND		0.0055	0.0007	ND		0.0041	0.0005	ND		0.0099	0.0012
Bromochloromethane	NS	NS	NS	NS	NS	ND		0.0011	0.0001	ND		0.0008	9E-05	ND		0.002	0.0002
2,2-Dichloropropane	NS	NS	NS	NS	NS	ND		0.0011	0.0001	ND		0.0008	8E-05	ND		0.002	0.0002
1,2-Dibromoethane	NS	NS	NS	NS	NS	ND		0.0006	0.0002	ND		0.0004	0.0001	ND		0.001	0.0003
1,3-Dichloropropane	NS	NS	NS	NS	NS	ND		0.0011	9E-05	ND		0.0008	7E-05	ND		0.002	0.0002
1,1,1,2-Tetrachloroethane	NS	NS	NS	NS	NS	ND		0.0003	7E-05	ND		0.0002	6E-05	ND		0.0005	0.0001
Bromobenzene	NS	NS	NS	NS	NS	ND		0.0011	8E-05	ND		0.0008	6E-05	ND		0.002	0.0001
n-Butylbenzene	500	1000	100	100	12	ND		0.0006	9E-05	ND		0.0004	7E-05	ND		0.001	0.0002
sec-Butylbenzene	500	1000	100	100	11	ND		0.0006	8E-05	ND		0.0004	6E-05	ND		0.001	0.0001
tert-Butylbenzene	500	1000	100	100	5.9	ND		0.0011	7E-05	ND		0.0008	5E-05	ND		0.002	0.0001
o-Chlorotoluene	NS	NS	NS	NS	NS	ND		0.0011	0.0001	ND		0.0008	8E-05	ND		0.002	0.0002
p-Chlorotoluene	NS	NS	NS	NS	NS	ND		0.0011	6E-05	ND		0.0008	5E-05	ND		0.002	0.0001
1,2-Dibromo-3-chloropropane	NS	NS	NS	NS	NS	ND		0.0017	0.0006	ND		0.0012	0.0004	ND		0.003	0.001
Hexachlorobutadiene	NS	NS	NS	NS	NS	ND		0.0022	9E-05	ND		0.0016	7E-05	ND		0.004	0.0002
Isopropylbenzene	NS	NS	NS	NS	NS	ND		0.0006	6E-05	ND		0.0004	5E-05	ND		0.001	0.0001
p-Isopropyltoluene	NS	NS	NS	NS	NS	ND		0.0006	6E-05	ND		0.0004	5E-05	ND		0.001	0.0001
Naphthalene	500	1000	100	100	12	ND		0.0022	0.0004	ND		0.0016	0.0003	ND		0.004	0.0006
Acrylonitrile	NS	NS	NS	NS	NS	ND		0.0022	0.0006	ND		0.0016	0.0005	ND		0.004	0.0011
n-Propylbenzene	500	1000	100	100	3.9	ND		0.0006	0.0001	ND		0.0004	7E-05	ND		0.001	0.0002

Table 2: Summary of Soil Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID: LAB ID: COLLECTION DATE: SAMPLE MATRIX:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	VTX-10				VTX-14				VTX-16			
						L1835720-01				L1835942-06				L1836518-03			
						9/10/2018				9/11/2018				9/13/2018			
						SOIL				SOIL				SOIL			
						Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
1,2,3-Trichlorobenzene	NS	NS	NS	NS	NS	ND		0.0011	0.0002	ND		0.0008	0.0001	ND		0.002	0.0003
1,2,4-Trichlorobenzene	NS	NS	NS	NS	NS	ND		0.0011	0.0002	ND		0.0008	0.0001	ND		0.002	0.0003
1,3,5-Trimethylbenzene	190	380	47	52	8.4	ND		0.0011	0.0001	ND		0.0008	8E-05	ND		0.002	0.0002
1,2,4-Trimethylbenzene	190	380	47	52	3.6	ND		0.0011	0.0002	ND		0.0008	0.0001	ND		0.002	0.0003
1,4-Dioxane	130	250	9.8	13	0.1	ND		0.055	0.019	ND		0.041	0.014	ND		0.099	0.035
p-Diethylbenzene	NS	NS	NS	NS	NS	0.0002	J	0.0011	0.0001	ND		0.0008	7E-05	ND		0.002	0.0002
p-Ethyltoluene	NS	NS	NS	NS	NS	ND		0.0011	0.0002	ND		0.0008	0.0002	ND		0.002	0.0004
1,2,4,5-Tetramethylbenzene	NS	NS	NS	NS	NS	ND		0.0011	0.0001	ND		0.0008	8E-05	ND		0.002	0.0002
Ethyl ether	NS	NS	NS	NS	NS	ND		0.0011	0.0002	ND		0.0008	0.0001	ND		0.002	0.0003
trans-1,4-Dichloro-2-butene	NS	NS	NS	NS	NS	ND		0.0028	0.0008	ND		0.0021	0.0006	ND		0.005	0.0014
Total VOCs	NS	NS	NS	NS	NS	0.0158	-	-	-	-	-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg)																	
Acenaphthene	500	1000	100	100	20	ND		0.14	0.018	ND		0.14	0.018	ND		0.14	0.018
1,2,4-Trichlorobenzene	NS	NS	NS	NS	NS	ND		0.17	0.019	ND		0.17	0.02	ND		0.17	0.019
Hexachlorobenzene	6	12	0.33	1.2	0.33	ND		0.1	0.019	ND		0.1	0.019	ND		0.1	0.019
Bis(2-chloroethyl)ether	NS	NS	NS	NS	NS	ND		0.15	0.023	ND		0.16	0.023	ND		0.15	0.023
2-Chloronaphthalene	NS	NS	NS	NS	NS	ND		0.17	0.017	ND		0.17	0.017	ND		0.17	0.017
1,2-Dichlorobenzene	500	1000	100	100	1.1	ND		0.17	0.03	ND		0.17	0.031	ND		0.17	0.031
1,3-Dichlorobenzene	280	560	17	49	2.4	ND		0.17	0.029	ND		0.17	0.03	ND		0.17	0.029
1,4-Dichlorobenzene	130	250	9.8	13	1.8	ND		0.17	0.03	ND		0.17	0.03	ND		0.17	0.03
3,3'-Dichlorobenzidine	NS	NS	NS	NS	NS	ND		0.17	0.045	ND		0.17	0.046	ND		0.17	0.045
2,4-Dinitrotoluene	NS	NS	NS	NS	NS	ND		0.17	0.034	ND		0.17	0.035	ND		0.17	0.034
2,6-Dinitrotoluene	NS	NS	NS	NS	NS	ND		0.17	0.029	ND		0.17	0.03	ND		0.17	0.029
Fluoranthene	500	1000	100	100	100	ND		0.1	0.019	ND		0.1	0.02	ND		0.1	0.02
4-Chlorophenyl phenyl ether	NS	NS	NS	NS	NS	ND		0.17	0.018	ND		0.17	0.018	ND		0.17	0.018
4-Bromophenyl phenyl ether	NS	NS	NS	NS	NS	ND		0.17	0.026	ND		0.17	0.026	ND		0.17	0.026
Bis(2-chloroisopropyl)ether	NS	NS	NS	NS	NS	ND		0.2	0.029	ND		0.21	0.03	ND		0.2	0.029
Bis(2-chloroethoxy)methane	NS	NS	NS	NS	NS	ND		0.18	0.017	ND		0.19	0.017	ND		0.18	0.017
Hexachlorobutadiene	NS	NS	NS	NS	NS	ND		0.17	0.025	ND		0.17	0.025	ND		0.17	0.025
Hexachlorocyclopentadiene	NS	NS	NS	NS	NS	ND		0.48	0.15	ND		0.5	0.16	ND		0.49	0.15
Hexachloroethane	NS	NS	NS	NS	NS	ND		0.14	0.027	ND		0.14	0.028	ND		0.14	0.028
Isophorone	NS	NS	NS	NS	NS	ND		0.15	0.022	ND		0.16	0.022	ND		0.15	0.022
Naphthalene	500	1000	100	100	12	ND		0.17	0.021	ND		0.17	0.021	ND		0.17	0.021
Nitrobenzene	NS	NS	NS	NS	NS	ND		0.15	0.025	ND		0.16	0.026	ND		0.15	0.025
NDPA/DPA	NS	NS	NS	NS	NS	ND		0.14	0.019	ND		0.14	0.02	ND		0.14	0.019
n-Nitrosodi-n-propylamine	NS	NS	NS	NS	NS	ND		0.17	0.026	ND		0.17	0.027	ND		0.17	0.026
Bis(2-ethylhexyl)phthalate	NS	NS	NS	NS	NS	ND		0.17	0.059	ND		0.17	0.06	ND		0.17	0.059
Butyl benzyl phthalate	NS	NS	NS	NS	NS	ND		0.17	0.043	ND		0.17	0.044	ND		0.17	0.043
Di-n-butylphthalate	NS	NS	NS	NS	NS	ND		0.17	0.032	ND		0.17	0.033	ND		0.17	0.032
Di-n-octylphthalate	NS	NS	NS	NS	NS	ND		0.17	0.058	ND		0.17	0.059	ND		0.17	0.058
Diethyl phthalate	NS	NS	NS	NS	NS	ND		0.17	0.016	ND		0.17	0.016	ND		0.17	0.016
Dimethyl phthalate	NS	NS	NS	NS	NS	ND		0.17	0.036	ND		0.17	0.036	ND		0.17	0.036
Benzo(a)anthracene	5.6	11	1	1	1	ND		0.1	0.019	ND		0.1	0.02	ND		0.1	0.019
Benzo(a)pyrene	1	1.1	1	1	1	ND		0.14	0.041	ND		0.14	0.042	ND		0.14	0.042
Benzo(b)fluoranthene	5.6	11	1	1	1	ND		0.1	0.028	ND		0.1	0.029	ND		0.1	0.029
Benzo(k)fluoranthene	56	110	1	3.9	0.8	ND		0.1	0.027	ND		0.1	0.028	ND		0.1	0.027
Chrysene	56	110	1	3.9	1	ND		0.1	0.018	ND		0.1	0.018	ND		0.1	0.018
Acenaphthylene	500	1000	100	100	100	ND		0.14	0.026	ND		0.14	0.027	ND		0.14	0.026
Anthracene	500	1000	100	100	100	ND		0.1	0.033	ND		0.1	0.034	ND		0.1	0.033
Benzo(ghi)perylene	500	1000	100	100	100	ND		0.14	0.02	ND		0.14	0.02	ND		0.14	0.02
Fluorene	500	1000	100	100	30	ND		0.17	0.016	ND		0.17	0.017	ND		0.17	0.016
Phenanthrene	500	1000	100	100	100	ND		0.1	0.021	ND		0.1	0.021	ND		0.1	0.021
Dibenzo(a,h)anthracene	0.56	1.1	0.33	0.33	0.33	ND		0.1	0.02	ND		0.1	0.02	ND		0.1	0.02
Indeno(1,2,3-cd)pyrene	5.6	11	0.5	0.5	0.5	ND		0.14	0.024	ND		0.14	0.024	ND		0.14	0.024
Pyrene	500	1000	100	100	100	ND		0.1	0.017	ND		0.1	0.017	ND		0.1	0.017
Biphenyl	NS	NS	NS	NS	NS	ND		0.39	0.039	ND		0.4	0.04	ND		0.39	0.04
4-Chloroaniline	NS	NS	NS	NS	NS	ND		0.17	0.031	ND		0.17	0.032	ND		0.17	0.031
2-Nitroaniline	NS	NS	NS	NS	NS	ND		0.17	0.033	ND		0.17	0.033	ND		0.17	0.033
3-Nitroaniline	NS	NS	NS	NS	NS	ND		0.17	0.032	ND		0.17	0.033	ND		0.17	0.032
4-Nitroaniline	NS	NS	NS	NS	NS	ND		0.17	0.07	ND		0.17	0.072	ND		0.17	0.07
Dibenzofuran	350	1000	14	59	7	ND		0.17	0.016	ND		0.17	0.016	ND		0.17	0.016
2-Methylnaphthalene	NS	NS	NS	NS	NS	ND		0.2	0.02	ND		0.21	0.021	ND		0.2	0.02
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	NS	NS	ND		0.17	0.018	ND		0.17	0.018	ND		0.17	0.018
Acetophenone	NS	NS	NS	NS	NS	ND		0.17	0.021	ND		0.17	0.021	ND		0.17	0.021
2,4,6-Trichlorophenol	NS	NS	NS	NS	NS	ND		0.1	0.032	ND		0.1	0.033	ND		0.1	0.032
p-Chloro-m-cresol	NS	NS	NS	NS	NS	ND		0.17	0.025	ND		0.17	0.026	ND		0.17	0.025
2-Chlorophenol	NS	NS	NS	NS	NS	ND		0.17	0.02	ND		0.17	0.02	ND		0.17	0.02

Table 2: Summary of Soil Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	VTX-10				VTX-14				VTX-16			
LAB ID:						L1835720-01				L1835942-06				L1836518-03			
COLLECTION DATE:						9/10/2018				9/11/2018				9/13/2018			
SAMPLE MATRIX:						SOIL				SOIL				SOIL			
						Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
2,4-Dichlorophenol	NS	NS	NS	NS	NS	ND		0.15	0.027	ND		0.16	0.028	ND		0.15	0.027
2,4-Dimethylphenol	NS	NS	NS	NS	NS	ND		0.17	0.056	ND		0.17	0.057	ND		0.17	0.056
2-Nitrophenol	NS	NS	NS	NS	NS	ND		0.37	0.064	ND		0.37	0.065	ND		0.37	0.064
4-Nitrophenol	NS	NS	NS	NS	NS	ND		0.24	0.069	ND		0.24	0.071	ND		0.24	0.07
2,4-Dinitrophenol	NS	NS	NS	NS	NS	ND		0.82	0.079	ND		0.83	0.081	ND		0.82	0.079
4,6-Dinitro-o-cresol	NS	NS	NS	NS	NS	ND		0.44	0.082	ND		0.45	0.083	ND		0.44	0.082
Pentachlorophenol	6.7	55	2.4	6.7	0.8	ND		0.14	0.037	ND		0.14	0.038	ND		0.14	0.037
Phenol	500	1000	100	100	0.33	ND		0.17	0.026	ND		0.17	0.026	ND		0.17	0.026
2-Methylphenol	500	1000	100	100	0.33	ND		0.17	0.026	ND		0.17	0.027	ND		0.17	0.026
3-Methylphenol/4-Methylphenol	500	1000	34	100	0.33	ND		0.24	0.026	ND		0.25	0.027	ND		0.24	0.027
2,4,5-Trichlorophenol	NS	NS	NS	NS	NS	ND		0.17	0.032	ND		0.17	0.033	ND		0.17	0.033
Benzoic Acid	NS	NS	NS	NS	NS	ND		0.55	0.17	ND		0.56	0.18	ND		0.55	0.17
Benzyl Alcohol	NS	NS	NS	NS	NS	ND		0.17	0.052	ND		0.17	0.053	ND		0.17	0.052
Carbazole	NS	NS	NS	NS	NS	ND		0.17	0.016	ND		0.17	0.017	ND		0.17	0.016
Total SVOCs	NS	NS	NS	NS	NS	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL METALS (mg/kg)																	
Aluminum, Total	NS	NS	NS	NS	NS	932		7.98	2.16	777		8.11	2.19	-		-	-
Antimony, Total	NS	NS	NS	NS	NS	0.431	J	3.99	0.303	ND		4.06	0.308	-		-	-
Arsenic, Total	16	16	16	16	13	0.998		0.798	0.166	0.674	J	0.811	0.169	-		-	-
Barium, Total	400	10000	350	400	350	8.22		0.798	0.139	4.64		0.811	0.141	-		-	-
Beryllium, Total	590	2700	14	72	7.2	0.064	J	0.399	0.026	0.105	J	0.406	0.027	-		-	-
Cadmium, Total	9.3	60	2.5	4.3	2.5	0.096	J	0.798	0.078	0.089	J	0.811	0.08	-		-	-
Calcium, Total	NS	NS	NS	NS	NS	3730		7.98	2.79	32		8.11	2.84	-		-	-
Chromium, Total	NS	NS	NS	NS	NS	13.8		0.798	0.077	2.08		0.811	0.078	-		-	-
Cobalt, Total	NS	NS	NS	NS	NS	1.26	J	1.6	0.132	1.16	J	1.62	0.135	-		-	-
Copper, Total	270	10000	270	270	50	3.42		0.798	0.206	44.8		0.811	0.209	-		-	-
Iron, Total	NS	NS	NS	NS	NS	4080		3.99	0.721	2880		4.06	0.733	-		-	-
Lead, Total	1000	3900	400	400	63	1.85	J	3.99	0.214	1.1	J	4.06	0.217	-		-	-
Magnesium, Total	NS	NS	NS	NS	NS	1870		7.98	1.23	204		8.11	1.25	-		-	-
Manganese, Total	10000	10000	2000	2000	1600	49.1		0.798	0.127	53.8		0.811	0.129	-		-	-
Mercury, Total	2.8	5.7	0.81	0.81	0.18	ND		0.065	0.014	ND		0.067	0.014	-		-	-
Nickel, Total	310	10000	140	310	30	2.98		2	0.193	2.63		2.03	0.196	-		-	-
Potassium, Total	NS	NS	NS	NS	NS	152	J	200	11.5	128	J	203	11.7	-		-	-
Selenium, Total	1500	6800	36	180	3.9	ND		1.6	0.206	ND		1.62	0.209	-		-	-
Silver, Total	1500	6800	36	180	2	ND		0.798	0.226	ND		0.811	0.23	-		-	-
Sodium, Total	NS	NS	NS	NS	NS	40.9	J	160	2.51	11.3	J	162	2.56	-		-	-
Thallium, Total	NS	NS	NS	NS	NS	ND		1.6	0.251	ND		1.62	0.256	-		-	-
Vanadium, Total	NS	NS	NS	NS	NS	4.49		0.798	0.162	2.38		0.811	0.165	-		-	-
Zinc, Total	10000	10000	2200	10000	109	5.45		3.99	0.234	7.28		4.06	0.238	-		-	-
GENERAL CHEMISTRY																	
Solids, Total	NS	NS	NS	NS	NS	97.1		0.1	NA	93.5		0.1	NA	96.5		0.1	NA

* Comparison is not performed on parameters with non-numeric criteria.
RUSCO-C: New York NYCRR Part 375 Commercial Criteria, New York Restricted Use Criteria
RUSCO-I: New York NYCRR Part 375 Industrial Criteria, New York Restricted Use Criteria
RSUCO-R: New York NYCRR Part 375 Residential Criteria, New York Restricted Use Criteria
RUSCO-RR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted Use Criteria
UUSCO: New York NYCRR Part 375 New York Unrestricted Use Criteria Criteria
mg/kg: milligrams per kilogram
Conc: Concentration
Q: Laboratory Qualifier
RL: Reporting Limit
MDL: Method Detection Limit
Highlighted and bolded concentrations exceed one or more of applicable standards
NS: No Standard
ND: Non-Detect
J: Laboratory reported at an estimated concentration

Table 3: Summary of Groundwater Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	AWQS	TOGS-GA	TW-5				TW-7				TW-8				TW-10				TW-11				TW-12				TW-14			
LAB ID:			L1836518-05				L1835942-02				L1836162-03				L1835720-02				L1835720-03				L1835942-05				L1836518-04			
COLLECTION DATE:			9/13/2018				9/11/2018				9/12/2018				9/10/2018				9/10/2018				9/11/2018				9/13/2018			
SAMPLE MATRIX:			WATER				WATER				WATER				WATER				WATER				WATER				WATER			
			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
VOLATILE ORGANIC COMPOUNDS (ug/l)																														
Methylene chloride	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,1-Dichloroethane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Chloroform	7	7	3.8		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Carbon tetrachloride	5	5	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13
1,2-Dichloropropane	1	1	ND		1	0.14	ND		1	0.14	ND		1	0.14	ND		1	0.14	ND		1	0.14	ND		1	0.14	ND		1	0.14
Dibromochloromethane	50	50	ND		0.5	0.15	ND		0.5	0.15	ND		0.5	0.15	ND		0.5	0.15	ND		0.5	0.15	ND		0.5	0.15	ND		0.5	0.15
1,1,2-Trichloroethane	1	1	ND		1.5	0.5	ND		1.5	0.5	ND		1.5	0.5	ND		1.5	0.5	ND		1.5	0.5	ND		1.5	0.5	ND		1.5	0.5
Tetrachloroethene	5	5	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18
Chlorobenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Trichlorofluoromethane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,2-Dichloroethane	0.6	0.6	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13	ND		0.5	0.13
1,1,1-Trichloroethane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Bromodichloromethane	50	50	ND		0.5	0.19	ND		0.5	0.19	ND		0.5	0.19	ND		0.5	0.19	ND		0.5	0.19	ND		0.5	0.19	ND		0.5	0.19
trans-1,3-Dichloropropene	0.4	0.4	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16
cis-1,3-Dichloropropene	0.4	0.4	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14
1,3-Dichloropropene, Total	NS	NS	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14	ND		0.5	0.14
1,1-Dichloropropene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Bromoform	50	50	ND		2	0.65	ND		2	0.65	ND		2	0.65	ND		2	0.65	ND		2	0.65	ND		2	0.65	ND		2	0.65
1,1,2,2-Tetrachloroethane	5	5	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17
Benzene	1	1	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16	ND		0.5	0.16
Toluene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Ethylbenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Chloromethane	NS	NS	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Bromomethane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Vinyl chloride	2	2	ND		1	0.07	ND		1	0.07	ND		1	0.07	ND		1	0.07	ND		1	0.07	ND		1	0.07	ND		1	0.07
Chloroethane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,1-Dichloroethene	5	5	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17	ND		0.5	0.17
trans-1,2-Dichloroethene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Trichloroethene	5	5	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18	ND		0.5	0.18
1,2-Dichlorobenzene	3	3	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,3-Dichlorobenzene	3	3	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,4-Dichlorobenzene	3	3	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Methyl tert butyl ether	10	10	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
p/m-Xylene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
o-Xylene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Xylenes, Total	NS	NS	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
cis-1,2-Dichloroethene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,2-Dichloroethene, Total	NS	NS	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Dibromomethane	5	5	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1
1,2,3-Trichloropropane	0.04	0.04	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Acrylonitrile	5	5	ND		5	1.5	ND		5	1.5	ND		5	1.5	ND		5	1.5	ND		5	1.5	ND		5	1.5	ND		5	1.5
Styrene	5	930	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Dichlorodifluoromethane	5	5	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1
Acetone	50	50	3.5	J	5	1.5	8.8		5	1.5	3.5	J	5	1.5	1.7	J	5	1.5	4.1	J	5	1.5	11		5	1.5	ND		5	1.5

Table 3: Summary of Groundwater Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	AWQS	TOGS-GA	TW-5				TW-7				TW-8				TW-10				TW-11				TW-12				TW-14			
LAB ID:			L1836518-05				L1835942-02				L1836162-03				L1835720-02				L1835720-03				L1835942-05				L1836518-04			
COLLECTION DATE:			9/13/2018				9/11/2018				9/12/2018				9/10/2018				9/10/2018				9/11/2018				9/13/2018			
SAMPLE MATRIX:			WATER				WATER				WATER				WATER				WATER				WATER				WATER			
			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Carbon disulfide	60	60	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1
2-Butanone	50	50	ND		5	1.9	ND		5	1.9	ND		5	1.9	ND		5	1.9	ND		5	1.9	3	J	5	1.9	ND		5	1.9
Vinyl acetate	NS	NS	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1
4-Methyl-2-pentanone	NS	NS	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1
2-Hexanone	50	50	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1	ND		5	1
Bromochloromethane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
2,2-Dichloropropane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,2-Dibromoethane	0.0006	0.0006	ND		2	0.65	ND		2	0.65	ND		2	0.65	ND		2	0.65	ND		2	0.65	ND		2	0.65	ND		2	0.65
1,3-Dichloropropane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,1,1,2-Tetrachloroethane	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Bromobenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
n-Butylbenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
sec-Butylbenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
tert-Butylbenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
o-Chlorotoluene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
p-Chlorotoluene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,2-Dibromo-3-chloropropane	0.04	0.04	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Hexachlorobutadiene	0.5	0.5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Isopropylbenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
p-Isopropyltoluene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Naphthalene	10	10	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
n-Propylbenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,2,3-Trichlorobenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,2,4-Trichlorobenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,3,5-Trimethylbenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,2,4-Trimethylbenzene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
1,4-Dioxane	NS	NS	ND		250	61	ND		250	61	ND		250	61	ND		250	61	ND		250	61	ND		250	61	ND		250	61
p-Diethylbenzene	NS	NS	ND		2	0.7	ND		2	0.7	ND		2	0.7	ND		2	0.7	ND		2	0.7	ND		2	0.7	ND		2	0.7
p-Ethyltoluene	NS	NS	ND		2	0.7	ND		2	0.7	ND		2	0.7	ND		2	0.7	ND		2	0.7	ND		2	0.7	ND		2	0.7
1,2,4,5-Tetramethylbenzene	5	5	ND		2	0.54	ND		2	0.54	ND		2	0.54	ND		2	0.54	ND		2	0.54	ND		2	0.54	ND		2	0.54
Ethyl ether	NS	NS	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
trans-1,4-Dichloro-2-butene	5	5	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7	ND		2.5	0.7
Total VOCs	NS	NS	7.3	-	-	-	8.8	-	-	-	3.5	-	-	-	1.7	-	-	-	4.1	-	-	-	14	-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (ug/l)																														
1,2,4-Trichlorobenzene	5	5	ND		6.3	0.62	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5
Bis(2-chloroethyl)ether	1	1	ND		2.5	0.63	ND		2	0.5	ND		2	0.5	ND		2	0.5	ND		2	0.5	ND		2	0.5	ND		2	0.5
1,2-Dichlorobenzene	3	3	ND		2.5	0.57	ND		2	0.45	ND		2	0.45	ND		2	0.45	ND		2	0.45	ND		2	0.45	ND		2	0.45
1,3-Dichlorobenzene	3	3	ND		2.5	0.5	ND		2	0.4	ND		2	0.4	ND		2	0.4	ND		2	0.4	ND		2	0.4	ND		2	0.4
1,4-Dichlorobenzene	3	3	ND		2.5	0.54	ND		2	0.43	ND		2	0.43	ND		2	0.43	ND		2	0.43	ND		2	0.43	ND		2	0.43
3,3'-Dichlorobenzidine	5	5	ND		6.3	2	ND		5	1.6	ND		5	1.6	ND		5	1.6	ND		5	1.6	ND		5	1.6	ND		5	1.6
2,4-Dinitrotoluene	5	5	ND		6.3	1.4	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2
2,6-Dinitrotoluene	5	5	ND		6.3	1.2	ND		5	0.93	ND		5	0.93	ND		5	0.93	ND		5	0.93	ND		5	0.93	ND		5	0.93
4-Chlorophenyl phenyl ether	NS	NS	ND		2.5	0.61	ND		2	0.49	ND		2	0.49	ND		2	0.49	ND		2	0.49	ND		2	0.49	ND		2	0.49
4-Bromophenyl phenyl ether	NS	NS	ND		2.5	0.47	ND		2	0.38	ND		2	0.38	ND		2	0.38	ND		2	0.38	ND		2	0.38	ND		2	0.38
Bis(2-chloroisopropyl)ether	5	5	ND		2.5	0.66	ND		2	0.53	ND		2	0.53	ND		2	0.53	ND		2	0.53	ND		2	0.53	ND		2	0.53

Table 3: Summary of Groundwater Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	AWQS	TOGS-GA	TW-5				TW-7				TW-8				TW-10				TW-11				TW-12				TW-14			
LAB ID:			L1836518-05				L1835942-02				L1836162-03				L1835720-02				L1835720-03				L1835942-05				L1836518-04			
COLLECTION DATE:			9/13/2018				9/11/2018				9/12/2018				9/10/2018				9/10/2018				9/11/2018				9/13/2018			
SAMPLE MATRIX:			WATER				WATER				WATER				WATER				WATER				WATER				WATER			
			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Bis(2-chloroethoxy)methane	5	5	ND		6.3	0.63	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5
Hexachlorocyclopentadiene	5	5	ND		25	0.86	ND		20	0.69	ND		20	0.69	ND		20	0.69	ND		20	0.69	ND		20	0.69	ND		20	0.69
Isophorone	50	50	ND		6.3	1.5	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2
Nitrobenzene	0.4	0.4	ND		2.5	0.96	ND		2	0.77	ND		2	0.77	ND		2	0.77	ND		2	0.77	ND		2	0.77	ND		2	0.77
NDPA/DPA	50	50	ND		2.5	0.52	ND		2	0.42	ND		2	0.42	ND		2	0.42	ND		2	0.42	ND		2	0.42	ND		2	0.42
n-Nitrosodi-n-propylamine	NS	NS	ND		6.3	0.8	ND		5	0.64	ND		5	0.64	ND		5	0.64	ND		5	0.64	ND		5	0.64	ND		5	0.64
Bis(2-ethylhexyl)phthalate	5	5	ND		3.8	1.9	ND		3	1.5	ND		3	1.5	ND		3	1.5	2.6	J	3	1.5	ND		3	1.5	ND		3	1.5
Butyl benzyl phthalate	50	50	ND		6.3	1.5	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2	ND		5	1.2
Di-n-butylphthalate	50	50	ND		6.3	0.49	ND		5	0.39	ND		5	0.39	ND		5	0.39	ND		5	0.39	ND		5	0.39	ND		5	0.39
Di-n-octylphthalate	50	50	ND		6.3	1.6	ND		5	1.3	ND		5	1.3	ND		5	1.3	8.6		5	1.3	ND		5	1.3	ND		5	1.3
Diethyl phthalate	50	50	ND		6.3	0.48	ND		5	0.38	ND		5	0.38	1.9	J	5	0.38	0.55	J	5	0.38	ND		5	0.38	ND		5	0.38
Dimethyl phthalate	50	50	ND		6.3	2.3	ND		5	1.8	ND		5	1.8	ND		5	1.8	ND		5	1.8	ND		5	1.8	ND		5	1.8
Biphenyl	NS	NS	ND		2.5	0.57	ND		2	0.46	ND		2	0.46	ND		2	0.46	ND		2	0.46	ND		2	0.46	ND		2	0.46
4-Chloroaniline	5	5	ND		6.3	1.3	ND		5	1.1	ND		5	1.1	ND		5	1.1	ND		5	1.1	ND		5	1.1	ND		5	1.1
2-Nitroaniline	5	5	ND		6.3	0.62	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5	ND		5	0.5
3-Nitroaniline	5	5	ND		6.3	1	ND		5	0.81	ND		5	0.81	ND		5	0.81	ND		5	0.81	ND		5	0.81	ND		5	0.81
4-Nitroaniline	5	5	ND		6.3	1	ND		5	0.8	ND		5	0.8	ND		5	0.8	ND		5	0.8	ND		5	0.8	ND		5	0.8
Dibenzofuran	NS	NS	ND		2.5	0.62	ND		2	0.5	ND		2	0.5	ND		2	0.5	ND		2	0.5	ND		2	0.5	ND		2	0.5
1,2,4,5-Tetrachlorobenzene	5	5	ND		12	0.55	ND		10	0.44	ND		10	0.44	ND		10	0.44	ND		10	0.44	ND		10	0.44	ND		10	0.44
Acetophenone	NS	NS	ND		6.3	0.66	ND		5	0.53	ND		5	0.53	ND		5	0.53	ND		5	0.53	ND		5	0.53	ND		5	0.53
2,4,6-Trichlorophenol	NS	NS	ND		6.3	0.76	ND		5	0.61	ND		5	0.61	ND		5	0.61	ND		5	0.61	ND		5	0.61	ND		5	0.61
p-Chloro-m-cresol	NS	NS	ND		2.5	0.44	ND		2	0.35	ND		2	0.35	ND		2	0.35	ND		2	0.35	ND		2	0.35	ND		2	0.35
2-Chlorophenol	NS	NS	ND		2.5	0.6	ND		2	0.48	ND		2	0.48	ND		2	0.48	ND		2	0.48	ND		2	0.48	ND		2	0.48
2,4-Dichlorophenol	1	2	ND		6.3	0.51	ND		5	0.41	ND		5	0.41	ND		5	0.41	ND		5	0.41	ND		5	0.41	ND		5	0.41
2,4-Dimethylphenol	50	2	ND		6.3	2.2	ND		5	1.8	ND		5	1.8	ND		5	1.8	ND		5	1.8	ND		5	1.8	ND		5	1.8
2-Nitrophenol	NS	NS	ND		12	1	ND		10	0.85	ND		10	0.85	ND		10	0.85	ND		10	0.85	ND		10	0.85	ND		10	0.85
4-Nitrophenol	NS	NS	ND		12	0.84	ND		10	0.67	ND		10	0.67	ND		10	0.67	ND		10	0.67	ND		10	0.67	ND		10	0.67
2,4-Dinitrophenol	10	2	ND		25	8.3	ND		20	6.6	ND		20	6.6	ND		20	6.6	ND		20	6.6	ND		20	6.6	ND		20	6.6
4,6-Dinitro-o-cresol	NS	NS	ND		12	2.3	ND		10	1.8	ND		10	1.8	ND		10	1.8	ND		10	1.8	ND		10	1.8	ND		10	1.8
Phenol	1	2	ND		6.3	0.71	ND		5	0.57	ND		5	0.57	ND		5	0.57	ND		5	0.57	ND		5	0.57	ND		5	0.57
2-Methylphenol	NS	NS	ND		6.3	0.61	ND		5	0.49	ND		5	0.49	ND		5	0.49	ND		5	0.49	ND		5	0.49	ND		5	0.49
3-Methylphenol/4-Methylphe	NS	NS	ND		6.3	0.6	ND		5	0.48	ND		5	0.48	ND		5	0.48	ND		5	0.48	ND		5	0.48	ND		5	0.48
2,4,5-Trichlorophenol	NS	NS	ND		6.3	0.97	ND		5	0.77	ND		5	0.77	ND		5	0.77	ND		5	0.77	ND		5	0.77	ND		5	0.77
Benzoic Acid	NS	NS	ND		63	3.3	9.3	J	50	2.6	ND		50	2.6	ND		50	2.6	ND		50	2.6	9.2	J	50	2.6	ND		50	2.6
Benzyl Alcohol	NS	NS	ND		2.5	0.74	ND		2	0.59	ND		2	0.59	ND		2	0.59	ND		2	0.59	ND		2	0.59	ND		2	0.59
Carbazole	NS	NS	ND		2.5	0.61	ND		2	0.49	ND		2	0.49	ND		2	0.49	ND		2	0.49	ND		2	0.49	ND		2	0.49
Acenaphthene	20	20	ND		0.12	0.02	ND		0.1	0.01	ND		0.1	0.01	0.03	J	0.1	0.01	0.02	J	0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
2-Chloronaphthalene	10	10	ND		0.25	0.02	ND		0.2	0.02	ND		0.2	0.02	ND		0.2	0.02	ND		0.2	0.02	ND		0.2	0.02	ND		0.2	0.02
Fluoranthene	50	50	0.09	J	0.12	0.03	ND		0.1	0.02	0.05	J	0.1	0.02	0.03	J	0.1	0.02	0.07	J	0.1	0.02	ND		0.1	0.02	ND		0.1	0.02
Hexachlorobutadiene	0.5	0.5	ND		0.62	0.06	ND		0.5	0.05	ND		0.5	0.05	ND		0.5	0.05	ND		0.5	0.05	ND		0.5	0.05	ND		0.5	0.05
Naphthalene	10	10	ND		0.12	0.06	ND		0.1	0.05	0.05	J	0.1	0.05	ND		0.1	0.05	0.05	J	0.1	0.05	ND		0.1	0.05	ND		0.1	0.05
Benzo(a)anthracene	0.002	0.002	ND		0.12	0.03	ND		0.1	0.02	0.03	J	0.1	0.02	ND		0.1	0.02	0.03	J	0.1	0.02	ND		0.1	0.02	ND		0.1	0.02
Benzo(a)pyrene	0	0	0.03	J	0.12	0.02	ND		0.1	0.02	0.03	J	0.1	0.02	ND		0.1	0.02	0.03	J	0.1	0.02	ND		0.1	0.02	ND		0.1	0.02
Benzo(b)fluoranthene	0.002	0.002	0.04	J	0.12	0.01	ND		0.1	0.01	0.04	J	0.1	0.01	ND		0.1	0.01	0.06	J	0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
Benzo(k)fluoranthene	0.002	0.002	0.02	J	0.12	0.01	ND		0.1	0.01	0.02	J	0.1	0.01	ND		0.1	0.01	0.02	J	0.1	0.01	ND		0.1	0.01	ND		0.1	0.01

Table 3: Summary of Groundwater Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	AWQS	TOGS-GA	TW-5				TW-7				TW-8				TW-10				TW-11				TW-12				TW-14			
LAB ID:			L1836518-05				L1835942-02				L1836162-03				L1835720-02				L1835720-03				L1835942-05				L1836518-04			
COLLECTION DATE:			9/13/2018				9/11/2018				9/12/2018				9/10/2018				9/10/2018				9/11/2018				9/13/2018			
SAMPLE MATRIX:			WATER				WATER				WATER				WATER				WATER				WATER				WATER			
			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Chrysene	0.002	0.002	ND		0.12	0.02	ND		0.1	0.01	0.02	J	0.1	0.01	ND		0.1	0.01	0.04	J	0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
Acenaphthylene	NS	NS	ND		0.12	0.02	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
Anthracene	50	50	ND		0.12	0.02	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
Benzo(ghi)perylene	NS	NS	ND		0.12	0.02	ND		0.1	0.01	0.02	J	0.1	0.01	ND		0.1	0.01	0.02	J	0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
Fluorene	50	50	ND		0.12	0.02	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	0.02	J	0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
Phenanthrene	50	50	0.1	J	0.12	0.03	ND		0.1	0.02	0.04	J	0.1	0.02	0.04	J	0.1	0.02	0.07	J	0.1	0.02	ND		0.1	0.02	ND		0.1	0.02
Dibenzo(a,h)anthracene	NS	NS	ND		0.12	0.02	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
Indeno(1,2,3-cd)pyrene	0.002	0.002	ND		0.12	0.02	ND		0.1	0.01	0.02	J	0.1	0.01	ND		0.1	0.01	0.03	J	0.1	0.01	ND		0.1	0.01	ND		0.1	0.01
Pyrene	50	50	0.07	J	0.12	0.02	ND		0.1	0.02	0.04	J	0.1	0.02	0.03	J	0.1	0.02	0.06	J	0.1	0.02	ND		0.1	0.02	ND		0.1	0.02
2-Methylnaphthalene	NS	NS	ND		0.12	0.03	ND		0.1	0.02	ND		0.1	0.02	0.02	J	0.1	0.02	0.04	J	0.1	0.02	ND		0.1	0.02	ND		0.1	0.02
Pentachlorophenol	1	2	ND		1	0.02	ND		0.8	0.01	ND		0.8	0.01	ND		0.8	0.01	ND		0.8	0.01	ND		0.8	0.01	ND		0.8	0.01
Hexachlorobenzene	0.04	0.04	ND		1	0.01	ND		0.8	0.01	ND		0.8	0.01	ND		0.8	0.01	ND		0.8	0.01	ND		0.8	0.01	ND		0.8	0.01
Hexachloroethane	5	5	ND		1	0.08	ND		0.8	0.06	ND		0.8	0.06	ND		0.8	0.06	ND		0.8	0.06	ND		0.8	0.06	ND		0.8	0.06
Total SVOCs	NS	NS	0.35	-	-	-	-	-	-	-	0.36	-	-	-	0.15	-	-	-	0.56	-	-	-	-	-	-	-	-	-	-	-
DISSOLVED METALS (ug/l)																														
Aluminum, Dissolved	NS	2000	-		-	-	18.1		10	3.27	140		10	3.27	324		10	3.27	1310		10	3.27	-		-	-	-		-	-
Antimony, Dissolved	3	6	-		-	-	1.64	J	4	0.42	1.51	J	4	0.42	4.44		4	0.42	2.08	J	4	0.42	-		-	-	-		-	-
Arsenic, Dissolved	25	50	-		-	-	0.27	J	0.5	0.16	0.49	J	0.5	0.16	1.83		0.5	0.16	1.55		0.5	0.16	-		-	-	-		-	-
Barium, Dissolved	1000	2000	-		-	-	83.27		0.5	0.17	7.07		0.5	0.17	10.42		0.5	0.17	23.02		0.5	0.17	-		-	-	-		-	-
Beryllium, Dissolved	3	3	-		-	-	ND		0.5	0.1	ND		0.5	0.1	ND		0.5	0.1	0.1	J	0.5	0.1	-		-	-	-		-	-
Cadmium, Dissolved	5	10	-		-	-	ND		0.2	0.05	ND		0.2	0.05	0.07	J	0.2	0.05	ND		0.2	0.05	-		-	-	-		-	-
Calcium, Dissolved	NS	NS	-		-	-	22900		100	39.4	22400		100	39.4	11600		100	39.4	11500		100	39.4	-		-	-	-		-	-
Chromium, Dissolved	50	100	-		-	-	0.38	J	1	0.17	1.07		1	0.17	3.91		1	0.17	21.8		1	0.17	-		-	-	-		-	-
Cobalt, Dissolved	NS	NS	-		-	-	11.1		0.5	0.16	2.13		0.5	0.16	2.78		0.5	0.16	5.24		0.5	0.16	-		-	-	-		-	-
Copper, Dissolved	200	1000	-		-	-	4.06		1	0.38	2.32		1	0.38	13.8		1	0.38	7.85		1	0.38	-		-	-	-		-	-
Iron, Dissolved	300	600	-		-	-	527		50	19.1	300		50	19.1	956		50	19.1	4350		50	19.1	-		-	-	-		-	-
Lead, Dissolved	25	50	-		-	-	ND		1	0.34	ND		1	0.34	1.39		1	0.34	2.24		1	0.34	-		-	-	-		-	-
Magnesium, Dissolved	35000	35000	-		-	-	4520		70	24.2	5540		70	24.2	5600		70	24.2	1500		70	24.2	-		-	-	-		-	-
Manganese, Dissolved	300	600	-		-	-	1233		1	0.44	860.2		1	0.44	226.8		1	0.44	1040		1	0.44	-		-	-	-		-	-
Mercury, Dissolved	0.7	1.4	-		-	-	ND		0.2	0.06	ND		0.2	0.06	ND		0.2	0.06	ND		0.2	0.06	-		-	-	-		-	-
Nickel, Dissolved	100	200	-		-	-	26.03		2	0.55	6.61		2	0.55	10.4		2	0.55	12.16		2	0.55	-		-	-	-		-	-
Potassium, Dissolved	NS	NS	-		-	-	5080		100	30.9	10600		100	30.9	11800		100	30.9	4430		100	30.9	-		-	-	-		-	-
Selenium, Dissolved	10	20	-		-	-	ND		5	1.73	ND		5	1.73	ND		5	1.73	ND		5	1.73	-		-	-	-		-	-
Silver, Dissolved	50	100	-		-	-	ND		0.4	0.16	ND		0.4	0.16	0.7		0.4	0.16	0.27	J	0.4	0.16	-		-	-	-		-	-
Sodium, Dissolved	20000	NS	-		-	-	47000		100	29.3	29400		100	29.3	44300		100	29.3	28900		100	29.3	-		-	-	-		-	-
Thallium, Dissolved	0.5	0.5	-		-	-	ND		0.5	0.14	ND		0.5	0.14	0.16	J	0.5	0.14	ND		0.5	0.14	-		-	-	-		-	-
Vanadium, Dissolved	NS	NS	-		-	-	ND		5	1.57	ND		5	1.57	1.58	J	5	1.57	2.44	J	5	1.57	-		-	-	-		-	-
Zinc, Dissolved	2000	5000	-		-	-	9.16	J	10	3.41	ND		10	3.41	6.95	J	10	3.41	8.01	J	10	3.41	-		-	-	-		-	-
TOTAL METALS (ug/l)																														
Aluminum, Total	NS	2000	-		-	-	52600		10	3.27	85900		10	3.27	50600		10	3.27	18500		10	3.27	-		-	-	-		-	-
Antimony, Total	3	6	-		-	-	1.86	J	4	0.42	1.16	J	4	0.42	1.94	J	4	0.42	1.66	J	4	0.42	-		-	-	-		-	-
Arsenic, Total	25	50	-		-	-	23.59		0.5	0.16	27.75		0.5	0.16	24.43		0.5	0.16	14.7		0.5	0.16	-		-	-	-		-	-
Barium, Total	1000	2000	-		-	-	3119		0.5	0.17	2126		0.5	0.17	1242		0.5	0.17	276.5		0.5	0.17	-		-	-	-		-	-
Beryllium, Total	3	3	-		-	-	8.91		0.5	0.1	13.4		0.5	0.1	8.35		0.5	0.1	1.78		0.5	0.1	-		-	-	-		-	-
Cadmium, Total	5	10	-		-	-	1.6		0.2	0.05	1.64		0.2	0.05	5.32		0.2	0.05	0.41		0.2	0.05	-		-	-	-		-	-

Table 3: Summary of Groundwater Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	AWQS	TOGS-GA	TW-5				TW-7				TW-8				TW-10				TW-11				TW-12				TW-14			
LAB ID:			L1836518-05				L1835942-02				L1836162-03				L1835720-02				L1835720-03				L1835942-05				L1836518-04			
COLLECTION DATE:			9/13/2018				9/11/2018				9/12/2018				9/10/2018				9/10/2018				9/11/2018				9/13/2018			
SAMPLE MATRIX:			WATER				WATER				WATER				WATER				WATER				WATER				WATER			
			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Calcium, Total	NS	NS	-		-	-	47000		100	39.4	57200		100	39.4	21400		100	39.4	14000		100	39.4	-		-	-	-		-	-
Chromium, Total	50	100	-		-	-	1933		1	0.17	851.1		1	0.17	474		1	0.17	356.3		1	0.17	-		-	-	-		-	-
Cobalt, Total	NS	NS	-		-	-	73.6		0.5	0.16	80.44		0.5	0.16	29.52		0.5	0.16	23.4		0.5	0.16	-		-	-	-		-	-
Copper, Total	200	1000	-		-	-	1102		1	0.38	431.6		1	0.38	319.1		1	0.38	107.8		1	0.38	-		-	-	-		-	-
Iron, Total	300	600	-		-	-	263000		50	19.1	196000		50	19.1	90100		50	19.1	68800		50	19.1	-		-	-	-		-	-
Lead, Total	25	50	-		-	-	131.1		1	0.34	163.7		1	0.34	158.6		1	0.34	45.55		1	0.34	-		-	-	-		-	-
Magnesium, Total	35000	35000	-		-	-	13700		70	24.2	21700		70	24.2	12300		70	24.2	4830		70	24.2	-		-	-	-		-	-
Manganese, Total	300	600	-		-	-	5390		1	0.44	7482		1	0.44	1202		1	0.44	1829		1	0.44	-		-	-	-		-	-
Mercury, Total	0.7	1.4	-		-	-	ND		0.2	0.06	ND		0.2	0.06	0.07	J	0.2	0.06	ND		0.2	0.06	-		-	-	-		-	-
Nickel, Total	100	200	-		-	-	298.6		2	0.55	216.6		2	0.55	90.35		2	0.55	70.83		2	0.55	-		-	-	-		-	-
Potassium, Total	NS	NS	-		-	-	13800		100	30.9	29000		100	30.9	18000		100	30.9	6390		100	30.9	-		-	-	-		-	-
Selenium, Total	10	20	-		-	-	29.8		5	1.73	38.1		5	1.73	17		5	1.73	6.26		5	1.73	-		-	-	-		-	-
Silver, Total	50	100	-		-	-	13.77		0.4	0.16	27.08		0.4	0.16	59.28		0.4	0.16	3.71		0.4	0.16	-		-	-	-		-	-
Sodium, Total	20000	NS	-		-	-	43200		100	29.3	30600		100	29.3	38900		100	29.3	27100		100	29.3	-		-	-	-		-	-
Thallium, Total	0.5	0.5	-		-	-	1.11		0.5	0.14	1.69		0.5	0.14	0.69		0.5	0.14	0.29	J	0.5	0.14	-		-	-	-		-	-
Vanadium, Total	NS	NS	-		-	-	106.3		5	1.57	102.8		5	1.57	69.2		5	1.57	42.35		5	1.57	-		-	-	-		-	-
Zinc, Total	2000	5000	-		-	-	748.2		10	3.41	1370		10	3.41	637.2		10	3.41	100.4		10	3.41	-		-	-	-		-	-

* Comparison is not performed on parameters with non-numeric criteria.
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards
NY-TOGS-GA: New York TOGS 111 Groundwater Effluent Limitations criteria
ug/l: micrograms per liter
Conc: Concentration
Q: Laboratory Qualifier
RL: Reporting Limit
MDL: Method Detection Limit
Highlighted and bolded concentrations exceed one or more of applicable standards
NS: No Standard
ND: Non-Detect
J: Laboratory reported at an estimated concentration

Table 4: Summary of Dry Well Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	DW-1				DW-2			
LAB ID:						L1836518-06				L1836518-07			
COLLECTION DATE:						9/13/2018				9/13/2018			
SAMPLE MATRIX:						SEDIMENT				SEDIMENT			
						Conc	Q	RL	MDL	Conc	Q	RL	MDL
VOLATILE ORGANIC COMPOUNDS (mg/kg)													
Methylene chloride	500	1000	51	100	0.05	ND		0.0047	0.0021	ND		0.0047	0.0022
1,1-Dichloroethane	240	480	19	26	0.27	ND		0.00094	0.00014	ND		0.00095	0.00014
Chloroform	350	700	10	49	0.37	ND		0.0014	0.00013	ND		0.0014	0.00013
Carbon tetrachloride	22	44	1.4	2.4	0.76	ND		0.00094	0.00022	ND		0.00095	0.00022
1,2-Dichloropropane	NS	NS	NS	NS	NS	ND		0.00094	0.00012	ND		0.00095	0.00012
Dibromochloromethane	NS	NS	NS	NS	NS	ND		0.00094	0.00013	ND		0.00095	0.00013
1,1,2-Trichloroethane	NS	NS	NS	NS	NS	ND		0.00094	0.00025	ND		0.00095	0.00025
Tetrachloroethene	150	300	5.5	19	1.3	ND		0.00047	0.00018	ND		0.00047	0.00018
Chlorobenzene	500	1000	100	100	1.1	ND		0.00047	0.00012	ND		0.00047	0.00012
Trichlorofluoromethane	NS	NS	NS	NS	NS	ND		0.0037	0.00065	ND		0.0038	0.00066
1,2-Dichloroethane	30	60	2.3	3.1	0.02	ND		0.00094	0.00024	ND		0.00095	0.00024
1,1,1-Trichloroethane	500	1000	100	100	0.68	ND		0.00047	0.00016	ND		0.00047	0.00016
Bromodichloromethane	NS	NS	NS	NS	NS	ND		0.00047	0.0001	ND		0.00047	0.0001
trans-1,3-Dichloropropene	NS	NS	NS	NS	NS	ND		0.00094	0.00026	ND		0.00095	0.00026
cis-1,3-Dichloropropene	NS	NS	NS	NS	NS	ND		0.00047	0.00015	ND		0.00047	0.00015
1,3-Dichloropropene, Total	NS	NS	NS	NS	NS	ND		0.00047	0.00015	ND		0.00047	0.00015
1,1-Dichloropropene	NS	NS	NS	NS	NS	ND		0.00047	0.00015	ND		0.00047	0.00015
Bromoform	NS	NS	NS	NS	NS	ND		0.0037	0.00023	ND		0.0038	0.00023
1,1,2,2-Tetrachloroethane	NS	NS	NS	NS	NS	ND		0.00047	0.00016	ND		0.00047	0.00016
Benzene	44	89	2.9	4.8	0.06	ND		0.00047	0.00016	ND		0.00047	0.00016
Toluene	500	1000	100	100	0.7	ND		0.00094	0.00051	ND		0.00095	0.00052
Ethylbenzene	390	780	30	41	1	ND		0.00094	0.00013	ND		0.00095	0.00013
Chloromethane	NS	NS	NS	NS	NS	ND		0.0037	0.00087	ND		0.0038	0.00088
Bromomethane	NS	NS	NS	NS	NS	ND		0.0019	0.00054	ND		0.0019	0.00055
Vinyl chloride	13	27	0.21	0.9	0.02	ND		0.00094	0.00031	ND		0.00095	0.00032
Chloroethane	NS	NS	NS	NS	NS	ND		0.0019	0.00042	ND		0.0019	0.00043
1,1-Dichloroethene	500	1000	100	100	0.33	ND		0.00094	0.00022	ND		0.00095	0.00022
trans-1,2-Dichloroethene	500	1000	100	100	0.19	ND		0.0014	0.00013	ND		0.0014	0.00013
Trichloroethene	200	400	10	21	0.47	ND		0.00047	0.00013	ND		0.00047	0.00013
1,2-Dichlorobenzene	500	1000	100	100	1.1	ND		0.0019	0.00013	ND		0.0019	0.00014
1,3-Dichlorobenzene	280	560	17	49	2.4	ND		0.0019	0.00014	ND		0.0019	0.00014
1,4-Dichlorobenzene	130	250	9.8	13	1.8	ND		0.0019	0.00016	ND		0.0019	0.00016
Methyl tert butyl ether	500	1000	62	100	0.93	ND		0.0019	0.00019	ND		0.0019	0.00019
p/m-Xylene	NS	NS	NS	NS	NS	ND		0.0019	0.00052	ND		0.0019	0.00053
o-Xylene	NS	NS	NS	NS	NS	ND		0.00094	0.00027	ND		0.00095	0.00028
Xylenes, Total	500	1000	100	100	0.26	ND		0.00094	0.00027	ND		0.00095	0.00028
cis-1,2-Dichloroethene	500	1000	59	100	0.25	ND		0.00094	0.00016	ND		0.00095	0.00017
1,2-Dichloroethene, Total	NS	NS	NS	NS	NS	ND		0.00094	0.00013	ND		0.00095	0.00013
Dibromomethane	NS	NS	NS	NS	NS	ND		0.0019	0.00022	ND		0.0019	0.00022
Styrene	NS	NS	NS	NS	NS	ND		0.00094	0.00018	ND		0.00095	0.00018
Dichlorodifluoromethane	NS	NS	NS	NS	NS	ND		0.0094	0.00086	ND		0.0095	0.00087
Acetone	500	1000	100	100	0.05	ND		0.0094	0.0045	ND		0.0095	0.0046
Carbon disulfide	NS	NS	NS	NS	NS	ND		0.0094	0.0043	ND		0.0095	0.0043
2-Butanone	500	1000	100	100	0.12	ND		0.0094	0.0021	ND		0.0095	0.0021
Vinyl acetate	NS	NS	NS	NS	NS	ND		0.0094	0.002	ND		0.0095	0.002
4-Methyl-2-pentanone	NS	NS	NS	NS	NS	ND		0.0094	0.0012	ND		0.0095	0.0012
1,2,3-Trichloropropane	NS	NS	NS	NS	NS	ND		0.0019	0.00012	ND		0.0019	0.00012
2-Hexanone	NS	NS	NS	NS	NS	ND		0.0094	0.0011	ND		0.0095	0.0011
Bromochloromethane	NS	NS	NS	NS	NS	ND		0.0019	0.00019	ND		0.0019	0.00019
2,2-Dichloropropane	NS	NS	NS	NS	NS	ND		0.0019	0.00019	ND		0.0019	0.00019
1,2-Dibromoethane	NS	NS	NS	NS	NS	ND		0.00094	0.00026	ND		0.00095	0.00026
1,3-Dichloropropane	NS	NS	NS	NS	NS	ND		0.0019	0.00016	ND		0.0019	0.00016
1,1,1,2-Tetrachloroethane	NS	NS	NS	NS	NS	ND		0.00047	0.00012	ND		0.00047	0.00012
Bromobenzene	NS	NS	NS	NS	NS	ND		0.0019	0.00014	ND		0.0019	0.00014
n-Butylbenzene	500	1000	100	100	12	ND		0.00094	0.00016	ND		0.00095	0.00016
sec-Butylbenzene	500	1000	100	100	11	ND		0.00094	0.00014	ND		0.00095	0.00014
tert-Butylbenzene	500	1000	100	100	5.9	ND		0.0019	0.00011	ND		0.0019	0.00011
o-Chlorotoluene	NS	NS	NS	NS	NS	ND		0.0019	0.00018	ND		0.0019	0.00018
p-Chlorotoluene	NS	NS	NS	NS	NS	ND		0.0019	0.0001	ND		0.0019	0.0001
1,2-Dibromo-3-chloropropane	NS	NS	NS	NS	NS	ND		0.0028	0.00094	ND		0.0028	0.00095
Hexachlorobutadiene	NS	NS	NS	NS	NS	ND		0.0037	0.00016	ND		0.0038	0.00016
Isopropylbenzene	NS	NS	NS	NS	NS	ND		0.00094	0.0001	ND		0.00095	0.0001
p-Isopropyltoluene	NS	NS	NS	NS	NS	ND		0.00094	0.0001	ND		0.00095	0.0001
Naphthalene	500	1000	100	100	12	ND		0.0037	0.00061	ND		0.0038	0.00062
Acrylonitrile	NS	NS	NS	NS	NS	ND		0.0037	0.0011	ND		0.0038	0.0011
n-Propylbenzene	500	1000	100	100	3.9	ND		0.00094	0.00016	ND		0.00095	0.00016
1,2,3-Trichlorobenzene	NS	NS	NS	NS	NS	ND		0.0019	0.0003	ND		0.0019	0.0003
1,2,4-Trichlorobenzene	NS	NS	NS	NS	NS	ND		0.0019	0.00025	ND		0.0019	0.00026
1,3,5-Trimethylbenzene	190	380	47	52	8.4	ND		0.0019	0.00018	ND		0.0019	0.00018
1,2,4-Trimethylbenzene	190	380	47	52	3.6	ND		0.0019	0.00031	ND		0.0019	0.00032
1,4-Dioxane	130	250	9.8	13	0.1	ND		0.094	0.033	ND		0.095	0.033
p-Diethylbenzene	NS	NS	NS	NS	NS	ND		0.0019	0.00016	ND		0.0019	0.00017
p-Ethyltoluene	NS	NS	NS	NS	NS	ND		0.0019	0.00036	ND		0.0019	0.00036

Table 4: Summary of Dry Well Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID: LAB ID: COLLECTION DATE: SAMPLE MATRIX:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	DW-1				DW-2			
						L1836518-06				L1836518-07			
						9/13/2018				9/13/2018			
						SEDIMENT				SEDIMENT			
						Conc	Q	RL	MDL	Conc	Q	RL	MDL
1,2,4,5-Tetramethylbenzene	NS	NS	NS	NS	NS	ND		0.0019	0.00018	ND		0.0019	0.00018
Ethyl ether	NS	NS	NS	NS	NS	ND		0.0019	0.00032	ND		0.0019	0.00032
trans-1,4-Dichloro-2-butene	NS	NS	NS	NS	NS	ND		0.0047	0.0013	ND		0.0047	0.0013
Total VOCs	NS	NS	NS	NS	NS	-	-	-	-	-	-	-	-
SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg)													
Acenaphthene	500	1000	100	100	20	ND		0.14	0.018	0.069	J	0.14	0.018
1,2,4-Trichlorobenzene	NS	NS	NS	NS	NS	ND		0.18	0.02	ND		0.17	0.02
Hexachlorobenzene	6	12	0.33	1.2	0.33	ND		0.1	0.02	ND		0.1	0.019
Bis(2-chloroethyl)ether	NS	NS	NS	NS	NS	ND		0.16	0.024	ND		0.16	0.024
2-Chloronaphthalene	NS	NS	NS	NS	NS	ND		0.18	0.017	ND		0.17	0.017
1,2-Dichlorobenzene	500	1000	100	100	1.1	ND		0.18	0.032	ND		0.17	0.031
1,3-Dichlorobenzene	280	560	17	49	2.4	ND		0.18	0.03	ND		0.17	0.03
1,4-Dichlorobenzene	130	250	9.8	13	1.8	ND		0.18	0.031	ND		0.17	0.03
3,3'-Dichlorobenzidine	NS	NS	NS	NS	NS	ND		0.18	0.047	ND		0.17	0.046
2,4-Dinitrotoluene	NS	NS	NS	NS	NS	ND		0.18	0.035	ND		0.17	0.035
2,6-Dinitrotoluene	NS	NS	NS	NS	NS	ND		0.18	0.03	ND		0.17	0.03
Fluoranthene	500	1000	100	100	100	ND		0.1	0.02	5.1		0.1	0.02
4-Chlorophenyl phenyl ether	NS	NS	NS	NS	NS	ND		0.18	0.019	ND		0.17	0.018
4-Bromophenyl phenyl ether	NS	NS	NS	NS	NS	ND		0.18	0.027	ND		0.17	0.026
Bis(2-chloroisopropyl)ether	NS	NS	NS	NS	NS	ND		0.21	0.03	ND		0.21	0.03
Bis(2-chloroethoxy)methane	NS	NS	NS	NS	NS	ND		0.19	0.018	ND		0.19	0.017
Hexachlorobutadiene	NS	NS	NS	NS	NS	ND		0.18	0.026	ND		0.17	0.025
Hexachlorocyclopentadiene	NS	NS	NS	NS	NS	ND		0.5	0.16	ND		0.5	0.16
Hexachloroethane	NS	NS	NS	NS	NS	ND		0.14	0.028	ND		0.14	0.028
Isophorone	NS	NS	NS	NS	NS	ND		0.16	0.023	ND		0.16	0.022
Naphthalene	500	1000	100	100	12	ND		0.18	0.021	ND		0.17	0.021
Nitrobenzene	NS	NS	NS	NS	NS	ND		0.16	0.026	ND		0.16	0.026
NDPA/DPA	NS	NS	NS	NS	NS	ND		0.14	0.02	ND		0.14	0.02
n-Nitrosodi-n-propylamine	NS	NS	NS	NS	NS	ND		0.18	0.027	ND		0.17	0.027
Bis(2-ethylhexyl)phthalate	NS	NS	NS	NS	NS	ND		0.18	0.061	0.34		0.17	0.06
Butyl benzyl phthalate	NS	NS	NS	NS	NS	ND		0.18	0.044	ND		0.17	0.044
Di-n-butylphthalate	NS	NS	NS	NS	NS	ND		0.18	0.033	ND		0.17	0.033
Di-n-octylphthalate	NS	NS	NS	NS	NS	ND		0.18	0.06	ND		0.17	0.059
Diethyl phthalate	NS	NS	NS	NS	NS	ND		0.18	0.016	ND		0.17	0.016
Dimethyl phthalate	NS	NS	NS	NS	NS	ND		0.18	0.037	ND		0.17	0.036
Benzo(a)anthracene	5.6	11	1	1	1	ND		0.1	0.02	3.1		0.1	0.02
Benzo(a)pyrene	1	1.1	1	1	1	ND		0.14	0.043	3.7		0.14	0.042
Benzo(b)fluoranthene	5.6	11	1	1	1	ND		0.1	0.03	5.2		0.1	0.029
Benzo(k)fluoranthene	56	110	1	3.9	0.8	ND		0.1	0.028	1.8		0.1	0.028
Chrysene	56	110	1	3.9	1	ND		0.1	0.018	3.7		0.1	0.018
Acenaphthylene	500	1000	100	100	100	ND		0.14	0.027	0.027	J	0.14	0.027
Anthracene	500	1000	100	100	100	ND		0.1	0.034	0.32		0.1	0.034
Benzo(ghi)perylene	500	1000	100	100	100	ND		0.14	0.021	2.7		0.14	0.02
Fluorene	500	1000	100	100	30	ND		0.18	0.017	0.078	J	0.17	0.017
Phenanthrene	500	1000	100	100	100	ND		0.1	0.021	1.7		0.1	0.021
Dibenzo(a,h)anthracene	0.56	1.1	0.33	0.33	0.33	ND		0.1	0.02	0.62		0.1	0.02
Indeno(1,2,3-cd)pyrene	5.6	11	0.5	0.5	0.5	ND		0.14	0.024	3		0.14	0.024
Pyrene	500	1000	100	100	100	ND		0.1	0.017	4.4		0.1	0.017
Biphenyl	NS	NS	NS	NS	NS	ND		0.4	0.041	ND		0.4	0.04
4-Chloroaniline	NS	NS	NS	NS	NS	ND		0.18	0.032	ND		0.17	0.032
2-Nitroaniline	NS	NS	NS	NS	NS	ND		0.18	0.034	ND		0.17	0.033
3-Nitroaniline	NS	NS	NS	NS	NS	ND		0.18	0.033	ND		0.17	0.033
4-Nitroaniline	NS	NS	NS	NS	NS	ND		0.18	0.073	ND		0.17	0.072
Dibenzofuran	350	1000	14	59	7	ND		0.18	0.017	0.028	J	0.17	0.016
2-Methylnaphthalene	NS	NS	NS	NS	NS	ND		0.21	0.021	ND		0.21	0.021
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	NS	NS	ND		0.18	0.018	ND		0.17	0.018
Acetophenone	NS	NS	NS	NS	NS	ND		0.18	0.022	ND		0.17	0.021
2,4,6-Trichlorophenol	NS	NS	NS	NS	NS	ND		0.1	0.033	ND		0.1	0.033
p-Chloro-m-cresol	NS	NS	NS	NS	NS	ND		0.18	0.026	ND		0.17	0.026
2-Chlorophenol	NS	NS	NS	NS	NS	ND		0.18	0.021	ND		0.17	0.02
2,4-Dichlorophenol	NS	NS	NS	NS	NS	ND		0.16	0.028	ND		0.16	0.028
2,4-Dimethylphenol	NS	NS	NS	NS	NS	ND		0.18	0.058	ND		0.17	0.057
2-Nitrophenol	NS	NS	NS	NS	NS	ND		0.38	0.066	ND		0.37	0.065
4-Nitrophenol	NS	NS	NS	NS	NS	ND		0.25	0.072	ND		0.24	0.071
2,4-Dinitrophenol	NS	NS	NS	NS	NS	ND		0.84	0.082	ND		0.83	0.081
4,6-Dinitro-o-cresol	NS	NS	NS	NS	NS	ND		0.46	0.084	ND		0.45	0.083
Pentachlorophenol	6.7	55	2.4	6.7	0.8	ND		0.14	0.039	ND		0.14	0.038
Phenol	500	1000	100	100	0.33	ND		0.18	0.026	ND		0.17	0.026
2-Methylphenol	500	1000	100	100	0.33	ND		0.18	0.027	ND		0.17	0.027
3-Methylphenol/4-Methylphenol	500	1000	34	100	0.33	ND		0.25	0.028	ND		0.25	0.027
2,4,5-Trichlorophenol	NS	NS	NS	NS	NS	ND		0.18	0.034	ND		0.17	0.033
Benzoic Acid	NS	NS	NS	NS	NS	ND		0.57	0.18	ND		0.56	0.18
Benzyl Alcohol	NS	NS	NS	NS	NS	ND		0.18	0.054	ND		0.17	0.053
Carbazole	NS	NS	NS	NS	NS	ND		0.18	0.017	0.26		0.17	0.017

Table 4: Summary of Dry Well Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	DW-1				DW-2			
LAB ID:						L1836518-06				L1836518-07			
COLLECTION DATE:						9/13/2018				9/13/2018			
SAMPLE MATRIX:						SEDIMENT				SEDIMENT			
						Conc	Q	RL	MDL	Conc	Q	RL	MDL
Total SVOCs	NS	NS	NS	NS	NS	-	-	-	-	36.142	-	-	-
TOTAL METALS (mg/kg)													
Aluminum, Total	NS	NS	NS	NS	NS	762		8.48	2.29	-		-	-
Antimony, Total	NS	NS	NS	NS	NS	ND		4.24	0.322	-		-	-
Arsenic, Total	16	16	16	16	13	0.865		0.848	0.176	-		-	-
Barium, Total	400	10000	350	400	350	9.26		0.848	0.148	-		-	-
Beryllium, Total	590	2700	14	72	7.2	ND		0.424	0.028	-		-	-
Cadmium, Total	9.3	60	2.5	4.3	2.5	0.144	J	0.848	0.083	-		-	-
Calcium, Total	NS	NS	NS	NS	NS	355		8.48	2.97	-		-	-
Chromium, Total	NS	NS	NS	NS	NS	6.79		0.848	0.081	-		-	-
Cobalt, Total	NS	NS	NS	NS	NS	0.78	J	1.7	0.141	-		-	-
Copper, Total	270	10000	270	270	50	41.6		0.848	0.219	-		-	-
Iron, Total	NS	NS	NS	NS	NS	3060		4.24	0.766	-		-	-
Lead, Total	1000	3900	400	400	63	8.04		4.24	0.227	-		-	-
Magnesium, Total	NS	NS	NS	NS	NS	249		8.48	1.31	-		-	-
Manganese, Total	10000	10000	2000	2000	1600	16		0.848	0.135	-		-	-
Mercury, Total	2.8	5.7	0.81	0.81	0.18	0.017	J	0.069	0.015	-		-	-
Nickel, Total	310	10000	140	310	30	1.48	J	2.12	0.205	-		-	-
Potassium, Total	NS	NS	NS	NS	NS	100	J	212	12.2	-		-	-
Selenium, Total	1500	6800	36	180	3.9	ND		1.7	0.219	-		-	-
Silver, Total	1500	6800	36	180	2	98.8		0.848	0.24	-		-	-
Sodium, Total	NS	NS	NS	NS	NS	15.2	J	170	2.67	-		-	-
Thallium, Total	NS	NS	NS	NS	NS	ND		1.7	0.267	-		-	-
Vanadium, Total	NS	NS	NS	NS	NS	2.58		0.848	0.172	-		-	-
Zinc, Total	10000	10000	2200	10000	109	47.4		4.24	0.248	-		-	-
GENERAL CHEMISTRY													
Solids, Total	NS	NS	NS	NS	NS	91.8		0.1	NA	95.8		0.1	NA

* Comparison is not performed on parameters with non-numeric criteria.

RUSCO-C: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

RUSCO-I: New York NYCRR Part 375 Industrial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

RSUCO-R: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

RUSCO-RR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

UUSCO: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

mg/kg: milligrams per kilogram

Conc: Concentration

Q: Laboratory Qualifier

RL: Reporting Limit

MDL: Method Detection Limit

Highlighted and bolded concentrations exceed one or more of applicable standards

NS: No Standard

ND: Non-Detect

J: Laboratory reported at an estimated concentration

Table 5: Summary of Concrete Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-GW	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	CC-1				CC-2				CC-3				CC-4				CC-5							
LAB ID:							L1836519-01				L1836519-02				L1836519-03				L1836519-04				L1836519-05							
COLLECTION DATE:							9/13/2018				9/13/2018				9/13/2018				9/13/2018				9/13/2018							
SAMPLE MATRIX:							SOLID				SOLID				SOLID				SOLID				SOLID							
							Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
VOLATILE ORGANIC COMPOUNDS (mg/kg)																														
Methylene chloride	500	0.05	1000	51	100	0.05	ND		0.005	0.0023	ND		1	0.48	ND		0.0051	0.0023	ND		0.26	0.12	ND		0.25	0.12				
1,1-Dichloroethane	240	0.27	480	19	26	0.27	ND		0.001	0.0001	ND		0.21	0.03	ND		0.001	0.0002	ND		0.053	0.0077	ND		0.05	0.0073				
Chloroform	350	0.37	700	10	49	0.37	ND		0.0015	0.0001	ND		0.31	0.029	ND		0.0015	0.0001	ND		0.079	0.0074	ND		0.076	0.0071				
Carbon tetrachloride	22	0.76	44	1.4	2.4	0.76	ND		0.001	0.0002	ND		0.21	0.048	ND		0.001	0.0002	ND		0.053	0.012	ND		0.05	0.012				
1,2-Dichloropropane	NS	NS	NS	NS	NS	NS	ND		0.001	0.0001	ND		0.21	0.026	ND		0.001	0.0001	ND		0.053	0.0066	ND		0.05	0.0063				
Dibromochloromethane	NS	NS	NS	NS	NS	NS	ND		0.001	0.0001	ND		0.21	0.029	ND		0.001	0.0001	ND		0.053	0.0074	ND		0.05	0.0071				
1,1,2-Trichloroethane	NS	NS	NS	NS	NS	NS	ND		0.001	0.0003	ND		0.21	0.056	ND		0.001	0.0003	ND		0.053	0.014	ND		0.05	0.013				
Tetrachloroethene	150	1.3	300	5.5	19	1.3	ND		0.0005	0.0002	ND		0.1	0.041	ND		0.0005	0.0002	ND		0.026	0.01	ND		0.025	0.0099				
Chlorobenzene	500	1.1	1000	100	100	1.1	ND		0.0005	0.0001	ND		0.1	0.026	ND		0.0005	0.0001	ND		0.026	0.0067	ND		0.025	0.0064				
Trichlorofluoromethane	NS	NS	NS	NS	NS	NS	ND		0.004	0.0007	ND		0.83	0.14	ND		0.0041	0.0007	ND		0.21	0.037	ND		0.2	0.035				
1,2-Dichloroethane	30	0.02	60	2.3	3.1	0.02	ND		0.001	0.0003	ND		0.21	0.054	ND		0.001	0.0003	ND		0.053	0.014	ND		0.05	0.013				
1,1,1-Trichloroethane	500	0.68	1000	100	100	0.68	ND		0.0005	0.0002	ND		0.1	0.035	ND		0.0005	0.0002	ND		0.026	0.0088	ND		0.025	0.0084				
Bromodichloromethane	NS	NS	NS	NS	NS	NS	ND		0.0005	0.0001	ND		0.1	0.023	ND		0.0005	0.0001	ND		0.026	0.0058	ND		0.025	0.0055				
trans-1,3-Dichloropropene	NS	NS	NS	NS	NS	NS	ND		0.001	0.0003	ND		0.21	0.057	ND		0.001	0.0003	ND		0.053	0.014	ND		0.05	0.014				
cis-1,3-Dichloropropene	NS	NS	NS	NS	NS	NS	ND		0.0005	0.0002	ND		0.1	0.033	ND		0.0005	0.0002	ND		0.026	0.0084	ND		0.025	0.008				
1,3-Dichloropropene, Total	NS	NS	NS	NS	NS	NS	ND		0.0005	0.0002	ND		0.1	0.033	ND		0.0005	0.0002	ND		0.026	0.0084	ND		0.025	0.008				
1,1-Dichloropropene	NS	NS	NS	NS	NS	NS	ND		0.0005	0.0002	ND		0.1	0.033	ND		0.0005	0.0002	ND		0.026	0.0084	ND		0.025	0.008				
Bromoform	NS	NS	NS	NS	NS	NS	ND		0.004	0.0002	ND		0.83	0.051	ND		0.0041	0.0003	ND		0.21	0.013	ND		0.2	0.012				
1,1,2,2-Tetrachloroethane	NS	NS	NS	NS	NS	NS	ND		0.0005	0.0002	ND		0.1	0.035	ND		0.0005	0.0002	ND		0.026	0.0088	ND		0.025	0.0084				
Benzene	44	0.06	89	2.9	4.8	0.06	ND		0.0005	0.0002	ND		0.1	0.035	ND		0.0005	0.0002	ND		0.026	0.0088	ND		0.025	0.0084				
Toluene	500	0.7	1000	100	100	0.7	ND		0.001	0.0005	0.14	J	0.21	0.11	ND		0.001	0.0006	0.04	J	0.053	0.029	ND		0.05	0.027				
Ethylbenzene	390	1	780	30	41	1	0.0003	J	0.001	0.0001	0.038	J	0.21	0.029	ND		0.001	0.0001	0.13		0.053	0.0075	ND		0.05	0.0071				
Chloromethane	NS	NS	NS	NS	NS	NS	ND		0.004	0.0009	ND		0.83	0.19	ND		0.0041	0.001	ND		0.21	0.049	ND		0.2	0.047				
Bromomethane	NS	NS	NS	NS	NS	NS	ND		0.002	0.0006	ND		0.42	0.12	ND		0.002	0.0006	0.05	J	0.1	0.031	0.038	J	0.1	0.029				
Vinyl chloride	13	0.02	27	0.21	0.9	0.02	ND		0.001	0.0003	ND		0.21	0.07	ND		0.001	0.0003	ND		0.053	0.018	ND		0.05	0.017				
Chloroethane	NS	NS	NS	NS	NS	NS	ND		0.002	0.0005	ND		0.42	0.094	ND		0.002	0.0005	ND		0.1	0.024	ND		0.1	0.023				
1,1-Dichloroethene	500	0.33	1000	100	100	0.33	ND		0.001	0.0002	ND		0.21	0.05	ND		0.001	0.0002	ND		0.053	0.012	ND		0.05	0.012				
trans-1,2-Dichloroethene	500	0.19	1000	100	100	0.19	ND		0.0015	0.0001	ND		0.31	0.028	ND		0.0015	0.0001	ND		0.079	0.0072	ND		0.076	0.0069				
Trichloroethene	200	0.47	400	10	21	0.47	ND		0.0005	0.0001	ND		0.1	0.028	ND		0.0005	0.0001	ND		0.026	0.0072	ND		0.025	0.0069				
1,2-Dichlorobenzene	500	1.1	1000	100	100	1.1	ND		0.002	0.0001	ND		0.42	0.03	ND		0.002	0.0002	ND		0.1	0.0076	ND		0.1	0.0073				
1,3-Dichlorobenzene	280	2.4	560	17	49	2.4	ND		0.002	0.0002	ND		0.42	0.031	ND		0.002	0.0002	ND		0.1	0.0078	ND		0.1	0.0075				
1,4-Dichlorobenzene	130	1.8	250	9.8	13	1.8	ND		0.002	0.0002	ND		0.42	0.036	ND		0.002	0.0002	ND		0.1	0.009	ND		0.1	0.0086				
Methyl tert butyl ether	500	0.93	1000	62	100	0.93	ND		0.002	0.0002	ND		0.42	0.042	ND		0.002	0.0002	ND		0.1	0.011	ND		0.1	0.01				
p/m-Xylene	NS	NS	NS	NS	NS	NS	0.0015	J	0.002	0.0006	0.28	J	0.42	0.12	ND		0.002	0.0006	1.1		0.1	0.03	ND		0.1	0.028				
o-Xylene	NS	NS	NS	NS	NS	NS	0.001		0.001	0.0003	0.24		0.21	0.061	ND		0.001	0.0003	0.76		0.053	0.015	0.015	J	0.05	0.015				
Xylenes, Total	500	1.6	1000	100	100	0.26	0.0025	J	0.001	0.0003	0.52	J	0.21	0.061	ND		0.001	0.0003	1.9		0.053	0.015	0.015	J	0.05	0.015				
cis-1,2-Dichloroethene	500	0.25	1000	59	100	0.25	ND		0.001	0.0002	ND		0.21	0.036	ND		0.001	0.0002	ND		0.053	0.0093	ND		0.05	0.0088				
1,2-Dichloroethene, Total	NS	NS	NS	NS	NS	NS	ND		0.001	0.0001	ND		0.21	0.028	ND		0.001	0.0001	ND		0.053	0.0072	ND		0.05	0.0069				
Dibromomethane	NS	NS	NS	NS	NS	NS	ND		0.002	0.0002	ND		0.42	0.05	ND		0.002	0.0002	ND		0.1	0.012	ND		0.1	0.012				
Styrene	NS	NS	NS	NS	NS	NS	ND		0.001	0.0002	ND		0.21	0.041	ND		0.001	0.0002	ND		0.053	0.01	ND		0.05	0.0099				
Dichlorodifluoromethane	NS	NS	NS	NS	NS	NS	ND		0.01	0.0009	ND		2.1	0.19	ND		0.01	0.0009	ND		0.53	0.048	ND		0.5	0.046				
Acetone	500	0.05	1000	100	100	0.05	0.017		0.01	0.0048	ND		2.1	1	0.097		0.01	0.0049	ND		0.53	0.25	ND		0.5	0.24				
Carbon disulfide	NS	NS	NS	NS	NS	NS	ND		0.01	0.0045	ND		2.1	0.95	ND		0.01	0.0046	ND		0.53	0.24	ND		0.5	0.23				
2-Butanone	500	0.12	1000	100	100	0.12	0.0075	J	0.01	0.0022	ND		2.1	0.46	0.004	J	0.01	0.0023	ND		0.53	0.12	ND		0.5	0.11				

Table 5: Summary of Concrete Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-GW	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	CC-1				CC-2				CC-3				CC-4				CC-5				
LAB ID:							L1836519-01				L1836519-02				L1836519-03				L1836519-04				L1836519-05				
COLLECTION DATE:							9/13/2018				9/13/2018				9/13/2018				9/13/2018				9/13/2018				
SAMPLE MATRIX:							SOLID				SOLID				SOLID				SOLID				SOLID				
							Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc
Vinyl acetate	NS	NS	NS	NS	NS	NS	ND		0.01	0.0021	ND		2.1	0.45	ND		0.01	0.0022	ND		0.53	0.11	ND		0.5	0.11	
4-Methyl-2-pentanone	NS	NS	NS	NS	NS	NS	0.0016	J	0.01	0.0013	ND		2.1	0.27	ND		0.01	0.0013	ND		0.53	0.068	ND		0.5	0.065	
1,2,3-Trichloropropane	NS	NS	NS	NS	NS	NS	ND		0.002	0.0001	ND		0.42	0.026	ND		0.002	0.0001	ND		0.1	0.0067	0.045	J	0.1	0.0064	
2-Hexanone	NS	NS	NS	NS	NS	NS	ND		0.01	0.0012	ND		2.1	0.25	ND		0.01	0.0012	ND		0.53	0.062	ND		0.5	0.06	
Bromochloromethane	NS	NS	NS	NS	NS	NS	ND		0.002	0.0002	ND		0.42	0.043	ND		0.002	0.0002	ND		0.1	0.011	ND		0.1	0.01	
2,2-Dichloropropane	NS	NS	NS	NS	NS	NS	ND		0.002	0.0002	ND		0.42	0.042	ND		0.002	0.0002	ND		0.1	0.011	ND		0.1	0.01	
1,2-Dibromoethane	NS	NS	NS	NS	NS	NS	ND		0.001	0.0003	ND		0.21	0.058	ND		0.001	0.0003	ND		0.053	0.015	ND		0.05	0.014	
1,3-Dichloropropane	NS	NS	NS	NS	NS	NS	ND		0.002	0.0002	ND		0.42	0.035	ND		0.002	0.0002	ND		0.1	0.0088	ND		0.1	0.0084	
1,1,1,2-Tetrachloroethane	NS	NS	NS	NS	NS	NS	ND		0.0005	0.0001	ND		0.1	0.028	ND		0.0005	0.0001	ND		0.026	0.007	ND		0.025	0.0067	
Bromobenzene	NS	NS	NS	NS	NS	NS	ND		0.002	0.0001	ND		0.42	0.03	ND		0.002	0.0002	ND		0.1	0.0077	ND		0.1	0.0073	
n-Butylbenzene	500	12	1000	100	100	12	ND		0.001	0.0002	2.6		0.21	0.035	ND		0.001	0.0002	0.084		0.053	0.0088	0.073		0.05	0.0084	
sec-Butylbenzene	500	11	1000	100	100	11	ND		0.001	0.0001	0.89		0.21	0.03	ND		0.001	0.0002	0.04	J	0.053	0.0077	0.039	J	0.05	0.0074	
tert-Butylbenzene	500	5.9	1000	100	100	5.9	ND		0.002	0.0001	0.064	J	0.42	0.025	ND		0.002	0.0001	ND		0.1	0.0062	ND		0.1	0.006	
o-Chlorotoluene	NS	NS	NS	NS	NS	NS	ND		0.002	0.0002	ND		0.42	0.04	ND		0.002	0.0002	ND		0.1	0.01	ND		0.1	0.0096	
p-Chlorotoluene	NS	NS	NS	NS	NS	NS	ND		0.002	0.0001	ND		0.42	0.022	ND		0.002	0.0001	ND		0.1	0.0057	ND		0.1	0.0054	
1,2-Dibromo-3-chloropropane	NS	NS	NS	NS	NS	NS	ND		0.003	0.001	ND		0.62	0.21	ND		0.0031	0.001	ND		0.16	0.053	ND		0.15	0.05	
Hexachlorobutadiene	NS	NS	NS	NS	NS	NS	ND		0.004	0.0002	ND		0.83	0.035	ND		0.0041	0.0002	ND		0.21	0.0089	ND		0.2	0.0085	
Isopropylbenzene	NS	NS	NS	NS	NS	NS	0.0001	J	0.001	0.0001	0.1	J	0.21	0.023	ND		0.001	0.0001	0.014	J	0.053	0.0058	0.027	J	0.05	0.0055	
p-Isopropyltoluene	NS	NS	NS	NS	NS	NS	ND		0.001	0.0001	1.2		0.21	0.023	ND		0.001	0.0001	0.041	J	0.053	0.0058	0.15		0.05	0.0055	
Naphthalene	500	12	1000	100	100	12	0.0075		0.004	0.0007	2.5		0.83	0.14	ND		0.0041	0.0007	0.84		0.21	0.034	0.43		0.2	0.033	
Acrylonitrile	NS	NS	NS	NS	NS	NS	ND		0.004	0.0011	ND		0.83	0.24	ND		0.0041	0.0012	ND		0.21	0.061	ND		0.2	0.058	
n-Propylbenzene	500	3.9	1000	100	100	3.9	0.0005	J	0.001	0.0002	0.71		0.21	0.036	ND		0.001	0.0002	0.021	J	0.053	0.009	0.12		0.05	0.0086	
1,2,3-Trichlorobenzene	NS	NS	NS	NS	NS	NS	ND		0.002	0.0003	ND		0.42	0.067	ND		0.002	0.0003	ND		0.1	0.017	ND		0.1	0.016	
1,2,4-Trichlorobenzene	NS	NS	NS	NS	NS	NS	ND		0.002	0.0003	ND		0.42	0.057	ND		0.002	0.0003	ND		0.1	0.014	ND		0.1	0.014	
1,3,5-Trimethylbenzene	190	8.4	380	47	52	8.4	0.0015	J	0.002	0.0002	4		0.42	0.04	ND		0.002	0.0002	0.07	J	0.1	0.01	0.49		0.1	0.0097	
1,2,4-Trimethylbenzene	190	3.6	380	47	52	3.6	0.0061		0.002	0.0003	15		0.42	0.07	ND		0.002	0.0003	0.28		0.1	0.018	1.5		0.1	0.017	
1,4-Dioxane	130	0.1	250	9.8	13	0.1	ND		0.1	0.035	ND		21	7.3	ND		0.1	0.036	ND		5.3	1.8	ND		5	1.8	
p-Diethylbenzene	NS	NS	NS	NS	NS	NS	0.0008	J	0.002	0.0002	12		0.42	0.037	ND		0.002	0.0002	0.44		0.1	0.0094	0.97		0.1	0.0089	
p-Ethyltoluene	NS	NS	NS	NS	NS	NS	0.0024		0.002	0.0004	4.6		0.42	0.08	ND		0.002	0.0004	0.1		0.1	0.02	0.71		0.1	0.019	
1,2,4,5-Tetramethylbenzene	NS	NS	NS	NS	NS	NS	0.001	J	0.002	0.0002	4.1		0.42	0.04	ND		0.002	0.0002	0.26		0.1	0.01	0.21		0.1	0.0096	
Ethyl ether	NS	NS	NS	NS	NS	NS	ND		0.002	0.0003	ND		0.42	0.071	ND		0.002	0.0004	ND		0.1	0.018	ND		0.1	0.017	
trans-1,4-Dichloro-2-butene	NS	NS	NS	NS	NS	NS	ND		0.005	0.0014	ND		1	0.3	ND		0.0051	0.0014	ND		0.26	0.075	ND		0.25	0.072	
Total VOCs	NS	NS	NS	NS	NS	NS	0.0487	-	-	-	48.462	-	-	-	0.101	-	-	-	4.27	-	-	-	4.817	-	-	-	
SEMIVOLATILE ORGANIC COMPOUNDS (mg/kg)																											
Acenaphthene	500	98	1000	100	100	20	ND		1.3	0.13	ND		1.3	0.13	ND		0.14	0.013	ND		0.14	0.013	ND		1.4	0.13	
1,2,4-Trichlorobenzene	NS	NS	NS	NS	NS	NS	ND		1.7	0.16	ND		1.6	0.16	ND		0.18	0.017	ND		0.17	0.017	ND		1.7	0.17	
Hexachlorobenzene	6	3.2	12	0.33	1.2	0.33	ND		1	0.16	ND		0.99	0.16	ND		0.1	0.017	ND		0.1	0.017	ND		1	0.17	
Bis(2-chloroethyl)ether	NS	NS	NS	NS	NS	NS	ND		1.7	0.21	ND		1.6	0.2	ND		0.18	0.022	ND		0.17	0.021	ND		1.7	0.21	
2-Chloronaphthalene	NS	NS	NS	NS	NS	NS	ND		1.7	0.1	ND		1.6	0.099	ND		0.18	0.01	ND		0.17	0.01	ND		1.7	0.1	
1,2-Dichlorobenzene	500	1.1	1000	100	100	1.1	ND		1.7	0.22	ND		1.6	0.22	ND		0.18	0.023	ND		0.17	0.022	ND		1.7	0.22	
1,3-Dichlorobenzene	280	2.4	560	17	49	2.4	ND		1.7	0.27	ND		1.6	0.26	ND		0.18	0.028	ND		0.17	0.027	ND		1.7	0.27	
1,4-Dichlorobenzene	130	1.8	250	9.8	13	1.8	ND		1.7	0.23	ND		1.6	0.23	ND		0.18	0.024	ND		0.17	0.024	ND		1.7	0.24	
3,3'-Dichlorobenzidine	NS	NS	NS	NS	NS	NS	ND		1.7	0.43	ND		1.6	0.42	ND		0.18	0.045	ND		0.17	0.044	ND		1.7	0.43	
2,4-Dinitrotoluene	NS	NS	NS	NS	NS	NS	ND		1.7	0.17	ND		1.6	0.16	ND		0.18	0.017	ND		0.17	0.017	ND		1.7	0.17	
2,6-Dinitrotoluene	NS	NS	NS	NS	NS	NS	ND		1.7	0.36	ND		1.6	0.36	ND		0.18	0.038	ND		0.17	0.037	ND		1.7	0.36	

Table 5: Summary of Concrete Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-GW	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	CC-1				CC-2				CC-3				CC-4				CC-5			
LAB ID:							L1836519-01				L1836519-02				L1836519-03				L1836519-04				L1836519-05			
COLLECTION DATE:							9/13/2018				9/13/2018				9/13/2018				9/13/2018				9/13/2018			
SAMPLE MATRIX:							SOLID				SOLID				SOLID				SOLID				SOLID			
							Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Fluoranthene	500	1000	1000	100	100	100	ND		1	0.098	ND		0.99	0.097	ND		0.1	0.01	0.14		0.1	0.01	ND		1	0.099
4-Chlorophenyl phenyl ether	NS	NS	NS	NS	NS	NS	ND		1.7	0.15	ND		1.6	0.15	ND		0.18	0.016	ND		0.17	0.016	ND		1.7	0.16
4-Bromophenyl phenyl ether	NS	NS	NS	NS	NS	NS	ND		1.7	0.18	ND		1.6	0.18	ND		0.18	0.019	ND		0.17	0.019	ND		1.7	0.18
Bis(2-chloroisopropyl)ether	NS	NS	NS	NS	NS	NS	ND		2	0.24	ND		2	0.24	ND		0.21	0.026	ND		0.21	0.025	ND		2	0.25
Bis(2-chloroethoxy)methane	NS	NS	NS	NS	NS	NS	ND		1.7	0.2	ND		1.6	0.2	ND		0.18	0.021	ND		0.17	0.021	ND		1.7	0.21
Hexachlorobutadiene	NS	NS	NS	NS	NS	NS	ND		1.7	0.26	ND		1.6	0.25	ND		0.18	0.027	ND		0.17	0.026	ND		1.7	0.26
Hexachlorocyclopentadiene	NS	NS	NS	NS	NS	NS	ND		4.7	0.17	ND		4.6	0.16	ND		0.49	0.017	ND		0.48	0.017	ND		4.7	0.17
Hexachloroethane	NS	NS	NS	NS	NS	NS	ND		1.3	0.23	ND		1.3	0.22	ND		0.14	0.024	ND		0.14	0.023	ND		1.4	0.23
Isophorone	NS	NS	NS	NS	NS	NS	ND		1.7	0.21	ND		1.6	0.2	ND		0.18	0.022	ND		0.17	0.021	ND		1.7	0.21
Naphthalene	500	12	1000	100	100	12	ND		1.7	0.16	1.5	J	1.6	0.16	ND		0.18	0.017	0.39		0.17	0.017	ND		1.7	0.17
Nitrobenzene	NS	NS	NS	NS	NS	NS	ND		1.7	0.15	ND		1.6	0.15	ND		0.18	0.016	ND		0.17	0.016	ND		1.7	0.16
NDPA/DPA	NS	NS	NS	NS	NS	NS	ND		1.3	0.25	ND		1.3	0.24	ND		0.14	0.026	ND		0.14	0.025	ND		1.4	0.25
n-Nitrosodi-n-propylamine	NS	NS	NS	NS	NS	NS	ND		1.7	0.3	ND		1.6	0.29	ND		0.18	0.031	ND		0.17	0.03	ND		1.7	0.3
Bis(2-ethylhexyl)phthalate	NS	NS	NS	NS	NS	NS	1.6	J	1.7	0.35	10		1.6	0.34	ND		0.18	0.036	0.16	J	0.17	0.036	1.9		1.7	0.35
Butyl benzyl phthalate	NS	NS	NS	NS	NS	NS	1.1	J	1.7	0.36	2.1		1.6	0.36	ND		0.18	0.038	ND		0.17	0.037	ND		1.7	0.37
Di-n-butylphthalate	NS	NS	NS	NS	NS	NS	ND		1.7	0.37	0.5	J	1.6	0.37	ND		0.18	0.039	ND		0.17	0.038	ND		1.7	0.38
Di-n-octylphthalate	NS	NS	NS	NS	NS	NS	ND		1.7	0.29	ND		1.6	0.28	ND		0.18	0.03	ND		0.17	0.029	ND		1.7	0.29
Diethyl phthalate	NS	NS	NS	NS	NS	NS	ND		1.7	0.14	ND		1.6	0.13	ND		0.18	0.014	ND		0.17	0.014	ND		1.7	0.14
Dimethyl phthalate	NS	NS	NS	NS	NS	NS	ND		1.7	0.096	ND		1.6	0.094	ND		0.18	0.01	ND		0.17	0.0098	ND		1.7	0.096
Benzo(a)anthracene	5.6	1	11	1	1	1	ND		1	0.22	ND		0.99	0.22	ND		0.1	0.024	ND		0.1	0.023	ND		1	0.23
Benzo(a)pyrene	1	22	1.1	1	1	1	ND		1.3	0.18	ND		1.3	0.18	ND		0.14	0.019	ND		0.14	0.018	ND		1.4	0.18
Benzo(b)fluoranthene	5.6	1.7	11	1	1	1	ND		1	0.13	ND		0.99	0.13	ND		0.1	0.014	ND		0.1	0.014	ND		1	0.13
Benzo(k)fluoranthene	56	1.7	110	1	3.9	0.8	ND		1	0.14	ND		0.99	0.14	ND		0.1	0.015	ND		0.1	0.014	ND		1	0.14
Chrysene	56	1	110	1	3.9	1	ND		1	0.26	ND		0.99	0.25	ND		0.1	0.027	0.058	J	0.1	0.026	ND		1	0.26
Acenaphthylene	500	107	1000	100	100	100	ND		1.3	0.16	ND		1.3	0.16	ND		0.14	0.017	ND		0.14	0.017	ND		1.4	0.17
Anthracene	500	1000	1000	100	100	100	ND		1	0.22	ND		0.99	0.22	ND		0.1	0.023	0.12		0.1	0.023	ND		1	0.22
Benzo(ghi)perylene	500	1000	1000	100	100	100	ND		1.3	0.12	ND		1.3	0.12	ND		0.14	0.013	ND		0.14	0.012	ND		1.4	0.12
Fluorene	500	386	1000	100	100	30	ND		1.7	0.12	ND		1.6	0.11	ND		0.18	0.012	0.22		0.17	0.012	ND		1.7	0.12
Phenanthrene	500	1000	1000	100	100	100	ND		1	0.3	ND		0.99	0.3	ND		0.1	0.032	2.7		0.1	0.031	ND		1	0.3
Dibenzo(a,h)anthracene	0.56	1000	1.1	0.33	0.33	0.33	ND		1	0.13	ND		0.99	0.13	ND		0.1	0.014	ND		0.1	0.014	ND		1	0.14
Indeno(1,2,3-cd)pyrene	5.6	8.2	11	0.5	0.5	0.5	ND		1.3	0.14	ND		1.3	0.14	ND		0.14	0.015	ND		0.14	0.015	ND		1.4	0.14
Pyrene	500	1000	1000	100	100	100	ND		1	0.27	ND		0.99	0.26	ND		0.1	0.028	0.74		0.1	0.027	ND		1	0.27
Biphenyl	NS	NS	NS	NS	NS	NS	7.9		3.7	0.13	0.46	J	3.6	0.12	ND		0.39	0.013	0.51		0.38	0.013	ND		3.7	0.13
4-Chloroaniline	NS	NS	NS	NS	NS	NS	ND		1.7	0.42	ND		1.6	0.42	ND		0.18	0.044	ND		0.17	0.044	ND		1.7	0.43
2-Nitroaniline	NS	NS	NS	NS	NS	NS	ND		1.7	0.23	ND		1.6	0.23	ND		0.18	0.024	ND		0.17	0.024	ND		1.7	0.23
3-Nitroaniline	NS	NS	NS	NS	NS	NS	ND		1.7	0.21	ND		1.6	0.21	ND		0.18	0.022	ND		0.17	0.022	ND		1.7	0.21
4-Nitroaniline	NS	NS	NS	NS	NS	NS	ND		1.7	0.3	ND		1.6	0.29	ND		0.18	0.031	ND		0.17	0.03	ND		1.7	0.3
Dibenzofuran	350	210	1000	14	59	7	ND		1.7	0.12	ND		1.6	0.12	ND		0.18	0.012	0.28		0.17	0.012	ND		1.7	0.12
2-Methylnaphthalene	NS	NS	NS	NS	NS	NS	ND		2	0.19	2.2		2	0.18	ND		0.21	0.02	3.2		0.21	0.019	ND		2	0.19
1,2,4,5-Tetrachlorobenzene	NS	NS	NS	NS	NS	NS	ND		1.7	0.11	ND		1.6	0.11	ND		0.18	0.012	ND		0.17	0.011	ND		1.7	0.11
Acetophenone	NS	NS	NS	NS	NS	NS	ND		1.7	0.35	ND		1.6	0.34	ND		0.18	0.036	ND		0.17	0.035	ND		1.7	0.35
2,4,6-Trichlorophenol	NS	NS	NS	NS	NS	NS	ND		1	0.29	ND		0.99	0.29	ND		0.1	0.031	ND		0.1	0.03	ND		1	0.3
p-Chloro-m-cresol	NS	NS	NS	NS	NS	NS	ND		1.7	0.34	ND		1.6	0.33	ND		0.18	0.035	ND		0.17	0.034	ND		1.7	0.34
2-Chlorophenol	NS	NS	NS	NS	NS	NS	ND		1.7	0.29	ND		1.6	0.28	ND		0.18	0.03	ND		0.17	0.03	ND		1.7	0.29
2,4-Dichlorophenol	NS	NS	NS	NS	NS	NS	ND		1.7	0.23	ND		1.6	0.23	ND		0.18	0.024	ND		0.17	0.024	ND		1.7	0.24

Table 5: Summary of Concrete Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-GW	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	CC-1				CC-2				CC-3				CC-4				CC-5			
LAB ID:							L1836519-01				L1836519-02				L1836519-03				L1836519-04				L1836519-05			
COLLECTION DATE:							9/13/2018				9/13/2018				9/13/2018				9/13/2018				9/13/2018			
SAMPLE MATRIX:							SOLID				SOLID				SOLID				SOLID				SOLID			
							Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
2,4-Dimethylphenol	NS	NS	NS	NS	NS	NS	ND		1.7	0.11	ND		1.6	0.1	ND		0.18	0.011	ND		0.17	0.011	ND		1.7	0.11
2-Nitrophenol	NS	NS	NS	NS	NS	NS	ND		3.7	0.24	ND		3.6	0.24	ND		0.39	0.025	ND		0.38	0.025	ND		3.7	0.24
4-Nitrophenol	NS	NS	NS	NS	NS	NS	ND		2.4	0.42	ND		2.3	0.41	ND		0.25	0.044	ND		0.24	0.043	ND		2.4	0.42
2,4-Dinitrophenol	NS	NS	NS	NS	NS	NS	ND		8.1	0.3	ND		7.9	0.3	ND		0.84	0.032	ND		0.82	0.031	ND		8.1	0.3
4,6-Dinitro-o-cresol	NS	NS	NS	NS	NS	NS	ND		4.4	0.2	ND		4.3	0.2	ND		0.46	0.021	ND		0.45	0.021	ND		4.4	0.2
Pentachlorophenol	6.7	0.8	55	2.4	6.7	0.8	ND		1.3	0.28	ND		1.3	0.27	ND		0.14	0.029	ND		0.14	0.028	ND		1.4	0.28
Phenol	500	0.33	1000	100	100	0.33	ND		1.7	0.19	0.68	J	1.6	0.19	0.073	J	0.18	0.02	ND		0.17	0.02	ND		1.7	0.19
2-Methylphenol	500	0.33	1000	100	100	0.33	ND		1.7	0.49	ND		1.6	0.48	ND		0.18	0.051	ND		0.17	0.05	ND		1.7	0.49
3-Methylphenol/4-Methylphenol	500	0.33	1000	34	100	0.33	ND		2.4	0.36	ND		2.3	0.36	ND		0.25	0.038	ND		0.24	0.037	ND		2.4	0.37
2,4,5-Trichlorophenol	NS	NS	NS	NS	NS	NS	ND		1.7	0.22	ND		1.6	0.22	ND		0.18	0.023	ND		0.17	0.022	ND		1.7	0.22
Benzoic Acid	NS	NS	NS	NS	NS	NS	ND		5.4	0.43	ND		5.3	0.42	ND		0.56	0.045	ND		0.55	0.044	ND		5.4	0.43
Benzyl Alcohol	NS	NS	NS	NS	NS	NS	ND		1.7	0.35	31		1.6	0.34	3.3		0.18	0.037	0.083	J	0.17	0.036	ND		1.7	0.35
Carbazole	NS	NS	NS	NS	NS	NS	ND		1.7	0.11	ND		1.6	0.11	ND		0.18	0.012	ND		0.17	0.011	ND		1.7	0.11
Total SVOCs	NS	NS	NS	NS	NS	NS	10.6	-	-	-	48.44	-	-	-	3.373	-	-	-	8.601	-	-	-	1.9	-	-	-
PESTICIDES (mg/kg)																										
Delta-BHC	500	0.25	1000	100	100	0.04	ND		0.0047	0.0009	ND		0.0046	0.0009	ND		0.0045	0.0009	ND		0.0046	0.0009	ND		0.0048	0.0009
Lindane	9.2	0.1	23	0.28	1.3	0.1	ND		0.002	0.0009	ND		0.0019	0.0009	ND		0.0019	0.0008	ND		0.0019	0.0009	ND		0.002	0.0009
Alpha-BHC	3.4	0.02	6.8	0.097	0.48	0.02	ND		0.002	0.0006	ND		0.0019	0.0005	ND		0.0019	0.0005	ND		0.0019	0.0005	ND		0.002	0.0006
Beta-BHC	3	0.09	14	0.072	0.36	0.036	ND		0.0047	0.0018	ND		0.0046	0.0017	ND		0.0045	0.0017	ND		0.0046	0.0017	ND		0.0048	0.0018
Heptachlor	15	0.38	29	0.42	2.1	0.042	ND		0.0023	0.0011	ND		0.0023	0.001	ND		0.0023	0.001	ND		0.0023	0.001	ND		0.0024	0.0011
Aldrin	0.68	0.19	1.4	0.019	0.097	0.005	ND		0.0047	0.0016	ND		0.0046	0.0016	ND		0.0045	0.0016	ND		0.0046	0.0016	ND		0.0048	0.0017
Heptachlor epoxide	NS	NS	NS	NS	NS	NS	0.004	J	0.0088	0.0026	ND		0.0086	0.0026	ND		0.0085	0.0026	0.0047	J	0.0086	0.0026	0.0028	J	0.009	0.0027
Endrin	89	0.06	410	2.2	11	0.014	ND		0.002	0.0008	ND		0.0019	0.0008	ND		0.0019	0.0008	ND		0.0019	0.0008	ND		0.002	0.0008
Endrin aldehyde	NS	NS	NS	NS	NS	NS	ND		0.0058	0.002	ND		0.0057	0.002	ND		0.0057	0.002	ND		0.0057	0.002	ND		0.006	0.0021
Endrin ketone	NS	NS	NS	NS	NS	NS	ND		0.0047	0.0012	ND		0.0046	0.0012	ND		0.0045	0.0012	ND		0.0046	0.0012	ND		0.0048	0.0012
Dieldrin	1.4	0.1	2.8	0.039	0.2	0.005	ND		0.0029	0.0015	ND		0.0029	0.0014	ND		0.0028	0.0014	ND		0.0029	0.0014	ND		0.003	0.0015
4,4'-DDE	62	17	120	1.8	8.9	0.0033	ND		0.0047	0.0011	ND		0.0046	0.0011	ND		0.0045	0.0011	ND		0.0046	0.0011	0.0027	J	0.0048	0.0011
4,4'-DDD	92	14	180	2.6	13	0.0033	ND		0.0047	0.0017	ND		0.0046	0.0016	ND		0.0045	0.0016	ND		0.0046	0.0016	ND		0.0048	0.0017
4,4'-DDT	47	136	94	1.7	7.9	0.0033	ND		0.0088	0.0038	ND		0.0086	0.0037	ND		0.0085	0.0037	ND		0.0086	0.0037	ND		0.009	0.0039
Endosulfan I	200	102	920	4.8	24	2.4	ND		0.0047	0.0011	ND		0.0046	0.0011	ND		0.0045	0.0011	ND		0.0046	0.0011	ND		0.0048	0.0011
Endosulfan II	200	102	920	4.8	24	2.4	ND		0.0047	0.0016	ND		0.0046	0.0015	ND		0.0045	0.0015	ND		0.0046	0.0015	ND		0.0048	0.0016
Endosulfan sulfate	200	1000	920	4.8	24	2.4	ND		0.002	0.0009	ND		0.0019	0.0009	ND		0.0019	0.0009	ND		0.0019	0.0009	ND		0.002	0.0009
Methoxychlor	NS	NS	NS	NS	NS	NS	ND		0.0088	0.0027	ND		0.0086	0.0027	ND		0.0085	0.0027	ND		0.0086	0.0027	ND		0.009	0.0028
Toxaphene	NS	NS	NS	NS	NS	NS	ND		0.0876	0.0245	ND		0.0856	0.024	ND		0.0852	0.0239	ND		0.0856	0.024	ND		0.0897	0.0251
cis-Chlordane	24	2.9	47	0.91	4.2	0.094	ND		0.0058	0.0016	ND		0.0057	0.0016	ND		0.0057	0.0016	ND		0.0057	0.0016	ND		0.006	0.0017
trans-Chlordane	NS	NS	NS	NS	NS	NS	ND		0.0058	0.0015	ND		0.0057	0.0015	ND		0.0057	0.0015	ND		0.0057	0.0015	ND		0.006	0.0016
Chlordane	NS	NS	NS	NS	NS	NS	ND		0.038	0.0155	ND		0.0371	0.0151	ND		0.0369	0.015	ND		0.0371	0.0151	ND		0.0389	0.0158
POLYCHLORINATED BIPHENYLS (mg/kg)																										
Aroclor 1016	1	3.2	25	1	1	0.1	ND		0.0944	0.0084	ND		0.101	0.0089	ND		0.095	0.0084	ND		0.101	0.0089	ND		0.0956	0.0085
Aroclor 1221	1	3.2	25	1	1	0.1	ND		0.0944	0.0095	ND		0.101	0.0101	ND		0.095	0.0095	ND		0.101	0.0101	ND		0.0956	0.0096
Aroclor 1232	1	3.2	25	1	1	0.1	ND		0.0944	0.02	ND		0.101	0.0214	ND		0.095	0.0201	ND		0.101	0.0213	ND		0.0956	0.0203
Aroclor 1242	1	3.2	25	1	1	0.1	ND		0.0944	0.0127	ND		0.101	0.0136	ND		0.095	0.0128	ND		0.101	0.0136	ND		0.0956	0.0129
Aroclor 1248	1	3.2	25	1	1	0.1	ND		0.0944	0.0142	ND		0.101	0.0151	ND		0.095	0.0142	ND		0.101	0.0151	ND		0.0956	0.0143
Aroclor 1254	1	3.2	25	1	1	0.1	ND		0.0944	0.0103	ND		0.101	0.011	ND		0.095	0.0104	ND		0.101	0.011	ND		0.0956	0.0105
Aroclor 1260	1	3.2	25	1	1	0.1	ND		0.0944	0.0174	ND		0.101	0.0186	ND		0.095	0.0176	ND		0.101	0.0186	ND		0.0956	0.0177

Table 5: Summary of Concrete Analytical Results
Newsday, 235 Pinelawn Road, Melville, NY

SAMPLE ID:	RUSCO-C	RUSCO-GW	RUSCO-I	RUSCO-R	RUSCO-RR	UUSCO	CC-1				CC-2				CC-3				CC-4				CC-5				
LAB ID:							L1836519-01				L1836519-02				L1836519-03				L1836519-04				L1836519-05				
COLLECTION DATE:							9/13/2018				9/13/2018				9/13/2018				9/13/2018				9/13/2018				
SAMPLE MATRIX:							SOLID				SOLID				SOLID				SOLID				SOLID				
							Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc
Aroclor 1262	1	3.2	25	1	1	0.1	ND		0.0944	0.012	ND		0.101	0.0128	ND		0.095	0.0121	ND		0.101	0.0128	ND		0.0956	0.0121	
Aroclor 1268	1	3.2	25	1	1	0.1	ND		0.0944	0.0098	ND		0.101	0.0104	ND		0.095	0.0098	ND		0.101	0.0104	ND		0.0956	0.0099	
PCBs, Total	1	3.2	25	1	1	0.1	ND		0.0944	0.0084	ND		0.101	0.0089	ND		0.095	0.0084	ND		0.101	0.0089	ND		0.0956	0.0085	
TOTAL METALS (mg/kg)																											
Aluminum, Total	NS	NS	NS	NS	NS	NS	6840		7.64	2.06	7260		7.87	2.12	5980		8.15	2.2	6620		7.88	2.13	5980		7.77	2.1	
Antimony, Total	NS	NS	NS	NS	NS	NS	ND		3.82	0.29	2.96	J	3.94	0.299	1.95	J	4.08	0.31	ND		3.94	0.3	ND		3.88	0.295	
Arsenic, Total	16	16	16	16	16	13	4.32		0.764	0.159	4.49		0.787	0.164	24.4		0.815	0.17	3.61		0.788	0.164	4.27		0.777	0.162	
Barium, Total	400	820	10000	350	400	350	41		0.764	0.133	52.3		0.787	0.137	70.1		0.815	0.142	41.2		0.788	0.137	40		0.777	0.135	
Beryllium, Total	590	47	2700	14	72	7.2	0.076	J	0.382	0.025	0.102	J	0.394	0.026	0.114	J	0.408	0.027	0.071	J	0.394	0.026	0.062	J	0.388	0.026	
Cadmium, Total	9.3	7.5	60	2.5	4.3	2.5	0.214	J	0.764	0.075	0.464	J	0.787	0.077	0.465	J	0.815	0.08	0.11	J	0.788	0.077	0.194	J	0.777	0.076	
Calcium, Total	NS	NS	NS	NS	NS	NS	95300		76.4	26.7	79400		78.7	27.6	107000		81.5	28.5	96300		78.8	27.6	75800		77.7	27.2	
Chromium, Total	NS	NS	NS	NS	NS	NS	25.7		0.764	0.073	36		0.787	0.076	10		0.815	0.078	13.6		0.788	0.076	22.4		0.777	0.075	
Cobalt, Total	NS	NS	NS	NS	NS	NS	3.99		1.53	0.127	4.08		1.57	0.131	4.04		1.63	0.135	2.41		1.58	0.131	5.01		1.55	0.129	
Copper, Total	270	1720	10000	270	270	50	7.7		0.764	0.197	157		0.787	0.203	52.6		0.815	0.21	3.69		0.788	0.203	9.53		0.777	0.2	
Iron, Total	NS	NS	NS	NS	NS	NS	6540		3.82	0.69	7400		3.94	0.711	9260		4.08	0.736	6960		3.94	0.712	5460		3.88	0.701	
Lead, Total	1000	450	3900	400	400	63	15.4		3.82	0.205	15.1		3.94	0.211	44.5		4.08	0.218	1.7	J	3.94	0.211	11.3		3.88	0.208	
Magnesium, Total	NS	NS	NS	NS	NS	NS	2820		7.64	1.18	2570		7.87	1.21	2590		8.15	1.26	1960		7.88	1.21	2290		7.77	1.2	
Manganese, Total	10000	2000	10000	2000	2000	1600	129		0.764	0.121	114		0.787	0.125	88.8		0.815	0.13	154		0.788	0.125	101		0.777	0.124	
Mercury, Total	2.8	0.73	5.7	0.81	0.81	0.18	ND		0.065	0.014	ND		0.065	0.014	ND		0.068	0.014	ND		0.066	0.014	ND		0.066	0.014	
Nickel, Total	310	130	10000	140	310	30	9.7		1.91	0.185	15.1		1.97	0.19	3.59		2.04	0.197	5.15		1.97	0.191	9.3		1.94	0.188	
Potassium, Total	NS	NS	NS	NS	NS	NS	1600		191	11	1650		197	11.3	1200		204	11.7	908		197	11.4	2060		194	11.2	
Selenium, Total	1500	4	6800	36	180	3.9	ND		1.53	0.197	ND		1.57	0.203	0.448	J	1.63	0.21	0.339	J	1.58	0.203	ND		1.55	0.2	
Silver, Total	1500	8.3	6800	36	180	2	ND		0.764	0.216	ND		0.787	0.223	ND		0.815	0.231	ND		0.788	0.223	ND		0.777	0.22	
Sodium, Total	NS	NS	NS	NS	NS	NS	636		153	2.41	875		157	2.48	334		163	2.57	401		158	2.48	1060		155	2.45	
Thallium, Total	NS	NS	NS	NS	NS	NS	ND		1.53	0.241	ND		1.57	0.248	ND		1.63	0.257	ND		1.58	0.248	ND		1.55	0.245	
Vanadium, Total	NS	NS	NS	NS	NS	NS	13.2		0.764	0.155	13.2		0.787	0.16	13.3		0.815	0.165	17.9		0.788	0.16	11.7		0.777	0.158	
Zinc, Total	10000	2480	10000	2200	10000	109	841		3.82	0.224	164		3.94	0.231	130		4.08	0.239	14		3.94	0.231	38.2		3.88	0.228	
GENERAL CHEMISTRY																											
Solids, Total	NS	NS	NS	NS	NS	NS	98.4		0.1	NA	97.7		0.1	NA	94.3		0.1	NA	96.1		0.1	NA	96.8		0.1	NA	

* Comparison is not performed on parameters with non-numeric criteria.

NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-RESGW: New York NYCRR Part 375 Groundwater Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-RESI: New York NYCRR Part 375 Industrial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

mg/kg: milligrams per kilogram

Conc: Concentration

Q: Laboratory Qualifier

RL: Reporting Limit

MDL: Method Detection Limit

Highlighted and bolded concentrations exceed one or more of applicable standards

NS: No Standard

ND: Non-Detect

J: Laboratory reported at an estimated concentration

APPENDIX A: HEALTH AND SAFETY PLAN

Former Newsday Facility
235 Pinelawn Road
Melville, New York

VERTEX SITE SPECIFIC HEALTH AND SAFETY PLAN (HASP)

PREPARED FOR:

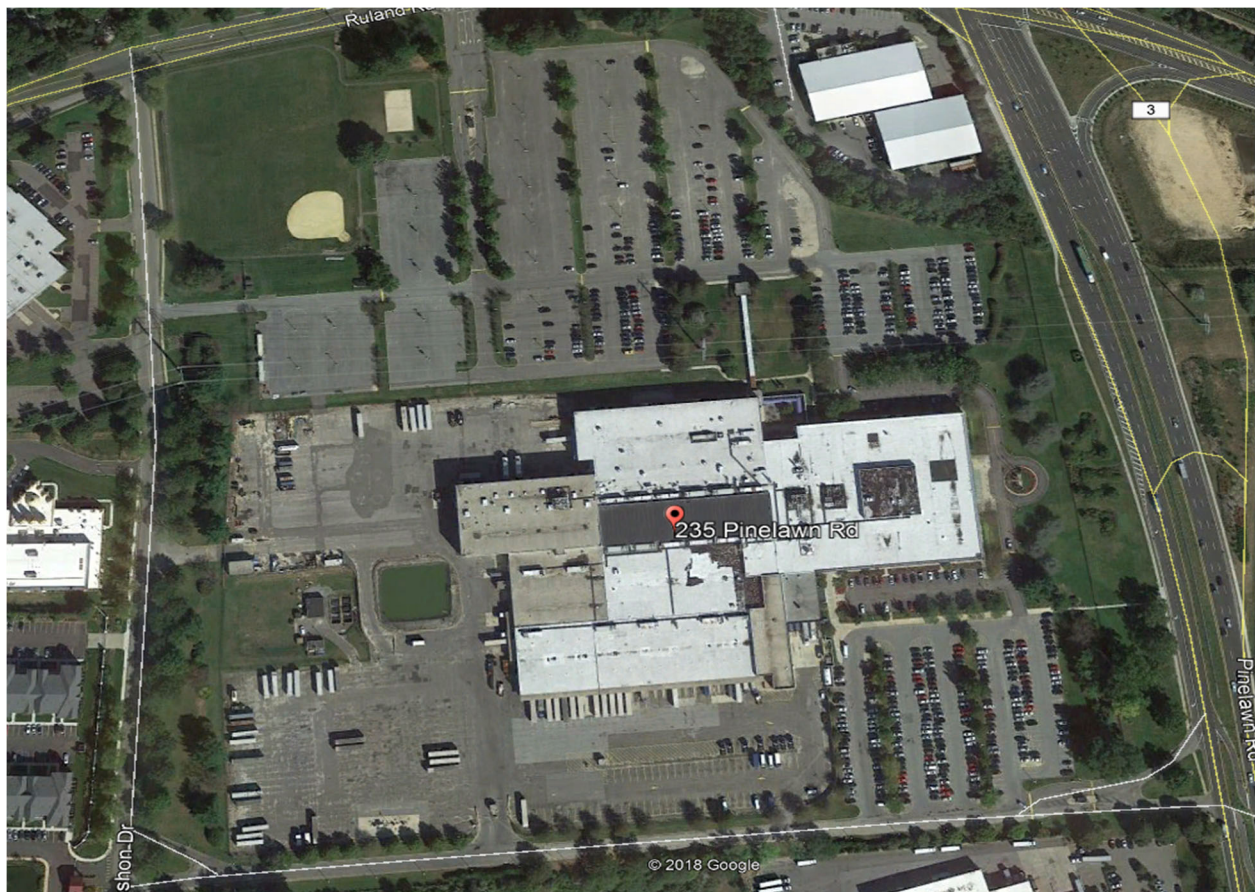
235 Pinelawn Road South, LLC
400 Plaza Drive, P.O. Box 1515
Secaucus, NJ 07096-1515

PREPARED BY:

VERTEX Engineering, PC
45-18 Court Square, Suite 602
Long Island City, NY 11101

VERTEX PROJECT NO: 54600

DATES OF FIELD WORK: TBD



Prepared by: Christopher K. Cook

Signature: _____

Date: 12/20/2018

Project

Manager: Christopher K. Cook

Signature: _____

Date: 12/20/2018

Hands Team

Member: Richard J. Tobia, PE

Signature: _____

Date: 12/20/2018

HASP Limitations and Acknowledgement

This HASP addresses those activities and site procedures to be followed by VERTEX personnel during work performed at this site(s). *This HASP is designed to comply with OSHA standards, such as HAZWOPER, 29 CFR 1910.120, and VERTEX Companies Safety Policies, so compliance with this HASP is required by VERTEX personnel.* The content of this HASP may change or undergo revision based upon additional information made available to VERTEX. Changes proposed must be approved by VERTEX's Hands Team and the Project Manager.

The information in this HASP supplements the health and safety training that each VERTEX employee receives. It is not possible to discover, evaluate, and provide protection for all possible hazards, which may be encountered. This plan is written for the specific-site conditions, purposes, dates, and personnel specified, and must be amended if these conditions change.

Compliance with this HASP is required by persons who enter the site.

This HASP will expire 1 Year after the Hands Team's Signature Date, or if site conditions change. A review and approval by the Hands Team is required to extend the HASP Duration.

VERTEX Colleagues

Name: _____ Signature: _____ Date: _____

Name: _____ Signature: _____ Date: _____

Name: _____ Signature: _____ Date: _____

Name: _____ Signature: _____ Date: _____

Name: _____ Signature: _____ Date: _____

Subcontractors, Owner, and Others

Subcontractors must review this HASP, but must prepare their own site-specific HASP based upon their company health and safety program, and the risks and precautions of their work on the site. The subcontractor HASP will be at a minimum consistent with the provisions of this HASP.

This HASP is not intended to satisfy the requirement for the owner or designated subcontractor to prepare their own site-specific HASPs. This HASP does not relieve the owner, subcontractor, or their designated representatives of their responsibility to comply with all federal, state and local laws, regulations and ordinances governing worker health and safety.

VERTEX expressly disclaims any and all guarantees or warranties, expressed or implied that this plan will meet the specific needs or requirements of any subcontractor or its employees. VERTEX, therefore, cannot and does not assume any liability by the use or reuse of this plan by any client, subcontractor or their employees or agents. Any reliance on this plan or the information herein will be at the sole risk and liability of such party.

Name: _____	Employer: _____	Signature: _____	Date: _____
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Name: _____	Employer: _____	Signature: _____	Date: _____

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Attachments

Job Safety Analyses
Tailgate Safety Meeting Forms
Near Miss/Incident Report Forms
Safety Data Sheets
Hospital Map and Directions

VERTEX SITE SPECIFIC HEALTH AND SAFETY PLAN (HASP)

**Newsday
235 Pinelawn Road
Melville, New York
VERTEX Project No. 54600**

1.0 CONTACT INFORMATION**EMERGENCY PHONE NUMBERS**

Ambulance, Police, and Fire	911, in case of emergency.
Poison Control Center	1-800-222-1222
Chemtrec	1-800-424-9300
National Response Center	1-800-424-8802
Utility Clearance (National)	811
Local Fire Department	631-423-2635
Local Police Department	631-854-8200
Water/Sewer Department	631-427-8190
Electrical Company	PSEG 1-800-490-0025
Gas Company	National Grid 631-755-6650
WorkCare Injury Intervention	1-888.449.7787

HOSPITAL INFORMATION

Plainview Hospital	516-719-3000 888 Old Country Road, Plainview, NY
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A HOSPITAL MAP AND DIRECTIONS ARE ATTACHED

PERTINENT SITE CONTACT INFORMATION

SITE CONTACT	Mr. Tim Winter Newsday Melville, NY 631-223-9381
PROJECT MANAGER - VERTEX OFFICE	Christopher K. Cook VERTEX Branchburg, NJ Office 3322 RTE 22 W STE 907 Branchburg, NJ 08876 908-448-2627
Health and Safety (HANDS) Phone Number	339-499-4995
HandS Team Member working on this HASP:	Christopher K. Cook



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1.1 Project Communication Hierarchy

- Christopher K. Cook, Senior Project Manager: 908-333-4303
- Richard Tobia, PE, Technical Director: 908-458-9604
- Wesley Swanson, Environmental Scientist/Field Personnel: 908-448-8518
- Mr. Tim Winter, Site Representative, 631-223-9381

2.0 SITE DESCRIPTION AND RELEVANT INFORMATION

The site is improved with a two-story building occupied by Newsday, which was originally constructed in 1977 with additions in the 1990s. The building consists of approximately 539,000 square feet of space. Newsday presently performs administrative operations within the site building. The printing operations ceased in June 2018. Office areas are located within the eastern portion of the building. The former printing press areas are located within the northern portions of the building. The southern and western portions of the building include sorting and packaging areas, maintenance areas, loading areas, and storage areas.

Exterior areas of the site include a wastewater treatment plant, a fire suppression pond, small guard sheds, a truck fueling area, emergency generators, aboveground storage tanks, underground storage tanks, parking areas and driveways, and a baseball field. The site is secured with guard sheds and fencing.

2.1 Relevant Information

DATES (ENTER "UNKNOWN" IF NOT KNOWN)	SITE USE/RELEASE/ACTIVITY
Prior to 1977	Undeveloped and agricultural land
1977 to Present	Newspaper printing facility

2.2 Anticipated Chemicals:

Possible contaminants include chlorinated solvents, fuel oil, diesel fuel, heavy metals, inks, pigments, PCBs, and other various VOCs and SVOCs.

2.3 Scope of Work and Tasks

The VERTEX scope of work for this project includes the following tasks:

- Ground clearance oversight – Ground penetrating radar (GPR)
- Soil Boring drilling
- Monitoring well installation
- Monitoring well development and Sampling
- Concrete Sampling
- Dry well and sediment sampling

2.4 Subcontractors Scope of Work

Hawk Drilling, INC subcontractor will perform the GPR and drilling tasks during this project.



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3.0 JOB SAFETY ANALYSES

The following JSAs will be followed during this project. The JSAs are included in the Attachment A.

General Contractor Oversight

Soil Boring/Drilling and Sampling

Drilling Oversight

Cold Stress

Heat Stress

Sediment Sampling

Monitoring Well Installation

Monitoring Well Development

Groundwater Measuring

Groundwater Sampling

3.1 Site Reconnaissance/Site Entrance

The work will be conducted on interior and exterior areas of the site. Interior areas where work will be performed are primarily unoccupied so human and forklift traffic will be minimal. Exterior areas where work will be performed are primarily vacant with very limited vehicular traffic. A security personnel with Newsday will be with VERTEX and our subcontractors at all times.



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3.2 Ladders

Ladders are not anticipated to be needed during the remedial investigation activities.

We can minimize risk when using a ladder by:

- Using a VERTEX-owned ladder.
- Thoroughly inspecting the ladder before each use.
- Ascending and descending the ladder with three contact points
- Using ladders of the appropriate height, materials, and construction for the work being performed
- Securing the ladder, and where applicable maintaining appropriate ladder angle prior to ascension
- Never move a ladder while occupied
- Using a hoist to bring tools and materials to the work area

3.3 Special Risks

Special risks for this project include diesel exhaust and dust within the interior of the building during drilling activities, cold stress, and heat stress. Precautions will be taken to control dust and exhaust within the site building and to prepare and control cold and heat stress concerns.

4.0 WORK ZONES

Work zones in an environmental remediation project typically include three specific areas:

1. The Support Zone
2. The Decontamination Zone
3. The Exclusion Zone

The zones are shown on the site plan on the cover of this HASP.

The following tables provide general guidelines for the establishment of work zones. The information provided should be adjusted if warranted by field observations, such as traffic, and measurements, laboratory analytical results, or at the request of the Hands Team.

ACTIVITY	GENERAL WORK ZONE RADIUS (FEET)	WORK ZONE EVALUATION
Soil/ Sediment/ Concrete/ Groundwater Sampling	5	The site supervisor may modify the work zone radius based upon field conditions (examples below): Physical barriers or walls that may reduce the work zone to the barrier or wall. High traffic area may increase the work zone to allow for worker safety.
Direct Push (Drilling)	15	The site supervisor may modify this radius based upon the specific equipment being use. Generally, height of equipment plus 5 feet.
Hollow Stem Auger (Drilling)	15	The site supervisor may modify this radius based upon the specific equipment being use. Generally, height of equipment plus 5 feet.
Overhead Power Lines	10	Assumes < 50 kV. Additional 4-inches per 50 kV.
Working around Heavy Equipment	20	The turn radius may necessitate more space. Speak with the operator of the equipment to obtain the safe distance. Cones and danger tape may be needed.

5.0 CLEANLINESS AND HYGIENE

5.1 Housekeeping

Proper housekeeping is the foundation for a safe work environment. It prevents incidents and fires, as well as creating a businesslike work area. Materials will be stored in a stable manner so that it will not be subject to falling. Rubbish, scraps and debris will be removed from the work area on a daily basis to job-site dumpster or truck as required. Materials and supplies will not be left in stairways, walkways, near floor openings or at the edge of the building when exterior walls are not built.

5.2 Hygiene Facilities

Hygiene facilities include washing and toilet facilities. The hygiene facilities for this project will be located within the onsite building and will consist of permanent washroom facilities.

6.0 AIR MONITORING AND ACTION LEVELS

Air monitoring is required whenever we anticipate exposure to airborne chemicals or dust. The purpose of air monitoring is to keep track of the concentration of the contaminants of concern (COC) and minimize the exposure to VERTEX colleagues, workers and the general public. The following table presents the air monitoring methods, exposure guidelines and action levels.

Contact the HandS Team to establish the values that are appropriate for the purpose and for the COCs. If you have questions or surpass an action level in the field, contact the HandS Team for guidance.

MONITORING PROTOCOLS AND ACTION LIMITS FOR PETROLEUM VOCs		
RANGE	PPE	ACTION
Background to 5 ppmv	LEVEL D	Continue air monitoring
Above 5 ppmv	LEVEL D	Pause work and contact the Project Manager and the HandS Team for guidance.

6.1 Exposure Guidelines

AIRBORNE CONTAMINANT MONITORING VERTEX Responses Based on Level D PPE				
Parameter	Contaminant Measurements	VERTEX Response	Comments	Frequency of Measurement
Oxygen normal concentration: 20.9 %; Acceptable range 19.5 – 23.5% No odor properties	19.5 – 21.0 %	Continue working	Measure with a multigas meter with an oxygen sensor.	If work takes place in the excavation, oxygen will be continuously logged in the datalogger.
	< 19.5 %	Oxygen deficient – stop working, supplied air respiratory protection will be required		
	> 21.0 %	Oxygen enriched atmosphere, explosion potential – stop working		
Carbon monoxide – Normal concentration: 0 ppm; OSHA PEL: 50 ppm No odor properties	< 10 ppm	Continue working	Often measured using a multigas meter with a carbon monoxide sensor. Concentrations of carbon monoxide can quickly accumulate if not addressed immediately. Effective local	If work takes place in the excavation, carbon monoxide will be continuously
	> 10 ppm	Stop work and contact the CIH		



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AIRBORNE CONTAMINANT MONITORING VERTEX Responses Based on Level D PPE				
Parameter	Contaminant Measurements	VERTEX Response	Comments	Frequency of Measurement
			exhaust ventilation should be implemented as possible. This is the reason why there is a 40 ppm safety cushion incorporated into this guidance.	logged in the datalogger.
VOCs – normal concentration: 0 - 5 ppm Depending on the concentration you may sense an oily odor	< 5 ppm 5 – 10 ppm	Continue working Temporarily stop work and contact the CIH	VOCs are group of compounds with various PELs. Benzene and vinyl chloride have low PEL, each is 1 ppm. A PID is usually used to measure VOCs. The lamp selected, usually either 10.6 or 11.7eV must be appropriate for the contaminants of concern. If the work is intended to be completed only in Level D PPE, then work should stop at 5 ppm. A decision would be made at that point about whether to use a Draeger Tube to test for benzene, or to wear a respirator.	VOCs will be continuously logged in the datalogger.
LEL – normal value: 0 % Depending on the concentration you may sense an oily odor	0 %	Continue working	Usually measured using a multigas meter with an LEL sensor. It is possible for fuel oils to give off flammable gases.	If work takes place in the excavation, LEL will be continuously logged in the datalogger.
	> 0 %	Questionable concentration of flammable compounds. Temporarily stop work and contact the CIH		
	> 10 %	Vapor suppression is needed. Stop working		
Hydrogen Sulfide – normal concentration: 0 ppm Characteristic rotten egg odor	0 – 20 ppm	Continue working	Often measured in excavations and confined spaces with a multigas meter with a hydrogen sulfide sensor. Note that hydrogen sulfide is a flammable gas. Hydrogen sulfide can cause olfactory fatigue and a	Hydrogen sulfide will be continuously logged in the datalogger.
	> 20 %	Stop work and contract the CIH		

AIRBORNE CONTAMINANT MONITORING VERTEX Responses Based on Level D PPE				
Parameter	Contaminant Measurements	VERTEX Response	Comments	Frequency of Measurement
			person will cease to smell the odor thus exposing a worker to serious hazard.	
Dust – nuisance dust, not otherwise specified. Normal value is < 1mg/m ³ No odor.	< 1 mg/m ³	Continue working	This dust is considered simple nuisance dust, not flammable or otherwise contaminated by any compound that might cling to the dust particles.	Dust concentrations will be continuously logged in the datalogger.
	1-5 mg/m ³	Temporarily stop work and contact the CIH		
	> 5 mg/m ³	Stop work, respiratory protection will be required		
Silica (from the Portland Cement) – Normal value is 0 mg/m ³ . New OSHA PEL: 50 µg/m ³ VERTEX will use the 25 µg/m ³ Action Level to govern our projects. No odor.	Monitoring requires personal sampling – NIOSH Method 7500 following by laboratory analysis. Method requires a high volume personal air sampling pump and cyclone. CIH will assist with acquiring equipment and coaching for sampling as needed.	If engineering controls are used, continue working. If engineering controls are not adequate, stop work and contact the CIH.	The new OSHA standard for silica – in the process of implementation - requires the use of engineering controls, such as water to keep down dust production or ventilation prior to using any type of respiratory. Therefore, depending on the contractor's work methods, respiratory protection may be necessary.	Silica will be measured as needed if the Portland cement is being used without proper precautions, in consultation with the CIH

7.0 DECONTAMINATION

Our goal is always to keep contaminated material where it belongs, either on a project site or in an appropriate waste disposal process. We should avoid taking contaminated materials with us on our clothes or the bottoms of our work boots, into our vehicles or to our homes. This practice applies to staff who may encounter hazardous materials/waste or other materials such as oil and gasoline contaminated soils that may not be called hazardous waste, and it is also reasonable to manage nuisance dirt from sites in a responsible manner.

VERTEX supports proper project planning and execution to minimize risks. This requires:

- Planning before going to the site:
- Responsible actions at the site:
- After you leave the site:

It is critical that decontamination takes place prior to break periods and at the end of the day to reduce the chances of ingesting contaminants, or carrying them off the site. The following procedures will be followed on the site:

- Proper disposal of all single use PPE and material
- Washing of hands and face as soon as possible
- Decontamination of boots, hardhats, and other durable/reusable field equipment

8.0 SIMULTANEOUS OPERATIONS

Simultaneous operations are activities that may be taking place at the same time as VERTEX's or our subcontractor's work. The following activities will be taking place nearby to our work:

Administrative operations may be occurring in the areas of our work. These operations should be very limited.

9.0 TRAINING AND MEDICAL SURVEILLANCE

9.1 Training

Colleagues and workers assigned to a VERTEX project must have proper training and experience to enable our project to be performed successfully. At a minimum, completion of the OSHA 10-Hour Construction Safety training session is required for all VERTEX colleagues.

9.2 Medical Surveillance

Field staff who are exposed to chemicals will participate in VERTEX's Medical Surveillance Program. Our program is administered by our Human Resources Department. The examination is responsive to many chemicals, but not all chemicals, so prior to a project, the Project Manager should check with Human Resources or the HandS Team, especially if unusual chemicals or elements are involved in the scope of work. VERTEX colleagues can verify the content of their exams by contacting Human Resources. The colleague must successfully pass the physical examination prior to field work on the project.



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10.0 SAFETY MEETINGS

Safety meetings are vital to set the tone for safe work performance at the beginning of a project and each day. These meetings should be attended by all project participants, that is, VERTEX colleagues, contractors, and client staff if they are on-site. Several types of meetings may take place during a project:

- Kick-off meeting. This meeting begins a project and may take place at the field site or in an office or trailer. The scope of work should be reiterated, along with the hazards and precautions. This meeting is important to setting the tone and expectations for performance.
- Daily tailgate safety meeting. Held at the beginning of each shift, this meeting reiterates the scope of work planned during the shift, the hazards and precautions. Ideally, a different person, including contractor workers, would lead the meeting each day of a project to engage everyone and make each meeting fresh.
- Post project meeting. Although this meeting does not always take place, it is a good idea to wrap up a project and share what went well and what should be improved the next time the project team is together, or share lessons to take to the next project regardless of the team.
- Root cause analysis meeting is held following an incident or near miss to understand the root cause of what went wrong or almost went wrong (near miss) to reduce the chance of recurrence and to share lessons learned. These discussions are an essential part of any people-based safety program.

11.0 EMERGENCY RESPONSE PLAN

Incidents and near misses, no matter how minor, must be reported immediately to the Project Safety Supervisor or VERTEX HandS Team! The Safety Hotline is 339.499.4995. Other information is included in the Contact Information chart at the beginning of this HASP. Directions to the nearest hospital are attached at the end of the HASP so that they can be posted in an accessible location.

11.1 Emergency Incident

The nature of our work makes emergencies on site a continual possibility. Although emergencies are unlikely and occur infrequently, a contingency plan is required to assure timely and appropriate response actions. The contingency plan is reviewed at the tailgate safety meetings.

Discuss client Emergency Response Plans with all project participants so that everyone knows their part and expectations.

Upon Incident, Near Miss, Physical Reaction or Excessive Exposure: Leave area immediately and seek appropriate medical assistance. This may include, but not be limited to, any of the following physiological reactions:

- Dizziness
- Nausea
- Rash
- Asthmatic Reaction
- Abdominal Pain
- Distorted Vision or Hearing
- Excessive Coughing
- Edema or Localized Swelling

- Headaches
- Exposure to High/Cold Temperatures

11.2 Upon Emergency Incident, Take the Following Actions:

1. Size-up the situation based on the available information.
2. Follow the VERTEX Wallet Card calling directions. You must speak directly to a person: Notify:
 - a. Your Supervisor/Site Supervisor, Follow any client required procedures
 - b. Call the VERTEX HandS Team at 339-499-4995
 - c. Call Human Resources,
 - d. Call your Project Manager/Client,
 - e. Call Account Manager.
3. Only respond to an emergency if personnel are sufficiently trained and properly equipped.
4. As appropriate, evacuate site personnel and notify emergency response agencies, e.g., fire, police, etc.
5. As necessary, request assistance from outside sources and/or allocate personnel and equipment.
6. Consult the posted emergency phone list and contact key personnel.
7. Prepare an incident/near miss report. Forward incident report to Project Manager/VERTEX HandS Team within 24 hours via the HandS@vertexeng.com email.

11.3 Upon Medical Emergency, Take the Following Actions:

1. Assess the severity of the injury and perform first aid/CPR as necessary to stabilize the injured person. Follow universal precautions to protect against exposure to bloodborne pathogens.
2. Get medical attention for the injured person immediately. Call 911 or consult the Emergency Contacts list which must be posted at the site.

3. Follow the VERTEX Wallet Card calling directions. You must speak directly to a person: Notify:
 - a. Your Supervisor/Site Supervisor, Follow any client required procedures
 - b. For any injuries, call WorkCare at 888-449-7787. For international calls, use 714-456-2107. WorkCare has qualified medical practitioners tending the phone to offer a telephone triage of the situation. WorkCare will provide guidance on how to transport the injured individual.
 - c. Call the VERTEX HandS Team at 339-499-4995
 - d. Call Human Resources
 - e. Call your Project Manager/Client
 - f. Call Account Manager.
4. Prepare an incident report. The Site Safety officer is responsible for its preparation and submittal to the Health and Safety Manager within 24 hours by email at HandS@vertexeng.com.
5. You can reach Human Resources at HR@vertexeng.com.



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ATTACHMENTS

JOB SAFETY ANALYSES



The VERTEX Companies Health & Safety - A HANDS on Approach to Safety

Task to Be Performed:	Drilling Oversight in Cold Weather (to be used in conjunction with Drilling Oversight JSA)	Analyzed By:	Chris Cook	
		Date	20-Dec-18	
Project Name & Location:	Former Newsday Facility, 235 Pinelawn Road, Melville, NY			
Possible Risks at a Glance		Engineering Controls at a Glance		
Possible risks include associated with drilling oversight in cold weather include: 1. Frostbite; 2. Hypothermia; 3. Dehydration; 4. Trench Foot; 5. Chilblains.		* Sit in a warm location periodically to minimize cold stress. * Use handwarmers/footwarmers as needed.		
		Work Practice Controls at a Glance		
		* Wear appropriate PPE, practice safe drilling and oversight techniques. * Discuss a communications plan each day in the tailgate meeting to include at least hourly check-ins to be sure that colleagues are not suffering from cold stress. * Be familiar with the emergency response plan for the project.		
		Personal Protective Equipment at a Glance		
		* Level D PPE with cold weather attire. Dress in layers and use hardhat winter liners, gloves, wool socks, lined clothing.		
Step #	Specific Steps in the Task	Cold-Related Hazards and Risks That Must Be Controlled (Apply to All Steps)	Precautions Actions to Avoid the Risks	Responsible Person
		<i>Please note that each of the syndromes noted below can occur in each of the steps of this task.</i>		



The VERTEX Companies Health & Safety - A HANDS on Approach to Safety

1	Set up necessary traffic and public access controls	1. Frostbite = an injury to the body that is caused by freezing. Frostbite causes a loss of feeling and color in the affected areas. It most often affects the nose, ears, cheeks, chin, fingers, or toes.	Know the symptoms of frostbite. Prevent frostbite by limiting skin exposure to cold air. Wear gloves and a hardhat liner, cover neck and face, and dress in layers. Take frequent breaks in a warm sheltered area such as inside a building or heated vehicle to avoid exposure.	Field Staff
2	Utility Clearance	2. Hypothermia = abnormally low body temperature caused by prolonged exposure to cold. A body temperature that is too low affects the brain, making the victim unable to think clearly or move well.	Know the symptoms of hypothermia. Prevent hypothermia by limiting skin exposure to cold air. Make sure to eat enough food throughout the day. Wear gloves and a hardhat liner, cover neck and face, and dress in layers. Take frequent breaks in a warm sheltered area such as inside a building or heated vehicle to avoid exposure.	Field Staff
3	Oversight of drilling operations	3. Trench Foot, also known as immersion foot = an injury of the feet resulting from prolonged exposure to wet and cold conditions. Trench foot can occur at temperatures as high as 60 degrees F if the feet are constantly wet. Injury occurs because wet feet lose heat 25-times faster than dry feet. Therefore, to prevent heat loss, the body constricts blood vessels to shut down circulation in the feet. Skin tissue begins to die because of lack of oxygen and nutrients and due to the buildup of toxic products.	Know the symptoms of trench foot. Prevent trenchfoot by wearing appropriate socks and boots. Take frequent breaks in a warm sheltered area such as inside a building or heated vehicle to avoid exposure. Do not allow feet to get wet. Carry an extra pair of socks in your equipment bag.	Field Staff

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
		4. Chilblains = caused by the repeated exposure of skin to temperatures just above freezing to as high as 60 degrees F. The cold exposure causes damage to the capillary beds (groups of small blood vessels) in the skin. This damage is permanent and the redness and itching will return with additional exposure. The redness and itching typically occurs on cheeks, ears, fingers, and toes.	Know the symptoms of chilblains. Prevent chilblains by limiting skin exposure to cold air. Wear gloves and a hat, cover neck and face, and dress in layers. Take frequent breaks in a warm sheltered area such as inside a building or heated vehicle to avoid exposure. Do not allow feet to get wet.	Field Staff
		5. Dehydration = occurs when your body does not have the water it needs. Can be a bigger risk in cold weather, when you may not feel as much of an urge to drink water.	Drink plenty of water before, during, and after work. Avoid a high protein diet, caffeine, and alcohol. Periodically switch from drinking straight water to an electrolyte-rich beverage, such as gatorade. Eating soup in the support zone is also encouraged.	Field Staff



The VERTEX Companies Health & Safety - A HANDS on Approach to Safety

Task to Be Performed:	Drilling Oversight	Analyzed By:	Chris Cook	
		Date	20-Dec-18	
Project Name & Location:	Former Newsday Facility, Melville, NY			
Possible Risks at a Glance		Engineering Controls at a Glance		
Possible risks include associated with groundwater sampling include: 1. Vehicular traffic; 2. Potential to encounter utilities; 3. Excessive noise; 4. Drill rig moving and heated mechanisms; 5. Muscle strains from lifting; 6. Eye injury from dust and debris; 7. Inhalation of dust and debris; 8. Lacerations; 9. Muscle strain from heavy lifting; 10. Slip/Trip/Fall hazards due to equipment, debris, and/or slippery surfaces. 11. Mechanical failure leading to injury or property damage; and, 12. Pinch points.		Dust and diesel exhaust controls for interior borings		
		Work Practice Controls at a Glance		
		Wear appropriate PPE, practice safe drilling and oversite techniques.		
		Personal Protective Equipment at a Glance		
		Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, hearing protection, work gloves, hard hat, and reflective safety vest.		
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Set up necessary traffic and public access controls	1. Personnel could be hit by vehicular traffic.	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic. Unload as close to work area as safely possible.	WS
2	Utility Clearance	1. Potential to encounter underground or aboveground utilities while drilling.	Complete utility clearance using State One Call, GPR services, and/or hand augur to 5 feet bgs.	WS
3	General drill rig operation	1. Excessive noise is generated by rig operations.	When the engine is used at high RPMs or soil samples are being collected, use hearing protection.	Hawk



The VERTEX Companies Health & Safety - A HANDS on Approach to Safety

Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
3	General drill rig operation	2. During drill rig operation, surfaces will become hot and cause burns if touched, and COCs in the soil will more readily vaporize generating airborne contaminants.	Use caution handling equipment and wear proper work gloves. Air monitoring should be performed in accordance with the HASP to monitor the potential volatilization of COCs.	Hawk
		3. Moving parts of the drilling rig can pull you in, causing injury. Pinch points on the rig and auger connections can cause pinching or crushing of body parts.	Stay at least 5 feet away from moving parts of the drill rig. Know where the kill switch is, and have the drillers test it to verify that it is working. Do not wear loose clothing and tie back long hair. Avoid wearing jewelry when drilling. Cone off work area to keep general public away from the drill rig.	Hawk
		4. Dust and debris can cause eye injury and soil cuttings and/or water could contain COCs.	Wear safety glasses and stay as far away from actual drilling operation as practicable. Wear appropriate gloves to protect from COCs.	Hawk
		5. Drilling equipment laying on the ground (i.e. augurs, split spoons, decon equipment, coolers, etc.) create a tripping hazard. Water from decon buckets generate mud and cause a slipping hazard.	Keep equipment and trash picked up and store away from the primary work area. Wear footwear with ankle support.	Hawk
		6. The raised derrick can strike overhead utilities, tree limbs, or other elevated items.	Never move the rig with the derrick up. Ensure there is proper clearance to raise the derrick. Ensure that you are far enough away from overhead power lines.	Hawk



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4	Direct push drilling	1. The driller rods will be handled by workers most of the time, rather than the rig doing it. Therefore, pinch points can cause lacerations and crushing of fingers and/or body parts.	Keep a minimum of five (5) feet away from drill rig operation and moving parts.	Hawk
		2. The direct push rigs are usually meant to fit in small spaces, as they are smaller than other drill rigs. Tight spaces can pin workers.	Do not put yourself between the rig and a fixed object. Use spotters or a tape measure to ensure clearances in tight spaces. Pre-plan equipment movement from one location to the next.	Hawk
		3. Wireless devices can fail and equipment can strike workers or cause property damage.	Test wireless equipment in an open area prior to operations. Ensure that operator remains close to rig while using wireless equipment to ensure that the signal is strong.	Hawk
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Hawk
4	Direct push drilling	4. Cutting sampling sleeves can lead to lacerations.	When possible, let the driller cut the sleeves open, as they have the proper tools. If we cut the sleeves, use a hook blade, change blade regularly, and cut away from the body.	Hawk
5	Sample collection and processing	1. Injuries can result from pinch points on sampling equipment and from breakage of sample containers.	Care should be taken when opening sampling equipment. Look at empty containers before picking them up. Use dividers or bubble wrap in cooler so that the containers do not break.	WS
		2. Lifting heavy coolers can cause muscle strain and/or back injuries.	Use proper lifting techniques and body positions; don't carry more than you can handle and get help moving heavy or awkward objects.	WS



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Task to Be Performed:	General Contractor Oversight	Analyzed By:	Chris K. Cook	
		Date	20-Dec-18	
Project Name & Location:	Former Newsday Facility, 235 Pinelawn Road, Melville, NY			
Possible Risks at a Glance		Engineering Controls at a Glance		
Possible risks include associated with groundwater sampling include: 1. Vehicular accident/damage; 2. Slip, trip, and fall hazards; 3. Heavy equipment operations; 4. Scratch, scrape, and impalement hazards; 5. Muscle strains; 6. On site traffic; 7. Lack of communications; 8. Changing site conditions; and 9. Personal injury from energized equipment.		None		
		Work Practice Controls at a Glance		
		Wear appropriate PPE, practice safe site reconnaissance techniques.		
		Personal Protective Equipment at a Glance		
		Limited Level D PPE including steel-toe boots and reflective safety vest. Additional Level D PPE including, chemical resistant gloves, work gloves, hard hat, and safety glasses when applicable.		
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Commuting to and from the work site	1. Vehicular accident/damage.	Wear seatbelts. Drive defensively by: (a) looking down road to determine limiting factors, (b) Minimizing/eliminating distractions, and (c) managing speed and distance. Check vehicle for proper operating systems, such as lights, tires, and mirrors.	WS
2	Site walkovers and inspections	1. Slips/trips/falls.	Wear footwear with proper ankle support and be	WS



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		2. Heavy equipment operations.	Use hearing protection and maintain 15-foot minimum clearance of heavy equipment. Maintain eye contact with equipment operators when possible.	WS
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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
2	Site walkovers and inspections	3. Scratches/scrapes/impalement from sharp edges/protruding objects.	Be vigilant for hazards and avoid climbing in tight spaces and on equipment.	WS
		4. On-site traffic.	Watch for vehicular traffic on site and maintain eye contact with operator when possible.	WS
		5. Lack of site communications.	Carry cell phone or walkie talkie (if necessary). Abandon site activity when conditions are unsafe.	WS
		6. Changing site conditions.	The work area should be consistently assessed for changing conditions (animals, pedestrians, etc.) to avoid potential safety-related issues.	WS
3	Equipment assessments	1. Personal injury from energized equipment.	Use LO/TO procedures.	WS
		2. Back/hand injuries.	Keep back straight when moving equipment and performing inspection. Maintain vigilance for potential hazards.	WS



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Task to Be Performed:		Groundwater Measuring	Analyzed By:	Chris Cook
			Date	20-Dec-18
Project Name & Location:		Former Newsday Facility, 235 Pinelawn Road, Melville, NY		
Possible Risks at a Glance			Engineering Controls at a Glance	
Possible risks include associated with groundwater sampling include: 1. Vehicular traffic; 2. Tripping/slipping hazards; 3. Pinch points; 4. Lacerations; 5. Muscle strains from lifting; and 6. Exposure to contaminated vapors and/or water.			None	
			Work Practice Controls at a Glance	
			Wear appropriate PPE, practice safe measuring techniques.	
			Personal Protective Equipment at a Glance	
		Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, work gloves, hard hat, and reflective safety vest.		
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Stage at pre-determined sampling location and set up work zone and sampling equipment	1. Personnel could be hit by vehicular traffic.	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic. Unload as close to work area as safely possible.	
		2. Sampling equipment, tools, and monitoring well covers can cause tripping hazard.	Keep equipment picked up and to monitor changes to site condition.	
2	Open wells to equilibrate and gauge wells	1. When squatting down, personnel can be difficult to see by vehicular traffic.	Wear Class II traffic vest if wells are located in/near vehicular traffic. Use tall cones and the buddy system if practicable.	
		2. Pinch points on well vaults can pinch or lacerate fingers.	Use correct tools to open well vault/cap. Wear leather gloves when removing well vault lids, and chemical protective gloves when gauging. Wear proper PPE including safety boots, knee pads, and safety glasses.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
2	Open wells to equilibrate and gauge wells	3. Lifting sampling equipment can cause muscle strain.	Unload as close to work area as safely possible; use proper lifting and reaching techniques and body positioning; don't carry more than you can handle and get help moving heavy or awkward objects.	
		4. Pressure can build up inside well causing cap to release under pressure.	Keep head away from well cap when removing. If pressure relief valves are on well, use prior to opening.	
		5. Vapors from open wells.	Conduct air monitoring as wells are opened. When opening wells, be positioned up-wind when possible.	
3	Measure Depth to Water and Depth to Bottom	1. Well water can get on skin or in eyes when inserting and removing water level indicator.	Slowly insert and remove water level indicator to prevent splashing. Wear safety glasses, work gloves, and recommended PPE.	
		2. Lacerations can occur when inserting water level indicator.	Be aware of sharp edges of well when inserting water level indicator. When possible, wear leather safety gloves.	
4	Equilibrate and gauge well	1. Lifting sampling equipment can cause muscle strain.	Use proper lifting and reaching techniques and body positioning; don't carry more than you can handle and get help moving heavy or awkward objects.	
		2. Water spilling on ground can cause muddy/slippery conditions.	Be careful when walking around work area and wear proper safety boots.	
		3. Lacerations can occur when cutting materials such as plastic tubing.	When cutting tubing, use tubing cutter. No open fixed blades should ever be used. When possible, wear leather safety gloves.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
5	Staging of purged well water	1. Muscle strains can occur when moving purge water or drums.	If using buckets, do not fill buckets up to the top. Always keep lid on buckets when travelling or moving them to another location. Only half fill buckets so bucket weight is manageable.	
		2. Spilling or splashing of purge water.	Make sure that purge water is properly contained with a lid to avoid spilling/splashing the purge water. Wear long sleeve shirts while sampling.	



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Task to Be Performed:	Groundwater Sampling	Analyzed By:	Chris Cook	
		Date	20-Dec-18	
Project Name & Location:	Former Newsday Facility, 235 Pinelawn Road, Melville, NY			
Possible Risks at a Glance		Engineering Controls at a Glance		
Possible risks include associated with groundwater sampling include: 1. Vehicular traffic; 2. Tripping/slipping hazards; 3. Pinch points; 4. Lacerations; 5. Muscle strains from lifting; 6. Electrical shock; and 7. Exposure to contaminated vapors and/or water.		None		
		Work Practice Controls at a Glance		
		Wear appropriate PPE, practice safe sampling techniques.		
		Personal Protective Equipment at a Glance		
		Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, work gloves, hard hat, and reflective safety vest.		
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Stage at pre-determined sampling location and set up work zone and sampling equipment	1. Personnel could be hit by vehicular traffic.	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic. Unload as close to work area as safely as possible.	
		2. Sampling equipment, tools, and monitoring well covers can cause tripping hazard.	Keep equipment picked up and monitor any changes to site condition.	
2	Open wells to equilibrate and gauge wells	1. When squatting down, personnel can be difficult to see by vehicular traffic.	Wear Class II traffic vest if wells are located in/near vehicular traffic. Use tall cones and the buddy system if practicable.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
2	Open wells to equilibrate and gauge wells	2. Pinch points on well vaults can pinch or lacerate fingers.	Use correct tools to open well vault/cap. Wear leather gloves when removing well vault lids, and chemical protective gloves when gauging. Wear proper PPE including safety boots, knee pads, and safety glasses.	
		3. Lifting sampling equipment can cause muscle strain.	Unload as close to work area as safely possible; use proper lifting and reaching techniques and body positioning; don't carry more than you can handle and get help moving heavy or awkward objects.	
		4. Pressure can build up inside well causing cap to release under pressure.	Keep head away from well cap when removing. If pressure relief valves are on well, use prior to opening.	
		5. Vapors from open wells.	Conduct air monitoring as wells are opened. When opening wells, be positioned up-wind when possible.	
3	Begin purging well and collecting parameter measurements	1. Electrical shock can occur when connecting/disconnecting pump from battery.	Make sure equipment is turned off when connecting/disconnecting. Wear leather gloves. Use GFCIs when using power tools and pumps. Do not use in the rain or run electrical cords through wet areas.	
		2. Purge water can spill or leak from equipment.	Stop purging activities immediately, stop leakage and block any drainage grate with absorbent pads. Call PM to notify them of any reportable spill.	
		3. Water spilling on the ground can cause muddy/slippery conditions.	Be careful when walking around work area and wear proper safety boots.	
		4. Lacerations can occur when cutting materials such as plastic tubing.	When cutting tubing, use tubing cutter. No open fixed blades should ever be used. When possible, wear leather safety gloves.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
3	Begin purging well and collecting parameter measurements	5. Purge water can splash into eyes.	Pour water slowly into buckets/drums to minimize splashing. Wear safety glasses and recommended PPE.	
4	Collect groundwater sample	1. Sample water can splash into eyes.	Minimize splashing potential by wearing safety glasses and appropriate gloves.	
		2. Sample containers could break/leak preservative.	Discard any broken sample containers properly. Wear appropriate eye and hand protection.	
5	Staging of purged well water	1. Muscle strains can occur when moving purge water or drums.	If using buckets, do not fill buckets up to the top. Always keep lid on buckets when travelling or moving them to another location. Only half fill buckets so bucket weight is manageable.	
		2. Spilling or splashing of purge water.	Make sure that purge water is properly contained with a lid to avoid spilling/splashing the purge water. Wear long sleeve shirts while sampling.	



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Task to Be Performed:	Field Work in Hot Weather (to be used in conjunction with Task Specific JSAs)		Analyzed By:	Chris Cook
			Date	20-Dec-18
Project Name & Location:	Former Newsday Facility, 235 Pinelawn Road, Melville, NY			
Possible Risks at a Glance			Engineering Controls at a Glance	
Possible risks include associated with field work in hot weather include: 1. Heat Stroke; 2. Heat Exhaustion; 3. Rhabdomyolysis; 4. Heat syncope; 5. Heat Cramps; 6. Heat Rash; 7. Dehydration; 8. Sun Burn.			* Sit in a cool, shaded, or air conditioned location periodically to minimize heat stress. * Use wet towels and ice to stay cool.	
			Work Practice Controls at a Glance	
			* Wear appropriate PPE, practice safe field work and oversight techniques. * Discuss a communications plan each day in the tailgate meeting to include at least hourly check-ins to be sure that colleagues are not suffering from heat stress. * Be familiar with the emergency response plan for the project.	
			Personal Protective Equipment at a Glance	
			* Level D PPE with hot weather attire. Dress breathable clothes that cover the arms and legs and use a hardhat and sunglasses. Use sunscreen.	
Step #	Specific Steps in the Task	Cold-Related Hazards and Risks That Must Be Controlled (Apply to All Steps)	Precautions Actions to Avoid the Risks	Responsible Person
		<i>Please note that each of the syndromes noted below can occur in each of the steps of this task.</i>		
	Refer to task-specific JSAs.	1. Heat Stroke = the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.	Know the symptoms of heat stroke. Prevent heat stroke by limiting exposure to excessively hot temperatures. Wear breathable, light weight clothes that cover the arms and legs and a hat. Stay out of the sun as much as possible. Take frequent breaks in a cool shaded area such as inside a building or air conditioned vehicle to avoid exposure. Drink plenty of cold water.	Field Staff



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Step #	Specific Steps in the Task	Cold-Related Hazards and Risks That Must Be Controlled (Apply to All Steps)	Precautions Actions to Avoid the Risks	Responsible Person
	Refer to task-specific JSAs.	2. Heat Exhaustion = the body's response to an excessive loss of water and salt, usually through excessive sweating. Workers most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment.	Know the symptoms of heat exhaustion. Prevent heat exhaustion by limiting exposure to excessively hot temperatures. Wear breathable, light weight clothes that cover the arms and legs and a hat. Stay out of the sun as much as possible. Take frequent breaks in a cool shaded area such as inside a building or air conditioned vehicle to avoid exposure. Drink plenty of fluids, alternating between water and electrolyte-rich beverages. Eat plenty of food throughout the day.	Field Staff
		3. Rhabdomyolysis = a medical condition associated with heat stress and prolonged physical exertion, resulting in the rapid breakdown, rupture, and death of muscle. When muscle tissue dies, electrolytes and large proteins are released into the bloodstream that can cause irregular heart rhythms and seizures, and damage the kidneys.	Know the symptoms of rhabdomyolysis. Prevent rhabdomyolysis by limiting exposure to excessively hot temperatures. Wear breathable, light weight clothes that cover the arms and legs and a hat. Stay out of the sun as much as possible. Take frequent breaks in a cool shaded area such as inside a building or air conditioned vehicle to avoid exposure. Drink plenty of fluids, alternating between water and electrolyte-rich beverages. If physical exertion is required for the work task, take frequent breaks and employ the buddy system when possible. Maintain an exercise regime so that your body is tolerant to physical exertion.	Field Staff
		4. Heat syncope = a fainting (syncope) episode or dizziness that usually occurs with prolonged standing or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization.	Drink plenty of water before, during, and after work. Avoid a high protein diet, caffeine, and alcohol. Periodically switch from drinking straight water to an electrolyte-rich beverage, such as gatorade. Allow your body to acclimate to the heat for at least a few minutes prior to physically exerting yourself. If field work requires prolonged sitting or standing, periodically get up and stretch and walk around.	Field Staff



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
		5. Heat cramps = usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.	Drink plenty of water before, during, and after work. Avoid a high protein diet, caffeine, and alcohol. Periodically switch from drinking straight water to an electrolyte-rich beverage, such as gatorade. Take frequent breaks from physical activity, and when possible use the buddy system to perform physical tasks.	Field Staff
	Refer to task-specific JSAs.	6. Heat rash = a skin irritation caused by excessive sweating during hot, humid weather.	Prevent heat rash by limiting exposure to excessively hot temperatures. Wear breathable, light weight clothes that cover the arms and legs and a hat. Stay out of the sun as much as possible. Take frequent breaks in a cool shaded area such as inside a building or air conditioned vehicle to avoid exposure. Drink plenty of fluids, alternating between water and electrolyte-rich beverages. If physical exertion is required for the work task, take frequent breaks and employ the buddy system when possible. Wipe sweat from skin during breaks.	Field Staff
		7. Dehydration = occurs when your body does not have the water it needs.	Drink plenty of water before, during, and after work. Avoid a high protein diet, caffeine, and alcohol. Periodically switch from drinking straight water to an electrolyte-rich beverage, such as gatorade. Drink even when you do not feel thirsty.	Field Staff
		8. Sun Burn = a form of radiation burn that affects living tissue, such as skin, that results from an overexposure to ultraviolet (UV) radiation, commonly from the sun.	Wear breathable, light weight clothes that cover the arms and legs and a hat. Wear sunglasses or shaded safety glasses. Be sure to cover all exposed skin with sunscreen, and re-apply throughout the day.	Field Staff



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Task to Be Performed:	MONITORING WELL DEVELOPMENT	Analyzed By:	Chris Cook	
		Date	20-Dec-18	
Project Name & Location:	Former Newsday Facility, 235 Pinelawn Road, Melville, NY			
Possible Risks at a Glance		Engineering Controls at a Glance		
1. Vehicular traffic; 2. Muscle strains from lifting or repetative motion injury; 3. Lacerations; 4. Slip/Trip/Fall hazards due to equipment, debris, and/or slippery surfaces; and 5. Exposure to contaminated vapors and/or water.		Mechanical Pumps or Pump Assists		
		Work Practice Controls at a Glance		
		Wear appropriate PPE Use an organic vapor meter for site with volatile compounds		
		Personal Protective Equipment at a Glance		
		Level D PPE including: safety glasses, steel-toe boots, reflective vest Splash Protection as needed: Face Shield, Goggles, Long Gloves		
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Set up necessary traffic and public access controls	1. Personnel could be hit by vehicular traffic.	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic. Unload as close to work area as safely as possible.	
			Use personnel vehicle as an added barrier where possible.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
2	Open monitoring well and remove expansion plug	Lacerations/abrasions during removal of roadbox cover. Exposure to volatile compounds following removal of expansion plug	Use long sockets or socket extension to mitigate the change to lacerate/abrade hand during opening of road box	
			For wells where volatiles may have accumulated use a string to remotely remove the expansion plug to allow volatiles to dissipate. Use a organic vapor monitor to measure VOC	
3	Insertion of inertial lift pump, or electrical submersible pump	Splash hazard Loss of equipment in well	Use caution when inserting pump into well. Make sure connections to pumps are secure and where applicable use secondary line to secure pump	
4	Well development	Repetative Motion Injury	Use caution, change hands, take breaks when using manually operated inertial lift pumps or use an electrically operated assist to operate the inertial lift pump.	
		Electrical Hazard Electrically operated submersible pumps or electrically operated assist require a power source often a car battery or power inverter.	Make sure to connect wire leads to appropriate charge of battery (positive/negative). Use supplied connectors, sufficient lengths of wire to complete pump connection. Inspect wire for shorts, snags, or compromised insulation. Repair or replace damaged wires prior to use.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
			Make sure amperage of inverters is sufficient to power the equipment. Prevent accidental cross connections (e.g., contact of wires or connectors other than to the appropriate connection location).	
			Make sure appropriate wire gauge is used to connect pumps to power source. Incorrect wire gauge may lead to equipment damage, short circuit, and/or fire	
			Maintain control of wiring connections or use appropriate lock-out tag-out procedures	
			Make sure pump is appropriately sized for depth to water, certain pumps may short or malfunction when pumped dry.	
		Lacerations can occur when cutting materials, such as plastic tubing.	When cutting items, use proper cutting tools. When possible, wear leather safety gloves.	
3	Well Pumping	Splash hazard Inhalation Hazard	Collect water in appropriate container for contaminant present.	
			Stand back or use splash protection to prevent contact with well water	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
			For sites with volatile conaminantes use a organic vapor monitor to measure VOC	
4	Purge water management.	1. Moving containers can cause back injury and/or pinching/crushing injury.	Employ proper lifting techniques and body positioning. Don't carry more than you can handle; get assistance from an associate or a lift assist device for heavy objects. Wear leather work gloves and clear all walking and work areas of debris.	
		2. Spilling or splashing of purge water.	Make sure that purge water is properly contained with a lid to avoid spilling/splashing the purge water. Wear long sleeve shirts while sampling.	



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Task to Be Performed:	Monitoring Well Installation	Analyzed By:	Chris Cook	
		Date	20-Dec-18	
Project Name & Location:	Former Newsday Facility, 235 Pinelawn Road, Melville, NY			
Possible Risks at a Glance		Engineering Controls at a Glance		
Possible risks include associated with groundwater sampling include: 1. Vehicular traffic; 2. Potential to encounter utilities; 3. Excessive noise; 4. Drill rig moving and heated mechanisms; 5. Muscle strains from lifting; 6. Eye injury from dust and debris; 7. Lacerations; 8. Muscle strain from heavy lifting; and 9. Slip/Trip/Fall hazards due to equipment, debris, and/or slippery surfaces.		None		
		Work Practice Controls at a Glance		
		Wear appropriate PPE, practice safe drilling and installation techniques.		
		Personal Protective Equipment at a Glance		
		Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, hearing protection, work gloves, hard hat, and reflective safety vest.		
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Set up necessary traffic and public access controls	1. Personnel could be hit by vehicular traffic.	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic. Unload as close to work area as safely as possible.	
2	Utility Clearance	1. Potential to encounter underground or aboveground utilities while drilling.	Complete utility clearance using State One Call, GPR services, and/or hand augur to 5 feet bgs.	
3	General drill rig operation	1. Excessive noise is generated by rig operations.	When the engine is used at high RPMs or soil samples are being collected, use hearing protection.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	
3	General drill rig operation	2. During drill rig operation, surfaces will become hot and cause burns if touched, and COCs in the soil will more readily vaporize generating airborne contaminants.	Use caution handling equipment and wear proper work gloves. Air monitoring should be performed in accordance with the HASP to monitor the potential volatilization of COCs.	
		3. Moving parts of the drilling rig can pull you in, causing injury. Pinch points on the rig and auger connections can cause pinching or crushing of body parts.	Stay at least 5 feet away from moving parts of the drill rig. Know where the kill switch is, and have the drillers test it to verify that it is working. Do not wear loose clothing and tie back long hair. Avoid wearing jewelry when drilling. Cone off work area to keep general public away from the drill rig.	
		4. Dust and debris can cause eye injury and soil cuttings and/or water could contain COCs.	Wear safety glasses and stay as far away from actual drilling operation as practicable. Wear appropriate gloves to protect from COCs.	
		5. Drilling equipment laying on the ground (i.e. augers, split spoons, decon equipment, coolers, etc.) create a tripping hazard. Water from decon buckets generate mud and cause a slipping hazard.	Keep equipment and trash picked up and store away from the primary work area. Wear footwear with ankle support.	
		6. The raised derrick can strike overhead utilities, tree limbs, or other elevated items.	Never move the rig with the derrick up. Ensure there is proper clearance to raise the derrick. Ensure that you are far enough away from overhead power lines.	
4	Monitoring well installation	1. Monitoring well construction materials can clutter the work area causing tripping hazards.	Well construction materials should be picked up during the well installation process.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	
4	Monitoring well installation	2. Heavy lifting can cause muscle strains.	Use proper lifting and reaching techniques and body positioning; don't carry more than you can handle and get help moving heavy or awkward objects.	
		3. Lacerations can occur when cutting materials, such as bags or plastic tubing.	When cutting items, ensure that proper cutting tools are utilized. When possible, wear leather safety gloves.	
		4. Well packed material (i.e. sand, grout, bentonite) can become airborne and get in your eyes.	Wear safety glasses for protection from airborne sand and dust.	
		5. Cutting the top of the well to size can cause jagged/sharp edges on the top of the well casing.	Wear gloves when working with the top of the well casing, and file any sharp jagged edges that resulting from cutting to size.	
5	Soil cutting and purge water management.	1. Moving full drums can cause back injury and/or pinching/crushing injury.	Employ proper lifting techniques and body positioning. Don't carry more than you can handle; get assistance from an associate or a lift assist device for heavy objects. Wear leather work gloves and clear all walking and work areas of debris prior to moving a drum.	



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Task to Be Performed:	Sediment Sampling	Analyzed By:	Chris Cook	
		Date	20-Dec-18	
Project Name & Location:	Former Newsday Facility, 235 Pinelawn Road, Melville, nY			
Possible Risks at a Glance		Engineering Controls at a Glance		
Possible risks include associated with groundwater sampling include: 1. Pinch/crush hazards; 2. Slip, trip, and fall hazards; 3. Chemical exposure; 4. Lacerations; and 5. Muscle strains from lifting and/or bending.		None		
		Work Practice Controls at a Glance		
		Wear appropriate PPE, practice safe sampling techniques.		
		Personal Protective Equipment at a Glance		
		Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, work gloves, hard hat, and reflective safety vest.		
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Setup/demobilize sampling and probing equipment.	1. Pinch/crush hazards while erecting tripod, installing vibracore barrel, placing spuds (if equipped).	Wear protective gloves that maintain dexterity. Identify areas of concern and keep hands clear. Do not hurry through task.	WS
		2. Muscle strain from lifting barrel, tripod, or moving other equipment.	Use proper lifting techniques and body positioning. Don't carry more than you can handle and get help moving heavy or awkward objects.	WS



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		3. Hand injuries can be caused by rough edges on equipment, metal sheeting, or during cutting items such as rope.	Wear protective gloves that maintain dexterity. Identify areas of concern and keep hands clear. Do not hurry through task. Take the time to correct/ protect sharp or protruding edges.	WS
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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
2	Collection of Sediment Samples	1. Slips, trips, and falls caused by wet/slippery conditions, steep slopes, clayey sediments, and/or rocks.	Wear anti-slip footwear with ankle support. Do not hurry through the task and ensure adequate illumination if working during non-daylight hours.	WS
		2. Hand injuries, including cuts and lacerations, can occur when collecting samples.	Wear protective gloves and do not reach into nose of devices with cutting edges or teeth. If cutting liners, use proper tool for the job and wear cut-resistant gloves under nitriles.	WS
		3. Muscle strain can occur when lifting drums with large sample volumes.	Break sample volume down into manageable portions if a large volume of sediment is collected.	WS
		4. Chemical exposure can occur from contact with potentially impacted media.	Wear protective clothing prescribed by HASP. Avoid conditions that create splashing.	WS
3	Sediment Sample Management and Logging	1. Awkward bending for prolonged periods of time can cause muscle strain.	Take the time to setup/prepare a logging area where neutral body positions can be maintained. Keep sample coolers and equipment out of areas that promote work to be performed in awkward positions.	WS
		2. Hands and knees can become sore or stiff when kneeling and working with equipment for extended periods of time.	See neutral positions above, if kneeling is required use knee pads or padding. Do not rest body weight on hands for extended periods of time.	WS
		3. Tripping hazard from equipment and sample media.	Maintain good housekeeping and keep used mixing bowls and similar equipment organized and out of walkways. Keep garbage controlled and secure and ensure that sample coolers are out of designated walkways.	WS



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Task to Be Performed:	Soil Sampling	Analyzed By:	Christopher K. Cook	
		Date	20-Dec-18	
Project Name & Location:	Former Newsday Facility, 235 Pinelawn Road, Melville, NY			
Possible Risks at a Glance		Engineering Controls at a Glance		
Possible risks include associated with groundwater sampling include: 1. Vehicular traffic; 2. Potential to encounter utilities; 3. Excessive noise; 4. Drill rig moving and heated mechanisms; 5. Muscle strains from lifting; 6. Eye injury from dust and debris; 7. Lacerations; 8. Hand strains and blisters; and 9. Slip/Trip/Fall hazards due to equipment, debris, and/or slippery surfaces.		None		
		Work Practice Controls at a Glance		
		Wear appropriate PPE, practice safe boring and sampling techniques.		
		Personal Protective Equipment at a Glance		
		Level D PPE including safety glasses, steel-toe boots, chemical resistant gloves, hearing protection, work gloves, hard hat, and reflective safety vest.		
Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
1	Set up necessary traffic and public access controls	1. Personnel could be hit by vehicular traffic	Set up cones and establish work area. Position vehicle so that field crew is protected from site traffic.	
2	Utility Clearance	1. Potential to encounter underground or aboveground utilities while drilling.	Complete utility clearance using State One Call, GPR services, and/or hand augur to 5 feet bgs.	
3	Installation of boring using drill rig.	1. Excessive noise is generated by rig operations.	When the engine is used at high RPMs or soil samples are being collected, use hearing protection.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
3	Installation of boring using drill rig.	2. During drill rig operation, surfaces will become hot and cause burns if touched, and COCs in the soil will more readily vaporize generating airborne contaminants.	Use caution handling equipment and wear proper work gloves. Air monitoring should be performed in accordance with the HASP to monitor the potential volatilization of COCs.	
		3. Moving parts of the drilling rig can pull you in, causing injury. Pinch points on the rig and auger connections can cause pinching or crushing of body parts.	Stay at least 5 feet away from moving parts of the drill rig. Know where the kill switch is, and have the drillers test it to verify that it is working. Do not wear loose clothing and tie back long hair. Avoid wearing jewelry when drilling. Cone off work area to keep general public away from the drill rig.	
		4. Dust and debris can cause eye injury and soil cuttings and/or water could contain COCs.	Wear safety glasses and stay as far away from actual drilling operation as practicable. Wear appropriate gloves to protect from COCs.	
		5. Drilling equipment laying on the ground (i.e. augers, split spoons, decon equipment, coolers, etc.) create a tripping hazard. Water	Keep equipment and trash picked up and store away from the primary work area. Wear footwear with ankle support.	
		6. The raised derrick can strike overhead utilities, tree limbs, or other elevated items.	Never move the rig with the derrick up. Ensure there is proper clearance to raise the derrick. Ensure that you are far enough away from overhead power lines.	
4	Installation of boring using hand auger, sample probe, and/or trowel	1. Muscle strains from pulling/pushing could occur when installing the boring and when removing the auger from the hole.	Stretch out back/arms/shoulders prior to beginning activities. Using a firm grip on the handle, slowly turn the auger and progress downward in 6" increments. Slowly pull the auger from the hole using legs and proper lifting techniques. Ask for assistance if necessary.	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
4	Installation of boring using hand auger, sample probe, and/or trowel	2. Hand strain and blisters could develop from prolonged hand augering.	Select proper gloves for the task (wear padded mechanics glove when turning auger). If hot spots develop on hands, re-adjust gloves or change to better padded gloves.	
		3. Over-exertion could occur when trying to force an auger forward if there is refusal.	If refusal occurs, stop work. Remove auger from the hole and check hole with flashlight. Do not over-exert by using excessive force.	
		4. Fatigue can occur due to strenuous nature of hand augering activities.	Take rest breaks as needed or switch out task with another employee.	
5	Collection of soil sample	1. Contact with impacted soils	Wear chemical protective gloves as outlined in the HASP and wear safety glasses.	
		2. Sharp edges and broken glassware can cause lacerations.	Discard any broken sample containers or glass properly. Do not overtighten containers. Wear cut-resistant gloves when handling sample containers.	
		3. Containerizing and moving soil cuttings can cause muscle strains.	Dispose of leftover soil cuttings in a drum or bucket and dispose properly. Only fill buckets half full due to weight and strength of bucket. Wear leather work gloves and use good lifting techniques when handling buckets.	
6	Decontamination of hand auger, sample probe, and/or trowel	1. Exposure to COCs during equipment decontamination.	Wear chemical protective gloves as outlined in the HASP and wear safety glasses.	
		2. The end of the auger/probe has sharp/pointed edges; lacerations can occur.	Use a brush to scrub off soils. Wear cut-resistant gloves when handling auger. Do not reach into	



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Step #	Specific Steps in the Task	Hazards and Risks by Step That Must Be Controlled	Precautions Actions to Avoid the Risks	Responsible Person
7	Fill in sample location	1. Open boreholes are a trip hazard.	Fill in holes with sand or bentonite. Pack down chips as best as possible, adding water as necessary.	
		2. Muscle strain can occur from lifting bags of sand and/or bentonite.	Use proper lifting techniques and body positioning.	

TAILGATE SAFETY MEETING FORMS

NEAR MISS/INCIDENT REPORT FORMS

SAFETY DATA SHEETS (SDS)

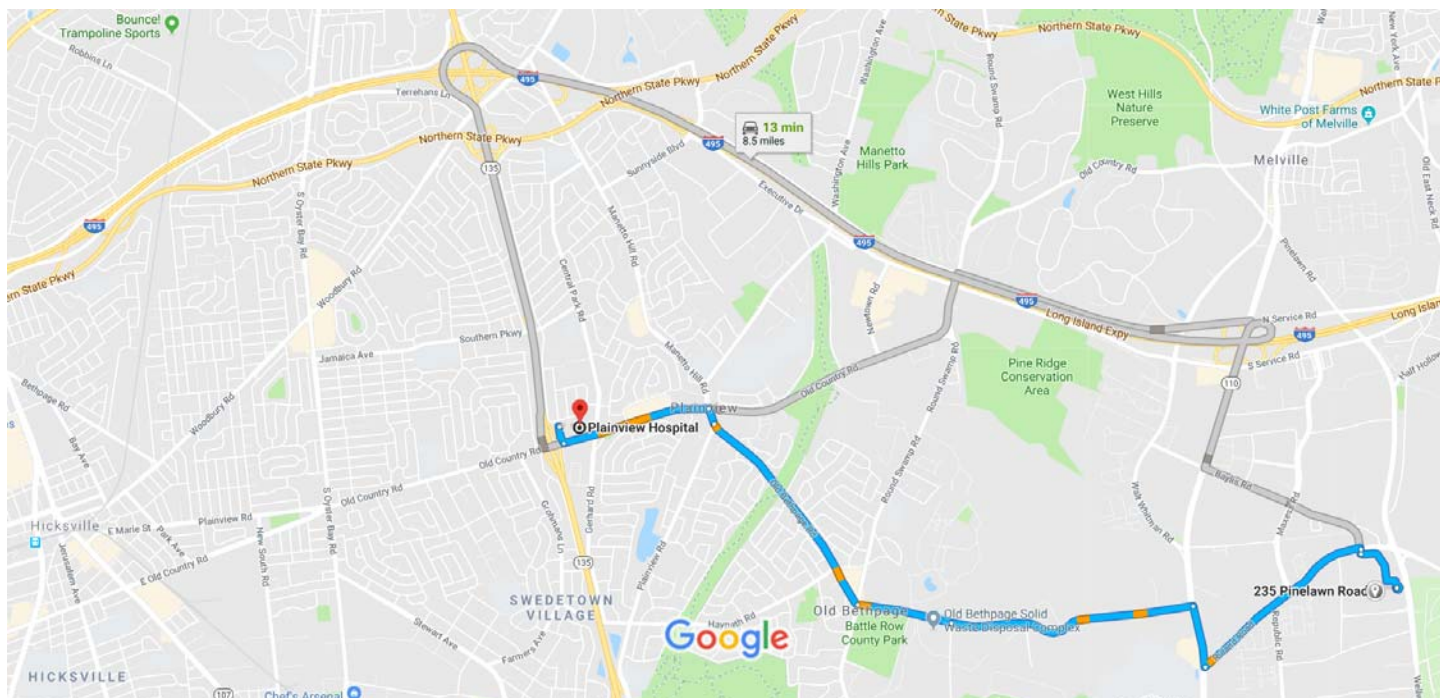
List the Safety Data Sheets for any chemicals that will brought to the site by VERTEX or our subcontractors.

DIRECTIONS TO THE HOSPITAL



235 Pinelawn Rd, Melville, NY 11747 to Plainview Hospital

Drive 5.2 miles, 13 min



Map data ©2018 Google 2000 ft

235 Pinelawn Rd

Melville, NY 11747

Continue to Ruland Rd

2 min (0.3 mi)

↑ 1. Head southeast toward Ruland Rd

30 ft

↶ 2. Turn left

190 ft

↷ 3. Turn right

0.3 mi

↷ 4. Turn right toward Ruland Rd

105 ft

Continue on Ruland Rd. Take Spagnoli Rd, Old Bethpage Rd and Old Country Rd to Kalda Ln in Plainview

12 min (4.8 mi)

↶ 5. Turn left at the 1st cross street onto Ruland Rd

0.9 mi

↷ 6. Turn right onto Broadhollow Rd

0.3 mi

↶ 7. Use the left 2 lanes to turn left onto Spagnoli Rd

1.2 mi

- 

8. Continue onto Bethpage-Sweet Hollow Rd

0.5 mi
- 

9. Continue onto Old Bethpage Rd

1.1 mi



Pass by 7-Eleven (on the right)
- 

10. Continue onto Plainview Rd

400 ft
- 

11. Turn left onto Old Country Rd

0.7 mi



Pass by Chase Bank (on the right in 0.2 mi)

Follow Kalda Ln to your destination

- 

12. Turn right onto Kalda Ln

20 s (456 ft)
- 

13. Turn right

440 ft
- 

13. Turn right

16 ft

Plainview Hospital

888 Old Country Rd, Plainview, NY 11803

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

