

**Sullivan County
Division of Planning &
Community Development**

**Phase II Environmental
Site Assessment (ESA)**

**Monticello Manor
15 High Street
Monticello, New York
Sullivan County**



Prepared for: **Sullivan County DPCD**
100 North Street
Monticello, New York 12701

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July 2019
Work Order: 9294.01

**PHASE II ENVIRONMENTAL SITE ASSESSMENT (ESA)
MONTICELLO MANOR
15 HIGH STREET
VILLAGE OF MONTICELLO, SULLIVAN COUNTY, NEW YORK**

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1.0 □ INTRODUCTION

Tectonic Engineering and Surveying Consultants, P.C. (Tectonic) has prepared this Phase II Environmental Site Assessment (ESA) Report for the property located at 15 High Street in the Village of Monticello, New York (herein referred to as the “Site” or “Subject Property”). This Phase II ESA investigation was performed in substantial accordance with the United States Environmental Protection Agency (USEPA) approved site-specific Sampling and Analysis Plan (SAP) dated December 2018 and Quality Assurance Project Plan (QAPP) dated March 2019 and revised April 5, 2019.

The subject Phase II ESA investigation was conducted in support of EPA Brownfield Hazardous Substance grant funds being administered by the Sullivan County Division of Planning & Community Development (DPCD). It is our understanding that the funds are being used to identify and assess brownfield sites in Sullivan County, focusing on the urban centers of Monticello, Liberty and South Fallsburg.

The primary objective of this Phase II ESA was to collect physical and chemical data in order to evaluate the presence / absence of potential impacts from eight (8) Recognized Environmental Conditions (RECs) identified in the Phase I ESA for the Monticello Manor property, as outlined in our Phase I ESA Report dated October 24, 2018. These RECs are described in detail in Section 2.5 of this Phase II ESA.

2.0 BACKGROUND

2.1 Site Description and Features

The Subject Property is located at 15 High Street in the Village of Monticello, Sullivan County, New York 12701 (see **Figure 1**). The Subject Property is the parcel of land identified as Tax Map Number 107.-1-11.1 by the Sullivan County Tax Map Department. The site occupies 5.6 acres in a residential and commercial area.

The Subject Property is improved with five (5) structures and a paved access road and parking area. Structures include:

- One (1) three-story, brick and mortar, main structure located in the approximate center of the Subject Property. According to the Sullivan County Tax Web App, the structure has an approximate gross floor area of 32,188-square feet. Based on an estimate derived using Google aerial imagery, the footprint of this structure is approximately 11,500-square feet. The oldest portion of the main structure was built circa 1920s;
- One (1) three-story, brick and mortar, secondary structure located southeast of the main structure. According to the Sullivan County Tax Web App, the structure has an approximate gross floor area of 4,748-square feet. Based on an estimate derived using Google aerial imagery, the footprint of this structure is approximately 1,600-square feet. The secondary structure was built around 1931; and
- Three (3) small storage structures that are situated to the north of the main structure. Based on estimates derived using Google aerial imagery, the footprint of these structures are approximately 370-square feet, 240-square feet, and 480 square feet.

A paved access road extends north off of High Street and leads up to the main structure and further extends to the north side of the Subject Property where there is a parking area. The remainder of the Subject Property

consists of unimproved woodlands. The approximate locations of the above referenced structures are shown in **Figure 2**.

2.2 Physical Setting

Soil:

The United States Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS), and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. Soil maps, based on the State Soil Geographic (STATSGO) database, are compiled by generalizing more detailed Soil Survey Geographic (SSURGO) database maps. The EDR report provides information from these sources, which was reviewed and summarized below.

A USDA Natural Resources Conservation Service (NRCS) Custom Soil Resource Report was generated by the NRCS Web Soil Survey 2.0, to supplement the report generated by EDR. According to these reports, mapped soils at the Subject Property consist of three (3) soil types:

- Arnot-Oquaga complex (AoE), 15 to 35 percent slopes, very rocky;
 - o AoE is described as a loamy till derived from acidic sandstone, siltstone and shale which extends to a depth of 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as somewhat excessively drained and is categorized as hydrologic soil group D.
- Oquaga very channery silt loam, 3 to 8 percent slopes (OeB); and
 - o OeB is described as a very channery silt loam derived from reddish sandstone, siltstone and shale which extends to a depth of 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as well drained and is categorized as hydrologic soil group C.
- Oquaga-Arnot complex, 8 to 15 percent slopes (OgC).
 - o OgC is described as a channery loamy till derived from reddish sandstone, siltstone and shale which extends to a depth 20 to 40 inches before encountering lithic bedrock and to a depth of more than 80 inches before encountering the water table. This soil type is described as somewhat excessively drained and is classified as hydrologic soil group C.

Geology:

According to the United States Geological Survey (USGS) and the New York State (NYS) Museum Office of Cartography and Publications' Generalized Bedrock Geology of NYS, the geology underlying the Subject Property consists of late Devonian aged sedimentary deposits consisting generally of shales, sandstones and conglomerates. Specifically, the Subject Property is located in an area that contains the Upper Walton Formation. Bedrock is exposed in some locations, but is generally shallow below the soil surface.

Hydrogeology:

Monticello is not located within a 100-year flood zone and no designated wetlands or other surface water bodies were identified on the Subject Property. The general topographic gradient of the Subject Property and

the surrounding area is to the southeast toward an unnamed body of water located approximately 1,200 feet from the Subject Property's eastern boundary.

2.3 Site History and Land Use

The Subject Property is currently owned by Sullivan County who obtained the title of ownership on May 1, 2018 after the bankruptcy of the former property owner, Manor Venture, was discharged. The Subject Property and the remaining structures are currently unoccupied.

While performing due diligence for the Phase I ESA, Tectonic interviewed a former property owner, Mr. Charlie Benson, via telephone on August 15, 2018 to inquire into the operational history at the Monticello Manor site. Mr. Benson owned the property for approximately thirty (30) years beginning in 1978. During that time, the property was used as an assisted living facility for adults. Mr. Benson stated that the property was operated as a hospital prior to his ownership. During his time as owner, Mr. Benson stated that there was no X-Ray Machine or dry cleaning facilities on site. Mr. Benson said that to his knowledge, no automotive maintenance was performed at the site during his time as property owner.

According to a Property Ownership card provided by Sullivan County, past owners' of the property included:

- Landfield-Monticello Services, Inc. (recorded January 3, 2001);
- Highland Fields, Inc. (recorded January 31, 1994);
- Landfield Hill Associates (recorded August, 28, 1979);
- Community General Hospital of Sullivan County (recorded August 1, 1979); and
- Hebrew Hospital Association of Sullivan County (no date recorded).

2.4 Adjacent Property Land Use

The Site is bordered on the north by commercial development (Beer World), on the west by a residential structure and the Village of Monticello water towers, on the south by a commercial structure (Marshall & Sterling Insurance), and on the east by commercial structures (Citgo, Ultrapower, NAPA Auto Parts).

2.5 Summary of Previous Assessments

Tectonic performed a Phase I ESA for Monticello Manor and presented findings and recommendations in the Phase I ESA Report dated October 24, 2018. Tectonic identified eight (8) RECs which included:

1. The first REC that was identified is a spill associated with an above ground storage tank (AST) on the Subject Property that was not cleaned up according to New York State Department of Environmental Conservation (NYSDEC) standards. The Environmental Data Resources, Inc. (EDR) database report identifies a release that was not immediately reported and was not remediated according to state standards. As such, we concluded there was a high potential that the reported release of petroleum has impacted site soils and potentially groundwater in the vicinity of the AST.
2. The second REC that was identified is associated with a tank failure that occurred at the Ultra Power gas station located approximately 380 feet southeast and down-gradient of the Subject Property that was not remediated according to state standards, as well as the property's historic use as a gas station. The historic tank failure and use of this nearby site as a gas station had the potential for

petroleum contaminated soils and groundwater, potentially impacting the Subject Property if the contaminated media had historically migrated off site.

3. The third REC that was identified is a spill that occurred at the Stewart's Shop gas station located approximately 442 feet down-gradient of the Subject Property, as well as its historic use as a gas station. The spill that occurred consisted of a release of an unknown quantity of gasoline and the cleanup did not meet NYSDEC standards. The reported petroleum release had the potential to contaminate on-site soils and groundwater, potentially impacting the Subject Property if the contaminated media had historically migrated off site.
4. The fourth REC that was identified is associated with a drum labeled "VP Racing Fuel" located on the Subject Property. This drum was partially filled and located in a storage shed on the Subject Property. Potential petroleum releases from the drum may have impacted the soils and groundwater in the vicinity of the drum.
5. The fifth REC that was identified is the potential cumulative impacts resulting from potential releases from various suspect containers discovered across the Subject Property that could potentially hold hazardous substances. The suspect containers were partially filled, and some of them were not stored properly. Each suspect container would individually be considered a de minimis condition, however, the substantial number of de minimis conditions has been considered a REC. Petroleum products and unknown material included in the containers may have impacted soils and groundwater at the Subject Property.
6. The sixth REC that was identified is the underground storage tank (UST) that was observed during the site reconnaissance on the Subject Property that could not be visually assessed for leaks. Potential releases from the UST may have historically impacted the Subject Property, impacting on-site soils and groundwater.
7. The seventh REC that was identified is associated with miscellaneous debris that was observed throughout the Subject Property. Each occurrence of debris would individually be considered a de minimis condition, however, the substantial number of debris piles/de minimis conditions has been considered a REC. Unknown material included in the debris may have impacted soils and groundwater at the Subject Property.
8. Due to the unknown date of connection to municipal utilities, there is potentially a septic tank at the property which may contain discharges from the former hospital. If a septic tank exists, the potential that it may have leaked wastewater containing phenolic compounds into on site soils and groundwater exists.

To the best of our knowledge, no other environmental investigations at the Subject Property have been performed.

3.0 □ PHASE II ESA ACTIVITIES

Prior to mobilization to the Site for field activities, Tectonic identified seven (7) areas of concern (AOCs) in which potential impacts and/or contamination may be present due to historic use of the Subject Property (see **Figure 3**). The identification of the AOCs was informed primarily by performing the Phase I ESA. These areas of concern include:

- AOC 1: One (1) UST was observed during the Phase I ESA site reconnaissance. Due to access limitations and the tank being below grade, it could not be assessed (visually or olfactorily) whether or not releases from the UST had impacted surrounding soils and groundwater.
- AOC 2, AOC 3, AOC 4: Three (3) ASTs were noted during the Phase I ESA site reconnaissance. No evidence of release was observed on the ground surface, however, impacts to sub-surface soils from potential releases may exist.
- AOC 5, AOC 6: Two (2) 55-gallon drums were reported during the Phase I ESA site reconnaissance. No evidence of release was observed on the ground surface, however, impacts to sub-surface soils from potential releases may exist.
- AOC 7: An interview with a former property owner revealed that a four car garage had previously existed in the rear (north of) the main structure located at the Subject Property. Potential releases from vehicles and suspect containers stored in the garage may have impacted sub-surface soils and groundwater.

Additionally, based on comments on the Phase I ESA, provided by the USEPA, the subject Phase II ESA investigation was designed to include two (2) additional components:

1. Tectonic shall obtain additional relevant documentation for the Subject Property from the Village of Monticello Building Department to evaluate when the structures on the property were connected to the municipal sewer system. If records indicate that the facility has been serviced by the municipal sewer since occupation, no further investigation will be necessary regarding the septic system. However, if information is inconclusive, item number 2, below, shall be implemented.
2. Tectonic shall perform a geophysical survey to investigate if a septic system is present.

The seven (7) AOCs and the approximate area of the geophysical survey are shown in **Figure 3**.

3.1 Deviations from the SAP / QAPP

Groundwater sampling was included as part of the scope of work in our USEPA approved SAP and QAPP with the intention of providing data relative to the presence and/or absence of petroleum impacts within the shallow groundwater within the limits of two (2) of the seven (7) identified AOCs (AOC 1 and AOC 7) and in a down-gradient location from a potential septic system. However, bedrock was encountered at shallow depths (0 – 5 feet below ground surface) and groundwater was not encountered. As such, monitoring wells could not be installed and groundwater samples were not collected.

3.2 Building Department Records Review

Tectonic conducted a records review in accordance with American Society for Testing & Materials (“ASTM”) Practice E1527-13 during the Phase I ESA investigation. As part of the subject investigation, Tectonic requested any records on file for the Subject Property located at the Village of Monticello Building Department associated with existence of a potential septic system or any underground storage tanks. The Village of Monticello’s Building Department responded on May 28, 2019, stating that no information was available associated with the presence of a septic tank or underground storage tanks on the Subject Property. Copies of this correspondence is included in **Appendix I**. However, on June 5, 2019, Steve Kozachuk with the Village of Monticello Water and Sewer Department confirmed that the Subject Property had been serviced by a public sanitary sewer system since the hospital had been constructed.

3.3 Geophysical Survey

A geophysical survey was performed in the vicinity of the main and secondary structures of the Subject Property on June 5, 2019 using ground penetrating radar (GPR) to investigate whether an undocumented septic system is present. All areas accessible to a GPR unit within a one hundred (100) foot radius of the structures were surveyed; no evidence was observed associated with a potential septic system on the Subject Property.

3.4 Soil Sampling

On June 5 and 6, 2019, a geologist from Tectonic, with current OSHA HAZWOPER training, and representatives from General Borings, Inc. mobilized to the Site to advance eight (8) soil borings to depths ranging between approximately eight (8) inches to five (5) feet below ground surface (bgs) (see **Figure 4**). Borings were advanced continuously via AMS PowerProbe 9500-VTR direct push rig or via hand excavation to refusal at bedrock.

The eight (8) soil borings were located to address the seven (7) AOCs identified and the presence of the sanitary sewer line, as detailed below.

- Two (2) soil borings (borings B1 and B2) were advanced in the vicinity of the two (2) 55-gallon drums discovered during Tectonic’s site reconnaissance performed on June 25, 2018 as part of the Phase I ESA investigation for potential petroleum contamination. These borings were performed to address AOCs 5 and 6.
- Three (3) soil borings (borings B3, B4 and B5) were advanced in the vicinity of the three (3) ASTs discovered during Tectonic’s site reconnaissance performed on June 25, 2018 as part of the Phase I ESA investigation for potential petroleum contamination. These borings were performed to address AOCs 2, 3, and 4.
- One (1) soil boring (boring B6) was advanced in the vicinity of the former location of a four car garage behind the main structure that has subsequently been destroyed (according to an interview with a former property owner). This boring was performed to address AOC 7.

- One (1) soil boring (boring B7) was advanced in the vicinity of the one (1) UST identified during Tectonic's site reconnaissance performed on June 25, 2018 as part of the Phase I ESA investigation. This boring was performed to address AOC 1.
- One (1) soil boring (boring B8) was advanced to evaluate the soils located down-gradient from the sanitary sewer line identified by the Village of Monticello.

The soil borings locations B1 through B4, B6 and B8 were advanced via Geoprobe to approximately five (5) feet below ground surface (bgs) or to refusal at bedrock; no groundwater was encountered. Boring locations B5 and B7 could not be accessed by the track mounted Geoprobe; as such, hand tools were utilized to reach bedrock. Once bedrock was exposed, a single-use, dedicated scoop was utilized to obtain a fresh surface in the side-walls of each excavation for soil classification and to obtain analytical samples. See Boring Logs and Test Pit Logs included as **Appendix II** for details.

Soils were visually and olfactorily inspected and field screened with a calibrated MiniRAE 3000 Photoionization Detector (PID) for the presence of Volatile Organic Compounds (VOCs) or other contaminants. No visual or olfactory indicators of contamination or PID readings above background concentrations were observed in the borings.

The soils were classified via the United Soil Classification System (USCS), and generally consisted of brown/black coarse to fine sand with varying amounts of gravel and silt. Soils within the borings also contained anthropogenic materials, including concrete, glass, and styrofoam, to depths of up to four (4) feet bgs. USCS classifications are noted on the corresponding boring logs, included as **Appendix II**.

One (1) discrete soil sample was collected from the termination depth of each boring via Terra Core® sampler for VOC analysis. Since no PID readings or other evidence of contamination were observed at shallower depths, discrete sampling locations were chosen to be representative of the depth closest to the surficial groundwater table. One (1) composite sample was collected from each boring location for the remaining analyses (see **Table 3**). Due to minimal soil recovery at the sampling locations, all recovered soil was used to prepare each composite sample. Soils were obtained directly off the dedicated plastic liner via dedicated plastic scoop, placed into a food-grade plastic container and kneaded to form a visually homogeneous composite samples. A total of eight (8) discrete samples and eight (8) composite samples were collected.

The soil samples were transferred to laboratory prepared containers. The containers were labeled, placed into a cooler on ice, and transferred to a courier provided by York Analytical Laboratories (York), a New York State Environmental Laboratory Approval Program (NYS ELAP) accredited laboratory located in Stratford, Connecticut following standard chain-of-custody protocol.

Boring logs and Test Pit logs are attached as **Appendix II**. A map showing the location of soil borings is shown in **Figure 4**. Photographs depicting the conditions at the site during sample collection activities are included as **Appendix III**.

4.0 □ ANALYTICAL TEST RESULTS

All samples were analyzed by York located in Stratford, Connecticut. Samples were received intact and at the proper temperature by the laboratory, and within the method required holding times for all analyses. Soil samples were analyzed for the parameters listed in **Table 1** via the indicated analytical methods.

Table 1: Soil Sample Analyses Summary

Parameter	Method
Target Compound List (TCL) Volatile Organic Compounds (VOCs)	SW-846 Method 8260
TCL Semi-volatile Organic Compounds (SVOCs)	SW-846 Method 8270
Target Analyte List (TAL) Metals	SW-846 Methods 6010/7470

Soil sample analytical results were compared to the Soil Clean-Up Objectives (SCOs) set forth in 6 NYCRR Part 375. -6.8(a) and (b) (Part 375) and the Supplemental Soil Clean-up Objectives (SSCOs) set forth by the New York State Department of Environmental Conservation (NYSDEC) Final Commissioner Policy, CP-51 (CP-51). Summary comparison tables of detected analytes in the soil samples and soil chemical properties are presented in **Tables 2 - 3**. A copy of the analytical test results is attached in **Appendix III**.

5.0 **FINDINGS**

The following summarizes the findings of the Phase II investigation soil sampling conducted between June 5, 2019 and June 6, 2019. The findings of the soil sampling and the results of the analytical testing indicate the following:

1. No PID readings, odors, visual or olfactory evidence, or staining indicating the potential presence of petroleum hydrocarbon compounds or other contaminants in the borings and test pits screened and sampled during the subject sampling event were observed.
2. The analytical test results indicate that the VOCs acetone and methylene chloride were detected above laboratory detection limits but below their respective Part 375/CP-51 SCOs/SSCOs use criteria in at least one discrete soil sample analyzed as part of this investigation. No other VOCs were reported above laboratory detection limits in the discrete soil samples analyzed as part of this investigation.

It should be noted that while acetone and methylene chloride are common laboratory contaminants, the laboratory did not detect either acetone or methylene chloride in the associated method blanks for these compounds. Additionally, York analyzed the VOC samples in a laboratory dedicated to analysis of volatiles in water, soils, and vapor samples; as such, acetone and methylene chloride are not used in this laboratory. Based on the above information, the detected parameters are considered intrinsic to the soil samples and not a laboratory contaminant.

3. The analytical test results indicate that concentrations of the following metals were detected in at least one of the composite soil samples at concentrations above at least one of their respective Part 375/CP-51 SCOs/SSCOs unrestricted use criteria:
 - Aluminum;
 - Calcium;
 - Copper;
 - Iron;
 - Lead;
 - Mercury; and
 - Zinc.

Remaining detected metals were below their respective Part 375/CP-51 SCOs/SSCOs criteria limits for all uses.

4. The analytical test results indicate that concentrations of SVOCs were detected in the composite soil sample B5 B5 Comp at concentrations above at least one of their respective Part 375/CP-51 SCOs/SSCOs unrestricted use criteria:

- Benzo(a)anthracene;
- Benzo(a)pyrene;
- Benzo(b)fluoranthene;
- Benzo(k)fluoranthene;
- Chrysene;
- Dibenzo(a,h)anthracene; and
- Indeno(1,2,3-cd)pyrene.

Remaining detected SVOCs were below their respective Part 375/CP-51 SCOs/SSCOs criteria limits for all uses.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This Phase II ESA was based on field work consisting of the advancement of eight (8) borings to bedrock on the Subject Property. No groundwater was encountered and potential impacts to on-site soil vapor was not investigated.

No odors, PID readings, or visual or olfactory evidence of contamination were observed. However, anthropogenic materials in the upper four (4) feet of soils were identified across the site. The soils sampled and analyzed as part of this investigation would be classified as non-hazardous regulated material by the State in New York. As such, should redevelopment or improvements be considered for the site, Tectonic offers the following recommendations:

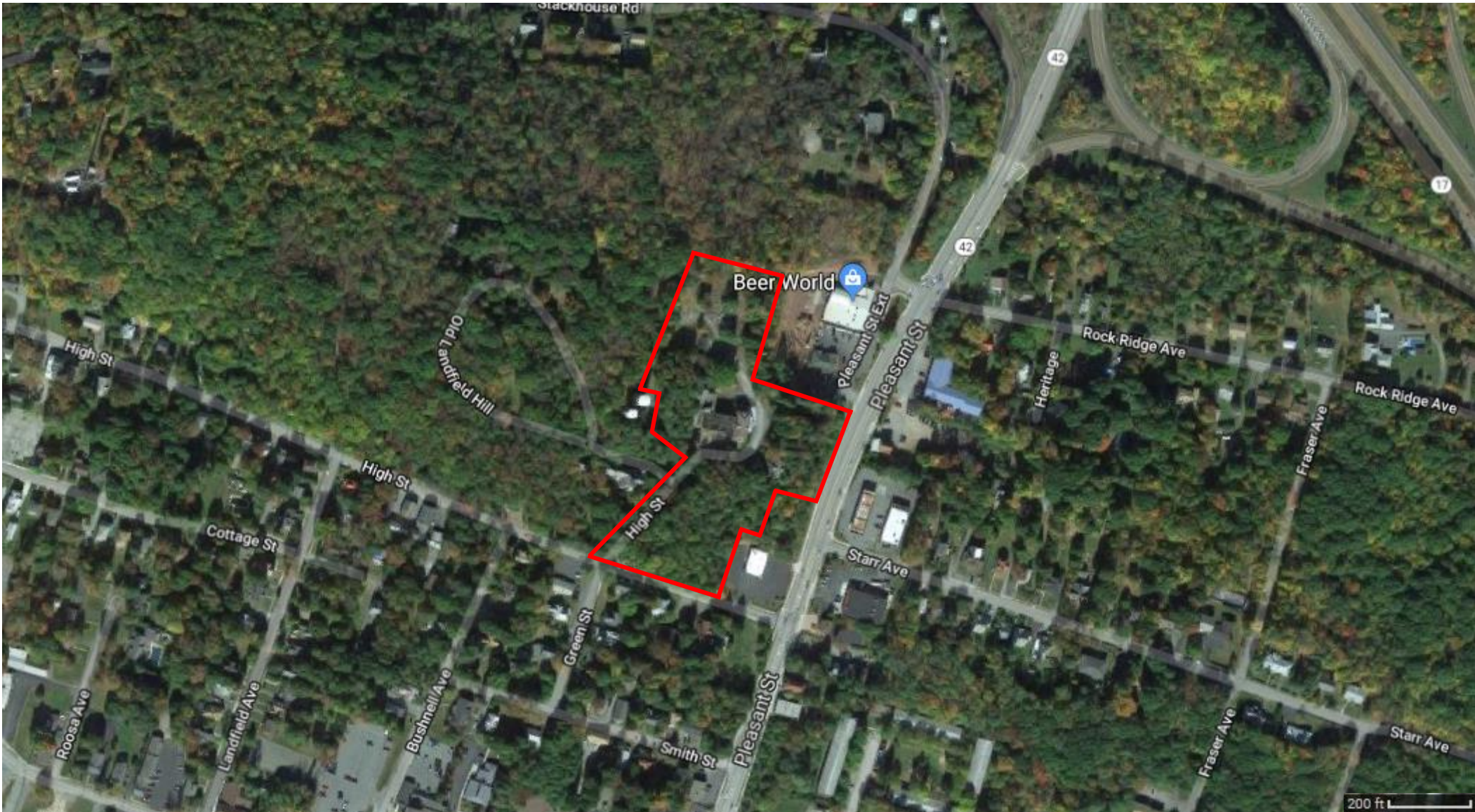
1. A site-specific Health and Safety Plan (HASP) should be developed by a qualified safety professional and should include a task-specific health and safety analysis to identify task-specific hazardous, hazard controls, and monitoring and safety requirements for all phases of work. The HASP should be implemented by the appropriate party(ies) during site improvement activities, as specified.
2. A Site Management Plan (SMP) should be prepared by qualified personnel. The SMP should define the overall measures required to maintain protection of human health and the environment via an evaluation of the potential exposure pathways and receptors. Further, the SMP should specify what, if any, additional sampling is required to delineate the vertical and horizontal extent of the historic fill and include provisions for determining whether the material is environmentally suitable for reuse on-site.
3. All soils and debris leaving the site should be disposed of at a facility permitted to accept the material. All soils designated for off-site disposal should be classified in accordance with the facility's acceptance criteria. Off-site disposal operations shall meet the Contract document requirements, and if not otherwise specified, include a waste transportation manifest and disposal documentation program.
4. A Community Air Monitoring Plan (CAMP) should be developed in accordance with NYSDOH for any soil disturbing activities.

5. The underground and aboveground storage tanks on site should be closed in accordance with NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10), 6 NYCRR Part 375 Environmental Remediation Programs (Part 375) and/or 6 NYCRR Part 613, as applicable.
6. Should evidence of a petroleum or other materials release be encountered during site improvements, or during the closure of the existing storage tanks on site, this release should be reported to the NYSDEC Hotline at 1-800-457-7362.
7. Due to the age of the structures, an asbestos containing materials (ACM) and lead based paint (LBP) investigation should be performed if demolition or renovation to the structures is anticipated.

7.0 LIMITATIONS

The Phase II ESA services provided by Tectonic have been performed in general accordance with industry standards. Our professional services were performed using the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental engineers and geologists practicing in this or similar situations. Our interpretation of the field data is based on good judgment and experience. However, no matter how qualified the environmental engineer or detailed the investigation, conditions cannot always be predicted beyond the points of actual sampling and testing. No other warranty, expressed or implied, is made as to the professional advice included in this report.

FIGURE 1



Key:



Approximate Site Location

NOTES



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Title Figure 1: Approximate Site Location

Location Monticello Manor, 15 High Street, Monticello, NY 12701

Client Sullivan County

Source Google Maps

Date 6/6/2019

Work Order 9294.01

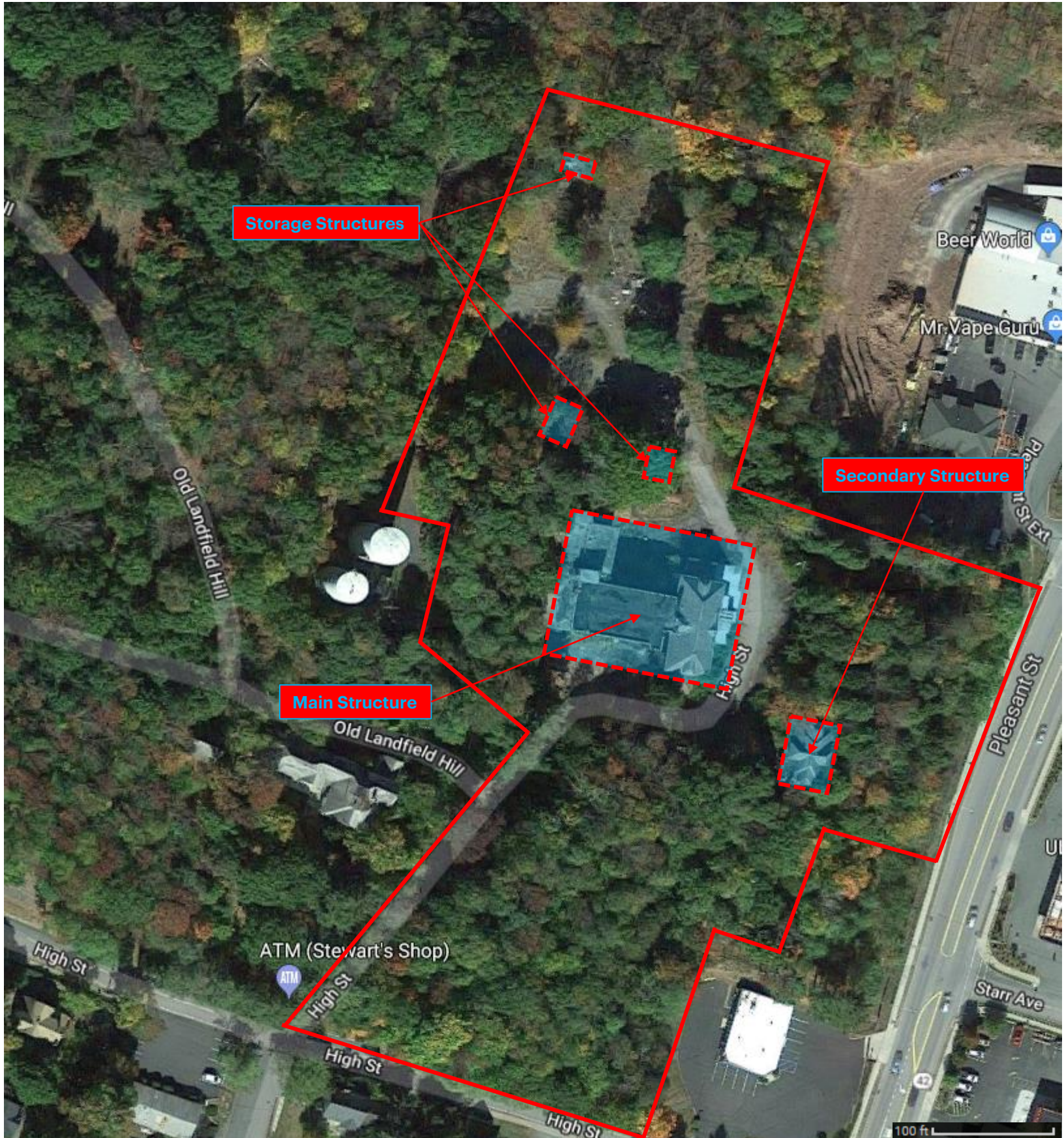
Drawing No. 1 of 1

Rev. 0

Scale As Noted

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FIGURE 2



Key:



Approximate Site Boundaries



Approximate Location of Structures

NOTES



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Title Figure 2: Approximate Location of Structures at Subject Property

Location Monticello Manor, 15 High Street, Monticello, NY 12701

Client Sullivan County

Source Google Maps

Date 6/6/2019

Work Order 9294.01

Drawing No. 1 of 1

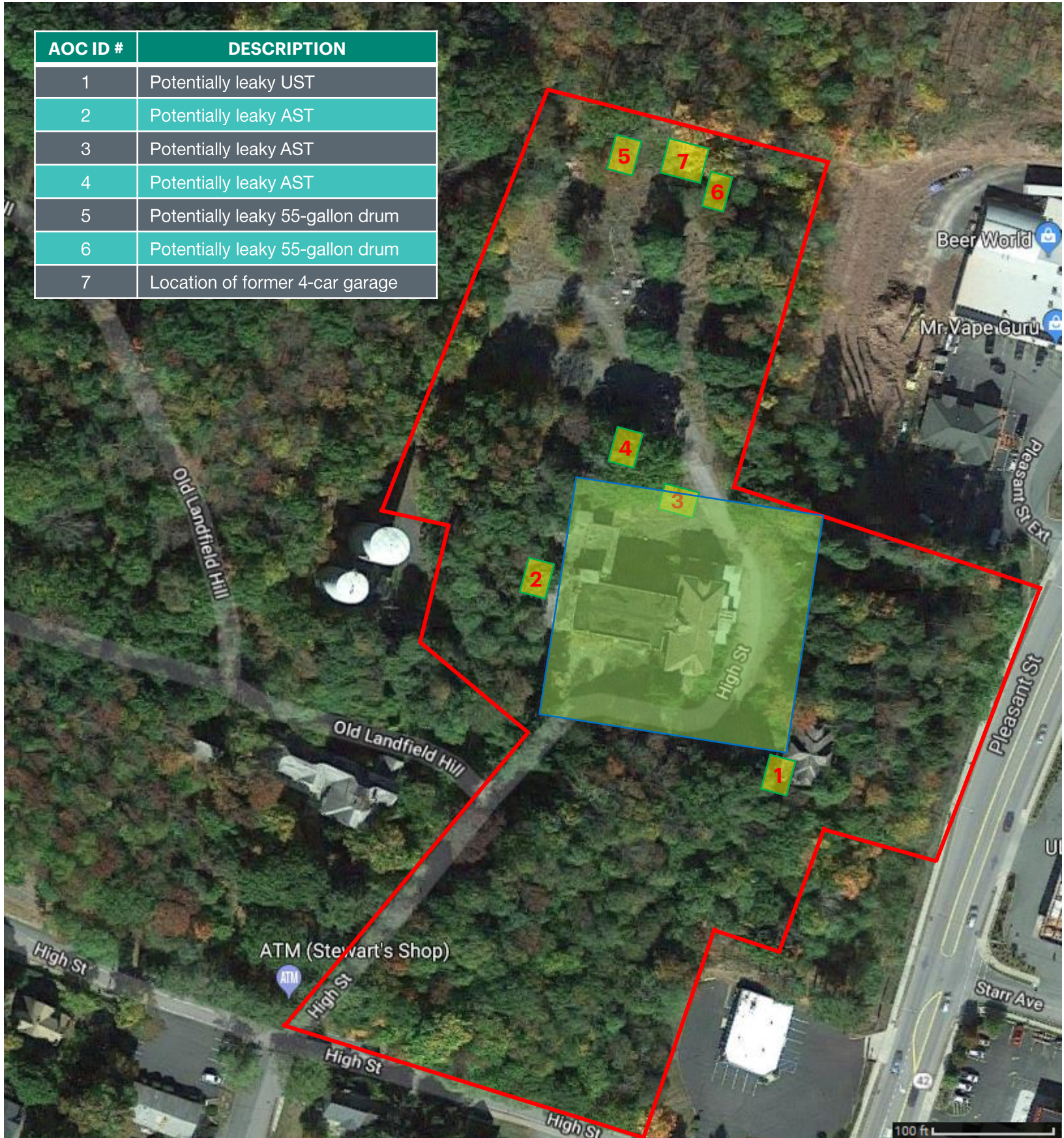
Rev. 0

Scale As Noted

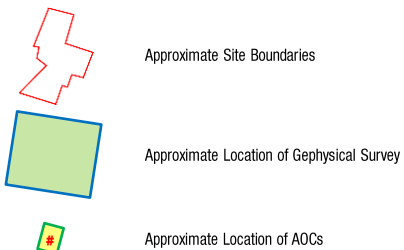
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FIGURE 3

AOC ID #	DESCRIPTION
1	Potentially leaky UST
2	Potentially leaky AST
3	Potentially leaky AST
4	Potentially leaky AST
5	Potentially leaky 55-gallon drum
6	Potentially leaky 55-gallon drum
7	Location of former 4-car garage



Key:



NOTES



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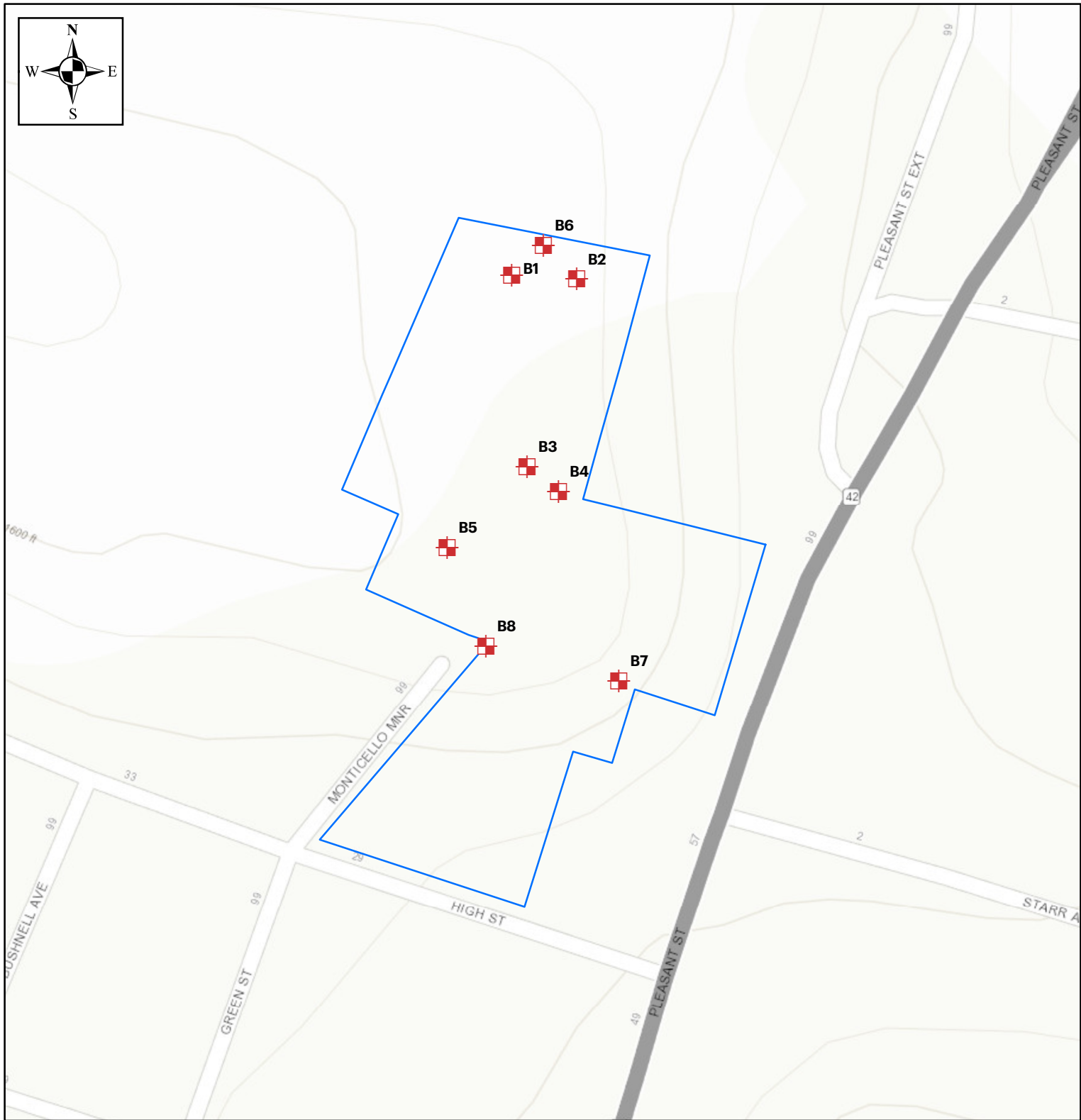
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Title	Figure 3: Approximate Location of AOCs & Geophysical Survey			
Location	Monticello Manor, 15 High Street, Monticello, NY 12701			
Client	Sullivan County			
Source	Google Maps			
Date	6/6/2019	Work Order	9294.01	Drawing No.
Scale	As Noted			1 of 1
				Rev.
				0

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FIGURE 4



Legend

-  Approximate Boring Locations
-  Approximate Property Boundaries

1:2,000

0 75 150 300 Feet

Monticello Manor Phase II Environmental Site Assessment

Boring Location Plan

Tectonic

Date: 6/7/2019
Project #: 9294.01
Location: 15 High Street, Monticello, New York

PO Box 37, 70 Pleasant Hill Rd.
Mountainville, New York 10953
Phone: (845) 534-5959

Figure: 4

Document Path: G:\Mountainville\Environmental\9294 Sullivan County Brownfields Consultant\03-GIS\PhaseII

TABLE 2

Table 2. Summary of Laboratory Detected Volatile Organoc Compounds (VOCs) 15 High Street Monticello, NY															
SAMPLE ID: LAB ID: COLLECTION DATE: SAMPLE MATRIX: SAMPLE UNITS:	Part 375 / CP-51	Part 375 / CP-51	Part 375 / CP-51	Part 375 / CP-51	Part 375 / CP-51	Part 375 / CP-51	Part 375 / CP-51	B1 S1 VOC	B2 S2 VOC	B3 S3 VOC	B4 S4 VOC	B5 S5 VOC	B6 D1 VOC	B7 D2 VOC	B8 D3 VOC
	Unrestricted	Residential	Restricted	Commercial	Industrial	Protection of	Protection of	19F0191-01	19F0191-03	19F0191-05	19F0191-07	19F0195-05	19F0191-09	19F0195-01	19F0195-03
	Use	Use	Residential	Use	Use	Ecological	Groundwater	6/5/2019	6/5/2019	6/5/2019	6/5/2019	6/6/2019	6/5/2019	6/6/2019	6/6/2019
			Use			Resources		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Volatile Organic Compounds (VOCs)															
Acetone	0.05	100	100	500	1,000	2.2	0.05	0.022 CCV-E	ND	0.020 CCV-E	ND	ND	ND	ND	ND
Methylene Chloride	0.05	51	100	500	1,000	12	0.05	ND	0.0062 J	0.0067 J	0.0060 J	0.016	0.0055 J	ND	0.0067 J

Qualifiers:
ND - Not Detected
NS - No Standard
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.
CCV-E - The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20%Difference for average Rf or >20% Drift for quadratic fit).

Notes:
Analytes that exceed Unrestricted Use guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded and italicized.
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Analytes that exceed Protection of Ecological Resources guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are italicized.
Analytes that exceed Protection of Groundwater guidance concentrations set forth in 6 NYCRR Part 375 / CP-51 are bolded.

TABLE 3

Table 3: Summary of Laboratory Detected Compounds in Sediment Samples															
15 High Street Monticello, NY															
SAMPLE ID: LAB ID: COLLECTION DATE: SAMPLE MATRIX: SAMPLE UNITS:	Part 375 / CP-51 <i>Unrestricted Use</i>	Part 375 / CP-51 Residential Use	Part 375 / CP-51 Restricted Residential Use	Part 375 / CP-51 Commercial Use	Part 375 / CP-51 Industrial Use	Part 375 / CP-51 <i>Protection of Ecological Resources</i>	Part 375 / CP-51 Protection of Groundwater	B1 S1 Comp 19F0191-02 6/5/2019 Soil ppm	B2 S2 Comp 19F0191-04 6/5/2019 Soil ppm	B3 S3 Comp 19F0191-06 6/5/2019 Soil ppm	B4 S4 Comp 19F0191-08 6/5/2019 Soil ppm	B5 B5 Comp 19F0195-06 6/6/2019 Soil ppm	B6 D1 Comp 19F0191-10 6/5/2019 Soil ppm	B7 D2 Comp 19F0195-02 6/6/2019 Soil ppm	B8 D3 Comp 19F0195-04 6/6/2019 Soil ppm
Metals															
Aluminum	NS	NS	NS	NS	NS	10,000	NS	8,600	11,800	15,300	10,300	7,340	6,930	16,500	7,720
Arsenic	13	16	16	16	16	13	16	3.00	5.51	5.78	3.17	4.09	6.87	3.08	3.71
Barium	350	400	400	400	10,000	433	820	37.2	92.4	49.2	82.1	99.1	55.1	285	73.9
Beryllium	7.2	14	72	590	2,700	10	47	0.388	0.534	0.435	0.379	0.282	0.267	0.385	0.495
Cadmium	2.5	2.5	4.3	9.3	60	4	7.5	ND	ND	ND	ND	0.926	ND	ND	ND
Calcium	NS	NS	NS	NS	NS	10,000	NS	4,320	8,180	313	1,100	26,500	3,760	964	1,430
Chromium, total	NS	NS	NS	NS	NS	NS	NS	7.03	9.82	11.0	11.6	11.9	5.84	8.86	5.15
Cobalt	NS	30	NS	NS	NS	20	NS	5.75	7.95	7.57	5.80	4.44	5.36	5.06	7.15
Copper	50	270	270	270	10,000	50	1,720	6.77	17.2	25.90	25.2	94.4	11.5	31.2	24.6
Iron	NS	2,000	NS	NS	NS	NS	NS	14,200	15,500	17,600	14,700	10,500	10,300	25,000	13,200
Lead	63	400	400	1,000	3,900	63	450	12.1	85.9	14.7	68.1	279	24.3	176	15.6
Magnesium	NS	NS	NS	NS	NS	NS	NS	2,340	2,470	2,630	2,120	4,380	1,640	1,150	2,990
Manganese	1,600	2,000	2,000	10,000	10,000	1,600	2,000	971	893	562	379	811	313	980	788
Mercury	0.18	0.81	0.81	2.8	5.7	0.18	0.73	0.0477	0.133	0.0523	0.103	0.249	0.0655	0.131	ND
Nickel	30	140	310	310	10,000	30	130	10.0	13.2	14.3	12.0	11.5	9.67	8.95	14.7
Potassium	NS	NS	NS	NS	NS	NS	NS	738	683	598	606	462	408	632	1,140
Sodium	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	78.6	ND	ND	ND
Vanadium	NS	100	NS	NS	NS	39	NS	11.9	15.9	16.2	15.7	9.91	7.43	14.2	13.3
Zinc	109	2,200	10,000	10,000	10,000	109	2,480	39.8	87.9	54.4	70.6	142	38.2	179	49.2
Semivolatile Organic Compounds (SVOCs)															
1,1-Biphenyl	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	0.181	ND	ND	ND
2-Methylnaphthalene	7	14	59	350	1,000	NS	210	ND	ND	ND	ND	0.703	ND	ND	ND
4-Chloroaniline	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	0.371	ND	ND	ND
Acenaphthene	20	100	100	500	1,000	20	98	ND	ND	ND	ND	3.910	ND	ND	ND
Acenaphthylene	100	100	100	500	1,000	NS	107	ND	ND	ND	ND	0.105 J	ND	ND	ND
Anthracene	100	100	100	500	1,000	NS	1,000	ND	0.0696 J	ND	ND	3.750	0.0782	ND	ND
Benzo(a)anthracene	1	1	1	5.6	11	NS	1	ND	0.145	ND	ND	14.500	0.299	ND	ND
Benzo(a)pyrene	1	1	1	1	1.1	2.6	22	ND	0.121	ND	ND	13.600	0.219	ND	ND
Benzo(b)fluoranthene	1	1	1	5.6	11	NS	2	ND	0.120	ND	ND	12.500	0.190	ND	ND
Benzo(g,h,i)perylene	100	100	100	500	1,000	NS	1,000	ND	0.0696 J	ND	ND	6.520	0.0839	ND	ND
Benzo(k)fluoranthene	0.8	1	3.9	56	110	NS	1.7	ND	0.0959 J	ND	ND	11.400	0.178	ND	ND
Benzoic acid	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	0.0415 J	ND
Bis(2-ethylhexyl)phthalate	7	14	59	350	1,000	NS	210	ND	ND	ND	0.0748 CCV-E	ND	ND	0.636 CCV-E	ND
Carbazole	7	14	59	350	1,000	NS	210	ND	ND	ND	ND	3.690	0.0350 J	ND	ND
Chrysene	1	1	3.9	56	110	NS	1	ND	0.129	ND	ND	13.000	0.266	ND	ND
Dibenzo(a,h)anthracene	0.33	0.33	0.33	0.56	1.1	NS	1,000	ND	ND	ND	ND	2.760	0.0416 J	ND	ND
Dibenzofuran	7	14	59	350	1,000	NS	210	ND	ND	ND	ND	1.580	ND	ND	ND
Fluoranthene	100	100	100	500	1,000	NS	1,000	ND	0.331	ND	0.0551	32.200	0.556	0.0355 J	ND
Fluorene	30	100	100	500	1,000	30	386	ND	ND	ND	ND	3.140	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	11	NS	8.2	ND	0.0840 J	ND	ND	8.420	0.110	ND	ND
Naphthalene	12	100	100	500	1,000	NS	12	ND	ND	ND	ND	1.250	ND	ND	ND
Phenanthrene	100	100	100	500	1,000	NS	1,000	ND	0.268	ND	0.0262 J	20.800	0.241	ND	ND
Pyrene	100	100	100	500	1,000	NS	1,000	ND	0.221	ND	0.0370 J	20.900	0.366	0.0295 J	ND

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