



February 10, 2025
Revised February 20, 2025

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Division of Environmental Remediation
New York State Department of Environmental Conservation
615 Erie Blvd. W.,
Syracuse, New York 13204-2400
Transmitted electronically to karen.cahill@dec.ny.gov

RE: Excavation Work Notice
Former Emerson Power Transmission Facility
Repairing of Water Line Leak in Building 2
 620 South Aurora Street
 Ithaca, New York 14850
 NYSDEC Site No. 755010
 LaBella Project No. 2241173

Dear Ms. Cahill,

LaBella Associates, D.P.C. (“LaBella”) is submitting this Notice for upcoming excavation work associated with a leak from an underground water line at the Former Emerson Power Transmission Facility, located at 620 South Aurora Street, in the City of Ithaca, Tompkins County, New York; hereinafter referred to as the “Site”. This letter has been prepared to notify the NYSDEC of the project background, conditions, and scope, to satisfy the requirements of the Site’s Interim Site Management Plan (ISMP).

The letter has been separated into the following sections:

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1 PROJECT BACKGROUND

As you are aware, the Site is identified as NYSDEC Site No. 755010, which has a long history of environmental assessment/investigation and remedial activities. An approved ISMP prepared by WSP USA Inc. (“WSP”) and dated October 2022 presently exists for the Site. The ISMP contains additional detail regarding Site history.

Notification to the NYSDEC project manager is one of the various requirements of the ISMP. This notification has been prepared to maintain compliance with the ISMP during upcoming planned activities that have the potential to disturb the site cover system, reaffirm that all activities will be in accordance with the ISMP, describe the proposed schedule, and affirm the reporting requirements.

The current owner/developer of the Site, SHIFT Capital, and their team of maintenance staff, contractors, and consultants (hereinafter referred to as the “Redevelopment Team”), have identified an apparent water leak in Building 2 at the Site. The Redevelopment Team seeks to repair the leak, which is anticipated to require limited saw cutting of the existing building foundation/floor and excavation of underlying soil/fill surrounding the damaged pipe.

These activities may disturb a limited portion of the existing site cover and involve targeted excavation activities at the Site. As a result, certain elements of the ISMP will be triggered.

The area of planned activities to be completed by the Redevelopment Team are depicted on the attached Figure 6-B which has been reproduced from the ISMP and demarcated with the estimated area of the water line leak and approximate excavation extent. This area is hereinafter referred to as the “Project Area.”

2 SUMMARY OF ENVIRONMENTAL CONDITIONS ANTICIPATED

Various investigations and assessments have been completed at the Site. The following environmental reports are most notable and were used as reference herein:

- Phase II Environmental Site Assessment (ESA) prepared by LaBella and dated March 2014
- ISMP prepared by WSP and dated October 2022
- Periodic Review Report (PRR) prepared by WSP and dated August 16, 2024

Based on previous assessments and the attached Figure 6-B, the following concrete slab and soil conditions are anticipated:

(continued on next page)



Boring ID	Concrete Slab Thickness	Refusal (Assume top of bedrock)	Max PID Reading	Soil Conditions	Analytical Data (2013)
LBA-SB-411	9.5"	1.0'	0.5 ppm	Not recorded	None
LBA-SB-412	6"	1.2'	3.3 ppm	Silt and gravel	VOCs sample at 1.2' (below Unrestricted Use SCOs)
LBA-SB-413	5"	1.1	1.6 ppm	Silt and gravel	None
LBA-SB-521	6"	2.5'	1.79 ppm	3" of gravel subbase Silty sand, dry	VOCs sample at 2.5' (below Unrestricted Use SCOs)
LBA-SB-522	6"	3.3'	1.55 ppm	3" of gravel subbase Sandy silt	None
LBA-SB-523	8"	1.0'	No Recovery		
AVERAGE	6.75"	1.68'	1.75 ppm	Gravel subbase w/ underlying silt/sand	Below Unrestricted Use SCOs

Soil boring logs and Table 2A from the LaBella Phase II ESA was reviewed to complete the above Table. The applicable information has been excerpted from the Phase II ESA Report and included as attachment to this Notification.

Groundwater monitoring wells LBA-MW-34N and LBA-MW-34S are adjacent to the Project Area. Based on information collected from these wells during previous assessments, the following groundwater conditions are anticipated:

Well ID	Well Depth	Screened Interval	DTW (2013)	DTW (2023)	Analytical Data (2013)	Analytical Data (2023)
LBA-MW-34S	44'	34 – 44'	39.44'	Not recorded	1-4' "Clean" 34-44' BTEX, acetone, and chloroform	None
LBA-MW-34N	21'	4 – 21'	11.45'	14.30'	0-10' "Clean" 13-21' 1,2-DCE	19' 1,1,1-TCA, TCE, 1,2-DCE, trichloro-fluoromethane, and barium

Well logs and Table 3A from the LaBella Phase II ESA as well as well logs and Table 10 from the WSP 2023 PRR were reviewed to complete the above Table. The applicable information has been excerpted from the Phase II ESA Report and 2023 PRR and included as attachment to this Notification.

Based on the above information as well as the limited area of excavation planned (i.e., max excavation depth to top of bedrock, which is on average located at 1.68' below the existing concrete slab), it is not anticipated that the Project will encounter contamination.

3 EXCAVATION WORK PLAN

Applicable aspects of the existing ISMP will be followed for completing the excavation work. All project parties working at the Site are aware of and have been provided a copy of the ISMP. The following



sections outline the EWP for this project and how the work shall be conducted in general accordance with the existing ISMP.

Utility Clearance

The presence of known utilities and easements on the Site are to be provided by the Redevelopment Team and existing information included in the ISMP shall be reviewed prior performing any subsurface work. The location(s) and verification/clearing of utilities is ultimately the responsibility of the contractor(s) performing the work. A *UDig NY* stakeout shall be called-in a minimum of three (3) days prior to the commencement of subsurface activities by the contractor performing the work.

Soil Management, Characterization, and Disposal

Site soil that is excavated must be managed, characterized, and (if unable to be reused) properly disposed of in accordance with the ISMP and NYS regulations.

Soil Screening, Excavation Oversight, Soil Handling, Load Out, and Transportation

Visual, olfactory, and instrument-based soil screening will be performed by either a qualified environmental professional (QEP) as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State. For this project, instrument-based field screening shall consist of the use of a photoionization detector (PID).

The QEP or qualified person will oversee all invasive work and the excavation and handling of all excavated material.

***NOTE:** The following section in [blue](#) describes soil loadout procedures, if necessary; however, it is not presently anticipated that soil for off-site disposal will be generated by this project.*

[Loaded vehicles \(i.e., dump trucks\) leaving the Site will be appropriately tarped/covered, manifested, and placarded in accordance with appropriate Federal, State, Local, and NYSDOT requirements.](#)

[Trucks departing the Site must be free of soil and debris to prevent tracking of any soil off-site and into adjacent roadways. Trucks that do not remain on asphalt-covered roadways are likely to accumulate such debris and are therefore subject to washing, prior to departing the Site. If soil/debris build-up is observed on trucks departing the Site, such activities shall be halted and any future trucks shall be required to be washed, prior to departure. If washing occurs, wash waters will be collected and disposed of in an appropriate manner.](#)

[The contractor \(under the supervision of the QEP or qualified person\) shall be responsible for ensuring that all egress points for truck and equipment traffic from the Site is clean of soil/dirt and other debris derived from the Site during excavation activities. Cleaning of the adjacent streets shall be performed as needed, to maintain a clean condition with respect to site-derived materials.](#)

[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 covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.](#)



Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Trucks will be prohibited from stopping and idling in the neighborhood outside of the project Site.

Excavation Extents

The excavation associated with the project is anticipated to be targeted and minimal. The goal is to address the leak and to do so while impacting the smallest area and least amount of material as possible.

The Project Area (i.e., the estimated area of the water leak and approximate excavation extent) has been demarcated on the attached Figure 6-B which has been reproduced from the ISMP. The maximum excavation depth is anticipated to be top of bedrock, which is on average located at 1.68' below the existing concrete slab (as summarized in Section 2).

Soil Stockpiling Methods

Excavated soil/fill material will be placed adjacent to the excavation and/or stockpiled nearby on polyethylene sheeting (inside of the building). Since the material is anticipated to remain within the building, additional erosion controls are not necessary and will not be employed. If material is stockpiled outside of the building, the stockpile will be continuously encircled with a berm, filter sock, and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points. Alternatively, soil will be stored in a roll-off dumpster(s) lined by polyethylene sheeting.

Stockpiles will be kept covered when not in use. Covers shall consist of appropriately anchored tarps and/or polyethylene sheeting. Stockpiles and their covers shall be inspected routinely and any damaged tarps/covers shall be promptly replaced. Stockpiles will be inspected at least once per week and after every storm event (if located outside). Results of stockpile inspections shall be recorded in a logbook and maintained at the Site (available for inspection by NYSDEC).

Implementation of Community Air Monitoring Plan (CAMP)

The NYSDOH Generic CAMP (Appendix 1A of DER-10) shall be implemented during all excavation activities. Notable elements of the CAMP include:

- Two (2) monitoring stations must be maintained during applicable work activities, including one upwind station and one downwind station at the perimeter of the active work area. Each station shall include continuous monitoring with a PID for measuring VOCs and a dust meter for measuring suspended airborne particulate, each with data logging on a minimum of 15-minute intervals. *NOTE: Since work shall primarily or entirely occur indoors, the two (2) monitoring stations may be described as follows:*
 - “Project Area Perimeter” (replacing the ‘downwind’) – located at the Perimeter of the Project Area; and,
 - “Indoor Control” (replacing the ‘upwind’) – located elsewhere in the Building and intended to be representative of indoor air quality conditions absent the excavation activities.
- MiniRae 3000 PIDs (or equivalent) and TSI 8530 Dust Trak IIs (or equivalent) will be utilized during this project.

Exceedances of action levels listed in the CAMP will be recorded. Dust/particulate and/or vapor suppression will be completed by the responsible contractor as necessary.



All CAMP data will be included in a summary report to be prepared upon the conclusion of the repair project (refer to Section 10).

4 HEALTH AND SAFETY PLAN

Applicable elements of the Example Health and Safety Plan (HASP) included in the ISMP will be adhered to during work. LaBella and each contractor working on this project will also implement their own HASP for their personnel that includes emphasis on the hazards specific to their work/tasks (for example, excavating and screening soil, etc.). LaBella's Site-specific HASP has been included as attachment to this Notification.

LaBella personnel will possess current OSHA HAZWOPER 40-Hour training. For this specific and limited project, based on its nature and location, and based on site history and explanations provided throughout, the Redevelopment Team may not possess OSHA HAZWOPER 40-Hour training. However, should evidence of contamination be encountered work will immediately be halted, the NYSDEC shall be notified, and personnel having current OSHA HAZWOPER 40-Hour training will be retained to complete the remainder of the project.

Note: Even if contamination is encountered, the requirement for OSHA HAZWOPER certified personnel shall apply only to the contractors/personnel that are handling contaminated material (i.e., excavating, etc.). It is our understanding that other trades (for example, plumber making the repair of the line) are not required to possess the OSHA HAZWOPER certification.

5 MONITORING WELLS

Any groundwater monitoring wells potentially impacted by project activities shall be protected during the project to ensure future monitoring can continue. Monitoring wells LBA-MW-34N and LBA-MW-34S are located adjacent to the Project Area. These wells shall be protected to the extent feasible.

If any monitoring wells that are a part of the active monitoring program require decommissioning, the NYSDEC will be contacted prior to any decommissioning activities to discuss procedures and potential reinstallation of groundwater monitoring wells. If any such wells are to be decommissioned, they shall be decommissioned in accordance with NYSDEC Commissioner Policy (CP)-43.

6 MATERIAL PLACEMENT / DISPOSAL ACTIVITIES

Concrete removed during the Project will be re-used on-site or recycled/disposed off-site at an appropriately permitted facility (location to be determined).

Soil/fill from the limited excavation shall be reused as backfill once the water line is repaired (assuming it is acceptable based on field screening by the QEP or qualified person). Based on previous soil sampling data from the immediate area indicating no contaminants above Unrestricted Use SCOs, the limited volume of material anticipated to be encountered (i.e., less than 60 CY), and the nature of the project (utility repair inside of the building requiring quick restoration), analytical testing of the soil/fill material prior to reuse is not intended.

Wherever excavated soil/material cannot be reused on-Site, excess spoils are generated, and/or unanticipated impacts rendering material unacceptable for reuse is generated, such material will be transported and disposed of in accordance with all Local, State and Federal Regulations to an appropriately permitted facility.

7 IMPORTED MATERIALS

No imported materials are anticipated for this project.



If soil/fill material(s) are required to be imported to the Site, they shall be sampled per the ISMP and meet the soil quality standards established in 6 NYCRR 375-6.7(d) for Restricted-Residential Use SCOs.

***NOTE:** Imported backfill material may not be sampled if it meets the exemption requirements specified in DER-10 Section 5.4(e)5.*

All materials proposed for import onto the Site will be reviewed and approved by LaBella and will follow provisions in the ISMP to obtain NYSDEC approval 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> (last revised April 2023), will be prepared and submitted to the NYSDEC for approval, prior to importation.

8 MATERIALS REUSE

Materials to be reused on-site will be assessed/screened by the QEP or qualified person prior to placement.

Excess material (spoils) not meeting the requirements for reuse and/or screened by the QEP or qualified person and found to be inappropriate for reuse shall be temporarily stockpiled for eventual transportation and disposal off-site (refer to Section 6).

Based on previous data and on-site assessment/screening by the QEP or qualified person, reuse of excavated material shall occur with no further analytical testing. The placement of this material will be documented by noting the area of placement and final cover type. Reuse shall only occur in similar location and condition where generated.

Even with pre-existing data immediately adjacent to the Project Area, it is reiterated that all materials will be field screened by a QEP or qualified person and in the event of evidence of impairment (staining, odors, or elevated PID readings), such materials will be segregated (temporary stockpile/staging) and appropriately managed for off-site disposal.

9 FLUIDS MANAGEMENT

Based on site history, available historical data, and the planned limits/depth of excavation activities, groundwater is not expected to be encountered during the project. The maximum excavation depth will be the top of bedrock, which is typically less than two (2) feet below the existing concrete slab. Groundwater in the adjacent LBA-MW-34N was measured at 11.45' in 2013 and 14.30' in 2023, well beyond the anticipated maximum excavation depth.

If groundwater or stormwater accumulates in excavations and needs to be removed, it will be containerized on-site. If groundwater is containerized, it will be sampled, treated if necessary, and either discharged to the publicly owned treatment works (POTW) after the POTW is notified, or properly disposed off-site.

All liquids removed from the Site (if any) will be handled, transported, and disposed in accordance with the ISMP and applicable Local, State, and Federal regulations.

10 REPORTING

This Notice serves to satisfy NYSDEC 15-Day notification requirements outlined in the ISMP.

The completion of all work shall be documented in a summary report, indicating that the work was completed at the Site and provide documentation that the work was performed in substantial conformance with the ISMP and NYSDEC/NYSDOH guidelines and accepted standards of practice,



including:

- A summary of all field activities and observations;
- summary of analytical results, if applicable (including comparison to applicable regulatory standards);
- mapping that depicts project location(s) and excavation extents;
- all field monitoring data (CAMP reporting);
- imported material information / analytical data, if applicable;
- off-site soil disposal information (analytical data, manifests, etc.) if applicable, and,
- documentation that the soil cover / foundation engineering control has been restored in accordance with the ISMP.

The summary report shall be prepared by person(s) working under the supervision of a New York State Professional Engineer (PE).

11 SCHEDULE

Activities are currently scheduled to occur according to the following timeline (subject to change):

Activity / Deliverable	Date
Submission of Excavation Work Plan / Notice and Start of 15-Day Notification Period	February 10, 2025
On-Site Field Construction Begins	Week of February 24, 2025
On-Site Field Construction Complete	March 2025
Summary Report Submitted to NYSDEC	Within 30 days of completion of Field Activities

The total duration of the project is subject to the timing of the necessary approvals, contractor schedules, and extraneous factors such as materials delivery. If significant changes to the schedule are required, the NYSDEC shall be notified as soon as practically possible.

CLOSING

If you have any questions, or require additional information, please contact me at (585) 287-9089, or via e-mail at dbrantner@labellapc.com. Also include Robert Lewis of SHIFT Capital, via e-mail at rlewis@shiftcapital.us.

Respectfully submitted,

LABELLA ASSOCIATES, D.P.C.

Drew Brantner
Senior Project Manager

Attachments:

-Figure 6-B – Demarcated with Project Area

-Historical Records

–LBA-MW-34N & LBA-34S Logs from LaBella Phase II ESA

–LBA-SB-411, LBA-SB-412, LBA-SB-413, LBA-SB-521, LBA-SB-522, and LBA-SB-523 from LaBella Phase II ESA

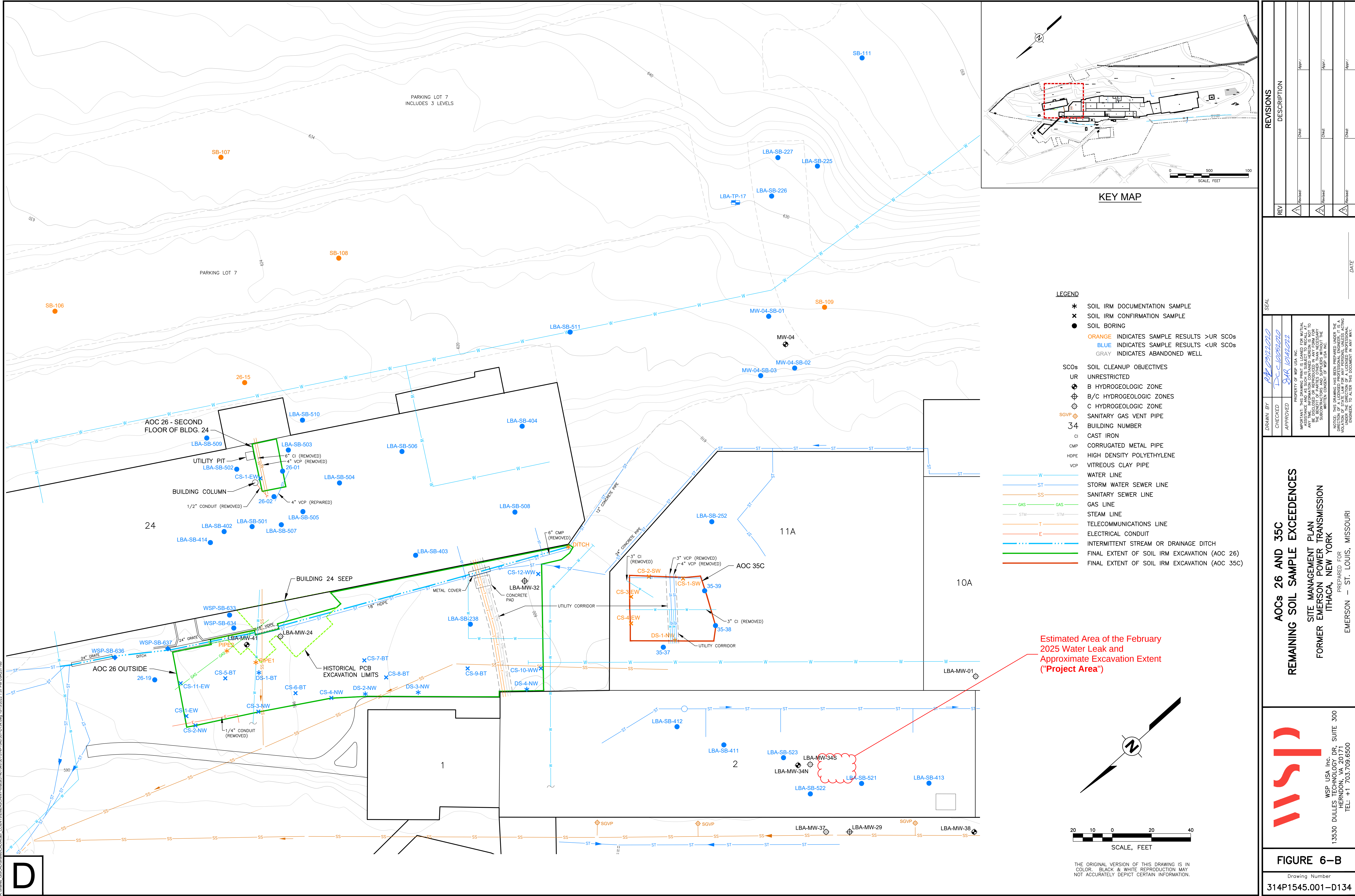


- Partial Tables 2A and 3A from LaBella Phase II ESA (VOCs in soil and groundwater)
- LBA-MW-34N Well Log from WSP 2023 PRR
- Partial Table 10 from WSP 2023 PRR (VOCs and barium/cyanide in groundwater)
- LaBella Site-Specific HASP

CC:

Gary Priscott, NYSDEC
Robert Lewis, SHIFT Capital
Gregg DiFabio, SHIFT Capital
Dan Noll, LaBella

B:\GLOBAL\Projects\Shift Chainworks\2241173 - SMP Implementation\11_Reports\Notifications\2025.02 - Water Leak Bldg 2\Notice.755010.2025-02-10.Excavation_Work_to_Repair_Water_Leak.Revised-2025-02-20.docx



 300 STATE STREET, ROCHESTER, NY		ROCK CORE LOG				BORING NO: LBA-MW-34 South SHEET 1 OF 2 PROJECT NO: 213582	
		PROJECT: Supplemental Phase II ESA Former Emerson Power Facility 620 South Aurora Street, Ithaca, NY					

CONTRACTOR: <u>Nothnagle</u>		BORING LOCATION: <u>Inside Bldg. 2</u>		START DATE: <u>12/3/2013</u>	
DRILLER: <u>Kevin Bush</u>		GRD SURF ELEVATION: _____		FINISH DATE: <u>12/10/2013</u>	
RIG TYPE: <u>D25</u>		DATUM: _____		LABELLA REP: <u>JMG/D. Riker</u>	
CSG TYPE/DIAM: _____		CORE BARREL TYPE / DIAMETER: _____			

Depth (ft.)	Drill Rate (min per ft)	Core Run No. / Depth	Recovery (in / %)	RQD ⁽¹⁾ (in / %)	Weathering	Strata Change (Depth in ft)	Visual Classification and Remarks	Fractures
4		4'-9'	57.5"	94%			Siltstone, many mechanical breaks along horizontal bedding planes.	Low angle frac. (~25°) 5.5' Numerous fracs in 0.5" Horizontal frac. 7.5' 8'
5								
6								
7								
8								
9		9'-14'	64"	100%			Siltstone, many mechanical breaks along horizontal bedding planes.	9.3'
10								
11								
12								
13								
14		14'-19'	62"	90%		16'4"	Siltstone, mechanical breaks spaced approx. 0.5"-2" apart. Siltstone, rock more competent; mechanical breaks spaced approx. 5"-12" apart.	Horizontal frac. 14'5" Horizontal frac. 16' Low angle frac (~10°) 16'4" Horizontal frac. 17'4" Horizontal frac. 18' Horizontal frac. 18.5'
15								
16								
17								
18								
19		19'-24'	63.5"	100%			Siltstone, mechanical breaks spaced approx. 1"-3" apart from 19'-21' bgs; 5"-10" from 21'-24' bgs.	Low angle frac (~10°) 19'10"
20								
21								
22								
23								
24								

WATER LEVEL DATA						OTHER REMARKS Thru ~5" concrete floor slab Top of rock at ~12" bgs; 2" layer of concrete on top of rock. PID reading in borehole to top of rock was ~3 ppb, soil dry. 3" rock socket (1'-4" bgs). GW sample collected from top 3" of rock prior to installing rock socket.
			DEPTH (FT)			
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF BORING	WATER LEVEL	
			44'	44'		

GENERAL NOTES
 1) For runs with greater than 100% recovery, RQD is computed using total core recovered.
 2) Measured water levels may not represent actual groundwater levels.

BORING NO: **LBA-MW-34S**



300 STATE STREET, ROCHESTER, NY

ROCK CORE LOG

PROJECT:

Supplemental Phase II ESA
Former Emerson Power Facility
620 South Aurora Street, Ithaca, NY

BORING NO: **LBA-MW-34South**

SHEET **2** OF **2**

PROJECT NO: **213582**

CONTRACTOR: Nothnagle BORING LOCATION: Inside Bldg. 2 START DATE: 12/3/2013
DRILLER: Kevin Bush GRD SURF ELEVATION: FINISH DATE: 12/10/2013
RIG TYPE: D25 DATUM: LABELLA REP: JMG/D. Riker
CSG TYPE/DIAM: CORE BARREL TYPE / DIAMETER:

Depth (ft.)	Drill Rate (min per ft)	Core Run No. / Depth	Recovery (in / %)	RQD ⁽¹⁾ (in / %)	Weathering	Strata Change (Depth in ft)	Visual Classification and Remarks	Other Data
24		24'-29'	58.5" 97.5%	100%			Siltstone, no natural fractures, mechanical breaks spaced 4"-20" apart	
25								
26								
27								
28								
29								
30		29'-34'	62" 100%	100%			Siltstone, no natural fractures, mechanical breaks spaced 6"-26" apart	
31								
32								
33								
34								
35		34'-39'	57.5" 96%	94%			Siltstone, mechanical breaks spaced 0.5"-9" apart	Horizontal frac 34'9"
36								Horizontal frac 35'2"
37								Horizontal frac 35'4"
38								Horizontal frac 36'10"
39								Horizontal frac 37'5"
40		39'-44'	62" 100%	100%			Siltstone, mechanical breaks spaced 8"-18.5" apart	Horizontal frac 42.5'
41								
42								
43								
44								

WATER LEVEL DATA

DATE	TIME	ELAPSED TIME	DEPTH (FT)		WATER LEVEL
			BOTTOM OF CASING	BOTTOM OF BORING	
			44'	44'	

OTHER REMARKS

GENERAL NOTES

- For runs with greater than 100% recovery, RQD is computed using total core recovered.
- Measured water levels may not represent actual groundwater levels.

BORING NO: **LBA-MW-34S**



300 STATE STREET, ROCHESTER, NY

ROCK CORE LOG

PROJECT:

Supplemental Phase II ESA
Former Emerson Power Facility
620 South Aurora Street, Ithaca, NY

BORING NO: **LBA-MW-34North**

SHEET **1** OF **1**

PROJECT NO: **213582**

CONTRACTOR: Nothnagle BORING LOCATION: Inside Bldg. 2 START DATE: 12/4/2013
DRILLER: Kevin Bush GRD SURF ELEVATION: _____ FINISH DATE: 12/10/2013
RIG TYPE: D25 DATUM: _____ LABELLA REP: JMG
CSG TYPE/DIAM: _____ CORE BARREL TYPE / DIAMETER: _____

Depth (ft.)	Drill Rate (min per ft)	Core Run No. / Depth	Recovery (in / %)	RQD ⁽¹⁾ (in / %)	Weathering	Strata Change (Depth in ft)	Visual Classification and Remarks	Other Data
							Based on LBA-MW-34South observations, this well installed by using roller bit to remove rock from bottom of rock socket (~5.5'bgs) to 21' bgs. The rock was initially removed to 10' bgs and a grab sample of groundwater was collected to evaluate water in the upper section of shallow fractures.	

WATER LEVEL DATA						OTHER REMARKS
			DEPTH (FT)			
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF BORING	WATER LEVEL	
			21'			

GENERAL NOTES

- For runs with greater than 100% recovery, RQD is computed using total core recovered.
- Measured water levels may not represent actual groundwater levels.

BORING NO: **LBA-MW-34N**



MONITORING WELL INSTALLATION REPORT

MONITORING
WELL
ID
LBA-MW-34S

Project: Emerson Power
Location: Ithaca, NY
Client: _____
Contractor(s): Nothnagle
Driller: Kevin Bush
Rock Coring Method: Water

LaBella Project No.: 213582
LaBella Representative: J. Gillen
Date Installed: 12/10/2013
Time: _____ to _____
Type of Drill Rig: D25
Auger size and type: _____

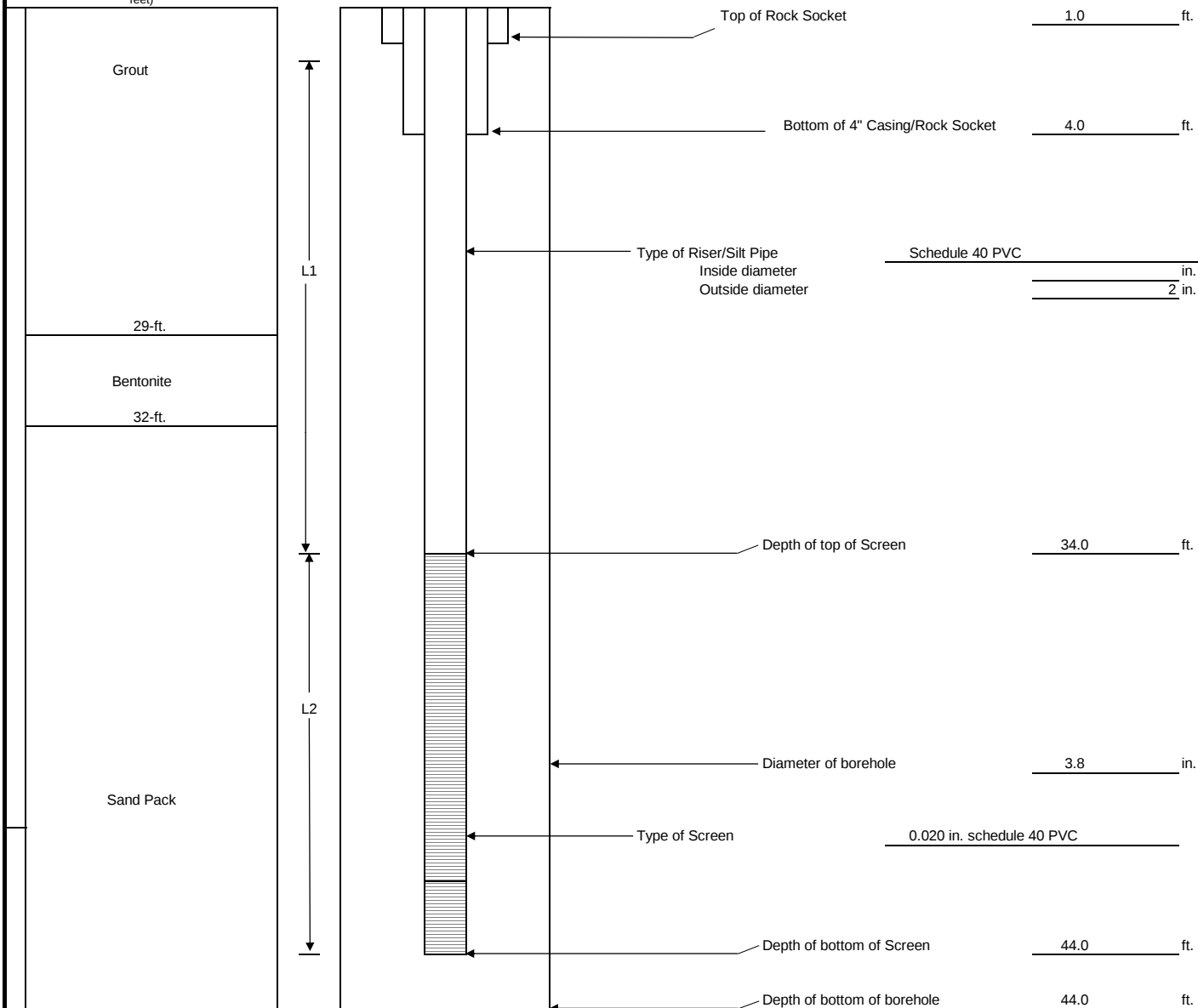
Ground El.: _____

Location: Bldg. 2 Interior
C-Zone Well

Depth to bedrock: 1-ft.

BOREHOLE BACKFILL

(Numbers refer to depth from ground surface in feet)



$$\frac{34.0}{\text{Riser Length (L1)}} \text{ ft.} + \frac{10.0}{\text{Length of Screen (L2)}} \text{ ft.} = \frac{44.0}{\text{Total Length}} \text{ ft.}$$

NOTES:



MONITORING WELL INSTALLATION REPORT

MONITORING
WELL
ID
LBA-MW-34N

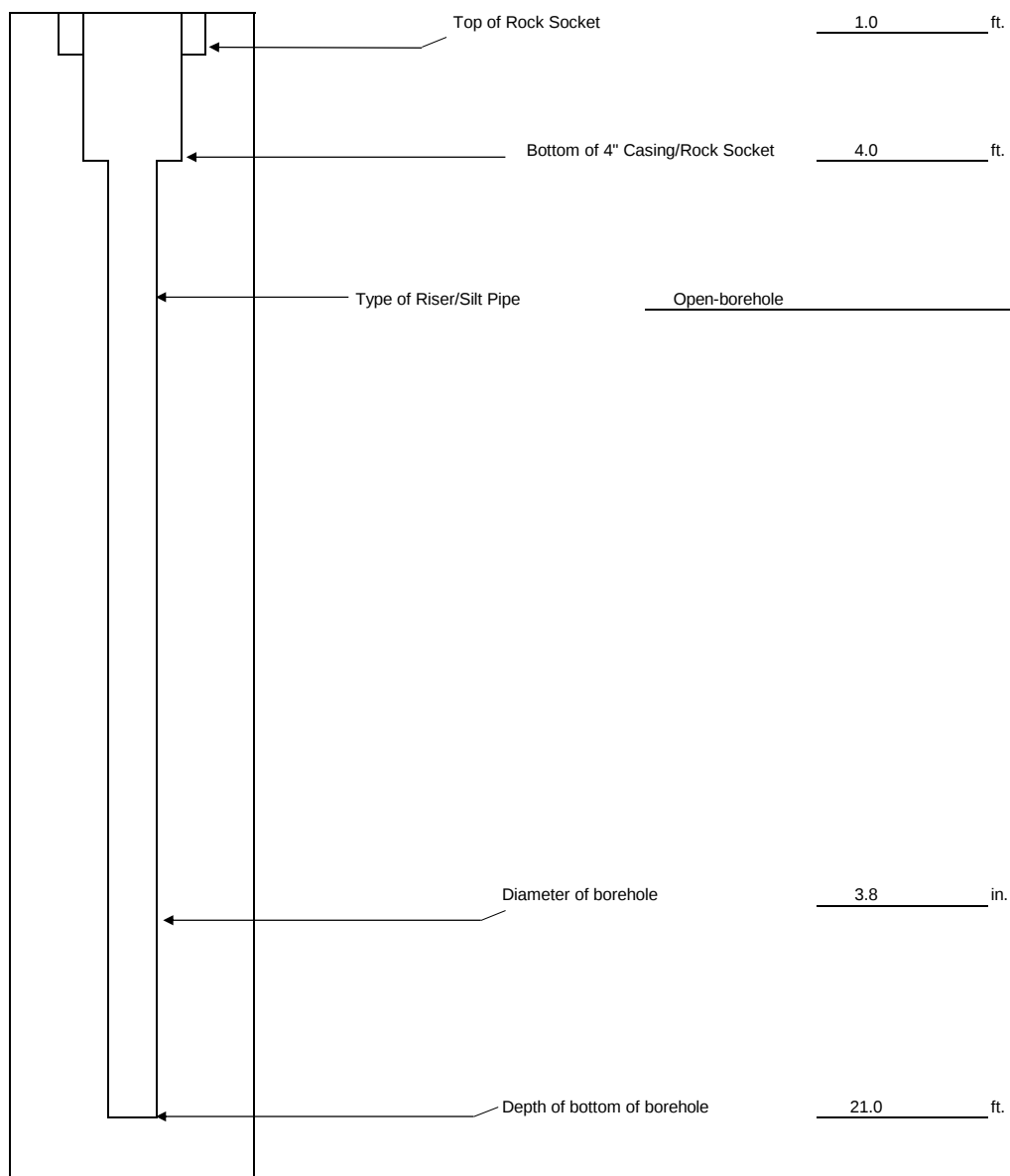
Project: Emerson Power
Location: Ithaca, NY
Client: _____
Contractor(s): Nothnagle
Driller: Kevin Bush
Rock Coring Method: Water

LaBella Project No.: 213582
LaBella Representative: J. Gillen
Date Installed: 12/10/2013
Time: _____ to _____
Type of Drill Rig: D25
Auger size and type: _____

Ground El.: _____

Location: Bldg. 2 Interior
B-Zone Well

Depth to bedrock: 1-ft.



NA ft. + NA ft. = 21.0 ft.
Riser Length (L1) Length of Screen (L2) Total Length

NOTES:

GROUNDWATER DEVELOPMENT FORM

GROUNDWATER DEVELOPMENT FORM



300 STATE STREET, ROCHESTER, NY
(585) 454-6110

PROJECT

Former Emerson Power Transmission
620 S. Aurora St.
Ithaca, New York

BORING: LBA-SB-411

SHEET 1 OF 1
JOB: 213582
CHKD BY:

CONTRACTOR: TREC Environmental, Inc.
DRILLER: Chad
LABELLA REPRESENTATIVE:

BORING LOCATION: Ithaca, NY
GROUND SURFACE ELEVATION NA
START DATE: 25-Sep-2013
END DATE:

TIME: TO
DATUM: NA

TYPE OF DRILL RIG:
AUGER SIZE AND TYPE:
OVERBURDEN SAMPLING METHOD: Direct Push

Track
NA

DRIVE SAMPLER TYPE: Macrocore
INSIDE DIAMETER: 1.8-inch
OTHER: NA

DEPTH (FEET)	SAMPLE			VISUAL CLASSIFICATION	PID / FID FIELD SCREEN (PPM)	DEPTH (FEET)	NOTE
	SAMPLE RECOVERY (FEET)	SAMPLE NO. AND DEPTH (FEET)	STRATA CHANGE (FEET)				
0	80%	Sample LBA-SB-411 at 1 foot	1	Concrete 9.5" 3" below slab Refusal	0.5		
2							
4							
6							
8							
10							
12							
14							
16							

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	
				1.0		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- | | | | |
|------------------|--------------------|------------|--------------------------------|
| and = 35 to 50 % | little = 10 to 20% | c - coarse | ND = Non Detect |
| some = 20 to 35% | trace = 1 to 10% | m = medium | BGS = Below the Ground Surface |
| | | f = fine | NA = Not Applicable |

BORING:

LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NY (585) 454-6110			PROJECT Former Emerson Power Transmission 620 S. Aurora St. Ithaca, New York			BORING: LBA-SB-412 SHEET 1 OF 1 JOB: 213582 CHKD BY:		
CONTRACTOR: TREC Environmental, Inc.			BORING LOCATION: Ithaca, NY			TIME: TO		
DRILLER: Chad			GROUND SURFACE ELEVATION NA			DATUM: NA		
LABELLA REPRESENTATIVE:			J. Jaskowiak			START DATE: 25-Sep-2013 END DATE:		
TYPE OF DRILL RIG:			Track			DRIVE SAMPLER TYPE: Macrocore		
AUGER SIZE AND TYPE:			NA			INSIDE DIAMETER: 1.8-inch		
OVERBURDEN SAMPLING METHOD: Direct Push						OTHER: NA		
DEPTH (FEET)	SAMPLE			VISUAL CLASSIFICATION	PID / FID FIELD SCREEN (PPM)	DEPTH (FEET)	NOTE	
	SAMPLE RECOVERY (FEET)	SAMPLE NO. AND DEPTH (FEET)	STRATA CHANGE (FEET)					
0	100%	Sample LBA-SB-412 at 1.2 feet	1.2	Concrete 6"	3.1			
				Silt and gravel Refusal	3.3			
2								
4								
6								
8								
10								
12								
14								
16								
WATER LEVEL DATA				DEPTH (FT)		NOTES:		
				BOTTOM OF CASING	BOTTOM OF BORING			GROUNDWATER ENCOUNTERED
DATE	TIME	ELAPSED TIME						
					1.2			
GENERAL NOTES								
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.								
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
and = 35 to 50 %		little = 10 to 20%		c - coarse		ND = Non Detect		
some = 20 to 35%		trace = 1 to 10%		m = medium		BGS = Below the Ground Surface		
				f = fine		NA = Not Applicable		
						BORING:		

LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NY (585) 454-6110			PROJECT Former Emerson Power Transmission 620 S. Aurora St. Ithaca, New York			BORING: LBA-SB-413 SHEET 1 OF 1 JOB: 213582 CHKD BY:		
CONTRACTOR: TREC Environmental, Inc.			BORING LOCATION: Ithaca, NY			TIME: TO		
DRILLER: Chad			GROUND SURFACE ELEVATION NA			DATUM: NA		
LABELLA REPRESENTATIVE: J. Jaskowiak			START DATE: 25-Sep-2013			END DATE:		
TYPE OF DRILL RIG: Track			DRIVE SAMPLER TYPE: Macrocore					
AUGER SIZE AND TYPE: NA			INSIDE DIAMETER: 1.8-inch					
OVERBURDEN SAMPLING METHOD: Direct Push			OTHER: NA					
DEPTH (FEET)	SAMPLE			VISUAL CLASSIFICATION	PID / FID FIELD SCREEN (PPM)	DEPTH (FEET)	NOTE	
	SAMPLE RECOVERY (FEET)	SAMPLE NO. AND DEPTH (FEET)	STRATA CHANGE (FEET)					
0	100%	Sample LBA-SB-413 at 1.1 feet	1.1	Concrete 5"				
2				Silt and gravel Refusal	1.6			
4								
6								
8								
10								
12								
14								
16								
WATER LEVEL DATA				DEPTH (FT)		NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED			
				1.1				
GENERAL NOTES								
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.								
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
and = 35 to 50 %		little = 10 to 20%	c - coarse	ND = Non Detect				
some = 20 to 35%		trace = 1 to 10%	m = medium	BGS = Below the Ground Surface				
			f = fine	NA = Not Applicable				
						BORING:		



300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

TEST BORING LOG

Supplemental Phase II ESA
620 South Aurora Street
Ithaca, New York

BORING: SB-521

SHEET 1 OF 1
JOB:
CHKD BY:

CONTRACTOR: LBA LLC	BORING LOCATION:	TIME: TO
DRILLER: Rich Reagan	GROUND SURFACE ELEVATION:	DATUM:
LABELLA REPRESENTATIVE: D. Noll	START DATE: 12/13/2013	END DATE:

TYPE OF DRILL RIG: 54LT	DRIVE SAMPLER TYPE:
AUGER SIZE AND TYPE:	INSIDE DIAMETER: ~1.8-Inch
OVERBURDEN SAMPLING METHOD: Direct Push	OTHER:

DEPTH	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPB)	REMARKS
	SAMPLE NO. AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE			
0			6"	Concrete floor slab		
			9"	Rock/gravel sub-base	1,274	XRF in PPM (2'): Pb: 14 As: 6.0 Ba: 328 Zn: 29
		24"		Silty SAND, dry (reworked soil)	1,790	
2	SB-521 2.5'				1,743	
4				Refusal at 2.5'		
6						
8						
10						
12						
14						
16						
18						

WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	NOTES: <u>PID background = 800-900 ppb</u>
DATE	TIME	ELAPSED TIME				
				2.5-Ft.		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
3) Abbreviations and = 35 to 50 % c = coarse
 some = 20 to 35% m = medium
 little = 10 to 20% f = fine
 trace = 1 to 10% vf = very fine
- BGS = Below the Ground Surface
NA = Not Applicable

BORING: SB-521

LABELLA Associates, P.C. 300 STATE STREET, ROCHESTER, NY ENVIRONMENTAL ENGINEERING CONSULTANTS				TEST BORING LOG			BORING: SB-522	
				Supplemental Phase II ESA 620 South Aurora Street Ithaca, New York			SHEET 1 OF 1 JOB: CHKD BY:	
CONTRACTOR: LBA LLC				BORING LOCATION:		TIME: TO		
DRILLER: Rich Reagan				GROUND SURFACE ELEVATION:		DATUM:		
LABELLA REPRESENTATIVE: D. Noll				START DATE: 12/13/2013		END DATE:		
TYPE OF DRILL RIG: 54LT				DRIVE SAMPLER TYPE:				
AUGER SIZE AND TYPE:				INSIDE DIAMETER: ~1.8-Inch				
OVERBURDEN SAMPLING METHOD: Direct Push				OTHER:				
DEPTH	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPB)	REMARKS		
	SAMPLE NO. AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE					
0	20"		6" 9"	Concrete floor slab	1,470	XRF in PPM (3'): Pb: 12 As: 6.5 Ba: 494 Zn: 38		
				Gravel/rock sub-base				
2				Sandy SILT (reworked soil)				
4				Refusal at 3.3'				
6								
8								
10								
12								
14								
16								
18								
WATER LEVEL DATA			BOTTOM OF CASING	BOTTOM OF BORING	GROUNDWATER ENCOUNTERED	NOTES:		
DATE	TIME	ELAPSED TIME		3.3-Ft.		PID background = 800-900 ppb		
GENERAL NOTES								
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.								
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER								
3) Abbreviations								
and = 35 to 50 %								
some = 20 to 35%								
little = 10 to 20%								
trace = 1 to 10%								
c = coarse								
m = medium								
f = fine								
vf = very fine								
BGS = Below the Ground Surface								
NA = Not Applicable								
						BORING: SB-522		



300 STATE STREET, ROCHESTER, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

TEST BORING LOG

Supplemental Phase II ESA
620 South Aurora Street
Ithaca, New York

BORING: SB-523

SHEET 1 OF 1

JOB:

CHKD BY:

CONTRACTOR: LBA LLC

DRILLER: Rich Reagan

LABELLA REPRESENTATIVE: D. Noll

BORING LOCATION:

GROUND SURFACE ELEVATION:

START DATE: 12/13/2013

END DATE:

TIME: TO

DATUM:

TYPE OF DRILL RIG: 54LT

AUGER SIZE AND TYPE:

OVERBURDEN SAMPLING METHOD: Direct Push

DRIVE SAMPLER TYPE:

INSIDE DIAMETER: ~1.8-Inch

OTHER:

DEPTH	SAMPLE			VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
	SAMPLE NO. AND DEPTH	SAMPLE RECOVERY	STRATA CHANGE			
0		0	8"	Concrete floor slab No recovery		
2				Refusal at 1' bgs		
4						
6						
8						
10						
12						
14						
16						
18						
WATER LEVEL DATA			BOTTOM OF	BOTTOM OF	GROUNDWATER	NOTES:
DATE	TIME	ELAPSED TIME	CASING	BORING	ENCOUNTERED	
				-Ft.		

GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER
- 3) Abbreviations
and = 35 to 50 %
some = 20 to 35%
little = 10 to 20%
trace = 1 to 10%
c = coarse
m = medium
f = fine
vf = very fine
BGS = Below the Ground Surface
NA = Not Applicable

BORING: SB-523

Table 2A
Summary of Detected Volatile Organic Compounds (VOCs) in Soil Samples
Results in Micrograms per Kilogram (µg/Kg) or Parts Per Billion (PPB)

Emerson Power Transmission Facility
Ithaca, NY

	NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives for the Protection of Groundwater	NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives for the Protection of Public Health: Unrestricted Use	NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives for the Protection of Public Health: Restricted Residential Use	SB-250 (4')	SB-251 (1'-1.5')	SB-301 (2.5')	SB-401 (1.5')	SB-401 (2.5')	SB-404 (2.5')	SB-405 (10')	SB-412 (1.2)	SB-416 (4.5')	SB-417 (8")	SB-418 (2')	SB-420 (6")	SB-426 (6")	SB-501 (1.5')	SB-503 (2')	SB-504 (2')
				8/13/2013	8/14/2013	8/26/2013	9/24/2013	9/24/2013	9/24/2013	9/25/2013	9/25/2013	9/26/2013	9/26/2013	9/26/2013	9/26/2013	9/26/2013	12/4/2013	12/4/2013	12/4/2013
Volatile Organic Compounds																			
Chloromethane	Not Listed	Not Listed	Not Listed	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Vinyl chloride	20.000	20.000	900.0	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
1,1-Dichloroethene	330.00	330.00	100,000	<5.5	<5.6	<4.8	<5.8	20 J	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Acetone	500.00	500.00	100,000	<5.5	<5.6	<4.8	11	<6.3	<26	<25	22	<29	44	49	6.5 J	19.0 J	ND<31	ND<29	ND<28
Carbon disulfide	Not Listed	Not Listed	Not Listed	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Methylene chloride	500.00	500.00	100,000	<5.5	<5.6	2.9 BJ	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
trans-1,2-dichloroethene	190.00	190.00	100,000	<5.5	<5.6	<4.8	<5.8	1.3 J	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Methyl tert-butyl ether	930.00	930.00	100,000	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
1,1-Dichloroethane	270.00	270.00	26,000	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	8.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
2-Butanone	120.00	120.00	100,000	<5.5	<5.6	<4.8	<29	<32	<26	<25	<27	<29	<29	<29	<28	<25	ND<31	ND<29	ND<28
cis-1,2-dichloroethene	250.00	250.00	100,000	1.6 J	<5.6	<4.8	2.9 J	29	<5.3	<5.1	1.8 J	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	16	ND<5.5
Chloroform	370.00	370.00	49,000	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
1,2-Dichloroethane	20.00	20.00	3,100.0	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Benzene	60.00	60.00	4,800.0	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Trichloroethene	470.00	470.00	21,000	6.9 J	<5.6	<4.8	1800 D	6800 D	2.3 J	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	3.3 J	ND<6.2	8.2	1.9 J
Toluene	700.0	700.0	100,000	<5.5	<5.6	<4.8	<5.8	0.75 J	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
1,1,2-Trichloroethane	Not Listed	Not Listed	Not Listed	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Tetrachloroethene	1,300.0	1,300.0	19,000	<5.5	<5.6	<4.8	7.8	4.0 J	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Ethylbenzene	1,000	1,000	41,000	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
m,p-Xylene	Not Listed	Not Listed	Not Listed	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<12	ND<11	ND<11
o-Xylene	Not Listed	Not Listed	Not Listed	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<12	ND<11	ND<11
Xylene (total)	1,600.0	260.00	100,000	<5.5	<5.6	<4.8	<12	<13	<11	<10	<11	<11	<11	<11	<12	<11	ND<12	ND<11	ND<11
Isopropylbenzene	Not Listed	Not Listed	2,300.0	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
n-Propylbenzene	3,900.0	3,900.0	100,000	<5.5	<5.6	<4.8	0.95 J	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
1,3,5-Trimethylbenzene	8,400.0	8,400.0	52,000	<5.5	<5.6	<4.8	3.0 J	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
tert-Butylbenzene	5,900.0	5,900.0	100,000	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
1,2,4-Trimethylbenzene	3,600.0	3,600.0	52,000	<5.5	<5.6	<4.8	3.1 J	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
sec-Butylbenzene	11,000	11,000	100,000	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
4-Isopropyltoluene	Not Listed	Not Listed	Not Listed	<5.5	<5.6	<4.8	1.3 J	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
n-Butylbenzene	10,000	12,000	100,000	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
1,2-Dichlorobenzene	1,100.0	1,100.0	100,000	<5.5	<5.6	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Naphthalene	12,000	12,000	100,000	1.9 J	2.4 J	<4.8	<5.8	<6.3	<5.3	<5.1	<5.3	<5.7	<5.7	<5.7	<5.7	<5.1	ND<6.2	ND<5.7	ND<5.5
Total TCL List VOCs	Not Available	Not Available	Not Available	14.0	2.4	2.9	1830.1	6855.05	2.3	0.0	32.1	0.0	44	49	6.5	22.3	ND	24.2	1.9
Total TICs				0.0	0.0	132.1	165.1	0.0	34.6	0.0	0.0	0.0	0.0	0.0	0.0	95.1	0.0	0.0	0.0
Total VOCs				14.0	2.4	135.0	1995.2	6855.05	36.9	0.0	32.1	0.0	0.0	49.0	6.5	117.4	0.0	24.2	1.9

Legend:
VOC analysis by United States Environmental Protection Agency (USEPA) Method SW846 8260B.
J – Indicates that the constituent was positively identified; but the associated numerical value is the approximate concentration of the constituent in the sample.
D - Indicates that the value was obtained from a secondary dilution analysis.
< XXX Indicates constituent not detected above the laboratory detection limit shown.
E - Indicates the compound concentration exceeded the calibration range.
NA = Not Applicable or Not Available
Highlighted type indicates that the constituent was detected at a concentration above NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives for Unrestricted Use.
Underlined type indicates that the constituent was detected at a concentration above the NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objective for Protection of Groundwater
Bolded type indicates that the constituent was detected at a concentration above the NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objective for Restricted Residential Use

Table 2A
Summary of Detected Volatile Organic Compounds (VOCs) in Soil Samples
Results in Micrograms per Kilogram (µg/Kg) or Parts Per Billion (PPB)

Emerson Power Transmission Facility
Ithaca, NY

	NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives for the Protection of Groundwater	NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives for the Protection of Public Health: Unrestricted Use	NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives for the Protection of Public Health: Restricted Residential Use	SB-505 (2')	SB-509 (3.5'-4')	SB-510 (3.8'-4.8")	SB-511 (1.5'-2')	SB-514 (0.5'-2.2')	SB-515 (0-1.7')	SB-518 (3'-4')	SB-518 (8')	SB-521 (2.5')	LBA-MW-01 (5.5')	LBA-MW-02 (6'-7.5')	LBA-MW-03 (2')	LBA-MW-04 (9.5'-10')	LBA-MW-06 (2')	LBA-MW-08 (7"-1.4')
				12/4/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/5/2013	12/6/2013	12/6/2013	12/13/2013	8/12/2013	8/13/2013	8/14/2013	8/15/2013	8/16/2013	8/19/2013
Volatile Organic Compounds																		
Chloromethane	Not Listed	Not Listed	Not Listed	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Vinyl chloride	20.000	20.000	900.0	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
1,1-Dichloroethene	330.00	330.00	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Acetone	500.00	500.00	100,000	ND<28	ND<29	ND<29	ND<28	ND<270	ND<29	ND<26	ND<28	ND<28	<5.5 J	2.3 J	<5.5	<5.7	<5.4	2.6 J
Carbon disulfide	Not Listed	Not Listed	Not Listed	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Methylene chloride	500.00	500.00	100,000	ND<5.6	2.8 J	3.7 J	2.8 J	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5 J	2.7 J	5.2 J	<5.7	<5.4	1.9 J
trans-1,2-dichloroethene	190.00	190.00	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Methyl tert-butyl ether	930.00	930.00	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
1,1-Dichloroethane	270.00	270.00	26,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
2-Butanone	120.00	120.00	100,000	ND<28	ND<29	ND<29	ND<28	ND<270	ND<29	ND<26	ND<28	ND<28	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
cis-1,2-dichloroethene	250.00	250.00	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Chloroform	370.00	370.00	49,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
1,2-Dichloroethane	20.00	20.00	3,100.0	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Benzene	60.00	60.00	4,800.0	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Trichloroethene	470.00	470.00	21,000	1.4 J	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	6.6	ND<5.5	<5.5	<5.8	1.7 J	<5.7	<5.4	<5.5
Toluene	700.0	700.0	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	16 J	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
1,1,2-Trichloroethane	Not Listed	Not Listed	Not Listed	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Tetrachloroethene	1,300.0	1,300.0	19,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Ethylbenzene	1,000	1,000	41,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
m,p-Xylene	Not Listed	Not Listed	Not Listed	ND<11	ND<11	ND<12	ND<11	ND<110	ND<12	ND<10	ND<11	ND<11	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
o-Xylene	Not Listed	Not Listed	Not Listed	ND<11	ND<11	ND<12	ND<11	ND<110	ND<12	ND<10	ND<11	ND<11	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Xylene (total)	1,600.0	260.00	100,000	ND<11	ND<11	ND<12	ND<11	ND<110	ND<12	ND<10	ND<11	ND<11	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Isopropylbenzene	Not Listed	Not Listed	2,300.0	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
n-Propylbenzene	3,900.0	3,900.0	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
1,3,5-Trimethylbenzene	8,400.0	8,400.0	52,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
tert-Butylbenzene	5,900.0	5,900.0	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
1,2,4-Trimethylbenzene	3,600.0	3,600.0	52,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
sec-Butylbenzene	11,000	11,000	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
4-Isopropyltoluene	Not Listed	Not Listed	Not Listed	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
n-Butylbenzene	10,000	12,000	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
1,2-Dichlorobenzene	1,100.0	1,100.0	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	<5.5	<5.8	<5.5	<5.7	<5.4	<5.5
Naphthalene	12,000	12,000	100,000	ND<5.6	ND<5.7	ND<5.8	ND<5.7	ND<54	ND<5.8	ND<5.1	ND<5.6	ND<5.5	ND	<5.8	34	<5.7	<5.4	1.2 J
Total TCL List VOCs				1.4	2.8	3.7	2.8	16	ND	ND	6.6	ND	0.0	5.0	40.9	0.0	0	5.7
Total TICs	Not Available	Not Available	Not Available	0.0	0.0	6.7	0.0	1830	8.0	43.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total VOCs				1.4	2.8	10.4	2.8	1846	8.0	43.7	6.6	0.0	0.0	5.0	40.9	0.0	0.0	5.7

Legend:
VOC analysis by United States Environmental Protection Agency (USEPA) Method SW846 8260B.
J – Indicates that the constituent was positively identified; but the associated numerical value is the approximate concentration of the constituent in the sample.
D - Indicates that the value was obtained from a secondary dilution analysis.
< XXX Indicates constituent not detected above the laboratory detection limit shown.
E - Indicates the compound concentration exceeded the calibration range.
NA = Not Applicable or Not Available
Highlighted type indicates that the constituent was detected at a concentration above NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives for Unrestricted Use.
Underlined type indicates that the constituent was detected at a concentration above the NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objective for Protection of Groundwater
Bolded type indicates that the constituent was detected at a concentration above the NYSDEC Subpart 375-6 Remedial Program Soil Cleanup Objective for Restricted Residential Use

Table 3A
Summary Of Detected Volatile Organic Compounds in Groundwater Samples
Results in Micrograms per Liter (µg/L) or About Parts Per Billion (PPB)

Emerson Power Transmission Facility
Ithaca, NY

Sample ID	NYSDEC Part 703 Groundwater Standards	LBA-MW-27	LBA-MW-28	LBA-MW-29	LBA-MW-29 (PDB)	LBA-MW-29 010614 (PDB)	LBA-MW-29 (PDB)	LBA-MW-29 (PDB)	LBA-MW-29 (PDB)	LBA-MW-29 (PDB)	LBA-MW-29 (PDB)	LBA-MW-30	LBA-MW-31	LBA-MW-32	LBA-MW-33	LBA-MW-34 North	LBA-MW-34 North	LBA-MW-34 N (PDB)
Sample Interval*		35' - 50'	30' - 45'	20' - 50'	17'-19'	20'-22'	27'-29'	32'-34'	37'-39'	42'-44'	47'-49'	15' - 25'	4.8' - 19.8'	15'-35'	4.5' - 14.5'	0-10'	13'-21'	18'-20'
Sample Collection Date		9/14/2013	9/17/2013	9/17/2013	12/3/2013	1/6/2014	12/3/2013	12/3/2013	12/3/2013	12/3/2013	12/3/2013	9/16/2013	10/6/2013	12/9/2013	10/6/2013	12/9/2013	12/22/2013	1/7/2014
Volatile Organic Compounds																		
1,1,1-Trichloroethane	5	<1.0	<5.0	3.3	<1.0	<1.0	1.5	2.1	2.1	0.99 J	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	1	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
1,1-Dichloroethane	5	0.6 J	<5.0	32.0	3.1	6.4	16	21	21	14	10	<5.0	<1.0	2.7	<20	0.54 J	2.4	1.0
1,1-Dichloroethene	5	<1.0	<5.0	4.6	0.55 J	1.4	2.1	2.8	2.8	1.1	0.8 J	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	0.5 J	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.9 J	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	3	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
1,2-Dichloroethane	0.6	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
2-Butanone	50	<1.0	<5.0	<1.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0	<10	<10.0	<200	<10.0	<10.0	<10.0
4-Isopropyltoluene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0 J	<1.0	<1.0
Acetone	50	<1.0	<5.0	4.5 J	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<5.0	<10	<1.00	<200	7.9 J	4.0 J	<10.0
Benzene	1	<1.0	<5.0	<1.0	<1.0	<1.0	0.5 J	0.9 J	1.1	2.2	1.0 J	<5.0	<1.0	<1.0	<20	0.49	<1.0	<1.0
Bromoform	NA	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Carbon disulfide	NA	<1.0	<5.0	0.9 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	0.35 J
Chloroethane	5	<1.0	<5.0	0.9 J	<1.0	<1.0	0.3 J	0.4 J	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	4.4	<1.0	<1.0
Chloroform	7	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	5.5	<1.0	<1.0
Chloromethane	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
cis-1,2-dichloroethene	5	8.1	<5.0	1000	89	210	490 DL	590 DL	610 DL	230 DL	220 DL	<5.0	<1.0	2.4	<20	<1.0	5.9	2.5
Cyclohexane	NA	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.8 J	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Ethylbenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.7 J	1.2	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Isopropylbenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
m,p-Xylene	5	<1.0	<5.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<5.0	<1.0	NA	<20	NA	NA	NA
Methyl tert-butyl ether	10	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Methylcyclohexane	NA	<1.0	<5.0	<1.0	<1.0	0.34 J	0.2 J	0.4 J	0.5 J	0.6 J	0.3 J	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Methylene chloride	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.3 J	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Naphthalene	10	<1.0	<5.0	<1.0	<1.0	<1.0	1.0 J	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
n-Butylbenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
n-Propylbenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
o-Xylene	5	<1.0	<5.0	<1.0	NA	NA	NA	NA	NA	NA	NA	<5.0	<1.0	NA	NA	NA	NA	NA
sec-Butylbenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
tert-Butylbenzene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Tetrachloroethene	5	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Toluene	5	<1.0	<5.0	<1.0	0.74 J	0.72 J	2.4	4.6	6.2	13.0	5.0	<5.0	<1.0	<1.0	<20	0.76 J	<1.0	<1.0
trans-1,2-dichloroethene	5	<1.0	<5.0	20	2.0	4.8	9.1	11.0	11.0	6.6	4.9	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Trichloroethene	5	0.6 J	<5.0	4.6	0.7 J	1.8	1.6	1.8	2.0	0.88 J	0.62 J	<5.0	<1.0	<1.0	<20	<1.0	2.5	1.4
Xylene (mixed)	5	<2.0	<10	<2.0	<2.0	1.1 J	1.9 J	4.7	6.7	11	4.60	<10	<2.0	<2.0	<40	<2.0	<2.0	<1.0
Vinyl chloride	2	2	<5.0	380	40	94	210 DL	250 DL	260 DL	240 DL	190 DL	<5.0	<1.0	<1.0	<20	<1.0	<1.0	<1.0
Total VOCs	Not Available	9.3	0.0	1,067.5	136	320.6	737.1	889.7	924.2	523.3	437.2	2.3	0.0	5.1	0.0	19.6	14.8	5.3
Total VOC TICs		NT	0.0	0.0	0.0	2.9	0.85	0.0	0.43	0.50	0.0	0.0	0.0	0.0	0.0	3.3	0.0	3.2
Total VOCs & VOC TICs		9.3	0.0	1,067.5	136	323.5	737.92	889.7	924.60	523.77	437.16	2.3	0.0	5.10	0.0	22.89	14.8	8.45

Legend:

VOC analysis by United States Environmental Protection Agency (USEPA) Method SW846 8260B.

J – Indicates that the constituent was positively identified; but the associated numerical value is the approximate concentration of the constituent in the sample.

D - Indicates that the value was obtained from a secondary dilution analysis.

< XXX Indicates constituent not detected above the laboratory detection limit shown.

E - Indicates the compound concentration exceeded the calibration range.

NA = Not Applicable or Not Available

*Refers to depth below grade of screened interval or length of open rock, depending on well construction.

Highlighted type indicates that the constituent was detected at a concentration above the NYSDEC Part 703 Groundwater Standards.

Table 3A
Summary Of Detected Volatile Organic Compounds in Groundwater Samples
Results in Micrograms per Liter (µg/L) or About Parts Per Billion (PPB)

Emerson Power Transmission Facility
Ithaca, NY

Sample ID	NYSDEC Part 703 Groundwater Standards	LBA-MW-34 South	LBA-MW-34- South	LBA-MW-34 S (PDB)	**LBA-MW-35 NAPL	LBA-MW-35	LBA-MW-36	LBA-MW-37	LBA-MW-37 (PBD)	LBA-MW-38	LBA-MW-38 (PDB)	LBA-MW-39	LBA-MW-39	LBA-MW-40 South	LBA-MW-40 South	LBA-MW-40 North	LBA-MW-41	LBA-MW-41	LBA-MW-42 South
Sample Interval*		1'-4'	34'-44'	41'-43'	5.1'-32'	5.1'-32'	7'-35'	37'-44'	41'-43'	11'-35'	32'-34'	0-14'	14'-25.5'	2.8'-6'	49'-57'	6'-18'	2'-5'	5'-25.5'	1'-4'
Sample Collection Date		12/4/2013	12/22/2013	1/7/2014	1/2/2014	1/16/2014	1/16/2014	12/22/2013	1/6/2014	12/22/2013	1/6/2014	12/9/2013	1/15/2014	12/11/2013	1/16/2014	1/16/2014	12/12/2013	1/16/2014	12/19/2013
Volatile Organic Compounds																			
1,1,1-Trichloroethane	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	500 DL	84	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	1	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	5	<1.0	<1.0	<1.0	<93	0.56 J	<1.0	<1.0	<1.0	0.67 J	0.96 J	380 DL	79	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	34	8.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	5	<1.0	3.3	1.4	<93	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	3	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	0.6	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.55 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	5	<1.0	4.0	1.8	<93	<1.0	<1.0	0.82 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone	50	<10.0	7.3 J	<10.0	<470	<10.0	1.8 J	3.6 J	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
4-Isopropyltoluene	5	<1.0	0.35 J	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Acetone	50	4.1 J	240	9.7 J	<470	<10.0	12	23.0	<10.0	10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	11
Benzene	1	<1.0	1.0	1.8	<93	<1.0	<1.0	0.45 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	NA	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	NA	<1.0	1.9	<1.0	<93	<1.0	<1.0	<1.0	0.65 J	<1.0	<1.0	<1.0	<1.0	<1.0	0.86 JB	<1.0	<1.0	<1.0	0.61 J
Chloroethane	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	50.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	7	4.2 J	8.9	4.6	<93	<1.0	<1.0	5.8	3.9	1.4	0.80 J	<1.0	<1.0	8.0	<1.0	0.91 J	<1.0	1.3	0.44 J
Chloromethane	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-dichloroethene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	8.5	14	20.0	3.3	22.0	<1.0	<1.0	6.2	42	<1.0
Cyclohexane	NA	<1.0	2.4	0.85 J	<93	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	5	<1.0	2.5	2.4	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-Xylene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	NA	<1.0	5.8	1.4	<93	<1.0	1.1	3.3	0.33 J	1.0	0.41 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.40 J
Methylene chloride	5	<1.0	1.3	1.3	<93	<1.0	<1.0	0.97 J	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	10	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.48 J
n-Butylbenzene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5	<1.0	<1.0	<1.0	16 JB	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	5	0.60 J	10.0	16	<93	0.51 J	<1.0	1.9	0.66 J	1.5	0.55 J	24.0	<1.0	0.8 J	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-dichloroethene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	5	<1.0	<1.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0	1.2	18.0	<1.0	0.49	11	3.5	<1.0
Xylene (mixed)	5	<2.0	19.0	19	<190	<2.0	1.1 J	4.0	<2.0	1.7 J	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vinyl chloride	2	<1.0	<2.0	<1.0	<93	<1.0	<1.0	<1.0	<1.0	1.5	2.2	7.8	<1.0	2.8	<1.0	<1.0	1.1	8.1	<1.0
Total VOCs	Not Available	8.9	288.8	60.3	16	1.07	16.0	46.5	6.6	23.1	18.9	1025.0	185.5	52.9	0.9	1.4	22.4	54.9	12.9
Total VOC TICs		0.0	26.86	14.57	4,840	0.0	12.59	0.0	0.0	32.7	0.0	23.8	2.7	0.0	NA	NA	NA	NA	73.7
Total VOCs & VOC TICs		8.90	315.61	74.82	4,856	1.07	29	47	6.6	55.8	18.9	1,048.75	188.2	52.85	0.86	1.4	22.4	54.9	87

Legend:

VOC analysis by United States Environmental Protection Agency (USEPA) Method SW846 8260B.

J – Indicates that the constituent was positively identified; but the associated numerical value is the approximate concentration of the constituent in the sample.

D - Indicates that the value was obtained from a secondary dilution analysis.

< XXX Indicates constituent not detected above the laboratory detection limit shown.

E - Indicates the compound concentration exceeded the calibration range.

NA = Not Applicable or Not Available

*Refers to depth below grade of screened interval or length of open rock, depending on well construction.

Highlighted type indicates that the constituent was detected at a concentration above the NYSDEC Part 703 Groundwater Standards.

Table 10

April 2023 Groundwater Sampling Results
Former Emerson Power Transmission
Ithaca, New York (a)

		DPE System Effectiveness		Site-Wide Monitoring Program								Duplicates (d) and QA/QC Samples									
	Well ID:	EW-11-43C	EW-12-45C	LBA-MW-08	LBA-MW-18	LBA-MW-23	LBA-MW-26	LBA-MW-30	LBA-MW-34N	LBA-MW-35	LBA-MW-39	LBA-MW-43S	LBA-MW-43N	MW-50-160D	MW-44T	MW-32B	MW-46-72C	-	-	-	-
	Sample ID:	EW-11-43C	EW-12-45C	LBA-MW-08	LBA-MW-18	LBA-MW-23	LBA-MW-26	LBA-MW-30	LBA-MW-34N	LBA-MW-35	LBA-MW-39	LBA-MW-43S	LBA-MW-43N	MW-041723A	MW-041723	MW-042123	MW-042023	EB-041723	EB-041823	EB-042023	EB-041923
	Date:	4/20/2023	4/20/2023	4/20/2023	4/19/2023	4/19/2023	4/19/2023	4/18/2023	4/19/2023	4/19/2023	4/19/2023	4/20/2023	4/20/2023	4/17/2023	4/17/2023	4/21/2023	4/20/2023	4/17/2023	4/19/2023	4/20/2023	4/20/2023
VOCs (µg/l)	Evaluation Criteria (c)																				
Acetone	50	40 U	40 U	-	-	3.7 J	-	-	10 U	-	-	-	-	100 U		10 U	100 U	10 U	10 U	-	5.3 J
Benzene	1	2.0 U	2.0 U	-	-	0.5 U	-	-	0.5 U	-	-	-	-	5.0 U		0.5 U	5.0 U	0.5 U	0.5 U	-	0.5 U
Bromodichloromethane	50	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Bromoform	50	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Bromomethane	5	8.0 U	8.0 U	-	-	2.0 U	-	-	2.0 U	-	-	-	-	20 U		2.0 U	20 U	2.0 U	2.0 U	-	2.0 U
2-Butanone (MEK)	50	40 U	40 U	-	-	10 U	-	-	10 U	-	-	-	-	100 U		10 U	100 U	10 U	10 U	-	10 U
Carbon Disulfide	60	8.0 U	8.0 U	-	-	2.0 U	-	-	2.0 U	-	-	-	-	20 U		2.0 U	20 U	2.0 U	2.0 U	-	2.0 U
Carbon Tetrachloride	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Chlorobenzene	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Chloroethane	5	4.0 U	4.0 U	-	-	1.0 U	-	-	2.5	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Chloroform	7	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Chloromethane	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Cyclohexane	-	20 U	20 U	-	-	5.0 U	-	-	5.0 U	-	-	-	-	50 U		5.0 U	50 U	5.0 U	5.0 U	-	5.0 U
1,2-Dibromo-3-chloropropane	4	8.0 U	8.0 U	-	-	2.0 U	-	-	2.0 U	-	-	-	-	20 U		2.0 U	20 U	2.0 U	2.0 U	-	2.0 U
Dibromochloromethane	50	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,2-Dibromoethane	6	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,2-Dichlorobenzene	3	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,3-Dichlorobenzene	3	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,4-Dichlorobenzene	3	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Dichlorodifluoromethane	5	8.0 U	8.0 U	-	-	2.0 U	-	-	2.0 U	-	-	-	-	20 U		2.0 U	20 U	2.0 U	2.0 U	-	2.0 U
1,1-Dichloroethane	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,2-Dichloroethane	0.6	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,1-Dichloroethene	5	13.4	5.1	-	-	1.0 U	-	-	6.7	-	-	-	-	10 U		1.0 U	6.3 J	1.0 U	1.0 U	-	1.0 U
cis-1,2-Dichloroethene	5	5,500	3,140	-	-	1.9	-	-	766	-	-	-	-	1,830		8.2	3,060	1.0 U	1.0 U	-	1.0 U
trans-1,2-Dichloroethene	5	131	14	-	-	1.0 U	-	-	12.1	-	-	-	-	7.5 J		1.0 U	11.3	1.0 U	1.0 U	-	1.0 U
1,2-Dichloropropane	1	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
cis-1,3-Dichloropropene	0.4	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
trans-1,3-Dichloropropene	0.4	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Ethylbenzene	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Freon 113	5	20 U	20 U	-	-	5.0 U	-	-	5.0 U	-	-	-	-	50 U		5.0 U	50 U	5.0 U	5.0 U	-	5.0 U
2-Hexanone	50	20 U	20 U	-	-	5.0 U	-	-	5.0 U	-	-	-	-	50 U		5.0 U	50 U	5.0 U	5.0 U	-	5.0 U
Isopropylbenzene	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Methyl Acetate	-	20 U	20 U	-	-	5.0 U	-	-	5.0 U	-	-	-	-	50 U		5.0 U	50 U	5.0 U	5.0 U	-	5.0 U
Methylcyclohexane	-	20 U	20 U	-	-	5.0 U	-	-	5.0 U	-	-	-	-	50 U		5.0 U	50 U	5.0 U	5.0 U	-	5.0 U
Methyl Tert Butyl Ether	10	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
4-Methyl-2-pentanone (MIBK)	-	20 U	20 U	-	-	5.0 U	-	-	5.0 U	-	-	-	-	50 U		5.0 U	50 U	5.0 U	5.0 U	-	5.0 U
Methylene chloride	5	8.0 U	8.0 U	-	-	2.0 U	-	-	2.0 U	-	-	-	-	20 U		2.0 U	20 U	2.0 U	2.0 U	-	2.0 U
Styrene	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,1,2,2-Tetrachloroethane	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Tetrachloroethene	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Toluene	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,2,4-Trichlorobenzene	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,1,1-Trichloroethane	5	4.0 U	4.0 U	-	-	1.0 U	-	-	20.4	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
1,1,2-Trichloroethane	1	4.0 U	4.0 U	-	-	1.0 U	-	-	1 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Trichloroethene	5	3,940	2,210	-	-	1.0 U	-	-	18.1	-	-	-	-	18.5		14.6	94.6	1.0 U	1.0 U	-	1.0 U
Trichlorofluoromethane	5	8.0 U	8.0 U	-	-	2.0 U	-	-	2.0 U	-	-	-	-	20 U		2.0 U	20 U	2.0 U	2.0 U	-	2.0 U
Vinyl chloride	2	191	133	-	-	1.0 U	-	-	463	-	-	-	-	883		1.0 U	1,640	1.0 U	1.0 U	-	1.0 U
Xylene (total)	5	4.0 U	4.0 U	-	-	1.0 U	-	-	1.0 U	-	-	-	-	10 U		1.0 U	10 U	1.0 U	1.0 U	-	1.0 U
Total VOCs:		9,775	5,502	-	-	6	-	-	1,289	-	-	-	-	2,739	-	23	4,812	ND	ND	-	5
Total Site CVOCs:		9,775	5,502	-	-	2	-	-	1,266	-	-	-	-	2,739	-	23	4,812	ND	ND	-	ND
General Chemistry:																					
Barium (µg/l)	1,000	-	-	-	2,520	-	1,680	487	1,850	2,950	228	6,180	-	-	1,880	-	-	13 U	13 U	13 U	13 U
Cyanide (mg/l)	0.2	-	-	4.1	-	-	-	0.061	-	0.24	0.18	0.4	0.53	-	0.036	-	-	0.0041 U	0.0041 U	0.0041 U	0.0089 J

a/ VOC = volatile organic compound; CVOC = chlorinated volatile organic compound; µg/l = micrograms per liter; mg/l = milligrams per liter; U = analyte not detected above Reporting Limit; J = estimated concentration below the laboratory Reporting Limit or equal to or greater than the Method Detection Limit; - = not analyzed

b/ LBA-MW-19 was found abandoned;well replaced with MW-19B

c/ Concentrations in bold text exceed evaluation criteria. Evaluation criteria are the New York State Ambient Water Quality Standards or Guidance Values for Class GA groundwater provided in the New York State Department of Environmental Conservation Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, and the April 2000 Addendum.

d/ The blind duplicates

Site-Specific Health and Safety Plan (HASP)



Project Title:

Former Emerson Power Transmission Facility

Location:

620 South Aurora Street, Ithaca, New York 14850

Prepared For:

SHIFT Capital

LaBella Project No. 2241173

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Table 1: Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica 26

ATTACHMENTS

APPENDICES

APPENDIX A - Directions to Medical Facility

APPENDIX B - Task Hazard Analysis Forms

APPENDIX C - Safety Data Sheets

APPENDIX D - Daily Tailgate Safety Meeting Form

APPENDIX E - Silica Exposure Plan

0.0 HASP Acknowledgment

All LaBella project personnel, contractors, and subcontractors are required to sign the following agreement prior to conducting work:

- 1. I have read and fully understand the requirements of this site-specific HASP including my individual responsibilities listed above.
- 2. I agree to abide by the provisions of the HASP and participate in any health and safety meetings or modifications to the HASP criteria during the implementation of work.

Name	Company	Date

1.0 Introduction

The purpose of this Health and Safety Plan (HASP) is to provide guidelines for responding to potential health and safety issues that may be encountered at the project site, located at 620 South Aurora Street, Ithaca, New York 14850. This HASP only reflects the policies of LaBella Associates D.P.C. and its affiliated company (LaBella Environmental, LLC) collectively referred to as "LaBella". The requirements of this HASP are applicable to all approved LaBella personnel, contractors and subcontractors at the work site. This document's project specifications 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 federal, state or local regulatory requirements.

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 specific to this project. 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 Daily Pre-Job Safety Meetings

Prior to the beginning of work each day the Field Supervisor/Foreman or on-site Project Manager will review upcoming daily job requirements, anticipated hazards and hazard control measures with the project team members. At this meeting information such as personal protective equipment, site conditions, emergency procedures, and other applicable topics may be addressed. A copy of the **Daily Pre-Job Safety Tailgate/Toolbox Meeting Form** is attached to this HASP.

4.0 Site Information

Project Name:	Former Emerson Power Transmission Facility
LaBella Project No.:	2241173
Project Location:	620 South Aurora Street, Ithaca, New York 14850
Current Use of Project Location:	The Site consists of a former manufacturing plant complex and surrounding access roads and parking lots. The Site is being redeveloped for mixed industrial, commercial, and restricted-residential use.

Uses of Surrounding Areas (Res Vacant Land, Commercial, etc.):	The Site is an approximately 61.5-acre area and is bounded by residential neighborhoods to the north, undeveloped, steep woodlands to the south, South Aurora Street to the east, and undeveloped, steep woodlands and ultimately West Spencer Street to the west.
Proposed Date(s) of Field Activity - Start:	2025-01-01
Proposed Date(s) of Field Activity - End:	2027-12-31

5.0 Scope of Work

The proposed field work covered under this HASP includes the following:

- Implement the Interim Site Management Plan (ISMP) during redevelopment activities.

6.0 Emergency Information

The personnel and emergency response contacts associated with the proposed scope of work are presented below and are to be posted onsite during all field activities. The Site Safety Officer (SSO) is the primary authority for directing site operations and relaying communications under emergency conditions. During the SSO's absence, the Project Manager or Site Supervisor will lead emergency operations.

Project Personnel		
Contact	Name	Phone
LaBella Project Manager	Drew Brantner	585-287-9089
LaBella Site Supervisor	TBD	TBD
Corporate Safety Manager	Catherine Monian	845-486-1557
Environmental Division Safety Program Manager	Tim Ruddy	315.440.5125
Site Safety Officer	TBD	TBD
Site Contact	Robert Lewis (SHIFT Capital)	423-838-3547
Emergency Personnel including Police and Fire Dept and Ambulance – Dial 911		

Hospital- <i>see Hospital Route Section below for directions</i>	Cayuga Medical Center	607-274-4011
Poison Control		800-336-6997
NYSDEC Spill Response Hotline		800-457-7362

First Aid

A First Aid Kit may be located as follows:

- LaBella company vehicle
- Contractor's vehicle or field office

The injured person may be transported to a trained medical center for further examination and treatment. The preferred transport method is a professional emergency transportation service; however, if this option is not readily available or would result in excessive delay, other transport is authorized.

Under no circumstances should an injured person transport themselves to a medical facility for treatment, no matter how minor the injury may appear.

Incident Reporting

Employees shall report all incidents and injuries to their supervisor as soon as possible, including those involving employees operating vehicles and other equipment. All reporting procedures contained in LaBella Safety Policy 1.22 must be followed.

During emergencies employees should seek medical care immediately. When contacting their Supervisor/Safety Manager/HR, employees should discuss medical care options. If an employee is asked by medical personnel for a worker's compensation number they should tell them that LaBella should be billed directly.

When emergency medical care is not imminent, employees shall immediately report events to their immediate Supervisor, the Safety Manager and Human Resources, and participate in the investigation process as well as the corrective action process, as needed. An Accident-Incident-Near Miss-Hazard Form must be submitted online or by e-mail to the Supervisor, Safety Manager and HR as soon as possible but no later than 24 hours after the event. The Form can be found on LaBella's intranet under "Operations".

7.0 Potential Health and Safety Hazards and Controls

This section lists potential health and safety hazards that project personnel may encounter at the project site and 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 their instructions must be followed.

<i>Physical Hazards</i>		
Work Action or Condition	Potential Safety Hazard	Controls (including PPE)
Blades and Sharp Objects	Injury	Blades and Sharp objects are likely to be present on site, presenting risk of physical injury. The following hazard control measures will be applied: • Only use tools designed for the task. Do not improvise. • Inspect the tool before use; do not use dull or damaged blades. • Carry blades with tip sheathed or pointed down and away from the body. • Cut on a stable surface with sufficient lighting. • Wear appropriate PPE (gloves, safety glasses, etc.).
Excavations and Trenches	Injury from fall into or cave-in of trench/excavation. Asphyxiation, engulfment, or explosion (if pipe bursts)	An open excavation or trench may be present during site activity, or could be present during demolition or remediation activities. No LaBella employees should enter a trench or excavation unless authorized to by the designated Competent Person. During heavy precipitation, excessive runoff may create slippery surfaces and also weaken the excavation sidewalls making the excavation more susceptible to collapse. The following hazard control measures will be applied: • All materials must be placed greater than 2 feet from the edge of the trench and LaBella employees should remain at least 2-feet from the edge of any excavation or trench. • LaBella employees are not to enter excavations greater than 4-feet in depth unless they have received appropriate training, stabilization measures are in place and a competent person has determined that the conditions are safe. • Any samples must be collected from the equipment bucket or from the spoils pile.

Hand Tools	Physical injury	• Do not use a tool if you have not been trained. Inspect tool before use and do not use damaged tools. • Maintain tools in good condition and follow manufacturers' instructions. • Wear gloves, safety glasses and appropriate PPE /apparel, avoiding loose clothing; secure long hair. • When using a cutting tool hold its handle firmly and cut away from your body, never towards it. • If working on a ladder or scaffold raise and lower tools using a bucket and hand line; never carry tools in a way that prevents using both hands on a ladder (maintain three points of contact)
Heavy Equipment - Working Near	Struck by, Caught in between, Causing an obstruction on existing roadway, Rollaway, and hearing damage.	Working near heavy equipment presents struck-by and caught-in or in-between risks. Heavy equipment can also rollaway or obstruct roadways, limiting visibility. The following hazard control measures will be applied: • Maintain 360 degrees of awareness of your surroundings. • Meet the Operator, discuss work operations, and stay in line of sight. • Wear high visibility clothing (outer layer), hard hat, safety glasses, work boots. • Stand in safe zone away from blind areas. Never walk behind or to the side of heavy equipment without the operator's knowledge. Have an escape plan. • Stay out of the swing zone of heavy equipment such as excavators or traditional auger rigs. The swing zone is defined as an entire 360 degree circle equipment may move within as measured from a central location point. • Only approach drill rig after auger has stopped rotating and the operator has given the OK for you to approach to collect a sample. • Wear hearing protection when working near heavy or moving equipment.
Power Tools	Injury from improper use Electrical shock and electrocution	• Unplug power tools when not in use. • Do not use a tool if you have not been trained. Inspect tool and cord before use and do not use damaged tools. • Maintain tools in good condition and follow manufacturers' instructions. • Wear gloves, safety glasses and appropriate PPE /apparel, avoiding loose

		clothing; secure long hair. • Never remove a safety guard when a tool is being used. • Only plug electric tools into a grounded receptacle with a GFCI. Stop using tool if slight shock or tingling is felt. • Secure work with clamps to have both hands free to use the tool. • Keep power tool cords away from heat, oil and sharp edges. • Tag all damaged tools with "Do Not Use".
Roads/Traffic - Near/On	Getting struck by vehicle	• If working in or around traffic (including in parking lots), workers will wear an ANSI Level 2 high visibility clothing (vest). An ANSI Level 3 vest (with sleeves) is required when working near traffic exceeding 50 mph. Additional reflective gear is also required for night work. • Maintain 360 degrees of awareness of your surroundings. • Face traffic, stay in a safe zone, and have an escape route. • Do not wear a headset or talk on your cell phone. • DOT approved Traffic Cones and all Traffic Cobtral Devices must be designed and placed according to Uniform Traffic Control Devices (MUTCD) standards (See 3.13 WORK ZONE SAFETY in Labella's Safety Manual for more information) • If possible, close the entrance/exit to ensure the worker's safety, and use a spotter if the worker will not have the ability to keep their attention on vehicles maneuvering in the area. • Workers should NOT sit down or turn their back to traffic when working. If they must do either of these things to complete the work scope, use a spotter or consider alternate ways or tools to do the work.
Slip-Trip-Fall	Injury	• Reduce and avoid slippery (wet, icy, oily, muddy, etc.) surfaces. • Workers will watch where they step and wear proper footwear. • Keep work areas free of obstructions and debris.
Underground Utilities	Damage to utility infrastructure, Electrocution, Explosion	• Utility marking is needed for this project. • Prior to the commencement of ground intrusive activities, underground utilities will be located by a third-party locator.

		• Workers will not stand within 20-feet of any active excavations or boreholes if not actively working in those areas.
--	--	--

<i>Ergonomic Hazards</i>		
Work Action or Condition	Potential Safety Hazard	Controls (including PPE)
Lifting Heavy Objects	Injury from Improper Lifting/Lifting weights that are too heavy	• When lifting heavy objects, keep the load close to the body and use the leg muscles instead of the back muscles to perform lifting tasks. • Do not attempt to lift large, heavy (especially over 50-lbs), or awkwardly shaped objects without assistance from another employee or from a manual lifting device.
Noise (Loud, Sustained)	Hearing Damage	• Ear protection will be worn at all times when personnel are within 20-feet of operating equipment or when noise level becomes consistently loud enough to have to raise voice to communicate with someone. • Hearing protection will also be worn in the vicinity of generators, concrete cutters, and any other high noise emitting equipment.

<i>Chemical Hazards (General)</i>		
Work Action or Condition	Potential Safety Hazard	Controls (including PPE)
Asbestos Sampling or Abatement Monitoring	<i>Asbestos is a common, naturally occurring group of fibrous minerals. Asbestos fibers have been used in a variety of building materials. Friable asbestos is a potential hazard because it can release fibers into the air if</i>	Asbestos exposure is a risk factor for developing disabling and deadly lung diseases, often years after initial exposure. The following hazard control measures will be applied: • Do not collect samples or complete air project monitoring without appropriate certification and training, as defined in Section 9.0. • Use appropriate PPE as defined in Section 8.0. • Follow personnel decontamination procedures.

	<i>damaged. Long term exposure to airborne asbestos is necessary for chronic lung disease. Significant and longterm exposure to asbestos from activities that directly disturb asbestos-containing materials (such as asbestos mining) can lead to a variety of respiratory diseases, including asbestosis and mesothelioma (cancer of the lung lining). Asbestosis is a non-malignant, irreversible disease resulting in fibrosis of the lung. Asbestos-related cancers tend also to result from substantial long-term exposure, however, mesothelioma may result from lower doses.</i>	
Chemical Exposure - Volatile Organic Compounds (VOC)	<i>Contaminants identified in testing locations at the Site include various volatile organic compounds (VOCs), primarily</i>	Volatile Organic Compound (VOC) gases may be emitted from a number of materials and products. The presence of organic vapors may be detected by their odor and by monitoring instrumentation and can lead to physical harm. VOC concentrations at this Site are not anticipated to exceed PELs. The following hazard control measures will be applied,

	<i>VOCs associated with Site contamination. Volatile organic vapors may be encountered during subsurface activities at the project work site. Inhalation of high concentrations of volatile organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis. Relevant Safety Data Sheets are included as Appendix 1.</i>	however: • Workers should be wearing appropriate PPE, following listed decontamination procedures and be periodically screening the work zone to prevent against and evaluate for unexpected exposures. Refer to the relevant sections of this HASP for more detail regarding PPE, decontamination procedures and work zone screening.
Chemical Exposure - Heavy Metals	<i>Contaminants identified in testing locations at the Site include low-level heavy metals, primarily associated with Site contamination. Heavy metal-impacted media including fill material may be encountered during subsurface activities at the project work site.</i>	The presence of heavy metals in site media may be difficult to ascertain in the field. Heavy metal concentrations at this site are not anticipated to exceed PELs. The following hazard control measures will be applied, however: • Workers shall wear appropriate PPE and follow listed decontamination procedures to prevent exposures. Refer to the relevant sections of this HASP for more detail regarding PPE and decontamination procedures.
Chemical Exposure - Polychlorinated Biphenyls	<i>Contaminants identified in testing locations at the Site include PCBs. PCB-impacted media may be</i>	The presence of PCBs in site media may be difficult to ascertain in the field. PCB concentrations at this site are not anticipated to exceed PELs. The following hazard control measures will be applied, however: • Workers should be wearing appropriate PPE

	<i>encountered during subsurface activities at the project work site. Potential human health effects of PCB exposure include cancer as well as neurological, immunological and reproductive effects. Relevant Safety Data Sheets are included as Appendix 1.</i>	and following listed decontamination procedures to prevent exposures. Refer to the relevant sections of this HASP for more detail regarding PPE and decontamination procedures.
Chemical Exposure - Semi-Volatile Organic Compounds (SVOC)	<i>Contaminants identified in testing locations at the Site include SVOCs. SVOC-impacted media including fill material may be encountered during subsurface activities at the project work site.</i>	The presence of SVOCs in site media may be detected by their odor and monitoring instrumentation. SVOC concentrations at this Site are not anticipated to exceed PELs. The following hazard control measures will be applied, however: • Workers should be wearing appropriate PPE and following listed decontamination procedures to prevent exposures. Refer to the relevant sections of this HASP for more detail regarding PPE and decontamination procedures.
Sample Collection - Soil or Groundwater	<i>Exposure to contaminants. Hand injury from cutting, crushing, tool or glass breakage. Back strain from lifting cooler.</i>	• When collecting samples, workers will utilize nitrile gloves, safety glasses or goggles. If material being sampled potentially contains fill or other sharp material, use a stainless steel spoon (or similar) as a tool to collect the sample. Any such tools should be dedicated or properly decontaminated between samples. • When lifting sample coolers, workers will use proper lifting techniques and get assistance when possible, especially for containers heavier than 50 lbs.

<i>Individual Contaminant Hazards</i>			
Chemical	OSHA Permissible Exposure Limit	Routes of Exposure	Symptoms of Overexposure

	(PEL)/ NIOSH Recommended Exposure Limit (REL) or Immediately dangerous to life or health air concentration values (IDLH)		
1,2- Dichloroethylene (VOC)	TWA 200 ppm (790 mg/m³) NIOSH REL/IDLH: TWA 200 ppm (790 mg/m³)	The substance can be absorbed into the body by inhalation of its vapour and by ingestion.	irritation eyes, respiratory system; central nervous system depression
Arsenic (Metal)	TWA 0.010 mg/m³ NIOSH REL/IDLH: REL: Ca C 0.002 mg/m³ [15- minute]	inhalation, skin absorption, skin and/or eye contact, ingestion	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, resp irritation, hyperpigmentation of skin
Tetrachloroethane (VOC)	REL: TWA 10 ppm (60 mg/m³) ST 20 ppm (120 mg/m³)	inhalation, skin absorption, ingestion, skin and/or eye contact	nausea, vomiting, abdominal pain; tremor fingers
Trichloroethylene (VOC)	TWA: 50 ppm 270 mg/m³ Ceiling: 200 ppm STEL: 200 ppm NIOSH REL/IDLH: IDLH: 1000 ppm	The substance can be absorbed into the body by inhalation and by ingestion.	dizziness, headaches, sleepiness, confusion, nausea, unconsciousness

8.0 Personal Protective Equipment (PPE)

All site workers will have appropriate training as identified in Section 7.0. Training includes the identification of PPE necessary for various tasks; how to don, doff, adjust, and wear PPE; limitations of PPE; and proper care, inspection, testing, maintenance, useful life, storage, and disposal of the PPE. PPE will be inspected on a regular basis.

Level D: A work uniform affording minimal protection, used for nuisance contamination, only.	• Coveralls or long-sleeves and pants • Gloves • Nitrile sampling gloves (as needed) • Boots/shoes, chemical-resistant steel toe
--	---

	and shank • Safety glasses or chemical splash goggles • Hard hat
--	--

9.0 Employee Training

All workers and other personnel shall receive appropriate training prior to engaging in site activities. All workers must recognize and understand the potential hazards to health and safety that are associated with the proposed scope of work and must be thoroughly familiar with programs and procedures contained in this Safety Plan.

The following training levels were determined to be needed:

- OSHA 40 Hour - HAZWOPER

11.0 Site Control

If the phase of work or project activity requires a decontamination zone or other site control zone, adhere to the HASP prepared by the applicable contractor(s) responsible for establishing and maintaining site control.

12.0 Recordkeeping

An electronic or hardcopy version of this HASP will be present at the Site during all field work activities. Copies of field logs, including daily pre-job safety meeting logs, will be filed by LaBella and available for the duration of the project.

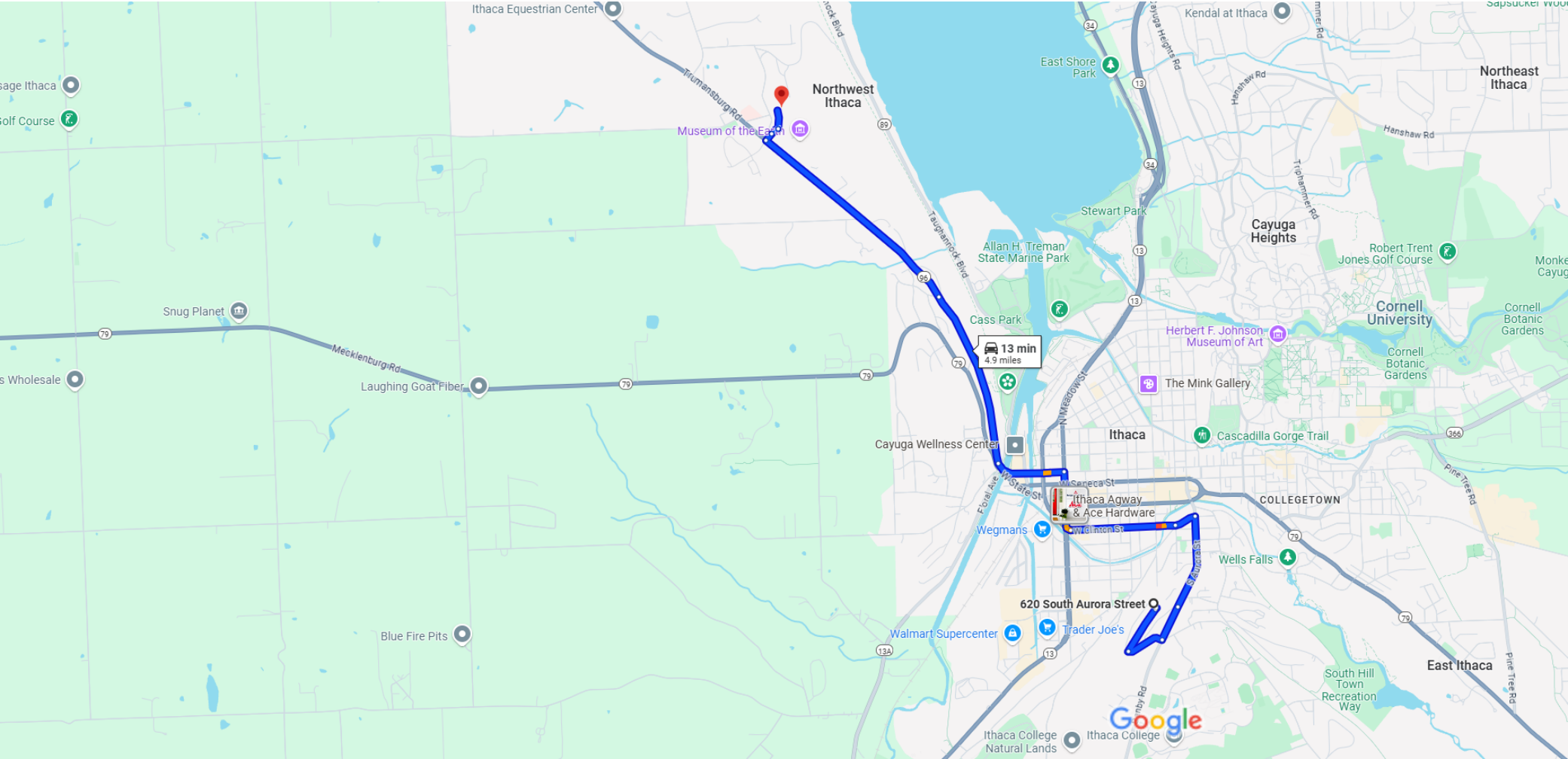
Employees will be able to provide physical or electronic copies of required training certificates.

Incident reporting will be completed in accordance with LaBella policies.



APPENDIX A

Directions to Nearest Medical Facility



Map data ©2025 Google 2000 ft

620 S Aurora St
Ithaca, NY 14850

Take Morse Chain, S Aurora St and E Clinton St to S
Meadow St in Ithaca

- 7 min (1.9 mi)

↑ 1. Head southwest toward Morse Chain
- 49 ft

↑ 2. Continue onto Morse Chain

- 

3. Turn left to stay on Morse Chain

0.3 mi
- 

4. Turn left onto Danby Rd

0.2 mi
- 

5. Continue onto S Aurora St

0.2 mi
- 

6. Turn left onto Prospect St

0.5 mi
- 

7. Continue onto E Clinton St

0.1 mi
- 0.6 mi

Take Cliff St and Trumansburg Rd to Harris B Dates Dr
Exn in Northwest Ithaca

- 6 min (2.9 mi)
- 

8. Turn right onto S Meadow St

0.3 mi
- 

9. Turn left onto W Buffalo St

0.4 mi
- 

10. Continue onto Cliff St

1.0 mi
- 

11. Continue onto Trumansburg Rd

1.2 mi

Drive to County Hospital Rd

- 1 min (0.2 mi)
- 

12. Turn right onto Harris B Dates Dr Exn

256 ft
- 

13. Continue straight onto County Hospital Rd

217 ft
- 

14. Turn left to stay on County Hospital Rd

 Destination will be on the right

0.1 mi

Cayuga Medical Ctr
101 Dates Dr, Ithaca, NY 14850



APPENDIX B

Task Hazard Analysis Forms

6.02 TASK HAZARD ANALYSIS (THA) FORM

THA Title:		THA ID #:	Date:	☐ New ☐ Revised
Work Activity:		Risk Code (Table Page 2):	Division:	
Person Preparing THA:		Person Assisting with THA:		
Sequence of Steps or Activities	Materials, Equipment & Tools Needed	Hazards	Recommended Controls Measures / PPE/ Training	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Risk Assessment Codes (RACs) Likelihood & Severity Classification			
Likelihood of Harm (People, Environment, Facility)	Severity of Harm/Consequences (People, Environment, Facility, Supply Chain Disruption, Brand Impact)		
	Slight Harm	Moderate Harm	Extreme Harm
Very Unlikely	Very low risk	Very low risk	High risk
Unlikely	Very low risk	Medium risk	Very high risk
Likely	Low risk	Medium risk	Very high risk
Very Likely	Low risk	High risk	Very high risk
Definitions			
<u>Likelihood of Harm Categories:</u> -Very Unlikely: Will not occur except in rare instances under certain conditions -Unlikely: Typically would not occur -Likely: May occur on a regular basis -Very Likely: Will occur in most instances		<u>Severity of Harm Categories:</u> -Slight harm: Only first aid required -Moderate harm: Injury or illness resulting in inability to work for a short period of time -Extreme harm: Death or serious injury or illness resulting in inability to work indefinitely	

PREPARATION SIGN OFF			
Role	Name	Signature	Date
Preparer			
Reviewer with Relevant Task Technical Experience or Safety Expertise			
Safety Manager – Needed for High Risk or Very High Risk THAs			

ACKNOWLEDGEMENT IF THA IS USED AS A TRAINING RESOURCE			
By signing I am indicating that I have read and understand the contents of this Task Hazard Assessment and the controls required to mitigate the risks from identified hazards.			
Name	Signature	Company	Date



APPENDIX C

Safety Data Sheets

Safety Data Sheet Digital Library for Reference





APPENDIX D

[Daily Tailgate Safety Meeting Form](#)

6.08 PRE-JOB SAFETY TAILGATE/TOOLBOX MEETING FORM

Date		Time	
Location or Address		Temperature	
Project Number		Humidity	
Conducted by		Conditions	
Were all workers reminded that COVID is still prevalent and that appropriate measures should be taking to prevent infection of themselves and others?			Yes ☐ No ☐

911	If 911 is unavailable at this location, please state the procedure for reporting emergencies _____
------------	--

List Safety Topic of Discussion and/or Any Specific Hazards for the Work Being Performed Today	
1	
2	
3	
4	
5	
6	
7	
List Control Measures for Each Specific Hazard Listed Above	
1	
2	
3	
4	
5	
6	
7	

PLEASE SIGN THE BACK OF THIS SHEET

The presenter and all attendees shall print and sign in the appropriate areas on the back of this sheet



By signing, you declare that you understand the information presented in today's meeting, and that you have had the opportunity to ask questions and to clarify any uncertainty regarding such information.

All Visitors and Contractors Must Print Their Company Name

[illegible]



APPENDIX E

Silica Exposure Plan

6.17 SILICA EXPOSURE CONTROL PLAN

Silica Exposure Control Plans are Required for all Tasks with Potential Exposure to Silica
See LaBella Safety Manual Policy 4.09 and Attachment A - Table 1 of OSHA 1926.1153

Exposure Control Plan Project Information

Person Completing the Plan:	Date:
Location:	Division:
Project Number:	Phase:

Description of Task

--

Controls

OSHA requires Silica Exposure Control Plans include the following:

- Engineering Controls - Work Practice Controls - Respiratory Protection
- Housekeeping Measures - Procedures Used to Restrict Access to Work Areas

Types of Controls:

Elimination or Substitution Controls:

- ☐ Other means of demo
- ☐ Different products
- ☐ Other

Engineering and Work Practice Controls:

- ☐ Doing work when concrete is wet
- ☐ Equipment with integrated water delivery
- ☐ Equipment w/ shroud/dust collection system
- ☐ HEPA vacuuming
- ☐ Water or water/surfactant for dust suppression
- ☐ Isolation/Enclosure
- ☐ Heavy equip. operation from enclosed cab
- ☐ Ventilation*
- ☐ Other

*When using ventilation, draw air out and don't expose others to exhaust dusts. See Ventilation section, below.

Restricted Access to Work Areas Measures:

- ☐ Signage
- ☐ Physical Barriers
- ☐ Dust Barriers
- ☐ Other

Housekeeping Measures:

- ☐ Wet mopping/wet sweeping
- ☐ HEPA vacuuming of work area
- ☐ HEPA vacuuming of clothing/coveralls
- ☐ Other



6.17 SILICA EXPOSURE CONTROL PLAN

Administrative Controls:

- ☐ Work schedules/coordination
- ☐ Inspections by competent persons
- ☐ Control points

Respiratory Protection and PPE:

- ☐ Half face: _____
- ☐ Full face: _____
- ☐ Supplied air units _____
- ☐ Coveralls: _____
- ☐ Gloves: _____

Cartridge Type: _____
Cartridge Type: _____

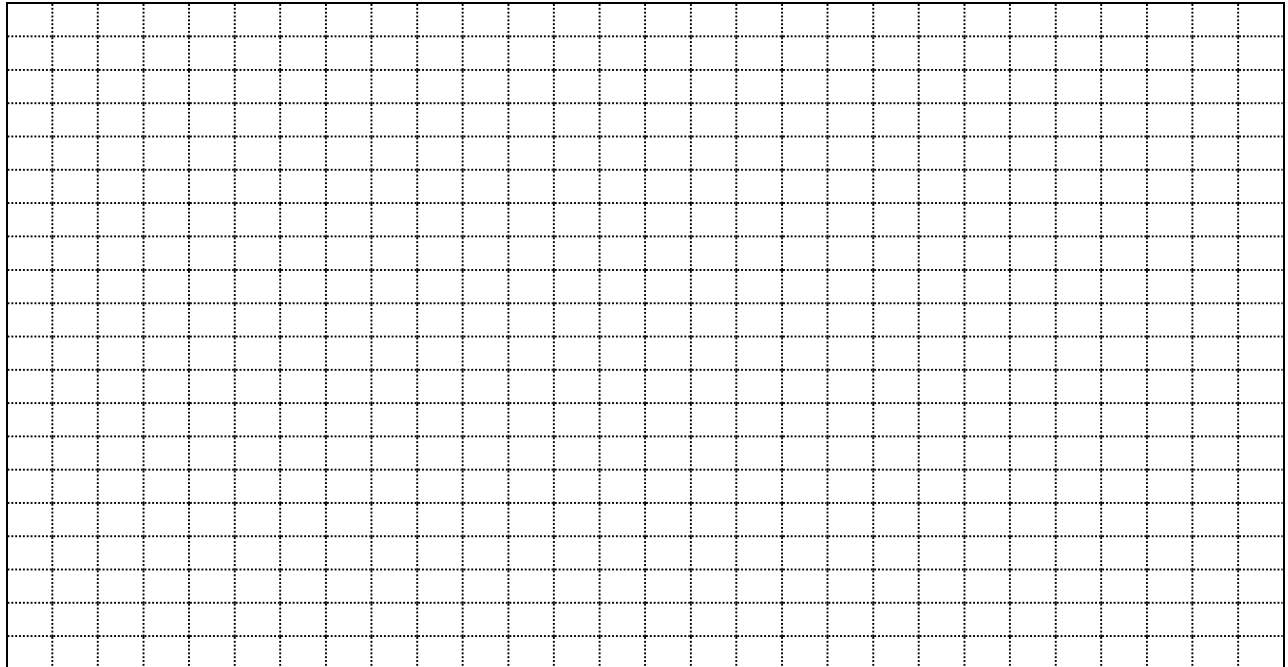
- ☐ Other _____
- ☐ Other _____

Hygiene and Decontamination:

- ☐ Water or washing facilities on site
- ☐ Vacuuming clothing/self
- ☐ Other

Ventilation

Ventilation Plan: Indicate number/location of fans (positive / negative), airflow direction  makeup air locations, discharge air outlets.



Area of location in building of ventilation plan: _____

Date Plan was posted/reviewed by workers: _____

Ventilation Safety Checklist:

- | | |
|--|--|
| ☐ Makeup air free of contaminants | ☐ Discharge not affecting others |
| ☐ Exhaust fan operation has failure warning | ☐ Dilution fans not stirring up dust |
| ☐ Wetting of materials used to keep dust down | ☐ All workers have approved respirators |
| ☐ Workers not placed between contaminants created and exhaust inlet ports | |



6.17 SILICA EXPOSURE CONTROL PLAN

ATTACHMENT

**Table 1: Specified Exposure Control Methods When Working
With Materials Containing Crystalline Silica**

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
1	Stationary masonry saws	- Use saw equipped with integrated water delivery system that continuously feeds water to the blade. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
2a	Handheld power saws (any blade diameter) when used outdoors	- Use saw equipped with integrated water delivery system that continuously feeds water to the blade. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
2b	Handheld power saws (any blade diameter) when used indoors or in an enclosed area	- Use saw equipped with integrated water delivery system that continuously feeds water to the blade. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
3	Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) for tasks performed outdoors only	- Use saw equipped with commercially available dust collection system. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. - Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None
4a	Walk-behind saws when used outdoors	- Use saw equipped with integrated water delivery system that continuously feeds water to the blade. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
4b	Walk-behind saws when used indoors or in an enclosed area	- Use saw equipped with integrated water delivery system that continuously feeds water to the blade. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
5	Drivable saws for tasks performed outdoors only	- Use saw equipped with integrated water delivery system that continuously feeds water to the blade. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
6	Rig-mounted core saws or drills	- Use tool equipped with integrated water delivery system that supplies water to cutting surface. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
7	Handheld and stand-mounted drills (including	Use drill equipped with commercially available shroud or cowling with dust	None	None



6.17 SILICA EXPOSURE CONTROL PLAN

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	impact and rotary hammer drills)	- collection system. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. - Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. - Use a HEPA-filtered vacuum when cleaning holes.		
8	Dowel drilling rigs for concrete for tasks performed outdoors only	- Use shroud around drill bit with a dust collection system. - Dust collector must have a filter with 99% or greater efficiency and a filter cleaning mechanism. - Use a HEPA-filtered vacuum when cleaning holes.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
9a	Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.	None	None
9b	Vehicle-mounted drilling rigs for rock and concrete	Operate from within an enclosed cab and use water for dust suppression on drill bit.	None	None
10a	Jackhammers and handheld powered chipping tools when used outdoors	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10b	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10c	Jackhammers and handheld powered chipping tools when used outdoors	- Use tool equipped with commercially available shroud and dust collection system. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. - Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10d	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	- Use tool equipped with commercially available shroud and dust collection system. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. - Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask



6.17 SILICA EXPOSURE CONTROL PLAN

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
11	Handheld grinders for mortar removal (i.e., tuckpointing)	- Use grinder equipped with commercially available shroud and dust collection system. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. - Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	Powered Air-Purifying Respirator (PAPR) with P100 Filters
12a	Handheld grinders for uses other than mortar removal for tasks performed outdoors only	- Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
12b	Handheld grinders for uses other than mortar removal when used outdoors	- Use grinder equipped with commercially available shroud and dust collection system. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. - Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	None
12c	Handheld grinders for uses other than mortar removal when used indoors or in an enclosed area	- Use grinder equipped with commercially available shroud and dust collection system. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. - Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
13a	Walk-behind milling machines and floor grinders	- Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
13b	Walk-behind milling machines and floor grinders	- Use machine equipped with dust collection system recommended by the manufacturer. - Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. - Dust collector must provide the air flow	None	None



6.17 SILICA EXPOSURE CONTROL PLAN

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
		recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.		
14	Small drivable milling machines (less than half-lane)	- Use a machine equipped with supplemental water sprays designed to suppress dust. - Water must be combined with a surfactant. - Operate and maintain machine to minimize dust emissions.	None	None
15a	Large drivable milling machines (half-lane and larger) for cuts of any depth on asphalt only	- Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. - Operate and maintain machine to minimize dust emissions.	None	None
15b	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	- Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. - Operate and maintain machine to minimize dust emissions.	None	None
15c	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	- Use a machine equipped with supplemental water spray designed to suppress dust. - Water must be combined with a surfactant. - Operate and maintain machine to minimize dust emissions.	None	None
16	Crushing machines	- Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). - Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. - Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None
17a	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab.	None	None
17b	Heavy equipment and utility vehicles used to abrade or fracture silica-containing	When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary	None	None



6.17 SILICA EXPOSURE CONTROL PLAN

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	to minimize dust emissions.		
18a	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	Apply water and/or dust suppressants as necessary to minimize dust emissions.	None	None
18b	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None	None

