July 1, 2014

Mr. Gregory Sutton
NYSDEC, Region 9
270 Michigan Avenue
Buffalo, New York 14203

Re: Supplemental Site Characterization Report
Former Nash Road Landfill
Town of Wheatfield
Niagara County, New York
NYSDEC Site # 932054

Dear Mr. Sutton:

Groundwater & Environmental Services, Inc. (GES) has prepared the enclosed *Supplemental Site Characterization Report* the Former Nash Road Landfill site; located in the Town of Wheatfield in Niagara County, New York. The work was completed in accordance with the revised call-out issued by New York State Department of Environmental Conservation (NYSDEC) on March 24, 2014 as well as the NYSDEC-approved *Supplemental Site Characterization Workplan* prepared by GES and submitted on March 27, 2014.

If you have any questions or comments, please do not hesitate to contact GES at your convenience.

Sincerely,

GROUNDWATER & ENVIRONMENTAL SERVICES, INC.

Eric D. Popken
Project Manager

Enclosure

SUPPLEMENTAL SITE CHARACTERIZATION REPORT

Former Nash Road Landfill
Town of Wheatfield
Niagara County, New York
NYSDEC Site #932054

Prepared for

New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203

Report Date

July 1, 2014

Prepared By:

Thomas Palmer
Staff Geologist

Reviewed By:

Eric D. Popken
Project Manager

GROUNDWATER & ENVIRONMENTAL SERVICES, INC.
495 Aero Drive, Suite 3
Cheektowaga, New York 14225
1-800-287-7857

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1.0 INTRODUCTION

Groundwater & Environmental Services, Inc. (GES) has prepared this *Supplemental Site Characterization Report* for the Former Nash Road Landfill located in the Town of Wheatfield in Niagara County, New York. The purpose of this investigation is to further characterize and delineate the extent of the waste in the western section of the landfill and to clarify several anomalies that were detected during previous site characterization activities.

2.0 PREVIOUS SITE INVESTIGATIONS AND HISTORICAL DOCUMENTS

Previous site investigations included Phase II site investigations conducted in 1985 and 1989 prepared by Engineering-Science for NYSDEC. According to the 1989 *Phase II Site Investigation*, the Nash Road Landfill site was operated by the Niagara Sanitation Company between 1964 and 1968 for disposal of municipal and industrial wastes. NYSDEC records show that the site was used for disposal by the Niagara Falls Air Force Base, Bell Aerospace, Carborundum, Frontier Chemical, Graphite Specialties, Continental Can, and Grief Brothers. In June 1968, approximately 1,600 cubic yards of material excavated from a sewer relocation project along Frontier Avenue (associated with the construction of the LaSalle Expressway) near the Love Canal site in Niagara Falls, New York was disposed at the Nash Landfill site in the eastern area of the site. Records indicated that the material contained chemical wastes.

The 1985 *Phase II Investigation Report* was initially conducted across the site; however concerns regarding the portion of the site that received the Love Canal material prompted the 1989 study. In 2013, a supplemental site characterization was conducted to further characterize soil and water conditions, both at the surface and below grade. The 2013 investigation included the advancement of thirteen soil borings and five shallow monitoring wells in the eastern area of the site where it has been reported that chemical waste had been buried and covered with fill.

3.0 SITE CHARACTERIZATION WORKPLAN

On March 27, 2014, GES submitted the NYSDEC-approved *Supplemental Site Characterization Work Plan* for the site, which included an outline for plans to further characterize and delineate impacts previously discovered on-site, to assist NYSDEC in determining if the site poses a significant threat to public health and the environment from the possible exposure of industrial wastes that were reportedly disposed at the site. The scope of work included a site walk over, the installation of additional soil borings and monitoring wells, and groundwater sampling.

4.0 SITE INSPECTION / SURVEY / SETTING

On March 21, 2014, GES met representatives from NYSDEC to inspect the current site conditions and to select soil boring and monitoring well locations based on an examination of potential evidence of dumping and/or environmental contamination and site access.

The site is bordered to the north by the Holy Infant Shrine, to the east by a cemetery as well as property that contains a motel and livery service, to the south by utility right-of-ways (both overhead electric and underground natural gas and brine lines), followed by residences, and to the west by Nash Road, followed by residences. A site location map for the site is provided in **Figure 1**.

The site is wooded with mature trees, dense brush, and patches of phragmites in wet areas, as shown in **Figure 2**. The site contained swamplands before land filling began. The site is poorly drained and contains several ponds and areas of standing water. Since land filling began, portions of the property are covered with surface water at certain times of the year, particularly in the spring and early summer. Further details on site drainage are included in the 2013 *Supplemental Site Characterization Report*.

Site topographically overall is flat with less than ten feet of relief, however land filling of wastes and excavation of a disposal trench has resulted in irregular ground surface topography. Numerous mounds of soil/fill material were observed. Waste material was observed to be obtruding from the mounds. During the visit, evidence of partially buried waste were observed across the site, including tires, deteriorated drums, broken battery casings, glass, metal and plastic debris, and mounds of fill material. These observations were used to determine soil boring and monitoring well locations.

There were numerous indications of trespass, including residential dumping, clusters of beverage cans, and all-terrain vehicle (ATV) & walking trails. The site is not fenced or secured. "No Trespassing" signs were placed in some locations along the perimeter of the site, however they are in derelict condition and most were covered in overgrowth.

5.0 SUBSURFACE INVESTIGATION

From April 14 through 21, 2014, TREC Environmental, Inc. (TREC), of Spencerport, New York, under the supervision of GES, advanced 24 soil borings (SB-N through SB-KK) using an Geoprobe® 6620DT track-mounted direct push drill rig. Soil borings were advanced to depths ranging from six to sixteen feet below grade (ftbg). Of the 24 soil borings, seven of the borings were converted to groundwater monitoring wells (OW-31 through OW-37). While the 2013 subsurface investigation was focused in the eastern area of the site, the 2014 subsurface investigation was focused on the remainder of the site to further characterize and delineate the extent of the waste in the landfill and to clarify several anomalies that were detected during previous site characterization activities. It should be noted that some areas were inaccessible, specifically areas covered by standing water or dense brush. A table showing the general analytical sampling matrix is provided as **Table 1**.

5.1 Soil Borings

Soil samples were collected in approximate two to four-foot intervals via macro-core sampling. Soil samples were logged by GES personnel for color, moisture content, grain size, and visual evidence of hydrocarbon impact. A portion of each sample collected was placed into a re-sealable plastic bag and screened for the presence of volatile organic vapors. GES personnel used a MiniRAE 2000 photo-ionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp which was calibrated to a 100 parts per million by volume (ppmv) isobutylene standard. From soil borings with elevated PID readings, the sample that recorded the highest PID reading from was submitted to TestAmerica Laboratories, Inc. for laboratory analysis of VOCs via USEPA Method 8260, SVOCs via USEPA method 8270, pesticides via USEPA method 8081, herbicides via USEPA method 8151, and RCRA-8 metals via USEPA Method 6010B.

On May 14, 2014, based on a review of the analytical report for the soil boring samples, additional laboratory analyses were ordered. Soil samples collected from SB-N, SB-R, SB-T, SB-U, SB-V, SB-X, and SB-Z were analyzed for analysis via Toxicity Characteristic Leaching Procedure (TCLP) Method

6010C/6470A for select metals that exceeded NYSDEC standards. In addition, notes included in the laboratory analytical report for the initial round of analyses for SVOCs indicated the presence of Aroclors in the samples. Further discussion with the lab revealed that the soil sample collected from SB-N (0-2'). Therefore laboratory analysis for poly-chlorinated biphenyls (PCBs) via USEPA Method 8082 were performed for the sample collected from SB-N (0-2').

At soil borings SB-N, SB-T, SB-BB, and SB-II, additional samples were collected based on field observations made. Slightly elevated PID readings and solvent odors in SB-CC prompted the addition of SB-DD and SB-EE (located in the vicinity of SB-CC) to the scope of work to field screen for the observed soil conditions in the northwest area of the site, therefore soil samples were not collected from soil borings SB-DD and SB-EE.

The soil boring locations, with respect to the site layout are illustrated on **Figure 2**. Soil boring logs containing soil lithology, field screening readings and general observations are included in **Appendix A**.

5.2 Monitoring Well Installation

Of the 24 soil borings, seven of the borings were converted to groundwater monitoring wells (OW-31 through OW-37). The table below summarizes the soil borings and their corresponding monitoring wells.

Soil Boring	Monitoring Well	Total Depth (ftbg)	Screened Interval (ftbg)
SB-S	OW-31	6	1-6
SB-T	OW-32	10	5-10
SB-W	OW-33	9	4-9
SB-Y	OW-34	12	7-12
SB-BB	OW-35	9	4-9
SB-DD	OW-36	9	4-9
SB-II	OW-37	6	1-6

The monitoring wells were constructed with two inch inner diameter polyvinyl chloride (PVC) flush-threaded pipe. The wells were installed to depths ranging from six to twelve ftbg in the shallow sandy water-bearing zone identified in the previous site investigations, as well as during this investigation. The screen openings were 0.01 inch machine slotted. The wells were completed with a sand filter pack surrounding the wells screen to a height of six to twelve inches above the top of the screen, followed by a bentonite seal. The wells were installed to rise approximately two to three feet above grade and were completed with four inch diameter steel protective casings and locks.

5.3 Site Survey

On May 2, 2014, GES surveyed the site using a Trimble GeoXH hand held Global Positioning System (GPS) unit with a Trimble GeoBeacon receiver. GPS data was collected to map the location of the newly installed soil borings and monitoring wells, boundaries of surface water bodies, items observed during the and other pertinent site features. The data was entered into a Geographic Information System (GIS) database to produce the maps presented in this report. The site map was generated from available aerial maps for the site. Coordinates for all sample points are provided in **Appendix B** for future reference.

5.4 Monitoring Well Development

Following installation of the monitoring wells, the wells were developed in order to repair damage to the formation caused by drilling activities and increase the porosity/permeability of the materials surrounding the well screen. The well development served to remove foreign materials from the groundwater, well annulus, or well screen during and/or after well installation, and to facilitate hydraulic communication between the formation and the well screen.

The wells were developed via mechanical surging method using a surge block device. The surge block can be used effectively to destroy the bridging of the fine formation particles and to create the agitation that is necessary to develop the well. The surge block technique was used alternatively with manual bailing so that material that has been agitated and loosened by the surging action could be removed. The surge block assembly was of sufficient weight to free-fall through the water in the well and creates a vigorous outward surge. Surging began at the top of the well intake so that sand or silt loosened by the initial surging action could not cascade down on top of the surge block and prevent removal of the surge block from the well. Surging was initially conducted slowly, with the energy of the action increasing during the development process. Surging and bailing was conducted until either water clarity was improved or until the wells could not sustain further purging.

5.5 Monitoring Well Sampling

On May 19 & 20, 2014, GES conducted low-flow groundwater sampling activities at newly installed monitoring wells OW-31 through OW-37, and existing shallow monitoring wells OW-16.

Prior to sampling, gauging was performed to determine static water levels and the presence of non-aqueous phase liquids (NAPL) using an oil/water interface probe. The interface probe measures depth to groundwater and phase separated hydrocarbons to the nearest ± 0.01-foot. The interface probe was decontaminated prior to use and between wells utilizing a tap water and Alconox™ rinse to prevent cross-contamination. NAPL was not detected in the wells.

Groundwater sampling was conducted using low-flow sampling techniques to collect groundwater samples at all groundwater monitoring well locations. Groundwater was extracted using a peristaltic pump with dedicated tubing for each monitoring well. Field groundwater parameters, including temperature, pH, conductivity, dissolved oxygen, and oxidation/reduction potential were collected during the low-flow sampling at each well using a YSI 556 Water Quality Meter water quality meter equipped with a flow through cell. Turbidity readings were collected using a LaMotte 2020 Turbidity Meter. Field groundwater parameters were recorded and are provided in **Appendix C**.

Groundwater samples were collected in lab supplied bottleware and submitted to TestAmerica for laboratory analysis of VOCs via USEPA Method 8260, SVOCs via USEPA method 8270, pesticides via USEPA method 8081, herbicides via USEPA method 8151, and RCRA-8 metals via USEPA Method 6010B.

GES surveyed the top of casing (TOC) elevations of monitoring wells OW-31, OW-32, and OW-37 using standard laser level survey methods. Collected TOC elevations were referenced to the TOC elevations of existing monitoring wells, and were measured to the nearest ± 0.01 foot. TOCs could not be collected and referenced to existing monitoring wells from OW-33 through OW-36 due to seasonal overgrowth.

6.0 SUBSURFACE INVESTIGATION RESULTS

6.1 Lithology and Field Observations

The soil boring locations, with respect to the site layout are illustrated on **Figure 3**. Coordinates for all soil boring locations were collected using the GPS unit and are provided in **Appendix B** for future reference. Soil boring logs containing soil lithology, field screening readings and general observations are included in **Appendix A**.

In general, three distinct lithological layers were encountered during the subsurface investigation: fill material, a sand interval, and a clay interval that extended to the termination depth of the investigation. These layers were consistent with the upper layers encountered during previous subsurface investigations. A summary of the observed site lithology and field observations are described below:

- FILL – Fill material containing varying degrees of silt, clay & sand, organics, and debris. The debris primarily consisted of a mixture of glass, plastic, wood and metal, though rubber, ash, cinders, slag, tile, and bricks were observed as well at some locations. Fill material was generally observed from the surface to depths ranging from two to six ftbg. Lower sample recovery was encountered in this interval.
  SB-AA was advanced from the top of a prominent mound at the southwest corner of the site. It was estimated that the mound is approximately 8-10 feet tall relative to the surrounding land. The lithologies throughout its thickness consisted entirely of clay with no debris and only trace amounts of non-clay soil types. It is likely that this mound is man-made and may have be part of the landfill operations in the 1960s.
- SAND – fine to medium and/or coarse sand was observed below the fill material. The sand layer was typically observed at depths ranging from 4 to 10 ftbg with an average thickness of 4.4 ft. The sand interval was not encountered at SB-CC; fill material was observed throughout the soil boring until boring refusal at 6 ftbg. The sand interval was also not observed at SB-AA as that soil boring was only advanced to characterize the lithology and characteristics of the clay mound.
  At SB-EE, the sand interval was only 0.5 ft thick. Wet to saturated conditions indicative of the shallow water table aquifer were generally observed at depths ranging from 3 ftbg to 6 ftbg and were generally observed in the sand interval.
- CLAY – Brown or grey, hard, clay was typically encountered below the sand interval. The clay layer was often less saturated than the sand lens and may be acting as an aquitard for the shallow aquifer discussed in previous environmental investigations. The clay layer extended to the termination of all soil borings with the exception of SB-CC, where fill material was observed throughout the soil boring until boring refusal at 6 ftbg, and SB-AA, as that soil boring was only advanced to characterize the lithology and characteristics of the clay mound.
- Solvent odors were observed in several soil borings, including SB-Q, SB-T, SB-CC, SB-DD, SB-EE, SB-GG, and SB-HH. These odors were generally observed in the fill material and the sand interval.
- PID screening results were typically less than 1.0 ppmv throughout the site, with the exception of SB-CC (15.6 ppmv) and SB-DD (15.8 ppmv). Both of these soil borings are located in the northwestern area of the site.
- NAPL was not observed in any of the soil samples.

6.2 Soil Boring Sample Analytical Results

Soil boring analytical data are tabulated in **Table 2** (metals, pesticides, herbicides, VOCs, and SVOCs), **Table 3** (TCLP metals), and **Table 4** (PCBs). The laboratory analytical reports are included in **Appendix D**. All subsurface soil analytical results were compared to guidelines provided in 6 NYCRR Part 375, Residential Use SCOs. A summary of the analyzed compounds is provided below:

- Metals – Concentrations of metals were detected above residential SCOs at soil borings SB-N (barium, cadmium, total chromium, and mercury), SB-R (total chromium), SB-T (cadmium, total chromium, mercury), SB-U (barium, cadmium, total chromium, lead, silver, and mercury), SB-V (arsenic, barium, cadmium, total chromium, lead, silver, and mercury), SB-W (arsenic, barium, cadmium, total chromium, lead, silver, and mercury), SB-X (arsenic, total chromium, and lead), and SB-Z (cadmium).
- TCLP Metals – Concentration of lead exceeded the hazardous waste threshold (5.0 milligrams per liter [mg/l]) as per 40 CFR Part 261, Subpart C for toxicity for the samples analyzed from SB-R (8.9 mg/l) and SB-U (37.6 mg/l).
- Pesticides – Concentrations of pesticides were detected above residential SCOs at soil borings SB-N, SB-U, SB-V, SB-W, and SB-X. Elevated concentrations of pesticides consisted primarily of dieldrin.
- Herbicides – Herbicides were not detected above laboratory detection limits in any of the soil boring samples.
- VOCs – Concentrations of VOCs were not detected above residential SCOs in any of the soil boring samples.
- SVOCs – Concentrations of SVOCs were detected above residential SCOs at soil borings SB-N, SB-U, SB-V, and SB-W. Detected SVOCs primarily consisted of various PAHs.
- PCBs – Concentration of PCBs at SB-N (68 milligrams per kilogram [mg/kg]) exceeded the residential SCO of 1 mg/kg, and the industrial SCO of 25 mg/kg. In addition, since the sample was collected from 0-2 ftbg, it may also exceed CP-51 SCO of 1 ppm for surface soil.

Compounds exceeding SCOs are shown on **Figure 3**.

6.3 Shallow Aquifer Hydrogeology

Groundwater gauging, analytical, and TOC data are tabulated in **Table 5**. A Groundwater elevation map based on the monitoring well gauging data and TOC elevations from the shallow aquifer wells sampled during this investigation are presented on **Figure 4**. As shown on **Figure 4**, at the time of the investigation, groundwater in the shallow aquifer generally flows to the north across the site. Groundwater flow may be influenced by surface hydrology, which in turn may be influenced by past dumping and grading activities.

As noted above, seasonal overgrowth prevented the collection of TOC elevations at OW-33 through OW-36. Additional details on groundwater flow may be gained from the calculated groundwater elevations from these locations; however, the current groundwater flow pattern is generally consistent with the results of the 2013 investigation which found that groundwater was generally flowing to the north.

6.4 Groundwater Analytical Results

Groundwater analytical data are tabulated in **Table 5.** The laboratory analytical reports are included in **Appendix D**. All groundwater analytical results were compared to NYSDEC TOGS 1.1.1 standards (or guidance values where no standard exists) Class GA, type H (WS) for protection of drinking water. A summary of the analyzed compounds is provided below:

- Metals – Concentrations of metals were not detected above TOGS 1.1.1 standards or guidance values at monitoring wells in any of the groundwater samples.
- Pesticides – Concentrations of pesticides were detected above TOGS 1.1.1 standards or guidance values at all monitoring wells with the exception of OW-16. Monitoring wells OW-31, OW-32, and OW-37 contained numerous detections of pesticides above standards or guidance values.
- Herbicides – Herbicides were not detected above laboratory detection limits in any of the groundwater samples.
- VOCs – Concentrations of VOCs were detected above TOGS 1.1.1 standards or guidance values at monitoring wells OW-16, OW-35, OW-36, and OW-37.
- SVOCs – Concentrations of SVOCs were detected above TOGS 1.1.1 standards or guidance values at all monitoring wells. Elevated SVOCs consisted primarily of phenolic compounds.

Compounds exceeding SCOs are shown on **Figure 5**.

7.0 SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Provided below is a brief discussion of the results and recommendations for future actions.

7.1 Subsurface Soil Contaminant Distribution and Exposure

As described in Section 6.2, elevated concentrations of contaminants, including pesticides, PCBs, SVOCs, and metals were detected in the soil boring samples. Based on the laboratory analytical data from the 2013 and 2014 investigations, a summary of the spatial distribution of contaminants is provided:

- Metals – As shown on **Figure 6**, concentrations of metals exceeding SCOs are generally located in the central portion of the site (where historical documentation showed that unspecified dumping activities were performed), and the eastern portion of the site (where chemical waste was reported to have been dumped).
  In addition, concentration of lead exceeded the hazardous waste threshold at SB-R and SB-U. A conservative estimate that assumes an impacted area bound by surrounding non-impacted (assumed) soil borings would cover an area (as shown on **Figure 7**) of approximately 45,000 square feet at SB-R, with an estimated thickness of 1 foot (4-5 ftbg) and 36,000 square feet at SB-U, with an estimated thickness of 4 feet (0-4 ftbg). This would equal an estimated volume of soil impacted with hazardous levels of lead of approximately 1,600 cubic yards at SB-R, and 5,000 cubic yards at SB-U. Additional soil borings in these areas would need to be conducted in order to more accurately estimate this area.
- Pesticides – As shown on **Figure 8**, with the exception of SB-N, concentrations of pesticides exceeding SCOs are generally located the eastern portion of the site, where chemical waste was reported to have been dumped.
- Herbicides – Herbicides were not detected in either the 2013 or 2014 investigations.

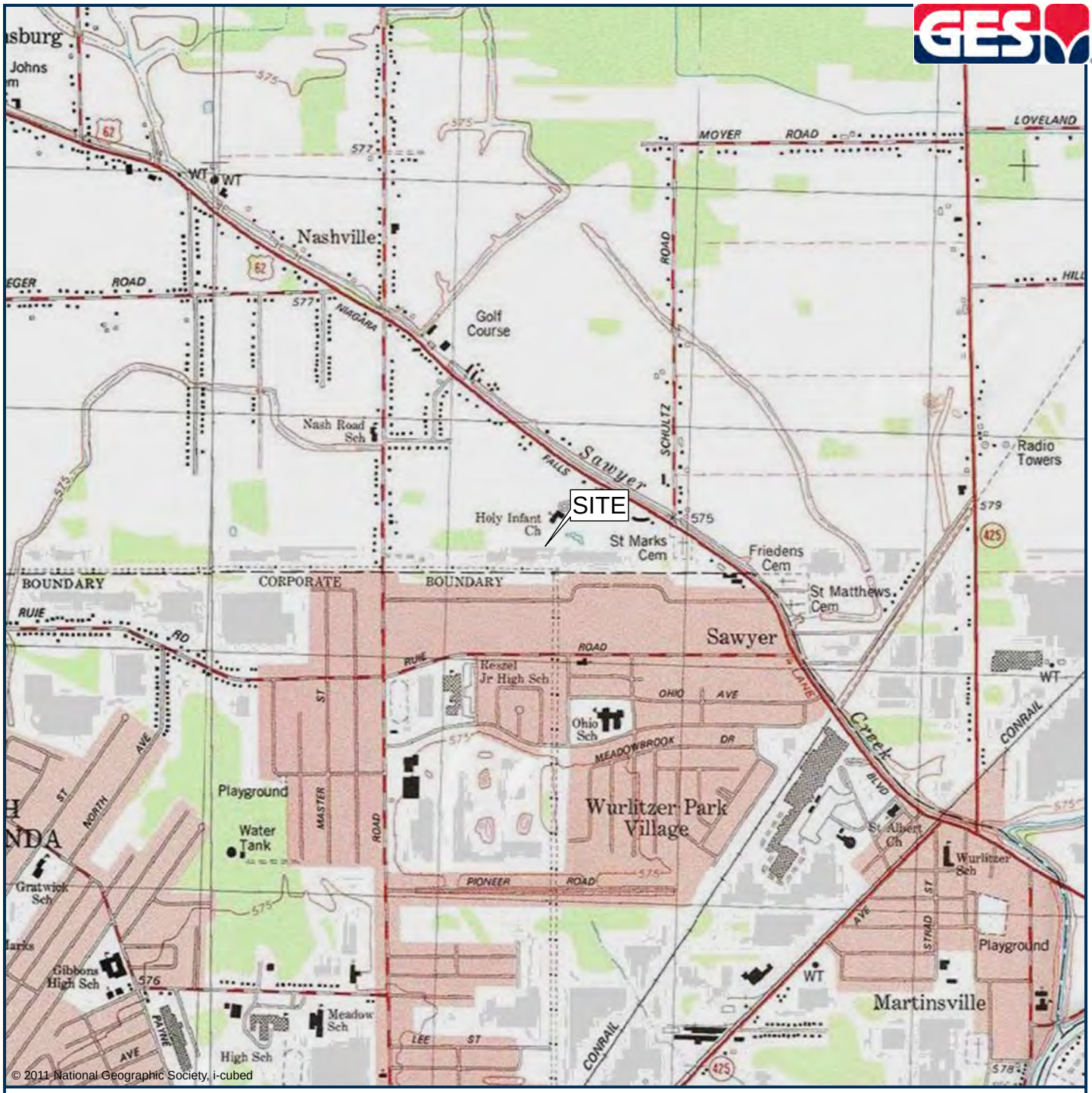
- SVOCs – As shown on **Figure 9**, with the exception of SB-A, concentrations of SVOCs exceeding SCOs are generally located in the central portion of the site, all at areas also identified as having elevated concentrations of metals.
- PCBs – PCBs were only analyzed at SB-N based on notes included in the laboratory analytical report for the initial round of analyses for the 2014 soil boring samples indicating the presence of Aroclors. PCBs were detected in exceedences of SCOs at SB-N, located in the south-central portion of the site. The notes in the laboratory analytical report for the 2013 soil boring data did not indicate the presence of Aroclors in any samples, therefore it is currently assumed that no other samples contain concentrations of PCBs in exceeded of SCOs other than SB-N. As SB-N is spatially far from other soil borings it is difficult to estimate the size of an area beyond SB-N that contains elevated concentrations of PCBs. A conservative estimate that assumes an impacted area (as shown on **Figure 10**) bound by surrounding non-impacted (assumed) soil borings would cover an area of approximately 150,000 square feet, with an estimated depth of two feet. This would equal an estimated volume of approximately 11,000 cubic yards of PCB impacted soil. Additional soil borings would need to be conducted in order to more accurately estimate this area. A map showing the location of SB-N relative to the site is presented as **Figure 10**.
- VOCs – concentrations of VOCs are limited to the eastern portion of the site, where chemical waste was reported to have been dumped. Additional details are provided in the 2013 *Supplemental Site Characterization Report*.

The highest contaminant concentrations were often located in the shallowest four feet, where the majority of waste materials were located. Shallow surface penetrations, excavations or erosion may lead to exposure to elevated concentrations of some metals (including arsenic, chromium, lead, and mercury), pesticides (specifically in the vicinity of SB-N), PCBs (specifically in the vicinity of SB-N), and SVOCs. Several ATV trails run near and/or through the site and may present an exposure risk if the surface soils are penetrated and the underlying waste is exposed through erosion.

7.2 Groundwater Contaminant Exposure

As described in Section 6.4, elevated concentrations of contaminants, including pesticides, VOCs, and SVOCs were detected in nearly all the shallow wells sampled to varying degrees and may be due to dumping activities across the site. While exposure of groundwater to the public is likely limited (as area residents are served by public water), additional groundwater sampling may be warranted to evaluate seasonal changes in the groundwater flow and groundwater quality on-site.

FIGURES



Sources:
USGS 7.5 Minute Series Topographic Quadrangles
Tonawanda East and Tonawanda West

DRAFTED BY: RAB	SITE LOCATION MAP
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 – 2,000 / DATE: 11–13–13 / FIGURE: 1

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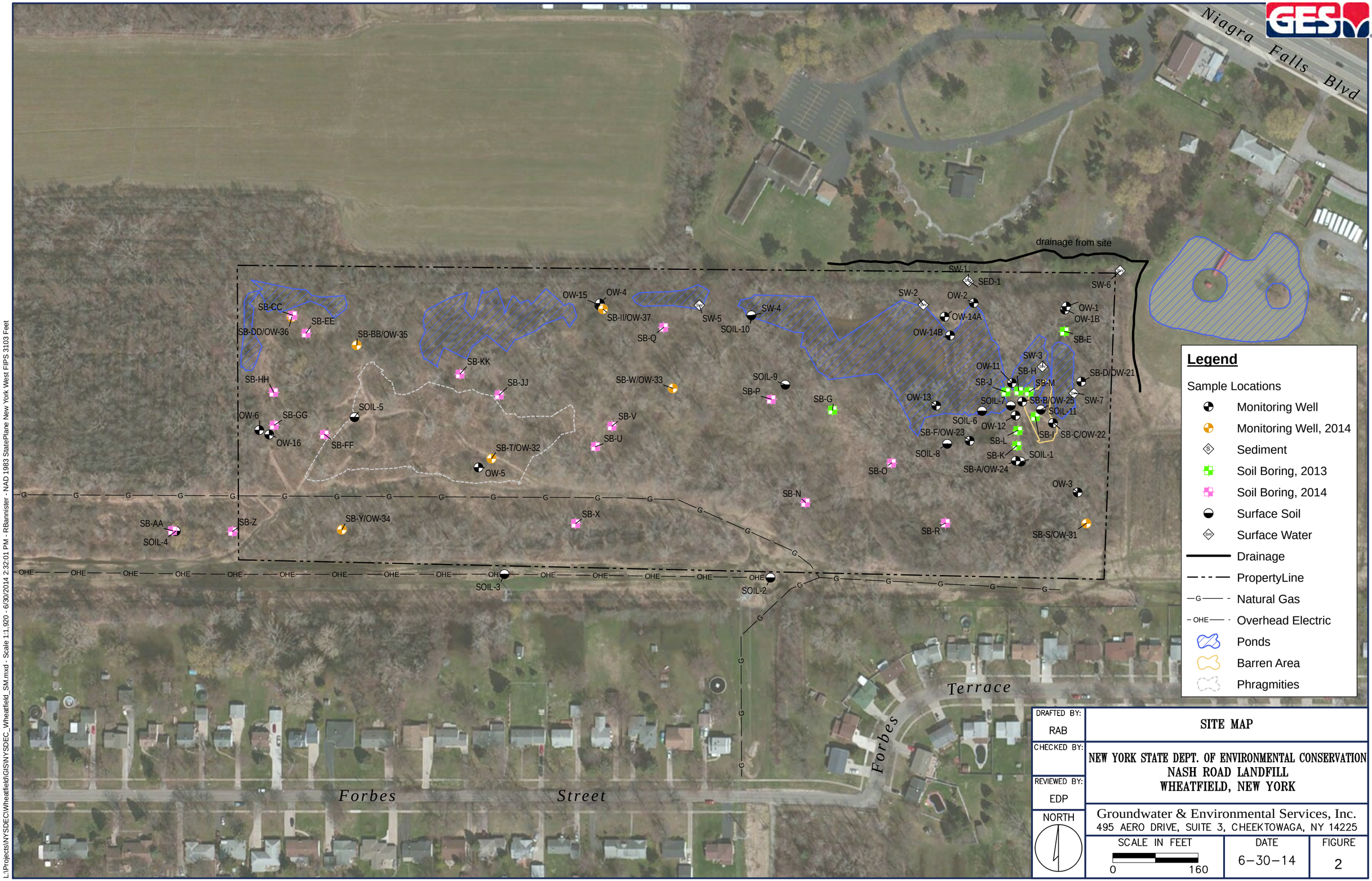
Niagra Falls Blvd
drainage from site
SW-1
SED-1
SW-6
SW-2
OW-2
OW-14A
OW-14B
OW-1
OW-1B
SB-E
SW-3
SB-H
SB-M
SB-D/OW-21
SW-7
SB-B/OW-25
SOIL-11
SB-I
SB-C/OW-22
OW-11
SB-J
SOIL-7
OW-13
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SB-K
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SB-Z
SB-AA
SOIL-4
SOIL-3
SOIL-2
SB-CC
SB-EE
SB-DD/OW-36
SB-BB/OW-35
SB-HH
OW-6
SB-GG
OW-16
SB-FF
SOIL-5
SB-KK
SB-JJ
SB-T/OW-32
OW-5
OW-15
OW-4
SB-II/OW-37
SB-Q
SW-5
SOIL-10
SB-W/OW-33
SB-V
SB-U
SOIL-9
SB-P
SB-G
SW-4
Forbes Street
Forbes Terrace
Legend
Sample Locations
Monitoring Well
Monitoring Well, 2014
Sediment
Soil Boring, 2013
Soil Boring, 2014
Surface Soil
Surface Water
Drainage
PropertyLine
Natural Gas
Overhead Electric
Ponds
Barren Area
Phragmities
DRAFTED BY: RAB
CHECKED BY:
REVIEWED BY: EDP
NORTH
SITE MAP
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
NASH ROAD LANDFILL
WHEATFIELD, NEW YORK
Groundwater & Environmental Services, Inc.
495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
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FIGURE
2
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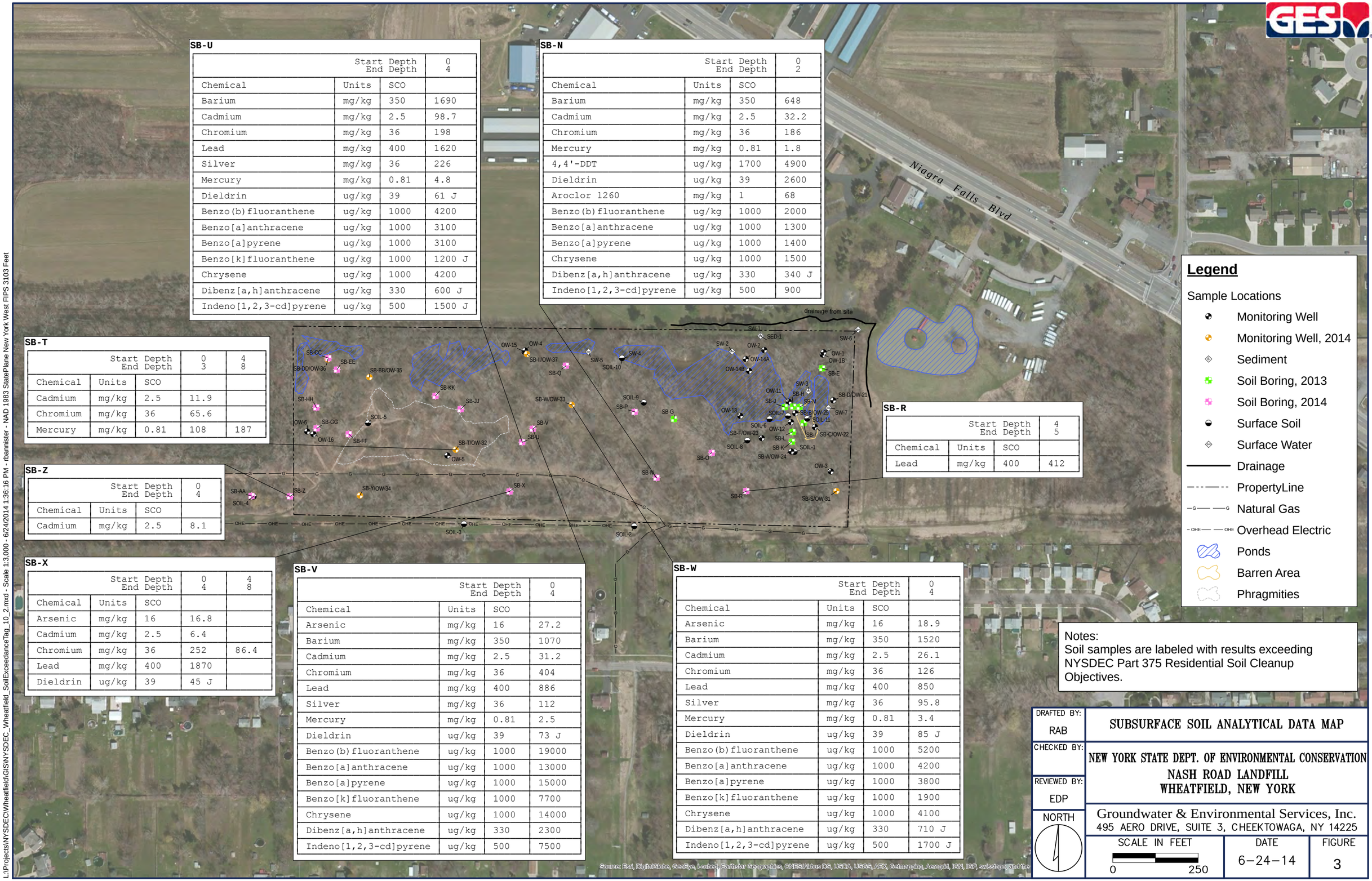


SB-U

		Start Depth End Depth	0 4
Chemical	Units	SCO	
Barium	mg/kg	350	1690
Cadmium	mg/kg	2.5	98.7
Chromium	mg/kg	36	198
Lead	mg/kg	400	1620
Silver	mg/kg	36	226
Mercury	mg/kg	0.81	4.8
Dieldrin	ug/kg	39	61 J
Benzo(b)fluoranthene	ug/kg	1000	4200
Benzo[a]anthracene	ug/kg	1000	3100
Benzo[a]pyrene	ug/kg	1000	3100
Benzo[k]fluoranthene	ug/kg	1000	1200 J
Chrysene	ug/kg	1000	4200
Dibenz[a,h]anthracene	ug/kg	330	600 J
Indeno[1,2,3-cd]pyrene	ug/kg	500	1500 J

SB-N

		Start Depth End Depth	0 2
Chemical	Units	SCO	
Barium	mg/kg	350	648
Cadmium	mg/kg	2.5	32.2
Chromium	mg/kg	36	186
Mercury	mg/kg	0.81	1.8
4,4'-DDT	ug/kg	1700	4900
Dieldrin	ug/kg	39	2600
Aroclor 1260	mg/kg	1	68
Benzo(b)fluoranthene	ug/kg	1000	2000
Benzo[a]anthracene	ug/kg	1000	1300
Benzo[a]pyrene	ug/kg	1000	1400
Chrysene	ug/kg	1000	1500
Dibenz[a,h]anthracene	ug/kg	330	340 J
Indeno[1,2,3-cd]pyrene	ug/kg	500	900

SB-T

		Start Depth End Depth	0 3	4 8
Chemical	Units	SCO		
Cadmium	mg/kg	2.5	11.9	
Chromium	mg/kg	36	65.6	
Mercury	mg/kg	0.81	108	187

SB-R

		Start Depth End Depth	4 5
Chemical	Units	SCO	
Lead	mg/kg	400	412

SB-Z

		Start Depth End Depth	0 4
Chemical	Units	SCO	
Cadmium	mg/kg	2.5	8.1

SB-X

		Start Depth End Depth	0 4	4 8
Chemical	Units	SCO		
Arsenic	mg/kg	16	16.8	
Cadmium	mg/kg	2.5	6.4	
Chromium	mg/kg	36	252	86.4
Lead	mg/kg	400	1870	
Dieldrin	ug/kg	39	45 J	

SB-V

		Start Depth End Depth	0 4
Chemical	Units	SCO	
Arsenic	mg/kg	16	27.2
Barium	mg/kg	350	1070
Cadmium	mg/kg	2.5	31.2
Chromium	mg/kg	36	404
Lead	mg/kg	400	886
Silver	mg/kg	36	112
Mercury	mg/kg	0.81	2.5
Dieldrin	ug/kg	39	73 J
Benzo(b)fluoranthene	ug/kg	1000	19000
Benzo[a]anthracene	ug/kg	1000	13000
Benzo[a]pyrene	ug/kg	1000	15000
Benzo[k]fluoranthene	ug/kg	1000	7700
Chrysene	ug/kg	1000	14000
Dibenz[a,h]anthracene	ug/kg	330	2300
Indeno[1,2,3-cd]pyrene	ug/kg	500	7500

SB-W

		Start Depth End Depth	0 4
Chemical	Units	SCO	
Arsenic	mg/kg	16	18.9
Barium	mg/kg	350	1520
Cadmium	mg/kg	2.5	26.1
Chromium	mg/kg	36	126
Lead	mg/kg	400	850
Silver	mg/kg	36	95.8
Mercury	mg/kg	0.81	3.4
Dieldrin	ug/kg	39	85 J
Benzo(b)fluoranthene	ug/kg	1000	5200
Benzo[a]anthracene	ug/kg	1000	4200
Benzo[a]pyrene	ug/kg	1000	3800
Benzo[k]fluoranthene	ug/kg	1000	1900
Chrysene	ug/kg	1000	4100
Dibenz[a,h]anthracene	ug/kg	330	710 J
Indeno[1,2,3-cd]pyrene	ug/kg	500	1700 J

Legend

Sample Locations

- Monitoring Well
- Monitoring Well, 2014
- Sediment
- Soil Boring, 2013
- Soil Boring, 2014
- Surface Soil
- Surface Water
- Drainage
- PropertyLine
- Natural Gas
- Overhead Electric
- Ponds
- Barren Area
- Phragmities

Notes:
Soil samples are labeled with results exceeding NYSDEC Part 375 Residential Soil Cleanup Objectives.

DRAFTED BY: RAB

CHECKED BY:

REVIEWED BY: EDP

NORTH

SUBSURFACE SOIL ANALYTICAL DATA MAP

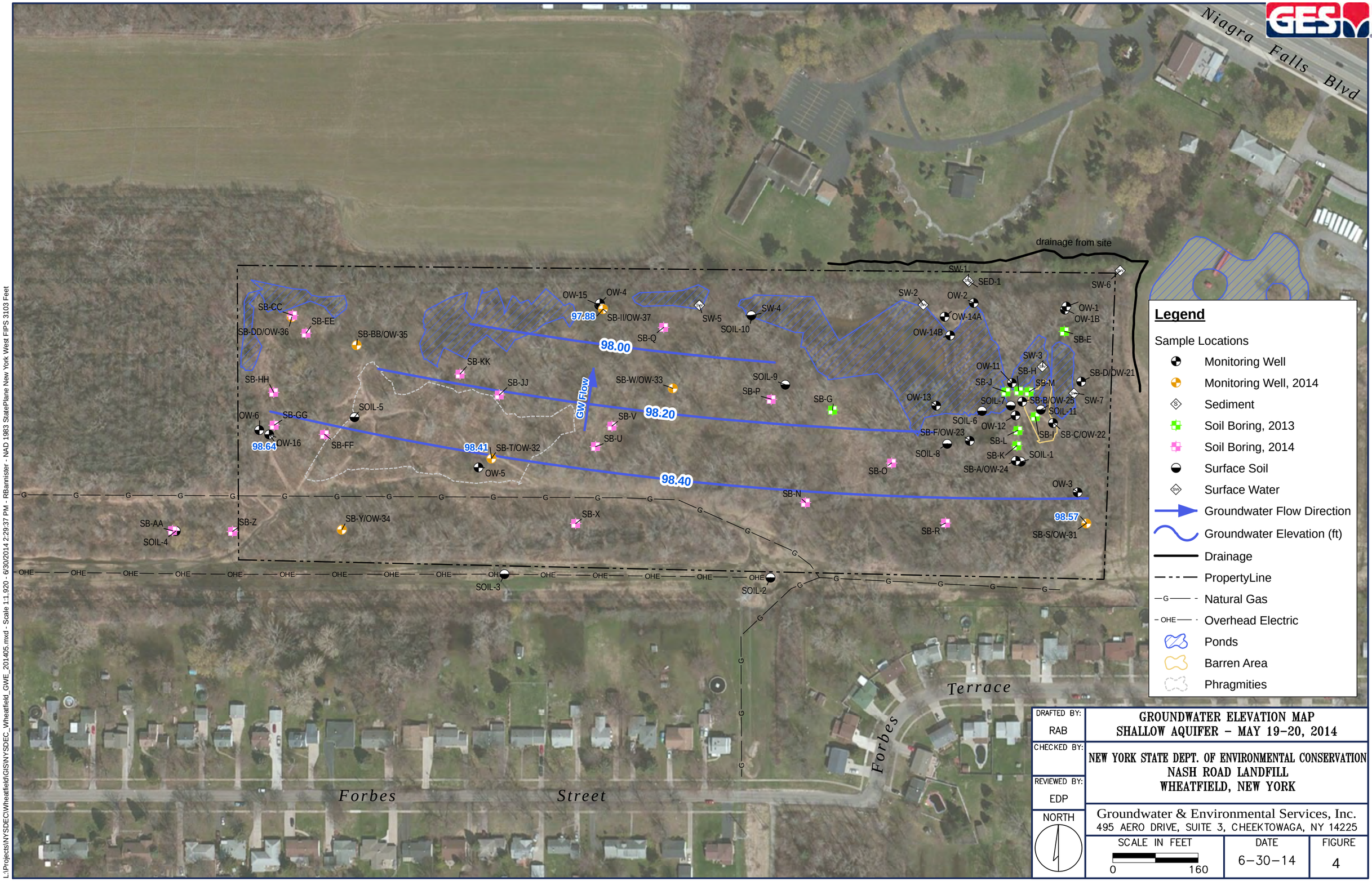
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
NASH ROAD LANDFILL
WHEATFIELD, NEW YORK

Groundwater & Environmental Services, Inc.
495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225

SCALE IN FEET	DATE	FIGURE
0 — 250	6-24-14	3

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedanceTag_10_2.mxd - Scale 1:3,000 - 6/24/2014 1:36:16 PM - rbannister - NAD 1983 StatePlane New York West FIPS 3103 Feet

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the



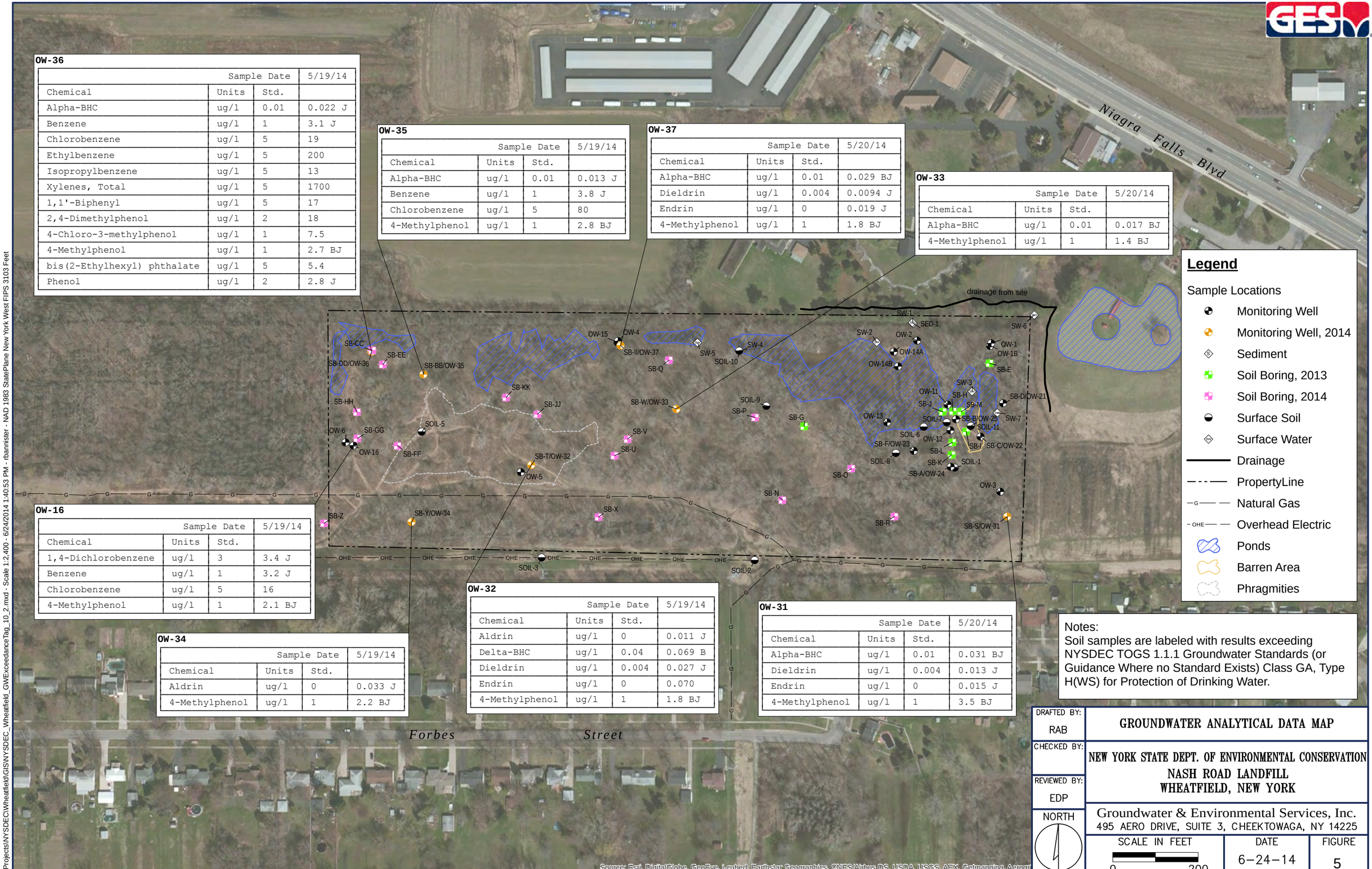
Legend

Sample Locations

- Monitoring Well
- Monitoring Well, 2014
- Sediment
- Soil Boring, 2013
- Soil Boring, 2014
- Surface Soil
- Surface Water
- Groundwater Flow Direction
- Groundwater Elevation (ft)
- Drainage
- PropertyLine
- Natural Gas
- Overhead Electric
- Ponds
- Barren Area
- Phragmities

DRAFTED BY: RAB	GROUNDWATER ELEVATION MAP SHALLOW AQUIFER – MAY 19–20, 2014
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	
NORTH	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
	SCALE IN FEET: 0 – 160 / DATE: 6–30–14 / FIGURE: 4

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_GWE_201405.mxd - Scale 1:1,920 - 6/30/2014 2:29:37 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



OW-36

	Sample Date		5/19/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.022 J
Benzene	ug/l	1	3.1 J
Chlorobenzene	ug/l	5	19
Ethylbenzene	ug/l	5	200
Isopropylbenzene	ug/l	5	13
Xylenes, Total	ug/l	5	1700
1,1'-Biphenyl	ug/l	5	17
2,4-Dimethylphenol	ug/l	2	18
4-Chloro-3-methylphenol	ug/l	1	7.5
4-Methylphenol	ug/l	1	2.7 BJ
bis(2-Ethylhexyl) phthalate	ug/l	5	5.4
Phenol	ug/l	2	2.8 J

OW-35

	Sample Date		5/19/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.013 J
Benzene	ug/l	1	3.8 J
Chlorobenzene	ug/l	5	80
4-Methylphenol	ug/l	1	2.8 BJ

OW-37

	Sample Date		5/20/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.029 BJ
Dieldrin	ug/l	0.004	0.0094 J
Endrin	ug/l	0	0.019 J
4-Methylphenol	ug/l	1	1.8 BJ

OW-33

	Sample Date		5/20/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.017 BJ
4-Methylphenol	ug/l	1	1.4 BJ

OW-16

	Sample Date		5/19/14
Chemical	Units	Std.	
1,4-Dichlorobenzene	ug/l	3	3.4 J
Benzene	ug/l	1	3.2 J
Chlorobenzene	ug/l	5	16
4-Methylphenol	ug/l	1	2.1 BJ

OW-34

	Sample Date		5/19/14
Chemical	Units	Std.	
Aldrin	ug/l	0	0.033 J
4-Methylphenol	ug/l	1	2.2 BJ

OW-32

	Sample Date		5/19/14
Chemical	Units	Std.	
Aldrin	ug/l	0	0.011 J
Delta-BHC	ug/l	0.04	0.069 B
Dieldrin	ug/l	0.004	0.027 J
Endrin	ug/l	0	0.070
4-Methylphenol	ug/l	1	1.8 BJ

OW-31

	Sample Date		5/20/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.031 BJ
Dieldrin	ug/l	0.004	0.013 J
Endrin	ug/l	0	0.015 J
4-Methylphenol	ug/l	1	3.5 BJ

Legend

Sample Locations

- Monitoring Well
- Monitoring Well, 2014
- Sediment
- Soil Boring, 2013
- Soil Boring, 2014
- Surface Soil
- Surface Water
- Drainage
- PropertyLine
- Natural Gas
- Overhead Electric
- Ponds
- Barren Area
- Phragmities

Notes:
Soil samples are labeled with results exceeding NYSDEC TOGS 1.1.1 Groundwater Standards (or Guidance Where no Standard Exists) Class GA, Type H(WS) for Protection of Drinking Water.

DRAFTED BY: RAB	GROUNDWATER ANALYTICAL DATA MAP
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET 0 200 / DATE 6-24-14 / FIGURE 5

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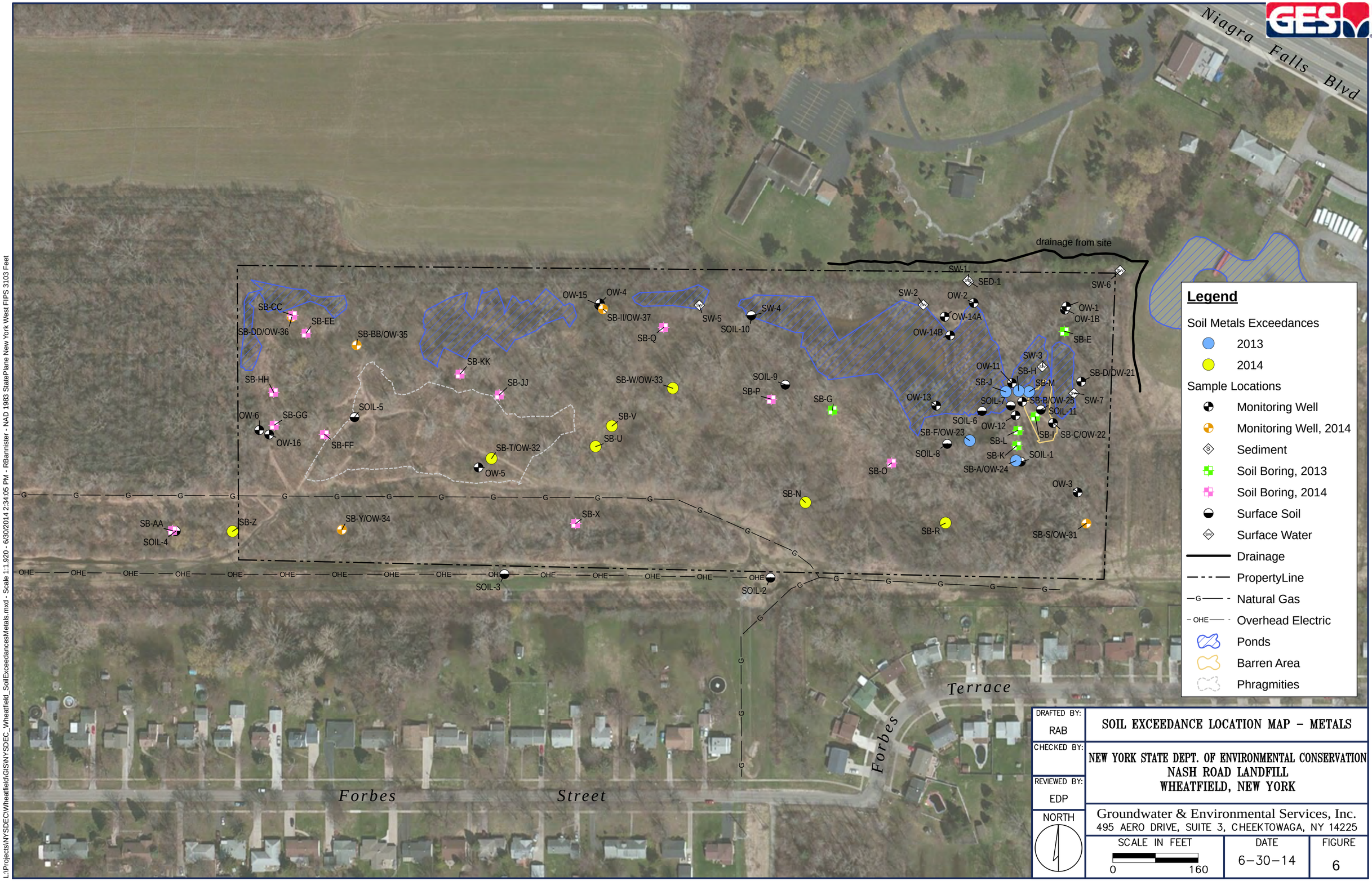
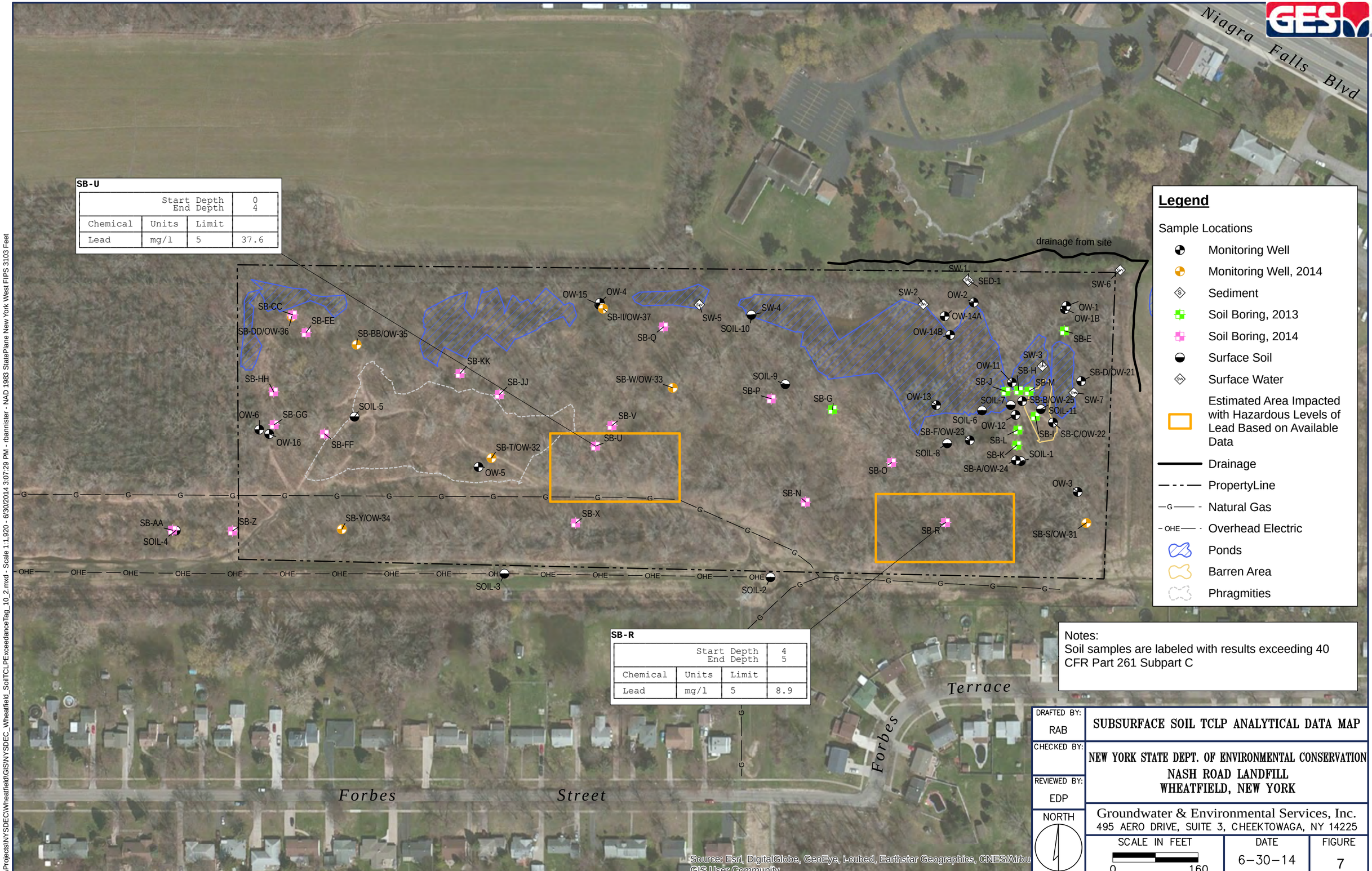


DRAFTED BY: RAB	SOIL EXCEEDANCE LOCATION MAP – METALS
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 – 160 / DATE: 6-30-14 / FIGURE: 6

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedancesMetals.mxd - Scale 1:1,920 - 6/30/2014 2:34:05 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



SB-U

	Start Depth End Depth		0 4
Chemical	Units	Limit	
Lead	mg/l	5	37.6

SB-R

	Start Depth End Depth		4 5
Chemical	Units	Limit	
Lead	mg/l	5	8.9

Legend

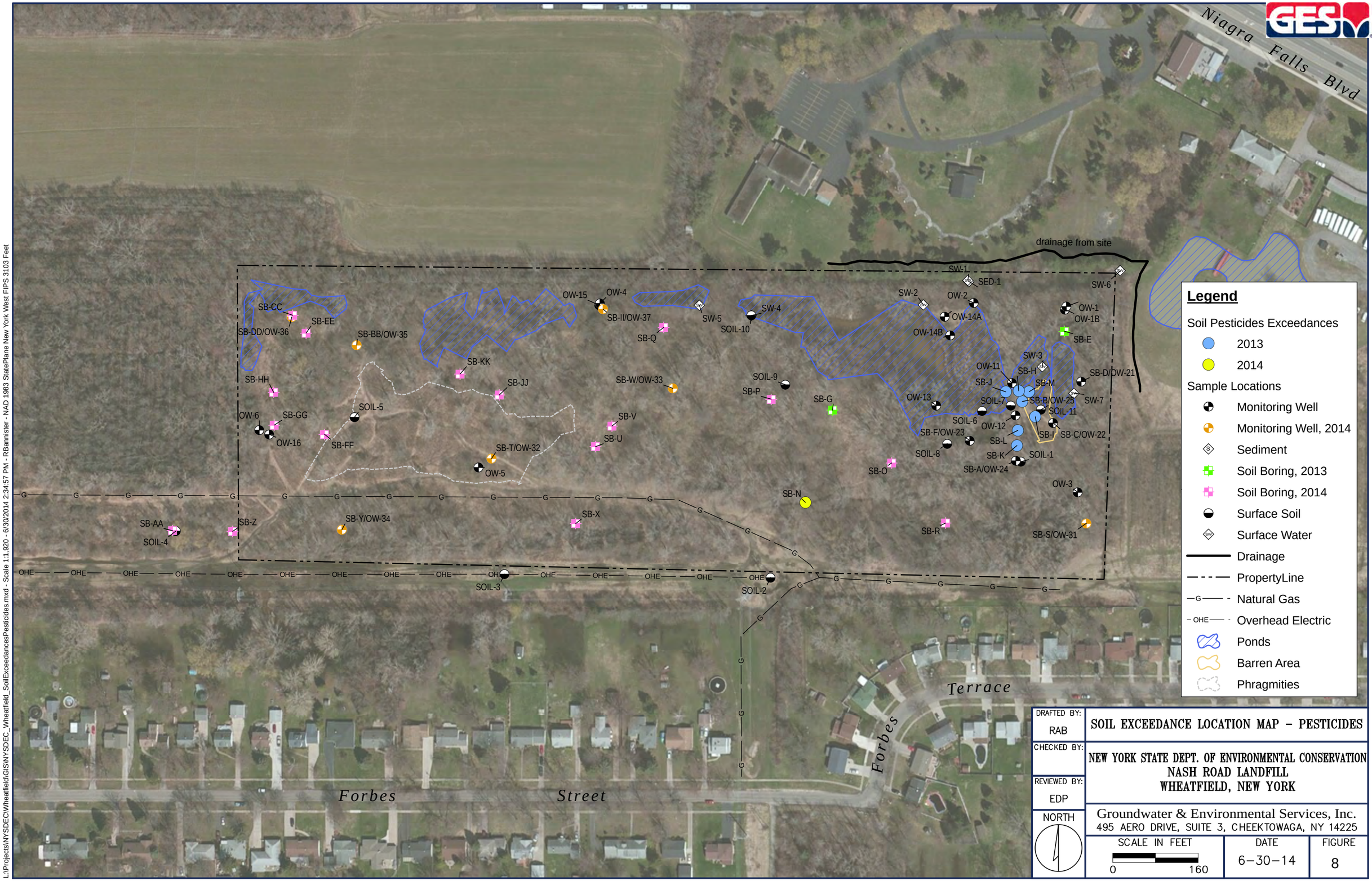
Sample Locations

- Monitoring Well
- Monitoring Well, 2014
- Sediment
- Soil Boring, 2013
- Soil Boring, 2014
- Surface Soil
- Surface Water
- Estimated Area Impacted with Hazardous Levels of Lead Based on Available Data
- Drainage
- PropertyLine
- Natural Gas
- Overhead Electric
- Ponds
- Barren Area
- Phragmities

Notes:
Soil samples are labeled with results exceeding 40 CFR Part 261 Subpart C

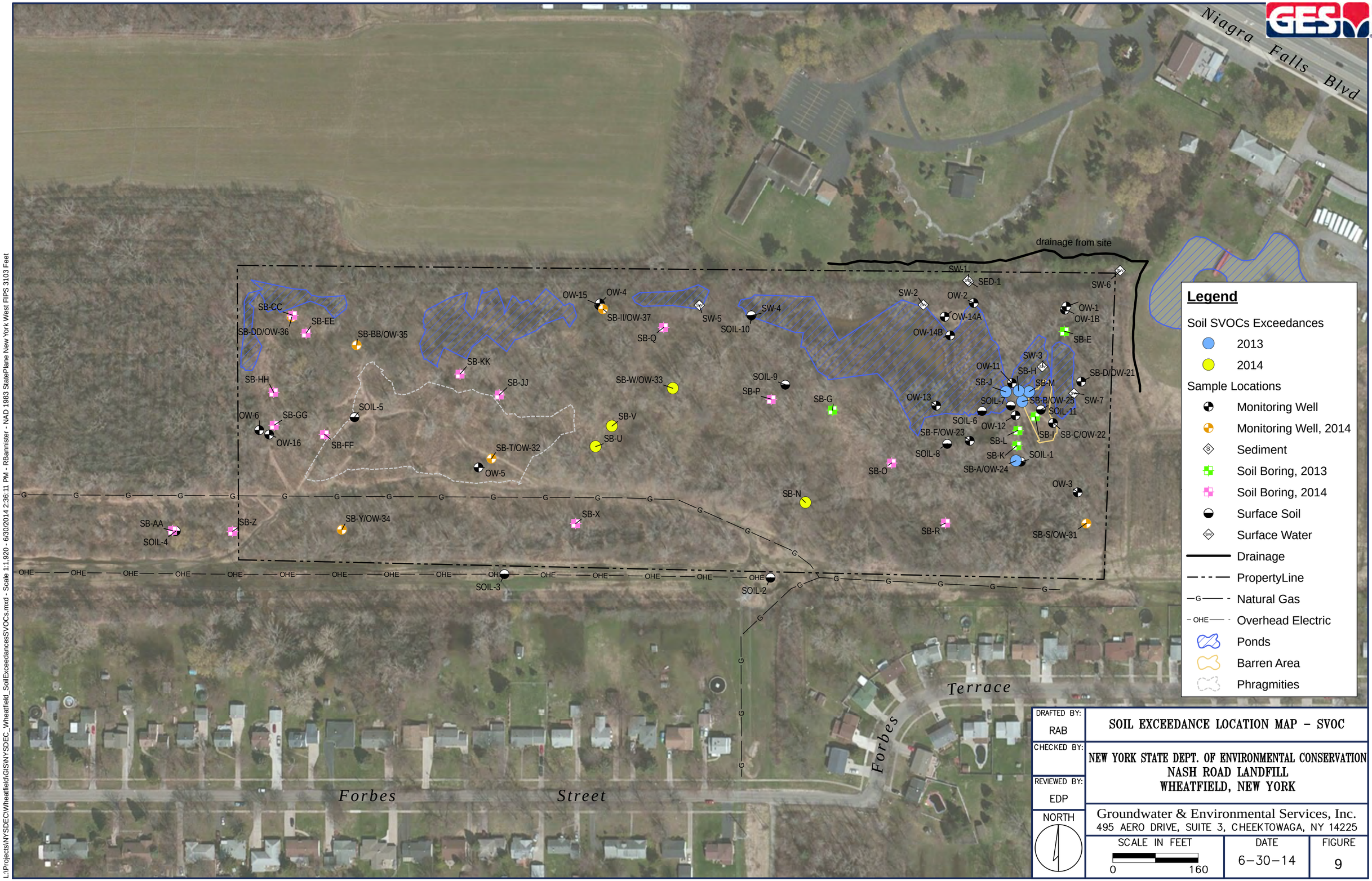
DRAFTED BY: RAB	SUBSURFACE SOIL TCLP ANALYTICAL DATA MAP
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET 0 160 / DATE 6-30-14 / FIGURE 7

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilTCLPExceedanceTag_10_2.mxd - Scale 1:1,920 - 6/30/2014 3:07:29 PM - rbannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



DRAFTED BY: RAB	SOIL EXCEEDANCE LOCATION MAP – PESTICIDES
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET 0 – 160 / DATE 6–30–14 / FIGURE 8

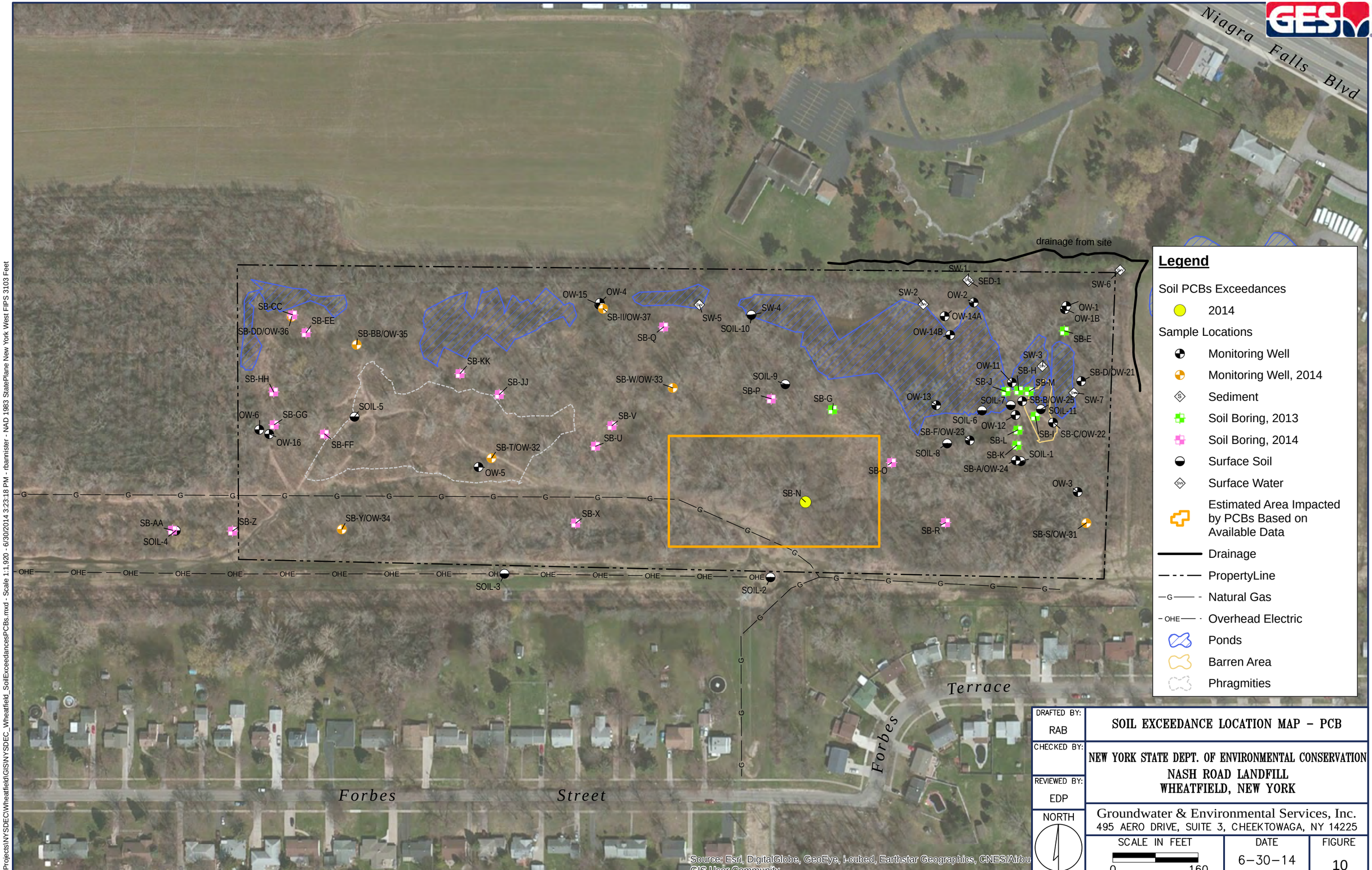
L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedancesPesticides.mxd - Scale 1:1,920 - 6/30/2014 2:34:57 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



DRAFTED BY: RAB	SOIL EXCEEDANCE LOCATION MAP – SVOC
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225

SCALE IN FEET	DATE	FIGURE
0 – 160	6–30–14	9

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedancesSVOCs.mxd - Scale 1:1,920 - 6/30/2014 2:36:11 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



DRAFTED BY: RAB

CHECKED BY:

REVIEWED BY: EDP

NORTH

SOIL EXCEEDANCE LOCATION MAP – PCB

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
NASH ROAD LANDFILL
WHEATFIELD, NEW YORK

Groundwater & Environmental Services, Inc.
495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225

SCALE IN FEET	DATE	FIGURE
0 – 160	6–30–14	10

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedancesPCBs.mxd - Scale 1:1,920 - 6/30/2014 3:23:18 PM - rbannister - NAD 1983 StatePlane New York West FIPS 3103 Feet

TABLES

Nash Road Landfill
Nash Road
Wheatfield, New York

Table 1
Sample Matrix

Sample Media	Purpose	Quantity	Analysis	Method
Subsurface Soil - grab sample	Characterization of any subsurface impacts from the former landfill. One sample from each soil boring, however some borings warranted a second sample at different depths.	25	SVOCs	8270
			VOCs	8260
			RCRA-8 Metals	6010B
			Pesticides	8081
			Herbicides	8151
Groundwater	Collect groundwater samples from newley installed shallow monitoring wells to evaluate current potential impact of the dumping activities to groundwater on-site.	7	SVOCs	8270
			VOCs	8260
			RCRA-8 Metals	6010B
			Pesticides	8081
			Herbicides	8151
	Collect groundwater samples from OW-16 at same time as the new wells for direct temporal comparison.	1	SVOCs	8270
			VOCs	8260
			RCRA-8 Metals	6010B
			Pesticides	8081
			Herbicides	8151

Sample Media	Purpose	Quantity	Analysis	Method
Subsurface Soil - grab sample	Additional laboratory analysis was requested for select soil samples based on the results of the initial round of laboratory analysis.	9	TCLP - Select Metals	6010C/7470A
		1	PCBs	8082

Nash Road Landfill
Nash Road
Wheatfield, New York

Table 2
Soil Analytical Data
Soil Boring Samples
(April 2014)

Sample Point		SB-N	SB-N	SB-O	SB-P	SB-Q	SB-R	SB-S	SB-T	SB-T	SB-U	SB-V	SB-W	SB-X	SB-X
Sample Type		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)	****6 NYCRR Part**	2-4'	0-2'	4-6'	4-6'	4-8'	4-5'	1-4'	0-3'	4-8'	0-4'	0-4'	0-4'	0-4'	4-8'
Sample Date	**375 Residential**	4/14/2014	4/14/2014	4/14/2014	4/14/2014	4/14/2014	4/15/2014	4/15/2014	4/15/2014	4/15/2014	4/16/2014	4/16/2014	4/16/2014	4/16/2014	4/16/2014
Photoionization Detector (ppmV)	**Use Soil Cleanup Objectives**	0.3	0.3	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.0	0.1	0.1	0.9	0.2
CAS #	**Metals (mg/kg)**														
7440-38-2	ARSENIC	**16**	1.9	10.1	3.8	3.8	3.6	4.8	2.8	4.8	3.0	12.3	**27.2**	**18.9**	**16.8**	2.5
7440-39-3	BARIUM	**350**	29.3	**648**	13.7	16.9	20.9	48.2	24.8	213	17.2	**1690**	**1070**	**1520**	278	48.3
7440-43-9	CADMIUM	**2.5**	0.079	**32.2**	0.15	0.22	0.2	0.7	0.17	**11.9**	0.25	**98.7**	**31.2**	**26.1**	6.4	0.23
7440-47-3	CHROMIUM, TOTAL	**36**	7.6	**186**	4.8	4.0	5.1	15.6	6.6	**65.6**	17.9	**198**	**404**	**126**	**252**	**86.4**
7439-92-1	LEAD	**400**	5.6	211	4.8	7.3	7.1	**412**	5.1	152	6.1	**1620**	**886**	**850**	**1870**	11.3
7782-49-2	SELENIUM	**36**	U	1.4	U	U	U	0.5	U	0.60	0.47	2.0	3.1	1.8	1.5	U
7440-22-4	SILVER	**36**	U	5.8	U	0.22	U	0.29	U	9.5	U	**226**	**112**	**95.8**	8.3	U
7439-97-6	MERCURY	**0.8**	0.011	**1.8**	U	0.049	U	0.25	U	**108**	**187**	**4.8**	**2.5**	**3.4**	0.57	U
CAS #	**Pesticides via 8081A (ug/kg)**														
72-54-8	4,4'-DDD	**2,600**	U	U	U	0.65	0.61	55	U	25	0.73	U	130	65	U	U
72-55-9	4,4'-DDE	**1,800**	0.51	650	U	0.92	0.98	48	U	11	0.67	66	63	100	35	0.59
50-29-3	4,4'-DDT	**1,700**	1.0	**4900**	U	4.5	1.3	86	U	27	3.2	U	84	240	U	1.0
309-00-2	Aldrin	**19**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
319-84-6	alpha-BHC	**97**	U	U	U	U	U	U	U	U	0.48	U	23	22	U	U
5103-71-9	alpha-Chlordane	**910**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
319-85-7	beta-BHC	**72**	U	U	U	U	0.46	U	0.36	U	U	U	U	U	U	U
319-86-8	delta-BHC	**100,000**	0.57	U	U	0.66	0.87	46	U	U	0.57	20	32	30	U	U
60-57-1	Dieldrin	**39**	U	**2600**	U	1.1	U	U	U	9.9	0.75	**61**	**73**	**85**	**45**	U
959-98-8	Endosulfan I	**4,800**	U	120	U	U	U	U	U	U	U	U	U	U	U	U
33213-65-9	Endosulfan II	**4,800**	U	48	U	U	U	U	U	U	U	U	U	U	U	U
1031-07-8	Endosulfan Sulfate	**4,800**	U	100	U	U	U	U	U	U	U	U	U	U	U	U
72-20-8	Endrin	**2,200**	U	670	U	0.94	U	U	U	U	0.71	U	U	U	U	U
7421-93-4	Endrin Aldehyde	**2,200**	U	550	U	2	U	U	U	U	1.5	43	U	41	U	U
53494-70-5	Endrin Keytone	**2,200**	U	1100	U	0.51	U	U	U	U	0.55	U	U	U	U	U
58-89-9	gamma-BHC (Lindane)	**280**	U	U	U	U	0.56	U	U	U	0.5	U	31	19	20	0.58
12789-03-6	gamma-Chlordane	NS	U	250	U	1.2	0.65	U	U	18	0.71	70	44	66	36	U
76-44-8	Heptachlor	**420**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1024-57-3	Heptachlor epoxide	**420**	U	290	U	U	U	U	U	U	U	U	U	U	U	U
72-43-5	Methoxychlor	NS	U	840	0.69	U	1.3	U	0.68	U	0.75	U	U	U	U	U
8001-35-2	Toxaphene	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
CAS #	**Herbicides via 8151A (ug/kg)**														
94-75-7	2,4-D (DICHLOROPHENOXYACETIC ACID)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
93-76-5	2,4,5-T (TRICHLOROPHENOXYACETIC ACID)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
93-72-1	SILVEX (2,4,5-TP)	**58,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
CAS #	**Volatile Organic Compounds (ug/kg)**														
71-55-6	1,1,1-TRICHLOROETHANE	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
79-00-5	1,1,2-TRICHLOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
75-34-3	1,1-DICHLOROETHANE	**19,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
75-35-4	1,1-DICHLOROETHENE	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
120-82-1	1,2,4-TRICHLOROBENZENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
106-93-4	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
95-50-1	1,2-DICHLOROBENZENE	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
107-06-2	1,2-DICHLOROETHANE	**2,300**	U	U	U	U	U	U	U	U	U	U	U	U	1.7	U
78-87-5	1,2-DICHLOROPROPANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
541-73-1	1,3-DICHLOROBENZENE	**17,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
106-46-7	1,4-DICHLOROBENZENE	**9,800**	U	U	U	U	2.6	U	U	U	U	U	U	U	U	U
591-78-6	2-HEXANONE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
67-64-1	ACETONE	**100,000**	U	U	U	U	6.0	U	U	U	U	U	6.3	U	U	5.2
71-43-2	BENZENE	**2,900**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
75-27-4	BROMODICHLOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
75-25-2	BROMOFORM	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
74-83-9	BROMOMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
75-15-0	CARBON DISULFIDE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
56-23-5	CARBON TETRACHLORIDE	**1,400**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
108-90-7	CHLOROBENZENE	**100,000**	U	U	U	U	2.0	U	U	U	U	U	U	U	U	U
75-00-3	CHLOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
67-66-3	CHLOROFORM	**10,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
74-87-3	CHLOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
156-59-2	CIS-1,2-DICHLOROETHYLENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
110-82-7	CYCLOHEXANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
124-48-1	DIBROMOCHLOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
75-71-8	DICHLORODIFLUOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
100-41-4	ETHYLBENZENE	**30,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
79-20-9	METHYL ACETATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
108-10-1	METHYL ISOBUTYL KETONE (4-METHYL-2-PENT	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
108-87-2	METHYLCYCLOHEXANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
75-09-2	METHYLENE CHLORIDE	**51,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
100-42-5	STYRENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1634-04-4	TERT-BUTYL METHYL ETHER	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
127-18-4	TETRACHLOROETHYLENE(PCE)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
108-88-3	TOLUENE	**100,000**	2.0	0.79	1.2	2.3	2.0	U	1.8	1.4	1.3	U	U	U	U	U
156-60-5	TRANS-1,2-DICHLOROETHENE	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
79-01-6	TRICHLOROETHYLENE (TCE)	NS	U	U	U	U	U	U	U	U	U	U	U	1.7	U	U
75-69-4	TRICHLOROFLUOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
75-01-4	VINYL CHLORIDE	**210**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
XYLENES	XYLENES, TOTAL	**100,000**	1.1	U	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs (ug/kg)			3.1	U	1.2	U	12.6	U	1.8	1.4	1.3	0	6.3	1.7	1.7	5.2

Nash Road Landfill
Nash Road
Wheatfield, New York

Table 2
Soil Analytical Data
Soil Boring Samples
(April 2014)

Sample Point		SB-N	SB-N	SB-O	SB-P	SB-Q	SB-R	SB-S	SB-T	SB-T	SB-U	SB-V	SB-W	SB-X	SB-X
Sample Type		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)	**6 NYCRR Part	2-4'	0-2'	4-6'	4-6'	4-8'	4-5'	1-4'	0-3'	4-8'	0-4'	0-4'	0-4'	0-4'	4-8'
Sample Date	375 Residential	4/14/2014	4/14/2014	4/14/2014	4/14/2014	4/14/2014	4/15/2014	4/15/2014	4/15/2014	4/15/2014	4/16/2014	4/16/2014	4/16/2014	4/16/2014	4/16/2014
Photoionization Detector (ppmV)	Use Soil Cleanup Objectives	0.3	0.3	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.0	0.1	0.1	0.9	0.2
CAS #	**Semi-Volatile Organic Compounds (ug/kg)**														
95-95-4	2,4,5-TRICHLOROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
88-06-2	2,4,6-TRICHLOROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
120-83-2	2,4-DICHLOROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
105-67-9	2,4-DIMETHYLPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
51-28-5	2,4-DINITROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
121-14-2	2,4-DINITROTOLUENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
606-20-2	2,6-DINITROTOLUENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
91-58-7	2-CHLORONAPHTHALENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
95-57-8	2-CHLOROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
91-57-6	2-METHYLNAPHTHALENE	NS	U	80	U	U	U	U	U	80	U	U	400	160	70	U
95-48-7	2-METHYLPHENOL (O-CRESOL)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
88-74-4	2-NITROANILINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
88-75-5	2-NITROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
91-94-1	3,3'-DICHLOROBENZIDINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
99-09-2	3-NITROANILINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
101-55-3	4-BROMOPHENYL PHENYL ETHER	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
59-50-7	4-CHLORO-3-METHYLPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
106-47-8	4-CHLOROANILINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
106-44-5	4-METHYLPHENOL (P-CRESOL)	NS	U	U	U	U	U	U	U	U	18	U	U	U	U	U
100-01-6	4-NITROANILINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
100-02-7	4-NITROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
83-32-9	ACENAPHTHENE	**100,000**	U	130	U	U	U	U	U	81	U	330	3100	520	U	U
208-96-8	ACENAPHTHYLENE	**100,000**	U	U	U	U	5.7	U	U	7.2	U	U	U	U	U	U
98-86-2	ACETOPHENONE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
120-12-7	ANTHRACENE	**100,000**	U	190	U	U	U	U	U	250	U	610	3400	850	56	U
1912-24-9	ATRAZINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
100-52-7	BENZALDEHYDE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
56-55-3	BENZO(A)ANTHRACENE	**1,000**	U	**1,300**	U	U	U	U	U	750	U	**3100**	**13000**	**4200**	460	U
50-32-8	BENZO(A)PYRENE	**1,000**	U	**1,400**	U	15	37	660	U	580	U	**3100**	**15000**	**3800**	540	23
205-99-2	BENZO(B)FLUORANTHENE	**1,000**	U	**2,000**	U	27	48	940	U	1000	U	**4200**	**19000**	**5200**	780	37
191-24-2	BENZO(G,H,I)PERYLENE	**100,000**	U	1,000	U	U	14	U	U	140	U	1500	7700	1900	330	20
207-08-9	BENZO(K)FLUORANTHENE	**1,000**	U	620	U	U	U	U	U	300	U	**1200**	**7700**	**1900**	44	U
85-68-7	BENZYL BUTYL PHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
92-52-4	BIPHENYL (DIPHENYL)	NS	U	U	U	U	U	U	U	16	U	U	U	U	U	U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
111-44-4	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYI	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	U	U	U	49,000	U	U	U	U	U	U	U	3400	U	U
105-60-2	CAPROLACTAM	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
86-74-8	CARBAZOLE	NS	U	160	U	U	U	U	U	160	U	380	2200	600	30	U
218-01-9	CHRYSENE	**1,000**	U	**1,500**	U	U	36	730	U	730	U	**4200**	**14000**	**4100**	570	31
53-70-3	DIBENZ(A,H)ANTHRACENE	**330**	U	**340**	U	U	U	U	U	48	U	**600**	**2300**	**710**	120	U
132-64-9	DIBENZOFURAN	NS	U	53	U	U	U	U	U	61	U	U	1100	180	U	U
84-66-2	DIETHYL PHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
131-11-3	DIMETHYL PHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	900	U	U
84-74-2	DI-N-BUTYL PHTHALATE	NS	U	U	U	29	U	U	U	U	U	U	U	U	U	U
117-84-0	DI-N-OCTYLPHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
206-44-0	FLUORANTHENE	**100,000**	U	1,800	U	18	50	1000	U	1600	U	3600	23000	6400	560	36
86-73-7	FLUORENE	**100,000**	U	83	U	U	U	U	U	86	U	190	1900	300	U	U
118-74-1	HEXACHLOROBENZENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
87-68-3	HEXACHLOROBUTADIENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
67-72-1	HEXACHLOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
193-39-5	INDENO(1,2,3-C,D)PYRENE	**500**	U	900	U	U	12	U	U	150	U	**1500**	**7500**	**1700**	310	14
78-59-1	ISOPHORONE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
91-20-3	NAPHTHALENE	**100,000**	U	84	U	U	U	U	U	55	U	U	1200	260	U	U
98-95-3	NITROBENZENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
621-64-7	N-NITROSODI-N-PROPYLAMINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
86-30-6	N-NITROSODIPHENYLAMINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U
87-86-5	PENTACHLOROPHENOL	**2,400**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
85-01-8	PHENANTHRENE	**100,000**	U	980	U	12	40	760	U	930	9.5	2000	16000	3400	310	21
108-95-2	PHENOL	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U	U
129-00-0	PYRENE	**100,000**	U	1500	U	14	39	730	U	1000	U	3000	17000	4700	470	26
Total SVOCs (ug/kg)			U	14,120	U	49,115	282	4,820	U	8,024	28	29,510	155,500	45,180	4,650	208

Notes:
U = below laboratory detection limits
NA = Not Analyzed
ftbg = feet below grade
ppmV = parts-per-million by volume
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
CAS = Chemical Abstracts Services
**Title 6 of the Official Compilation of New York Codes, Rules and Regulations Part 375, Restricted Use Soil Cleanup Objectives for Residential Use. (parts-per-billion by volume, except for Metals, which are in parts-per-million by volume)
NS=Not Specified by 6 NYCRR Part 375

Nash Road Landfill
Nash Road
Wheatfield, New York

Table 2
Soil Analytical Data
Soil Boring Samples
(April 2014)

Sample Point		SB-Y	SB-Z	SB-AA	SB-BB	SB-BB	SB-CC	SB-FF	SB-GG	SB-HH	SB-II	SB-II	SB-JJ	SB-KK
Sample Type		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)	**6 NYCRR Part	4-8'	0-4'	4-8'	0-4	4-8'	4-8'	6-8'	4-6'	6-8'	0-4'	4-8'	4-8'	0-4'
Sample Date	375 Residential	4/17/2014	4/18/2014	4/18/2014	4/17/2014	4/17/2014	4/17/2014	4/18/2014	4/18/2014	4/18/2014	4/21/2014	4/21/2014	4/21/2014	4/21/2014
Photoionization Detector (ppmV)	Use Soil Cleanup Objectives	0.3	0.4	0.0	0.6	1.9	15.6	1.0	2.0	2.5	0.5	0.5	0.4	0.3
CAS #	**Metals (mg/kg)**													
7440-38-2	ARSENIC	**16**	0.93	4.0	4.5	2.7	1.7	2.7	1.5	2.7	2.4	5.0	3.0	3.0	5.4
7440-39-3	BARIUM	**350**	9.1	46.8	92.4	36.7	10.6	84.5	11.4	74.6	6.5	91.1	27.7	9.5	103
7440-43-9	CADMIUM	**2.5**	0.16	**8.1**	0.19	0.39	0.2	0.39	0.23	0.19	0.15	1.9	0.32	0.19	0.69
7440-47-3	CHROMIUM, TOTAL	**36**	3.8	13.5	20.7	9.5	3.4	10.1	4.5	14.8	3	19.9	7.1	4.6	14.8
7439-92-1	LEAD	**400**	5.4	43	14.5	22	5.1	18.4	5.7	9.9	4.5	92.5	17.2	4.2	193
7782-49-2	SELENIUM	**36**	U	U	U	U	U	U	U	0.58	U	0.82	0.74	0.67	0.81
7440-22-4	SILVER	**36**	U	U	U	U	U	U	U	U	U	1.5	0.26	U	0.71
7439-97-6	MERCURY	**0.8**	0.0093	0.036	0.025	0.26	0.19	0.07	U	0.16	U	0.18	0.045	U	0.093
CAS #	**Pesticides via 8081A (ug/kg)**													
72-54-8	4,4'-DDD	**2,600**	0.87	10	U	29	U	41	0.44	0.55	U	42	2.2	U	U
72-55-9	4,4'-DDE	**1,800**	0.83	U	0.72	40	U	33	0.63	0.61	0.55	26	1.3	U	U
50-29-3	4,4'-DDT	**1,700**	1.1	U	1.3	100	U	U	U	1.1	1.0	29	1.2	1.1	20
309-00-2	Aldrin	**19**	0.5	U	U	U	U	U	U	U	1.3	U	U	U	U
319-84-6	alpha-BHC	**97**	U	U	U	20	U	24	0.61	U	U	U	0.69	U	U
5103-71-9	alpha-Chlordane	**910**	U	U	U	U	U	U	U	U	U	U	U	U	U
319-85-7	beta-BHC	**72**	U	U	U	U	U	U	U	U	U	U	U	U	U
319-86-8	delta-BHC	**100,000**	0.86	13	0.66	U	U	35	U	0.81	0.60	14	0.67	U	U
60-57-1	Dieldrin	**39**	U	U	U	U	U	30	U	U	U	U	U	U	U
959-98-8	Endosulfan I	**4,800**	U	U	U	U	U	U	U	U	U	U	U	U	U
33213-65-9	Endosulfan II	**4,800**	U	U	U	U	U	U	0.5	0.4	U	U	U	U	U
1031-07-8	Endosulfan Sulfate	**4,800**	U	U	U	U	U	U	U	U	U	U	U	U	U
72-20-8	Endrin	**2,200**	U	U	U	U	U	U	U	U	U	U	U	U	U
7421-93-4	Endrin Aldehyde	**2,200**	U	U	U	U	U	U	U	U	U	U	U	U	U
53494-70-5	Endrin Keytone	**2,200**	U	U	U	U	U	U	U	U	U	U	U	U	U
58-89-9	gamma-BHC (Lindane)	**280**	U	U	0.58	U	U	U	0.52	U	U	U	U	U	U
12789-03-6	gamma-Chlordane	NS	0.64	U	0.68	U	U	U	0.61	U	0.83	16	U	U	U
76-44-8	Heptachlor	**420**	U	U	U	U	U	U	U	U	U	U	U	U	U
1024-57-3	Heptachlor epoxide	**420**	U	U	U	U	U	U	U	U	U	U	U	U	U
72-43-5	Methoxychlor	NS	1.0	U	1.5	U	U	U	U	0.89	U	27	U	U	U
8001-35-2	Toxaphene	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
CAS #	**Herbicides via 8151A (ug/kg)**													
94-75-7	2,4-D (DICHLOROPHENOXYACETIC ACID)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
93-76-5	2,4,5-T (TRICHLOROPHENOXYACETIC ACID)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
93-72-1	SILVEX (2,4,5-TP)	**58,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
CAS #	**Volatile Organic Compounds (ug/kg)**													
71-55-6	1,1,1-TRICHLOROETHANE	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
79-00-5	1,1,2-TRICHLOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
75-34-3	1,1-DICHLOROETHANE	**19,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
75-35-4	1,1-DICHLOROETHENE	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
120-82-1	1,2,4-TRICHLOROBENZENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
106-93-4	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
95-50-1	1,2-DICHLOROBENZENE	**100,000**	U	U	U	U	1.2	U	U	U	U	U	U	U	U
107-06-2	1,2-DICHLOROETHANE	**2,300**	U	U	U	U	U	U	U	U	U	U	U	U	U
78-87-5	1,2-DICHLOROPROPANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
541-73-1	1,3-DICHLOROBENZENE	**17,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
106-46-7	1,4-DICHLOROBENZENE	**9,800**	U	U	U	U	U	U	U	U	1.5	U	U	U	U
591-78-6	2-HEXANONE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
67-64-1	ACETONE	**100,000**	7.6	U	6.9	U	9.4	U	11	14	13	U	16	U	U
71-43-2	BENZENE	**2,900**	U	U	U	U	U	U	U	U	U	U	U	U	U
75-27-4	BROMODICHLOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
75-25-2	BROMOFORM	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
74-83-9	BROMOMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
75-15-0	CARBON DISULFIDE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
56-23-5	CARBON TETRACHLORIDE	**1,400**	U	U	U	U	U	U	U	U	U	U	U	U	U
108-90-7	CHLOROBENZENE	**100,000**	U	U	U	U	36	1.4	U	U	1.3	U	2.9	U	U
75-00-3	CHLOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
67-66-3	CHLOROFORM	**10,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
74-87-3	CHLOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
156-59-2	CIS-1,2-DICHLOROETHYLENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
110-82-7	CYCLOHEXANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
124-48-1	DIBROMOCHLOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
75-71-8	DICHLORODIFLUOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
100-41-4	ETHYLBENZENE	**30,000**	U	U	0.43	U	U	14	U	U	U	U	U	U	U
98-82-8	ISOPROPYLBENZENE (CUMENE)	NS	U	U	U	U	U	1.2	U	U	U	U	U	U	U
79-20-9	METHYL ACETATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	**100,000**	U	U	U	U	U	U	U	U	7.9	U	U	U	U
108-10-1	METHYL ISOBUTYL KETONE (4-METHYL-2-PENT	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
108-87-2	METHYLCYCLOHEXANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
75-09-2	METHYLENE CHLORIDE	**51,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
100-42-5	STYRENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
1634-04-4	TERT-BUTYL METHYL ETHER	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
127-18-4	TETRACHLOROETHYLENE(PCE)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
108-88-3	TOLUENE	**100,000**	U	U	2.5	U	U	U	U	U	1.3	U	U	U	U
156-60-5	TRANS-1,2-DICHLOROETHENE	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
79-01-6	TRICHLOROETHYLENE (TCE)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
75-69-4	TRICHLOROFLUOROMETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
75-01-4	VINYL CHLORIDE	**210**	U	U	U	U	U	U	U	U	U	U	U	U	U
XYLENES	XYLENES, TOTAL	**100,000**	U	U	1.9	U	U	60	U	U	1.7	U	U	U	U
Total VOCs (ug/kg)			7.6	U	11.7	U	46.6	76.6	11.0	14.0	26.7	U	18.9	U	U

Nash Road Landfill
Nash Road
Wheatfield, New York

Table 2
Soil Analytical Data
Soil Boring Samples
(April 2014)

Sample Point			SB-Y	SB-Z	SB-AA	SB-BB	SB-BB	SB-CC	SB-FF	SB-GG	SB-HH	SB-II	SB-II	SB-JJ	SB-KK
Sample Type			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)		**6 NYCRR Part	4-8'	0-4'	4-8'	0-4	4-8'	4-8'	6-8'	4-6'	6-8'	0-4'	4-8'	4-8'	0-4'
Sample Date		375 Residential	4/17/2014	4/18/2014	4/18/2014	4/17/2014	4/17/2014	4/17/2014	4/18/2014	4/18/2014	4/18/2014	4/21/2014	4/21/2014	4/21/2014	4/21/2014
Photoionization Detector (ppmV)		Use Soil Cleanup Objectives	0.3	0.4	0.0	0.6	1.9	15.6	1.0	2.0	2.5	0.5	0.5	0.4	0.3
CAS #	**Semi-Volatile Organic Compounds (ug/kg)**														
95-95-4	2,4,5-TRICHLOROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
88-06-2	2,4,6-TRICHLOROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
120-83-2	2,4-DICHLOROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
105-67-9	2,4-DIMETHYLPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
51-28-5	2,4-DINITROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
121-14-2	2,4-DINITROTOLUENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
606-20-2	2,6-DINITROTOLUENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
91-58-7	2-CHLORONAPHTHALENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
95-57-8	2-CHLOROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
91-57-6	2-METHYLNAPHTHALENE	NS	U	11	U	18	U	21	6.9	88	U	U	U	U	32
95-48-7	2-METHYLPHENOL (O-CRESOL)	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
88-74-4	2-NITROANILINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
88-75-5	2-NITROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
91-94-1	3,3'-DICHLOROBENZIDINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
99-09-2	3-NITROANILINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
101-55-3	4-BROMOPHENYL PHENYL ETHER	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
59-50-7	4-CHLORO-3-METHYLPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
106-47-8	4-CHLOROANILINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
106-44-5	4-METHYLPHENOL (P-CRESOL)	NS	U	72	U	U	U	U	U	20	U	130	U	U	260
100-01-6	4-NITROANILINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
100-02-7	4-NITROPHENOL	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
83-32-9	ACENAPHTHENE	**100,000**	U	U	U	U	U	12	72	12	U	54	U	U	U
208-96-8	ACENAPHTHYLENE	**100,000**	U	5.7	U	U	U	U	U	U	U	U	U	U	U
98-86-2	ACETOPHENONE	NS	U	U	U	U	U	13	U	U	U	U	U	U	39
120-12-7	ANTHRACENE	**100,000**	U	13	U	11	U	8.8	5.5	U	U	110	U	U	28
1912-24-9	ATRAZINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
100-52-7	BENZALDEHYDE	NS	U	34	U	U	U	U	U	44	U	440	U	U	U
56-55-3	BENZO(A)ANTHRACENE	**1,000**	U	U	U	U	U	U	7.5	U	U	430	U	U	170
50-32-8	BENZO(A)PYRENE	**1,000**	U	U	U	49	U	U	U	U	U	430	U	U	190
205-99-2	BENZO(B)FLUORANTHENE	**1,000**	U	59	U	70	U	U	U	U	U	610	U	U	300
191-24-2	BENZO(G,H,I)PERYLENE	**100,000**	U	U	U	28	U	U	U	U	U	U	U	U	90
207-08-9	BENZO(K)FLUORANTHENE	**1,000**	U	U	U	U	U	U	U	U	U	220	U	U	79
85-68-7	BENZYL BUTYL PHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
92-52-4	BIPHENYL (DIPHENYL)	NS	U	U	U	U	U	U	U	22	U	U	U	U	U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
111-44-4	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYI	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	NS	U	77	U	U	U	410	U	190	U	U	670	88	72
105-60-2	CAPROLACTAM	NS	U	U	U	U	U	U	U	67	U	U	U	U	U
86-74-8	CARBAZOLE	NS	U	9.8	U	7	U	U	110	U	U	65	U	U	13
218-01-9	CHRYSENE	**1,000**	U	58	U	55	U	U	7	U	U	680	U	U	440
53-70-3	DIBENZ(A,H)ANTHRACENE	**330**	U	U	U	9.2	U	U	U	U	U	U	U	U	U
132-64-9	DIBENZOFURAN	NS	U	3.2	U	5	U	14	110	U	U	U	U	U	U
84-66-2	DIETHYL PHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	11.0
131-11-3	DIMETHYL PHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
84-74-2	DI-N-BUTYL PHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	130	U
117-84-0	DI-N-OCTYLPHTHALATE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
206-44-0	FLUORANTHENE	**100,000**	U	61	U	83	U	23	9.5	22	7.5	620	U	U	290
86-73-7	FLUORENE	**100,000**	U	9.5	U	U	U	10	77	U	U	U	U	U	12
118-74-1	HEXACHLOROBENZENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
87-68-3	HEXACHLOROBUTADIENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
67-72-1	HEXACHLOROETHANE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
193-39-5	INDENO(1,2,3-C,D)PYRENE	**500**	U	U	U	25	U	U	U	U	U	U	U	U	U
78-59-1	ISOPHORONE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
91-20-3	NAPHTHALENE	**100,000**	U	14	U	U	U	U	12	U	U	U	U	U	68
98-95-3	NITROBENZENE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
621-64-7	N-NITROSODI-N-PROPYLAMINE	NS	U	U	U	U	U	U	U	U	U	U	U	U	U
86-30-6	N-NITROSODIPHENYLAMINE	NS	U	U	U	U	U	U	U	52	U	U	U	U	U
87-86-5	PENTACHLOROPHENOL	**2,400**	U	U	U	U	U	U	U	38	U	U	U	U	U
85-01-8	PHENANTHRENE	**100,000**	U	71	U	61	U	39	13	75	7.9	650	U	U	160
108-95-2	PHENOL	**100,000**	U	U	U	U	U	U	U	U	U	U	U	U	U
129-00-0	PYRENE	**100,000**	U	88	U	67	U	16	6.8	28	7.2	680	U	U	200
Total SVOCs (ug/kg)			U	586	U	488	U	567	437	658	23	5,119	670	218	2,454

Notes:
U = below laboratory detection limits
NA = Not Analyzed
ftbg = feet below grade
ppmV = parts-per-million by volume
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
CAS = Chemical Abstracts Services
**Title 6 of the Official Compilation of New York Codes, Rules and Regulations Part 375, F
NS=Not Specified by 6 NYCRR Part 375

Nash Road Landfill
Nash Road
Wheatfield, New York

Table 3
Soil Analytical Data
Soil Boring Samples
TCLP Metals Analysis
(April 2014)

Sample Point		SB-N	SB-N	SB-O	SB-P	SB-Q	SB-R	SB-S	SB-T	SB-T	SB-U	SB-V	SB-W	SB-X	SB-X
Sample Type		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)		2-4'	0-2'	4-6'	4-6'	4-8'	4-5'	1-4'	0-3'	4-8'	0-4'	0-4'	0-4'	0-4'	4-8'
Sample Date		4/14/2014	4/14/2014	4/14/2014	4/14/2014	4/14/2014	4/15/2014	4/15/2014	4/15/2014	4/15/2014	4/16/2014	4/16/2014	4/16/2014	4/16/2014	4/16/2014
Photoionization Detector (ppmV)	Hazardous Waste Threshold*	0.3	0.3	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.0	0.1	0.1	0.9	0.2
CAS #	**TCLP Metals (mg/L)**														
7440-38-2	ARSENIC	**5**	NA	1.7	NA	NA	NA	NA	NA	NA	NA	1.8	U	NA	U	NA
7440-39-3	BARIUM	**100**	NA	1.7	NA	NA	NA	NA	NA	NA	NA	1.8	1.4	NA	NA	NA
7440-43-9	CADMIUM	**1**	NA	0.57	NA	NA	NA	NA	NA	0.36	NA	0.72	0.34	NA	NA	NA
7440-47-3	CHROMIUM, TOTAL	**5**	NA	0.036	NA	NA	NA	NA	NA	0.014	NA	0.019	0.0081	NA	0.013	0.0017
7439-92-1	LEAD	**5.0**	NA	NA	NA	NA	NA	**8.9**	NA	NA	NA	**37.6**	2.7	NA	0.12	NA
7440-22-4	SILVER	**5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U	NA	NA	NA
7439-97-6	MERCURY	**0.2**	NA	U	NA	NA	NA	NA	NA	0.00026	0.0080	0.00035	U	NA	NA	NA

Sample Point		SB-Y	SB-Z	SB-AA	SB-BB	SB-BB	SB-CC	SB-FF	SB-GG	SB-HH	SB-II	SB-II	SB-JJ	SB-KK
Sample Type		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)		4-8'	0-4'	4-8'	0-4	4-8'	4-8'	6-8'	4-6'	6-8'	0-4'	4-8'	4-8'	0-4'
Sample Date		4/17/2014	4/18/2014	4/18/2014	4/17/2014	4/17/2014	4/17/2014	4/18/2014	4/18/2014	4/18/2014	4/21/2014	4/21/2014	4/21/2014	4/21/2014
Photoionization Detector (ppmV)	Hazardous Waste Threshold*	0.3	0.4	0.0	0.6	1.9	15.6	1.0	2.0	2.5	0.5	0.5	0.4	0.3
CAS #	**TCLP Metals (mg/L)**													
7440-38-2	ARSENIC	**5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-39-3	BARIUM	**100**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-43-9	CADMIUM	**1**	NA	0.055	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-47-3	CHROMIUM, TOTAL	**5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7439-92-1	LEAD	**5.0**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7440-22-4	SILVER	**5**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7439-97-6	MERCURY	**0.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
U = below laboratory detection limits
NA = Not Analyzed
ftbg = feet below grade
ppmV = parts-per-million by volume
mg/L = milligrams per liter
CAS = Chemical Abstracts Services
* Per 40 CFR Part 261 Subpart C
TCLP = Toxicity characteristic leaching procedure

Nash Road Landfill
Nash Road
Wheatfield, New York

Table 4
Soil Analytical Data
Soil Boring Samples
PCB Analysis
(April 2014)

Sample Point	**6 NYCRR Part 375 Industrial Use Soil Cleanup Objectives	**6 NYCRR Part 375 Industrial Use Soil Cleanup Objectives	**6 NYCRR Part 375 Residential Use Soil Cleanup Objectives	SB-N
Sample Type				SOIL
Depth (ftbg)				0-2'
Sample Date				4/14/2014
Photoionization Detector (ppmV)				0.3
CAS #	**Polychlorinated Biphenyls (mg/kg)**			
12674-11-2	PCB-1016 (AROCLOR 1016)	25	25	1	U
11104-28-2	PCB-1221 (AROCLOR 1221)	25	25	1	U
11141-16-5	PCB-1232 (AROCLOR 1232)	25	25	1	U
53469-21-9	PCB-1242 (AROCLOR 1242)	25	25	1	U
12672-29-6	PCB-1248 (AROCLOR 1248)	25	25	1	U
11097-69-1	PCB-1254 (AROCLOR 1254)	25	25	1	U
11096-82-5	PCB-1260 (AROCLOR 1260)	25	25	1	**68**
Total PCBs (mg/kg)		25	25	1	**68**

Notes:
U = below laboratory detection limits
NA = Not Analyzed
ftbg = feet below grade
ppmV = parts-per-million by volume
mg/L = milligrams per liter
CAS = Chemical Abstracts Services
* Per 40 CFR Part 261 Subpart C

Nash Road Landfill
NYSDEC Site #932054
Nash Road
Wheatfield, New York

Table 5
Groundwater Gauging and Analytical Data (June 2014)

Monitoring Well		NYSDEC TOGS 1.1.1 Groundwater Standards (or Guidance Where no Standard Exists) Class GA, Type H(WS) for Protection of Drinking Water	OW-16	OW-31	OW-32	OW-33	OW-34	OW-35	OW-36	OW-37
Sample Type			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Date			5/19/2014	5/20/2014	5/19/2014	5/20/2014	5/19/2014	5/19/2014	5/19/2014	5/20/2014
Depth to Water (ft below TOC)			4.66	3.80	4.59	6.03	4.00	4.66	3.99	3.50
Top of Casing Elevation (ft)			103.30	102.37	103.00	NC	NC	NC	NC	101.38
Groundwater Elevation (ft)			98.64	98.57	98.41	NA	NA	NA	NA	97.88
CAS #	**Metals via 6010B (ug/L)**									
7440-38-2	ARSENIC	**25**	U	7.9	8.3	U	6.9	9.5	7.5	6.8
7440-39-3	BARIUM	**1,000**	220	42	73	45	89	540	230	270
7440-43-9	CADMIUM	**5**	U	U	U	U	U	U	U	U
7440-47-3	CHROMIUM, TOTAL	**50**	1.3	U	1.2	U	U	U	1.1	U
7439-92-1	LEAD	**25**	5.9	U	U	U	U	U	3.4	4.9
7782-49-2	SELENIUM	**10**	U	U	U	U	U	U	U	U
7440-22-4	SILVER	**50**	U	U	U	U	U	U	U	U
7439-97-6	MERCURY	**0.7**	U	U	0.14	U	U	U	U	U
CAS #	**Pesticides via 8081A (ug/L)**									
72-54-8	4,4'-DDD	**0.3**	U	U	0.039	U	0.012	0.016	0.022	0.032
72-55-9	4,4'-DDE	**0.2**	U	0.033	U	0.011	U	0.019	0.019	0.015
50-29-3	4,4'-DDT	**0.2**	U	0.056	0.053	0.029	U	0.025	0.032	0.051
309-00-2	Aldrin	**ND**	U	U	**0.011**	U	**0.033**	U	U	U
319-84-6	alpha-BHC	**0.01**	U	**0.031**	U	**0.017**	U	**0.013**	**0.022**	**0.029**
5103-71-9	alpha-Chlordane	**0.05**	U	0.030	U	U	U	U	U	U
319-85-7	beta-BHC	**0.04**	U	U	U	U	U	U	U	U
319-86-8	delta-BHC	**0.04**	U	0.015	**0.069**	U	0.015	U	0.018	U
60-57-1	Dieldrin	**0.004**	U	**0.013**	**0.027**	U	U	U	U	**0.0094**
959-98-8	Endosulfan I	**NS**	U	0.024	0.028	U	U	U	U	U
33213-65-9	Endosulfan II	**NS**	U	0.014	U	U	U	U	U	0.011
1031-07-8	Endosulfan Sulfate	**NS**	U	U	U	U	U	U	U	U
72-20-8	Endrin	**ND**	U	**0.015**	**0.070**	U	U	U	U	**0.019**
7421-93-4	Endrin Aldehyde	**5**	U	U	0.038	0.024	U	U	0.022	0.042
53494-70-5	Endrin Keytone	**5**	U	0.016	0.017	U	U	U	U	U
58-89-9	gamma-BHC (Lindane)	**0.05**	U	0.014	U	U	0.016	0.026	0.022	U
12789-03-6	gamma-Chlordane	**0.05**	U	0.045	U	0.012	U	0.011	U	0.02
76-44-8	Heptachlor	**0.04**	U	0.014	0.021	U	U	U	U	U
1024-57-3	Heptachlor epoxide	**0.03**	U	U	U	U	U	U	U	0.018
72-43-5	Methoxychlor	**35**	U	0.044	0.094	U	0.051	U	U	0.053
8001-35-2	Toxaphene	**0.06**	U	U	U	U	U	U	U	U
CAS #	**Herbicides via 8151A (ug/L)**									
94-75-7	2,4-D (DICHLOROPHENOXYACETIC ACID)	**50**	U	U	U	U	U	U	U	U
93-76-5	2,4,5-T (TRICHLOROPHENOXYACETIC ACID)	**35**	U	U	U	U	U	U	U	U
93-72-1	SILVEX (2,4,5-TP)	**0.26**	U	U	U	U	U	U	U	U

Nash Road Landfill
NYSDEC Site #932054
Nash Road
Wheatfield, New York

Table 5
Groundwater Gauging and Analytical Data (June 2014)

Monitoring Well		NYSDEC TOGS 1.1.1 Groundwater Standards (or Guidance Where no Standard Exists) Class GA, Type H(WS) for Protection of Drinking Water	OW-16	OW-31	OW-32	OW-33	OW-34	OW-35	OW-36	OW-37
Sample Type			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Date			5/19/2014	5/20/2014	5/19/2014	5/20/2014	5/19/2014	5/19/2014	5/19/2014	5/20/2014
Depth to Water (ft below TOC)			4.66	3.80	4.59	6.03	4.00	4.66	3.99	3.50
Top of Casing Elevation (ft)			103.30	102.37	103.00	NC	NC	NC	NC	101.38
Groundwater Elevation (ft)			98.64	98.57	98.41	NA	NA	NA	NA	97.88
CAS #	**Volatile Organic Compounds (ug/L)**									
71-55-6	1,1,1-TRICHLOROETHANE	**5**	U	U	U	U	U	U	U	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	**5**	U	U	U	U	U	U	U	U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	**5**	U	U	U	U	U	U	U	U
79-00-5	1,1,2-TRICHLOROETHANE	**1**	U	U	U	U	U	U	U	U
75-34-3	1,1-DICHLOROETHANE	**5**	U	U	U	U	U	U	U	U
75-35-4	1,1-DICHLOROETHENE	**5**	U	U	U	U	U	U	U	U
120-82-1	1,2,4-TRICHLOROBENZENE	**5**	U	U	U	U	U	U	U	U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	**0.04**	U	U	U	U	U	U	U	U
106-93-4	1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	**5**	U	U	U	U	U	U	U	U
95-50-1	1,2-DICHLOROBENZENE	**3**	U	U	U	U	U	U	U	U
107-06-2	1,2-DICHLOROETHANE	**0.6**	U	U	U	U	U	U	U	U
78-87-5	1,2-DICHLOROPROPANE	**1**	U	U	U	U	U	U	U	U
541-73-1	1,3-DICHLOROBENZENE	**3**	U	U	U	U	U	U	U	U
106-46-7	1,4-DICHLOROBENZENE	**3**	**3.4**	U	U	U	U	U	U	U
591-78-6	2-HEXANONE	**50**	U	U	U	U	U	U	U	U
67-64-1	ACETONE	**50**	U	6.6	U	U	U	U	U	4.6
71-43-2	BENZENE	**1**	**3.2**	U	U	U	U	**3.8**	**3.1**	U
75-27-4	BROMODICHLOROMETHANE	**50**	U	U	U	U	U	U	U	U
75-25-2	BROMOFORM	**50**	U	U	U	U	U	U	U	U
74-83-9	BROMOMETHANE	**5**	U	U	U	U	U	U	U	U
75-15-0	CARBON DISULFIDE	**NS**	U	1.7	U	U	U	U	U	1.0
56-23-5	CARBON TETRACHLORIDE	**5**	U	U	U	U	U	U	U	U
108-90-7	CHLOROBENZENE	**5**	**16**	U	U	U	U	**80**	**19**	U
75-00-3	CHLOROETHANE	**5**	U	U	U	U	U	U	U	U
67-66-3	CHLOROFORM	**7**	U	U	U	U	U	U	U	U
74-87-3	CHLOROMETHANE (METHYL CHLORIDE)	**5**	U	U	U	U	U	U	U	U
156-59-2	CIS-1,2-DICHLOROETHYLENE	**5**	U	U	U	U	U	U	U	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	**0.4**	U	U	U	U	U	U	U	U
110-82-7	CYCLOHEXANE	**NS**	U	U	U	U	U	U	U	U
124-48-1	DIBROMOCHLOROMETHANE	**5**	U	U	U	U	U	U	U	U
75-71-8	DICHLORODIFLUOROMETHANE	**5**	U	U	U	U	U	U	U	U
100-41-4	ETHYLBENZENE	**5**	U	U	U	U	U	U	**220**	U
98-82-8	ISOPROPYLBENZENE (CUMENE)	**5**	U	U	U	U	U	U	**13**	U
79-20-9	METHYL ACETATE	**NS**	U	U	U	U	U	U	U	U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	**50**	U	2.0	U	U	U	U	U	U
108-10-1	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	**NS**	U	U	U	U	U	U	U	U
108-87-2	METHYLCYCLOHEXANE	**NS**	U	U	U	U	U	U	U	U
75-09-2	METHYLENE CHLORIDE	**5**	U	U	U	U	U	U	U	U
100-42-5	STYRENE	**5**	U	U	U	U	U	U	U	U
1634-04-4	TERT-BUTYL METHYL ETHER	**10**	U	U	U	U	U	U	U	U
127-18-4	TETRACHLOROETHYLENE(PCE)	**5**	U	U	U	U	U	U	U	U
108-88-3	TOLUENE	**5**	U	U	U	U	U	U	U	U
156-60-5	TRANS-1,2-DICHLOROETHENE	**5**	U	U	U	U	U	U	U	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	**0.4**	U	U	U	U	U	U	U	U
79-01-6	TRICHLOROETHYLENE (TCE)	**5**	U	U	U	U	U	U	U	U
75-69-4	TRICHLOROFLUOROMETHANE	**5**	U	U	U	U	U	U	U	U
75-01-4	VINYL CHLORIDE	**2**	U	U	U	U	U	U	U	U
XYLENES	XYLENES, TOTAL	**5**	U	U	U	U	U	U	**1,700**	U
Total VOCs (ug/L)			22.6	10.3	U	U	U	83.8	1,955	5.6

Nash Road Landfill
NYSDEC Site #932054
Nash Road
Wheatfield, New York

Table 5
Groundwater Gauging and Analytical Data (June 2014)

Monitoring Well	NYSDEC TOGS 1.1.1 Groundwater Standards (or Guidance Where no Standard Exists) Class GA, Type H(WS) for Protection of Drinking Water	OW-16	OW-31	OW-32	OW-33	OW-34	OW-35	OW-36	OW-37
Sample Type		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Sample Date		5/19/2014	5/20/2014	5/19/2014	5/20/2014	5/19/2014	5/19/2014	5/19/2014	5/20/2014
Depth to Water (ft below TOC)		4.66	3.80	4.59	6.03	4.00	4.66	3.99	3.50
Top of Casing Elevation (ft)		103.30	102.37	103.00	NC	NC	NC	NC	101.38
Groundwater Elevation (ft)		98.64	98.57	98.41	NA	NA	NA	NA	97.88
CAS #	**Semi-Volatile Organic Compounds (ug/L)**								
95-95-4	2,4,5-TRICHLOROPHENOL	**1***	U	U	U	U	U	U	U	U
88-06-2	2,4,6-TRICHLOROPHENOL	**1***	U	U	U	U	U	U	U	U
120-83-2	2,4-DICHLOROPHENOL	**5**	U	U	U	U	U	U	U	U
105-67-9	2,4-DIMETHYLPHENOL	**50**	U	U	U	U	U	U	18	U
51-28-5	2,4-DINITROPHENOL	**10**	U	U	U	U	U	U	U	U
121-14-2	2,4-DINITROTOLUENE	**5**	U	U	U	U	U	U	U	U
606-20-2	2,6-DINITROTOLUENE	**5**	U	U	U	U	U	U	U	U
91-58-7	2-CHLORONAPHTHALENE	**10**	U	U	U	U	U	U	U	U
95-57-8	2-CHLOROPHENOL	**1***	U	U	U	U	U	0.68	U	U
91-57-6	2-METHYLNAPHTHALENE	**NS**	0.92	U	U	U	U	U	1.2	U
95-48-7	2-METHYLPHENOL (O-CRESOL)	**1***	**2.1**	0.47	U	U	U	U	U	U
88-74-4	2-NITROANILINE	**5**	U	U	U	U	U	U	U	U
88-75-5	2-NITROPHENOL	**1***	U	U	U	U	U	U	U	U
91-94-1	3,3'-DICHLOROBENZIDINE	**5**	U	U	U	U	U	U	U	U
99-09-2	3-NITROANILINE	**5**	U	U	U	U	U	U	U	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	**1***	U	U	U	U	U	U	U	U
101-55-3	4-BROMOPHENYL PHENYL ETHER	**NS**	U	U	U	U	U	U	U	U
59-50-7	4-CHLORO-3-METHYLPHENOL	**1***	U	U	U	U	U	U	**7.5**	U
106-47-8	4-CHLOROANILINE	**5**	U	U	U	U	U	U	U	U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	**NS**	U	U	U	U	U	U	U	U
106-44-5	4-METHYLPHENOL (P-CRESOL)	**1***	U	**3.5**	**1.8**	**1.4**	**2.2**	**2.8**	**2.7**	**1.8**
100-01-6	4-NITROANILINE	**5**	U	U	U	U	U	U	U	U
100-02-7	4-NITROPHENOL	**1***	U	U	U	U	U	U	U	U
83-32-9	ACENAPHTHENE	**20**	U	U	U	U	U	U	U	U
208-96-8	ACENAPHTHYLENE	**NS**	U	U	U	U	U	U	U	U
98-86-2	ACETOPHENONE	**NS**	1.5	1.4	U	U	U	U	U	U
120-12-7	ANTHRACENE	**50**	U	U	U	U	U	U	U	U
1912-24-9	ATRAZINE	**7.5**	U	U	U	U	U	U	U	U
100-52-7	BENZALDEHYDE	**NS**	0.45	0.44	U	U	U	0.39	U	0.32
56-55-3	BENZO(A)ANTHRACENE	**0.002**	U	U	U	U	U	U	U	U
50-32-8	BENZO(A)PYRENE	**ND**	U	U	U	U	U	U	U	U
205-99-2	BENZO(B)FLUORANTHENE	**0.002**	U	U	U	U	U	U	U	U
191-24-2	BENZO(G,H,I)PERYLENE	**NS**	U	U	U	U	U	U	U	U
207-08-9	BENZO(K)FLUORANTHENE	**0.002**	U	U	U	U	U	U	U	U
85-68-7	BENZYL BUTYL PHTHALATE	**NS**	U	U	U	U	U	U	U	U
92-52-4	BIPHENYL (DIPHENYL)	**5**	U	U	U	U	U	U	**17**	U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	**5**	U	U	U	U	U	U	U	U
111-44-4	BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	**1**	U	U	U	U	U	U	U	U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	**5**	U	U	U	U	U	U	U	U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	**5**	3.6	U	U	U	U	U	**5.4**	U
105-60-2	CAPROLACTAM	**NS**	U	U	U	U	U	U	U	U
86-74-8	CARBAZOLE	**NS**	U	U	U	U	U	U	U	U
218-01-9	CHRYSENE	**0.002**	U	U	U	U	U	U	U	U
53-70-3	DIBENZ(A,H)ANTHRACENE	**NS**	U	U	U	U	U	U	U	U
132-64-9	DIBENZOFURAN	**NS**	U	U	U	U	U	U	U	U
84-66-2	DIETHYL PHTHALATE	**50**	0.7	U	0.47	U	U	U	0.79	U
131-11-3	DIMETHYL PHTHALATE	**50**	U	U	U	U	U	U	U	U
84-74-2	DI-N-BUTYL PHTHALATE	**50**	0.48	0.81	0.53	0.58	0.41	0.63	1.3	0.40
117-84-0	DI-N-OCTYLPHTHALATE	**50**	U	U	U	U	U	U	U	U
206-44-0	FLUORANTHENE	**50**	U	U	U	U	U	U	U	U
86-73-7	FLUORENE	**50**	U	U	U	U	U	U	U	U
118-74-1	HEXACHLOROBENZENE	**0.04**	U	U	U	U	U	U	U	U
87-68-3	HEXACHLOROBUTADIENE	**0.5**	U	U	U	U	U	U	U	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	**5**	U	U	U	U	U	U	U	U
67-72-1	HEXACHLOROETHANE	**5**	U	U	U	U	U	U	U	U
193-39-5	INDENO(1,2,3-C,D)PYRENE	**0.002**	U	U	U	U	U	U	U	U
78-59-1	ISOPHORONE	**50**	U	U	U	U	U	U	U	U
91-20-3	NAPHTHALENE	**10**	0.82	0.78	U	U	U	U	7.1	2.0
98-95-3	NITROBENZENE	**0.4**	U	U	U	U	U	U	U	U
621-64-7	N-NITROSODI-N-PROPYLAMINE	**NS**	U	U	U	U	U	U	0.5	U
86-30-6	N-NITROSODIPHENYLAMINE	**50**	U	U	U	U	U	U	U	U
87-86-5	PENTACHLOROPHENOL	**1***	U	U	U	U	U	U	U	U
85-01-8	PHENANTHRENE	**50**	0.45	0.75	0.96	0.5	0.46	0.62	0.6	0.85
108-95-2	PHENOL	**1***	U	**1.1**	U	U	U	U	**2.8**	U
129-00-0	PYRENE	**50**	U	U	U	U	U	U	U	U
Total SVOCs (ug/L)			11.0	9.25	3.76	2.48	3.07	5.12	64.9	5.4

Notes:
Top of casing elevations could not be collected from OW-33 through OW-36 due to interference from seasonal overgrowth.
U = below laboratory detection limits
ug/L = micrograms per liter
NC = Not collected.
NA = Not Available
ND = standard is to be below detection limits
CAS = Chemical Abstracts Services
* TOGS 1.1.1 - 1 ug/L standard applies to total chlorinated Phenols
NR=Not Regulated by TOGS 1.1.1
NS=Not Specified by TOGS 1.1.1

APPENDIX A

SOIL BORING LOGS/MONITORING WELL CONSTRUCTION INFORMATION

SOIL BORING LOG

ID NO. **SB-N**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **8 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/14/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.3	NA	100%	Brown to Black, Clayey SILT, tr-little organics, little Sand. Dry to moist.		
		0.3			Tan to brown, Silty Fine SAND. Moist to wet. Wet at 3.5ftbg.	Lab sample collected 2-4'.	
	S#2, 4-8'	0.1		100%	Brown, fine to medium SAND, trace Silt.		
5		0.0			Brown to grey, hard CLAY.		
				100%		Boring Terminated at 8 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-O**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **8 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/14/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.1	NA	100%	Brown-tan, CLAY and Silt, little f-m Sand, tr. organics. Dry to moist.		
		0.1					
					Tan-brown, Silty SAND. Moist.		
	S#2, 4-8'	0.4		100%	Brown, f-m SAND. Mosit to wet.	Lab sample collected 4-6'.	
5							
		0.0			Brown, hard CLAY.		
						Boring Terminated at 8 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-P**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **8 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/14/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.1	NA	50%	FILL - Brown-black debris, f-c Sand, clayey Silt. Debris includes plastic, rubber, glass, metal. Dry to moist.		
		0.1			Tan, Clayey SILT, little f-m Sand. Moist.		
	S#2, 4-8'	0.4		100%	Brown, f-m SAND, tr Silt. Wet.	Lab sample collected 4-6'.	
5		0.0			Brown, hard, CLAY.		
						Boring Terminated at 8 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-Q**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/14/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.0	NA	50%	FILL - Brown-black, f-c Silty Clay and Debris, glass, plastic, metal fragments. Moist.		
		0.3			Brown, Clayey SILT. Dry to moist.		
	S#2, 4-8'	0.5		100%	Grey, fine SAND, tr silt. Slight solvent odor.Wet.	Lab sample collected 4-8'.	
5							
	S#3, 8-12'	0.0			Grey, hard CLAY.		
10							
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-R**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **8 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/15/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.1	NA	20%	Brown, Silty CLAY, tr organics. Wet.		
	S#2, 4-8'	0.0		100%	Brown, f-c SAND, little Silt. Wet.	Lab sample collected 4-5'.	
5					Brown, hard CLAY.		
						Boring Terminated at 8 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

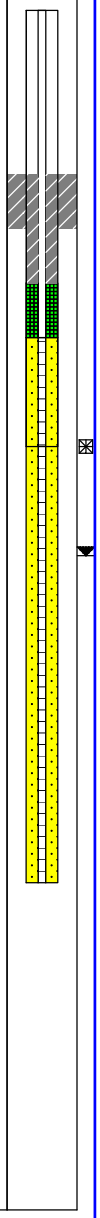
ID NO. **SB-S/OW-31**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:		TOTAL DEPTH:	**8 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:		CASING EL.:	
JOB NO.	**0901536**	BOREHOLE DIA.:	**12 in.**	WELL DIA.:	**2 in.**

Logged By:	**E. Popken**	Drilling Method:	**Direct Push / 4.25 in. Hollow Stem Auger**
Dates Drilled:	**4/15/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620 DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.0	NA	75%	Brown, SILT and CLAY, little f.Sand, tr organics. Wet.		4" Steel protective standpipe set in concrete 2" PVC riser to approx 2 ft above surface
		0.3			Tan-brown, f-m SAND, little Silt. Moist to wet.	Lab sample collected 1-3'.	Hydrated bentonite chips
	S#2, 4-8'	0.0		100%			
5							#00N Silica Sand Filter Sand
					Brown, hard CLAY. Moist.		2" PVC, 10 slot screen 1-6'
						Boring Terminated at 8'	



Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

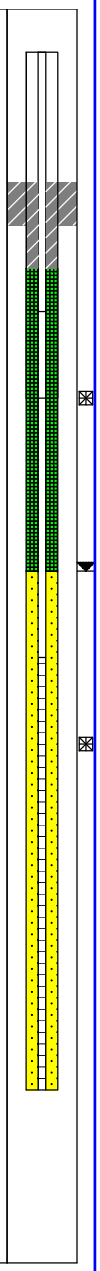
ID NO. **SB-T/OW-32**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:		TOTAL DEPTH:	**12 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:		CASING EL.:	
JOB NO.	**0901536**	BOREHOLE DIA.:	**12 in.**	WELL DIA.:	**2 in.**

Logged By:	**E. Popken**	Drilling Method:	**Direct Push / 4.25 in. Hollow Stem Auger**
Dates Drilled:	**4/15/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620 DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.3	NA	75%	FILL - Brown, Silty CLAY w/Debris. Debris includes metal, plastic, glass. Shiny metallic balls, size of coarse sand.	Lab sample collected 0-3'	4" Steel protective standpipe set in concrete 2" PVC riser to approx 2 ft above surface Hydrated bentonite chips
		0.3			Tan, f-m SAND, tr Silt. Moist		
5	S#2, 4-8'	0.4		100%	Brown, f.Silty SAND. Grades to grey at 6-7 ftbg. Wet. Slight odor observed.	Lab sample collected 4-8'	#00N Silica Sand Filter Sand
10	S#3, 8-12'	0.0		100%	Grey, f.SAND, tr Silt. Wet.		2" PVC, 10 slot screen 5-10'
					Grey, hard CLAY. Moist.		



Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-U**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/16/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.0	NA	50%	FILL - Black & Grey, mixture of Debris and f-c Sand, f-c gravel. Debris consists of glass, metal, plastic,possible trace ash. Moist.	Three attempts to recover sufficient volume for field observations and laboartory sample. First two attemps rendered poor recovery. Lab sample collected 0-4'.	
	S#2, 4-8'	0.0		100%	Tan-brown, f-m SAND, tr Silt. Moist to wet. Wet at 6'.		
5							
	S#3, 8-12'	0.0		100%			
10		0.0			Brown, hard CLAY. Moist.		
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-V**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/16/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.1	NA	50%	FILL - approximately 6" of clayey silt topcover over a mixture of glass, sand, metal, cinders, ash, plastic, slag pieces. Black and Grey. Moist.	Lab sample collected 0-4'.	
	S#2, 4-8'	0.0		85%			
5		0.0			Tan-brown, f-m SAND, tr Silt. Wet.		
	S#3, 8-12'	0.0		100%			
10		0.0			Brown, hard CLAY. Moist.		
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

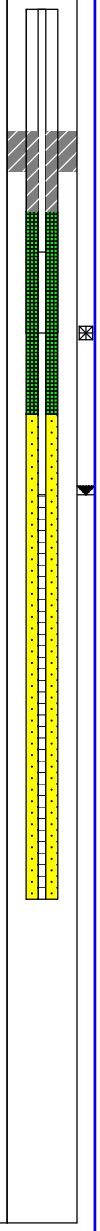
ID NO. **SB-W/OW-33**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:		TOTAL DEPTH:	**12 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:		CASING EL.:	
JOB NO.	**0901536**	BOREHOLE DIA.:	**12 in.**	WELL DIA.:	**2 in.**

Logged By:	**E. Popken**	Drilling Method:	**Direct Push / 4.25 in. Hollow Stem Auger**
Dates Drilled:	**4/16/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620 DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.1	NA	50%	FILL - 6" Clayey Silt topcover, over glass, plastic, ash, cinders, sand & gravel, tile, wood. Dry to Moist.	Lab sample collected 0-3'	4" Steel protective standpipe set in concrete 2" PVC riser to approx 2 ft above surface Hydrated bentonite chips
5	S#2, 4-8'	0.1		90%	Tan-brown, fine SAND. Contains trace seashells (clams) Wet. Grades to f-m Sand at 6 ftbg.	Lab sample collected 4-8'	#00N Silica Sand Filter Sand
	S#3, 8-12'	0.0		100%			2" PVC, 10 slot screen 4-9'
10		0.0			Grey, hard CLAY. Moist.	Boring Terminated at 12'	



Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-X**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/16/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.9	NA	100%	FILL - approximately 6" of clayey silt topcover over f-c Sand and f-c Gravel w/Debris. Debris consists of pulverized glass, bricks, plastic pieces. Size of coarse Sand. Dry.	Lab sample collected 0-4'.	
					Tan-brown, f-m SAND. Moist.		
	S#2, 4-8'	0.2		100%	Brown, f-m SAND, tr Silt. Wet to Saturated. Grades to grey at 6.5 ftbg.	Lab sample collected 4-8'.	
5							
	S#3, 8-12'	0.1		80%			
10					Brown, hard CLAY. Moist.		
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

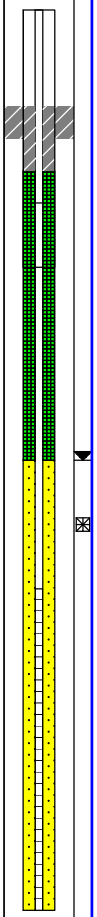
ID NO. **SB-Y/OW-34**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **16 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **12 in.**	WELL DIA.: **2 in.**

Logged By:	**E. Popken**	Drilling Method:	**Direct Push / 4.25 in. Hollow Stem Auger**
Dates Drilled:	**4/17/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620 DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
							4" Steel protective standpipe set in 20" PVC riser to approx 2 ft above surface
0	S#1, 0-4'	0.3	NA	100%	Brown, Sandy SILT, tr Clay, tr organics. Dry.		
					Dark brown, fine SAND. Moist.		
					Brown, Clayey SILT, tr-little f.SAND. Dry to moist.		
	S#2, 4-8'	0.3		100%	Grey-brown, silty f.SAND. Moist.		Hydrated bentonite chips
5					Grey-brown, f-m SAND. Wet-saturated.	Lab sample collected 5-7'	
					Grey-brown, silty f.SAND. Moist.		
	S#3, 8-12'	0.4		75%	Grey-brown, f-m SAND. Wet-saturated.		#00N Silica Sand Filter Sand
10		0.2					
	S#4, 12-16'			100%			2" PVC, 10 slot screen 7-12'
15					Brown, Hard CLAY. Moist.		
						Boring Terminated at 16'	



Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-Z**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/18/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.2	NA	80%	Brown, Silty CLAY, and debris - glass, bricks, f-c Gravel, tr wood.		
					Brown, Silty, f.SAND, little m-c Sand, tr organics, tr ash and cinders. Moist.	Lab sample collected 0-4'	
					Tan, f. SAND. Moist.		
	S#2, 4-8'	0.2		90%	Brown, f-m SAND. Wet.		
5					Grey-brown, silty f. SAND and silty Clay. Wet.		
	S#3, 8-12'	0.0		100%	Brown, hard CLAY.		
10						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-AA**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/18/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.2	NA	60%	Brown, Silty CLAY, tr f. gravel, tr organics, hard. Dry.		
	S#2, 4-8'	0.2		100%		Lab sample collected 4-8'	
5							
	S#3, 8-12'	0.0		100%	Olive-grey CLAY and SILT. Moist. Hard.		
10							
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

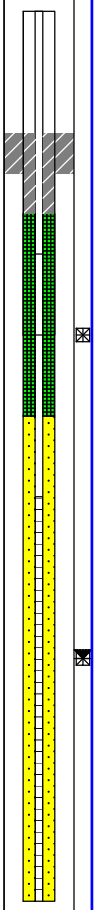
ID NO. **SB-BB/OW-35**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **12 in.**	WELL DIA.: **2 in.**

Logged By:	**E. Popken**	Drilling Method:	**Direct Push / 4.25 in. Hollow Stem Auger**
Dates Drilled:	**4/17/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620 DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.6	NA	75%	Brown, Clayey SILT, tr-little f-c Sand, tr organics, tr brick fragments, tr glass fragments. Dry.		4" Steel protective standpipe set in concrete 2" PVC riser to approx 2 ft above surface Hydrated bentonite chips
5	S#2, 4-8'	1.9		100%	Grey-brown, f-m SAND, tr Silt. Moist to wet. Wet at 6 ftbg.	Lab sample collected 5-7'	
	S#3, 8-12'	0.0		80%			#00N Silica Sand Filter Sand 2" PVC, 10 slot screen 4-9'
10					Brown, Hard CLAY. Moist.		
						Boring Terminated at 12'	



Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-CC**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **6 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/17/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	9.2	NA	25%	FILL - brown, Clayey SILT, and f-c SAND, reworked soil. Contains debris - plastic, rubber, glass, wood. Dry to moist.		
	S#2, 4-6'	15.6		25%	FILL - Brown Clayey SILT and debris. Debris contains metal, plastic, glass. Wet. Moderate solvent odor observed.	Lab sample collected 4-6'.	
5						Refusal at 6 ftbg	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

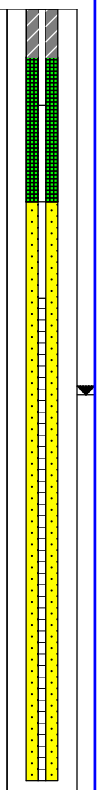
ID NO. **SB-DD/OW-36**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/17/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	9.3	NA	40%	FILL - Brown, Clayey SILT, tr-little debris (glass, metal, plastic, wood), some f-c Sand. Moist. Slight solvent odor.		Hydrated bentonite chips
	S#2, 4-8'	15.8		10%		Lab sample collected 4-8'.	
5					Grey, f-m SAND. Wet. Slight solvent odor.		#00N Silica Sand Filter Sand
	S#3, 8-12'	1.2		100%	Brown, hard, CLAY. Moist.		2" PVC, 10 slot screen 4-9'
10						Boring Terminated at 12 ftbg.	



Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-EE**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **8 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/18/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.4	NA	25%	FILL - Brown, Clayey SILT, little-some f-m SAND, tr organics, contains debris.Debris consists of glass, plastic, wood, f-c Sand. Slight solvent odor. Dry to moist.		
	S#2, 4-8'	2.0		50%	Brown, soft, silty CLAY. Moist.	Lab sample collected 4-8'.	
5					Grey-brown, f-m SAND. Slight solvent odor.		
					Grey, hard CLAY.		
10						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-FF**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/18/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.1	NA	75%	Brown, Clayey SILT, tr organics.		
					Debris - glass, rubber, plastic.		
					Brown, f-m SAND. Moist.		
	S#2, 4-8'	0.2		80%	Olive-brown, Silty f. SAND. Moist.		
5		1.0			Dark grey and black, f-m SAND. Wet.	Lab sample collected 6-8'.	
	S#3, 8-12'	0.2		100%			
10		0.0			Brown, hard CLAY. Moist.		
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-GG**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/18/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.2	NA	80%	FILL - Brown, Silty CLAY, tr Debris (plastic). Dry.		
					Brown, f-m SAND, tr silt (dry)		
	S#2, 4-8'	2.0		80%	FILL - Black-grey Soft Clay and Silt, little-some f-c Sand, debris (plastic, wood). Slight odor. Wet.	Lab sample collected 4-6'.	
5		0.4			Grey, f-m SAND. Wet		
	S#3, 8-12'	0.2		100%			
10		0.0			Brown, hard CLAY.		
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-HH**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/18/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	2.1	NA	50%	FILL - Brown, Silty CLAY, tr-little debris - glass, plastic, metal. Dry.		
	S#2, 4-8'	0.9		90%	Grey-olive, sandy SILT, tr CLAY. Moist.		
5		2.5			Black, f-m SAND, slight solvent odor. Moist to wet.	Lab sample collected 6-8'.	
	S#3, 8-12'	0.2		50%			
10		0.0			Brown, hard CLAY.		
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

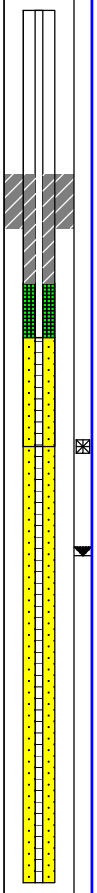
ID NO. **SB-II/OW-37**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:		TOTAL DEPTH:	**8 ftbg**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:		CASING EL.:	
JOB NO.	**0901536**	BOREHOLE DIA.:	**12 in.**	WELL DIA.:	**2 in.**

Logged By:	**E. Popken**	Drilling Method:	**Direct Push / 4.25 in. Hollow Stem Auger**
Dates Drilled:	**4/21/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620 DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.5	NA	50%	FILL - brown to black, clayey silt w/debris - plastic, metal, glass, cinders. Moist.	Lab sample collected 1-3'.	4" Steel protective standpipe set in concrete 2" PVC riser to approx 2 ft above surface Hydrated bentonite chips
	S#2, 4-8'	0.5		90%	Black-brown, f-m SAND, tr-little clayey Silt. Wet.		#00N Silica Sand Filter Sand
5		0.0			Brown, hard CLAY. Moist.		2" PVC, 10 slot screen 1-6'
						Boring Terminated at 8'	



Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-JJ**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **12 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/21/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.3	NA	100%	FILL - topcover of clayey SILT and organics. Dry.		
					Brown-tan, Clay and Silt, tr f. sand. Moist.		
	S#2, 4-8'	0.4		100%	Tan-brown, f-m SAND, tr-little Silt. Grey from 6-8'. Wet at 6'.	Lab sample collected 4-8'	
5							
	S#3, 8-12'	0.4		100%			
10					Brown, hard CLAY.		
						Boring Terminated at 12 ftbg.	

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

SOIL BORING LOG

ID NO. **SB-KK**

Groundwater & Environmental Services, Inc.

PROJECT:	**Nash Rd Landfill, Site #932054**	SURFACE ELEV.:	TOTAL DEPTH: **8 ftbg.**
ADDRESS:	**Wheatfield, New York**	WATER DEPTH:	CASING EL.:
JOB NO.	**0901536**	BOREHOLE DIA.: **3 in.**	WELL DIA.:

Logged By:	**E. Popken**	Drilling Method:	**Direct Push**
Dates Drilled:	**4/21/14**	Sampling Method:	**Macro Core**
Drilling Company:	**TREC Environmental, Inc.**	Soil Class. System:	**Burmister**
Drill Rig Type:	**Geoprobe 6620DT**	Field Screening:	**MiniRae 2000 PID w/10.6 eV lamp (PPM)**

Depth (feet)	Sample Interval	Field Screen	Blow Counts	Rec.	SAMPLE LITHOLOGY	COMMENTS	COMPLETION DETAILS
0	S#1, 0-4'	0.3	NA	100%	FILL - topcover - clayey Silt, organics, crushed rocks.		
					FILL - f-c SAND and debris - glass, paper, plastic, wood, metal, tr slag. Moist.	Lab sample collected 0-2'	
	S#2, 4-8'	0.0		100%	Grey, silty f. SAND. Moist.		
5					Grey-brown, f-m SAND. Moist to wet.		
					Brown, hard CLAY.		
				100%		Boring Terminated at 8 ftbg.	
10							

Location:
Northing/Latitude:
Easting/Longitude:
Horizontal Datum: **Lat/Long**
Vertical Datum: **Assumed 100 ft. elev. benchmark**

General Comments:
ftbg = Feet Below Grade
NC = Not Collected

Symbol Key:
Apparent Water Level
Lab Sample Location

APPENDIX B

SAMPLE COORDINATES

Nash Road Landfill
Nash Road
Wheatfield, New York

Appendix B
Sample Coordinates

Location	Type	Latitude	Longitude
SB-AA	SOIL BORING	-78.861153424	43.068315908
SB-BB/OW-35	SOIL BORING/MONITORING WELL	-78.859866120	43.069273654
SB-CC	SOIL BORING	-78.860316133	43.069425943
SB-DD/OW-36	SOIL BORING/MONITORING WELL	-78.860322420	43.069417314
SB-EE	SOIL BORING	-78.860221600	43.069334780
SB-FF	SOIL BORING	-78.860090102	43.068814359
SB-GG	SOIL BORING	-78.860442715	43.068860764
SB-HH	SOIL BORING	-78.860447520	43.069028662
SB-II/OW-37	SOIL BORING/MONITORING WELL	-78.858139422	43.069462166
SB-JJ	SOIL BORING	-78.858865196	43.069019555
SB-KK	SOIL BORING	-78.859140709	43.069126784
SB-N	SOIL BORING	-78.856715373	43.068472573
SB-O	SOIL BORING	-78.856111794	43.068676386
SB-P	SOIL BORING	-78.856957622	43.069002589
SB-Q	SOIL BORING	-78.857713516	43.069369966
SB-R	SOIL BORING	-78.855732331	43.068368137
SB-S/OW-31	SOIL BORING/MONITORING WELL	-78.854744176	43.068369960
SB-T/OW-32	SOIL BORING/MONITORING WELL	-78.858918084	43.068692899
SB-U	SOIL BORING	-78.858189018	43.068755519
SB-V	SOIL BORING	-78.858074342	43.068861677
SB-W/OW-33	SOIL BORING/MONITORING WELL	-78.857648249	43.069056679
SB-X	SOIL BORING	-78.858326277	43.068359243
SB-Y/OW-34	SOIL BORING/MONITORING WELL	-78.859965886	43.068324595
SB-Z	SOIL BORING	-78.860732480	43.068313451

APPENDIX C

LOW FLOW SAMPLING LOGS

WELL PURGING RECORD
LOW-FLOW SAMPLING METHOD

Site:	Nash Landfill	**Tubing Diameter (ID):**	3/8"
Project #:	0901536	**Initial Depth to Water (ft, TOC)**	4.66
Date:	5/19/2014	**Depth to Bottom of Well (ft, TOC)**	12.89
Sampling Device:	YSI 556	**Feet of Water in Well (ft)**	8.23
Well ID:	OW-16	**Volume of Water in Well (gal)**	1.34

Time	Depth to Water (ft, TOC)	Temperature (ºF)	pH	Specific Conductance (mS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
1525	4.66						
1535	5.28	11.02	6.63	1.839	-80.5	0.59	47.2
1540	5.34	9.98	6.60	1.824	-91.1	0.47	29.6
1545	5.36	9.61	6.61	1.806	-74.1	0.28	18.80
1550	5.36	9.60	6.62	1.799	-77.3	0.25	15.80
1555	5.35	9.48	6.62	1.797	-76.4	0.21	10.46
1600	5.35	9.51	6.61	1.796	-80.1	0.19	10.54
1605	5.35	9.39	6.61	1.795	-82.3	0.20	10.26

Purge Start Time:	1525
Purge End Time:	1605
Weather Conditions:	70° F, Sunny
Purge/Sampled by:	EP/TP

WELL PURGING RECORD
LOW-FLOW SAMPLING METHOD

Site:	Nash Landfill	**Tubing Diameter (ID):**	3/8"
Project #:	0901536	**Initial Depth to Water (ft, TOC)**	3.80
Date:	5/20/2014	**Depth to Bottom of Well (ft, TOC)**	9.15
Sampling Device:	YSI 556	**Feet of Water in Well (ft)**	5.35
Well ID:	OW-31	**Volume of Water in Well (gal)**	0.87

Time	Depth to Water (ft, TOC)	Temperature (ºF)	pH	Specific Conductance (mS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
1340	3.80						
1345	4.00	12.60	6.90	1.882	35.7	14.6	over
1350	4.30	12.75	6.88	1.806	18.0	0.71	over
1355	4.54	12.54	6.87	1.796	-2.1	6.1	over
Opened and emptied flow cell due to silt accumulation							
1405	4.58	12.30	6.90	1.850	-16.0	6.7	1,058
1410	4.60	12.25	6.88	1.850	-26.0	6.4	40
1415	4.60	12.25	6.87	1.843	-32.2	6.0	52
1420	4.60	12.23	6.86	1.812	-40.5	5.8	60
1425	4.60	12.10	6.86	1.761	-46.1	6.5	74
1430	4.60	12.06	6.84	1.808	-42.6	5.9	78
1435	4.60	12.02	6.83	1.807	-41.8	5.9	69
1440	4.60	12.08	6.83	1.809	-41.7	5.9	74

Purge Start Time:	1340
Purge End Time:	1440
Weather Conditions:	70° F, Sunny
Purge/Sampled by:	EP

WELL PURGING RECORD
LOW-FLOW SAMPLING METHOD

Site:	Nash Landfill	**Tubing Diameter (ID):**	3/8"
Project #:	0901536	**Initial Depth to Water (ft, TOC)**	4.59
Date:	5/19/2014	**Depth to Bottom of Well (ft, TOC)**	13.06
Sampling Device:	YSI 556	**Feet of Water in Well (ft)**	8.47
Well ID:	OW-32	**Volume of Water in Well (gal)**	1.38

Time	Depth to Water (ft, TOC)	Temperature (ºF)	pH	Specific Conductance (mS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
1649	4.59						
1700	4.82	10.67	6.71	1.540	-26.3	0.84	37.8
1705	4.84	10.28	6.66	1.517	-41.8	0.31	35.2
1710	4.85	10.35	6.66	1.497	-37.9	0.25	30.40
1715	4.85	10.50	6.67	1.449	-29.9	0.23	15.80
1720	4.85	10.58	6.66	1.418	-22.7	0.26	11.28
1725	4.85	10.37	6.66	1.387	-18.4	0.26	10.39
1730	4.85	10.32	6.66	1.363	-16.1	0.29	8.64
1735	4.85	10.55	6.66	1.354	-14.9	0.32	8.45
1740	4.85	10.52	6.66	1.355	-14.4	0.29	7.91

Purge Start Time:	1649
Purge End Time:	1740
Weather Conditions:	70° F, Sunny
Purge/Sampled by:	EP/TP

WELL PURGING RECORD
LOW-FLOW SAMPLING METHOD

Site:	Nash Landfill	**Tubing Diameter (ID):**	3/8"
Project #:	0901536	**Initial Depth to Water (ft, TOC)**	6.03
Date:	5/20/2014	**Depth to Bottom of Well (ft, TOC)**	11.90
Sampling Device:	YSI 556	**Feet of Water in Well (ft)**	5.87
Well ID:	OW-33	**Volume of Water in Well (gal)**	0.96

Time	Depth to Water (ft, TOC)	Temperature (ºF)	pH	Specific Conductance (mS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
1140	6.03						
1145	6.11	10.49	6.74	1.832	12.7	1.35	11.86
1150	6.12	10.56	6.69	1.929	4.0	0.29	2.12
1155	6.11	10.97	6.73	1.642	0.5	0.28	1.70
1200	6.11	10.72	6.79	1.460	-5.2	0.26	2.50
1205	6.11	10.63	6.82	1.352	-9.1	0.25	1.85
1210	6.11	10.53	6.83	1.318	-9.0	0.23	2.43
1215	6.11	10.50	6.85	1.284	-8.4	1.7	1.31
1220	6.11	10.38	6.85	1.294	-5.6	2.0	1.66
1225	6.11	10.48	6.85	1.289	-3.4	1.8	2.14
1230	6.11	10.56	6.86	1.271	-4.8	2.0	1.55
1235	6.11	10.58	6.88	1.270	-4.8	1.8	1.50
1240	6.11	10.55	6.86	1.272	-5.0	1.8	1.60

Purge Start Time:	1140
Purge End Time:	1240
Weather Conditions:	70° F, Sunny
Purge/Sampled by:	EP

WELL PURGING RECORD
LOW-FLOW SAMPLING METHOD

Site:	Nash Landfill	**Tubing Diameter (ID):**	3/8"
Project #:	0901536	**Initial Depth to Water (ft, TOC)**	4.00
Date:	5/19/2014	**Depth to Bottom of Well (ft, TOC)**	15.35
Sampling Device:	YSI 556	**Feet of Water in Well (ft)**	11.35
Well ID:	OW-34	**Volume of Water in Well (gal)**	1.85

Time	Depth to Water (ft, TOC)	Temperature (ºF)	pH	Specific Conductance (mS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
1335	4.00						
1350	4.64	12.31	6.83	0.698	31.1	1.53	22.0
1355	4.71	11.72	6.81	0.686	17.2	0.98	13.1
1400	4.73	11.85	6.80	0.685	10.9	0.74	12.57
1405	4.72	11.88	6.77	0.684	-1.4	0.50	11.51
1410	4.72	11.91	6.75	0.687	-29.6	0.36	10.24
1415	4.71	12.08	6.76	0.688	-36.7	0.34	8.53
1420	4.71	11.92	6.75	0.685	-59.1	0.31	5.60
1425	4.71	11.76	6.74	0.682	-62.3	0.29	3.88
1430	4.71	11.68	6.74	0.678	-64.1	0.26	3.50
1435	4.71	11.77	6.74	0.679	-63.8	0.25	3.24

Purge Start Time:	1335
Purge End Time:	1435
Weather Conditions:	70° F, Sunny
Purge/Sampled by:	EP/TP

WELL PURGING RECORD
LOW-FLOW SAMPLING METHOD

Site:	Nash Landfill	**Tubing Diameter (ID):**	3/8"
Project #:	0901536	**Initial Depth to Water (ft, TOC)**	4.66
Date:	5/19/2014	**Depth to Bottom of Well (ft, TOC)**	12.10
Sampling Device:	YSI 556	**Feet of Water in Well (ft)**	7.44
Well ID:	OW-35	**Volume of Water in Well (gal)**	1.21

Time	Depth to Water (ft, TOC)	Temperature (ºF)	pH	Specific Conductance (mS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
1110	4.66						
1115	4.88	10.29	6.05	1.515	30.4	1.10	29.2
1120	4.89	10.55	6.20	1.500	23.0	0.57	21.0
1125	4.89	10.58	6.31	1.498	12.8	0.52	17.9
1130	4.89	10.58	6.39	1.498	21.4	0.39	8.63
1135	4.90	10.54	6.43	1.503	20.5	0.33	5.99
1140	4.90	10.58	6.46	1.507	16.3	0.32	5.05
1145	4.90	10.55	6.46	1.502	16.2	0.35	5.24
1150	4.90	10.57	6.45	1.500	16.4	0.37	5.16

Purge Start Time:	1110
Purge End Time:	1150
Weather Conditions:	70° F, Sunny
Purge/Sampled by:	EP/TP

WELL PURGING RECORD
LOW-FLOW SAMPLING METHOD

Site:	Nash Landfill	**Tubing Diameter (ID):**	3/8"
Project #:	0901536	**Initial Depth to Water (ft, TOC)**	3.99
Date:	5/19/2014	**Depth to Bottom of Well (ft, TOC)**	10.35
Sampling Device:	YSI 556	**Feet of Water in Well (ft)**	6.36
Well ID:	OW-36	**Volume of Water in Well (gal)**	1.04

Time	Depth to Water (ft, TOC)	Temperature (ºF)	pH	Specific Conductance (mS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
1220	3.99						
1230	4.08	10.64	6.51	0.942	-33.1	1.26	15.60
1235	4.10	10.07	6.48	0.911	-53.8	0.40	11.11
1240	4.10	10.45	6.01	0.871	-43.2	0.27	10.41
1245	4.10	10.73	6.24	0.832	-58.9	0.22	10.62
1250	4.10	10.82	6.33	0.818	-73.5	0.22	7.25
1255	4.10	10.85	6.39	0.814	-67.0	0.21	6.69
1300	4.10	10.87	6.43	0.812	-64.8	0.21	6.60
1305	4.10	10.90	6.41	0.810	-66.5	0.22	6.41

Purge Start Time:	1220
Purge End Time:	1305
Weather Conditions:	70° F, Sunny
Purge/Sampled by:	EP/TP

WELL PURGING RECORD
LOW-FLOW SAMPLING METHOD

Site:	Nash Landfill	**Tubing Diameter (ID):**	3/8"
Project #:	0901536	**Initial Depth to Water (ft, TOC)**	3.50
Date:	5/20/2014	**Depth to Bottom of Well (ft, TOC)**	8.90
Sampling Device:	YSI 556	**Feet of Water in Well (ft)**	5.40
Well ID:	OW-37	**Volume of Water in Well (gal)**	0.88

Time	Depth to Water (ft, TOC)	Temperature (ºF)	pH	Specific Conductance (mS/cm)	ORP	DO (mg/L)	Turbidity (NTU)
1000	3.50						
1005	3.61	11.49	6.93	1.172	59.1	2.13	1.65
1010	3.61	11.01	6.84	1.110	-61.4	0.46	1.34
1015	3.61	11.33	6.84	1.090	-60.4	0.47	1.28
1020	3.61	11.32	6.83	1.092	71.4	0.39	1.30
1025	3.61	11.24	6.83	1.097	-63.5	0.34	1.23
1030	3.61	11.48	6.83	1.090	-70.3	0.35	1.30
1035	3.61	11.46	6.83	1.086	-71.4	0.30	1.31
1040	3.61	11.44	6.83	1.087	-71.5	0.30	1.32

Purge Start Time:	1000
Purge End Time:	1040
Weather Conditions:	70° F, Sunny
Purge/Sampled by:	EP

APPENDIX D

(SEE ATTACHED CD)

LABORATORY ANALYTICAL REPORTS