



February 7, 2020

Karen A. Cahill
Division of Environmental Remediation
New York State Department of Environmental Conservation, Region 7
615 Erie Boulevard West
Syracuse, NY 13204-2400

Subject: **AOC 1 – Installation of NAPL Monitoring Points
Former Emerson Power Transmission Facility, Ithaca, New York, Site No. 755010
Order on Consent #A-0125-87-09**

Dear Karen:

WSP USA Inc., on behalf of Emerson Electric Co., has prepared this letter documenting the installation of three monitoring wells in Area of Concern (AOC 1), the Former Department 507 Degreaser Area in Building 4, at the former Emerson Power Transmission Corp. (EPT) facility (Site No. 755010) in Ithaca, New York. During previous investigation activities within this AOC approximately 0.3 feet of light, non-aqueous phase liquid (LNAPL) were observed on the water surface in shallow bedrock piezometer PZ-4, outside the west wall of Building 4 (Figure 1). The New York State Department of Environmental Conservation (NYSDEC), via letter dated February 14, 2019, requested the installation of additional LNAPL monitoring wells within the unconsolidated material where potential indications of NAPL had been observed in the field.

Existing wells and piezometers in the area were abandoned in 2018, prior to implementation of the Soil Interim Remedial Measure (IRM) addressing the presence of chlorinated volatile organic compounds (CVOCs) in the shallow unconsolidated materials within the AOC. The Soil IRM included excavation of shallow unconsolidated material, placement of clean fill in the excavation, installation of a geosynthetic clay liner (to prevent infiltration), and placement of an asphalt cover.

The new LNAPL monitoring wells (MW-47A, -48A, and -49A) were installed in September 2019 (Figure 1). The boreholes were advanced to refusal at the bedrock surface (between 18.5 and 19 feet below ground surface) using nominal 8-inch outer diameter hollow stem augers. The wells are constructed of nominal 4-inch inside diameter, Schedule 40 polyvinyl chloride risers and 0.010-inch slot screens. At each location, No. 2 sand was placed in the annular space between the PVC and outer borehole to approximately 2 feet above the top of the screen; a cement-bentonite mix was placed from the top of the sand to near the ground surface. Each monitoring point was completed with a flush-mount cover placed in concrete.

Each of the three boring logs (Enclosure A) indicates the presence of a petroleum-like odor in the sandy clay overburden directly overlying bedrock. As shown in the logs, the screened intervals are set at the interface between the overburden/fill and bedrock with 10-foot long screens extending through the overburden/fill to above the water table. Water level measurements indicate that the water table is approximately at the mid-points of the screened intervals at all three locations and, thus, the screens are ideally positioned for evaluating the potential presence of NAPL. Sorbent socks were installed in each of the monitoring points following installation; however, through January 2020, no measurable or recoverable product has been observed. WSP will monitor these wells for two additional quarters to confirm if there is measurable NAPL within AOC 1; if no NAPL is observed, the well(s) will be abandoned.

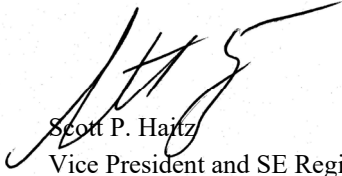
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The above information and any findings will be incorporated into the revised Feasibility Study.

Sincerely yours,



Scott P. Haitz
Vice President and SE Regional Manager



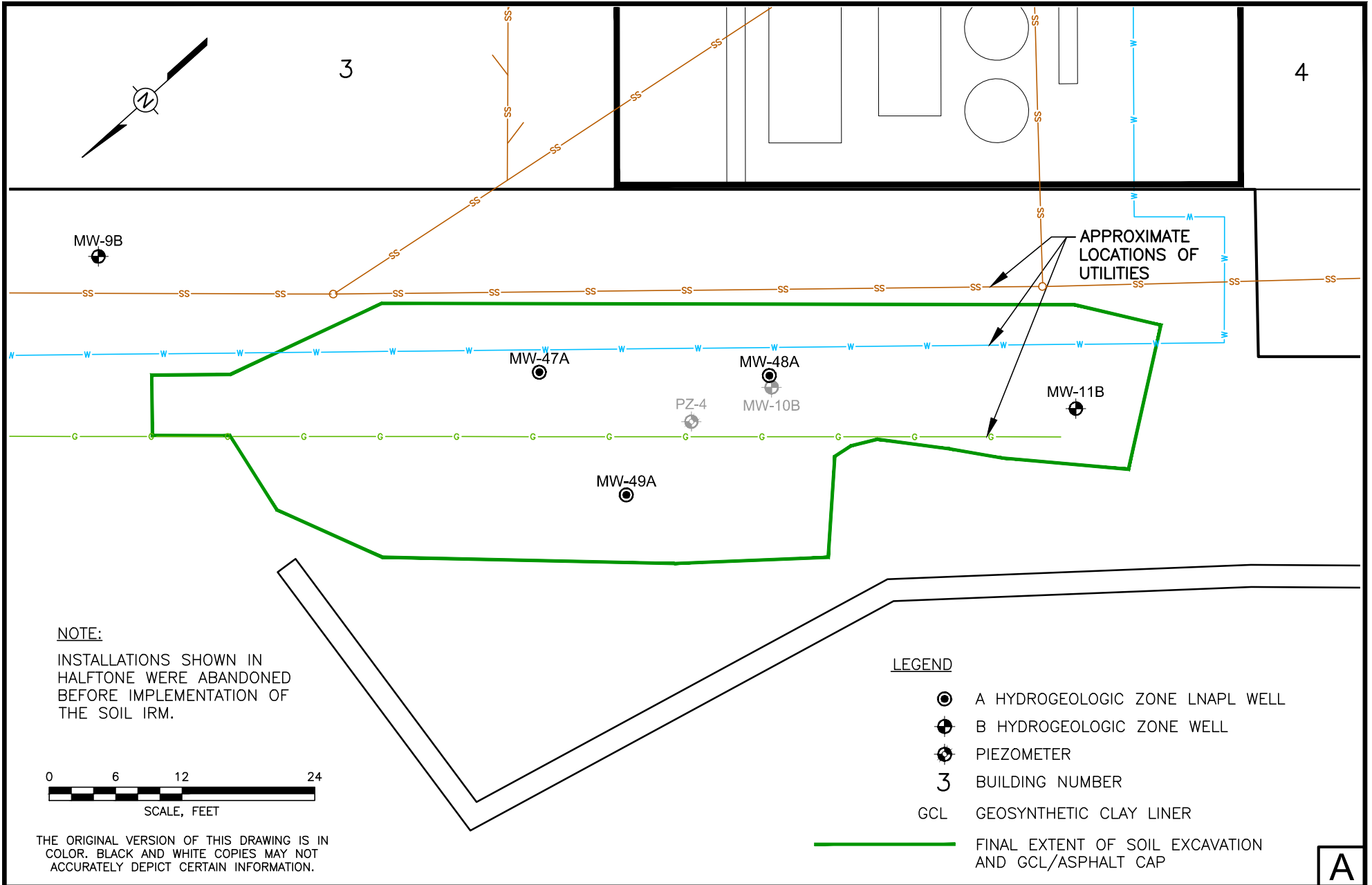
Lisa K. Kelly
Assistant Vice President

MEF/LKK/SPH

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cc: Stephen Clarke, Emerson (electronic copy)
Steve Karpinski, NYSDOH (electronic copy)

FIGURE



wsp WSP USA Inc.
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PITTSBURGH, PA 15222
TEL: +1 412.604.1040

FIGURE 1
MONITORING WELL LOCATIONS
AOC 1

FORMER EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

Drawn By:	<i>RTJ 02/06/2020</i>
Checked:	<i>WJF 02/07/2020</i>
Approved:	<i>D</i>
DWG No.:	314P1545.001-A04

A

ENCLOSURE A



Project Name: Ithaca		Client:		Location: Ithaca, NY		Boring Log: MW-47A-AOC-1		
Drilled By: Parratt Wolff, Inc./Devin		Drill Start Date:		Drill End Date: 9/19/2019		Drill Method: Hollow Stem Auger		
Logged By: Chris Cresci		Total Depth (ft): 18.4		Bore Diameter (in): 8.25/4		Ground Surface (ft-msl): 587.16		
Depth (ft)	Elevation (ft-msl)	Sample Type	Lab Sample Interval	Blows	PID (ppm)	Graphic Log	Notes:	Well
							Physical Description	
							Ground Surface	
2	585						Poorly-Graded Gravel with Silt and Sand (GP-GM) Light gray to black silty gravel, little fine to coarse sand; loose to medium dense; dry.	
4	583							
6	581	X		-	0.0		Lean Clay with Sand (CL) Yellowish-brown clay, some silt, little sand and gravel; soft; dry.	5
								6.5
8	579						Poorly-Graded Gravel (GP) Gravel; loose; dry.	
10	577	X		-	0.0		Poorly-Graded Gravel with Silt and Sand (GP-GM) Gray sub-angular gravel, little silt and sand; loose; dry.	11
12	575							13
14	573						Lean Sandy Clay with Gravel (CL) Dark gray to black sandy clay, gravel; medium soft; wet; strong petroleum-like odor.	
16	571	X		-	11.9			
18	569	X		-	37.4			
20	567							18.5
							Bottom of boring at 18.4 feet. Refusal at 18.5'	



Project Name: Ithaca		Client:		Location: Ithaca, NY		Boring Log: MW-48A-AOC-1		
Drilled By: Parratt Wolff, Inc./Devin		Drill Start Date:		Drill End Date: 9/19/2019		Drill Method: Hollow Stem Auger		
Logged By: Chris Cresci		Total Depth (ft): 18.2		Bore Diameter (in): 8.25/4		Ground Surface (ft-msl): 587.15		
Depth (ft)	Elevation (ft-msl)	Sample Type	Lab Sample Interval	Blows	PID (ppm)	Graphic Log	Notes	Well
							Physical Description	
							Ground Surface	
2	585						Poorly-Graded Gravel with Silt and Sand (GP-GM) Light gray to black silty gravel, little fine to coarse sand; loose to medium dense; dry.	
4	583							4.5
6	581	X		- - - -	10.8		Lean Clay with Sand (CL) Yellowish-brown clay, some silt, little sand and gravel; soft; dry.	
7								7
8	579						Poorly-Graded Gravel (GP) well sorted gravel; loose; dry.	
10	577	X		- - -	8.1		Poorly-Graded Gravel with Silt and Sand (GP-GM) Gray sub-angular gravel, little silt and sand; loose; dry.	
10								10
12	575	X						
13.5								13.5
14	573						Lean sandy Clay with Gravel (CL) Dark gray to black sandy clay, trace gravel; medium soft; moist to wet; strong petroleum-like odor.	
16	571	X		- - - -	154.9			
18	569	X		- - -	116.3			
18.5								18.5
18.2							Bottom of boring at 18.2 feet. Refusal at 18.5'	
20	567							



Project Name: Ithaca			Client:			Location: Ithaca, NY			Boring Log: MW-49A-AOC-1		
Drilled By: Parratt Wolff, Inc./Devin			Drill Start Date:			Drill End Date: 9/19/2019			Drill Method: Hollow Stem Auger		
Logged By: Chris Cresci			Total Depth (ft): 18.75			Bore Diameter (in): 8.25/4			Ground Surface (ft-msl): 587.19		
Depth (ft)	Elevation (ft-msl)	Sample Type	Lab Sample Interval	Blows	PID (ppm)	Graphic Log	Notes:			Well	
							Physical Description				
							Ground Surface				
2	585						Poorly-Graded Gravel with Silt and Sand (GP-GM) Light gray to black silty gravel, little fine to coarse sand; loose to medium dense; dry.				
4	583						Poorly-Graded Gravel (GP) Gravel; loose; dry.				
6	581			-	0.0		LEAN CLAY WITH SAND (cl) Yellowish-brown clay, some silt, little sand and gravel; soft; dry.			5.5	
8	579			-			Poorly-Graded Gravel (GP) Gravel; loose; dry.			6.5	
10	577			-	0.0		Poorly-Graded Gravel with Silt and Sand (GP-GM) Gray sub-angular gravel, little silt and sand; loose; dry.			10.5	
12	575			-							
14	573			-							
16	571			-	3.7						
18	569			-	1.3		Lean Sandy Clay with Gravel (CL) Dark gray clay, gravel; medium soft; moist; petroleum-like odor.			17	
20	567									19	
							Bottom of boring at 18.75 feet. Refusal at 19', Designated MW-46A-AOC-1 in the field. ID was changed to prevent confusion with MW-46 cluster adjacent to firewater reservoir.				