DUTCHESS COUNTY LAW ENFORCMENT CENTER
DUTCHESS COUNTY
POUGHKEEPSIE, NEW YORK

SITE MANAGEMENT PLAN

Prepared for:
Dutchess County Department of Public Works
626 Dutchess Turnpike
Poughkeepsie, NY

Prepared by:
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Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date
1	9/8/17	A-7: Material Reuse on Site - all soils sampled/tested	9-11-17 per Michael Mason Email

MARCH 2017

CERTIFICATION STATEMENT

I DANIEL P. NOLL certify that I am currently a NYS registered professional engineer as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

D P. N P.E.

5/17/17 DATE

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List of Acronyms

AS	Air Sparging
ASP	Analytical Services Protocol
BCA	Brownfield Cleanup Agreement
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CAMP	Community Air Monitoring Plan
C/D	Construction and Demolition
CFR	Code of Federal Regulation
CLP	Contract Laboratory Program
COC	Certificate of Completion
CO2	Carbon Dioxide
CP	Commissioner Policy
DER	Division of Environmental Remediation
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ERP	Environmental Restoration Program
EWP	Excavation Work Plan
GHG	Green House Gas
GWE&T	Groundwater Extraction and Treatment
HASP	Health and Safety Plan
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules and Regulations
O&M	Operation and Maintenance
OM&M	Operation, Maintenance and Monitoring
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
PID	Photoionization Detector
PRP	Potentially Responsible Party
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RP	Remedial Party
RSO	Remedial System Optimization
SAC	State Assistance Contract
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective

SMP	Site Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SSD	Sub-slab Depressurization
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program

ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan (SMP). It should be noted that the Site includes four (4) parcels addressed as 150 North Hamilton Street (portion of parcel), 182 North Hamilton Street, 104 Parker Avenue, and 108 Parker Avenue. The parcel addressed as 182 North Hamilton Street is subject to an Environmental Easement which was put in place through the Environmental Restoration Program (ERP). For the purpose of this SMP, the "Controlled Property" refers to the 182 North Hamilton Street Parcel. Parcels addressed as 150 North Hamilton, 104 Parker Avenue, and 108 Parker Avenue do not have an environmental easement; however, due to the occurrence of similar contaminants and planned development, this SMP applies to all parcels. Dutchess County is responsible for all aspects of the implementation of the SMP.

Institutional Controls:

- The property may be used for restricted commercial or industrial use, including planned use as a sheriff's facility and jail, provided that the long-term ECs and ICs included in this SMP are employed;
- The 182 North Hamilton Street parcel may not be used for a higher level of use, such as unrestricted or restricted-residential use without additional remediation and amendment of the Environmental Easement as approved by the NYSDEC
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the Controlled Property and the other Site parcels for any purpose, including but not limited to, potable, process or irrigation water, is prohibited without the prior approval of the New York State Departments of Health and Environmental Conservation;
- Soils on the Controlled Property and the other parcels of the Site must be managed, characterized, and properly disposed of in accordance with the NYSDEC laws and Regulations;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Potential for vapor intrusion into any buildings developed on the site must be evaluated, including provisions for mitigation of any impacts identified;

- Any subslab soil vapor mitigation system installed under any building structure must be inspected, certified, and maintained as required by the NYSDEC;

- The owner must provide annual certification as required by NYSDEC that the ICs and ECs for the 182 North Hamilton Street parcel are unchanged. The Site owner or remedial party will submit to the NYSDEC a written statement that certifies, under penalty of perjury, that (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;

- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;

- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;

- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;

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

- Vegetable gardens and farming on the site are prohibited;

Engineering Controls:	1. Cover system	
	2. SSDS	
Inspections:		Frequency
1. Cover inspection		Annually
Monitoring:		
1. SSDS Vacuum		Annually
2. Groundwater Monitoring Wells MW-1, MW-2 and MW-3		Every five years
Maintenance:		
1. Cover		As Needed
2. SSDS		As Needed
Reporting:		
1. Groundwater Report		5 Years
2. Periodic Review Report		5 Years
3. Inspection Report		Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the ERP parcel (182 North Hamilton Street) and has also been revised to include adjacent parcels 150 North Hamilton Street (portion of parcel), 104 Parker Avenue, and 108 Parker Avenue, which have identified similar contaminant types and are part of a construction project designated as the Dutchess County Laws Enforcement Center. A SMP exists for the former Hamilton Reproduction ERP Site, addressed as 182 North Hamilton Street located in Poughkeepsie, New York that is required to be adhered to by an Environmental Easement on the property. This SMP encompasses adjacent properties that were found to contain similar materials onsite to ensure they are managed correctly for the protection of public health. These properties include a portion of 150 North Hamilton Street, 104 Parker Avenue, and 108 Parker Avenue. Together these properties and 182 North Hamilton Street hereinafter will collectively be referred to as the "Site." See LaBella and Chazen Figure 1. The 182 N. Hamilton St. parcel (controlled property) is currently in the New York State (NYS) ERP with designated Site No. B00020-3 which is administered by New York State Department of Environmental Conservation (NYSDEC). The remaining portions of the Site are not part of the program, but the construction work will be managed in accordance with this SMP to ensure all work is completed in accordance with NYSDEC requirements.

The City of Poughkeepsie entered into a State Assistance Contract (SAC) on March 29, 1999 with the NYSDEC to remediate the 182 N Hamilton St. portion of the Site. A figure showing the location and boundaries of this portion of the Site is provided in LaBella Figure 2 and Chazen Figure 1 along with the entire Site covered under this SMP shown in LaBella Figure 1. The boundaries of the 182 N Hamilton St. portion are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix B.

After completion of the remedial work at the 182 N Hamilton St property described in the August 1999 Remedial Action Work Plan, some contamination was left at the property, which is hereafter referred to as "remaining contamination". Institutional and Engineering Controls (ICs and ECs) have been incorporated into the remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Dutchess County Clerk, requires compliance with the existing SMP and all ECs and ICs placed on the 182 N Hamilton portion of the Site. All additional tax parcels that are considered part of the Site do not fall under the restrictions in place under the Environmental Easement but provisions set forth in this SMP should be followed for managing materials and contamination in accordance with NYSDEC requirements. This SMP is meant to cover the entire Site and any deviations from the existing SMP must be approved by the NYSDEC.

This SMP was prepared to manage remaining contamination and any additional contamination on the entire Site. The 182 N Hamilton Street property must follow its

existing SMP until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. This plan was put together to include parcels that are to be developed to ensure all sites are properly managed. Compliance with the existing SMP is required by the grantor of the Environmental Easement and the grantor's successors and assigns. Both this SMP and the existing SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures and includes those from the existing SMP that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC);

- Failure to comply with the existing SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the SAC #C-301371; Site #B-00020-3 for the site, and thereby subject to applicable penalties.

All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by LaBella Associates, on behalf of Dutchess County Department of Public Works, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 3, 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the 182 North Hamilton Street property, and includes additional controls required by the NYSDEC for a SMP encompassing the entire site.

1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements upgrades to or shut-down of a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the site conditions. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the SAC, 6NYCRR Part 375 and/or Environmental Conservation Law.

- 7-day advance notice of any field activity associated with the remedial program.

- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan.

- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.

- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the State Assistance Contract (SAC) and all approved work plans and reports, including this SMP.

- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

The Table below includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A List of Site contacts is included in Appendix G.

Notifications*

Name	**Contact Information**
Mr. Michael A Mason, P.E. – NYSDEC Project Manager	Office (518) 402-9814

* Note: Notifications are subject to change and will be updated as necessary.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The Site is located in the City of Poughkeepsie, County of Dutchess, New York and is composed of a portion of 150 North Hamilton Street, 182 North Hamilton Street, and 104 and 108 Parker Avenue. The former ERP Site is identified as Section 6162 Block 54 and Lot 240389 on the Dutchess County Tax Map. The site is an approximately 6.18-acre area bounded by a portion of the Dutchess County Jail to the South; Parker Avenue to the North with Dutchess Tire Center and Northside Marine & Snowmobile north of Parker Avenue; North Hamilton Street to the East with residential dwellings and Thrift Beverage Inc. beyond North Hamilton Street; and Veith Electric to the West. The boundaries of the former ERP site are more fully described in Appendix B which includes the Metes and Bounds survey.

2.2 Physical Setting

2.2.1 Land Use

The Site consists of the following: multiple parcels of land currently developed with three structures including a 11,862-square-foot (sq-ft), four-story office building, a 6,904-sq-ft, one-story building used as a garage/storage area, and a 34,160-sq-ft, one story building used for storage. The 182 North Hamilton Street parcel is undeveloped and currently used as a parking area. The Site is zoned commercial and is currently used by Dutchess County Law enforcement.

2.2.2 Geology

According to the Site Management Plan dated May 13, 2010 developed by The Chazen Companies for NYSDEC Site # B-00020-3, the geology at the Site is described as the following:

"*Bedrock underlying the site is the Austin Glen shale and greywacke formation. The bedrock was observed exposed in the basement of the main building during the remedial action construction. The weathered shale bedrock was observed within one foot of the ground surface on the west side of 182 North Hamilton Street in boring HAM-07, and dips to depths greater than 10 feet below grade along the southern side of the property. The thickness of weathered or highly fractured shale at the upper bedrock surface at 182 North Hamilton Street is variable and ranges up to 15 to 20 feet. The soil thickness over the bedrock on the parcel ranges from 1 foot to 15 feet. Observed soil conditions varied and included areas of silt, gravel and some areas of fill material. A geologic section is shown in* [Chazen] *Figure 2.*"

During a Phase II Environmental Site Assessment (ESA) at a portion of 150 North Hamilton Street, and 104 and 108 Parker Avenue bedrock was found to range in depth from approximately 6 feet to 20 feet bgs. Overburden soils during the Phase II generally consisted of tightly packed sandy silts, gravel and fill materials.

2.2.3 Hydrogeology

According to the Site Management Plan dated May 13, 2010 developed by The Chazen Companies for NYSDEC Site # B-00020-3, the hydrogeology at the Site is described as the following:

"*An unconfined phreatic aquifer is found in soils deeper than six feet at the site. Local groundwater is towards the south following local topography. General, groundwater flow in the area is estimated to flow southwest towards the nearby Fallkill Creek. Groundwater flow direction is shown in* [Chazen] *Figure 3*."

2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in Section 8.0.

2.3.1 182 North Hamilton Street – Former Hamilton Reproduction

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the 182 North Hamilton Street Portion of the Site. The results of the RI are described in detail in the following reports:

- November 1998. Site Investigation/Remedial Alternatives Former Hamilton Reproduction Brownfield Project #B00020-3. Prepared by The Chazen Companies. Includes findings presented in December 1995 Phase I Environmental Site Assessment and November 1996 Limited Subsurface Investigation, that were also prepared by The Chazen Companies.

- March 1999. Environmental Record of Decision Hamilton Reproduction Site City of Poughkeepsie, Dutchess County, Site Number B-00020-3. Prepared by NYSDEC.

- August 16, 2001. Remedial Action Construction Certification Report City of Poughkeepsie Hamilton Reproduction Brownfield Site North Hamilton Street Dutchess County, New York. Prepared by The Chazen Companies.

According to the Site Management Plan dated May 13, 2010 developed by The Chazen Companies for NYSDEC Site # B-00020-3, the investigation and remedial history at the Site is described as the following:

"*Generally, the RI determined that chlorinated volatile organic compounds (CVOCs) and semi-volatile organic compounds (SVOCs) were present in soil at the southwest corner of 182 N Hamilton Street near a catch basin. CVOCs were also identified in groundwater and soil gas samples collected near the southwest corner of the past building.*

Below is a summary of site conditions when the 1995, 1996 and 1998 investigations were performed.

Soil

Soil at the southwestern corner of the main building contained CVOC and SVOC concentrations greater than the NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) #4046 soil cleanup guidance values [(which were the cleanup objectives at the time of this work)*]. Extending from this source area, low levels of CVOCs were also found in a southwesterly direction and in an easterly direction underneath the building. Low levels of CVOCs were also found near doorways along the north side of the building. SVOCs in concentrations greater than soil clean up objectives were found to extend beneath the building in an easterly direction.* [Chazen] *Figures 4 and 5 show the distribution and concentrations of CVOCs and SVOCs in soil at the site, respectively.*

The primary contaminant identified was tetrachlorethene (PCE). A summary of the 1998 analytical data for soil from the 1998 RI Report is provided in [Chazen] *Tables 1-3.*

Site-Related Groundwater

Overburden and bedrock groundwater monitoring wells at 182 North Hamilton Street indicated the presence of CVOCs at concentrations greater than the Water Quality Standards for groundwater and drinking water standards. The primary area of elevated concentrations was near the southwestern corner of the main building. Extending from this source area, low levels of CVOCs were also found in an easterly direction underneath the building. [Chazen] *Figure 6 shows the historic distribution and concentrations of CVOCs in groundwater as conditions existed in 1998.*

Primary contaminants identified included: 1,1-dichloroethane (1,1-DCA), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1,1-trichlorethane (1,1,1-TCA), trichloroethene (TCE), PCE, and vinyl chloride. Concentrations in the bedrock wells were lower than concentrations in the overburden wells. A summary of 1998 analytical data for groundwater is provided in [Chazen] *Tables 4-8.*

Site-Related Soil Vapor Intrusion

During the 1998 remedial investigation, soil gas was evaluated via gas chromatography headspace analysis of soil samples. Soil gas at the southwestern corner of the main building contained CVOCs. [Chazen] *Figure 7 shows the distribution and concentrations of CVOCs in soil at the 182 North Hamilton Street parcel.*

Primary contaminants identified included: 1,1-dichloroethane (1,1-DCA), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1,1-trichlorethane (1,1,1-TCA), trichloroethene (TCE), PCE, and Freon 113. Summary analytical data for groundwater are provided in [Chazen] *Tables 9-12.*

No soil gas survey was performed during the remedial investigation.

Drainage System Sediment and Water

The catch basin located at the southwestern corner of the Main Building is considered the primary source of contamination for this area, and sediment samples were collected from this part of the drainage system. Sediment samples contained PCE, TCE, benzo(a)anthracene, benzene(b)fluoranthene, indeno(1,2,3-cd)pyrene, and chrysene.

A water sample collected from the sump located in the east end of the Main Building contained DCA, TCA and trichlorofluoromethane concentrations greater than the drinking water standards. The sump was approximately 10 feet below ground surface and was a collection point for stormwater and shallow groundwater drainage throughout the property. Water from this sump was conveyed to the City of Poughkeepsie's combined sanitary/storm sewer system along North Hamilton Street.

Underground Storage Tanks

A 10,000-gallon #2 fuel oil underground storage tank (UST) was removed from the site in 1997. The UST had been located west of the Boiler Building at the western end of the Main Building, and is shown on previously mentioned figures. Petroleum contaminated soil and groundwater [was] *observed in the excavation and* [was] *removed until evidence of remaining soil quality was below cleanup standards. Confirmation soil and groundwater samples did not contain detectable petroleum compound concentrations."*

Summary of Remedial Actions

The 182 North Hamilton parcel was remediated in accordance with the NYSDEC-approved Remedial Action Work Plan dated August 1999. The following is a summary of the Remedial Actions performed between November 15, 1999 and February 2, 2000:

1. Asbestos abatement and building demolition with disposal of all the construction and demolition debris.

2. Source removal consisting of 912.41 tons of non-hazardous waste soil and 216.46 tons of hazardous waste soil. This involved excavation of contaminated soil and friable bedrock where VOC contaminant concentrations were greater than the TAGM #4046 soil cleanup objectives.

3. Removal and proper disposal of approximately 50 to 75 containers of flammable and/or combustible inks and paints.

On December 22, 2008, an Environmental Easement was executed to restrict land use and prevent future exposure to contamination remaining. The Environmental Easement was recorded on June 2, 2009 and specified that the property can be used for restricted commercial or industrial use as long as the following long-term engineering controls are employed:

1. the use of the groundwater underlying the property for any purpose, including but not limited to, potable, process or irrigation water, is prohibited without the prior approval of the NYSDEC; and

2. soils on the property must be managed, characterized, and properly disposed of in accordance with the NYSDEC laws and Regulations;

3. the potential for vapor intrusion into any building developed on the site must be evaluated, including provisions for mitigation of any impacts identified;

4. any subslab soil vapor mitigation system installed under any building structure must be inspected, certified, and maintained as required by the NYSDEC; and

5. the owner must provide annual certification as required by NYSDEC that the institutional controls and engineering controls are unchanged.

Removal of Contaminated Materials

The soil removal excavation measured approximately 2,400 square feet in area with a depth between 8 and 10 feet. A total of 912.41 tons of non-hazardous waste soil and 216.46 tons of hazardous waste soil were removed for off-site disposal. A figure showing areas where excavation was performed and confirmation sample locations is provided as Chazen Figure 8. Soil cleanup objectives in TAGM #4046 were used for the site during the 1999/2000 removal actions, and Chazen Tables 1-3 include a list of the soil cleanup objectives (SCOs) for the primary contaminants of concern (COCs). For reference, Part-375 SCOs for commercial land use is also provided in Tables 1-3.

Site-Related Treatment Systems

No long-term treatment systems were installed as part of the 182 North Hamilton St. remedy.

2.3.2 104 & 108 Parker Ave, and Portion of 150 North Hamilton

Phase I Environmental Site Assessment (ESA) – Labella, August 2016

LaBella conducted a Phase I ESA for 104 and 108 Parker Avenue and a portion of 150 North Hamilton Street in August 2016 and identified Recognized Environmental Conditions (RECs) to be associated with the Site. It is noted that information on 182 N. Hamilton Street was also included in the Phase I ESA; however, that is not summarized herein since it was discussed in detail in previous sections. This information is summarized below:

Historical utilization of the Site

- 108 Parker Ave: Former Taylor Manufacturing Building
  - Available records indicate that the Taylor Building has been utilized for metal working (machine shop) since at least 1911. Machine shops typically utilize oils and solvents as part of metal work.
  - According to the review of the NYSDEC Petroleum Bulk Storage (PBS) database (i.e., #3-023752), one (1) 6,000-gallon #2 fuel oil underground storage tank (UST) was closed-in-place prior to 1991. Tank closure records and/or confirmatory analytical data were not provided to LaBella for review. No additional information was obtained indicating the location of this UST.
  - Multiple covered floor perforations and vaults/pits of various sizes were observed within the building. Due to the former utilization of the building for manufacturing purposes, the report that one (1) 6,000-gallon UST reportedly containing #2 fuel oil was closed in-place prior to 1991, and the apparent multiple additions of the building over time, these perforations may be indicative of potential fill ports and/or manways for underground storage tanks (USTs), oil/water separators and/or other wastewater/process water features.
  - One (1) apparent 3'x4' concrete pit was observed located in the flooring of the southcentral portion of the building. This pit contained a petroleum product and water. There was no inflow/outflow piping observed within the visible portions. The pit appeared to have (based on probing with a piece of piping) a solid bottom for a portion of the pit; however, some sections were noted to be soft and could represent sediments or concrete with poor integrity. No further information regarding the installation date and/or utilization of this pit was available on the pit.
  - At the time of the site visit apparent significant petroleum staining was observed located throughout the building. During the Phase I ESA LaBella was unable to determine if the petroleum staining was surficial and/or if it extends through the concrete flooring an into the Site's subsurface.
  - At least five (5) floor drains, one (1) apparent collection pit associated with a trench drain and an aboveground storage tank (AST), and at least six (6) sumps with pumps were observed located throughout the building. Although it is likely that these features discharge to the sanitary sewer system, the condition of the piping and former uses in the areas of these drains are unknown. In addition, one (1) apparent 4-inch PVC pipe was observed protruding from the southcentral portion of Building A and appears to have discharged to the ground surface.

- 150 North Hamilton Street (Portion included in Phase II ESA): Sherriff's Office Building and Garage
    - Photograph processing reportedly occurred in the basement of the building. Two (2) apparent floor drains and one (1) utility sink were also observed in the former photographic processing area. While no apparent NYSDEC Spills were identified associated with this former process, LaBella recommends this area be monitored during the demolition phase of the planned future Site development and any suspect soil be characterized at that time.
    - Two (2) floor drains and one (1) apparent vault (potentially associated with an oil/water separator) were observed located in the Garage. Information indicating the ultimate discharge location of these drains and the nature of the vault was not readily available. LaBella recommends these be investigated prior to demolition activities or during demolition activities in order to manage any residual impacts/staining that may be present in proximity to these features.
    - At the time of the site visit, two (2) apparent vent pipes were observed located on the northwestern exterior corner of Building C. One (1) UST of an unidentified capacity and installation/removal date was reportedly formerly located on the northwestern corner of the Garage and in the immediate vicinity of the aforementioned vent pipes. One (1) fuel pump was also reported to have been located between the two (2) bay doors of the western side of the Garage.

Utilization of the Surrounding Area

Based on the review of regulatory records identified associated with the surrounding area, the following properties represent potential impacts to groundwater and thus could impact the Site:

- 121 Parker Avenue – approximately 211 feet northeast of Site
    - Dry Cleaning from at least 2002 to at least 2012; groundwater flow is apparently flowing towards the Site.
- 151 Parker Avenue – approximately 616 feet northeast of Site
    - Dry Cleaning from at least 1991-2010; groundwater flow is apparently flowing towards the Site.
    - NYSDEC Spill report indicated chlorinated solvents have been spilled on-site and reportedly "mopped up". No additional information of remediation and/or frequency of spillage.
- 107 Parker Avenue – located adjacent north of the Site
    - Automotive repair and service
    - Active NYSDEC Spill #9200676

- Sanborn Fire Insurance Maps indicate at least two (2) petroleum tanks located 250 feet to the northwest of the Site and one (1) UST located approximately 100 feet to the northwest of the Site
- Spill indicated reported deliberate dumping of waste; groundwater flow is apparently flowing towards the Site.
- Closed NYSDEC Spill #0409564 and PBS #3-166251
- Spill indicated reported deliberate dumping of waste oil and scrapping of USTs; groundwater flow is apparently flowing towards the Site.

Phase II Environmental Site Assessment (ESA) – Labella, August 2016

LaBella conducted a Phase II ESA in October 2016 to address RECs identified at the site during the Phase I ESA for 104 and 108 Parker Avenue and a portion of 150 North Hamilton Street. The Phase II ESA included a floor drain evaluation to survey unknown drains, vaults, pipes, and ports throughout the facility to look for anomalies. A total of twenty (20) soil borings were advanced at the Site to evaluate and sample the overburden soils. Eight (8) soil borings were converted to temporary overburden groundwater monitoring wells. Additionally, an oil filled vault was pumped of oil to look for any conduits in which the oil could escape. The oil from the vault was sampled in addition to the sixteen (16) soil samples and the eight (8) groundwater samples collected during the site assessment. Refer to LaBella Figure 4 for the locations of soil borings and wells. The following conclusions were made based on the assessment:

- Floor drain and vault evaluation did find some small cracks in a pipe leading towards the sewer outside 108 Parker Ave. A boring in this vicinity (also in the vicinity of a former dry well) did not identify impacts above NYCRR Part 375 Unrestricted Use SCOs. A drain pipe near the south portion of the building was evaluated but not passable by the camera. A boring in the vicinity showed no evidence of impairment.

- The oil filled vault was found to be intact and no pipes leading into or out of the vault.

- Twelve (12) soil samples were analyzed for USEPA TCL and NYSDEC CP-51 List VOCs in locations on Site. One sample (SB-16 at 0.8-1.6) identified one compound (acetone) that exceeded NYCRR Part 375 Unrestricted Use SCOs, but was below Commercial Use SCOs.

- Although only one of the twelve samples identified VOCs above NYCRR Part 375 Unrestricted Use SCOs, six of the samples identified low-level chlorinated VOCs and one sample identified petroleum-related VOCs.

- Eight (8) soils samples were analyzed for NYSDEC CP-51 List SVOCs. Analysis of one sample (SB-17 at 0.3-0.9-ft) identified compounds exceeding NYCRR Part 375 Unrestricted Use, Commercial Use, and Industrial Use SCOs. This sample contained fill materials (specifically cinders).

- One (1) Soil sample was collected and analyzed for PCBs. No PCBs were detected above laboratory MDLs.

- Five (5) soil samples were submitted and analyzed for RCRA Metals. All of the samples (SB-01 at 1.0-1.5-ft, Sb-08 at 0.5-1.5-ft, SB-16 at 0.8-1.6-ft, SB-17 at 0.3 to 0.9-ft and SB-20 at 1.7-2.1-ft) found concentrations of compound exceeding NYCRR Part 375 Unrestricted Use SCOs. Analysis of two samples (SB-08 at 0.5-1.5-ft and SB-17 at 0.3-0.9-ft) found concentrations above NYCRR Part 375 Unrestricted Use, Commercial Use and Industrial Use SCOs for Arsenic.

- Fill material, consisting of glass, ash, and cinders was encountered in twelve (12) soil borings at depths ranging from 0.3-ft to 5.8-ft bgs. Analysis of fill materials identified metals exceeding NYCRR Part 375 Unrestricted and Commercial Use SCOs in SB-08 and SB-17. Fill materials also exceeded NYCRR Part 375 Unrestricted and Commercial Use SCOs for SVOCs in SB-17. Fill material was found predominantly on the eastern portion of 108 Parker Ave. Refer to LaBella Figure 7 for depths and locations of Fill material.

- Oily water sampled from the vault identified compound exceeding NYSDEC TOGs 1.1.1 Groundwater Standards, but well MW-02 in the immediate vicinity of the pit did not identified any groundwater exceeding laboratory MDLs.

- Elevated PID readings were found in one (1) soil boring. The highest PID reading (7.9 ppm) was measured in SB-16 at a depth of approximately 1-ft bgs.

- One groundwater monitoring well, MW-04, was found to contain 1,1 Dichloroethane above NYSDEC TOGS 1.1.1 Groundwater quality standards.

Based on the findings of the Phase II ESA, a SMP was recommended to address potential unknown conditions and the low-level impacts identified during any redevelopment of the Site.

Supplemental Environmental Site Assessment (ESA) – Labella, January 2017

Labella conducted a supplemental site assessment to further evaluate the subsurface conditions and extent of fill at the Site based on findings during the Phase II ESA. A total of seven (7) borings were advanced on site and screened through visual observation and with a PID. Refer to LaBella Figure 4 for the location of soil borings. One soil sample was submitted for VOC analysis and one groundwater sample from a well installed as part of a geotechnical investigation was submitted for analysis. VOCs in soil were not detected above NYSDED Part 375 Unrestricted Use SCOs and no VOCs were detected above method detection limits in the groundwater. Fill material consisting

of cinders, ash, wood, nails, coal and asphalt were found in all seven borings. Fill materials were not analyzed as part of the assessment.

2.4 Remaining Contamination

2.4.1 182 North Hamilton Street – Former Hamilton Reproduction

According to the Site Management Plan dated May 13, 2010 developed by The Chazen Companies for NYSDEC Site # B-00020-3, the remaining contamination at the 182 North Hamilton Street parcel is described as the following:

"*Contaminated soil was removed from the 182 North Hamilton Street property during implementation of remedial action soil excavation activities. The seven soil samples confirmed that remaining soil met the TAGM #4046 soil cleanup objectives, consistent with the NYSDEC-approved Remedial Action Work Plan (except for xylenes in one sample) and all soil samples meet current 6 NYCRR Part 375 commercial use SCOs.* [Chazen] *Table 13 summarizes the results of soil samples remaining at the property after completion of Remedial Action and* [Chazen] *Figure 8 shows confirmation soil sample locations.*

Groundwater samples collected in 2009 from wells in and around the excavated source area show that concentrations of CVOCs in this site area have substantially decreased (by orders of magnitude) since 1998, but still slightly exceed regulatory groundwater standards. [Chazen] *Figure 9 shows well locations and analytical data are summarized in* [Chazen] *Table 14. Remaining CVOCs in groundwater are 1,1,1-TCA, 1,1-DCA, cis-1,2-DCE, PCE, and TCE. One non-chlorinated VOC constituent (benzene) that was not detected during the 1998 sampling was identified during this current sampling event in the source area well, at a concentration greater than the groundwater standard. Benzene is a principal constituent of gasoline and since this area has been used regularly as a parking lot without a paved surface, it is not unreasonable to assume that some small quantity of gasoline may have been released to this very shallow groundwater table from minor automobile leakage. Based on NYSDEC review of these data, no additional engineering controls (e.g., construction components) are required by the agency.*

Soil vapor samples collected in the mid- and late-1990s documented the presence of CVOCs, with higher concentrations in the area where soil removal ultimately occurred. Site development will presume that site soil vapor impacts at low concentrations may exist on the site and appropriate mitigation will be implemented as an engineering control to ensure that vapors do not migrate into new structures on the property."

2.4.2 104 & 108 Parker Ave, and a Portion of 150 North Hamilton Street

A summary of analytical data collected during the Phase II Investigation completed by LaBella is provided below. Fill materials were generally found in soil ranging from 0.3-5.8-ft below ground surface. Some fill materials sampled contained concentrations of metals and SVOCs. Refer to LaBella Figures 5-7 for a summary of

analytical detections as well as fill depths and their locations. Refer to LaBella Figure 3 for areas of potential contamination on Site.

Soil

VOCs:

Twelve (12) soil samples were analyzed for USEPA TCL and NYSDEC CP-51 list VOCs. VOCs were detected above laboratory method detection limits (MDLs) in SB-03 (7.6-7.8-ft), SB-4 (5-8-ft), SB-05 (10-11-ft), SB-07 (8-9-ft), SB-11 (4-7-ft), SB-13 (17.5-20-ft), SB-14 (7.5-8-ft), and SB-16 (0.8-1.6-ft). Concentrations of VOCs detected do not exceed NYCRR Part 375 Unrestricted Use or Commercial Use SCOs with the exception of Acetone which was detected in SB-16 at a concentration of 62.1 µg/kg which is above the Unrestricted Use SCO (50 µg/kg) but below the Commercial Use SCO. However, it should be noted that detected compounds included chlorinated VOCs (6 samples) and petroleum related VOCs (1 sample). Refer to LaBella Table 1 for summary of analytical results for detected compounds. One additional sample for VOCs in soil was submitted as part of the Supplemental Assessment; refer to LaBella Table 5 for a summary of analytical results.

SVOCs:

Eight (8) soil samples were analyzed for NYSDEC CP-51 list SVOCs. As indicated in LaBella Table 1-2, several petroleum related SVOCs were detected above laboratory MDLs in SB-01 (1.0-1.5-ft), SB-04 (5-8-ft), SB-16 (0.8-1.6-ft), SB-17 (0.3-0.9-ft), and SB-20 (1.7-2.1-ft). Concentrations of SVOCs detected do not exceed NYCRR Part 375 Unrestricted Use or Commercial Use SCOs with the exception of sample SB-17. The laboratory report indicates that three SVOCs (Benzo(a)anthracene at 1390 ug/kg, benzo(b)fluoranthene at 1700 ug/kg, and indeno(1,2,3-cd)pyrene at 957 mg/kg) were detected above NYCRR Part 375 Unrestricted Use SCOs but below Commercial SCOs. One SVOC (benzo(a)pyrene at 1570 ug/kg) was detected above the Industrial Use SCO (1100 ug/kg) in SB-17 (0.3-0.9-ft). Sample SB-17 (0.3' – 0.9') was collected from fill materials that included cinders. Refer to LaBella Table 2 for summary of analytical results for detected compounds.

Metals:

Five (5) soil samples were analyzed for Resource Conservations and Recovery Act (RCRA) metals. Several metals were detected above laboratory MDLs in all five of the samples designated as SB-01 (1.0-1.5-ft), SB-08 (0.5 – 1.5-ft), SB-16 (0.8-1.6-ft), SB-17 (0.3-0.9-ft), and SB-20 (1.7-2.1-ft). Lead was detected above Unrestricted Use SCOs in samples SB-01 (1.0-1.5-ft), SB-16 (0.8-1.6-ft), SB-17 (0.3-0.9-ft), and SB-20 (1.7-2.1-ft), but below Commercial Use SCOs. The lab report indicates arsenic and mercury were detected in SB-20 (1.7-2.1-ft) above Unrestricted Use SCOs but below Commercial Use SCOs. Arsenic was also detected in SB-08 (0.5-1.5-ft) and SB-17 (0.3-0.9-ft) above Industrial Use and Protection of Groundwater SCOs. Refer to LaBella Table 3 for summary of analytical results for detected compounds.

PCBs:

One (1) soil (SB-16 at 0.8-1.6-ft) was analyzed for PCBs. PCBs were not detected above MDLs in SB-16 (0.8-1.6-ft).

Groundwater:

Groundwater samples were collected from wells MW-01 through MW-08 on September 29 and September 30, 2016, and submitted for laboratory analysis of USEPA TCL and NYSDEC CP-51 List VOCs. Another sample from a well installed for geotechnical purposes during the Supplemental assessment was collected on December 21, 2016 and submitted for laboratory analysis of USEPA TCL and NYSDDEC CP-51 List VOCs. In addition to VOC analysis, wells MW-03 and MW-06 were submitted for CP-51 List SVOCs and wells MW-01, MW-02, and MW-05 were submitted for CP-51 List SVOCs and RCRA Metals analysis. Concentrations of VOCs and metals were detected above laboratory MDLs. One compound, 1,1-Dichloroethane, was detected above NYSDEC Groundwater Quality Standards in the MW-04 sample at 6.2 µg/L. MW-05 groundwater contained metals above NYSDEC part 703 groundwater standards. The MW-05 metals sample submitted was visually turbid which can result in elevated metals concentrations when sample preservatives used digest sediments. The high concentrations are likely attributable to the elevated turbidity and the metals results for MW-05 are likely not representative of subsurface groundwater conditions. Refer to LaBella Tables 4 and 6 for a summary of groundwater analytical results.

Oil Vault:

One sample of oily water was collected from the oil filled vault designated as "Oil Vault" and analyzed for USEPA TCL and NYSDEC CP-51 List VOCs, RCRA Metals, and PCBs. According to the laboratory report the Sample exceeded NYSDEC Part 703 Groundwater Standards for barium (1,050 ppb), chromium (261 ppb), lead (410) and also detected arsenic and cadmium above laboratory MDLs but below groundwater standards. One VOC (p-isoproplytoluene) was detected above laboratory MDLs but below groundwater standards. No PCBs were detected above laboratory MDLs. Refer to LaBella Table 4 for a summary of analytical results.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the site, Institutional Controls (ICs) and Engineering Controls (ECs) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC.

This plan provides:

- A description of all IC/ECs on the site;
- The basic implementation and intended role of each IC/EC;

- A description of the key components of the ICs set forth in the Environmental Easement;

- A description of the controls to be evaluated during each required inspection and periodic review;

- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Appendix A) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and

- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

3.2 Institutional Controls

A series of ICs is required by the ROD to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to commercial and/or industrial uses only. Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. These ICs are:

- The property may be used for restricted commercial or industrial use including the planned use as a sheriff facility and jail provided that the long-term ECs and ICs included in this SMP are employed;

- The 182 North Hamilton Street parcel may not be used for a higher level of use, such as unrestricted or restricted-residential use without additional remediation and amendment of the Environmental Easement as approved by the NYSDEC;

- All ECs must be operated and maintained as specified in this SMP;

- All ECs must be inspected at a frequency and in a manner defined in the SMP;

- The use of groundwater underlying the Controlled Property and the other Site parcels for any purpose, including but not limited to, potable, process or irrigation water, is prohibited without the prior approval of the New York State Departments of Health and Environmental Conservation;

- Soils on the Controlled Property and the other parcels of the Site must be managed, characterized, and properly disposed of in accordance with the NYSDEC laws and Regulations;

- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;

- Potential for vapor intrusion into any buildings developed on the site must be evaluated, including provisions for mitigation of any impacts identified;

- Any subslab soil vapor mitigation system installed under any building structure must be inspected, certified, and maintained as required by the NYSDEC;

- The owner must provide annual certification as required by NYSDEC that the ICs and ECs for the 182 North Hamilton Street parcel are unchanged. The Site owner or remedial party will submit to the NYSDEC a written statement that certifies, under penalty of perjury, that (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable;

- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;

- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;

- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;

- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;

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

- Vegetable gardens and farming on the site are prohibited.

3.3 Engineering Controls

3.3.1 Cover (or Cap)

A cover, as required by the NYSDEC for full site development, will be installed during redevelopment across all parcels of the Site to ensure the top 1-ft of soils meet NYSDEC Part 375-6 Restricted Residential SCOs unless covered by asphalt or concrete. Material below the top 1-ft can meet the NYSDEC Part 375-6 commercial SCOs. The Excavation Work Plan (EWP) provided in Appendix A outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the site and provided in Appendix E.

3.3.2 Sub-Slab Depressurization (SSD) Systems

The components for an SSD system will be installed beneath new building(s) constructed on this property to ensure that any VOCs that may be present at low levels above the impacted site groundwater do not migrate into new structures.

Procedures for operating and maintaining the active SSD system will be documented in the Operation and Maintenance Plan (Section 5.0 of this SMP) after the SSD system is designed, and NYSDEC and NYS Department of Health have review/approved the SSD system design. As built drawings, signed and sealed by a professional engineer will be included with the Operation and Maintenance Plan when the system is designed. Procedures for monitoring the system are included in the Monitoring Plan (Section 4.0 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the site, occurs. Soil Vapor Intrusion testing may also be completed to determine if the SSDS requires activation.

3.3.3 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10.

3.3.3.1 Cover (or Cap)

The cover system is anticipated to be a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity.

3.3.3.2 Sub-Slab Depressurization (SSD) System

The active SSD system will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH. In the event that monitoring data indicates that the SSD system may no longer be required, a proposal to discontinue the SSD system will be submitted by the remedial party to the NYSDEC and NYSDOH.

3.3.3.3 Monitoring Wells associated with Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC with consultation with NYSDOH, until residual Groundwater concentrations are found to be consistently below ambient water quality standards, the site SCGs, or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue the system will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated. Procedures for the monitoring of this activity are provided in the Monitoring Plan included in Section 4.0 of this SMP.

4.0 MONITORING AND SAMPLING PLAN

4.1 General

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the approval of the NYSDEC.

This Monitoring and Sampling Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly groundwater standards and Part 375 SCOs for soil; and
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment;

To adequately address these issues, this Monitoring and Sampling Plan provides information on:

- Sampling locations, protocol and frequency;
- Information on all designed monitoring systems;

- Analytical sampling program requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Reporting requirements are provided in Section 7.0 of this SMP.

4.2 Site-wide Inspection

Site-wide inspections will be performed at a minimum of once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in Appendix F - Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that site records are up to date.

Inspections of all remedial components installed at the site will be conducted. A comprehensive site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria; and
- If site records are complete and up to date; and

Reporting requirements are outlined in Section 7.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

4.3 Treatment System Monitoring and Sampling

4.3.1 Remedial System Monitoring

No SSDS is currently onsite but the site is planned for redevelopment and will require an SSDS in new buildings. Monitoring of the SSDS will be performed on a routine basis, as identified in the Remedial System Monitoring Requirements and Schedule (see below). Modification to the frequency or sampling requirements will require approval from the NYSDEC. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. The SSD system components to be monitored include, but are not limited to, the components included in the Table below.

Remedial System Monitoring Requirements and Schedule

Remedial System Component	Monitoring Parameter	Operating Range	Monitoring Schedule
Vacuum Blower	Vacuum (inches of water column)	TBD	Annually
Piping	Integrity of piping	NA	Annually

If any equipment readings are not within their specified operation range, any equipment is observed to be malfunctioning or the system is not performing within specifications; maintenance and repair, as per the Operation and Maintenance Plan, is required immediately.

4.4 Post-Remediation Media Monitoring and Sampling

Samples shall be collected from the groundwater on a routine basis. Sampling locations required analytical parameters and schedule are provided in the Remedial System Sampling Requirements and Schedule below. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

Post Remediation Sampling Requirements and Schedule

Sampling Location	Analytical Parameters	Schedule
	GW VOCs (EPA Method 8260)	
HR-MW-B1	X	Every five (5) years. (Next Round 2020*)
HR-MW-B2	X	Every five (5) years. (Next Round 2020*)
HR-MW-B3	X	Every five (5) years. (Next Round 2020*)

*Note: According to the Site Management Plan dated May 13, 2010 developed by The Chazen Companies for NYSDEC Site # B-00020-3, the sampling began in October 2010.

4.4.1 Groundwater Sampling

Groundwater monitoring will be performed every five years to assess the performance of the remedy. Modification to the frequency or sampling requirements will require approval from the NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC.

Monitoring wells HR-MW-B1, HR-MW-B2, and HR-MW-B3 have been installed to monitor the groundwater conditions in and near the former source area. The network of on-site wells has been designed to provide information consistent with the NYSDEC-issued ROD to confirm that source removal has eliminated the origin of the contamination and groundwater conditions have improved. The network of monitoring wells has been installed to monitor up-gradient, on-site and downgradient groundwater conditions at the site.

Monitoring well construction logs are included in Appendix D of this document.

If biofouling or silt accumulation occurs in the on-site and/or off-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced, if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and

replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC. Deliverables for the groundwater monitoring program are specified below.

According to the Site Management Plan dated May 13, 2010 developed by The Chazen Companies for NYSDEC Site # B-00020-3, the groundwater sampling well and sampling protocol is described as the following:

"*Three overburden monitoring wells were installed on the property in October 2009 (*[Chazen] *Figure 9). The wells were installed using a direct-push drilling rig, and no soil samples were collected during installations. Well HR-MW-B1, HW-MW-B2, and HR-MW-B3 were installed to depths ranging from 8 to 15-feet bgs. Monitoring well construction details and well logs showing subsurface geology, dimensions and cased intervals for the wells are included as Appendix D.*

In 2009, groundwater monitoring wells were installed in and around the former source area to document groundwater quality. The data (see [Chazen] *Table 14) show that concentrations of VOCs in this site area have substantially decreased (by orders of magnitude) since 1998, but still slightly exceed regulatory groundwater standards. One constituent (benzene) that was not detected during the 1998 sampling was identified during this current sampling event in the source area well at a concentration greater than the groundwater standard. Benzene is a principal constituent of gasoline and since this area has been used regularly as a parking lot without a paved surface, it is not unreasonable to assume that some small quantity of gasoline may have been released to this very shallow groundwater table from minor automobile leakage.*

Based on groundwater elevations collected in 1998, the groundwater flow in the overburden was confirmed to be towards the south following site and local topography. A contour map was generated form the July 29, 1998 sampling event.

<u>Sampling Protocol</u>

All monitoring well sampling activities will be recorded in a field book and a groundwater-sampling log. Other observations (e.g. well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network.

Groundwater Sampling will be performed as follows:

1. *Prior to sampling, water level data are collected using an electronic water level meter to calculate well volumes. Well volumes are calculated by measuring the height of the water column (height of water column = depth to well bottom – depth to water), and then multiplied by a well diameter conversion factor. A*

single instrument is used to evaluate all water level measurements. The water level meter is decontaminated between measurements using an Alconox® solution to prevent cross contamination between wells.

2. *Prior to well sampling, wells must be purged to ensure that static annular water is removed from the well column.*

3. *Wells will be purged using a dedicated submersible pump, a portable submersible pump, a bailer, or an inertial lift pump.*

4. *During purging, routine water quality parameters including pH, temperature, and conductivity will be monitored using portable meters. Turbidity will be assessed visually to assist in determining when groundwater conditions have stabilized. In general, three or more well volumes will be removed before sampling.*

5. *Samples will be collected from monitoring wells after static water levels recover to not less than ninety percent of the pre-purging levels but not more than 24 hours following purging.*

6. *Groundwater samples from MW-B1, MW-B2 and MW-B3 will be analyzed for VOCs using USEPA method 8260. Temperature, pH and specific conductance will be measured in the field. Turbidity is visually assessed during sampling. Samples will be transported to the laboratory with ice or ice packs in secure coolers.*

7. *A trip blank will accompany the sample containers and will be analyzed for VOCs using USEPA method 8260."*

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

This Operation and Maintenance Plan provides a brief description of the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site. This Operation and Maintenance Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the site to operate and maintain the SSD systems

- Will be updated periodically to reflect changes in site conditions or the manner in which the SSD system is operated and maintained.

5.2 SSDS Performance Criteria

Following installation of an active SSD system in any new Site structure, its effectiveness will be verified by measuring the capture radius via a network vacuum monitoring points installed through the floor slab. The location and number of monitoring points necessary to assess the system's effectiveness will ultimately depend on the SSD

system design. Per USEPA and NYSDEC vapor intrusion guidance, the SSD system's radius of influence will be defined by areas experiencing a pressure drop of no less than 0.0004 inches water column at the most distant monitoring points with respect to the location of the vacuum well. Post-mitigation pressure testing will be reported to the NYSDEC as part of the first site-wide inspection conducted in October after start-up of the SSD system. Specific operation and maintenance criteria will be established upon construction of the system(s).

6.0 PERIODIC ASSESSMENT/EVALUATIONS

6.1 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in the Periodic Review Report (PRR).

6.1.1 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the Project Manager feels appropriate, e.g. during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications will be presented in the PRR.

6.1.2 Remedial Systems

Remedial systems will be operated properly considering the current site conditions to conserve materials and resources to the greatest extent possible. Consideration will be given to operating rates and use of reagents and consumables. Spent materials will be sent for recycling, as appropriate.

6.1.3 Frequency of System Checks, Sampling, and Other Periodic Activities

Transportation to and from the Site and use of consumables in relation to visiting the Site in order to conduct system checks and or collect samples and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources.

6.1.4 Metrics and Reporting

As discussed in Section 7.0 and as shown in Appendix F – Site Management Forms, information on energy usage, solid waste generation, transportation and shipping, water usage and land use and ecosystems will be recorded to facilitate and document consistent implementation of green remediation during site management and to identify corresponding benefits; a set of metrics has been developed.

6.2 Remedial System Optimization

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the site's cleanup goals, gather additional performance or media specific data and information and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

All site management inspection, maintenance and monitoring events will be recorded on the appropriate site management forms provided in Appendix F. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of the Table below and summarized in the Periodic Review Report.

Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Inspection Report	Annually (Next Report 2020**)
Periodic Review Report	Every 5 years, or as otherwise determined by the Department (Next Report 2020**).
Groundwater Monitoring	Every 5 years, or as otherwise determined by the Department (Next Report 2020**)

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC.
**According to the Site Management Plan dated May 13, 2010 developed by The Chazen Companies for NYSDEC Site # B-00020-3, reporting began in October 2010.

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

7.2 Periodic Review Report (PRR)

APRR will be submitted for the 182 North Hamilton Street parcel to the Department every fifth year or at another frequency as may be required by the Department beginning eighteen months after an active SSD system is installed. In the event that 182 North Hamilton Street parcels subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the ERP Site described in Appendix B -Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the PRR. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site.

- Results of the required annual site inspections and severe condition inspections, if applicable.

- All applicable site management forms and other records generated for the site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.

- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.

- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.

- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.

- A site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific RAWP, ROD or Decision Document;

    - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;

    - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring and Sampling Plan for the media being monitored;

    - Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan; and

    - Trends in contaminant levels in the affected media will be evaluated to determine if the remedy continues to be effective in achieving remedial goals as specified by the Decision Document.
    - The overall performance and effectiveness of the remedy.

- A performance summary for all treatment systems at the site during the calendar year, including information such as:
    - The number of days the system operated for the reporting period;
    - A description of breakdowns and/or repairs along with an explanation for any significant downtime;
    - A description of the resolution of performance problems;
    - Comments, conclusions, and recommendations based on data evaluation.

7.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State will prepare, and include in the Periodic Review Report for the 182 North Hamilton Street parcel, the following certification as per the requirements of NYSDEC DER-10:

"*For each institutional or engineering control identified for the site, I certify that all of the following statements are true:*

- *The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*
- *Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the site is compliant with the environmental easement;*
- *The engineering control systems are performing as designed and are effective;*

- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program [and generally accepted engineering practices]; and*

- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative] [I have been authorized and designated by all site owners/remedial parties to sign this certification] for the site."

The signed certification will be included in the Periodic Review Report.

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The Periodic Review Report may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

7.3 Corrective Measures Work Plan

If any component of the remedy for the ERP Site is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC.

8.0 REFERENCES

The Chazen Companies – Phase I Environmental Site Assessment. December 1995

The Chazen Companies – Limited Subsurface Investigation. November 1996

The Chazen Companies - Site Investigation/Remedial Alternatives Former Hamilton Reproduction Brownfield Project #B00020-3. November 1998

NYSDEC - Environmental Record of Decision Hamilton Reproduction Site City of Poughkeepsie, Butchess County, Site Number B-00020-3. March 1999

LaBella – Phase I Environmental Site Assessment. August 2016

Labella – Phase II Environmental Site Assessment. October 2016

Labella – Supplemental Site Assessment. November 2016

6NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation".

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

APPENDIX A – EXCAVATION WORK PLAN (EWP)

A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Currently the notification will be made to:

Mr. Michael A. Mason, P.E.*

Regional Hazardous Waste Remediation Engineer

625 Broadway, 12th Floor

Albany, NY 12233-7017

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix C of this SMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil, and clean material defined by soils with PID readings less than 5ppm that can be reused without testing. Further discussion of off-site disposal of materials and on-site reuse is provided in Section A-5 and A-6 of this Appendix.

A-3 SOIL STAGING METHODS

Soils will be stockpiled on poly sheeting and stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered with properly anchored poly sheeting or tarps at all times. Stockpiles will be routinely inspected and damaged covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

A-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under

this section are complete Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

A-5 MATERIALS TRANSPORT OFF-SITE

No materials are to be exported off site without proper characterization sampling per NYSDEC DER-10 and/or being sent for disposal at an appropriately permitted landfill.

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

A-6 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste

landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

A-7 MATERIALS REUSE ON-SITE

The whole site consisting of 150 and 182 North Hamilton Street, and 104 and 108 Parker Avenue is to be treated as one site. Soil/fill materials are to move freely between these parcels that make up the Site.

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

Historic fill materials excavated on site during development and construction activities are to be placed beneath a surface of asphalt or concrete or placed beneath 1-ft of clean cover, given they pass TCLP testing, or stockpiled for disposal. Soils screened that do not have any visual or olfactory impairment and PID readings less than 5ppm can be immediately reused on Site or stockpiled for reused without sampling as long as no historic fills are present in the soil. Soils not meeting these criteria must be stockpiled and sampled according to NYSDEC DER-10 prior to reuse or disposal.

If planned excavation consists of a small volume of soil from above the water table that is reused on the site or directly loaded off-site disposal, these activities would not require the stockpiling or fluids management provisions. Site soil may be regraded or excavated as part of construction activities. Saturated soil in contact with contaminated groundwater will not be relocated to the ground surface. If excavated, saturated soil will be reused at that excavation or disposed of.

A-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and

development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

If groundwater is encountered during excavation activities, it is anticipated that it the open excavation will be dewatered, pumping the water into a holding tank. The groundwater is to be treated and then discharged to local sanitary sewers in accordance with applicable local, State, and Federal regulations.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

A-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities, a cover system will be implemented. The cover system is to be comprised of a minimum of 12 inches of clean soil (meeting NYSDEC Part 375-6 Restricted Residential SCO's), asphalt pavement, concrete covered sidewalks and concrete building, etc.]. The demarcation layer, consisting of orange snow fencing material will be replaced to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. Currently there is no cover system present on the Site. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP.

A-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in Appendix H. These Tables were obtained from the NYSDEC DER-10 and NYSDEC Part 375-6.7(d) documents. Additionally, Mr. Mason indicated that the top 12-inches of soils cover are to be soils classified as Restricted Residential while soils below 12-inches are to be classified as Residential, Restricted Residential or Commercial.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

A-11 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

A Stormwater Pollution Prevention Plan (SWPPP) that conforms to the requirements of the NYSDEC Division of Water guidelines and NYS regulations for the Site will be provided prior to Site Development.

A-12 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

A-13 COMMUNITY AIR MONITORING PLAN

The Generic Community Air Monitoring Plan (CAMP) from Appendix 1A of DER-10 will be used to provide details for monitoring onsite during excavations and other activities breaking ground. Action levels indicated in the CAMP are as follows:

- Organic vapor PID concentrations exceeding 5ppm over background by less than 25ppm for a 15-minute average. Work activities are to be halted, the source is to be identified and corrective measures are to be take.

- If organic vapor concentrations are above 25 ppm at the perimeter of the work area, activities are to be halted.

- Particulate concentrations of 100 micrograms per cubic meter (mcg/m^3) but less than 150 mcg/m^3 above background, work may continue with dust suppression techniques employed.

- Particulate concentrations greater than 150 mcg/m^3 above background, then work must be stopped and activities must be re-evaluated.

All readings during site activities are to be recorded and available for review by the NYSDEC and NYSDOH figure showing the location of air sampling stations based on generally prevailing wind conditions is shown in LaBella Figure 8. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

A-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site and on-site. Specific odor control methods to be used on a routine basis will include those listed below. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified

and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

A-15 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water canon capable of spraying water directly onto off-road areas including excavations and stockpiles.

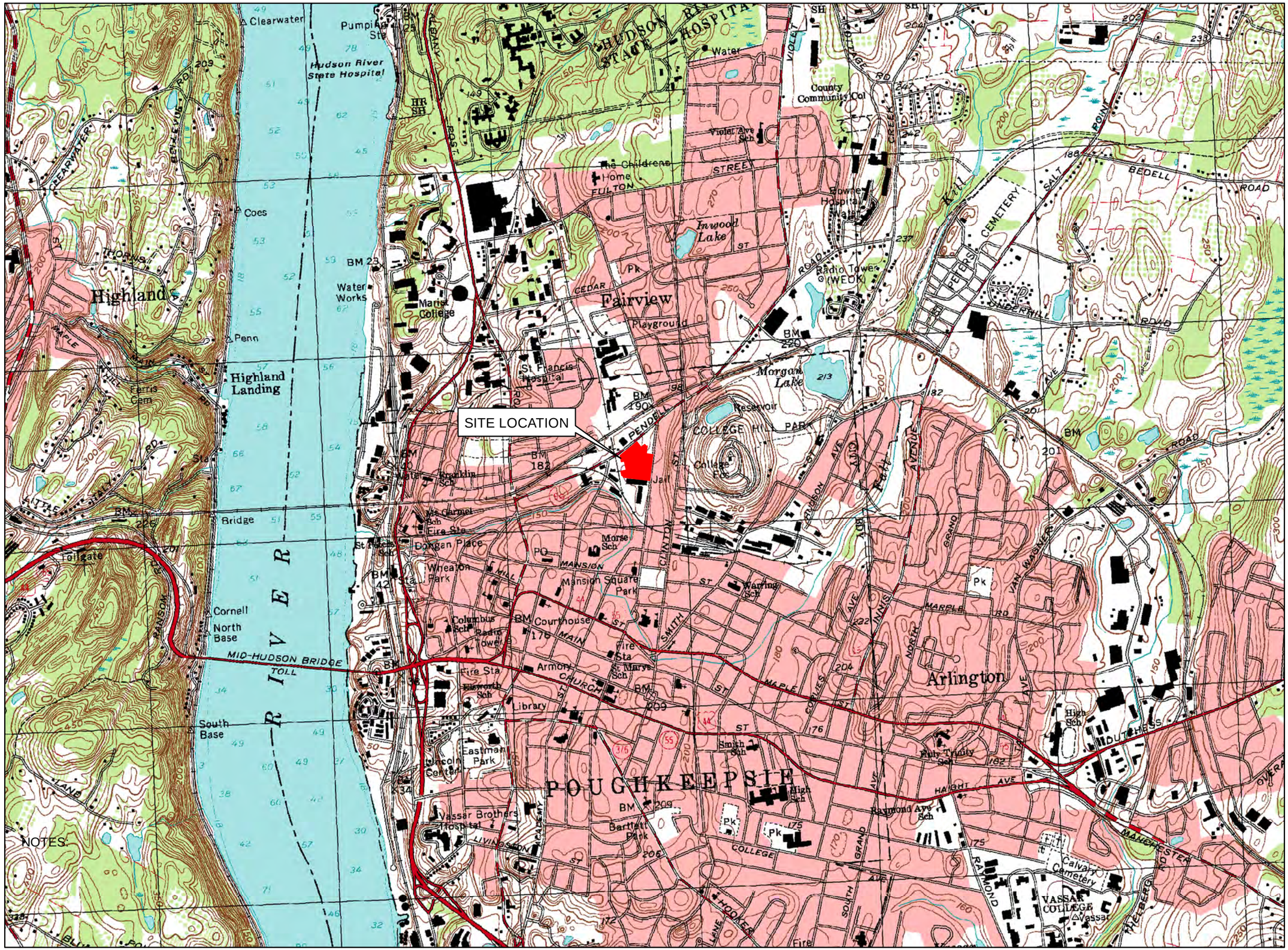
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.

- Gravel will be used on roadways to provide a clean and dust-free road surface.

- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

FIGURES

LABELLA FIGURES



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0 825 1,650
Feet
1 inch = 1,650 feet

INTENDED TO PRINT AS: 11" X 17"

CLIENT:

DUTCHESS COUNTY
DEPARTMENT OF
PUBLIC WORKS

PROJECT:

SITE MANAGEMENT PLAN
104, 108 PARKER AVENUE
& 150, 182 NORTH
HAMILTON STREET

DRAWING NAME:

SITE LOCATION

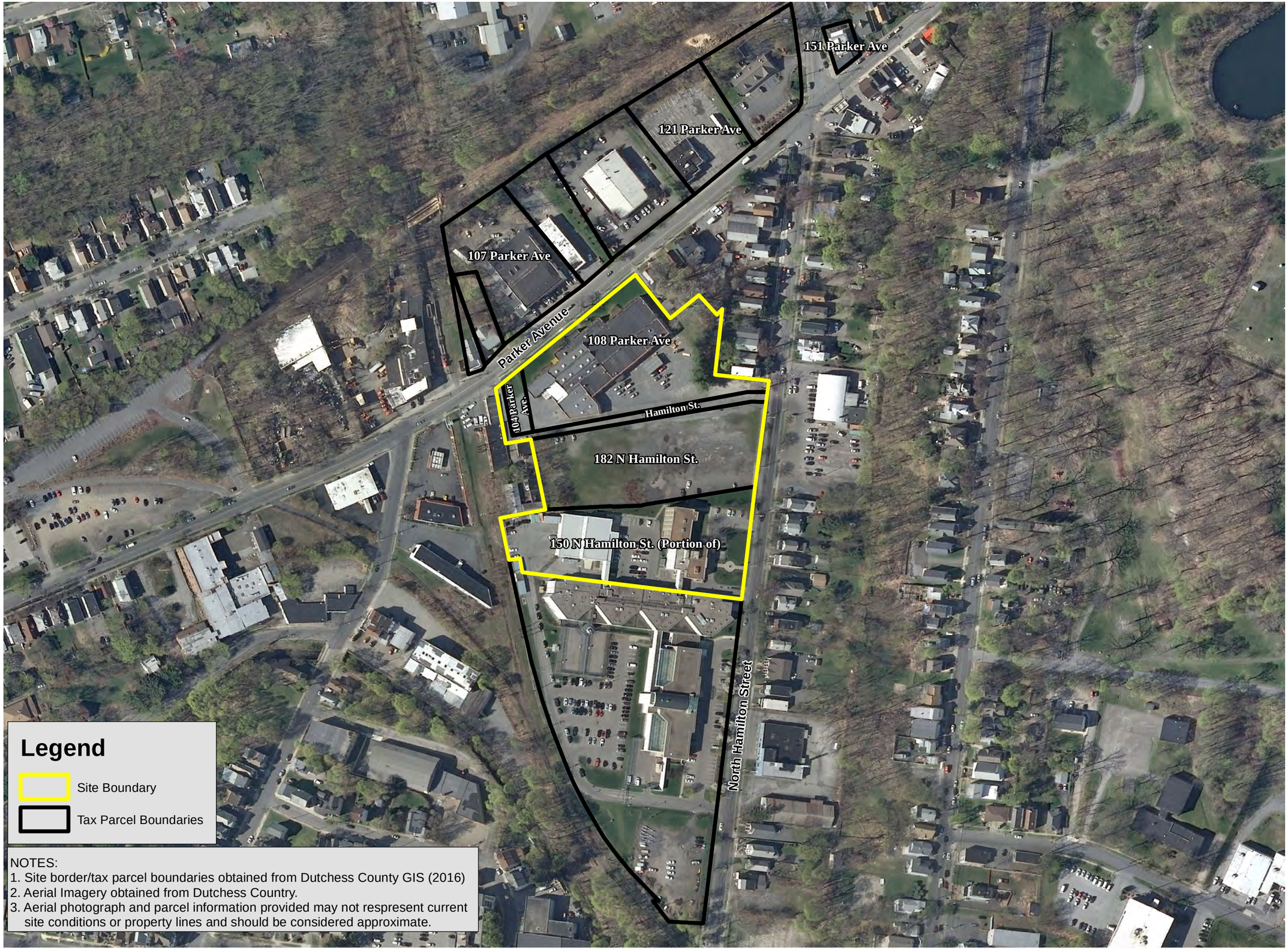
PROJECT/DRAWING NUMBER:

2160911

FIGURE 1

Prepared: March, 2017

Path: \\PROJECTS1\ProjectsAM-3\Dutchess County\2160911 - LEC\Environmental\SMP\Drawings\Figure 10 Site Location.mxd



Legend

- Site Boundary
- Tax Parcel Boundaries

NOTES:
1. Site border/tax parcel boundaries obtained from Dutchess County GIS (2016)
2. Aerial Imagery obtained from Dutchess Country.
3. Aerial photograph and parcel information provided may not respresent current site conditions or property lines and should be considered approximate.

Path: \\PROJECTS1\ProjectsAM-3\Dutchess County\2160911 - LEC\Environmental\SMP\Drawings\Figure 11 Site Boundary.mxd

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Feet
1 inch = 200 feet

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PROJECT:
SITE MANAGEMENT PLAN 104, 108 PARKER AVENUE & 150,182 NORTH HAMILTON STREET

DRAWING NAME:

SITE BOUNDARY

PROJECT/DRAWING NUMBER:

2160911

FIGURE 2

Prepared: March, 2017

Drain to stormwater line leading towards sewer main.

Line leading to sewer (small cracks seen on sewer camera).

Approximate location of drainage area with sump and AST

Drainage vault.

Reported area of former dry well.

Approximate location of former fuel oil UST

Former machine shop area in year 1913 according to Sanborn Maps.

Concrete pit containing oil.

Former machine shop area from at least 1950-1990 according to Sanborn Maps.

Paint Booths

Pipe leading outside.

Approximate location of suspect line (blocked or damaged).

Inaccessible unknown metal cap.

Location of inaccessible/ unknown drain (filled).

Drainage vault.

Asphalt drum storage area.

Former Hamilton Reproduction BCP

Reported Former UST Location

Vent Pipes

Parker Avenue

SB-05

SB-16/MW-05

SB-09

SB-08

SB-07

SB-06/MW-02

SB-13/MW-04

SB-10/MW-03

SB-14

SB-11

Legend

- Site Boundary
- Tax Parcel Boundaries
- Catch Basins
- Drains and Caps

NOTES:
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4. Testing locations were measured from site features and are considered approximate.

Path: \\PROJECTS1\ProjectsAM-3\Dutchess County\2160911 - LEC\Environmental\SMP\Drawings\Figure 12 Potential Impacts.mxd

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Feet
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**SITE MANAGEMENT PLAN
104, 108 PARKER AVENUE
& 150, 182 NORTH
HAMILTON STREET**

DRAWING NAME:

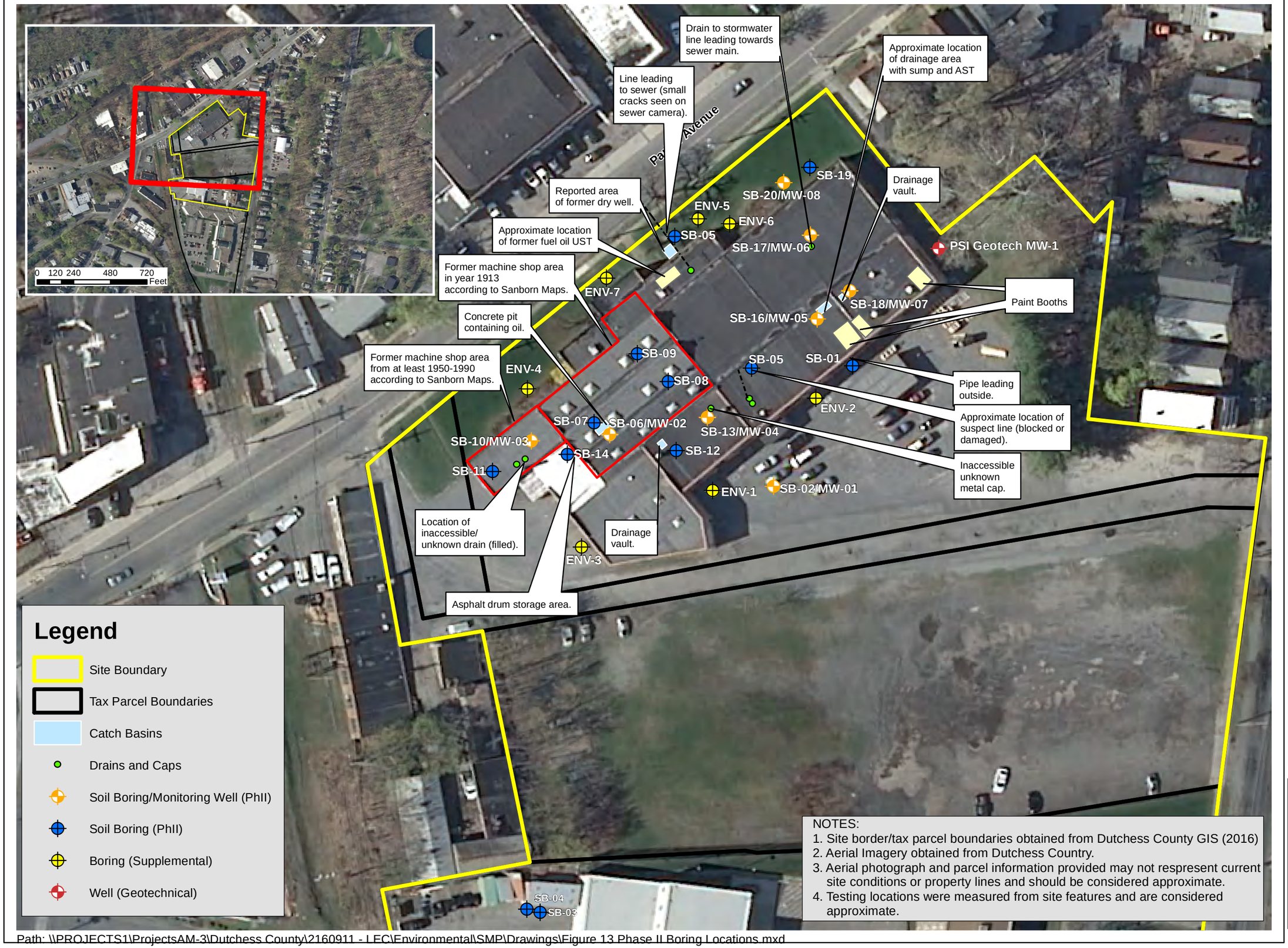
Areas of Potential Impacts

PROJECT/DRAWING NUMBER:

2160911

FIGURE 3

Prepared: March, 2017



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4. Testing locations were measured from site features and are considered approximate.

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Feet

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PUBLIC WORKS

PROJECT:

**SITE MANAGEMENT PLAN
104, 108 PARKER AVENUE
& 150, 182 NORTH
HAMILTON STREET**

DRAWING NAME:

Phase II and Supplemental Assessment Boring Locations

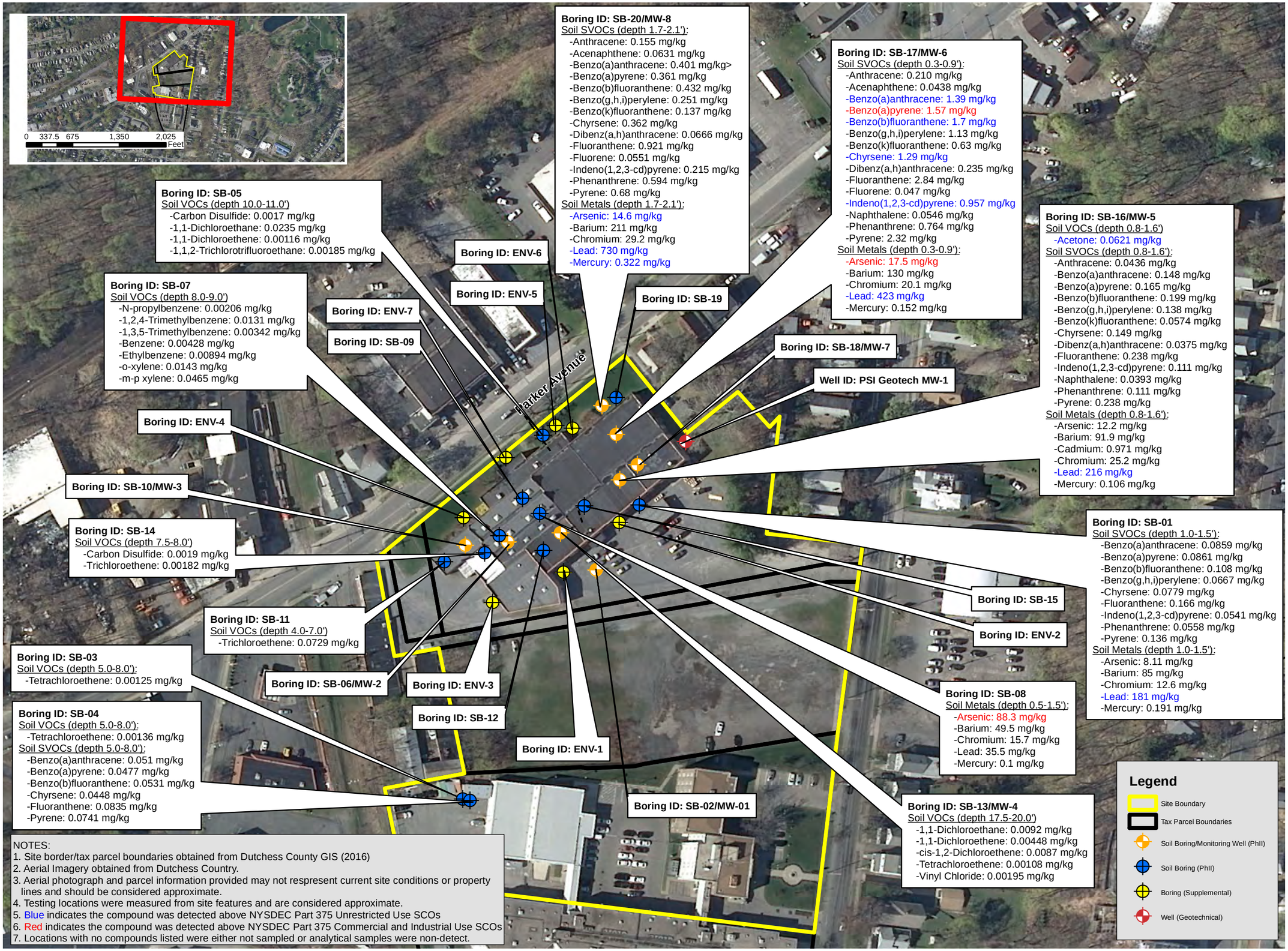
PROJECT/DRAWING NUMBER:

2160911

FIGURE 4

Prepared: March, 2017

Path: \\PROJECTS1\ProjectsAM-3\Dutchess County\2160911 - LEC\Environmental\SMP\Drawings\Figure 13 Phase II Boring Locations.mxd



NOTES:
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2. Aerial Imagery obtained from Dutchess Country.
3. Aerial photograph and parcel information provided may not respresent current site conditions or property lines and should be considered approximate.
4. Testing locations were measured from site features and are considered approximate.
5. Blue indicates the compound was detected above NYSDEC Part 375 Unrestricted Use SCOs
6. Red indicates the compound was detected above NYSDEC Part 375 Commercial and Industrial Use SCOs
7. Locations with no compounds listed were either not sampled or analytical samples were non-detect.

Path: \\PROJECTS1\ProjectsAM-3\Dutchess County\2160911 - LEC\Environmental\SMP\Drawings\Figure 14A Phase II and Supplemental Assessment Analytical Detections Soil.mxd

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0 55 110
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104, 108 PARKER AVENUE
& 150, 182 NORTH
HAMILTON STREET**

DRAWING NAME:

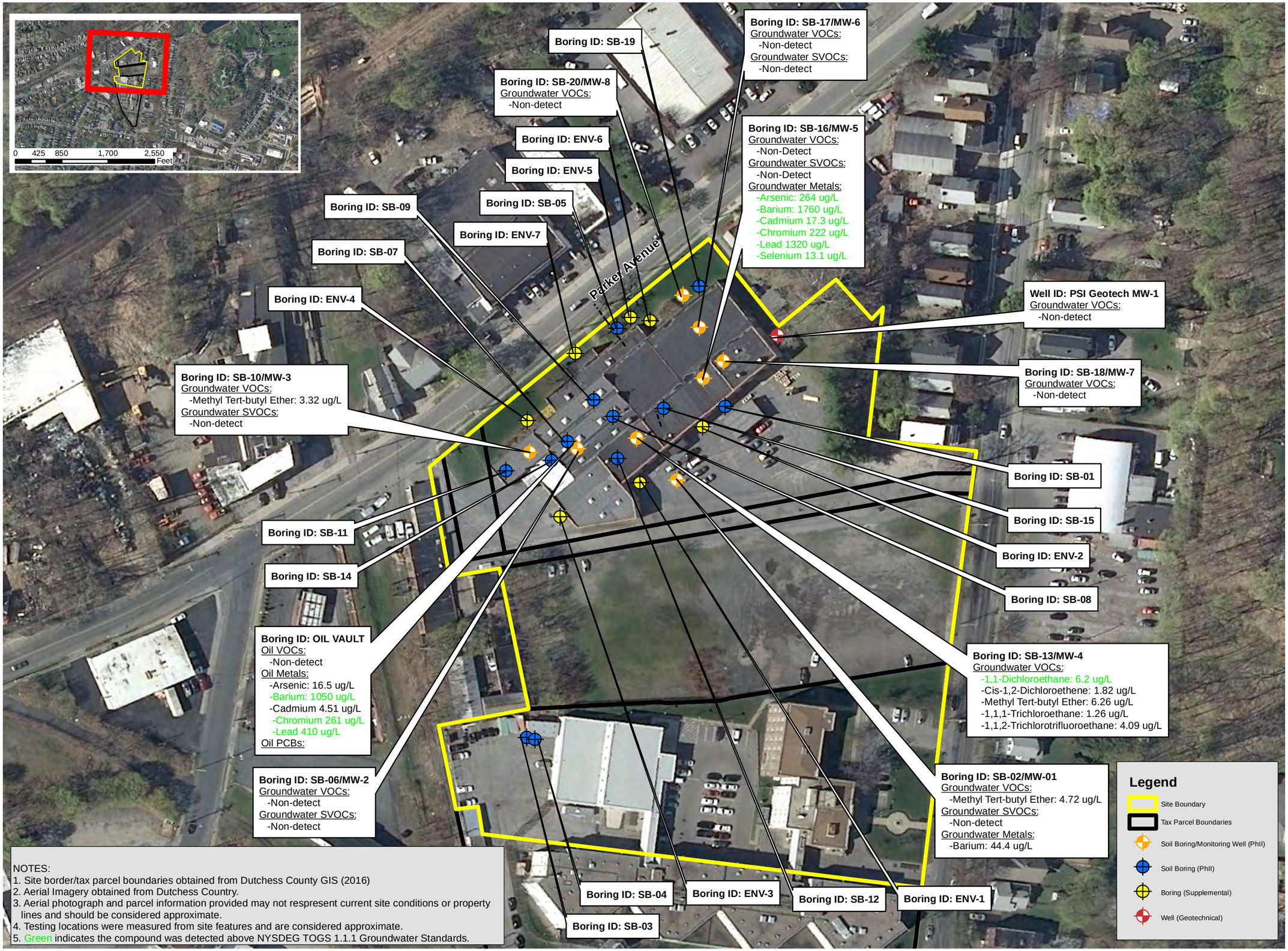
Phase II and Supplemental Assessment Analytical Detections in Soil

PROJECT/DRAWING NUMBER:

2160911

FIGURE 5

Prepared: March, 2017



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3. Aerial photograph and parcel information provided may not respresent current site conditions or property lines and should be considered approximate.
4. Testing locations were measured from site features and are considered approximate.
5. Green indicates the compound was detected above NYSDEG TOGS 1.1.1 Groundwater Standards.

Path: \\PROJECTS1\ProjectsAM-3\Dutchess County\2160911 - LEC\Environmental\SMP\Drawings\Figure 14B Phase II and Supplemental Assessment Analytical Detections Water.mxd

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SITE MANAGEMENT PLAN 104, 108 PARKER AVENUE & 150, 182 NORTH HAMILTON STREET

DRAWING NAME:

Phase II and Supplemental Assessment Analytical Detections in Groundwater

PROJECT/DRAWING NUMBER:

2160911

FIGURE 6

Prepared: March, 2017

Boring ID: ENV-5
Fill:
-Depth: 0.2-0.5', 4.0'-4.5'
-Descripton: Soil mixed with ash, cinders

Boring ID: ENV-6
Fill:
-Depth: 0.2-4.8'
-Descripton: Soil mixed with ash, cinders

Boring ID: SB-05
Fill:
-Depth: 1.0-5.0'
-Descripton: Soil mixed ash, cinders, brick

Boring ID: SB-20
Fill:
-Depth: 1.7-4.0'
-Descripton: Soil mixed with ash, cinders, coal

Boring ID: ENV-7
Fill:
-Depth: 0.2-4.0'
-Descripton: Soil mixed with ash, cinders

Boring ID: SB-19
Fill:
-Depth: 1.7-4.0'
-Descripton: Soil mixed with ash, cinders

Boring ID: SB-09
Fill:
-Depth: 0.3-0.6'
-Descripton: Ash, cinders

Boring ID: SB-17
Fill:
-Depth: 0.3-4.0'
-Descripton: Soil mixed with cinders

Boring ID: SB-07
No Fill Observed

Parker Avenue

Boring ID: SB-18
Fill:
-Depth: 4.0-6.8'
-Descripton: Soil mixed with ash, cinders

Boring ID: ENV-4
Fill:
-Depth: 0.5-2.0'
-Descripton: Soil mixed with ash, cinders

Boring ID: SB-16
Fill:
-Depth: 0.3-4.0'
-Descripton: Soil mixed with ash

Boring ID: SB-10
No Fill Observed

Boring ID: SB-01
Fill:
-Depth: 0.2-1.5'
-Descripton: Soil mixed with ash, cinders

Boring ID: SB-14
No Fill Observed

Boring ID: SB-15
Fill:
-Depth: 0.3-4.0'
-Descripton: Soil mixed with cinders

Boring ID: SB-11
No Fill Observed

Boring ID: SB-08
Fill:
-Depth: 0.3-0.6'
-Descripton: Ash, cinders

Boring ID: ENV-2
Fill:
-Depth: 0.0-1.0'
-Descripton: Soil mixed with asphalt, ash, cinders

Boring ID: SB-06
No Fill Observed

Boring ID: SB-02
Fill:
-Depth: 0.0-5.8'
-Descripton: Soil mixed with glass, ash, cinders

Boring ID: ENV-3
Fill:
-Depth: 0.4-0.5'
-Descripton: Soil mixed with cinders

Boring ID: SB-12
No Fill Observed

Boring ID: SB-13
Fill:
-Depth: 0.3-5.0'
-Descripton: Soil mixed with cinders, brick

Boring ID: SB-04
No Fill Observed

Boring ID: SB-03
Fill:
-Depth: 5.0-5.3'
-Descripton: Soil mixed with glass

Boring ID: ENV-1
Fill:
-Depth: 0.0-2.5'
-Descripton: Soil mixed with nails, wood, coal ash.

Legend

- Site Boundary
- Tax Parcel Boundaries
- Soil Boring/Monitoring Well (PhII)
- Soil Boring (PhII)
- Boring (Supplemental)
- Well (Geotechnical)

NOTES:
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2. Aerial Imagery obtained from Dutchess Country.
3. Aerial photograph and parcel information provided may not respresent current site conditions or property lines and should be considered approximate.
4. Testing locations were measured from site features and are considered approximate.
5. Fill depth is estimated based off incomplete sample recovery. Actual depths and thickness of fill may vary.

Path: \\PROJECTS1\ProjectsAM-3\Dutchess County\2160911 - LEC\Environmental\SMP\Drawings\Figure 15 Fill Locations.mxd

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PUBLIC WORKS

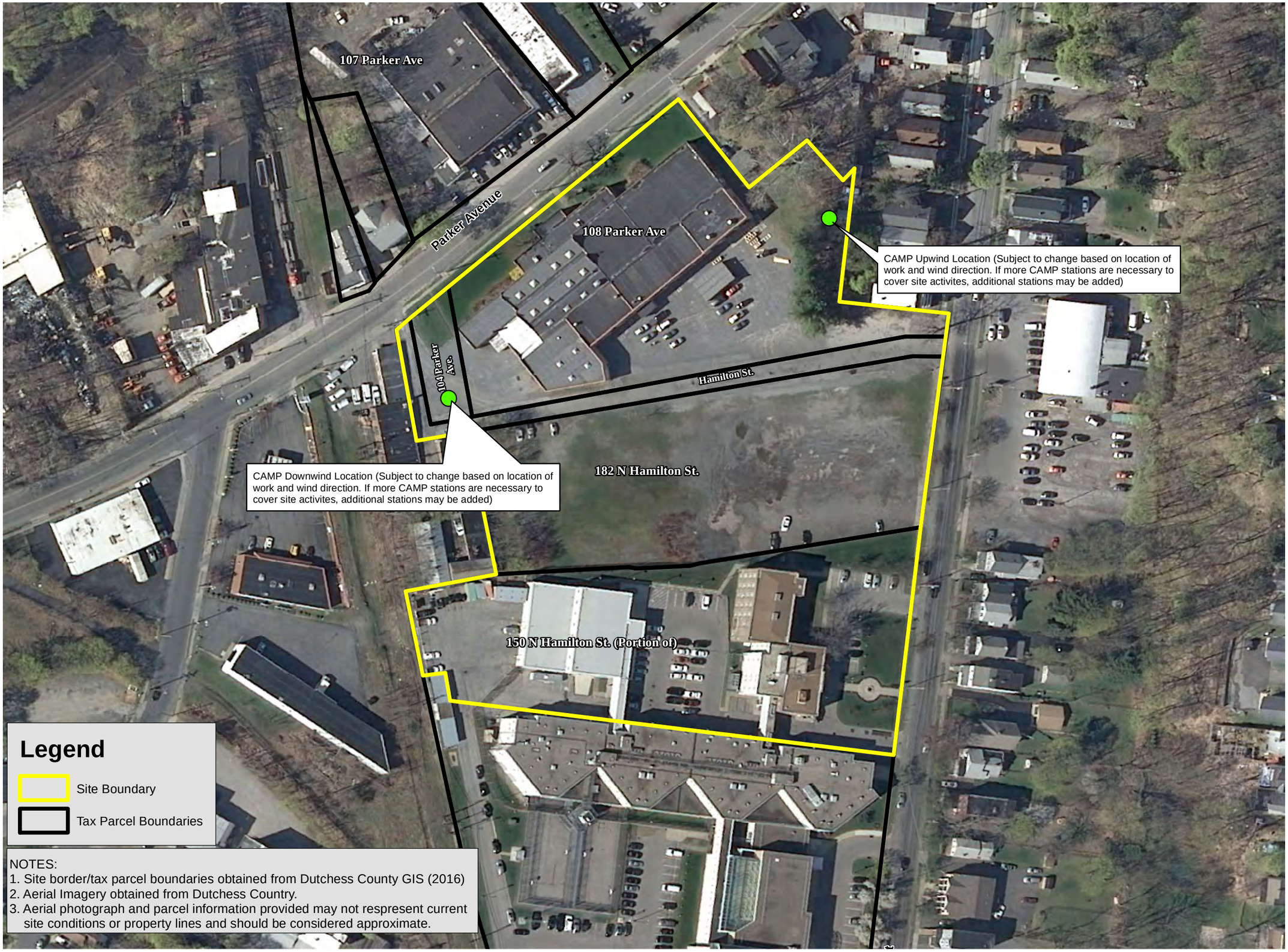
PROJECT:
SITE MANAGEMENT PLAN 104, 108 PARKER AVENUE & 150, 182 NORTH HAMILTON STREET

DRAWING NAME:
Fill Depths and Locations Based on Phase II and Supplemental Assessment

PROJECT/DRAWING NUMBER:
2160911

FIGURE 7

Prepared: March, 2017



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Path: \\PROJECTS1\ProjectsAM-3\Dutchess County\2160911 - LEC\Environmental\SMP\Drawings\Figure 11 CAMP.mxd

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Feet

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PROJECT:

**SITE MANAGEMENT PLAN
104, 108 PARKER AVENUE
& 150,182 NORTH
HAMILTON STREET**

DRAWING NAME:

CAMP

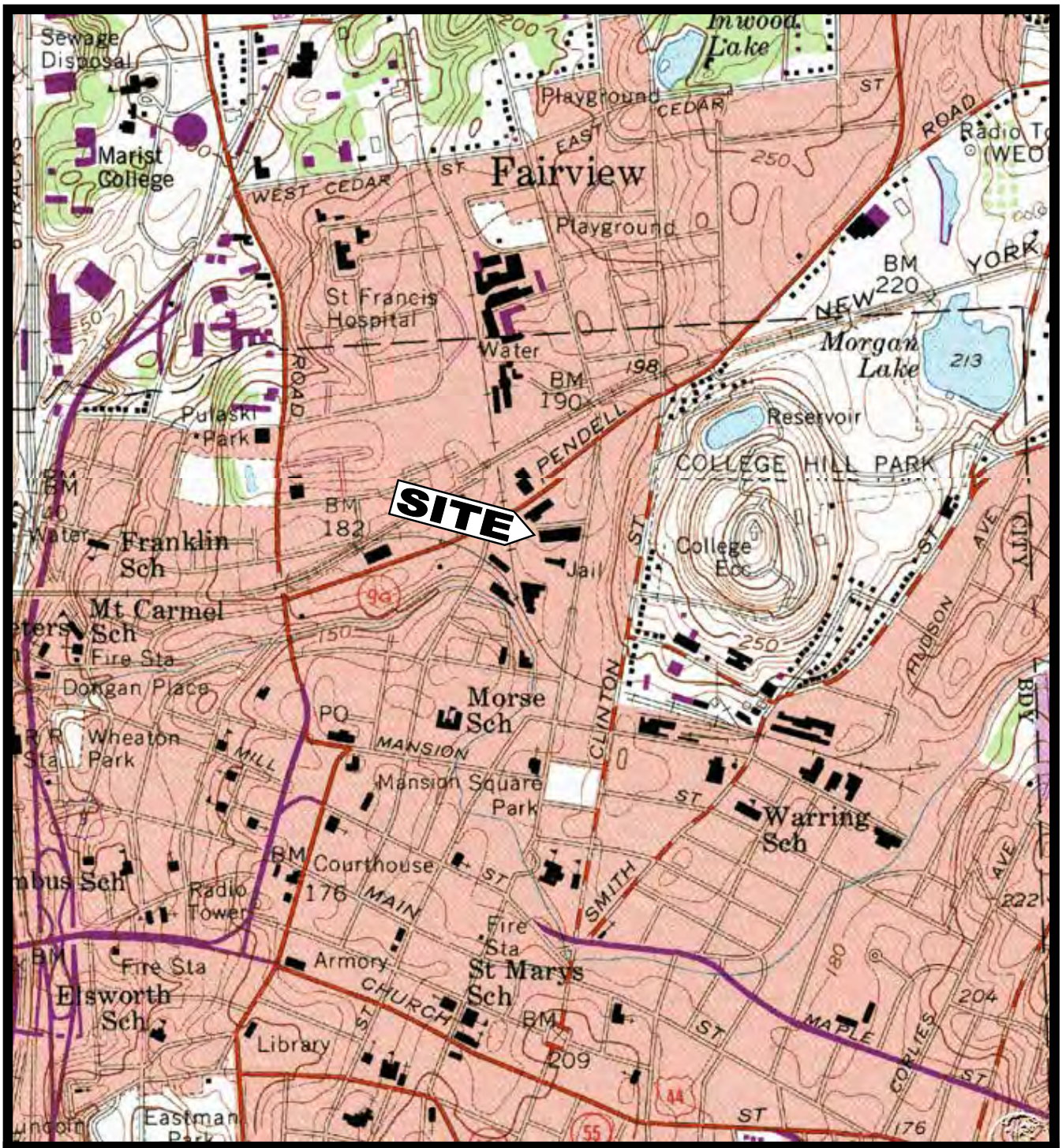
PROJECT/DRAWING NUMBER:

2160911

FIGURE 8

Prepared: March, 2017

CHAZEN FIGURES



Source
USGS Quadrangle; Poughkeepsie

Scale in Feet
0 1000 2000 3000

North

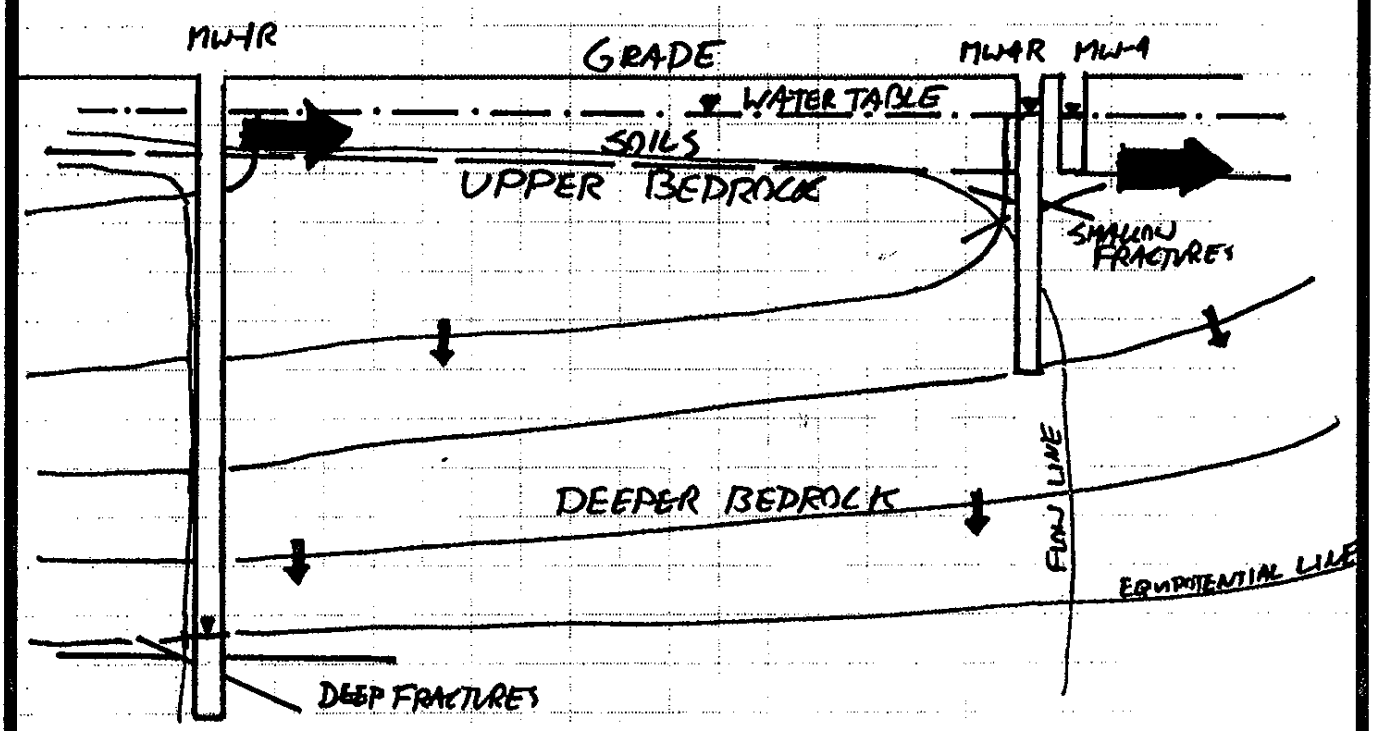
August, 1998

THE Chazen COMPANIES

Figure 1

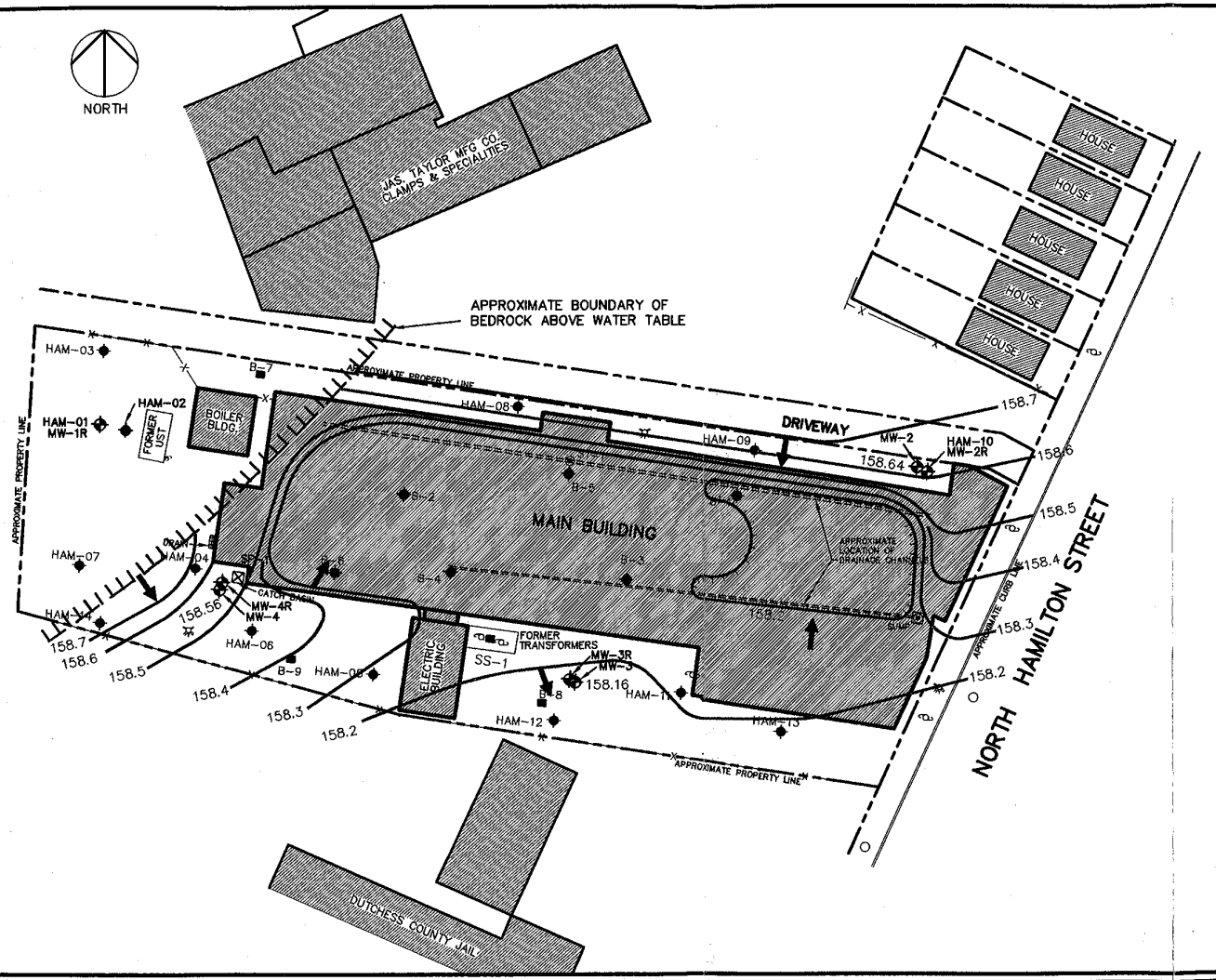
Site Location Map

Former Hamilton Reproduction
166-186 North Hamilton Street
Poughkeepsie, New York



Conceptual flow net showing hydrogeologic equipotential relationships between overburden and bedrock groundwater. Arrow size shows relative groundwater flux volume.

	Source The Chazen Companies, 1998	**Figure 2**
	Scale Scale not available	Geologic Cross Section and Conceptual Flow Net
August, 1998	THE Chazen COMPANIES	**Former Hamilton Reproduction 166-186 North Hamilton Street Poughkeepsie, New York**



LEGEND

HAM-01 ◆	SOIL BORING
MW-2 ◆ 158.16	OVERBURDEN MONITORING WELL & GROUNDWATER ELEVATION
MW-2R ◆	BEDROCK MONITORING WELL
■	SHALLOW SOIL SAMPLE
➡	DIRECTION OF SHALLOW GROUNDWATER MIGRATION

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Planners
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FORMER HAMILTON REPRODUCTION SITE
SI/RA REPORT

Groundwater Flow Figure

SHALLOW GROUNDWATER EQUIPOTENTIALS

JULY 29, 1998

POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

sheet no.
FIGURE 3

	name:	date:
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check	GB	8/19/98
drawn	JAS	8/19/98

scale
1"=60'

project no.
49723

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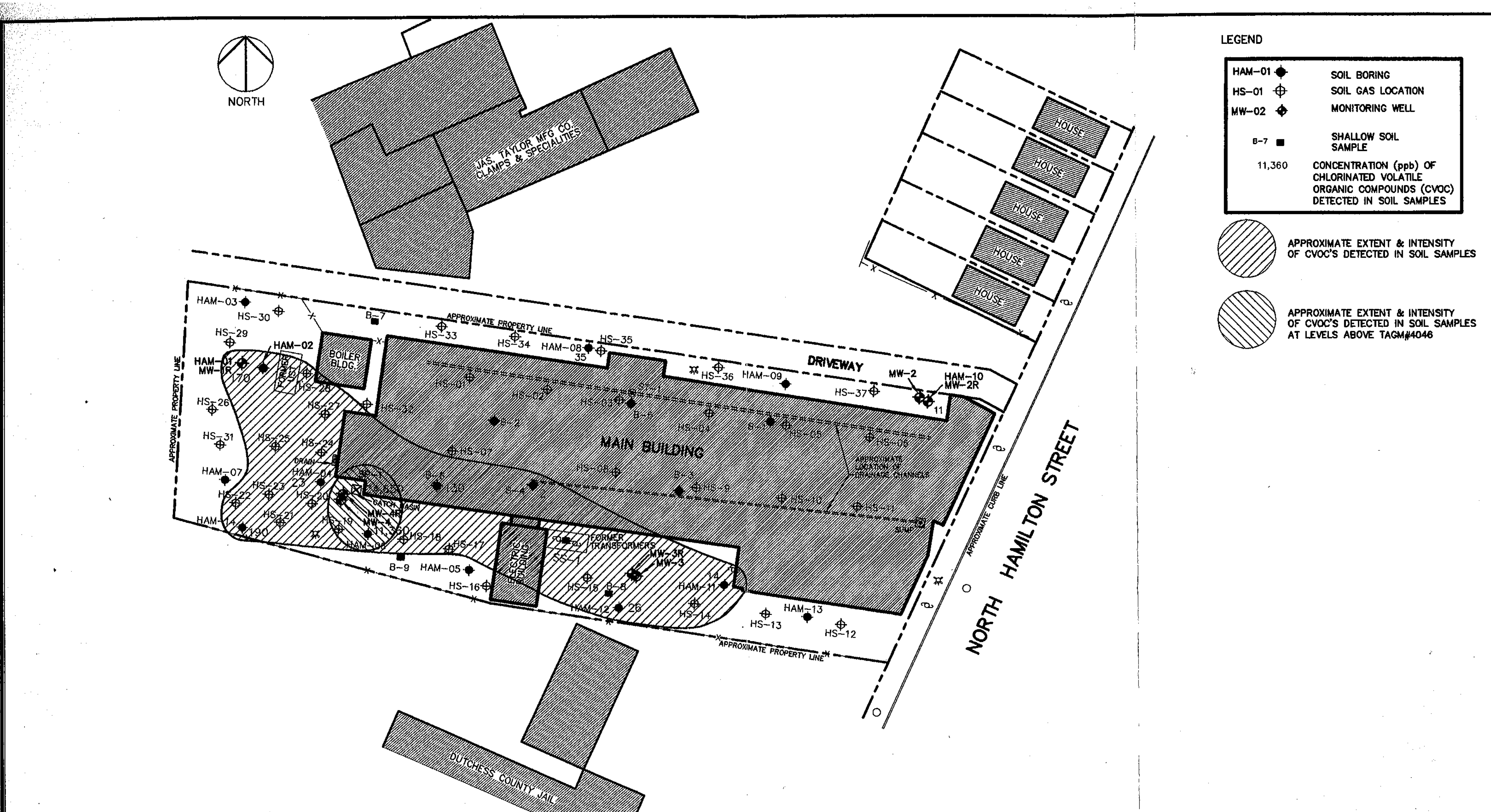

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CVOC IN SOIL SAMPLES

POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

sheet no.
FIGURE 4

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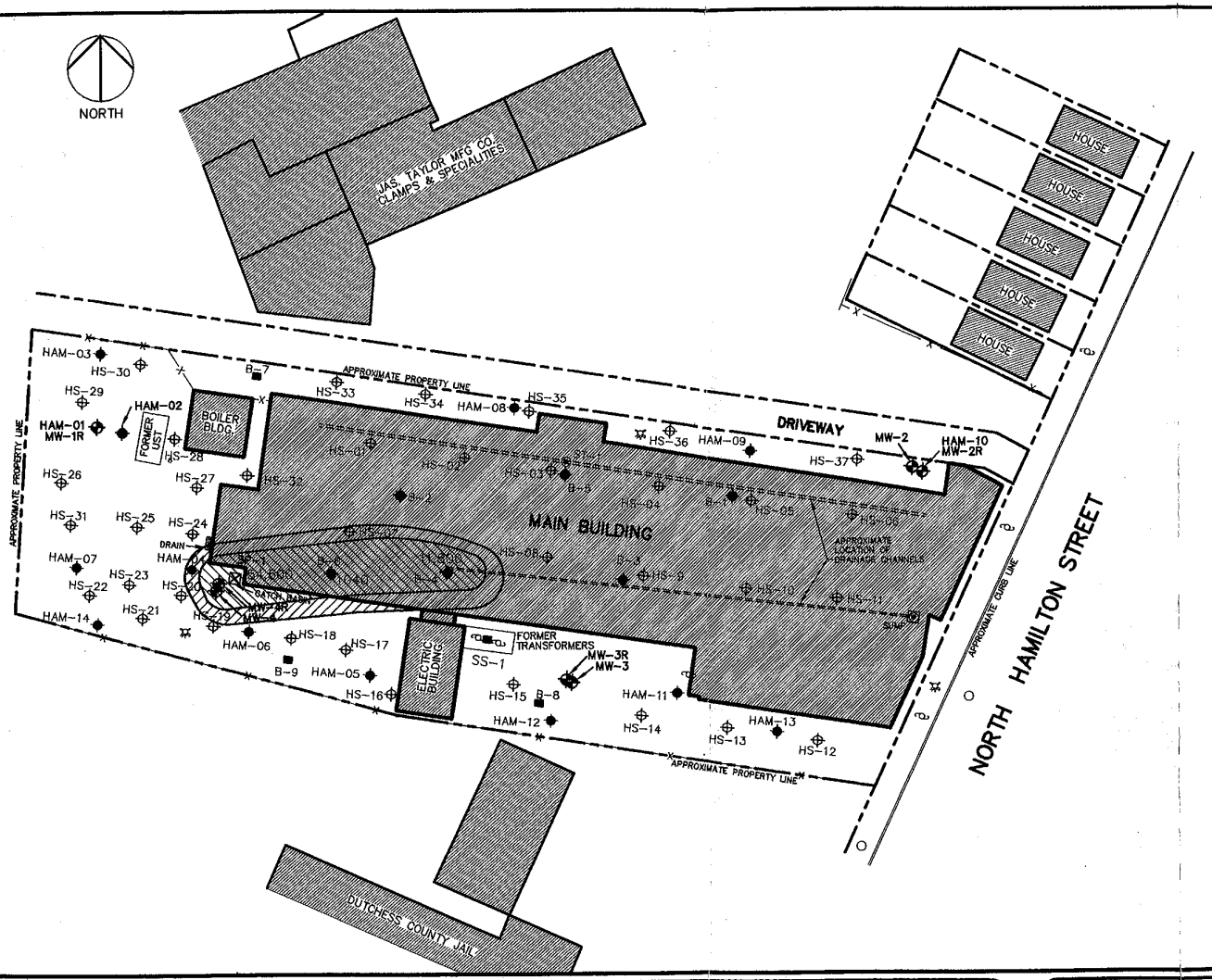
design	GB	11/9/98
check	GB	11/9/98
drawn	JAS	11/9/98

scale 1"=60'

project no. 49723

NONE

PLOT SCALE: 1=1 – SAVED UCS: PLOT



LEGEND

HAM-01	SOIL BORING
HS-01	SOIL GAS LOCATION
MW-02	MONITORING WELL
B-7	SHALLOW SOIL SAMPLE
11,800	CONCENTRATION (ppb) OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOC) DETECTED IN SOIL SAMPLES

APPROXIMATE EXTENT & INTENSITY OF SVOC'S DETECTED IN SOIL SAMPLES

APPROXIMATE EXTENT & INTENSITY OF SVOC'S DETECTED IN SOIL SAMPLES AT LEVELS ABOVE TAGM#4046

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FORMER HAMILTON REPRODUCTION SITE
SI/RA REPORT

SVOC IN SOIL SAMPLES

POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

sheet no.
FIGURE 5

	name:	date:
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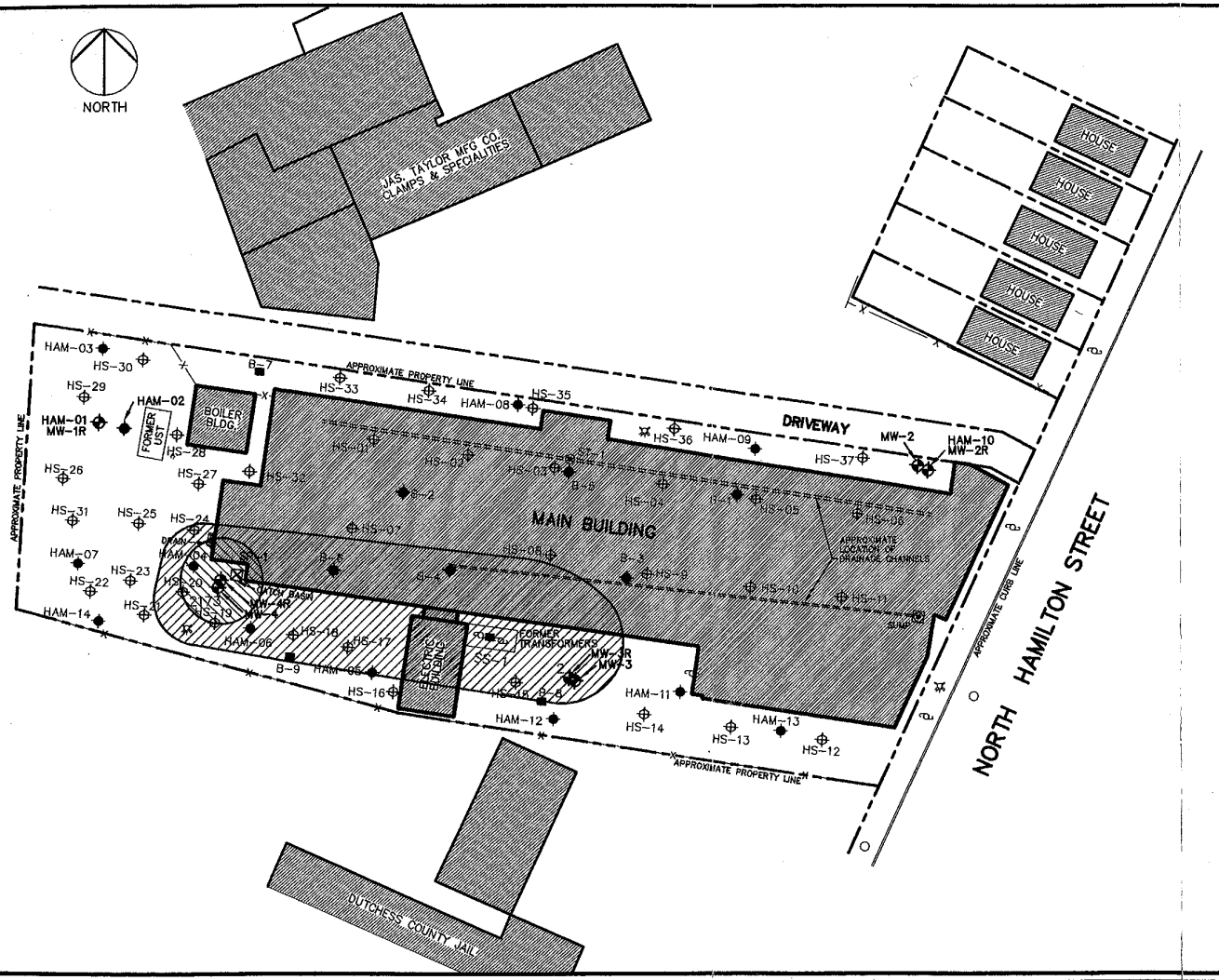
drawn	JAS	11/9/98

scale
1"=60'

project no.
49723

NONE



LEGEND

HAM-01	SOIL BORING
HS-01	SOIL GAS LOCATION
MW-02	MONITORING WELL
B-7	SHALLOW SOIL SAMPLE
	DRAINAGE SAMPLES
2173	CONCENTRATION (ppb) OF CHLORINATED VOLATILE ORGANIC COMPOUNDS (CVOC) DETECTED IN OVERBURDEN GROUNDWATER

APPROXIMATE EXTENT & INTENSITY OF CVOC'S DETECTED IN GROUND WATER

APPROXIMATE EXTENT & INTENSITY OF CVOC'S DETECTED IN GROUND WATER AT LEVELS ABOVE WATER QUALITY STANDARDS

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CVOC IN OVERBURDEN GROUNDWATER

POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

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FIGURE 6

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design	GB	11/9/98
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drawn	JAS	11/9/98

scale
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project no.
49723

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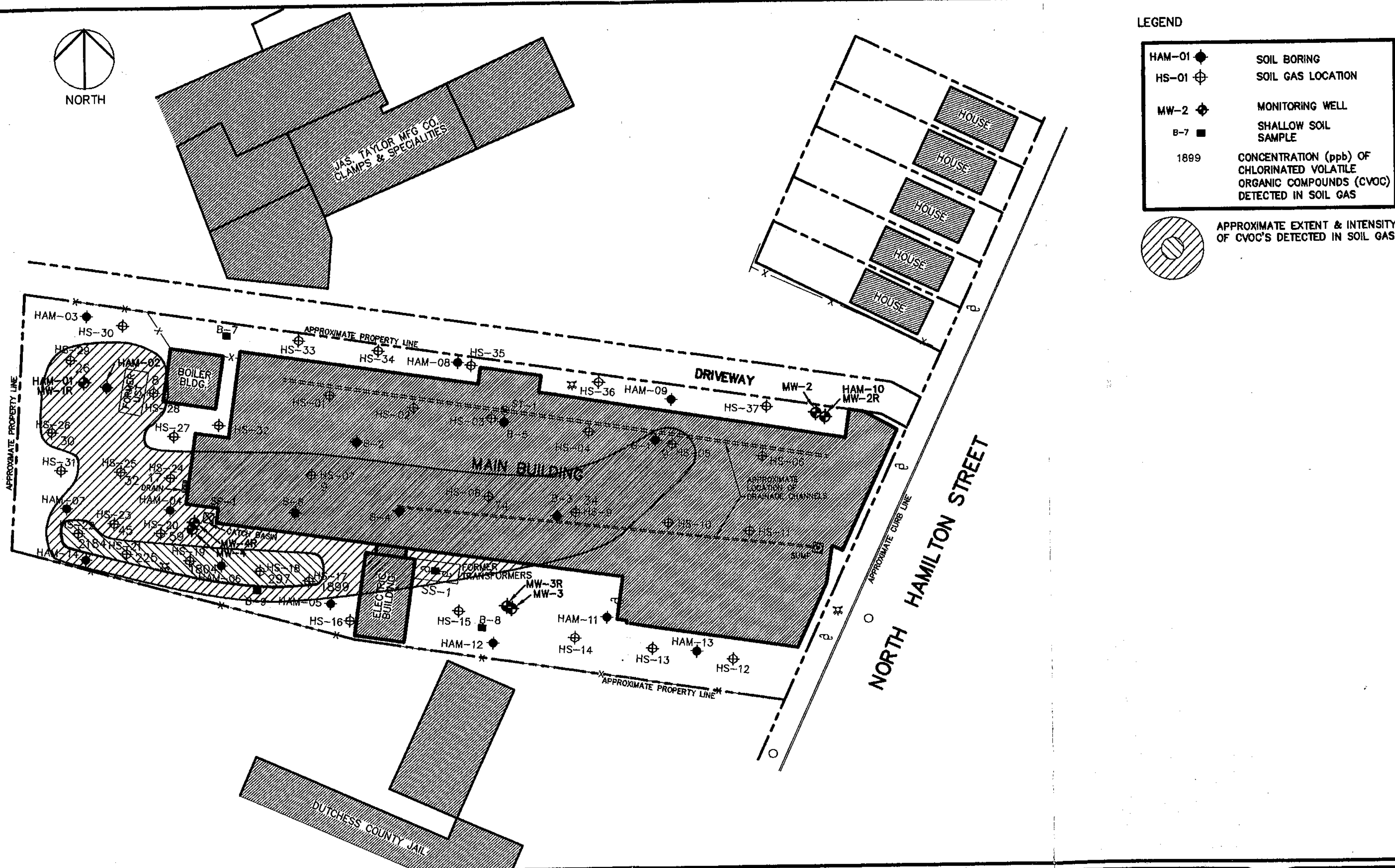

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CVOC IN SOIL GAS

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FIGURE 7

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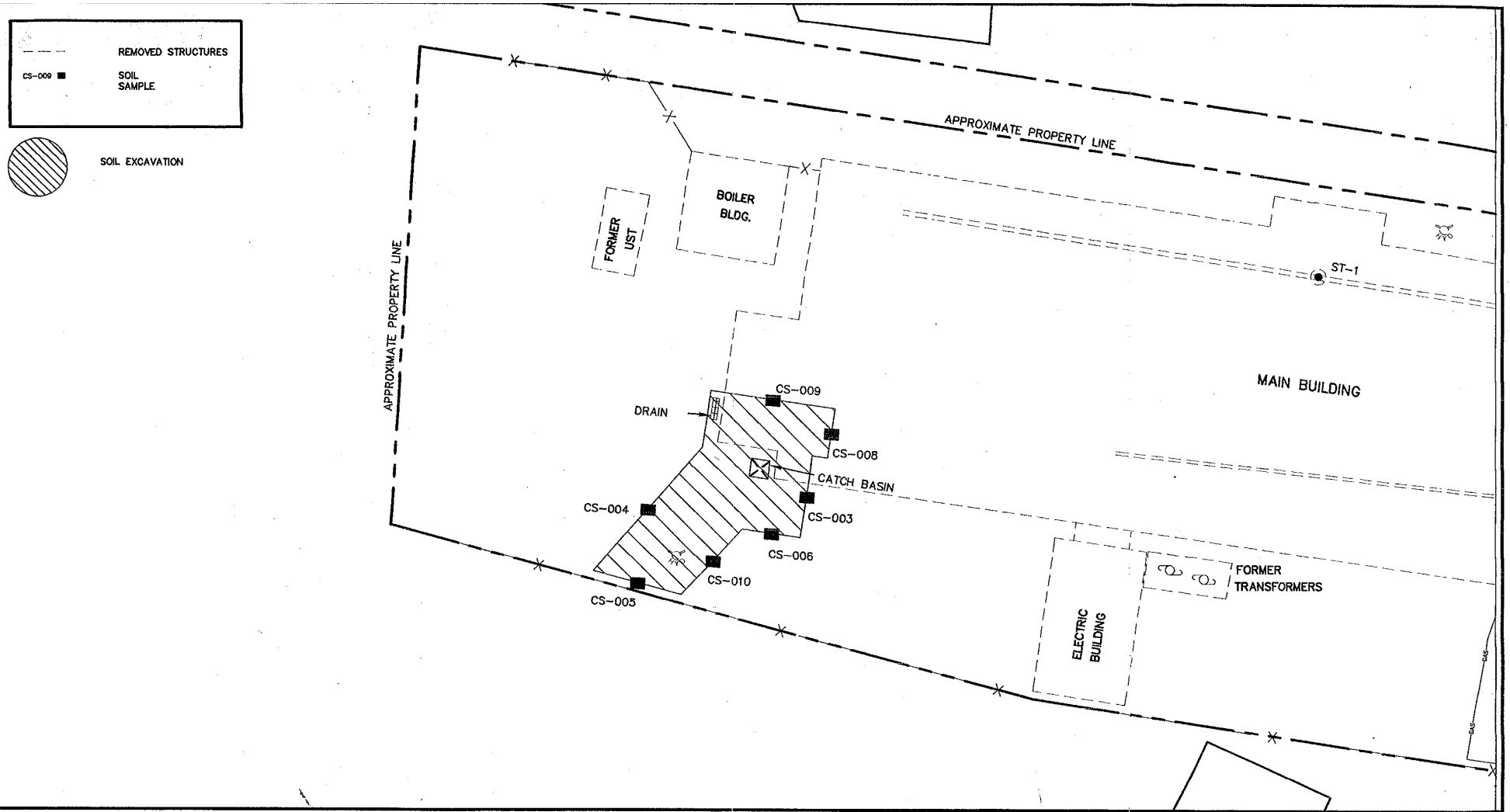
check	GB	11/9/98
drawn	JAS	11/9/98

scale
1"=60'

project no.
49723

NONE



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FORMER HAMILTON REPRODUCTION SITE
SI/RA REPORT

Extent of Remedial Excavation Performed and Confirmatory

SOIL SAMPLE LOCATIONS

POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

sheet no.
FIGURE 8

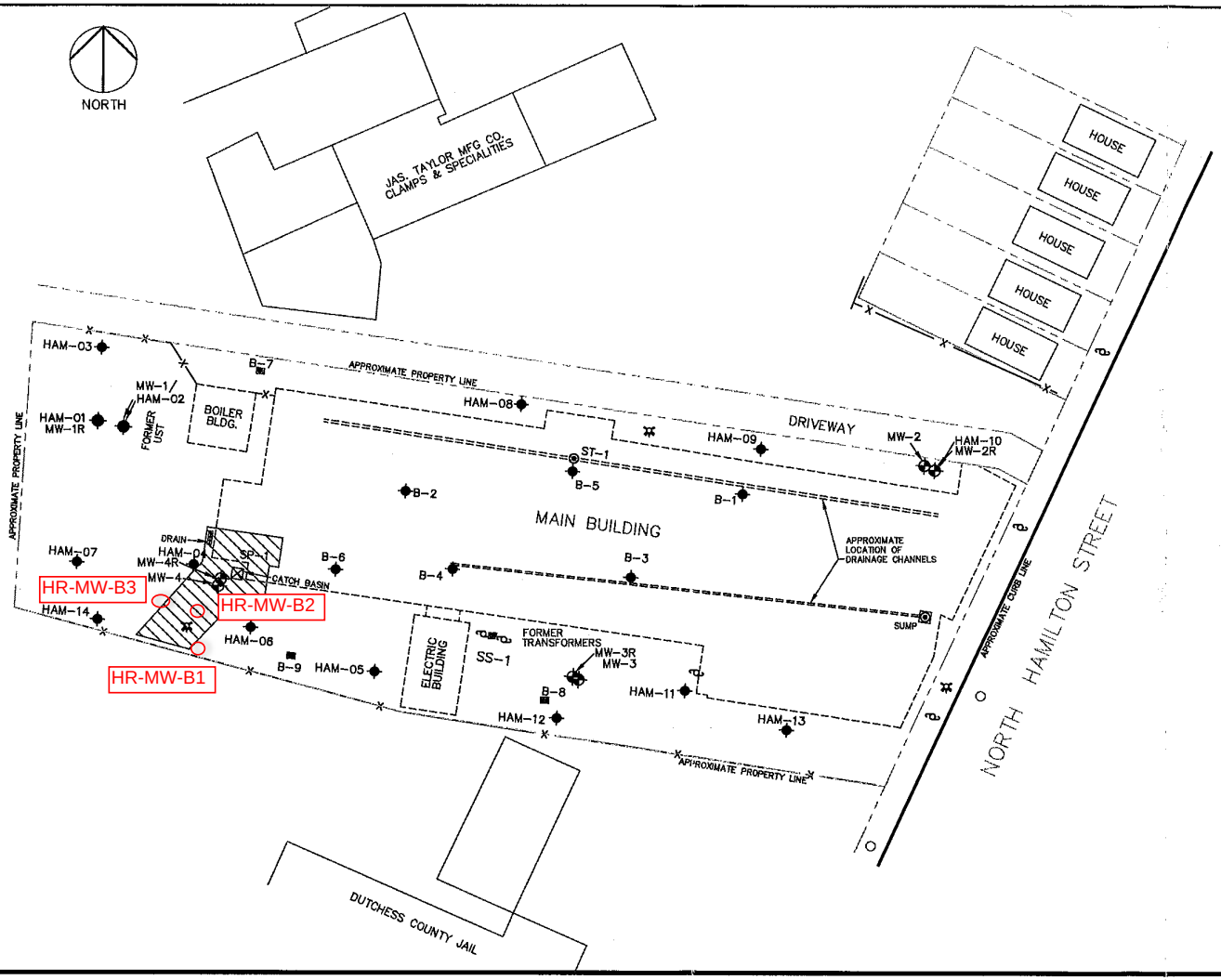
	name:	date:
design	GB	11/9/98
check	GB	11/9/98
drawn	JAS	11/9/98

scale
1"=30'

project no.
49723.01

NONE

X:\49723.01\SURVEY\RAD.DWG\FIGURE3d.DWG
XREF: 49723BM.DWG
PLOT SCALE: 1=1' - SAVED UCS: PLOT



LEGEND

1990s sample locations

HAM-01 SOIL BORING

MW-02 MONITORING WELL

B-7 SOIL SAMPLE

SOIL EXCAVATION

Existing Groundwater Monitoring Well Locations

HR-MW-B1

THE Chazen COMPANIES

Engineers/Surveyors
Planners
Environmental Scientists

CHAZEN ENVIRONMENTAL SERVICES, INC.

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FORMER HAMILTON REPRODUCTION SITE
SI/RA REPORT

Groundwater Monitoring Well Network

POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

sheet no.
FIGURE 9

	name:	date:
design	GB	11/9/98
check	GB	11/9/98
drawn	JAS	11/9/98

scale
1"=60'

project no.
49723.01

TABLES

LABELLA TABLES

Dutchess County Department of Public Works
104 108 Parker Ave, 150 and 182 N Hamilton

Table 1
Summary of Analytical Results - Soil - VOCs
Concentrations in milligrams per kilogram (mg/kg) or parts per million (ppm)

Lab Sample ID	L863759-16		L863759-22		L863759-21		L863759-25		L863759-11		L863759-15		L863759-10		L863759-23		Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives
Client Sample ID	SB-03 (7.6'-7.8')		SB-04 (5.0'-8.0')		SB-05 (10.0'-11.0')		SB-07 (8.0'-9.0')		SB-11 (4.0'-7.0')		SB-13 (17.5'-20.0')		SB-14 (7.5'-8.0')		SB-16 (0.8'-1.6')		
Date Collected	09/28/2016		09/28/2016		09/28/2016		09/28/2016		09/29/2016		09/29/2016		09/29/2016		09/29/2016		
Analyte	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	
N-PROPYLBENZENE	<0.00106		<0.00114		<0.00104		0.00206		<0.00114	J3	<0.00108		<0.00117		<0.00109		3.9
1,2,4-TRIMETHYLBENZENE	<0.00106		<0.00114		<0.00104		0.0131		<0.00114	J3	<0.00108		<0.00117		<0.00109		3.6
1,3,5-TRIMETHYLBENZENE	<0.00106		<0.00114		<0.00104		0.00342		<0.00114	J3	<0.00108		<0.00117		<0.00109		8.4
ACETONE	<0.0528		<0.0571		<0.0519		<0.0554		<0.0571		<0.0542		<0.0587		**0.0621**		0.05
BENZENE	<0.00106		<0.00114		<0.00104		0.00428		<0.00114	J5	<0.00108		<0.00117		<0.00109		0.06
CARBON DISULFIDE	<0.00106	J3	<0.00114	J3	0.0017	J3	<0.00111	J3	<0.00114		<0.00108	J3	0.0019	J3	<0.00109	J3	2.7
1,1-DICHLOROETHANE	<0.00106		<0.00114		0.0235		<0.00111		<0.00114	J3 J5	0.0092		<0.00117		<0.00109		2.4
1,1-DICHLOROETHENE	<0.00106		<0.00114		0.00116		<0.00111		<0.00114		0.00448		<0.00117		<0.00109		0.33
CIS-1,2-DICHLOROETHENE	<0.00106		<0.00114		<0.00104		<0.00111		<0.00114		0.0087		<0.00117		<0.00109		0.25
ETHYLBENZENE	<0.00106		<0.00114		<0.00104		0.00894		<0.00114		<0.00108		<0.00117		<0.00109		1
TETRACHLOROETHENE	0.00125		0.00136		<0.00104		<0.00111		<0.00114		0.00108		<0.00117		<0.00109		1.3
TRICHLOROETHENE	<0.00106		<0.00114		<0.00104		<0.00111		0.0729	J6	<0.00108		0.00182		<0.00109		0.47
1,1,2-TRICHLOROTRIFLUOROETHANE	<0.00106		<0.00114		0.00185		<0.00111		<0.00114		<0.00108		<0.00117		<0.00109		NL
VINYL CHLORIDE	<0.00106		<0.00114		<0.00104		<0.00111		<0.00114		0.00195		<0.00117		<0.00109		0.02
O-XYLENE	<0.00106		<0.00114		<0.00104		0.0143		<0.00114	J3	<0.00108		<0.00117		<0.00109		NL
M&P-XYLENE	<0.00211		<0.00228		<0.00208		0.0465		<0.00229	J3	<0.00217		<0.00235		<0.00218		0.26

Notes
Concentrations in micrograms per kilogram (ug/kg) or parts per billion (ppb)
"<" indicates the concentration was not detected above the reporting limit with the limit shown
Bolded values indicate concentration exceeded NYCRR unrestricted use SCOs
NL indicates analyte threshold is not listed
J3 qualifier indicates the associated batch QC was outside the established quality control range for precision.
J5 qualifier indicates the sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6 qualifier indicates sample matrix interfered with the ability to make any accurate determination; spike value is low.

Dutchess County Department of Public Works
104 108 Parker Ave, 150 and 182 N Hamilton

Table 2
Summary of Analytical Results - Soil - SVOCs
Concentrations in milligrams per kilogram (mg/kg) or parts per million (ppm)

Client Sample ID	SB-01 (1.0'-1.5')		SB-04 (5.0'-8.0')		SB-16 (0.8'-1.6')		SB-17 (0.3'-0.9')		SB-20 (1.7'-2.1')		Part 375-6.8(a): Unrestricted Use Soil Cleanup Objectives	Part 375-6.8(b): Restricted Use Soil Cleanup Objectives: Commercial	Part 375-6.8(b): Restricted Use Soil Cleanup Objectives: Industrial	Part 375-6.8(b): Restricted Use Soil Cleanup Objectives: Protection of Ecological Resources	Part 375-6.8(b): Restricted Use Soil Cleanup Objectives: Protection of Groundwater
Date Collected	09/28/2016		09/28/2016		09/29/2016		09/29/2016		09/29/2016						
Analyte	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual					
ANTHRACENE	<0.0412		<0.0377		0.0436		0.210		0.155		100	500	1,000	NL	1,000
ACENAPHTHENE	<0.0412		<0.0377		<0.036		0.044		0.0631		20	500	1,000	20	98
BENZO(A)ANTHRACENE	0.086		0.051		0.148		**1.390**		0.401		1	5.6	11	NL	1
BENZO(A)PYRENE	0.086		0.048		0.165		**1.570**		0.361		1	1	1.1	2.60	22
BENZO(B)FLUORANTHENE	0.108		0.053		0.199		**1.700**		0.432		1	5.6	11	NL	1.70
BENZO(G,H,I)PERYLENE	0.067		<0.0377		0.138		1.130		0.251		100	500	1,000	NL	1,000
BENZO(K)FLUORANTHENE	<0.0412		<0.0377		0.057		0.630		0.137		0.80	56	110	NL	1.70
CHRYSENE	0.078		0.045		0.149		**1.290**		0.362		1	56	110	NL	1
DIBENZ(A,H)ANTHRACENE	<0.0412		<0.0377		0.038		0.235		0.0666		0.33	0.560	1.10	NL	1,000
FLUORANTHENE	0.166		0.084		0.283		2.840		0.921		100	500	1,000	NL	10,000
FLUORENE	<0.0412		<0.0377		<0.036		0.047		0.0551		30	500	1,000	30	386
INDENO(1,2,3-CD)PYRENE	0.054		<0.0377		0.111		**0.957**		0.215		0.50	5.60	11	NL	8.20
NAPHTHALENE	<0.0412		<0.0377		0.039		0.055		<0.043		12	500	1,000	NL	12
PHENANTHRENE	0.056		<0.0377		0.111		0.764		0.594		100	500	1,000	NL	1,000
PYRENE	0.136		0.071		0.238		2.320		0.680		100	500	1,000	NL	1,000

Notes:
Concentrations in micrograms per kilogram (ug/kg) or parts per billion
"<" indicates the concentration was not detected above the reporting limit with the limit shown
Bolded values indicate concentration exceeded NYCRR unrestricted use SCOs
Highlighted values indicate concentration exceeded NYCRR commercial and industrial use SCOs
NL indicates analyte threshold is not listed

Dutchess County Department of Public Works
104 108 Parker Ave, 150 and 182 N Hamiltonn

Table 3
Summary of Analytical - Soil - Metals
Concentrations in milligrams per kilogram (mg/kg) or parts per million (ppm)

Sample ID	SB-01 (1.0'-1.5')		SB-08 (0.5'-1.5')		SB-16 (0.8'-1.6')		SB-17 (0.3'-0.9')		SB-20 (1.7'-2.1')		Part 375-6.8(a): Unrestricted Use Soil Cleanup Objectives	Part 375-6.8(b): Restricted Use Soil Cleanup Objectives: Commercial	Part 375-6.8(b): Restricted Use Soil Cleanup Objectives: Industrial	Part 375-6.8(b): Restricted Use Soil Cleanup Objectives: Protection of Ecological Resources	Part 375-6.8(b): Restricted Use Soil Cleanup Objectives: Protection of Groundwater
Date Collected	09/28/2016		09/28/2016		09/29/2016		09/29/2016		09/29/2016						
Analyte	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual					
ARSENIC	0.00811		**0.0883**		0.0122		**0.0175**		**0.0146**		0.013	0.016	0.016	0.013	0.016
BARIUM	0.085		0.0495		0.0919		0.13		0.211		0.35	0.40	10	0.433	0.82
CADMIUM	<0.625		<0.58		0.000971		<0.64		<0.652		0.0025	0.0093	0.06	0.004	0.0075
CHROMIUM	0.0126		0.0157		0.0252	O1	0.0201		0.0292		0.03	1.50	6.80	0.041	0.019
LEAD	**0.181**		0.0355		**0.216**	J6	**0.423**		**0.73**		0.063	1	3.90	0.063	0.45
MERCURY	0.000191		0.0001		0.000106		0.000152		**0.000322**		0.00018	0.0028	0.0057	0.00018	0.00073

Notes:
Concentrations in milligrams per kilogram (mg/kg) or parts per million (ppm)
"<" indicates the concentration was not detected above the reporting limit with the limit shown
Bolded values indicate concentration exceeded NYCRR unrestricted use SCOs
Highlighted values indicate concentration exceeded NYCRR commercial and industrial use SCOs
J6 qualifier indicates sample matrix interfered with the ability to make any accurate determination; spike value is low
O1 qualifier indicates the analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Dutchess County Department of Public Works
104 108 Parker Ave, 150 and 182 N Hamilton

Table 4
Summary of Analytical - Groundwater - VOCs
Concentrations in micrograms per Liter (ug/L) or parts per billion (ppb)

Sample ID	MW-01		MW-03		MW-04		MW-05		OIL VAULT		NYSDEC TOGS 1.1.1 Groundwater Standards
Date Collected	09/29/2016		09/29/2016		09/29/2016		9/29/2016		09/29/2016		
Analyte	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Metals											
ARSENIC	<10		NA		NA		**264**		16.5		25
BARIUM	44.4		NA		NA		**1,760**		**1,050**		1,000
CADMIUM	<2		NA		NA		**17.3**		4.51		5
CHROMIUM	<10		NA		NA		**222**		**261**		50
LEAD	<5		NA		NA		**1,320**		**410**		25
SELENIUM	<10		NA		NA		**13.1**		<10		10
VOCs											
4-ISOPROPYLTOLUENE	<1		<1		<1		<1		2.29		5
1,1-DICHLOROETHANE	<1		<1		**6.2**		<1		<1		5
CIS-1,2-DICHLOROETHENE	<1		<1		1.82		<1		<1		5
METHYL TERT-BUTYL ETHER	4.72		3.32		6.26		<1		<1		10
1,1,1-TRICHLOROETHANE	<1		<1		1.26		<1		<1		5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	<1		<1		4.09		<1		<1		5

Notes:
Concentrations in micrograms per liter (ug/L) or parts per billion (ppb)
"<" indicates the concentration was not detected above the reporting limit
NA indicates particular compound was not analyzed for
Bolded values indicated concentration exceeds NYSDEC TOGS 1.1.1 Groundwater Standards

Table 5

Dutchess County DPW
Poughkeepsie, New York
Supplement Assessment Analytical for Soil Samples: VOCs

Sample ID	ENV-7	**NYSDEC Part 375-6.8(a) Unrestricted Use SCOs**	NYSDEC Part 375-6.8(b) Commercial Use SCOs
Depth (ft. bgs)	1.5 -2.0'		
Date Collected	11/01/2016		
Analyte	Result		
VOCs			
N-BUTYLBENZENE	<0.00122	12	500
SEC-BUTYLBENZENE	<0.00122	11	500
TERT-BUTYLBENZENE	<0.00122	5.9	500
P-ISOPROPYLTOLUENE	<0.00122	NL	NL
N-PROPYLBENZENE	<0.00122	3.9	500
1,2,4-TRIMETHYLBENZENE	0.00124	3.6	190
1,3,5-TRIMETHYLBENZENE	<0.00122	8.4	190
ACETONE	<0.0609	0.05	500
BENZENE	<0.00122	0.06	44
BROMOCHLOROMETHANE	<0.00122	NL	NL
BROMODICHLOROMETHANE	<0.00122	NL	NL
BROMOFORM	<0.00122	NL	NL
BROMOMETHANE	<0.00609	NL	NL
CARBON DISULFIDE	<0.00122	NL	NL
CARBON TETRACHLORIDE	<0.00122	0.76	22
CHLOROBENZENE	<0.00122	1.1	500
CHLORODIBROMOMETHANE	<0.00122	NL	NL
CHLOROETHANE	<0.00609	NL	NL
CHLOROFORM	<0.00609	0.37	350
CHLOROMETHANE	<0.00304	NL	NL
CYCLOHEXANE	<0.00122	NL	NL
1,2-DIBROMO-3-CHLOROPROPANE	<0.00609	NL	NL
1,2-DIBROMOETHANE	<0.00122	NL	NL
DICHLORODIFLUOROMETHANE	<0.00609	NL	NL
1,1-DICHLOROETHANE	<0.00122	0.27	240
1,2-DICHLOROETHANE	<0.00122	0.02	30
1,2-DICHLOROBENZENE	<0.00122	1.1	500
1,3-DICHLOROBENZENE	<0.00122	2.4	280
1,4-DICHLOROBENZENE	<0.00122	1.8	130
1,1-DICHLOROETHENE	<0.00122	0.33	500
CIS-1,2-DICHLOROETHENE	<0.00122	0.25	500
TRANS-1,2-DICHLOROETHENE	<0.00122	0.19	500
1,2-DICHLOROPROPANE	<0.00122	NL	NL
CIS-1,3-DICHLOROPROPENE	<0.00122	NL	NL
TRANS-1,3-DICHLOROPROPENE	<0.00122	NL	NL
ETHYLBENZENE	<0.00122	1	390
2-HEXANONE	<0.0122	NL	NL
ISOPROPYLBENZENE	<0.0122	NL	NL
2-BUTANONE (MEK)	<0.0122	0.12	500
METHYL ACETATE	<0.0244	NL	NL
METHYL CYCLOHEXANE	<0.00122	NL	NL
METHYLENE CHLORIDE	<0.00609	0.05	500
4-METHYL-2-PENTANONE (MIBK)	<0.0122	NL	NL
METHYL TERT-BUTYL ETHER	<0.00122	0.93	500
NAPHTHALENE	<0.00609	12	500
STYRENE	<0.00122	NL	NL
1,1,2,2-TETRACHLOROETHANE	<0.00122	NL	NL
TETRACHLOROETHENE	<0.00122	1.3	150
TOLUENE	<0.00609	0.7	500
1,2,3-TRICHLOROBENZENE	<0.00122	NL	NL
1,2,4-TRICHLOROBENZENE	<0.00122	NL	NL
1,1,1-TRICHLOROETHANE	<0.00122	0.68	500
1,1,2-TRICHLOROETHANE	<0.00122	NL	NL
TRICHLOROETHENE	<0.00122	0.47	200
TRICHLOROFLUOROMETHANE	<0.00609	NL	NL
1,1,2-TRICHLOROTRIFLUOROETHANE	<0.00122	NL	NL
VINYL CHLORIDE	<0.00122	0.02	13
O-XYLENE	<0.00122	0.26	500
M&P-XYLENE	<0.00244	0.26	500

Notes:
Concentrations in milligrams per kilogram (mg/kg) or parts per million (ppm)
Bold values exceed NYSDEC Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (SCOs)
Yellow highlighted values exceed NYSDEC Part 375-6.8(b) Commercial Use SCOs
VOCs analyzed by USEPA Method 8260
NS indicates not sampled
NA indicates not applicable
NL indicates no standard listed
ft. bgs= feet below ground surface
< indicates the compound was not detected above laboratory method detection limit, with the limit shown

Table 6
Supplemental Environmental Borings
Dutchess County DPW
Poughkeepsie, New York
Supplmental Assessment Analytical for Groundwater

Sample ID	PSI GEOTECH MW-1	**NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values**
Date Collected	12/21/2016	
Analyte	Result	
VOCs		
1,1,1-TRICHLOROETHANE	<1	5
1,1,2,2-TETRACHLOROETHANE	<1	5
1,1,2-TRICHLOROETHANE	<1	1
1,1,2-TRICHLOROTRIFLUOROETHANE	<1	5
1,1-DICHLOROETHANE	<1	5
1,1-DICHLOROETHENE	<1	5
1,2,3-TRICHLOROBENZENE	<1	5
1,2,4-TRICHLOROBENZENE	<1	5
1,2,4-TRIMETHYLBENZENE	<1	5
1,2-DIBROMO-3-CHLOROPROPANE	<5	0.04
1,2-DIBROMOETHANE	<1	0.0006
1,2-DICHLOROBENZENE	<1	3
1,2-DICHLOROETHANE	<1	0.6
1,2-DICHLOROPROPANE	<1	1
1,3,5-TRIMETHYLBENZENE	<1	5
1,3-DICHLOROBENZENE	<1	3
1,4-DICHLOROBENZENE	<1	3
2-BUTANONE (MEK)	<10	50
2-HEXANONE	<10	50
4-METHYL-2-PENTANONE (MIBK)	<10	NL
ACETONE	<50	50
BENZENE	<1	1
BROMOCHLOROMETHANE	<1	5
BROMODICHLOROMETHANE	<1	50
BROMOFORM	<1	50
BROMOMETHANE	<5	5
CARBON DISULFIDE	<1	60
CARBON TETRACHLORIDE	<1	5
CHLOROBENZENE	<1	5
CHLORODIBROMOMETHANE	<1	50
CHLOROETHANE	<5	5
CHLOROFORM	<5	7
CHLOROMETHANE	<2.5	5
CIS-1,2-DICHLOROETHENE	<1	5
CIS-1,3-DICHLOROPROPENE	<1	0.4
CYCLOHEXANE	<1	NL
DICHLORODIFLUOROMETHANE	<5	5
ETHYLBENZENE	<1	5
ISOPROPYLBENZENE	<1	5
M&P-XYLENE	<2	5
METHYL ACETATE	<20	NL
METHYL CYCLOHEXANE	<1	NL
METHYL TERT-BUTYL ETHER	<1	10
METHYLENE CHLORIDE	<5	5
NAPHTHALENE	<5	10
N-BUTYLBENZENE	<1	5
N-PROPYLBENZENE	<1	5
O-XYLENE	<1	5
P-ISOPROPYLTOLUENE	<1	5
SEC-BUTYLBENZENE	<1	5
STYRENE	<1	5
TERT-BUTYLBENZENE	<1	5
TETRACHLOROETHENE	<1	5
TOLUENE	<1	5
TRANS-1,2-DICHLOROETHENE	<1	5
TRANS-1,3-DICHLOROPROPENE	<1	0.4
TRICHLOROETHENE	<1	5
TRICHLOROFLUOROMETHANE	<5	5
VINYL CHLORIDE	<1	2

Notes:
Concentrations in milligrams per Liter (ug/L) or parts per billion (ppb)
Bold values exceed NYSDEC Technical & Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality
VOCs analyzed by USEPA Method 8260
NS indicates not sampled
NA indicates not applicable
NL indicates no standard listed
ft. bgs= feet below ground surface
< indicates the compound was not detected above laboratory method detection limit, with the limit shown

CHAZEN TABLES

Table 1
Former Hamilton Reproduction Site
Historic (1998) Soil Sample Volatile Organic Compound Results

Analyte	NYSDEC TAGM #4046 Recommended Soil Cleanup Objectives	6 NYCRR Part 375 Soil Cleanup Objectives		B-1	B-2	B-3	B-4	B-5	B-6	MW-1R	MW-2R	MW-3R	MW-4R
		Commercial	Industrial	0'-4'	0'-10	0'-8'	0'-4	0'-4	0'-4'	0'-4'	0'-10'	0'-4'	0'-4'
				1998 sampling									
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1,1,1-Trichloroethane	800	500,000	1,000,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	9.9	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	600	NS	NS	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
1,1,2-Trichloroethane	**	NS	NS	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
1,1-Dichloroethane	200	240,000	480,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.4	ND	ND	ND	ND
1,1-Dichloroethene	**	500,000	1,000,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	ND	ND	ND	ND
1,2-Dichlorobenzene	7,900	500,000	1,000,000	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
1,2-Dichloroethane	100	30,000	60,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	ND	ND	ND	ND
1,2-Dichloropropane	**	NS	NS	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	ND	30.0	ND	ND
1,3-Dichlorobenzene	1,600	280,000	560,000	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
1,4-Dichlorobenzene	8,500	130,000	250,000	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
2-Chloroethylvinyl Ether	NS	NS	NS	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
Benzene	60	44,000	89,000	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	5.3	ND	ND	ND	ND
Bromodichloromethane	**	NS	NS	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	ND	ND	ND	ND
Bromoform	**	NS	NS	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	21.3	20.8	25.2	24.5
Bromomethane	**	NS	NS	7.2 U	6.3 U	5.9 U	6.1 U	5.8 U	6.2 U	ND	ND	ND	ND
Carbon Tetrachloride	600	22,000	44,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	ND	ND	ND	ND
Chlorobenzene	1,700	500,000	1,000,000	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
Chloroethane	1,900	NS	NS	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
Chloroform	300	350,000	700,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2	ND	ND	ND	ND
Chloromethane	**	NS	NS	7.2 U	6.3 U	5.9 U	6.1 U	5.8 U	6.2 U	ND	ND	ND	ND
cis-1,2-Dichloroethene	NS	500,000	1,000,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	26	ND	ND	ND	ND
cis-1,3-Dichloropropene	**	NS	NS	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	ND	ND	ND	ND
Dibromochloromethane	**	NS	NS	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	--	--	--	--
Ethylbenzene	5,500	390,000	780,000	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
m/p-Xylenes	1,200+	100,000+	1,000,000+	1.4 U	1.3 U	1.2 U	1.6	1.2 U	1.2 U	35	10.4	17.2	48.2
Methylene Chloride	100	500,000	1,000,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	**482**	**343**	**296**	**586**
o-Xylenes	1,200+	100,000+	1,000,000+	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	ND	ND	ND	ND
Tetrachloroethene	1,400	150,000	300,000	1.4 U	1.3 U	1.2 U	1.8	1.2 U	58	ND	ND	ND	ND
Toluene	1,500	500,000	1,000,000	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	10.0	ND	ND	ND
trans-1,2-Dichloroethene	300	500,000	1,000,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	ND	ND	ND	ND
trans-1,3-Dichloropropene	**	NS	NS	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
Trichloroethene	700	200,000	400,000	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	35	ND	51.8	ND	ND
Trichlorofluoromethane	**	NS	NS	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	97.5	97.5	97.5	ND
Vinyl Chloride	200	13,000	27,000	2.9 U	2.5 U	2.4 U	2.4 U	2.3 U	2.5 U	ND	ND	ND	ND
TOTAL VOC concentration	10,000			0	0	0	2.4	0	80.2	645.8	553.5	435.9	658.7

NOTES:
All data are reported in micrograms per kilogram (ug/kg) = parts per billion (ppb)
NS indicates that there is no listed standard for the analyte
+ Data for m/p-Xylenes and o-Xylenes summed and compared to listed standard for total xylenes
Bold cells indicate values that are greater than the TAGM 4046
U = compound not detected above laboratory method reporting limit
ND = not detected
** Per TAGM #4046, individual and sum of VOCs < 10,000ppb.

Table 2
Former Hamilton Reproduction Site
Historic 1998 Soil Sample Semi-Volatile Organic Compound Results

Analyte	NYSDEC TAGM #4046 Recommended Soil Cleanup Objectives	6 NYCRR Part 375 Soil Cleanup Objectives		B-1	B-2	B-3	B-4	B-5	B-6	MW-1R	MW-2R	MW-3R	MW-4R
		Commercial	Industrial	0'-4'	0'-10'	0'-8'	0'-4'	0'-4'	0'-4'	0'-4'	0'-10'	0'-4'	0'-4'
				1998 sampling									
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1,2 Dichlorobenzene	**	500,000	1,000,000	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
1,2,4 Trichlorobenzene	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
1,3 Dichlorobenzene	**	280,000	560,000	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
1,4 Dichlorobenzene	**	130,000	250,000	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
2,2-oxybis(1-Chloropropane)	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	--	--	--	--
2,4,5-Trichlorophenol	100	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	ND	ND	ND	ND
2,4,6-Trichlorophenol	**	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	ND	ND	ND	ND
2,4-Dichlorophenol	400	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	ND	ND	ND	ND
2,4-Dimethylphenol	**	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	ND	ND	ND	ND
2,4-Dinitrophenol	200 or MDL	NS	NS	1,900 U	1,600 U	1,500 U	1,600 U	1,500 U	1,600 U	ND	ND	ND	ND
2,4-Dinitrotoluene	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
2,6-Dinitrotoluene	1000	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
2-Chloronaphthalene	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	--	--	--	--
2-Chlorophenol	800	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	--	--	--	--
2-Methylnaphthalene	36,400	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	--	--	--	--
2-Methylphenol	100 or MDL	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	--	--	--	--
2-Nitroaniline	430 or MDL	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	--	--	--	--
2-Nitrophenol	330 or MDL	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	ND	ND	ND	ND
3,3'-Dichlorobenzidine	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
3-Nitroaniline	500 or MDL	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	--	--	--	--
4,6-Dinitro-2-methylphenol	**	NS	NS	1,900 U	1,600 U	1,500 U	1,600 U	1,500 U	1,600 U	--	--	--	--
4-Bromophenyl-phenylether	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
4-Chloro-3-methylphenol	240 or MDL	NS	NS	970 U	850 U	790 U	820 U	780 U	830 U	ND	ND	ND	ND
4-Chloroaniline	220 or MDL	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	--	--	--	--
4-Chlorophenyl-phenylether	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
4-Methylphenol	900	NS	NS	970 UJ	850 UJ	790 UJ	820 UJ	780 UJ	830 UJ	--	--	--	--
4-Nitroaniline	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	--	--	--	--
4-Nitrophenol	100 or MDL	NS	NS	1,900 U	1,600 U	1,500 U	1,600 U	1,500 U	1,600 U	ND	ND	ND	ND
Acenaphthene	50,000	500,000	1,000,000	480 U	420 U	390 U	340 J	380 U	120 J	ND	ND	ND	ND
Acenaphthylene	41,000	500,000	1,000,000	480 UJ	420 UJ	390 UJ	400 UJ	380 UJ	410 UJ	ND	ND	ND	ND
Anthracene	50,000	500,000	1,000,000	480 U	420 U	390 U	1,600	380 U	390 J	ND	ND	ND	ND
Benzo(a)anthracene	224 or MDL	5,600	11,000	480 U	420 U	390 U	**2,800**	380 U	*470*	ND	ND	ND	ND
Benzo(a)pyrene	61 or MDL	1,000	1,100	480 U	420 U	390 U	**2,700**	380 U	*410* J	ND	ND	ND	ND
Benzo(b)fluoranthene	1,100	5,600	11,000	480 U	420 U	390 U	**3,000**	380 U	*350* J	ND	ND	ND	ND
Benzo(g,h,i)perylene	50,000	500,000	1,000,000	480 U	420 U	390 U	850	380 U	200 J	ND	ND	ND	ND
Benzo(k)fluoranthene	1,100	56,000	110,000	480 U	420 U	390 U	**2,200**	380 U	*410* J	ND	ND	ND	ND
Benzyl Alcohol	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	--	--	--	--
bis(2-Chloroethoxy)methane	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
bis(2-Chloroethyl)ether	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	50,000	NS	NS	4,600 J	3,800 J	180 J	4,100 J	2,100 J	1,100 J	ND	ND	ND	ND
Butylbenzylphthalate	50,000	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Carbazole	**	NS	NS	480 U	420 U	390 U	190 J	380 U	110 J	--	--	--	--
Chrysene	400	56,000	110,000	480 U	420 U	390 U	**2,800**	380 U	*540*	ND	ND	ND	ND
Dibenz(a,h)anthracene	14 or MDL	560	1,100	480 U	420 U	390 U	**460**	380 U	410 U	ND	ND	ND	ND
Dibenzofuran	6,200	350,000	1,000,000	480 U	420 U	390 U	240 J	380 U	100 J	--	--	--	--
Diethylphthalate	7,100	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Dimethylphthalate	2,000	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Di-n-butylphthalate	8,100	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Di-n-octyl phthalate	50,000	NS	NS	480 U	420 U	390 U	1,600 U	1,500 U	410 U	ND	ND	ND	ND
Fluoranthene	50,000	500,000	1,000,000	170 J	420 U	130 J	5400	380 U	1,200	ND	ND	ND	ND
Fluorene	50,000	500,000	1,000,000	480 U	420 U	390 U	690	380 U	220 J	ND	ND	ND	ND
Hexachlorobenzene	410	6,000	12,000	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Hexachlorobutadiene	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	37.1	11.7
Hexachlorocyclopentadiene	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Hexachloroethane	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	3,200	5,600	11,000	480 U	420 U	390 U	400 U	380 U	220 J	ND	ND	ND	ND
Isophorone	4,400	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Naphthalene	13,000	500,000	1,000,000	480 U	420 U	390 U	400 U	380 U	140 J	13.6	16.0	11.8	12.0
Nitrobenzene	200 or MDL	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
N-Nitrosodimethylamine	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
N-Nitrosodiphenylamine	**	NS	NS	480 U	420 U	390 U	400 U	380 U	410 U	ND	ND	ND	ND
Pentachlorophenol	1,000 or MDL	6,700	55,000	1,900 U	1,600 U	1,500 U	**4,900**	380 U	**1,600**	ND	ND	ND	ND
Phenanthrene	50,000	500,000	1,000,000	480 U	420 U	100 J	820 U	780 U	1600 U	ND	ND	ND	ND
Phenol	30 or MDL	500,000	1,000,000	970 U	850 U	790 U	400 U	380 U	830 U	ND	ND	ND	ND
Pyrene	50,000	500,000	1,000,000	110 J	420 U	82 J	4,400	380 U	940	ND	ND	ND	ND
TOTAL SVOC concentration	500,000			2,860	420	2,670	18,210	380	9,150	13.6	16	48.9	23.7

NOTES:
All data are reported in micrograms per kilogram (ug/kg) = parts per billion (ppb)
NS indicates that there is no listed standard for the analyte
U = compound not detected above laboratory method reporting limit
J indicates an estimated value when either 1) estimating a concentration for a tentatively identified compound or 2) the mass spectral data indicated the identification, however, the result was less than the specified detection limit greater than zero.
TIC = tentatively identified compounds
Bold cells indicate values that are greater than the TAGM 4046
Shaded cells indicate values that are greater than the Part 375 Commerical Use
** Per TAGM #4046, individual SVOCs <50,000 ppb, total SVOCS <500,000 ppb.

Table 3
Former Hamilton Reproduction Site
Historic 1998 Soil Sample TAL Metals Results

Analyte	NYSDEC TAGM #4046 Recommended Soil Cleanup Objectives	6 NYCRR Part 375 Soil Cleanup Objectives		B-7 (background)		B-8		B-9		SS-1
		Commercial	Industrial	0.5 feet	2.5 feet	0.5 feet	2.5 feet	0.5 feet	2.5 feet	0.5 - 1.0 feet
				1998 Sampling						
	ppm	ppm	ppm	ppm		ppm		ppm		ppm
Antimony	SB	NS	NS	ND	ND	4.67	ND	ND	ND	ND
Arsenic	7.5 or SB	16	16	11.40	47.80	36.00	8.33	10.10	26.00	5.96
Barium	300 or SB	400	10,000	40.90	127.00	ND	45.00	94.40	259.00	37.10
Beryllium	SB	590	2,700	ND	1.28	1.00	0.06	0.74	3.45	0.53
Cadmium	1 or SB	9.3	60	1.18	2.05	11.60	1.41	0.95	2.79	1.69
Chromium	10 or SB	400	800	13.90	40.20	28.70	15.40	27.20	159.00	11.90
Copper	25 or SB	270	10,000	32.80	79.40	19.40	135.00	56.70	117.00	43.20
Lead	SB*	1,000	3,900	44.80	65.10	ND	37.50	82.80	101.00	21.30
Mercury	0.1	2.8	6	ND	ND	20.50	ND	ND	ND	ND
Nickel	13 or SB	310	10,000	20.90	20.80	20.50	21.10	23.00	26.60	21.50
Selenium	2 or SB	1,500	6,800	0.57	3.16	ND	0.67	0.68	1.08	ND
Silver	SB	1,500	6,800	ND	ND	ND	ND	ND	ND	ND
Thallium	NS	NS	NS	ND	1.57	ND	ND	1.44	1.74	ND
Zinc	20 or SB	10,000	10,000	67.20	55.80	63.40	105.00	78.80	743.00	222.00

NOTES:
All data are reported in milligrams per kilogram (mg/kg) = parts per million (ppm)
NS indicates that there is no listed standard for the analyte
SB = site background
*Background levels for lead vary widely. Average background levels for metropolitan or suburban areas or near highways typically range from 200-500ppm
"nd <" indicates that the compound was not detected at or above the laboratory method reporting limit
Metals concentrations consisted typical of background concentrations.

Table 4
Former Hamilton Reproduction Site
Historic 1998 Groundwater Sample Volatile Organic Compound Results

Analyte	6 NYCRR Part 703.5	MW-1R	MW-2	MW-2R	MW-3	MW-3R	MW-4	MW-4R
		1998 sampling						
	ppb	ppb	ppb	pbb	pbb	pbb	pbb	pbb
1,1 Dichloroethane	5*	1.0 U	1.0 U	93	1.0 U	1.0 U	13	20
1,1 Dichloroethene	5*	1.0 U	1.0 U	1.9	1.0 U	1.0 U	10 U	1.1
1,1,1-Trichloroethane	5*	1.0 U	1.0 U	15	2.1	1.0 U	110	36
1,1,2,2-Tetrachloroethane	5*	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
1,1,2-Trichloroethane	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
1,2 Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
1,2-Dichlorobenzene	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
1,3-Dichlorobenzene	3	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
1,4-Dichlorobenzene	3	2.4 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.1 U
2-Chloroethylvinyl Ether	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
Benzene	1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	120
Bromodichloromethane	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
Bromoform	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
Bromomethane	5*	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U
Carbon Tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
Chlorobenzene	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
Chloroethane	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
Chloromethane	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	5.0 U
cis-1,2-Dichloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	440	7.3
cis-1,3-Dichloropropene	0.4+	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
Dibromochloromethane	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
Ethylbenzene	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	78
M + P Xylene	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	64
Methylene Chloride	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
o-Xylene	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	4.4
Tetrachloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.4	1,100	3.2
Toluene	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	27
trans-1,2-Dichloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
trans-1,3-Dichloropropene	0.4+	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	2.0 U
Trichloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	510	11
Trichlorofluoromethane	5*	1.0 U	1.0 U	8.3	1.0 U	1.0 U	10 U	1.0 U
Vinyl Chloride	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	11
TOTAL VOC concentration				118.2	2.1	1.4	2173	383

NOTES:
All data are reported in micrograms per liter (ug/L) = parts per billion (ppb)
NS indicates that there is no listed standard for that analyte
nd < = Compound was not detected at or above laboratory method reporting limit
U = compound not detected above laboratory method reporting limit
Shaded cells indicate values that are greater than the standard.

Table 5
Former Hamilton Reproduction Site
Historic 1998 Groundwater Sample Semi-Volatile Organic Compound Results

Analyte	6 NYCRR Part 703.5	MW-1R	MW-2	MW-2R	MW-3	MW-3R	MW-4	MW-4R
		1998 sampling						
	ppb	ppb	ppb	pbb	pbb	pbb	pbb	pbb
1,2 Dichlorobenzene	3	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
1,2,4 Trichlorobenzene	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
1,3 Dichlorobenzene	3	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
1,4 Dichlorobenzene	3	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
2,2'-oxybis (1-Chloropropane)	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
2,4,5, Trichlorophenol	NS	12 U	10 U	10 U	10 U	11 U	10 U	11 U
2,4,6, Trichlorophenol	NS	12 U	10 U	10 U	10 U	11 U	10 U	11 U
2,4-Dichlorophenol	1+	12 U	10 U	10 U	10 U	11 U	10 U	11 U
2,4-Dimethylphenol	1+	12 U	10 U	10 U	10 U	11 U	10 U	11 U
2,4-Dinitrophenol	1+	24 U	20 U	20 U	20 U	21 U	20 U	21 U
2,4-Dinitrotoluene	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
2,6-Dinitrotoluene	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
2-Chloronaphthalene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
2-Chlorophenol	NS	12 U	10 U	10 U	10 U	11 U	10 U	11 U
2-Methylnapthalene	NS	12 U	10 U	10 U	10 U	11 U	10 U	3.5 J
2-Methylphenol	NS	12 U	10 UJ	10 U	10 U	11 U	10 UJ	11 U
2-Nitroaniline	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
2-Nitrophenol	NS	12 U	10 U	10 U	10 U	11 U	10 U	11 U
3,3'-Dichlorobenzidine	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
3-Nitroaniline	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
4-Methylphenol	NS	12 UJ	10 UJ	10 UJ	10 UJ	11 UJ	10 J	11 UJ
4,6-Dinitro-2methylphenol	NS	24 U	20 U	20 U	20 U	21 U	20 U	21 U
4-Bromophenyl-phenylether	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
4-Chloro-3-Methylphenol	NS	12 U	10 U	10 U	10 U	11 U	10 U	11 U
4-Chloroaniline	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
4-Chlorophenyl-phenylether	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
4-Nitroaniline	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
4-Nitrophenol	NS	24 U	20 U	20 U	20 U	21 U	20 U	21 U
Acenaphthylene	NS	5.9 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.3 UJ	5.0 UJ	5.3 UJ
Acenapthene	NS	5.9 U	5.0 U	5.0 U	5.3 U	5.3 U	5.0 U	5.3 U
Anthracene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Benzo (a) anthracene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Benzo (a) pyrene	ND	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Benzo (b) fluoranthene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Benzo (g,h,i) perylene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Benzo (k) fluoranthene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Benzyl Alcohol	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
bis (2-Chloroethoxy) methane	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
bis (2-Chloroethyl) Ether	1.0	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
bis (2-Ethylhexyl) phthalate	5	8.8 J	3.3 J	4.3 J	5.0 U	5.4 J	3.0 J	1.8 J
Butylbenzylphthalate	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Carbazole	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Chrysene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Dibenzo (a,h) anthracene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Dibenzofuran	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Diethylphthalate	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Dimethylphthalate	NS	5.9 U	5.0 U	5.0 U	5.0 U	2.1 J	5.0 U	5.3 U
Di-n-butylphthalate	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Di-n-octylphthalate	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Fluoranthene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Fluorene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Hexachlorobenzene	0.04	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Hexachlorobutadiene	0.5	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Hexachlorocyclopentadiene	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Hexachloroethane	5*	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Indeno (1,2,3-cd) pyrene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Isophorone	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Naphthalene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	2.4 J	14
Nitrobenzene	0.4	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
N-Nitrosodimethylamine	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
N-Nitroso-di-n-propylamine	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
N-Nitrosodiphenylamine	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Pentachlorophenol	1+	24 U	20 U	20 U	20 U	21 U	20 U	21 U
Phenanthrene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
Phenol	1+	12 U	10 U	10 U	10 U	11 U	10 U	11 U
Pyrene	NS	5.9 U	5.0 U	5.0 U	5.0 U	5.3 U	5.0 U	5.3 U
TOTAL SVOC concentration	NS	8.8	3.3	4.3		7.5	15.4	19.3

NOTES:
All data are reported in micrograms per liter (ug/L) = parts per billion (ppb)
NS indicates that there is no listed standard for that analyte
U = compound not detected above laboratory method reporting limit
J = estimated value, compound detected below laboratory method reporting limit
Shaded cells indicate values that are greater than the standard.
* Listed groundwater standard is for the sum of these compounds
ND = a non-detectable concentration

Table 6
Former Hamilton Reproduction Site
Historic 1998 Groundwater Sample Pesticide Results

Analyte	6 NYCRR Part 703.5	MW-1R	MW-2	MW-2R	MW-3	MW-3R	MW-4	MW-4R
		1998 sampling						
	ppb	ppb	ppb	pbb	pbb	pbb	pbb	pbb
4,4' - DDD	0.3	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
4,4' - DDT	0.2	0.10 U	0.10 U	0.10 U	0.10 U	0.12 U	0.10 U	0.10 U
4,4'-DDE	0.2	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Aldrin	ND	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Alpha Endosulfan	NS	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
alpha-BHC	NS	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
alpha-Chlordane	NS	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Beta Endosulfan	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.12 U	0.10 U	0.10 U
beta-BHC	NS	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
delta-BHC	NS	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Dieldrin	0.004	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Endosulfan sulfate	NS	0.10 U	0.10 U	0.10 U	0.10 U	0.12 U	0.10 U	0.10 U
Endrin	ND	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Endrin aldehyde	5*	0.10 U	0.10 U	0.10 U	0.10 U	0.12 U	0.10 U	0.10 U
Endrin ketone	5*	0.10 U	0.050 U	0.10 U	0.10 U	0.12 U	0.10 U	0.10 U
gamma- Chlordane	NS	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
gamma-BHC (Lindane)	NS	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Heptachlor	0.04	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Heptachlor epoxide	0.03	0.050 U	0.050 U	0.050 U	0.050 U	0.058 U	0.050 U	0.050 U
Methoxychlor	35	0.20 U	0.20 U	0.20 U	0.20 U	0.23 U	0.20 U	0.20 U

NOTES:
All data are reported in micrograms per liter (ug/L) = parts per billion (ppb)
NS indicates that there is no listed standard for that analyte
U = compound not detected above laboratory method reporting limit
ND = a non-detectable concentration
Shaded cells indicate values that are greater than the standard.

Table 7
Former Hamilton Reproduction Site
Historic 1998 Groundwater Sample PCB Results

Analyte	6 NYCRR Part 703.5	MW-1R	MW-2	MW-2R	MW-3	MW-3R	MW-4	MW-4R
		1998 sampling						
	ppb	ppb	ppb	pbb	pbb	pbb	pbb	pbb
Aroclor - 1016	0.09	0.5 U	0.5 U	0.05 U	0.5 U	0.58 U	0.5 U	0.5 U
Aroclor - 1221	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.58 U	0.5 U	0.5 U
Aroclor - 1232	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.58 U	0.5 U	0.5 U
Aroclor - 1242	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.58 U	0.5 U	0.5 U
Aroclor - 1248	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.58 U	0.5 U	0.5 U
Aroclor - 1254	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.58 U	0.5 U	0.5 U
Aroclor - 1260	0.09	0.5 U	0.5 U	0.5 U	0.5 U	0.58 U	0.5 U	0.5 U

NOTES:
All data are reported in micrograms per liter (ug/L) = parts per billion (ppb)
NS indicates that there is no listed standard for that analyte
U = compound not detected above laboratory method reporting limit
Shaded cells indicate values that are greater than the standard.

Table 8
Former Hamilton Reproduction Site
Historic 1998 Groundwater Sample Metals Results

Analyte	6 NYCRR Part 703.5	MW-1R	MW-2	MW-2R	MW-3	MW-3R	MW-4	MW-4R
		1998 sampling						
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Aluminum	NS	8,340	2,090	152	245,000	129	112,000	226
Antimony	3	60 U	60 U	60 U	60 U	60 U	60 U	60 U
Arsenic	25	21.4 J	11.6 J	10.0 UJ	171 J	10.0 UJ	48.1 J	10.0 UJ
Barium	1,000	86.4	54.1	37.6	1,150	135	473	176
Beryllium	NS	5 U	5 U	5 U	16.8	5 U	6.49	5 U
Cadmium	5	5 U	5 U	5 U	5 U	5 U	5.99	5 U
Calcium	NS	143,000	170,000	103,000	617,000	114,000	128,000	221,000
Chromium	50	13.0	10 U	10 U	325	10 U	119	10 U
Cobalt	NS	50 U	50 U	50 U	502	50 U	173	50 U
Copper	200	20 U	20 U	20 U	1,130	20 U	544	20 U
Iron	300*	36,000	3,570	22,100	779,000	242	290,000	1,370
Lead	25	14.2	5 U	5 U	478	5 U	188	5 U
Magnesium	NS	47,700	32,500	13,600	127,000	21,600	50,400	22,800
Manganese	300*	560	727	872	25,600	118	9,960	4,000
Mercury	0.7	0.300 U	0.300 U	0.300 U	0.300 U	0.300 U	0.300 U	0.300 U
Nickel	100	40 U	48.1	40 U	688	40.0 U	284	40.0 U
Potassium	NS	4,090	3,220	4,340	17,700	11,000	16,700	7,920
Selenium	10	5 U	5 U	5 U	348	5 U	27.4	5 U
Silver	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	20,000	25,200	93,700	17,600 U	35,900	35,300	20,100	916,000
Thallium	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vanadium	NS	50 U	50 U	50 U	169	50 U	90.9	50 U
Zinc	NS	83.0	17.6	21.2	2,090	14.0	1,520	10.0 U

NOTES:
All data are reported in micrograms per liter (ug/L) = parts per billion (ppb)
NS indicates that there is no listed standard for that analyte
U = compound not detected above laboratory method reporting limit
Shaded cells indicate values that are greater than the standard.
* 500 ppb = criteria for sum of lead and manganese

Historic 1998 **Gas Chromatography Headspace Analysis Of Soil Boring Samples**

Chazen Job No. 49723.00 Task 004

Chlorinated Volatile Compounds

Sample ID	Date Collected	Date Analyzed	Freon 113 ppb	1,1-DCA ppb	cis 1,2-DCE ppb	1,1,1-TCA ppb	TCE ppb	PCE ppb
HAM-B1 0-2'	7/15/98	7/17/98	44.02	--	--	3.09	8.99	11.33
HAM-B1-002-XL	7/15/98	7/17/98	5.29	15.18	--	--	9.19	6.63
B-1 Composite	7/15/98	7/17/98	90.73	--	--	69.70	240.75	293.65
HAM-B1-Composite-XL	7/13/98	7/20/98	9.18	--	--	--	229.55	109.06
HAM-SD1-Composite-XL	7/16/98	7/21/98	127.94	379.44	25779.51	3281.75	18875.24	26980.58
HAM-B2-002-XL	7/14/98	7/20/98	6.06	--	20.67	--	--	9.71
HAM-B2-004-XL	7/15/98	7/20/98	--	--	--	110.22	--	83.56
HAM-B2-006-XL	7/15/98	7/21/98	--	5.48	--	53.27	--	24.96
HAM-B2-008-XL	7/15/98	7/21/98	4.64	--	--	3.29	--	3.47
HAM-B2-009-XL	7/15/98	7/20/98	25.69	--	--	--	12.71	47.66
HAM-B3-000-XL	7/14/98	7/21/98	--	--	--	3.02	2.71	16.27
HAM-B3-002-XL	7/13/98	7/17/98	6.98	3.72	--	5.86	4.90	20.93
HAM-ST2-002-XL	7/14/98	7/20/98	19.09	103.69	23.03	--	99.99	418.01
HAM-B3-Composite-XL	7/13/98	7/17/98	17.80	53.30	--	--	2.71	5.95
HAM-B4-000-XL	7/14/98	7/20/98	27.24	26.23	--	315.16	363.21	612.54
HAM-B4-Composite	7/14/98	7/21/98	9.85	--	13.33	35.84	195.59	1411.82
HAM-B5-Composite-XL	7/15/98	7/17/98	3.71	8.94	16.86	8.24	16.35	88.92
HAM-B5-000-XL	7/15/98	7/17/98	66.18	--	--	21.66	21.98	123.13
HAM-B6-000-XL	7/13/98	7/20/98	--	12.28	1069.18	69.04	2137.54	1948.87
HAM-B6-002-XL	7/14/98	7/20/98	3349.71	505.23	9124.43	7343.41	15226.17	19044.79
HAM-B6-Composite-XL	7/16/98	7/20/98	1336.61	197.81	4029.07	2564.69	8524.19	14035.28

Note that "--" indicates that the chemical component was not detected in the sample at a concentration above the method detection limit.

Hamilton Reproduction Site - Table 10

Historic 1998 Gas Chromatography Headspace Analysis Of Monitoring Well Soil Samples

Chazen Job No. 49723.00 Task 004

Gasoline Range Compounds

Sample ID	Collection Date	Analysis Date	MTBE ppb	Benzene ppb	Toluene ppb	E-Benzene ppb	m+p Xylene ppb	O-Xylene ppb	135-TMB ppb	124-TMB ppb	Napthalene ppb
B-1 0-2'	7/15/98	7/17/98	--	--	--	--	--	--	--	--	--
HAM-B1-002-XL	7/15/98	7/17/98	--	--	--	--	65.12	--	41.62	33.79	364.66
B-1 Composite	7/15/98	7/17/98	--	185.51	--	--	--	--	--	39.95	902.34
HAM-B1-Composite-XL	7/13/98	7/20/98	--	89.77	38.61	--	271.84	130.36	259.16	251.39	548.51
HAM-SD1-Composite-XL	7/16/98	7/21/98	--	487.36	236.36	--	39.97	45.30	24.45	68.17	395.64
HAM-B2-002-XL	7/14/98	7/20/98	--	--	--	--	--	97.03	56.08	--	2484.35
HAM-B2-004-XL	7/15/98	7/20/98	--	--	--	--	--	--	--	--	--
HAM-B2-006-XL	7/15/98	7/21/98	--	--	--	--	--	--	--	--	--
HAM-B2-008-XL	7/15/98	7/21/98	--	--	--	--	32.42	--	--	53.75	349.94
HAM-B2-009-XL	7/15/98	7/20/98	--	--	--	--	64.52	32.63	74.15	54.54	428.01
HAM-B3-000-XL	7/14/98	7/21/98	--	--	--	--	56.75	42.43	99.40	145.69	465.53
HAM-B3-002-XL	7/13/98	7/17/98	--	--	171.20	0.06	1278.91	581.24	451.97	935.14	35.15
HAM-ST2-002-XL	7/14/98	7/20/98	--	--	--	--	49.11	34.12	57.82	48.76	97.74
HAM-B3-Composite-XL	7/13/98	7/17/98	--	--	100.06	--	563.12	231.34	155.09	266.49	403.60
HAM-B4-000-XL	7/14/98	7/20/98	--	66.86	104.72	--	580.74	296.05	179.44	420.06	851.99
HAM-B4-Composite-XL	7/14/98	7/21/98	--	--	--	--	175.38	93.47	30.63	238.12	433.55
HAM-B5-Composite-XL	7/15/98	7/17/98	--	--	--	--	--	--	--	--	--
HAM-B5-000-XL	7/15/98	7/17/98	--	--	133.92	--	--	--	--	--	--
HAM-B6-002-XL	7/13/98	7/20/98	--	--	--	--	66.97	41.93	45.73	48.77	797.61
HAM-B6-002-XL	7/14/98	7/20/98	198.42	670.02	--	--	--	40.08	--	43.96	76.72
HAM-B6-Composite-XL	7/16/98	7/20/98	--	260.92	--	--	48.05	56.49	78.41	81.31	1316.12

Note that "--" indicates that the chemical component was not detected in the sample at a concentration above the method detection limit.

Hamilton Reproduction Site - Table 11

Historic 1998 **Gas Chromatography Headspace Analysis Of Monitoring Well Soil Samples**

Chazen Job No. 49723.00 Task 004

Chlorinated Volatile Compounds

Sample ID	Date Collected	Date Analyzed	Freon 113 ppb	1,1-DCA ppb	cis 1,2-DCE ppb	1,1,1-TCA ppb	TCE ppb	PCE ppb
HAM-MW-02R-000-XX	7/6/98	7/9/98	54.43	46.30	--	35.54	2.03	6.09
HAM-MW-02R-002-XX	7/6/98	7/8/98	4.31	--	99.53	93.84	2173.95	10.42
HAM-MW-02R-004-XX	7/6/98	7/9/98	16.60	--	--	4.19	35.48	6.55
HAM-MW-02R-006-XX	7/6/98	7/9/98	--	15.18	17.13	19.40	63.88	2.49
HAM-MW-02R-008-XX	7/6/98	7/9/98	--	--	3.81	--	18.28	--
HAM-MW-02R-010-XX	7/6/98	7/9/98	9.59	--	--	24.05	3.88	5.70
HAM-MW-02R-012-XX	7/6/98	7/8/98	9.93	--	5.06	4.90	32.32	3.33
HAM-MW-03R-XXX-XX composite	7/2/98	7/9/98	11.76	--	--	9.04	--	6.61
HAM-MW-03R-000-XX	7/2/98	7/9/98	95.96	--	--	3.14	4.45	15.33
HAM-MW-03R-002-XX	7/2/98	7/8/98	23.68	--	--	--	2.23	91.81
HAM-MW-03R-006-XX	7/2/98	7/8/98	4.23	--	8.59	--	--	40.01
HAM-MW-03R-008-XX	7/2/98	7/8/98	25.48	--	--	--	--	8.03
HAM-MW-03R-010-XX	7/2/98	7/8/98	43.56	--	4.39	--	--	26.29
HAM-MW-04R-002-XX	7/1/98	7/8/98	7.78	3.23	13194.75	1748.55	4625.50	44084.11
HAM-MW-04R-006-XX	7/1/98	7/8/98	20.74	23.08	14332.97	3440.95	11158.49	35243.44

Note that "--" indicates that the chemical component was not detected in the sample at a concentration above the method detection limit.

Hamilton Reproduction Site - Table 12

Historic 1998 Gas Chromatography Headspace Analysis Of Monitoring Well Soil Samples

Chazen Job No. 49723.00 Task 004

Gasoline Range Compounds

Sample ID	Collection Date	Analysis Date	MTBE ppb	Benzene ppb	Toluene ppb	E-Benzene ppb	m+p Xylene ppb	O-Xylene ppb	135-TMB ppb	124-TMB ppb	Napthalene ppb
HAM-MW-02R-000-XX	7/6/98	7/9/98	–	55.37	138.64	–	162.15	83.09	68.37	30.53	–
HAM-MW-02R-002-XX	7/6/98	7/8/98	–	–	–	–	–	–	26.72	29.26	–
HAM-MW-02R-004-XX	7/6/98	7/9/98	–	–	–	–	–	–	–	–	–
HAM-MW-02R-006-XX	7/6/98	7/9/98	–	–	–	–	–	–	–	–	–
HAM-MW-02R-008-XX	7/6/98	7/9/98	–	–	–	–	–	–	–	–	–
HAM-MW-02R-010-XX	7/6/98	7/9/98	–	–	–	–	–	–	–	–	–
HAM-MW-02R-012-XX	7/6/98	7/8/98	–	–	–	–	–	–	–	–	–
HAM-MW-03R-XXX-XX composite	7/2/98	7/9/98	–	–	–	–	50.44	37.90	–	–	–
HAM-MW-03R-000-XX	7/2/98	7/9/98	–	–	–	–	–	–	–	–	–
HAM-MW-03R-002-XX	7/2/98	7/8/98	–	–	–	–	–	–	–	–	–
HAM-MW-03R-006-XX	7/2/98	7/8/98	–	–	–	–	–	–	–	–	–
HAM-MW-03R-008-XX	7/2/98	7/8/98	–	–	–	–	–	–	–	–	–
HAM-MW-03R-010-XX	7/2/98	7/8/98	–	–	–	–	–	–	–	–	–
HAM-MW-04R-002-XX	7/1/98	7/8/98	–	–	–	–	–	–	–	–	–
HAM-MW-04R-006-XX	7/1/98	7/8/98	–	–	–	–	–	–	–	–	–

Note that "–" indicates that the chemical component was not detected in the sample at a concentration above the method detection limit.

Table 13
Former Hamilton Reproduction Site
Summary of Remaining Soil Contamination
Remedial Action Confirmatory Soil Sample Volatile Organic Compound Lab Results

Boring	NYSDEC TAGM #4046 Recommended Soil Cleanup Objectives	6 NYCRR Part 375 Soil Cleanup Objectives Unrestricted Use	6 NYCRR Part 375 Soil Cleanup Objectives Commercial							
Sample ID:				HAMCS003	HAMCS004	HAMCS005	HAMCS006	HAMCS008	HAMCS009	HAMCS010
Location:				E Sidewall	W Sidewall	SW Sidewall	S Sidewall	NE Sidewall	N Sidewall	SE Sidewall
Sample Date:				1/19/2000	1/19/2000	1/19/2000	1/19/2000	1/27/2000	1/27/2000	1/27/2000
Analysis Method:				8260	8260	8260	8260	8260	8260	8260
Units:	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1,1,1-TRICHLOROETHANE	800	680	500000	U	U	U	U	U	U	U
1,1,2,2-TETRACHLOROETHANE	600	NS	NS	U	U	U	U	U	U	U
1,1,2-TRICHLOROETHANE	NS	NS	NS	U	U	U	U	U	U	U
1,1-DICHLOROETHANE	200	270	240000	U	U	U	U	U	U	U
1,1-DICHLOROETHENE	400	330	500,000	U	U	U	U	U	U	U
1,2,4-TRIMETHYLBENZENE	NS	3,600	190,000	U	4	4400 E	59	U	U	U
1,2-DICHLOROBENZENE	7,900	1,100	500,000	U	U	U	U	U	U	U
1,2-DICHLOROETHANE	100	20	30,000	U	U	U	U	U	U	U
1,2-DICHLOROPROPANE	NS	NS	NS	U	U	U	U	U	U	U
1,3,5-TRIMETHYLBENZENE	NS	3,600	190,000	U	U	1500 E	22	U	U	U
1,3-DICHLOROBENZENE	1,600	2,400	280,000	U	U	U	U	U	U	U
1,4-DICHLOROBENZENE	8,500	1,800	130,000	U	U	U	U	U	U	U
2-CHLOROETHYLVINYL ETHER	NS	NS	NS	U	U	U	U	U	U	U
2-HEXANONE	NS	NS	NS	U	U	U	U	U	U	U
4-ISOPROPYLTOLUENE	NS	NS	NS	U	U	200	U	U	U	U
4-METHYL-2-PENTANONE	NS	NS	NS	U	U	55	U	U	U	U
ACETONE	110	50	50	U	U	U	15	U	U	U
BENZENE	60	60	44,000.00	U	U	U	U	U	U	U
BROMODICHLOROMETHANE	NS	NS	NS	U	U	U	U	U	U	U
BROMOFORM	NS	NS	NS	U	U	U	U	U	U	U
BROMOMETHANE	NS	NS	NS	U	U	U	U	U	U	U
CARBON TETRACHLORIDE	600	760	22,000	U	U	U	U	U	U	U
CHLOROBENZENE	1,700	1,100	500000	U	U	U	U	U	U	U
CHLOROETHANE	1,900	NS	NS	U	U	U	U	U	U	U
CHLOROFORM	300	370	350,000	5 B	6 B	22 B	6 B	JB	13 B	10 B
CHLOROMETHANE	NS	NS	NS	U	U	U	U	U	U	U
CIS-1,2-DICHLOROETHENE	NS	250	500,000	U	U	U	U	U	10	U
CIS-1,3-DICHLOROPROPENE	NS	NS	NS	U	U	U	U	U	U	U
DIBROMOCHLOROMETHANE	NS	NS	NS	U	U	U	U	U	U	U
ETHYLBENZENE	5,500	1,000	390,000	U	U	430	8	U	U	U
ISOPROPYLBENZENE	NS	NS	NS	U	U	210	4	U	U	U
METHLY ETHYL KETONE	300	120	500,000	U	U	U	U	U	U	U
METHYLENE CHLORIDE	100	120	500,000	17 B	12 B	28 B	12 B	28 U	U	U
NAPHTHALENE	13,000	12,000	500,000	U	U	860	8	U	U	U
n-PROPYLBENZENE	NS	NS	NS	U	U	810	15	U	U	U
sec-BUTYLBENZENE	NS	11,000	500,000	U	U	110	U	U	U	U
TETRACHLOROETHENE	1,400	1,300	150,000	4 J	6	320	180	U	35 B	13 B
TOLUENE	1,500	700	500,000	U	8	64	6	U	U	U
TRANS-1,2-DICHLOROETHENE	300	190	500,000	2	U	U	U	U	U	U
TRANS-1,3-DICHLOROPROPENE	NS	NS	NS	U	U	U	U	U	U	U
TRICHLOROETHENE	700	470	200,000	U	U	U	49	U	20	7
TRICHLOROFLUOROMETHANE	NS	NS	NS	U	U	U	U	U	U	U
VINYL CHLORIDE	200	20	13,000	U	U	U	U	U	U	U
XYLENE	1,200 (total)	260	100,000 (total)	U	6	**2170**	48	U	U	U

Table 14
Former Hamilton Reproduction Site
November 2009 Groundwater Sample Volatile Organic Compound Results

Sample ID		MW-4	HR-MW-B1	HR-MW-B2	HR-MW-B3
Sample Date		1998	11/3/2009		
Depth to Groundwater from Top of PVC (2009 elevations not surveyed)		between 6.71' and 8.13' (three readings collected)	4.6'	5.6'	4.55'
Constituent	Groundwater Standard				
1,1,1-Trichloroethane	5	**110**	**6**	5 U	5 U
1,1,1,2-Tetrachloroethane	5	NA	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5	20 U	5 U	5 U	5 U
1,1,2-Trichloroethane	1	20 U	5 U	5 U	5 U
1,1-Dichloroethane	5	**13**	5 U	**11**	**12**
1,1-Dichloroethene	5	10 U	5 U	5 U	5 U
1,1-Dichloropropene	5	NA	5 U	5 U	5 U
1,2-Dibromo-3-chloropropane	0.04	NA	5 U	5 U	5 U
1,2-Dibromoethane	NS	NA	5 U	5 U	5 U
1,2-Dichlorobenzene	3	20 U	5 U	5 U	5 U
1,2-Dichloroethane	0.6	10 U	5 U	5 U	5 U
1,2-Dichloropropane	1	10 U	5 U	5 U	5 U
1,3- Dichlorobenzene	3	20 U	5 U	5 U	5 U
1,3-Dichloropropane	5	NA	5 U	5 U	5 U
1,4-Dichlorobenzene	3	20 U	5 U	5 U	5 U
1,2,3-Trichlorobenzene	5	NA	5 U	5 U	5 U
1,2,3-Trichloropropane	0.04	NA	5 U	5 U	5 U
1,2,4-Trichlorobenzene	5	NA	5 U	5 U	5 U
1,2,4-Trimethylbenzene	5	NA	5 U	5 U	5 U
1,3,5-Trimethylbenzene	5	NA	5 U	5 U	5 U
1,3-Dichloropropane	5	NA	5 U	5 U	5 U
1,4-Dichlorobenzene	3	NA	5 U	5 U	5 U
2-Chloroethylvinyl Ether	NS	20 U	NA	NA	NA
2-Hexanone	50	NA	NA	NA	NA
2,2-Dichloropropane	5	NA	5 U	5 U	5 U
2-Chlorotoluene	5	NA	5 U	5 U	5 U
4-Chlorotoluene	5	NA	5 U	5 U	5 U
Benzene	1	20 U	5 U	**24**	5 U
Bromobenzene	5	NA	5 U	5 U	5 U
Bromochloromethane	5	NA	5 U	5 U	5 U
Bromodichloromethane	50	10 U	5 U	5 U	5 U
Bromoform	50	20 U	5 U	5 U	5 U
Bromomethane	5	50 U	5 U	5 U	5 U
Carbon Tetrachloride	5	10 U	5 U	5 U	5 U
Chlorobenzene	5	20 U	5 U	5 U	5 U
Chloroethane	5	20 U	5 U	5 U	5 U
Chloroform	7	10 U	5 U	5 U	5 U
Chloromethane	NS	50 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5	**440**	5 U	**6**	**13**
trans-1,2-Dichloroethene	5	10 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	0.4 sum with trans-	10 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	0.4 sum with cis-	20 U	5 U	5 U	5 U
Dibromochloromethane	50	20 U	5 U	5 U	5 U
Dibromomethane	5	NA	5 U	5 U	5 U
Dichlorodifluoromethane	5	NA	5 U	5 U	5 U
Ethylbenzene	5	20 U	5 U	5 U	5 U
Hexachlorobutadiene	0.5	NA	5 U	5 U	5 U
Isopropylbenzene	5	NA	5 U	5 U	5 U
M+P-Xylene	5	10 U	5 U	5 U	5 U
Methylene Chloride	5	10 U	5 U	5 U	5 U
MTBE	NS	NA	5 U	5 U	5 U
Naphthalene	10	NA	5 U	5 U	5 U
n-Butylbenzene	5	NA	5 U	5 U	5 U
n-Propylbenzene	5	NA	5 U	5 U	5 U
O-Xylene	5	10 U	5 U	5 U	5 U
p-Isopropyltoluene	5	NA	5 U	5 U	5 U
sec-Butylbenzene	5	NA	5 U	5 U	5 U
Styrene	5	NA	5 U	5 U	5 U
tert-Butylbenzene	5	NA	5 U	5 U	5 U
Tetrachloroethene	5	**1100**	**9**	5 U	**7**
Toluene	5	20 U	5 U	5	5 U
Trichloroethene	5	**510**	**6**	**24**	**15**
Trichlorofluoromethane (Freon)	5	10 U	5 U	5 U	5 U
Vinyl Chloride	2	20 U	5 U	5 U	5 U

NOTES:
All data are reported in micrograms per liter (ug/L) = parts per billion (ppb)
Groundwater standards are from TOGS 1.1.1
Results which exceed ambient groundwater standards and guidance values are shown as **BOLD**
U = not detected above the listed method detection limit
NA = sample not analyzed for listed contituent
NS = No ambient groundwater standard for the listed constituent

APPENDIX A

APPENDIX A – EXCAVATION WORK PLAN (EWP)

A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Currently the notification will be made to:

Mr. Michael A. Mason, P.E.*

Regional Hazardous Waste Remediation Engineer

625 Broadway, 12th Floor

Albany, NY 12233-7017

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix C of this SMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil, and clean material defined by soils with PID readings less than 5ppm that can be reused without testing. Further discussion of off-site disposal of materials and on-site reuse is provided in Section A-5 and A-6 of this Appendix.

A-3 SOIL STAGING METHODS

Soils will be stockpiled on poly sheeting and stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered with properly anchored poly sheeting or tarps at all times. Stockpiles will be routinely inspected and damaged covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

A-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

A-5 MATERIALS TRANSPORT OFF-SITE

No materials are to be exported off site without proper characterization sampling per NYSDEC DER-10 and/or being sent for disposal at an appropriately permitted landfill.

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

A-6 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

A-7 MATERIALS REUSE ON-SITE

The whole site consisting of 150 and 182 North Hamilton Street, and 104 and 108 Parker Avenue is to be treated as one site. Soil/fill materials are to move freely between these parcels that make up the Site.

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

Historic fill materials excavated on site during development and construction activities are to be placed beneath a surface of asphalt or concrete or placed beneath 1-ft of clean cover, given they pass TCLP testing, or stockpiled for disposal. Soils screened that do not have any visual or olfactory impairment and PID readings less than 5ppm can be immediately reused on Site or stockpiled for reused without sampling as long as no historic fills are present in the soil. Soils not meeting these criteria must be stockpiled and sampled according to NYSDEC DER-10 prior to reuse or disposal.

If planned excavation consists of a small volume of soil from above the water table that is reused on the site or directly loaded off-site disposal, these activities would not require the stockpiling or fluids management provisions. Site soil may be regraded or excavated as part of construction activities. Saturated soil in contact with contaminated groundwater will not be relocated to the ground surface. If excavated, saturated soil will be reused at that excavation or disposed of.

A-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

If groundwater is encountered during excavation activities, it is anticipated that it the open excavation will be dewatered, pumping the water into a holding tank. The groundwater is to be treated and then discharged to local sanitary sewers in accordance with applicable local, State, and Federal regulations.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

A-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities, a cover system will be implemented. The cover system is to be comprised of a minimum of 12 inches of clean soil (meeting NYSDEC Part 375-6 Restricted Residential SCO's), asphalt pavement, concrete covered sidewalks and concrete building, etc.]. The demarcation layer, consisting of orange snow fencing material will be replaced to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. Currently there is no cover system present on the Site. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP.

A-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in LaBella Tables 7-8. These Tables were obtained from the NYSDEC DER-10 and NYSDEC Part 375-6.7(d) documents. Additionally, Mr. Mason indicated that the top 12-inches of soils cover are to be soils classified as Restricted

Residential while soils below 12-inches are to be classified as Residential, Restricted Residential or Commercial.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

A-11 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

A Stormwater Pollution Prevention Plan (SWPPP) that conforms to the requirements of the NYSDEC Division of Water guidelines and NYS regulations for the Site will be provided prior to Site Development.

A-12 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

A-13 COMMUNITY AIR MONITORING PLAN

The Generic Community Air Monitoring Plan (CAMP) from Appendix 1A of DER-10 will be used to provide details for monitoring onsite during excavations and other activities breaking ground. Action levels indicated in the CAMP are as follows:

- Organic vapor PID concentrations exceeding 5ppm over background by less than 25ppm for a 15-minute average. Work activities are to be halted, the source is to be identified and corrective measures are to be take.

- If organic vapor concentrations are above 25 ppm at the perimeter of the work area, activities are to be halted.

- Particulate concentrations of 100 micrograms per cubic meter (mcg/m^3) but less than 150 mcg/m^3 above background, work may continue with dust suppression techniques employed.

- Particulate concentrations greater than 150 mcg/m^3 above background, then work must be stopped and activities must be re-evaluated.

All readings during site activities are to be recorded and available for review by the NYSDEC and NYSDOHA figure showing the location of air sampling stations based on generally prevailing wind conditions is shown in Figure 16. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

A-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site and on-site. Specific odor control methods to be used on a routine basis will include those listed below. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified

and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

A-15 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water canon capable of spraying water directly onto off-road areas including excavations and stockpiles.

- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.

- Gravel will be used on roadways to provide a clean and dust-free road surface.

- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

APPENDIX B

Kim Baines

The City of Poughkeepsie

New York

G. BRIAN MORGAN
Corporation Counsel

PAUL ACKERMANN
Assistant Corporation Counsel

62 Civic Center Plaza
P.O. Box 300
Poughkeepsie, New York 12602
Telephone: (845) 451-4065
Facsimile: (845) 451-4070

June 3, 2009

Yvonne M. Ward
Easement Attorney
New York State Department of
Environmental Conservation
Office of General Counsel, 14th Floor
625 Broadway
Albany, New York 12233-1500

RE: Hamilton Reproduction Restoration Site
Site No: B0020
166-186 Hamilton Street, Poughkeepsie

Dear Ms. Ward:

Enclosed please find a copy of the recorded Environmental Easement with regard to the above referenced property. The recording page attached notes that the easement was recorded on June 2, 2009 in the Dutchess County Clerk's office at Document number 02-2009-2716.

Very truly yours,

CITY OF POUGHKEEPSIE
G. Brian Morgan, Corporation Counsel

By: _____
Kristen Guthrie, Secretary to Corporation Counsel

O:\Kristen\Misc. Letters\Easement ltr 6 2 09.doc

JUN-02-2009 12:47 QUEEN CITY ABSTRACT 845 452 2747 P.02

Dutchess County Clerk

22 Market Street
Poughkeepsie, N.Y. 12601
(845) 486-2134

Batch# B112 User cth

Receipt #	Date	Time
28970	06/02/2009	10:56:00 AM

Received From: QUEEN CITY ABSTRACT
Fee Total: $80.00

Document	Account		Amount	Comment	Pages
02 Deed # 2716					
	010	Record Deeds	55.00	EASE	7
	030	Affidavit	5.00		1
	070	Records Mgmt - Local Fee	1.00		1
	504	Records Mgmt - State Fee	4.75		1
	511	Cultural Ed - State Fee	14.25		1
	030	Reference	0.00		1
11 TRANSFER TAX # 4803					
	290	Real Estate Transfer Tax	0.00		1
	250	Mortgage Tax County	0.00		

Tax District: 31 City of Poughkeepsie

Grantor POUGHKEEPSIE CITY
Grantee DEPT OF ENVIRONMENTAL CONSERVATION

Recorded under document # 02-2009-2716

JUN 05 2009
OFFICE OF
GENERAL COUNSEL

County: Dutchess Site No: B00020

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

THIS INDENTURE made this 22nd day of December, 2008, between Owner City of Poughkeepsie having an office at 62 Civic Center Plaza, Poughkeepsie, New York 12601 (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

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

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

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

WHEREAS, Grantor, is the owner of real property located at the address of 166-186 North Hamilton Street, in the City of Poughkeepsie, Dutchess County, New York known and designated on the map of Dutchess County as section 6162, block 54, lot 240389, comprised of approximately 1.96 acres (the " Controlled Property"); and;

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

NOW THEREFORE, in consideration of the covenants and mutual promises contained herein and the terms and conditions of State Assistance Contract Number B00020, Grantor grants, conveys and releases to Grantee a permanent Environmental Easement pursuant to Article 71, Title 36 of the ECL in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

County: Dutchess Site No: B00020

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The following controls apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees, and any person using the Controlled Property:

A. The Controlled Property may be used for restricted commercial/industrial use as long as the following long-term engineering controls are employed:

(i) the use of the groundwater underlying the Controlled Property for any purpose, including but not limited to, potable, process or irrigation water, is prohibited without the prior approval of the New York State Departments of Health and Environmental Conservation; and

(ii) soils on the Controlled Property must be managed, characterized, and properly disposed of in accordance with the NYSDEC laws and Regulations;

(iii) the potential for vapor intrusion into any buildings developed on the site must be evaluated, including provisions for mitigation of any impacts identified;

(iv) any subslab soil vapor mitigation system installed under any building structure must be inspected, certified, and maintained as required by the NYSDEC; and

(v) the owner must provide annual certification as required by NYSDEC that the institutional controls and engineering controls are unchanged.

B. The Controlled Property may not be used for a higher level of use such as unrestricted or restricted residential use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

County: Dutchess Site No: B00020

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

D. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

E. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Controlled Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement;

5. Enforcement

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

County: Dutchess Site No: B00020

B. If any person intentionally violates this Environmental Easement, the Grantee may revoke the Certificate of Completion provided under ECL Article 27, Title 14, or Article 56, Title 5 with respect to the Controlled Property.

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

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental Easement.

6. Notice. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information: County, NYSDEC Site Number, NYSDEC Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Environmental Easement Attorney
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-1500

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

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. This Environmental Easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation and filed

County: Dutchess Site No: B00020

with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

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

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

Grantor's Name

By: _____
JOHN C. TKAZYIK

Title: MAYOR Date: 5/20/08

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF DUTCHESS)

On the 20th day of MAY, in the year 2008, before me, the undersigned, personally appeared JOHN C. TKAZYIK, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as MAYOR, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York
KRISTEN GUTHRIE
Notary Public, State of New York
No. 01GU6040659
Qualified in Dutchess County
Comm. Expires April 24, 2010

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

by: _____
Alexander B. Grannis, Commissioner

County: Dutchess Site No: B00020

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 22 day of Dec, in the year 2008, before me, the undersigned, personally appeared ALEXANDER B. GRANNIS, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

CINDYLOU M. FRINKS-DIXON
Notary Public, State of New York
No. 4805685
Qualified in Albany County
Commission Expires August 24, 20 09

EDMS # 295772

TP-584.2 (10/96)

Recording Office Time Stamp

Real Estate Transfer Tax Return For Public Utility Companies' and Governmental Agencies' Easements and Licenses

This form may only be used by public utility companies regulated by the Public Service Commission and governmental agencies for the recording of easements and licenses where the consideration for the grant of such easement or license is $500.00 or less.

Name of grantee (public utility company or governmental agency): The New York State Department of Environmental Conservaton

Federal employer identification number: 14-6013200

Name and telephone number of person to contact (if applicable): Mary vonWergers (518) 402-9495

Address of grantee: 625 Broadway, Albany, NY 12233-1500

	Name(s) of Grantor Of Easement or License	Address of Property	Consideration Given For Easement or License
1.	City of Poughkeepsie	166-186 North	$0.00
2.		Hamilton Street	
3.		City of Poughkeepsie	
4.		Dutchess County, NY	
5.	ENVIRONMENTAL EASEMENT HELD BY NYSDEC		
6.	PURSUANT TO TITLE 36 OF ARTICLE 71		
7.	OF THE NYS ENCIRONMENTAL CONSERVATION LAW		
8.	SITE NO. B-00020		
9.			
10.			
11.			
13.			
14.			
15.	If more than fifteen conveyances are to be recorded, attach a schedule of such other conveyances.		

Signature of Grantee

I certify that the grantee is a public utility regulated by the Public Service Commission, or is a governmental agency and the grantee of the easements and/or licenses above that it is true to the best knowledge of the grantee that the granting of each such easement and/or license is exempt from Real Estate Transfer Tax imposed by Article 31 of the Tax Law by reason that each such conveyance is for a consideration of five hundred dollars or less and/or the conveyance is being made to a governmental agency.

THE PEOPLE OF THE STATE OF NY ACTING THROUGH THEIR COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Signature of partner, officer of corporation, governmental official, NYSDEC Office of General Counsel

[signature] NYSDEC-OGC
(518-402-9521) SENIOR ATTORNEY

TOTAL P.09

PAYMENT AGREEMENT

Montana Furniture Industries located at 96 North Star Lane, Bozeman, MT agrees to the following payment schedule to satisfy their past due account balance of $853.13.

$100.00 with signed payment agreement
$100.00 w/o June 15, 2009
$100.00 w/o June 22, 2009
$100.00 w/o June 29, 2009
$100.00 w/o July 6, 2009
$100.00 w/o July 13, 2009
$100.00 w/o July 20, 2009
$100.00 w/o July 27, 2009
$53.13 w/o August 3, 2009

All new orders received during this time will be shipped C.O.D. as long as payment schedule is kept.

Please sign below by employee with authority to sign such an agreement for above stated company.

_____ _____
Montana Furniture Industries Date

_____ _____
James L. Taylor Mfg. Co., Inc. Date

CHAZEN ENGINEERING & LAND SURVEYING CO., P.C.

Capital District Office
Phone: (518) 273-0055

21 Fox Street, Poughkeepsie, New York 12601
Phone: (845) 454-3980 Fax: (845) 454-4026
Web: www.chazencompanies.com

North Country Office
Phone: (518) 812-0513

Orange County Office
Phone: (845) 567-1133

SURVEY DESCRIPTION

ALL that certain plot, piece or parcel of land, situate in the City of Poughkeepsie, County of Dutchess and State of New York, bounded and described as follows:

BEGINNING at point marked by a railroad spike set on the westerly side of North Hamilton Street, said point being the northeasterly corner of the herein described parcel and a point on the southerly side of a 25 wide right of way, said point being located S09°23'15" W 55.00 from an iron pipe found at the southeasterly corner of the lands now or formerly Mokszyci as described in document #02-2002-11917, said point also being a distant 577.00 feet from the intersection of the westerly side of North Hamilton Street with the southerly side of North Street; thence along the westerly side of North Hamilton Street, S 09°23'15" W 179.57 feet to a capped iron rod set at the southeasterly corner of the herein described parcel and the northeasterly corner of the lands now or formerly the County of Dutchess as described in liber 1934 of deeds at page 494; thence along the division line between the herein described parcel and the lands now or formerly the County of Dutchess, S 83°45'22" W 257.80 feet to a capped iron rod set and S 89°54'40" W 209.01 feet to a mag nail set in a concrete base at the southwesterly corner of the herein described parcel and the southeasterly corner of the lands now or formerly James L. Taylor as described in Liber 1979 of deeds at page 666; thence along the division line between the herein described parcel and the lands now or formerly of James L. Taylor, N 08°52'20" W 155.00 feet to the northwesterly corner of the herein described parcel and the northeasterly corner of the lands now or formerly James L. Taylor, said point being located N 08°52'20" W 4.00 feet from a capped iron rod set, said point being on the southerly side of a 25 foot wide right of way; thence along the southerly side of said 25 foot right of way, N 82°59'40" E 482.79 feet to a railroad spike set and S 80°36'25" E 39.83 feet to the point or place of beginning.

CONTAINING 1.99 ACRES OF LAND MORE OR LESS.

TOGETHER with a perpetual right of way over a strip of land 20 feet in width extending from the rear of the premises above described along the easterly line of lands of C.W. Swift to North Street and together also with all the rights which said Seneca Button Company has acquired under a deed from Poughkeepsie Trust Company in and to a certain strip of land 25 feet in width extending along the northerly side of said premises above described from North Hamilton Street to the said lands of C.W. Swift

BEING and intended to be all that certain tract or parcel of land as described in a conveyance from 182 No. Hamilton St. Realty Corp to Tilsam Realty Corp recorded in Liber 1216 of deeds at page 775 dated January 16, 1967.

LEGEND:

- NO PHYSICAL BOUNDS
- ADJACENT PROPERTY LINE
- 110 — EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 500.5 — EXISTING SPOT GRADE
- EXISTING FENCE
- DW — EXISTING OVERHEAD WIRES
- EXISTING SIGN
- EXISTING CATCH BASIN
- EXISTING GUY WIRE
- EXISTING HYDRANT
- EXISTING IRON PIPE
- EXISTING IRON ROD
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING UTILITY POLE
- EXISTING MONITORING WELL
- EXISTING WATER VALVE
- EXISTING TELEPHONE MANHOLE
- EXISTING SANITARY MANHOLE

NAD-1983

CERTIFICATIONS:

JAMES L. TAYLOR COMPANIES

RIGHT OF WAY NOTE:

PARCEL SHOWN HEREON HAS A PERPETUAL RIGHT OF WAY OVER THE 25 FOOT WIDE RIGHT OF WAY SHOWN HEREON AND THE 20 FOOT WIDE RIGHT OF WAY SHOWN HEREON.

MAP REFERENCE:

MAP ENTITLED "PLAN OF LAND BELONGING TO POUGHKEEPSIE CHAMBER OF COMMERCE INC." RECORDED IN THE DUTCHESS COUNTY CLERKS OFFICE ON JANUARY 9 1911 AS FILED MAP #723

MAP ENTITLED "MAP OF PROPERTY MARVIN O. DUTTON AND JAMES D. BURGESS" RECORDED IN THE DUTCHESS COUNTY CLERKS OFFICE ON JANUARY 1, 1925 AS FILED MAP #1193.

MAP ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY FOR THE COUNTY OF DUTCHESS" PREPARED BY PAGGI AND MARTIN DATED NOVEMBER 1993.

DEED REFERENCE:

CITY OF POUGHKEEPSIE
LIBER 1958 PAGE 339

182 NO. HAMILTON ST. REALTY CORP
— TO —
TILSAM REALTY CORP
LIBER 1216 PAGE 775
RECORDED: JANUARY 16, 1967

TAX PARCEL NUMBER:

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK
1313OO-6162-54-240389

NOTES:

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR HIS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR PROFESSIONAL LAND SURVEYORS AS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON SO NOTED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS, OR SUBSEQUENT OWNERS.

COPYRIGHT CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., P.C., ALL RIGHTS RESERVED.

SURVEYED FROM RECORD DESCRIPTION AND AS IN POSSESSION.

TOPOGRAPHY SHOWN HEREON WAS COMPILED FROM A FIELD SURVEY COMPLETED JANUARY 23, 2010, BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, P.C. DATUM NAVD-88, 1 FOOT CONTOUR INTERVAL

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

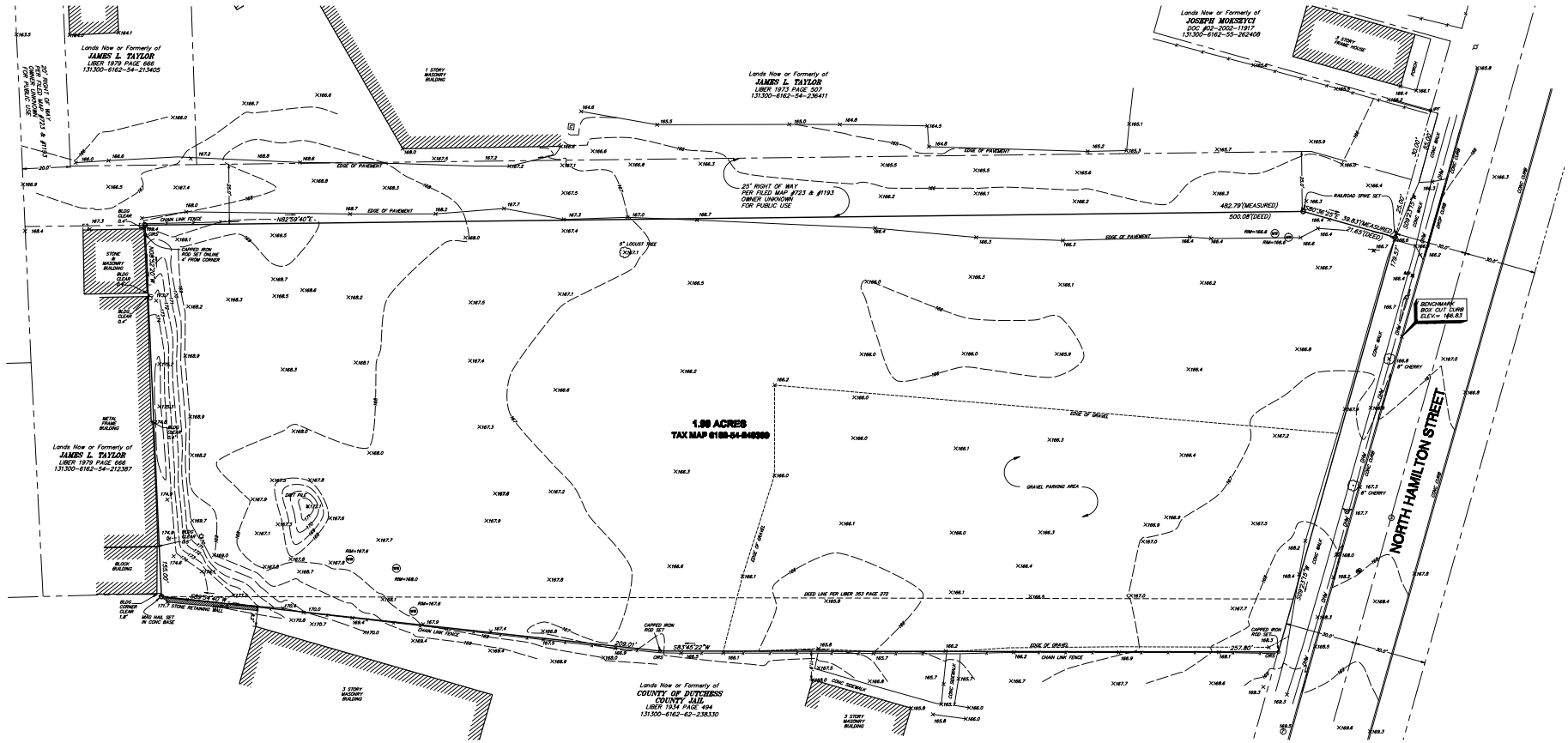
CONTROL:

HORIZONTAL: BASED UPON NEW YORK STATE PLANE COORDINATE SYSTEM NAD83 (CORS96) AS DETERMINED BY OPUS

GRID = GROUND AT BASELINE POINT #1: N1048961.6842, E649988.2118

BASELINE POINT #1 IS BASED UPON NEW YORK STATE PLANE COORDINATE SYSTEM NAD83 (CORS96) AS DETERMINED BY OPUS SOLUTION REPORT DATED DECEMBER 23, 2009 USING BASE STATIONS:
DG7012 NYNP NEW PALTZ CORS ARP
DG468 NYKT KINGSTON NY CORS ARP
DK7181 NYNB NEWBURGH CORS ARP

VERTICAL: BASED UPON NEW YORK STATE PLANE COORDINATE SYSTEM NAVD88 (CORS96) AS DETERMINED BY OPUS



ALL RIGHTS RESERVED. COPY OR REPRODUCTION OF THIS PLAN OR ANY PORTION, THEREOF IS PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE DESIGN ENGINEER, SURVEYOR, OR ARCHITECT.

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

I HEREBY CERTIFY THAT THIS SURVEY MAP IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED JAN. 23, 2010 AND THAT THIS SURVEY MAP WAS MADE BY ME OR UNDER MY DIRECTION, AND CONFORMS WITH THE MINIMUM STANDARD OF PRACTICE ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

STEVEN J. ALEX, L.S. #50016

THE Chazen COMPANIES®
Engineers/Surveyors
Planners
Environmental Scientists
Landscape Architects

CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., P.C.

Office Locations:

Dutchess County Office:
21 Fox Street
Poughkeepsie, New York 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street
Troy, New York 12180
Phone: (518) 273-0055

North Country Office:
100 Glen Street
Glens Falls, New York 12801
Phone: (518) 812-0513

Connecticut:
814 Hartford Turnpike
Waterford, CT. 06385
Phone:(860) 440-2990

rev.	date	description

THE JAMES L. TAYLOR COMPANIES

MAP OF SURVEY SHOWING LANDS OF #182 NORTH HAMILTON STREET

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK STATE

drawn	checked
TCR	SJA
date	scale
1/26/10	1"=20'
project no.	
50929.00	
sheet no.	
SV1	
1 OF 1	

Drawing Name: X:\JT\50900-50999\50929.00 Taylor\SURVEY\DWG\SBASE_50929.dwg
Xref's Attached: 11191 XR
Date Plotted: Feb 17, 2010, 8:26am

4882

APPENDIX C

LABELLA Associates, D.P.C.
Engineering
Architecture
Environmental
Planning

Site Health and Safety Plan

Location:

Dutchess County Law Enforcement Center
104 & 108 Parker Ave, and 182 and a portion of 150
North Hamilton Street
Poughkeepsie, NY

Prepared For:

Dutchess County Department of Public Works
626 Dutchess Turnpike
Poughkeepsie, NY 12603

March 2017

Site Health and Safety Plan

Location:

Dutchess County Law Enforcement Center
104 & 108 Parker Ave, and 182 and a portion of 150
North Hamilton Street
Poughkeepsie, NY

Prepared For:

Dutchess County Department of Public Works
626 Dutchess Turnpike
Poughkeepsie, NY 12603

March 2017

LaBella Associates, D.P.C.
300 State Street
Rochester, New York 14614

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SITE HEALTH AND SAFETY PLAN

Project Title:	Dutchess County Law Enforcement Center
Project Number:	2160911
Project Location (Site):	104 & 108 Parker Ave, and 182 and a portion 150 North Hamilton Street, Poughkeepsie, NY
Environmental Director:	Gregory Senecal, CHMM
Project Manager:	Daniel Noll, PE
Plan Review Date:	March 20, 2017
Plan Approval Date:	March 20, 2017
Plan Revision Date:	
Plan Approved By:	Mr. Richard Rote, CIH
Site Safety Officer:	TBD
Site Contact:	TBD
Safety Director:	Richard Rote, CIH
Proposed Date(s) of Field Activities:	Spring 2017
Site Conditions:	Slightly sloping, encompassing approximately 6.18 acres
Site Environmental Information Provided By:	Prior Environmental Reports by The Chazen Companies LaBella Phase II Environmental Site Assessment 2016
Air Monitoring Provided By:	LaBella Associates, D.P.C.
Site Control Provided By:	Dutchess County

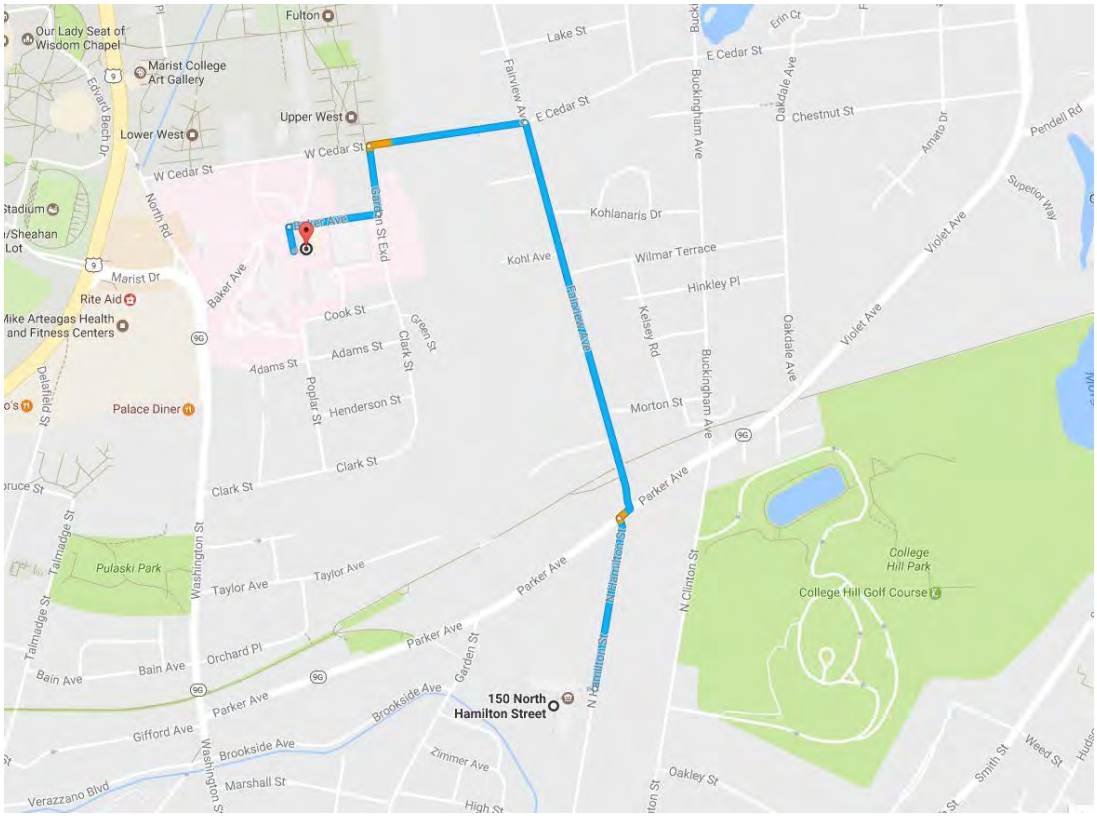
EMERGENCY CONTACTS

	Name	Phone Number
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	MidHudson Regional Hospital of Westchester Medical Center	585-275-2100
Police (local, state):	Dutchess County Sheriff	911
Fire Department:	Poughkeepsie Fire Department	911
Site Contact:	Chris Boston	Direct: 845-486-2121 Cell: 845-235-7528
Agency Contact:	NYSDEC – Michael A Mason, PE NYSDOH – Mark Sergott	518-402-9814 518-402-7860
Environmental Director:	Greg Senecal, CHMM	Direct: 585-295-6243 Cell: 585-752-6480
Project Manager:	Daniel Noll, PE	Direct: 585-295-6243 Cell: 585-752-6480
Site Safety Supervisor:	TBD	Direct: 585-454-6110
Safety Director	Rick Rote, CIH	Direct: 585-295-6241 Cell: 585-414-8891

MAP AND DIRECTIONS TO THE MEDICAL FACILITY - MIDHUDSON REGIONAL HOSPITAL OF WESTCHESTER MEDICAL CENTER

Total Est. Time: 4 minutes **Total Est. Distance:** 1.1 miles

1:	Start out heading north on North Hamilton Street toward Parker Ave	0.2 miles
2:	Continue onto Fairview Ave	0.5 miles
3:	Turn Left onto W Cedar Street	0.2 miles
4:	Turn Left onto Garden Street Exd	433 feet
5:	Turn Right onto Bake Ave	0.1 miles
6:	Turn Left, Destination will be on Left	154 feet
7:	End at **241 North Rd** Poughkeepsie, NY 12601, US	



LABELLA

1.0 Introduction

The purpose of this Health and Safety Plan (HASP) it to provide guidelines for responding to potential health and safety issues that may be encountered during implementing the Site Management Plan (SMP) at the Dutchess County Law Enforcement Center located at 104 and 108 Parker Ave, and 182 and a portion of 150 North Hamilton Street in the City of Poughkeepsie, Dutchess County, New York. This HASP only reflects the policies of LaBella Associates D.P.C. The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications and the Community Air Monitoring Plan (CAMP) are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP do not replace or supersede any regulatory requirements of the USEPA, NYSDEC, OSHA or and other regulatory body.

2.0 Responsibilities

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

3.0 Activities Covered

The activities covered under this HASP are limited to the following:

- Management of environmental investigation and remediation activities
- Environmental Monitoring
- Collection of samples
- Management of excavated soil and fill.

4.0 Work Area Access and Site Control

The contractor(s) will have primary responsibility for work area access and site control.

5.0 Potential Health and Safety Hazards

This section lists some potential health and safety hazards that project personnel may encounter at the project site and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for

good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and his or her instructions must be followed.

5.1 Hazards Due to Heavy Machinery

Potential Hazard:
Heavy machinery including trucks, excavators, backhoes, etc will be in operation at the site. The presence of such equipment presents the danger of being struck or crushed. Use caution when working near heavy machinery.

Protective Action:
Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. A hard hat, safety glasses and steel toe shoes are required.

5.2 Excavation Hazards

Potential Hazard:
Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Excavations left open create a fall hazard which can cause injury or death.

Protective Action:
Personnel must receive approval from the Project Manager to enter an excavation for any reason. Subsequently, approved personnel are to receive authorization for entry from the Site Safety Officer. Approved personnel are not to enter excavations over 4 feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

Personnel should exercise caution near all excavations at the site as it is expected that excavation sidewalls will be unstable.

Fencing and/or barriers accompanied by "no trespassing" signs should be placed around all excavations when left open for any period of time when work is not being conducted.

5.3 Cuts, Punctures and Other Injuries

Potential Hazard:
In any excavation or construction, work site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

Protective Action:
The Project Manager is responsible for making First Aid supplies available at the work site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of

authorized on-site personnel to medical facilities when First Aid treatment in not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer

5.4 Injury Due to Exposure of Chemical Hazards

Potential Hazards:
Volatile organic vapors from petroleum products, chlorinated solvents, ammonia or other chemicals may be encountered during excavation activities at the project work site. Inhalation of high concentrations of organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Exposure to ammonia vapors can cause irritation to the eyes, nose and throat, breathing difficulty, wheezing or pulmonary edema. Skin contact can cause irritation, chemical burn, or dermatitis. Ammonia vapors also pose an explosion hazard at very high levels (15-28% as noted in the attached Table). Ammonia was detected previously at the site at ~150 ppm (~0.2%), which is significantly lower than the lower explosive limit.

Protective Action:
The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring (refer to Section 9.0) of the work area will be performed at least every 15 minutes or more often using a Photoionization Detector (PID). Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 ppm consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm or are encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0).

5.5 Injuries due to extreme hot or cold weather conditions

Potential Hazards:
Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

Protective Action:
Precaution measures should be taken such as dress appropriately for the weather conditions and drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

6.0 Work Zones

In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.4), the following work zones should be established:

Exclusion Zone (EZ):

The EZ will be established in the immediate vicinity and adjacent downwind direction of site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These site activities include contaminated soil excavation and soil sampling activities. If access to the site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved personnel. Depending on the condition for establishing the EZ, access to the EZ may require adequate PPE (e.g., Level C).

Contaminant Reduction Zone (CRZ):
The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

7.0 Decontamination Procedures

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this project should be prepared with a change of clothing whenever on site.

Personnel will use the contractor's disposal container for disposal of PPE.

8.0 Personal Protective Equipment

Generally, site conditions at this work site require level of protection of Level D or modified Level D. However, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

Level D:
Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

Level C:
Level D PPE and full or ½-face respirator and tyvek suit (if necessary). [*Note: Organic vapor and/or ammonia vapor cartridges are to be changed after each 8-hours of use or immediately upon wearer noticing odors*]

9.0 Air Monitoring

According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring will consist at a minimum of the procedure listed below. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer's specifications.

The Air Monitor will utilize a photoionization Detector (PID) equipped with a 10.6 eV bulb to screen the ambient air in the work areas (excavation, soil staging, and soil grading areas) for total Volatile Organic Compounds (VOCs) and a DustTrak tm Model 8520 aerosol monitor or equivalent for measuring particulates. Work area ambient air will generally be monitored in the work area and at the downwind perimeter of the immediate work area. Air monitoring of the work areas and downwind of the work areas will be performed at least every 15 minutes or more often using a PID and the DustTrak meter.

If PID readings in the breathing zone exceed 25 ppm for a sustained period of 5 minutes or more, then either personnel are to leave the work area until satisfactory readings are obtained or approved personnel may re-enter the work areas wearing at a minimum a ½ face respirator with organic vapor cartridges for an 8-hour duration (i.e., upgrade to Level C PPE). Organic vapor cartridges are to be changed after each 8-hours of use or more frequently if the wearer detects odors while wearing the respirator. If PID readings are sustained in the work area at levels above 50 ppm for a 5 minute average, work will be stopped immediately until safe levels of VOCs are encountered or additional PPE will be required (i.e., Level B). If PID readings are sustained above 50 ppm, vapor suppression measures (e.g., biosolve spray) will be employed until PID readings are reduced to below 25 ppm in the work area and 5 ppm at the immediate downwind perimeter of the work area.

Further, if ammonia odors are encountered, work will be stopped and a water mist will be applied to the work area to suppress ammonia vapors when work resumes. If sustained PID readings are accompanied by ammonia odors (note: ammonia has an odor threshold of 5 ppm) personnel re-entering the work areas will wear ½ face respirators with ammonia vapor cartridges. Vapor suppression measures will continue until PID readings in the work area are reduced to below 25 ppm and below 5 ppm with no odors at the immediate downwind perimeter of the work area. In the event that strong ammonia odors are observed and PID readings in the work area reach levels in exceedence of 1%, all personnel will exit the work area and misting will continue until PID readings reduce below percent level readings.

If downwind PID measurements reach or exceed 25 ppm consistently for a 5 minute period downwind of the work area a water mist will be applied to the work area and work will be halted until the ammonia vapors are suppressed and PID readings are below 5 ppm. In the event that any ammonia odors are evident off-site, work will be halted and a water mist and/or poly cover will be applied until the ammonia odors are no longer evident. If ammonia odors are persistent offsite, work will be halted and the approach to investigating and remediating the ammonia area will be reevaluated.

10.0 Emergency Action Plan

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible and wait at the assigned 'safe area'. Follow the instructions of the Site Safety Officer.

Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

11.0 Medical Surveillance

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this site.

12.0 Employee Training

Personnel who are not familiar with this site plan will receive training on its entire content and organization before working at the Site.

Individuals involved with the remedial investigation must be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.

\\PROJECTS1\PROJECTSAM-3\DUTCHESS COUNTY\2160911 - LEC\ENVIRONMENTAL\SMP\HASP\HASP.DOC

Table 1
Exposure Limits and Recognition Qualities

Compound	PEL-TWA (ppm)(b)(d)	TLV-TWA (ppm)(c)(d)	STEL (ppm)(b)	LEL (%)(e)	UEL (%)(f)	IDLH (ppm)(g)(d)	Odor	Odor Threshold (ppm)	Ionization Potential
Ammonia	50	25	35	15	28	300	Ammonia	5	10.18
Acetone	750	500	NA	2.15	13.2	20,000	Sweet	4.58	9.69
Anthracene	.2	.2	NA	NA	NA	NA	Faint aromatic	NA	NA
Benzene	1	0.5	5	1.3	7.9	3000	Pleasant	8.65	9.24
Benzo (a) pyrene (coal tar pitch volatiles)	0.2	0.1	NA	NA	NA	700	NA	NA	NA
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	10.88
Carbon Disulfide	20	1	NA	1.3	50	500	Odorless or strong garlic type	.096	10.07
Chlorobenzene	75	10	NA	1.3	9.6	2,400	Faint almond	0.741	9.07
Chloroform	50	2	NA	NA	NA	1,000	ethereal odor	11.7	11.42
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	NA	9.7	12.8	400	Acrid	NA	9.65
1,2-Dichlorobenzene	50	25	NA	2.2	9.2		Pleasant		9.07
Ethylbenzene	100	100	NA	1.0	6.7	2,000	Ether	2.3	8.76
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	500	50	NA	12	23	5,000	Chloroform-like	10.2	11.35
Naphthalene	10, Skin	10	NA	0.9	5.9	250	Moth Balls	0.3	8.12
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	Sweet	NA	NA
Toluene	100	100	NA	0.9	9.5	2,000	Sweet	2.1	8.82
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45

Table 1 (continued)
Exposure Limits and Recognition Qualities

Compound	**PEL-TWA (ppm)(b)(d)**	**TLV-TWA (ppm)(c)(d)**	**STEL (ppm)(b)**	**LEL (%)(e)**	**UEL (%)(f)**	**IDLH (ppm)(g)(d)**	**Odor**	**Odor Threshold (ppm)**	**Ionization Potential**
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45
1,2,4-Trimethylbenzene	NA	25	NA	0.9	6.4	NA	Distinct	2.4	NA
1,3,5-Trimethylbenzene	NA	25	NA	NA	NA	NA	Distinct	2.4	NA
Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	NA	1	7	1,000	Sweet	1.1	8.56
Metals									
Arsenic	0.01	0.2	NA	NA	NA	100, Ca	Almond		NA
Cadmium	0.2	0.5	NA	NA	NA				NA
Chromium	1	0.5	NA	NA	NA				NA
Lead	0.05	0.15	NA	NA	NA	700			NA
Mercury	0.05	0.05	NA	NA	NA	28	Odorless		NA
Selenium	0.2	0.02	NA	NA	NA	Unknown			NA

(a) Skin = Skin Absorption
(b) OSHA-PEL Permissible Exposure Limit (time weighted average, 8-hour): NIOSH Guide, September 2007
(c) ACGIH – 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003.
(d) Metal compounds in mg/m3
(e) Lower Explosive Limit (%)
(f) Upper Explosive Limit (%)
(g) Immediately Dangerous to Life or Health Level: NIOSH Guide, September 2007.

Notes:
1. All values are given in parts per million (PPM) unless otherwise indicated.
2. Ca = Possible Human Carcinogen, no IDLH information.

APPENDIX D

LABELLA MONITORING WELL CONSTRUCTION AND BORINGS LOGS

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-01
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett
BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016
DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore
DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 2.4/5.0'	0.0'	Brown fine to medium Sand, little Silt, organics (grass, roots).	0	
			0.2'	Silty SAND, little Gravel, ash, cinders (FILL), moist, no odor.	0	
			1.5'	Light brown SILT, some Sand, dense, moist, no odor.	0	
5	5-8'	S2 3.0/3.0'	5.0'	Simlar to above.		
			5.5'	Light brown SILT, some Sand and Gravel, moist to wet at bottom, no odor.	0	
					0	
				Refusal at 8'	0	
10						
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-01

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-02
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 0.2/5.0'	0.0'	Brown coarse to fine SAND, little Gravel, ash, glass (FILL), dry, no odor.	0	
					0	
					0	
5	5-10'	S2 5.0/5.0	5.0'	Dark brown coarse to fine SAND, cinders (FILL), dry, no odor.		
			5.8'	Light brown and gray SILT, little Sand, moist, no odor.	0	
					0	
			7.4'	Light brown and gray SILT, moist, no odor.		
					0	
10	10-15'	S3 2.5/5.0'	10.0'	Light brown SILT transitioning to gray silt at 11.2 feet, little Gravel, wet, no odor.	0	
					0	
					0	
15				15 ' End Boring		
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Well MW-01 installed to 15'. A 5-ft long, 1-in diameter 0.010 slotted well screen was used.
			15	15	~10	Well removed after sampling.

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-02

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-03
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 2.7/5.0'	0.0'	Asphalt/Gravel	0	
			0.6'	Brown coarse to fine SAND and gray GRAVEL, dry, no odor.	0	
			1.7'	Brown SILTY SAND, little Gravel, dry to moise, no odor.		
			2.4'	Brown medium SAND, moist, no odor.	0	
5	5-8'	S2 2.8/3.0	5.0'	Similar to above, glass (FILL).		
			5.3'	Brown SILTY SAND, some angular Gravel, moist, no odor.	0	
			6.9'	Light gray-brown SAND, little Silt, rock at bottom, dry.	0	
				Refusal at 8'	0	
10						
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-03

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-04
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 2.5/5.0'	0.0'	Asphalt/Gravel	0	
			0.6'	Brown SILTY SAND, trace Gravel, moist, no odor.	0	
			1.5'	Brown fine SAND, trace Silt, moist, no odor.		
			1.7'	Brown SILTY SAND, trace Gravel, moist, no odor.	0	
					0	
5	5-9'	S2 4.0/4.0'	5.0'	Light brown SILT and SAND, moist, no odor.	0	
			5.2'	Light tan coarse to fine SAND, trace Gravel, trace SILT, dry, no odor.	0	
					0	
			8.8'	Gray coarse to fine Gravel, dry, no odor.	0	
				Refusal at 9'		
10						
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-04

LABELLA Associates, P.C.

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ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-05
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 3.0/5.0'	0.0'	Brown fine to medium SAND, some Silt, organic material (grass, roots), dry, no odor.	0	
			1.0'	Dark brown c-f SAND, some Silt, cinders, ash (FILL).	0	
			2.0'	Ash, cinders, red brick (FILL).	0	
					0	
5	5-10'	S2 4.0/5.0'	5.0'	Dark brown to light gray-brown SILT, trace coarse to fine SAND, moist, no odor.	0	
			6.0'	Light gray-brown SILTY SAND, trace Gravel, moist to wet, no odor.	0	
			7.3'	Light gray-brown to gray SANDY SILT, Gravel in bottom 0.7ft, moist, no odor.	0	
					0	
10	10-15'	S3 3.7/4.0'	10'	Brown and gray SILTY SAND, little fine Sand, moist to wet, no odor.	0	
					0	
			11.6'	Gray SANDY SILT, little gray Gravel, wet, no odor.	0	
					0	
				Refusal at 14'		
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-06
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 1.0/5.0	0.0'	Concrete	0	
			0.3'	Light brown SILT, some to little SAND, dry, no odor.		
					0	
					0	
5	5-10'	S2 4.6/5.0	5.0'	Similar to above, little coarse to fine gray Gravel, moist, no odor.	0	
					0	
			8.2'	Similar to above, some coarse to fine gray Gravel.		
					0	
10	10-15'	S3 4.6/5.0	10.0'	Light brown SILTY SAND, little fine Gravel, wet, no odor.	0	
					0	
			11.4'	Gray SILTY SAND and coarse to fine GRAVEL, moist, no odor.		
					0	
15	15-17'	S4 2.0/2.0	15.0'	Gray-brown SILTY SAND and GRAVEL, wet, no odor.	0	
			16.0'	Gray SILTY SAND and GRAVEL, hard packed, wet, no odor.	0	
					0	
				Refusal at 17'		
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Well MW-02 installed to 13' due to soils collapsing in hole. A 10-ft long, 1-in diameter 0.010 slotted well screen was used.
			13'	17'	~10'	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-06

LABELLA Associates, P.C.

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ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-07
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 3.2/5.0'	0.0'	Concrete	0	
			0.3'	Dark brown c-f SAND, little Grave, trace Silt, dry, no odor		
			0.7'	Brown SANDY SILT, dry to moist, no odor.	0	
					0	
5	5-10'	S2 4.1/5.0'	5.0'	Light brown SILTY SAND, some Gravel, moist, no odor.	0	
					0	
			8.4'	Gray SILTY SAND and GRAVEL, moist to dry, no odor.	0	
10	10-15'	S3 4.0/5.0'	10.0'	Brown to gray-brown SILTY SAND and GRAVEL, wet, no odor	0	
					0	
			11.9'	Brown to gray coarse to fine SAND, little Silt, little Gravel, moist, no odor.	0	
15				15' End Boring.	0	
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-07

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PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-08
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 2.9/5.0'	0.0'	Concrete		
			0.3'	Ash, cinders (FILL)	0	
			0.6'	Light brown SILT, little medium to fine Sand, little Gravel, moist, no odor.		
					0	
					0	
5	5-10'	S2 3.6/5.0'	5.0'	Light brown SILTY SAND (dense), some to little Gravel, moist, no odor.	0	
					0	
			7.0'	Gray SILT and GRAVEL, little Sand, moist, no odor.		
					0	
10	10-15'	S3 0.0/5.0'	10.0'	No recovery.	0	
15				End Boring 15'		
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Macrocore sampler unrecoverable from 10-15'

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA Associates, P.C.

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ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-09
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/28/2016 END DATE: 9/28/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 1.9/4.0'	0.0'	Concrete		
			0.3'	Ash, cinders, dry (FILL)	0	
			0.6'	Brown SILT, little Sand, moist no odor.		
					0	
					0	
	4-9'	S2 2.3/5.0'	4.0'	Similar to above, trace Gravel, no odor.	0	
			4.6'	Brown SILTY SAND, little c-f Gravel, moist, no odor.		
5					0	
			5.4'	Brown to gray-brown SILT, some Gravel, dense, moist, no odor.		
					0	
	9-14'	S3 3.2/5.0'	9.0'	Brown to gray-brown SILT, little coarse to fine Sand, trace Gravel, moist, no odor.	0	
10			9.6'	Dark gray fine GRAVEL.		
			9.8'	Dark gray SILT, little Gravel, trace coarse to fine Sand.		
					0	
			12.0'	Light gray GRAVEL.	0	
				14' End Boring		
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

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ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-10
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 1.9/4.0'	0.0'	Concrete		
			0.4'	Brown SILT, litte coarse to fine SAND, trace fine Gravel, moist to wet, no odor.	0	
					0	
					0	
	4-9'	S2 1.9/5.0'	4.0'	Similar to above, moist.	0	
5						
					0	
					0	
	9-14'	S3 4.0/5.0'	9.0'	Similar to above.	0	
10			10.1'	Gray SILT, dense, some coarse to fine Gravel, moist, no odor.	0	
					0	
					0	
				14' End Boring		
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Well MW-03 installed to 14'. A 10-ft long, 1-in diameter 0.010 slotted well screen was used.
			14'	14'	~10	Well removed after sampling.

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-10

LABELLA Associates, P.C.

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ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-11
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 3.2/4.0'	0.0'	Concrete		
			0.4'	Brown medium SAND, some Silt, trace Gravel, trace coarse Sand, moist, no odor.	0	
					0	
					0	
	4-9'	S2 5.0/5.0'	4.0'	Similar to above.		
5					0	
					0	
			8.0'	Brown SILT, little coarse to fine Sand, pockets of Gravel at 8.7-ft., moist, no odor.	0	
	9-14'	S3 2.3/5.0'	9.0'	Brown coarse to fine SAND, some Silt, moist to wet, no odor.		
10					0	
			10.6'	Gray Gravel.		
			10.9'	Brown SILT, some coarse Sand, moist to wet, no odor.	0	
					0	
				14' End Boring.		
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-11

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-12
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 2.9/4.0'	0.0'	Concrete		
			0.4'	Dark brown to brown coarse to fine SAND and SILT, little Gravel, moist, no odor.	0	
					0	
	4-9'	S2 5.0/5.0'	4.0'	Brown SILT, some coarse Sand, little medium Sand, moist, no odor.	0	
5					0	
					0	
	9-12'	S3 2.5/3.0'	9.0'	Similar to above.	0	
10					0	
			11.5'	Gray SILT and GRAVEL, moist, no odor. Refusal at 12'	0	
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-12

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-13
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-5'	S1 1.8/5.0'	0.0'	Concrete		
			0.3'	Dark brown coarse to fine SAND, little Silt, brick, cinders (FILL), moist, no odor.	0	
					0	
					0	
5	5-10'	S2 5.0/5.0'	5.0'	Brown SILT, some coarse to fine Sand, little Gravel, moist, no odor.	0	
					0	
					0	
10	10-15'	S3 2.7/5.0'	10.0'	Similar to above.	0	
			11.0'	Gray SILT and coarse to fine GRAVEL, little coarse to fine SAND, wet, no odor.	0	
					0	
15	15-20'	S4 4.0/5.0'	15.0'	Gray coarse to fine GRAVEL and SILT, wet, no odor.	0	
					0	
			17.0'	Gray SILT, some coarse to fine Gravel, little coarse Sand, wet, no odor.	0	
			19.0'	Gray hard packed SILT, some coarse to fine Gravel, dry, no odor.	0	
20				20' End Boring.		
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Well MW-04 installed to 17' due to soils collapsing in hole. A 10-ft long, 1-in diameter 0.010 slotted well screen was used.
			17	20	~10	Well removed after sampling.

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-14
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 3.8/4.0'	0.0'	Concrete		
			0.3'	Brown SILT, little coarse to fine SAND, moist, no odor.	0	
					0	
			2.5'	Similar to above, but moist to wet		
	4-8'	S2 3.6/4.0'	4.0'	Similar to above but moist	0	
5					0	
					0	
			7.4'	Gray medium SAND and SILT moist to wet, no odor.	0	
				8' End Boring		
10						
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Limited to 8-ft depth due to low ceiling height. Ceiling to low to fit 5-ft rods and rig has only one 4-ft rod.

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-14

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-15
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 0.8/4.0'	0.0'	Concrete		
			0.3'	Brown coarse to fine SAND, trace Silt, cinders (FILL), dry, no odor.	0	
					0	
					0	
	4-8'	S2 0.0/2.0'	4.0'	No Recovery		
5				Refusal at 6'		
10						
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-15

LABELLA Associates, P.C.

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ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-16
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 0.8/4.0'	0.0'	Concrete		
			0.3'	Brown coarse to fine SAND, some Gravel, trace Silt, ash (FILL) dry to moist, no odor.	0	
					7.9	At 1'
					5.7	At 1.3'
					3.4	At 1.6'
	4-9'	S2 0.0/5.0'	4.0'	No Recovery	0	
5						
	9-12'	S3 0.0/3.0'		No Recovery		
10				Refusal at 12'		
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Well MW-05 installed to 12'. A 5-ft long, 1-in diameter 0.010 slotted well screen was used.
			12	12	~9	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-16

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-17
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 1.8/4.0'	0.0'	Concrete		
			0.3'	Dark brown coarse to fine SAND and GRAVEL, cinders (FILL), dry, no odor.	0	
			0.9'	Similar to above but some sand.	0	
					0	
	4-9'	S2 1.6/5.0'	4.0'	Dark brown SILT, little coarse to fine Sand and Gravel, moist, no odor	0	
5					0	
					0	
	9-12'	S3 2.8/3.0'	9.0'	Brown SILTY SAND, some Gravel, moist, wet in bottom foot.	0	
10					0	
					0	
				Refusal at 12.0'		
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Well MW-06 installed to 11' due to soils collapsing in hole. A 5-ft long, 1-in diameter 0.010 slotted well screen was used.
			11'	12'	~9'	Well removed after sampling.

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-17

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-18
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4	S1 0.3/4.0'	0.0'	Concrete		
			0.3'	No recovery.	0	
					0	
					0	
	4-9'	S2 2.8/5.0'	4.0'	Brown SAND and SILT, ash, cinders (FILL), moist, no odor.		Fill likely from previous sample interval and fell in.
5					0	
					0	
					0	
	9-12'	S3 3.0/3.0'	9.0'	Brown to gray-brown SILT, some coarse to fine Sand and Gravel, wet, no odor.	0	
10					0	
			11.0'	Gary hard packed SILT, little coarse angular Gravel, moist, no odor.		
					0	
				Refusal at 12.0'		
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Well MW-07 installed to 12'. A 5-ft long, 1-in diameter 0.010 slotted well screen was used.
			12'	12'	~9.0'	Well removed after sampling.

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA Associates, P.C.

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ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-19
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 2.8/4.0'	0.0'	Brown fine to medium SAND with organics (roots, grass), little Silt, moist, no odor.	0	
			1.0'	Light brown SILT, some coarse to fine Sand, little coarse to fine Gravel, moist no odor.	0	
			1.7'	Brown fine to medium SAND, cinders, rust colored stain, ash (FILL), dry, no odor.	0	
	4-9'	S2 3.1/5.0'	4.0'	Dark to light brown SILT, trace coarse to fine Sand, little to trace Clay in bottom foot, moist, no odor.	0	
5					0	
					0	
	9-11'	S3 2.0/2.0'	9.0'	Light brown SILT, little Clay, moist, no odor.	0	
10			10.0'	Light brown coarse to fine SAND and GRAVEL, some Silt, wet, no odor.	0	
				Refusal at 11.0'		
15						
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: SB-19

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PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment
Labella Project Number - 2160911

BORING: SB-20
SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LaBella Env. LLC
DRILLER: M. Winderl
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION:
GROUND SURFACE ELEVATION
START DATE: 9/29/2016 END DATE: 9/29/2016

DATUM:

TYPE OF DRILL RIG: Geoprobe 6620 DT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPING METHOD: macrocore

DRIVE SAMPLER TYPE: Direct push
INSIDE DIAMETER: 2"
OTHER:

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0-4'	S1 2.1/4.0'	0.0'	Brown fine to medium SAND, little Silt, organics (roots, grass), moist, no odor.	0	
			1.0'	Brown coarse to fine SAND and GRAVEL, trace Silt, moist, no odor.	0	
			1.7'	Brown coarse to fine SAND, ash cinders, coal (FILL), dry, odor.	0	
	4-9'	S2 5.0/5.0'	4.0'	Dark brown to light brown very fine SAND and SILT, moist, no odor, mottled.	0	
5					0	
					0	
	9-14'	S3 2.3/5.0'	9.0'	Light brown and gray SILT, some coarse to fine Gravel, little coarse to fine Sand, moist, no odor.	0	
10			9.7'	Brown medium SAND, little Silt, wet, no odor.	0	
			10.1'	Light brown coarse to fine SAND and coarse to fine angular GRAVEL, little Silt, wet, no odor.	0	
	14-16'	S4 2.0/2.0'	14.0'	Brown coarse to fine SAND, some coarse to fine Gravel, well graded, wet, no odor.	0	
15				Refusal at 16'		
20						
25						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Well MW-08 installed to 16'. A 10-ft long, 1-in diameter 0.010 slotted well screen was used.
			16'	16'	~10'	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA Associates, P.C.
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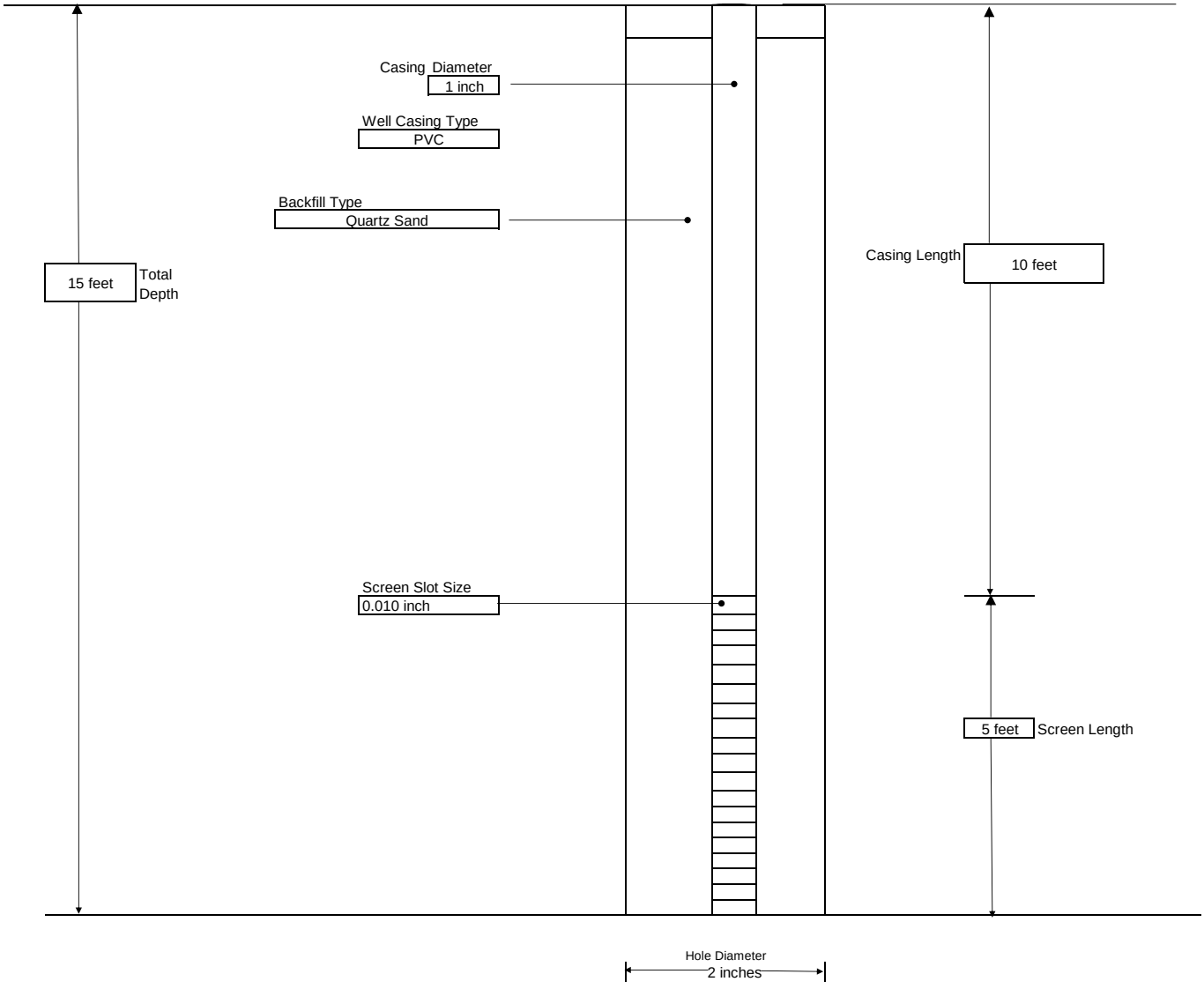
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment

MONITORING WELL: MW-01
SHEET 1 OF 1
JOB # 2160911

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:	SB-02		
DRILLER:	M. Winderl	GROUND SURFACE ELEVATION:	NA	DATUM:	NA
LABELLA REPRESENTATIVE:	Alex Brett	START DATE:	9/28/2016	END DATE:	9/28/2016

TYPE OF DRILL RIG:	Geoprobe 6620DLT
AUGER SIZE AND TYPE:	NA
OVERBURDEN SAMPLING METHOD:	macrocore
ROCK DRILLING METHOD:	NA

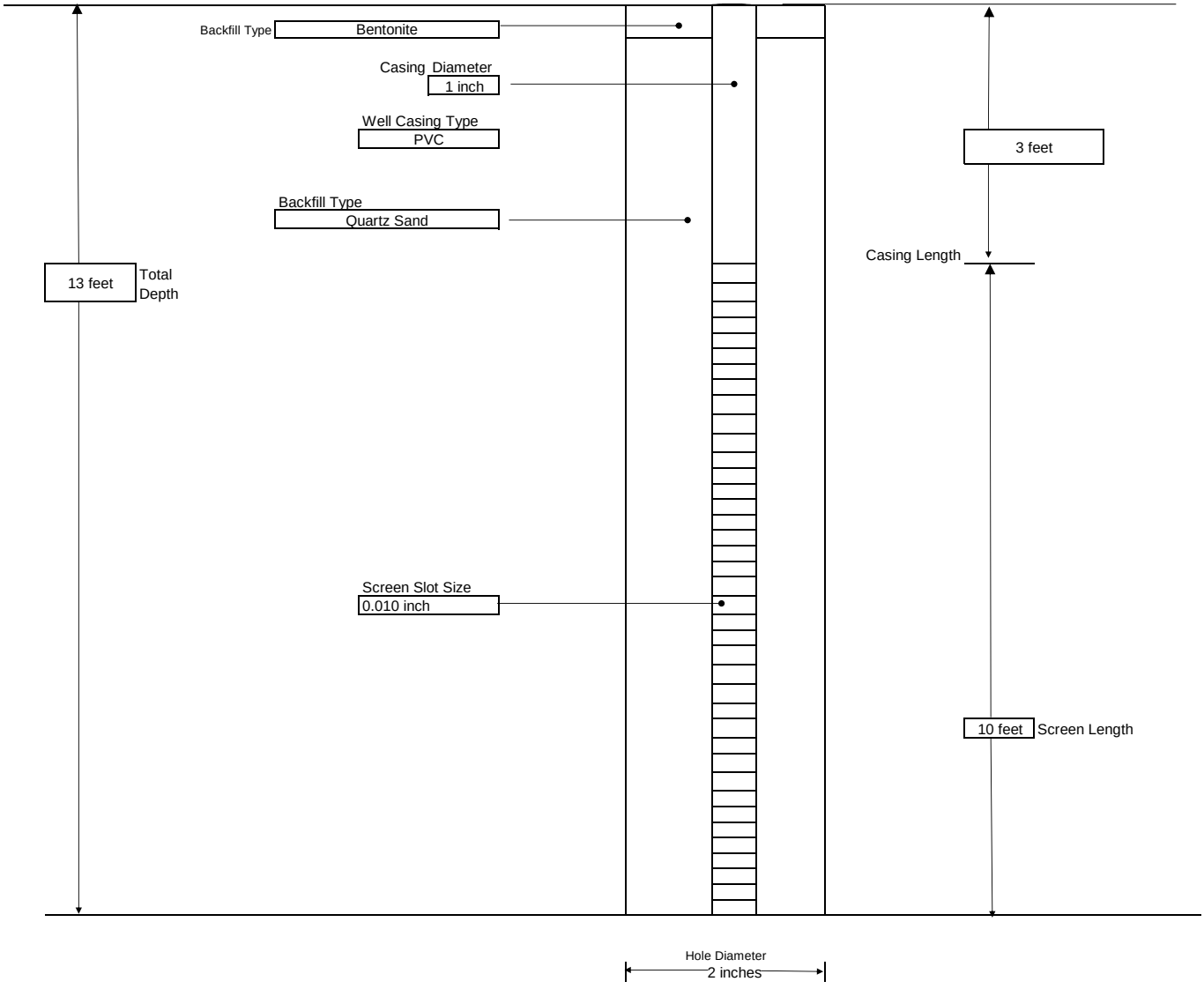


NOTE: NOT TO SCALE
GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WELL REMOVED AFTER SAMPLING

LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS	**PROJECT** 104 Parker Avenue - Dutchess County Poughkeepsie, New York Phase II Environmental Site Assessment	**MONITORING WELL: MW-02** **SHEET** 1 OF 1 **JOB #** 2160911

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:	SB-06
DRILLER:	M. Winderl	GROUND SURFACE ELEVATION:	NA DATUM: NA
LABELLA REPRESENTATIVE:	Alex Brett	START DATE:	9/28/2016 END DATE: 9/28/2016

TYPE OF DRILL RIG:	Geoprobe 6620DLT
AUGER SIZE AND TYPE:	NA
OVERBURDEN SAMPLING METHOD:	macrocore
ROCK DRILLING METHOD:	NA



NOTE: NOT TO SCALE

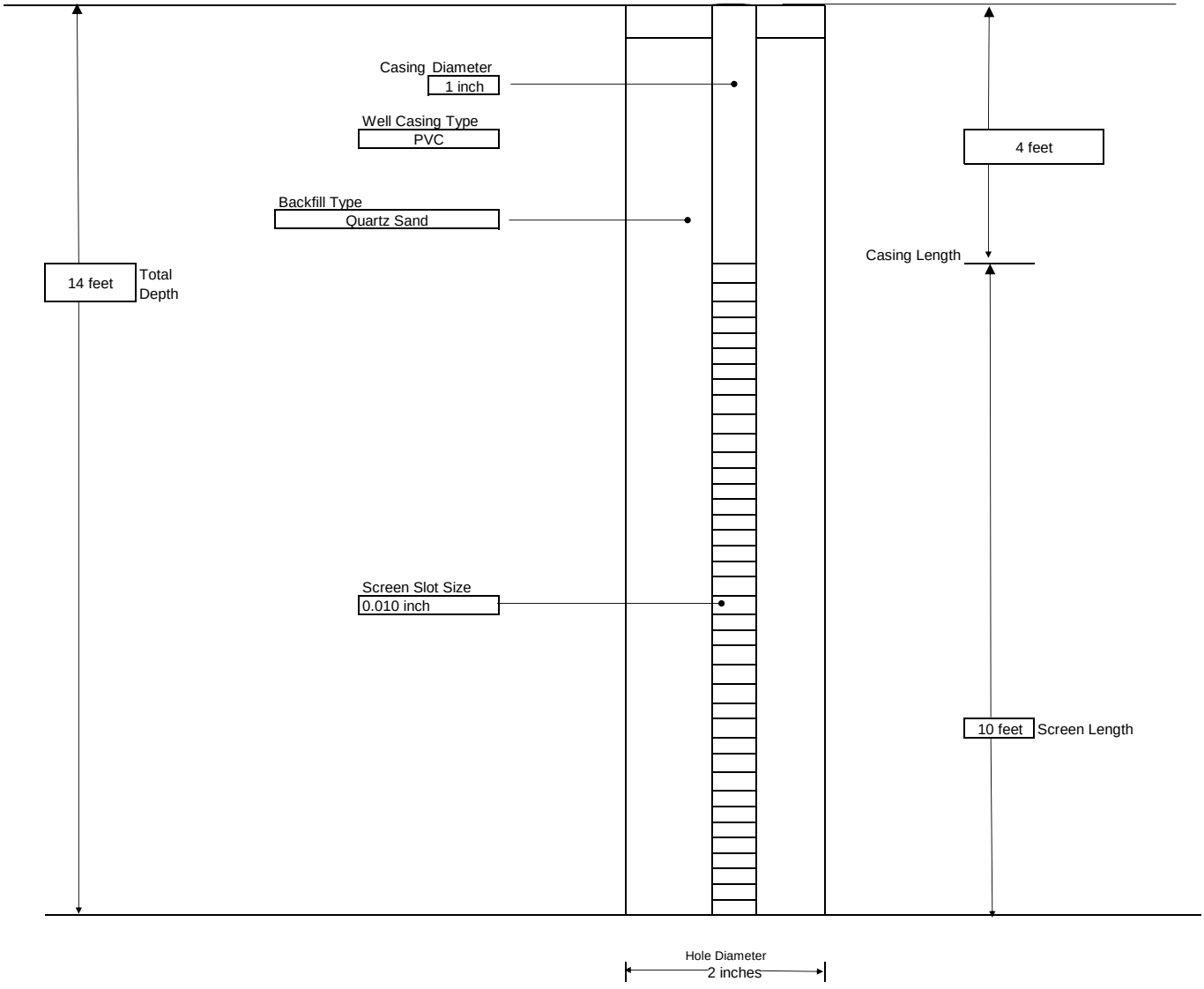
GENERAL NOTES:

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL

LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS	**PROJECT** 104 Parker Avenue - Dutchess County Poughkeepsie, New York Phase II Environmental Site Assessment	**MONITORING WELL: MW-03** **SHEET** 1 OF 1 **JOB #** 2160911

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:	SB-10
DRILLER:	M. Winderl	GROUND SURFACE ELEVATION:	NA DATUM: NA
LABELLA REPRESENTATIVE:	Alex Brett	START DATE:	9/29/2016 END DATE: 9/29/2016

TYPE OF DRILL RIG:	Geoprobe 6620DLT
AUGER SIZE AND TYPE:	NA
OVERBURDEN SAMPLING METHOD:	macrocore
ROCK DRILLING METHOD:	NA



NOTE: NOT TO SCALE
GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WELL REMOVED AFTER SAMPLING

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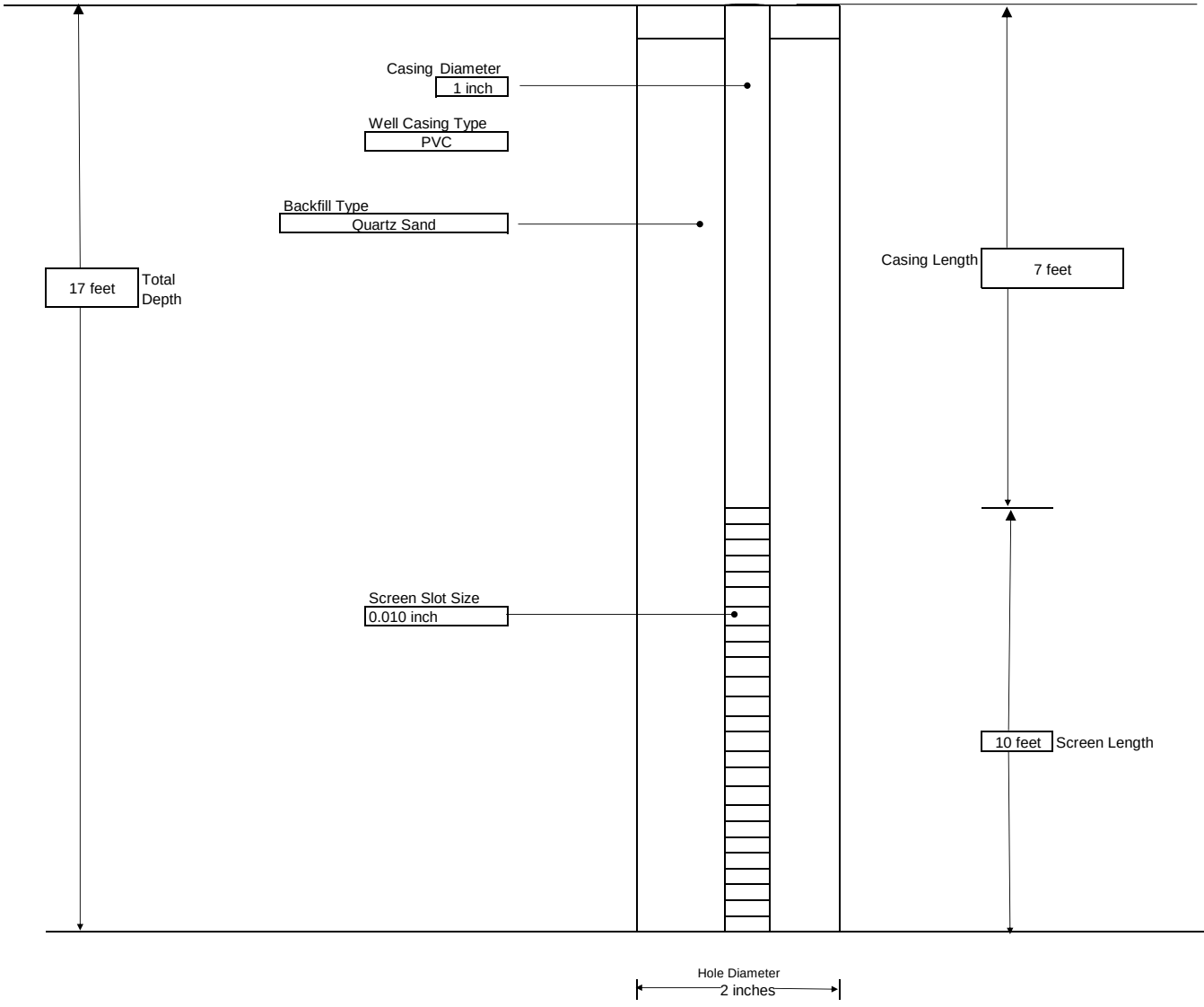
PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment

MONITORING WELL: MW-04
SHEET 1 OF 1
JOB # 2160911

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:	SB-13		
DRILLER:	M. Winderl	GROUND SURFACE ELEVATION:	NA	DATUM:	NA
LABELLA REPRESENTATIVE:	Alex Brett	START DATE:	9/29/2016	END DATE:	9/29/2016

TYPE OF DRILL RIG:	Geoprobe 6620DLT
AUGER SIZE AND TYPE:	NA
OVERBURDEN SAMPLING METHOD:	macrocore
ROCK DRILLING METHOD:	NA

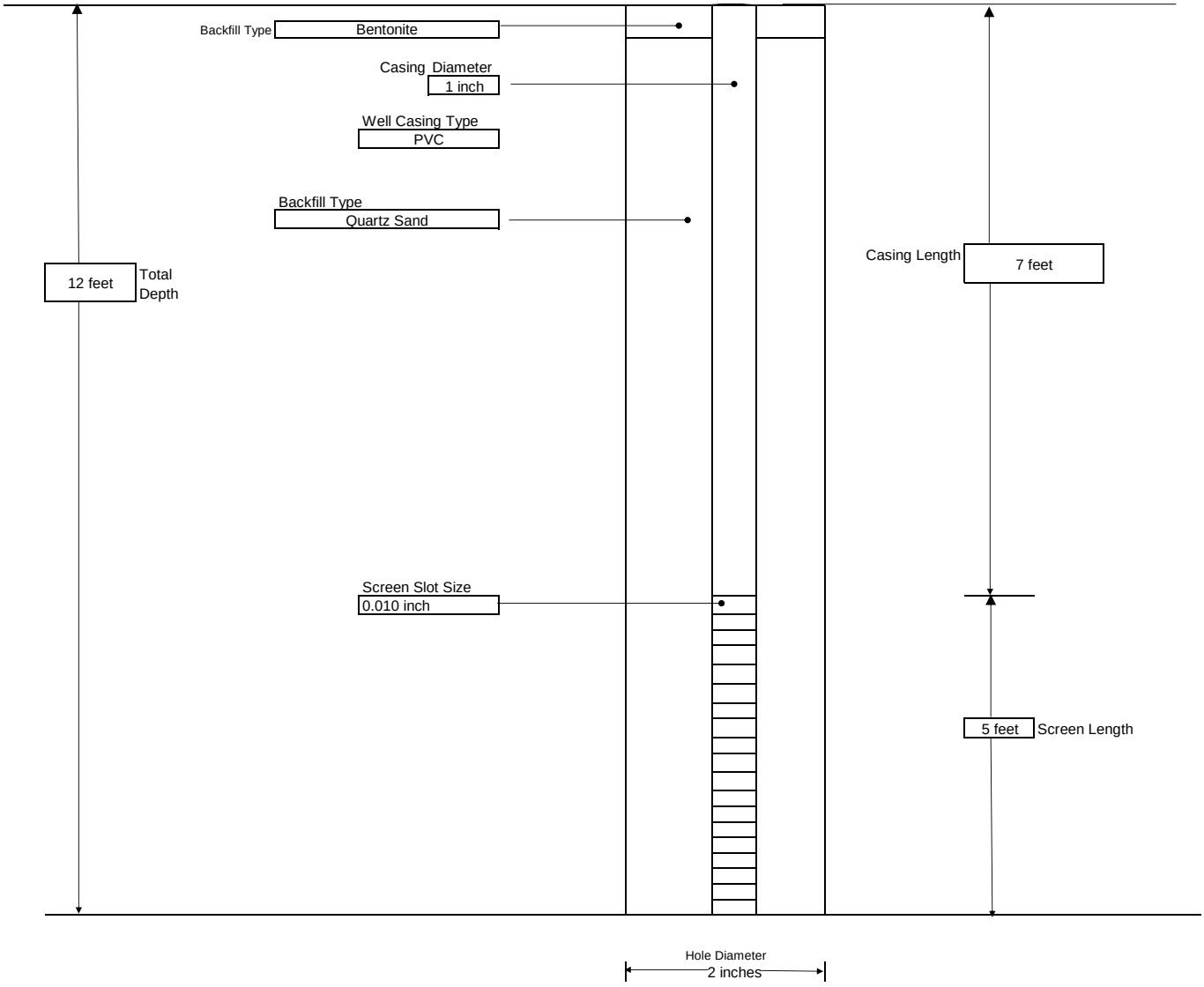


NOTE: NOT TO SCALE
GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WELL REMOVED AFTER SAMPLING

LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NEW YORK ENVIRONMENTAL ENGINEERING CONSULTANTS	**PROJECT** 104 Parker Avenue - Dutchess County Poughkeepsie, New York Phase II Environmental Site Assessment	**MONITORING WELL: MW-05** **SHEET** 1 OF 1 **JOB #** 2160911

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:	SB-16
DRILLER:	M. Winderl	GROUND SURFACE ELEVATION:	NA DATUM: NA
LABELLA REPRESENTATIVE:	Alex Brett	START DATE:	9/29/2016 END DATE: 9/29/2016

TYPE OF DRILL RIG:	Geoprobe 6620DLT
AUGER SIZE AND TYPE:	NA
OVERBURDEN SAMPLING METHOD:	macrocore
ROCK DRILLING METHOD:	NA



NOTE: NOT TO SCALE

GENERAL NOTES:

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL

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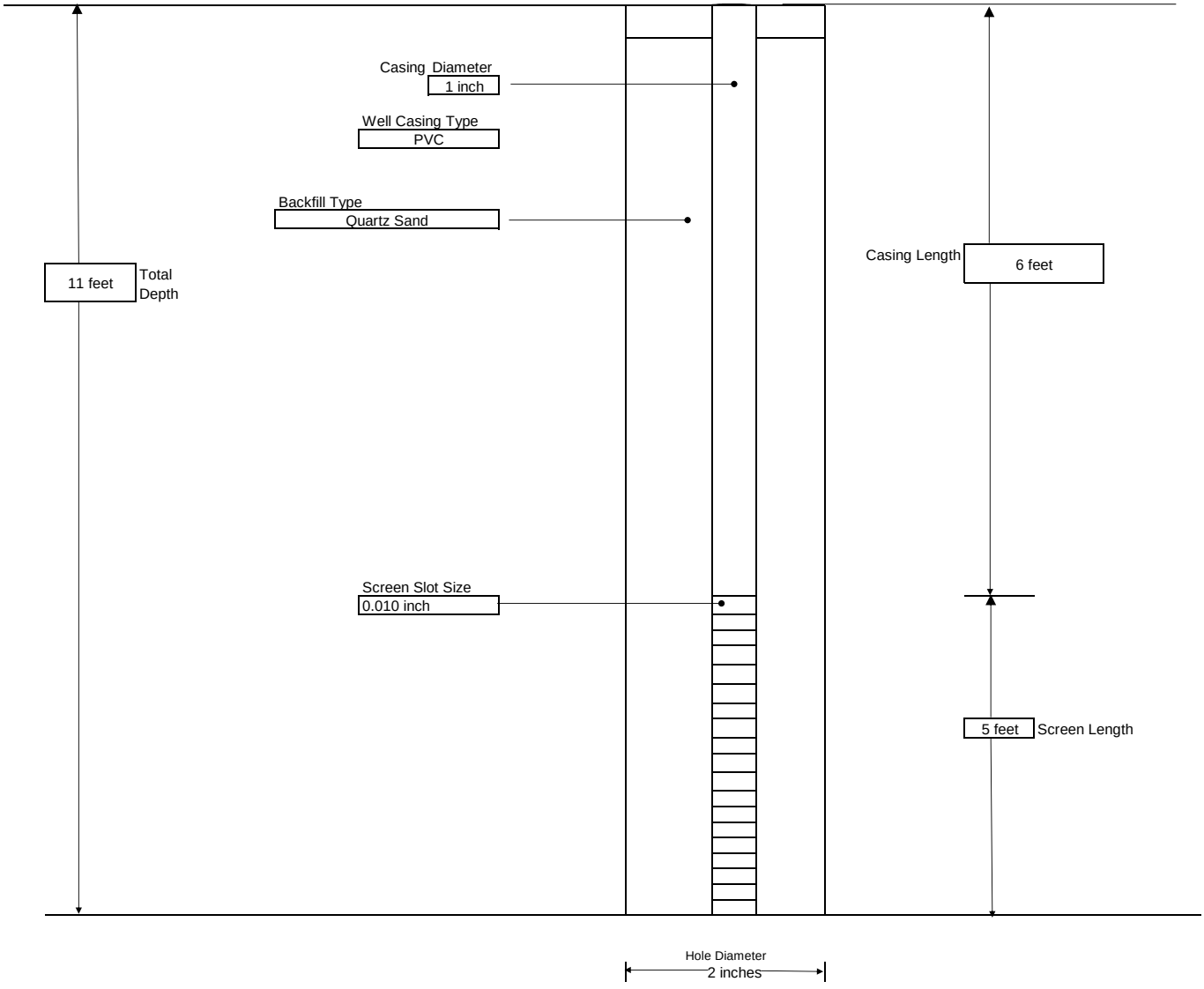
PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment

MONITORING WELL: MW-06
SHEET 1 OF 1
JOB # 2160911

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:	SB-17		
DRILLER:	M. Winderl	GROUND SURFACE ELEVATION:	NA	DATUM:	NA
LABELLA REPRESENTATIVE:	Alex Brett	START DATE:	9/29/2016	END DATE:	9/29/2016

TYPE OF DRILL RIG:	Geoprobe 6620DLT
AUGER SIZE AND TYPE:	NA
OVERBURDEN SAMPLING METHOD:	macrocore
ROCK DRILLING METHOD:	NA



NOTE: NOT TO SCALE
GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WELL REMOVED AFTER SAMPLING

LABELLA Associates, P.C.
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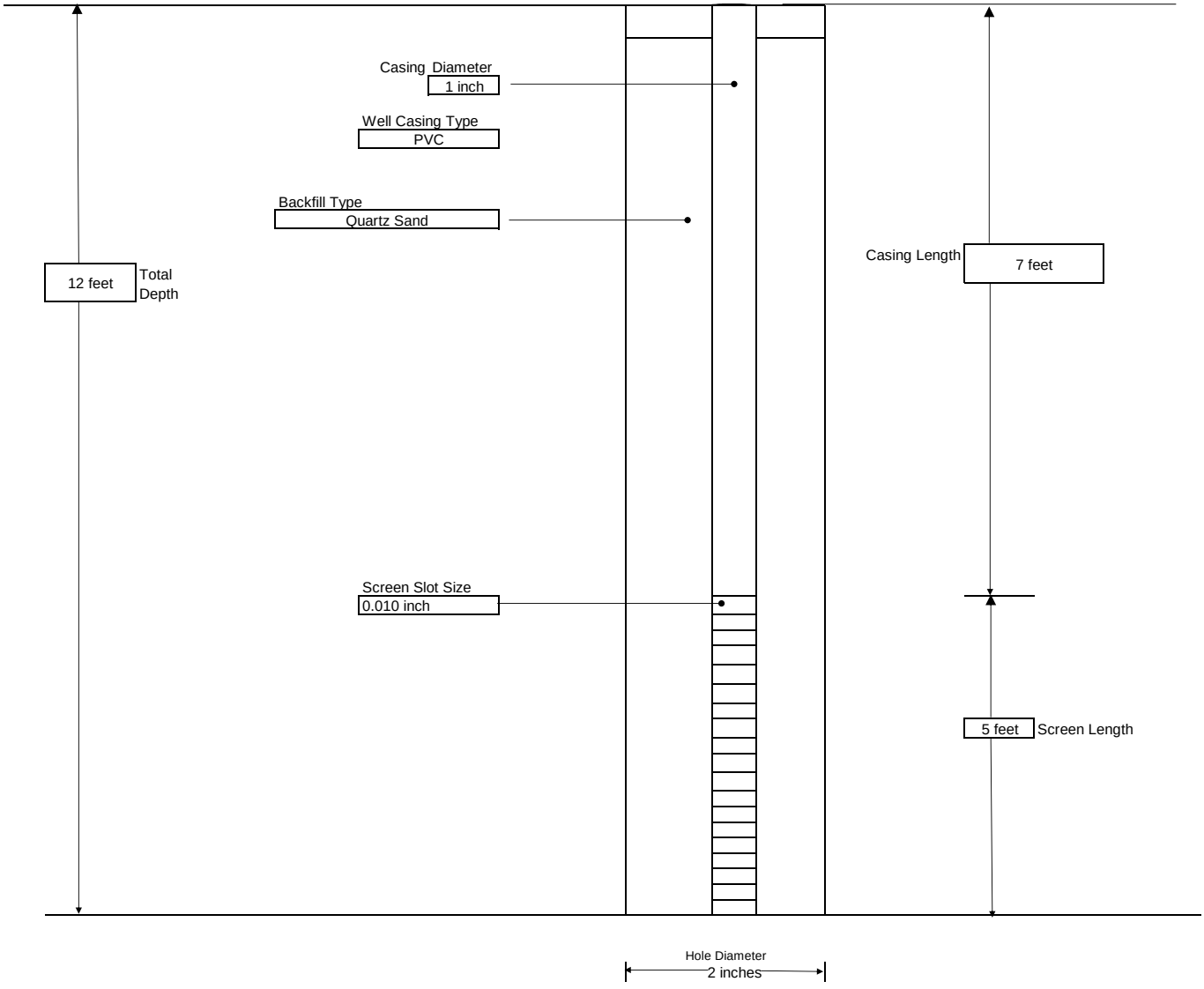
PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment

MONITORING WELL: MW-07
SHEET 1 OF 1
JOB # 2160911

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:	SB-18		
DRILLER:	M. Winderl	GROUND SURFACE ELEVATION:	NA	DATUM:	NA
LABELLA REPRESENTATIVE:	Alex Brett	START DATE:	9/29/2016	END DATE:	9/29/2016

TYPE OF DRILL RIG:	Geoprobe 6620DLT
AUGER SIZE AND TYPE:	NA
OVERBURDEN SAMPLING METHOD:	macrocore
ROCK DRILLING METHOD:	NA



NOTE: NOT TO SCALE
GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WELL REMOVED AFTER SAMPLING

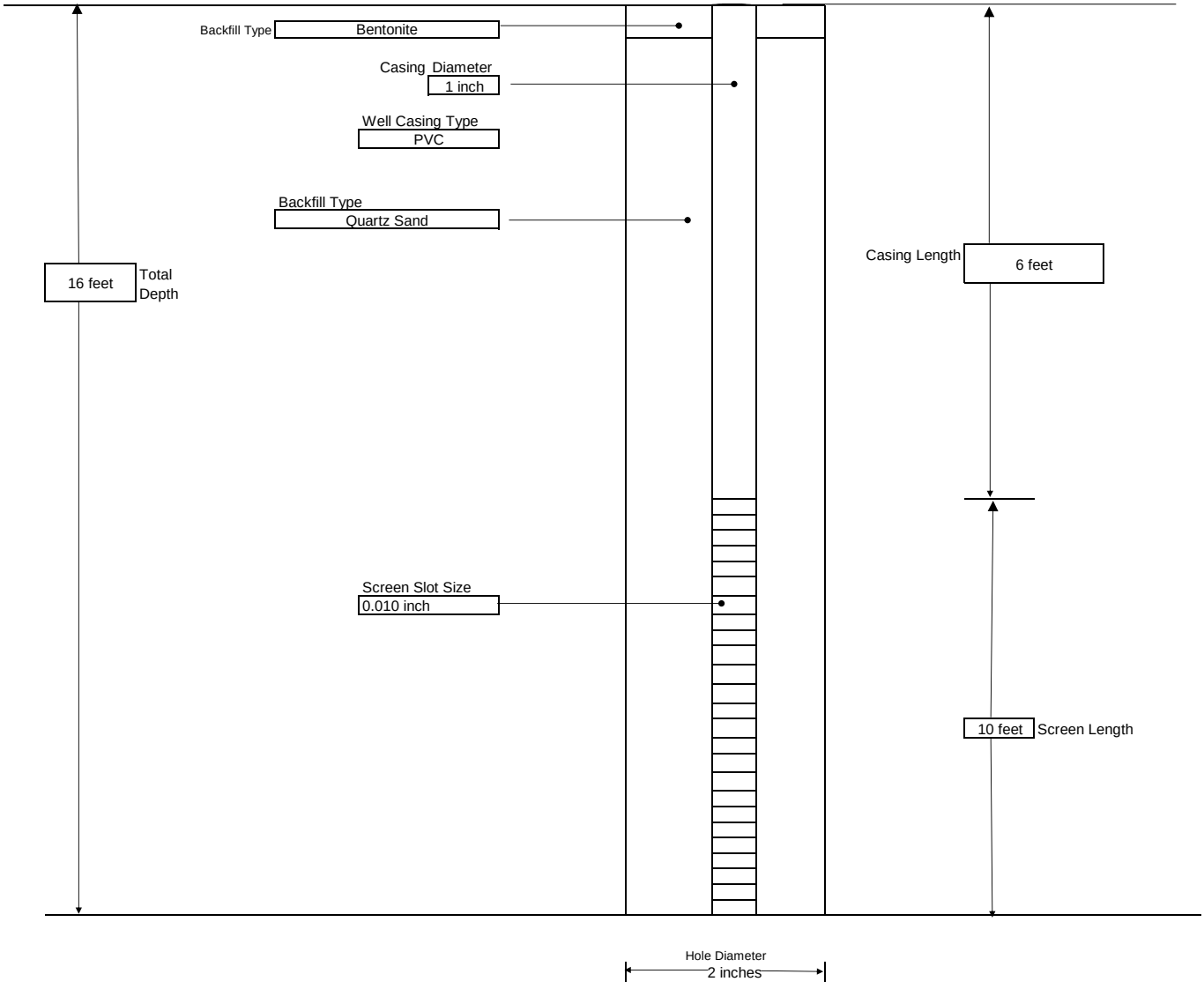
LABELLA Associates, P.C.
300 STATE STREET, ROCHESTER, NEW YORK
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
104 Parker Avenue - Dutchess County
Poughkeepsie, New York
Phase II Environmental Site Assessment

MONITORING WELL: MW-08
SHEET 1 OF 1
JOB # 2160911

CONTRACTOR:	LaBella Env. LLC	BORING LOCATION:	SB-20		
DRILLER:	M. Winderl	GROUND SURFACE ELEVATION:	NA	DATUM:	NA
LABELLA REPRESENTATIVE:	Alex Brett	START DATE:	9/29/2016	END DATE:	9/29/2016

TYPE OF DRILL RIG: Geoprobe 6620DLT
AUGER SIZE AND TYPE: NA
OVERBURDEN SAMPLING METHOD: macrocore
ROCK DRILLING METHOD: NA



NOTE: NOT TO SCALE

GENERAL NOTES:
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Dutchess County Law Enforcement Center
150 North Hamilton Street, Poughkeepsie, NY
Environmental and Geotechnical Borings
Client: Dutchess County Department of Public Works

BORING: ENV-1
SHEET 1 OF 1
JOB: 2160911
CHKD BY:

CONTRACTOR: PSI
DRILLER: PSI
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION: 108 Parker Avenue
GROUND SURFACE ELEVATION: NA
START DATE: 12/20/2016 END DATE: 12/20/2016

DATUM: NA

TYPE OF DRILL RIG: CME 55
AUGER SIZE AND TYPE: Hollow Stem Auger
OVERBURDEN SAMPING METHOD: Split Spoon

DRIVE SAMPLER TYPE: Automatic Hammer
INSIDE DIAMETER: 3"
OTHER: NA

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0 - 2	30%	0.0'	Brown silty SAND, little coal, ash (FILL), moist, no odor.	0	
					0	
1						
2	2 - 4	50%	2.0'	Brown SAND and SILT, nails, wood, coal (FILL), moist, no odor.	0	
			2.5'	Brown SILT, little Clay, trace Sand, moist, no odor.		
					0	
3						
4	4 - 6	65%	4.0'	Brown SILT, little Clay, little SAND, trace subangular Gravel, moist, no odor.	0	
5					0	
6	6 - 8	65%	6.0'	Brown SILT, little Clay, moist to wet.	0	
7						
			-	Similar to above, brown and gray colored, wet, no odor.	0	
8	8 - 10	95%	8.0'	Gray SILT, some Gravel, trace Clay, moist, no odor.	0	
9					0	
10	10 - 12	50%	10'	Gray SAND and angular GRAVEL (shale) moist to wet, no odor.	0	
11					0	
12				End Boring 12'		

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA	12	-	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: ENV-1

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Dutchess County Law Enforcement Center
150 North Hamilton Street, Poughkeepsie, NY
Environmental and Geotechnical Borings
Client: Dutchess County Department of Public Works

BORING: ENV-2
SHEET 1 OF 1
JOB: 2160911
CHKD BY:

CONTRACTOR: PSI
DRILLER: PSI
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION: 108 Parker Avenue
GROUND SURFACE ELEVATION: NA
START DATE: 12/20/2016 END DATE: 12/20/2016

DATUM: NA

TYPE OF DRILL RIG: CME 55
AUGER SIZE AND TYPE: Hollow Stem Auger
OVERBURDEN SAMPING METHOD: Split Spoon

DRIVE SAMPLER TYPE: Automatic Hammer
INSIDE DIAMETER: 3"
OTHER: NA

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0 - 2	75%	0.0'	Brown fine SAND with ash, asphalt, cinders (FILL), moist, no odor	0	
1			1.0'	Brown silty SAND, little Gravel, moist no odor.	0	
2	2 - 4	33%	2.0'	Brown SILT, little Clay, subrounded to subangular Gravel, moist, no odor.	0	
			-	Similar to above, no gravel.	0	
3						
4	4 - 6	80%	-	Brown SILT, some Clay, trace subrounded gravel, moist no odor.	0	
5					0	
6	6 - 8	85%	6.0'	Brown SILT and SAND, little Clay, moist, no odor.	0	
7						
			-	Similar to above, brown and gray colored, wet, no odor.	0	
8	8 - 10	60%	-	Brown to light brown SAND, little SILT, wet, no odor	0	
9						
			-	Similar to above with layers of angular gravel (shale) and mixed gray Sand	0	
10	10 - 12	50%	10'	Gray angular GRAVEL (shale) and gray SAND, little Silt, wet, no odor.	0	
					0	
11						
12				End Boring 12'		

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA	12	~ 6'	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: ENV-2

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Dutchess County Law Enforcement Center
150 North Hamilton Street, Poughkeepsie, NY
Environmental and Geotechnical Borings
Client: Dutchess County Department of Public Works

BORING: ENV-3
SHEET 1 OF 1
JOB: 2160911
CHKD BY:

CONTRACTOR: PSI
DRILLER: PSI
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION: 108 Parker Avenue
GROUND SURFACE ELEVATION: NA
START DATE: 12/20/2016 END DATE: 12/20/2016

DATUM: NA

TYPE OF DRILL RIG: CME 55
AUGER SIZE AND TYPE: Hollow Stem Auger
OVERBURDEN SAMPING METHOD: Split Spoon

DRIVE SAMPLER TYPE: Automatic Hammer
INSIDE DIAMETER: 3"
OTHER: NA

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0 - 2	70%	0.0'	Gray GRAVEL, some brown Sand, little Silt, moist, no odor.	0	
			0.4'	Brown SAND, little cinders (FILL), trace Silt, no odor, dry.	0	
1			0.5'	Light brown fine to medium SAND, trace Gravel, some to little Silt, dry to moist, no odor.		
2	2 - 4	70%	2.0'	Light brown medium stiff SAND, little Clay, little Silt, trace coarse to fine Gravel, moist, no odor.	0	
3					0	
4	4 - 6	0%	4.0'	No Recovery	0	
5					0	
6	6 - 8	50%	6.0'	Gray subrounded cobble piece Brown to gray angular Gravel (shale), some to little SAND, moist to dry, no odor.	0	
7					0	
8	8 - 8.5	100%	8.0'	Shale Rock 8.5' Auger Refusal	0	
9						
10						
11						
12						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA	8.5'	-	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: ENV-3

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Dutchess County Law Enforcement Center
150 North Hamilton Street, Poughkeepsie, NY
Environmental and Geotechnical Borings
Client: Dutchess County Department of Public Works

BORING: ENV-4
SHEET 1 OF 1
JOB: 2160911
CHKD BY:

CONTRACTOR: PSI
DRILLER: PSI
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION: 108 Parker Avenue
GROUND SURFACE ELEVATION: NA
START DATE: 12/20/2016 END DATE: 12/20/2016

DATUM: NA

TYPE OF DRILL RIG: CME 55
AUGER SIZE AND TYPE: Hollow Stem Auger
OVERBURDEN SAMPING METHOD: Split Spoon

DRIVE SAMPLER TYPE: Automatic Hammer
INSIDE DIAMETER: 3"
OTHER: NA

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0 - 2	50%	0.0'	Brown SILT and SAND (Top soil).	0	
			0.5'	Light brown SAND, trace Silt, ash, cinders (FILL) moist, no odor.		
1					0	
2	2 - 4	50%	2.0'	Light brown Silty SAND and angular GRAVEL (shale), moist, no odor.	0	
3					0	
4	4 - 6	75%	4.0'	Light brown Silty SAND, some Clay, some angular Gravel (shale rock fragments), moist, no odor.	0	
					0	
5					0	
6	6 - 8	70%	6.0'	Brown Silty SAND and angular Gravel (shale), trace subangular gray gravel, moist to wet, no odor.	0	
7					0	
					0	
8	8 - 10	95%	8.0'	Tightly packed gray fine to medium SAND, some to little Silt, trace fine angular Gravel, moist, no odor.	0	
9					0	
					0	
10	10-12	33%	10.0'	Gray SILT and SAND, some coarse to fine Gravel, wet, no odor.	0	
					0	
11						
12				End Boring 12'		

WATER LEVEL DATA			DEPTH (FT)		
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED
NA	NA	NA	NA	12	~10

NOTES:

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: ENV-4

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Dutchess County Law Enforcement Center
150 North Hamilton Street, Poughkeepsie, NY
Environmental and Geotechnical Borings
Client: Dutchess County Department of Public Works

BORING: ENV-5
SHEET 1 OF 1
JOB: 2160911
CHKD BY:

CONTRACTOR: PSI
DRILLER: PSI
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION: 108 Parker Avenue
GROUND SURFACE ELEVATION: NA
START DATE: 12/21/2016 END DATE: 12/21/2016

DATUM: NA

TYPE OF DRILL RIG: CME 55
AUGER SIZE AND TYPE: Hollow Stem Auger
OVERBURDEN SAMPING METHOD: Split Spoon

DRIVE SAMPLER TYPE: Automatic Hammer
INSIDE DIAMETER: 3"
OTHER: NA

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0 - 2	50%	0.0'	Brown SILT and SAND (Topsoil).	0	
			0.2'	Similar to above, little ash, cinders (FILL).		
			-	Brown Silty SAND, moist, no odor.	0	
1					0	
2	2 - 4	0%	-	No recovery		
3						
4	4 - 6	50%	4.0'	Ash, Cinders, coal (FILL)	0	
			4.5'	Brown SILT, some Clay, trace Sand, moist, no odor.	0	
5					0	
6	6 - 8	90%	6.0'	Mixed brown and gray Silty SAND, little Clay, moist to wet, no odor.	0	
7					0	
					0	
8	8 - 10	100%	8.0'	Brown to gray Sandy SILT, little Clay, moist to wet.	0	
					0	
9			-	Brown to gray Sandy SILT, trace Clay, moist to wet	0	
10	10-12	70%	10'	Gray-brown to gray SILT and CLAY, trace SAND, wet, no odor.	0	
					0	
11					0	
					0	
12				End Boring 12'		

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	
NA	NA	NA	NA	12	~8	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Dutchess County Law Enforcement Center
150 North Hamilton Street, Poughkeepsie, NY
Environmental and Geotechnical Borings
Client: Dutchess County Department of Public Works

BORING: ENV-6
SHEET 1 OF 1
JOB: 2160911
CHKD BY:

CONTRACTOR: PSI
DRILLER: PSI
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION: 108 Parker Avenue
GROUND SURFACE ELEVATION: NA
START DATE: 12/21/2016 END DATE: 12/21/2016

DATUM: NA

TYPE OF DRILL RIG: CME 55
AUGER SIZE AND TYPE: Hollow Stem Auger
OVERBURDEN SAMPING METHOD: Split Spoon

DRIVE SAMPLER TYPE: Automatic Hammer
INSIDE DIAMETER: 3"
OTHER: NA

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0 - 2	5%	0.0'	Brown SAND, some coal, ash (FILL), moist, no odor.	0	
2	2 - 4	35%	2.0'	Brown SAND, little SILT, ash, coal, cinders (FILL), moist, no odor.	0	
					0	
4	4 - 6	90%	4.0'	Ash, coal (FILL), moist, no odor.	0	
			4.8'	Brown Silty SAND, little Clay, moist, no odor.		
					0	
6	6 - 8	65%	-	Similar to above.	0	
					0	
8	8 - 10	100%	8.0'	Brown to gray-brown Sandy SILT, little Clay, moist, no odor.	0	
					0	
10	10 - 12	85%	10'	Brown to gray SILT, little SAND, trace to little Clay, wet, no odor.	0	
					0	
12	12 - 14	75%	12'	Brown Clayey SILT, wet, no odor.	0	
			13'	Gray SILT, some SAND, wet, no odor.	0	
14	14 - 16	100%	14'	Gray clayey SILT, little to trace SAND, wet, no odor.	0	
					0	
16	16 - 18	40%	-	Similar to above, trace Sand.	0	
18	18 - 20	55%	-	Similar to above.	0	
					0	
20	20 - 21	60%	20'	Gray angualar GRAVEL (shale).	0	
				End Boring 21' - Bedrock		
22						
24						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Geotechnical boring screened for environmental observation.
NA	NA	NA	NA	12	~10	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

LABELLA Associates, P.C.

300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

PROJECT
Dutchess County Law Enforcement Center
150 North Hamilton Street, Poughkeepsie, NY
Environmental and Geotechnical Borings
Client: Dutchess County Department of Public Works

BORING: ENV-7
SHEET 1 OF 1
JOB: 2160911
CHKD BY:

CONTRACTOR: PSI
DRILLER: PSI
LABELLA REPRESENTATIVE: A. Brett

BORING LOCATION: 108 Parker Avenue
GROUND SURFACE ELEVATION: NA
START DATE: 12/21/2016 END DATE: 12/21/2016

DATUM: NA

TYPE OF DRILL RIG: CME 55
AUGER SIZE AND TYPE: Hollow Stem Auger
OVERBURDEN SAMPING METHOD: Split Spoon

DRIVE SAMPLER TYPE: Automatic Hammer
INSIDE DIAMETER: 3"
OTHER: NA

DEPTH	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	0 - 2	50%	0.0'	Brown SILT and SAND (Topsoil).	0	
			0.2'	Brown SILT, some to little SAND, little ash, cinders (FILL), moist, slight odor	0	
					0	
1					20.7	
2	2 - 4	40%	-	Similar to above, little to trace FILL materials.	0	
					0	
3						
4	4 - 6	0%	4.0'	No recovery		
5						
6	6 - 8	5%	6.0'	Brown SILT, little SAND, wet, no odor.	0	
7						
8	8 - 10	90%	8.0'	Brown Silty SAND, moist to wet, no odor.	0	
					0	
9			-	Brown tightly packed SILT, little Sand, moist, no odor.	0	
					0	
10	10-12	15%	10'	Similar to above,	0	
			10.5'	Gray angular GRAVEL (Shale)		
				End Boring 10.5' Refusal		
11						
12						

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELASPED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	Split spoon pushed down rather than hammered. Hydraulic hammer on rig broken.
NA	NA	NA	NA	12	~8	

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: ENV-7

CHAZEN MONITORING WELL CONSTRUCTION AND BORINGS LOGS

TEST BORING AND WELL LOG

THE Chazen COMPANIES

21 Fox Street
Poughkeepsie, NY
12601

PROJECT: N. Hamilton Street
LOCATION: Poughkeepsie, NY
CLIENT: James L. Taylor Companies
PROJECT NO.: 90926

Test Boring No.: **B-1**
Total Depth: 8.2 ft.

Contractor: Todd Syska
Drill Rig: Geoprobe
Driller: Todd Syska
Inspector: Erroll O'Brien

Start Date: 10/21/2009
Finish Date: 10/21/2009
El. Datum:
G.S. Elevation:
Northing:
Easting:
Longitude:
Latitude:

Borehole Dia.: 1 in.
Depth to Water: - ft.
Depth to Rock: 8.2 ft.
Depth of Well: 8.2 ft.

Depth (Feet)	Elevation (Feet)	Casing Data	Sample No.	Sample Data	Recovery (Inches)	PID (ppm)	Group Symbol	Stratum and Field Descriptions:
					26	0		3" Topsoil
1	-1					0		15" Light brown, Gravelly SAND, moist, NOSOC
						0		1" Light brown, Medium SAND, moist, NOSOC
2	-2					0		7" Light brown SILT, moist, NOSOC
3	-3							
4	-4							
					41	0		6" Rounded GRAVEL, moist, NOSOC
5	-5					0		3" Gravelly SAND, moist, NOSOC
						0		3" Light brown, SILT, moist, NOSOC
6	-6					0		4" Light Brown, Gravelly SAND, moist, NOSOC
						0		10" Light Brown SILT with some Sand, moist, NOSOC
7	-7					0		15" Mottled SILT, few pebbles, moist, NOSOC
8	-8							
9	-9							Refusal at 8.2 feet. Rock in drill tip.
10	-10							
11	-11							
12	-12							
13	-13							
14	-14							
15	-15							
16	-16							
17	-17							
18	-18							
19	-19							
20	-20							

Well Diagram

Field Notes, Well Notes, Comments:

4 inch bentonite seal approximately 1 ft below grade

Attempted to backfill with sand, but hole had collapsed around casing.

Screen from 3.2 ft. to 8.2 ft below grade.

Bottom of well at 8.2 ft.

STANDARD NOTES: 1. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
2. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
3. Test Boring Log Page 1: 0 - 20 feet Each subsequent page: Additional 25 feet.

ADDITIONAL NOTES:

DRILLING INFORMATION
Method:

	Casing	Sample	Core
Type:			
Diam.:			
Weight:			
Fall:			

TEST BORING AND WELL LOG

THE Chazen COMPANIES

21 Fox Street
Poughkeepsie, NY
12601

PROJECT: N. Hamilton Street
LOCATION: Poughkeepsie, NY
CLIENT: James L. Taylor Companies
PROJECT NO.: 90926

Test Boring No.: **B-2**
Total Depth: 14.7 ft.

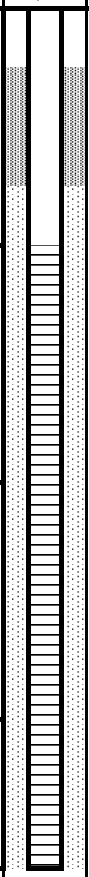
Contractor: Todd Syska
Drill Rig: Geoprobe
Driller: Todd Syska
Inspector: Erroll O'Brien

Start Date: 10/21/2009
Finish Date: 10/21/2009
El. Datum:
G.S. Elevation:
Northing:
Easting:
Longitude:
Latitude:

Borehole Dia.: 1 in.
Depth to Water: ~10 ft.
Depth to Rock: 14.7 ft.
Depth of Well: 14.7 ft.

Depth (Feet)	Elevation (Feet)	Casing Data	Sample No.	Sample Data	Recovery (Inches)	PID (ppm)	Group Symbol	Stratum and Field Descriptions:
					19		0	9" Light gray, Gravelly SAND, dry, NOSOC
1	-1						0	10" Light brown Gravelly SAND, dry, NOSOC
2	-2							
3	-3							
4	-4							
					38		0	5" Light brown, SILT, damp, NOSOC
5	-5						0	5" Dark gray, SAND, moist, NOSOC
							0	8" Light brown, SILT, moist, NOSOC
6	-6						0	20" Mottled, Clay SILT, moist, NOSOC
7	-7							
8	-8							
					46		0	14" Dark gray, SAND with some Gravel, moist, NOSOC
9	-9						0	6" Green, CLAY, wet, NOSOC
							0	14" Green-brown, CLAY, moist, NOSOC
10	-10						0	13" Light Gray, CLAY with shale chips, NOSOC
11	-11							
12	-12							
					46		0	6" Dark brown, Gravelly SAND, NOSOC
13	-13						0	14" Green, CLAY, wet, NOSOC
							0	26" Light gray, CLAY with some shale fragments, moist, NOSOC
14	-14							
15	-15							Refusal at 14.7 feet. Broken shale in drill tip.
16	-16							
17	-17							
18	-18							
19	-19							
20	-20							

Well Diagram



Field Notes, Well Notes, Comments:

Bentonite seal to 1 foot below grade.

Sand Pack to 1 foot above screen.

Screen from 4.7 ft to 14.7 ft below grade.

Bottom of well at 14.7 ft.

STANDARD NOTES: 1. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
2. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
3. Test Boring Log Page 1: 0 - 20 feet Each subsequent page: Additional 25 feet.

ADDITIONAL NOTES:

DRILLING INFORMATION
Method:

	Casing	Sample	Core
Type:			
Diam.:			
Weight:			
Fall:			

TEST BORING AND WELL LOG

THE Chazen COMPANIES

21 Fox Street
Poughkeepsie, NY
12601

PROJECT: N. Hamilton Street
LOCATION: Poughkeepsie, NY
CLIENT: James L. Taylor Companies
PROJECT NO.: 90926

Test Boring No.: **B-3**
Total Depth: 10.5 ft.

Contractor: Todd Syska
Drill Rig: Geoprobe
Driller: Todd Syska
Inspector: Erroll O'Brien

Start Date: 10/21/2009
Finish Date: 10/21/2009
El. Datum:
G.S. Elevation:
Northing:
Easting:
Longitude:
Latitude:

Borehole Dia.: 1 in.
Depth to Water: ~6 ft.
Depth to Rock: 10.5 ft.
Depth of Well: 10.5 ft.

Depth (Feet)	Elevation (Feet)	Casing Data	Sample No.	Sample Data	Recovery (Inches)	PID (ppm)	Group Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:
					27			11" Urban fill material with red brick and rock fragments, NOSOC		
1	-1							13" Sandy GRAVEL, angular, dry, NOSOC		
								3" Light brown, SILT, with few rock fragments, moist, NOSOC		
2	-2									
3	-3									
4	-4									6 inch bentonite seal.
					26			7" Sandy Gravel, moist, NOSOC		Sand pack to 1 foot
5	-5							4" Black, SAND, NOSOC		above screen.
								10" Green-brown Silty CLAY with some gravel, wet, NOSOC		
6	-6							5" Black SAND, NOSOC		
7	-7									Screen from 5.5 ft to
8	-8									10.5 ft below grade.
9	-9									
					26			3" Black SAND, NOSOC		
10	-10							10" Green-brown, SILT, with some Sand, saturated, NOSOC		
								13" Weathered Shale becoming competant in last 5 inches, NOSOC		Bottom of well at 10.5 ft
11	-11							Refusal at 10.5 ft		
12	-12									
13	-13									
14	-14									
15	-15									
16	-16									
17	-17									
18	-18									
19	-19									
20	-20									

STANDARD NOTES: 1. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
2. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
3. Test Boring Log Page 1: 0 - 20 feet Each subsequent page: Additional 25 feet.

ADDITIONAL NOTES:

DRILLING INFORMATION
Method:

	Casing	Sample	Core
Type:			
Diam.:			
Weight:			
Fall:			

TEST BORING AND WELL LOG

THE Chazen COMPANIES

21 Fox Street
Poughkeepsie, NY
12601

PROJECT: N. Hamilton Street
LOCATION: Poughkeepsie, NY
CLIENT: James L. Taylor Companies
PROJECT NO.: 90926

Test Boring No.: **B-4**
Total Depth: 6 ft.

Contractor: Todd Syska
Drill Rig: Geoprobe
Driller: Todd Syska
Inspector: Erroll O'Brien

Start Date: 10/21/2009
Finish Date: 10/21/2009
El. Datum:
G.S. Elevation:

Northing:
Easting:
Longitude:
Latitude:

Borehole Dia.: 1 in.
Depth to Water: - ft.
Depth to Rock: 6 ft.
Depth of Well: - ft.

Depth (Feet)	Elevation (Feet)	Casing Data	Sample No.	Sample Data	Recovery (Inches)	PID (ppm)	Group Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:
					45			19" Black urban fill material, dry, NOSOC		
1	-1							12" Light brown-orange brown, SILT, moist, NOSOC		
								14" Weathered shale		
2	-2									
3	-3									
4	-4									
					36			36" Weathered shale		
5	-5									
6	-6									No well installed
								Refusal at 6 ft below grade.		
7	-7									
8	-8									
9	-9									
10	-10									
11	-11									
12	-12									
13	-13									
14	-14									
15	-15									
16	-16									
17	-17									
18	-18									
19	-19									
20	-20									

STANDARD NOTES: 1. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.
2. Samples classified in accordance with ASTM D-2488 unless otherwise noted.
3. Test Boring Log Page 1: 0 - 20 feet Each subsequent page: Additional 25 feet.

ADDITIONAL NOTES:

DRILLING INFORMATION
Method:

	Casing	Sample	Core
Type:			
Diam.:			
Weight:			
Fall:			

APPENDIX E

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^{o} C (14 to 122^{o} F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

APPENDIX F

LABELLA Associates, D.P.C.

300 State Street
Rochester, New York 14614
Phone: (585) 454-6110
Fax: (585) 454-3066

SITE-WIDE INSPECTION FORM
Project Name:
Location:
Project No.:
Inspected By:
Date of Inspection:
Weather Conditions:

1. GENERAL SITE CONDITIONS

General Site Conditions
Describe changes since last inspection:
Describe condition of monitoring wells and not changes or NYSDEC approved closures since last inspection by entering data in the table below:

Well ID	Intact	Damaged	Closed	Replaced	Explanation

2. COVER SYSTEM OBSERVATIONS

3. SSDS INSPECTION (COMPLETE 1 PER SYSTEM)

BUILDING/ SSDS LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

BUILDING/ LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

BUILDING/ LOCATION_____			
Sub-Slab Depressurization System - Fan #1:		Sub-Slab Depressurization System - Fan #2:	
Operational -		Operational -	
Vacuum Gauge Reading (inches of water) -		Vacuum Gauge Reading (inches of water) -	
Alarm Check -		Alarm Check -	
SSDS Piping Check – Damage? – YES/NO			
SSDS Fan Check – Damage? – YES/NO			

4. ADDITIONAL OBSERVATIONS/NOTES

APPENDIX G

APPENDIX G – LIST OF SITE CONTACTS

Name	**Phone/Email Address**
Site Owner: Dutchess County	[phone: TBD] [email address: TBD]
Qualified Environmental Professional: Mr. Daniel Noll, P.E.	[585-295-6611] [dnoll@labellapc.com]
NYSDEC DER Project Manager: Mr. Michael Mason, P.E.	[518-402-9814] [Michael.mason@dec.ny.gov]
NYSDEC Regional HW Engineer: TBD	[phone: TBD] [email address: TBD]
NYSDEC Site Control: TBD	[phone: TBD] [email address: TBD]
On and off-site access contacts such as tenants, etc.: TBD	[phone: TBD] [email address: TBD]
Remedial Party Attorney: TBD	[phone: TBD] [email address: TBD]

APPENDIX H

LaBella TABLE 7

Appendix 5
Allowable Constituent Levels for Imported Fill or Soil
Subdivision 5.4(e)

Source: This table is derived from soil cleanup objective (SCO) tables in 6 NYCRR 375. Table 375-6.8(a) is the source for unrestricted use and Table 375-6.8(b) is the source for restricted use.

Note: For constituents not included in this table, refer to the contaminant for supplemental soil cleanup objectives (SSCOs) in the Commissioner Policy on *Soil Cleanup Guidance*. If an SSCO is not provided for a constituent, contact the DER PM to determine a site-specific level.

Constituent	Unrestricted Use	Residential Use	Cover 0-12" Restricted Residential Use	Cover 12"+ Commercial or Industrial Use	If Ecological Resources are Present
Metals					
Arsenic	13	16	16	16	13
Barium	350	350	400	400	433
Beryllium	7.2	14	47	47	10
Cadmium	2.5	2.5	4.3	7.5	4
Chromium, Hexavalent[1]	1 [3]	19	19	19	1 [3]
Chromium, Trivalent[1]	30	36	180	1500	41
Copper	50	270	270	270	50
Cyanide	27	27	27	27	NS
Lead	63	400	400	450	63
Manganese	1600	2000	2000	2000	1600
Mercury (total)	0.18	0.73	0.73	0.73	0.18
Nickel	30	130	130	130	30
Selenium	3.9	4	4	4	3.9
Silver	2	8.3	8.3	8.3	2
Zinc	109	2200	2480	2480	109
PCBs/Pesticides					
2,4,5-TP Acid (Silvex)	3.8	3.8	3.8	3.8	NS
4,4'-DDE	0.0033 [3]	1.8	8.9	17	0.0033 [3]
4,4'-DDT	0.0033 [3]	1.7	7.9	47	0.0033 [3]
4,4'-DDD	0.0033 [3]	2.6	13	14	0.0033 [3]
Aldrin	0.005	0.019	0.097	0.19	0.14
Alpha-BHC	0.02	0.02	0.02	0.02	0.04 [4]
Beta-BHC	0.036	0.072	0.09	0.09	0.6
Chlordane (alpha)	0.094	0.91	2.9	2.9	1.3
Delta-BHC	0.04	0.25	0.25	0.25	0.04 [4]
Dibenzofuran	7	14	59	210	NS
Dieldrin	0.005	0.039	0.1	0.1	0.006
Endosulfan I	2.4[2]	4.8	24	102	NS
Endosulfan II	2.4[2]	4.8	24	102	NS
Endosulfan sulfate	2.4[2]	4.8	24	200	NS
Endrin	0.014	0.06	0.06	0.06	0.014
Heptachlor	0.042	0.38	0.38	0.38	0.14
Lindane	0.1	0.1	0.1	0.1	6
Polychlorinated biphenyls	0.1	1	1	1	1

Constituent	Unrestricted Use	Residential Use	Cover 0-12" Restricted Residential Use	Cover 12"+ Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 [3]	0.33 [3]	0.33 [3]	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]
Phenanthrene	100	100	100	500	NS
Phenol	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 [3]	0.1 [3]	0.1 [3]	0.1 [3]	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 [3]	0.33 [3]	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

TABLE 7 Continued

			Cover 0-12"	Cover 12"+	
Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)
NS = Not Specified

Footnotes:
[1] The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.
[2] The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.
[3] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.
[4] This SCO is derived from data on mixed isomers of BHC.

LaBella TABLE 8

Table 1

Supplemental Soil Cleanup Objectives
(ppm)

Cover 0-12" Cover 12"+

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
METALS							
Aluminum	7429-90-5					10,000 [a,b]	
Antimony	7440–36-0					12[c]	
Boron	7440-42-8					0.5	
Calcium	7440-70-2					10,000 [a,b]	
Cobalt	7440-48-4	30				20	
Iron	7439-89-6	2,000					
Lithium	7439-93-2					2	
Molybdenum	7439-98-7					2	
Technetium	7440-26-8					0.2	
Thallium	7440-28-0					5 [c]	
Tin	7440-31-5					50	
Uranium	7440-61-1					5	
Vanadium	7440-62-2	100 [a]				39[b]	
PESTICIDES							
Biphenyl	92-52-4					60	
Chlordecone (Kepone)	143-50-0					0.06	
Dibenzofuran	132-64-9						6.2
2,4-D (2,4-Dichloro-phenoxyacetic acid)	94-75-7	100 [a]					0.5
Furan	110-00-9					600	
Gamma Chlordane	5103-74-2	0.54					14
Heptachlor Epoxide	1024-57-3	0.077					0.02
Methoxychlor	72-43-5	100 [a]				1.2	900

Cover 0-12" Cover 12"+

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
Parathion	56-38-2	100 [a]					1.2
2,4,5-T	93-76-5	100 [a]					1.9
2,3,7,8-TCDD	1746-01-6					0.000001	
2,3,7,8-TCDF	51207-31-9					0.000001	
SEMIVOLATILE ORGANIC COMPOUNDS							
Aniline	62-53-3	48	100[a]	500[a]	1000[a]		0.33[b]
Bis(2-ethylhexyl) phthalate	117-81-7	50				239	435
Benzoic Acid	65-85-0	100[a]					2.7
Butylbenzyl-phthalate	85-68-7	100 [a]					122
4-Chloroaniline	106-47-8	100 [a]					0.22
Chloroethane	75-00-3						1.9
2-Chlorophenol	95-57-8	100 [a]				0.8	
3-Chloroaniline	108-42-9					20	
3-Chlorophenol	108-43-0					7	
Di-n-butyl-phthalate	84-74-2	100 [a]				0.014	8.1
2,4-Dichlorophenol	120-83-2	100 [a]				20	0.40
3,4-Dichlorophenol	95-77-2					20	
Diethylphthalate	84-66-2	100 [a]				100	7.1
Di-*n*-hexyl-phthalate	84-75-3					0.91	
2,4-Dinitrophenol	51-28-5	100 [a]				20	0.2
Dimethylphthlate	131-11-3	100 [a]				200	27
Di-n-octylphthlate	117-84-0	100 [a]					120
1,2,3,6,7,8-HCDF	57117-44-9					0.00021	
Hexachloro-benzene	118-74-1	0.41					1.4
2,6-Dinitrotoluene	606-20-2	1.03					1.0
Isophorone	78-59-1	100 [a]					4.4

TABLE 8 Continued

Cover 0-12" Cover 12"+

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
4-methyl-2-pentanone	108-10-1						1.0
2-methyl-naphthalene	91-57-6	0.41					36.4
2-Nitroaniline	88-74-4						0.4
3-Nitroaniline	99-09-2						0.5
Nitrobenzene	98-95-3	3.7	15	69	140	40	0.17[b]
2-Nitrophenol	88-75-5					7	0.3
4-Nitrophenol	100-02-7					7	0.1
Pentachloroaniline	527-20-8					100	
2,3,5,6-Tetrachloroaniline	3481-20-7					20	
2,3,4,5-Tetrachlorophenol	4901-51-3					20	
2,4,5-Trichloroaniline	636-30-6					20	
2,4,5-Trichlorophenol	95-95-4	100[a]				4	0.1
2,4,6-Trichlorophenol	88-06-2					10	
VOLATILE ORGANIC COMPOUNDS							
2-Butanone	78-93-3	100[a]					0.3
Carbon Disulfide	75-15-0	100[a]					2.7
Chloroacetamide	79-07-2					2	
Dibromochloro-methane	124-48-1					10	
2,4-Dichloro aniline	554-00-7					100	
3,4-Dichloroaniline	95-76-1					20	
1,2-Dichloropropane	78-87-5					700	
1,3-Dichloropropane	142-28-9						0.3
2,6-Dinitrotoluene	606-20-2	1.03					0.17[b]
Ethylacetate	141-78-6					48	

TABLE 8 Continued

Cover 0-12" Cover 12"+

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
4-methyl-2-pentanone	108-10-1						1.0
113 Freon (1,1,2- TFE)	76-13-1	100 [a]					6
isopropylbenzene	98-82-8	100 [a]					2.3
p-isopropyltoluene	99-87-6						10
Hexachlorocyclo-pentadiene	77-47-4					10	
Methanol	67-56-1					6.5	
N-nitrosodiphenyl-amine	86-30-6					20	
Pentachloro-benzene	608-93-5					20	
Pentachloronitro-benzene	82-68-8					10	
Styrene	100-42-5					300	
1,2,3,4-Tetrachlorobenzene	634-66-2					10	
1,1,2,2-Tetrachloroethane	79-34-5	35					0.6
1,1,2,2-Tetrachloroethylene	127-18-4					2	
1,2,3-Trichlorobenzene	87-61-6					20	
1,2,4-Trichlorobenzene	120-82-1					20	3.4
1,2,3-Trichloropropane	96-18-4	80					0.34

[a] SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.

[b] Based on rural background study

[c] SCO limited by contract required quantitation limit.

TABLE 8 Continued

Table 2

Soil Cleanup Levels for Gasoline Contaminated Soils

Cover 0-12" & Cover 12"+

Contaminant	CAS Registry Number	Soil Cleanup Level (ppm)
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12.0
sec-Butylbenzene	135-98-8	11.0
Ethylbenzene	100-41-4	1.0
Isopropylbenzene	98-82-8	2.3
p-Isopropyltoluene	99-87-6	10.0
Methyl-Tert-Butyl-Ether	1634-04-4	0.93
Naphthalene	91-20-3	12.0
n-Propylbenzene	103-65-1	3.9
Tert-Butylbenzene	98-06-6	5.9
Toluene	108-88-3	0.7
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Xylene (Mixed)	1330-20-7	0.26

Table 3

Soil Cleanup Levels for Fuel Oil Contaminated Soil

Cover 0-12" & Cover 12"+

Contaminant	CAS Registry Number	Soil Cleanup Level (ppm)
Acenaphthene	83-32-9	20
Acenaphthylene	208-96-8	100
Anthracene	120-12-7	100
Benz(a)Anthracene	56-55-3	1.0
Dibenzo(a,h)Anthracene	53-70-3	0.33
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12.0
sec-Butylbenzene	135-98-8	11.0
Tert-Butylbenzene	98-06-6	5.9
Chrysene	218-01-9	1.0
Ethylbenzene	100-41-4	1.0
Fluoranthene	206-44-0	100
Benzo(b)Fluoranthene	205-99-2	1.0
Benzo(k)Fluoranthene	207-08-9	0.8
Fluorene	86-73-7	30
Isopropylbenzene	98-82-8	2.3
p-Isopropyltoluene	99-87-6	10.0
Naphthalene	91-20-3	12.0
n-Propylbenzene	103-65-1	3.9
Benzo(g,h,i)Perylene	191-24-2	100
Phenanthrene	85-01-8	100
Pyrene	129-00-0	100
Benzo(a)Pyrene	50-32-8	1.0
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Toluene	108-88-3	0.7
Xylene (Mixed)	1330-20-7	0.26

Table 4

Recommended Number of Soil Samples for Soil Imported To or Exported From a Site

Contaminant	VOCs[a]	SVOCs, Inorganics & PCBs/Pesticides	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	Each composite sample for analysis is created from 3-5 discrete samples from representative locations in the fill.
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
➢ 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER.[b]		

[a] VOC samples cannot be composited. Discrete samples must be taken to maximize the representativeness of the results.

[b] For example, a 3,000 cubic yard soil pile to be sampled and analyzed for VOCs would require 11 discrete representative samples. The same pile to be sampled for SVOCs would require 4 composite samples with each composite sample consisting of 3-5 discrete samples.