VIA ELECTRONIC MAIL

November 15, 2021

Mr. Christopher Mannes III, P.E.
Environmental Engineer II
New York State Department of Environmental Conservation
615 Erie Boulevard West
Syracuse, NY 13204-2400

Subject: **Third Quarter 2021 Progress Report**
Former Rollway Bearing Corporation Facility, Liverpool, New York
Agreement Index Number: V7-1007-96-10; Site No. V00202

Dear Mr. Mannes:

On behalf of Emerson Electric Co., WSP USA Inc. (WSP) is submitting this Third Quarter 2021 Progress Report for the former Rollway Bearing Corporation facility in Liverpool, New York. This quarterly progress report summarizes all work completed at the site from July through September 2021 and work planned for October through December 2021. The report was prepared in accordance with the requirements of the revised Site Management Plan, dated May 4, 2021, and includes the following information:

- a summary of all work completed and the results of sampling and testing performed during the reporting period
- a summary of reports and deliverables that were completed and submitted during the reporting period
- an estimate of the percentage of completion of the approved work plan activities, problems encountered during the quarter and actions taken to alleviate those problems, and modifications to work plans approved by the New York State Department of Environmental Conservation (NYSDEC)
- a description of activities anticipated to be completed during the next quarter

WORK COMPLETED

The following activities were completed during July through September 2021:

LNAPL RECOVERY SYSTEM

- WSP conducted an operation, maintenance, and monitoring (OM&M) visit on August 24, 2021, to confirm proper operation of the light non-aqueous phase liquid (LNAPL) recovery system. The OM&M log is included in Enclosure A. The LNAPL recovery system was operational during the quarter.
- On August 24, 2021, WSP collected LNAPL thickness measurements from wells RW-1, RW-2, OW-1, OW-2, OW-3, OW-4, OW-5, OW-8, SB-5, SB-7, SB-8, SB-10, OW-9/FB-2, OW-10/FB-1, and OW-11/FB-4 (Figure 1). On completion of LNAPL thickness measurements, new absorbents were installed in all wells, except SB-7 and SB-10 because no product has been detected in these wells since at least December 2019.

SUB-SLAB DEPRESSURIZATION SYSTEM

- The sub-slab depressurization system (SSDS) installed in the eastern portion of the former Rollway Bearing facility was operational during the quarter (Figure 2). On August 24, 2021, WSP inspected the SSDS to ensure its proper operation, and collected bimonthly vacuum readings from the SSDS extraction points and semi-annual vacuum

readings from the vacuum monitoring locations. The vacuum readings obtained from the SSDS are documented on the inspection forms included in Enclosure B. During the August site inspection, WSP replaced the batteries in the digital vacuum gauges on each SSDS extraction point and balanced the flow before measuring the resulting vacuum at each extraction point.

RESULTS OF SAMPLING AND TESTING

- On August 24, 2021, measurable LNAPL was present in the following wells above the remedial action objective (i.e., LNAPL thickness greater than 0.01 foot): RW-1, OW-1, OW-2, OW-3, OW-5, OW-8, SB-5, SB-8, OW-9/FB-2, and OW-11/FB-4 (Figure 1). No measurable product was detected in wells RW-2, OW-4, SB-7, SB-10, and OW-10/FB-1.

REPORTS AND DELIVERABLES

- On July 21, 2021, WSP submitted the Periodic Review Report to the NYSDEC and the New York State Department of Health, which covered the reporting period from June 21, 2020, through June 21, 2021.
- WSP submitted the Second Quarter 2021 Progress Report to the NYSDEC on August 11, 2021, which summarized activities conducted from April through June 2021.

PERCENTAGE OF COMPLETION

WSP estimates that the project is 90 percent complete.

DIFFICULTIES/MODIFICATIONS TO WORK PLAN

During the quarter, system operating parameters were generally within typical operating ranges with the following exception:

- The vacuum readings for the LNAPL recovery wells (i.e., OW-2, RW-1, OW-3, and OW-8) collected on August 24, 2021, were below the typical operating range; however, the flow from these wells was relatively uniform and, thus, no corrective action is recommended at this time. The lower vacuum readings are likely attributable to the use of a digital gauge for the vacuum readings. The typical operating range indicated on the field measurement form (Enclosure A) was based on historical readings obtained with an analog gauge.

WORK PLANNED

The following work has been completed, or is anticipated to be undertaken from October through December 2021:

- WSP conducted an OM&M visit on October 14, 2021, to ensure proper operation of the LNAPL recovery system and SSDS. The OM&M logs for this event will be provided in the next quarterly progress report.
- During the October 14, 2021, site visit, absorbent socks were removed from wells RW-1, OW-1, OW-2, OW-3, OW-5, OW-8, SB-5, SB-8, OW-9/FB-2, OW-10/FB-1, and OW-11/FB-4, weighed, and placed in a U.S. Department of Transportation-compliant 55-gallon steel drum for subsequent characterization and offsite disposal. New absorbents were installed in the wells. The field form for this event will be provided in the next quarterly progress report.
- WSP will conduct an OM&M visit in December 2021 to ensure proper operation of the LNAPL recovery system and SSDS.

Please contact us at (315) 374-5574 with any questions regarding this Third Quarter 2021 Progress Report, or other aspects of the project.

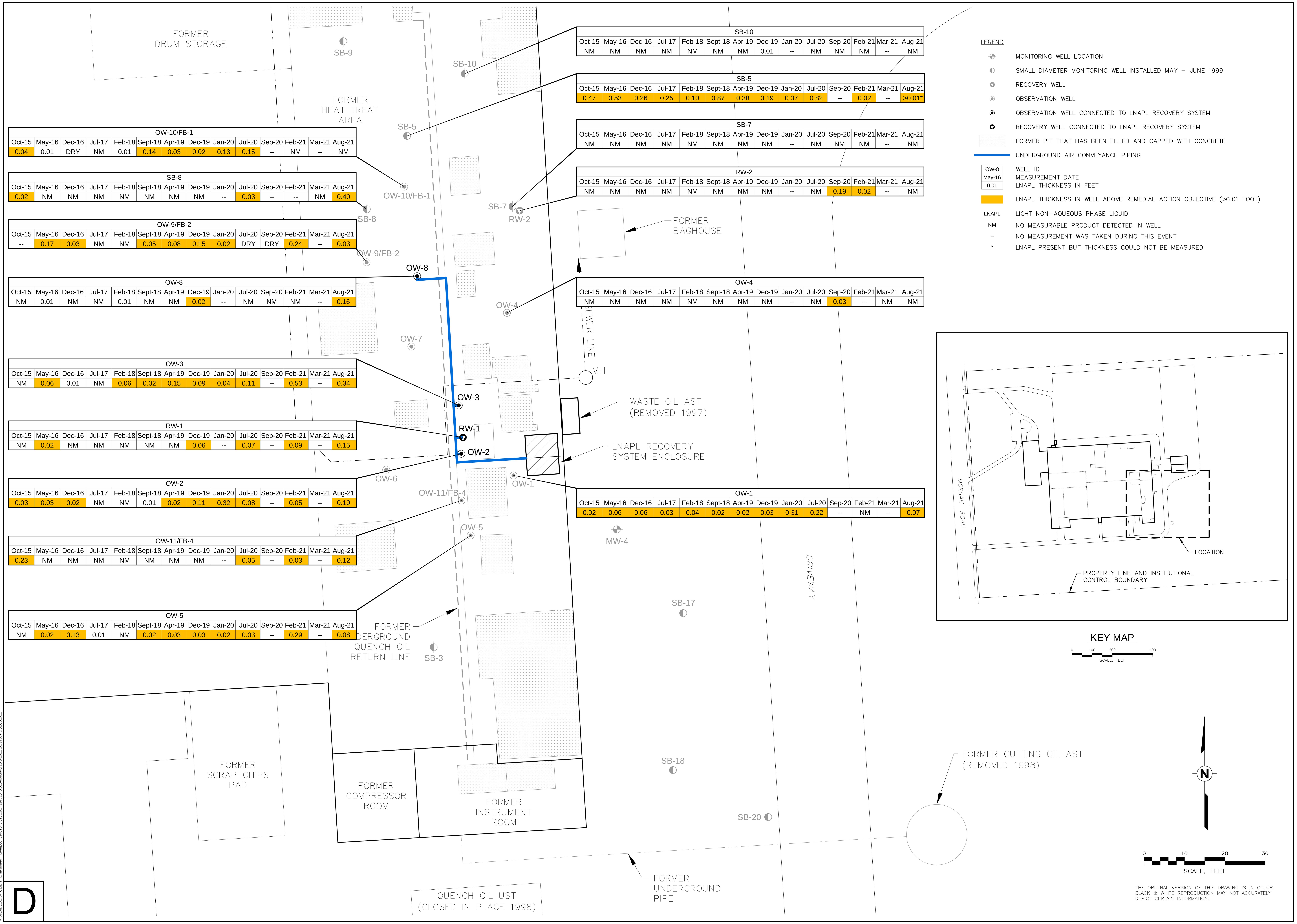
Sincerely yours,

Brian E. Silfer, P.G.
Practice Leader

Enclosures

cc/encl.: Mr. Johnathan Robinson, New York State Department of Health
Mr. Stephen L. Clarke, Emerson
Ms. Sheila M. Harvey, Esquire, Pillsbury Winthrop Shaw Pittman

FIGURES



OW-10/FB-1

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
0.04	0.01	DRY	NM	0.01	0.14	0.03	0.02	0.13	0.15	--	NM	--	NM

SB-8

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
0.02	NM	NM	NM	NM	NM	NM	NM	--	0.03	--	--	NM	0.40

OW-9/FB-2

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
--	0.17	0.03	NM	NM	0.05	0.08	0.15	0.02	DRY	DRY	0.24	--	0.03

OW-8

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
NM	0.01	NM	NM	0.01	NM	NM	0.02	--	NM	NM	NM	--	0.16

OW-3

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
NM	0.06	0.01	NM	0.06	0.02	0.15	0.09	0.04	0.11	--	0.53	--	0.34

RW-1

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
NM	0.02	NM	NM	NM	NM	NM	0.06	--	0.07	--	0.09	--	0.15

OW-2

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
0.03	0.03	0.02	NM	NM	0.01	0.02	0.11	0.32	0.08	--	0.05	--	0.19

OW-11/FB-4

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
0.23	NM	NM	NM	NM	NM	NM	NM	--	0.05	--	0.03	--	0.12

OW-5

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
NM	0.02	0.13	0.01	NM	0.02	0.03	0.03	0.02	0.03	--	0.29	--	0.08

SB-10

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
NM	NM	NM	NM	NM	NM	NM	0.01	--	NM	NM	NM	--	NM

SB-5

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
0.47	0.53	0.26	0.25	0.10	0.87	0.38	0.19	0.37	0.82	--	0.02	--	>0.01*

SB-7

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
NM	NM	NM	NM	NM	NM	NM	NM	--	NM	NM	NM	--	NM

RW-2

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
NM	NM	NM	NM	NM	NM	NM	NM	--	NM	0.19	0.02	--	NM

OW-4

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
NM	NM	NM	NM	NM	NM	NM	NM	--	NM	0.03	--	NM	NM

OW-1

Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sept-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21
0.02	0.06	0.06	0.03	0.04	0.02	0.02	0.03	0.31	0.22	--	NM	--	0.07

LEGEND

- MONITORING WELL LOCATION
- SMALL DIAMETER MONITORING WELL INSTALLED MAY – JUNE 1999
- RECOVERY WELL
- OBSERVATION WELL
- OBSERVATION WELL CONNECTED TO LNAPL RECOVERY SYSTEM
- RECOVERY WELL CONNECTED TO LNAPL RECOVERY SYSTEM
- FORMER PIT THAT HAS BEEN FILLED AND CAPPED WITH CONCRETE
- UNDERGROUND AIR CONVEYANCE PIPING
- OW-8 / May-16 / 0.01 — WELL ID / MEASUREMENT DATE / LNAPL THICKNESS IN FEET
- LNAPL THICKNESS IN WELL ABOVE REMEDIAL ACTION OBJECTIVE (>0.01 FOOT)
- LNAPL — LIGHT NON–AQUEOUS PHASE LIQUID
- NM — NO MEASURABLE PRODUCT DETECTED IN WELL
- -- — NO MEASUREMENT WAS TAKEN DURING THIS EVENT
- * — LNAPL PRESENT BUT THICKNESS COULD NOT BE MEASURED

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE REPRODUCTION MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

REVISIONS | REV | DESCRIPTION | Revised | Chkd | Appr.

DRAWN BY: ECG
CHECKED: AMR
APPROVED:
DATE: 10/7/2021

LNAPL THICKNESS MEASUREMENTS FORMER HEAT TREAT DEPARTMENT

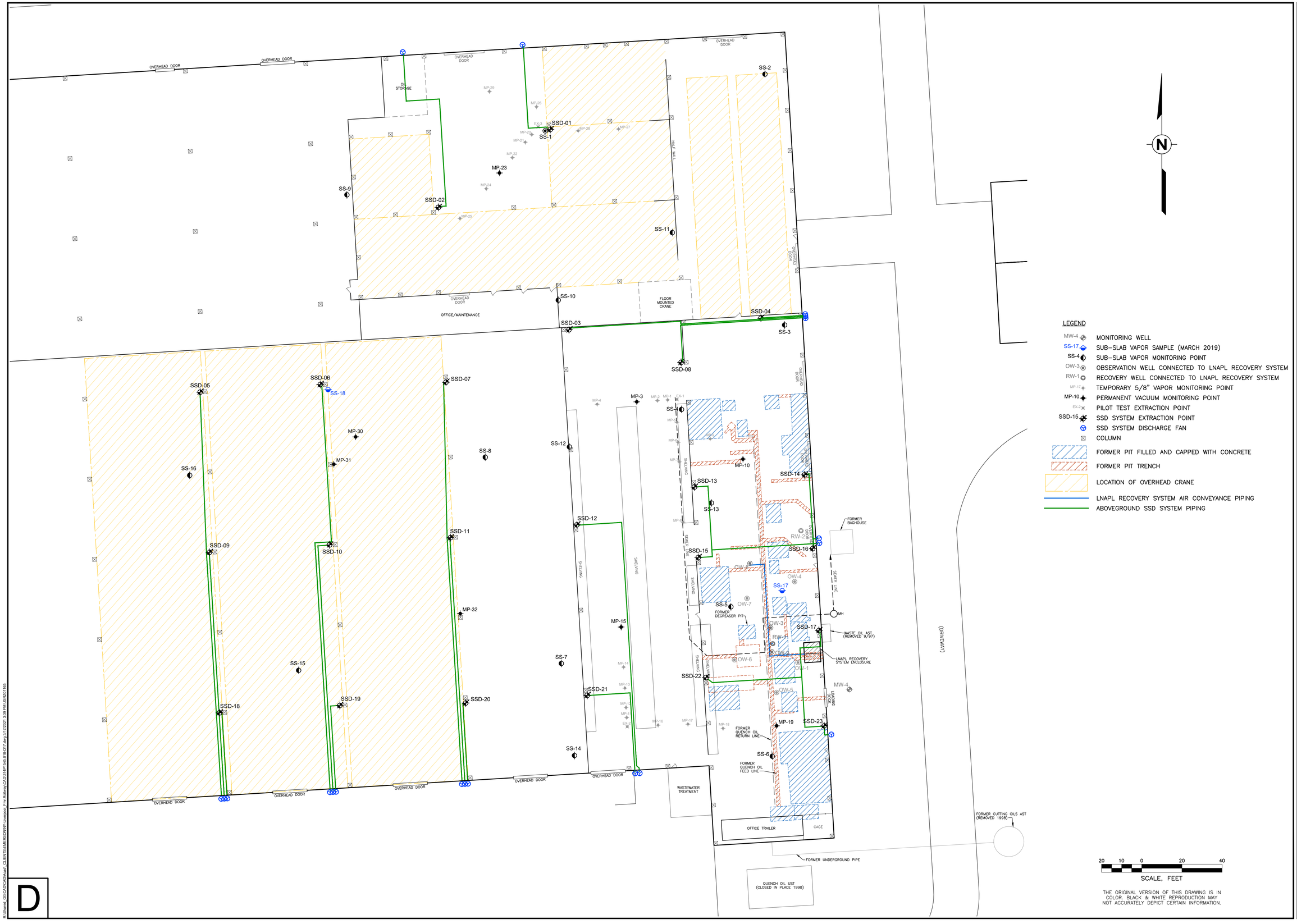
FORMER ROLLWAY BEARING CORPORATION FACILITY
LIVERPOOL, NEW YORK

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

WSP USA Inc.
7000 E. GENESEE ST. BLDG D, 2ND FLOOR
FAYETTEVILLE, NY 13066
TEL: +1 315.655.3900

FIGURE 1

Drawing Number
314V1545.018–009



LEGEND

MW-4	MONITORING WELL
SS-17	SUB–SLAB VAPOR SAMPLE (MARCH 2019)
SS-4	SUB–SLAB VAPOR MONITORING POINT
OW-3	OBSERVATION WELL CONNECTED TO LNAPL RECOVERY SYSTEM
RW-1	RECOVERY WELL CONNECTED TO LNAPL RECOVERY SYSTEM
MP-17	TEMPORARY 5/8" VAPOR MONITORING POINT
MP-10	PERMANENT VACUUM MONITORING POINT
EX-2	PILOT TEST EXTRACTION POINT
SSD-15	SSD SYSTEM EXTRACTION POINT
	SSD SYSTEM DISCHARGE FAN
☒	COLUMN
▨	FORMER PIT FILLED AND CAPPED WITH CONCRETE
▨	FORMER PIT TRENCH
▨	LOCATION OF OVERHEAD CRANE
—	LNAPL RECOVERY SYSTEM AIR CONVEYANCE PIPING
—	ABOVEGROUND SSD SYSTEM PIPING

20 10 0 20 40

SCALE, FEET

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE REPRODUCTION MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

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REVISIONS

REV	DESCRIPTION
1	Revised: Chkd: Appr:
2	Revised: Chkd: Appr:
3	Revised: Chkd: Appr:

SEAL

DATE

DRAWN BY	RZ 03/17/2021
CHECKED	AMR 03/17/2021
APPROVED	

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SSD SYSTEM LAYOUT

FORMER ROLLWAY BEARING FACILITY
LIVERPOOL, NEW YORK

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

WSP USA Inc.
7000 E. GENESEE ST. BLDG D, 2ND FLOOR
FAYETTEVILLE, NY 13066
TEL: +1 315.655.3900

FIGURE 2

Drawing Number

314P1545.018–D17

ENCLOSURE A – OM&M LOG SHEET

Table 1

Checklist
LNAPL Recovery System
Former Rollway Bearing Facility
Liverpool, NY

Date: ___8/24/21_____
Arrival Time: _9:00_____
Departure Time: _____

Inspector (print): _____Nate Winston_____
Inspector (sign): ____[signature]_____
Weather Conditions: _____86°F, sunny

Reason for Visit: _____OM&M_____

LNAPL Recovery System Skid

Gauge	OM&M Reading		Typical Operation Reading	
	Reading	Units	Reading	Units
Inlet Vacuum: Before Vapor-Liquid Separator	**-60**	in H_2O	*-58 to -62*	in H_2O
Vacuum Before Air Filter	**-68**	in H_2O	*-66 to -68*	in H_2O
Vacuum After Air Filter/Before Blower Inlet	**-64**	in H_2O	*-86*	in H_2O
Discharge Stack Pressure	**2**	in H_2O	*2*	in H_2O
Discharge Stack Temperature	**142**	° F	*120 to 138*	° F
Kilowatt Hour Meter	**170,307**	kWh	-	kWh

LNAPL Recovery Wells

Well ID	OM&M Reading		Typical Operation Reading	
	Vacuum (in H_2O)	Flow (SCFM)	Vacuum (in H_2O)	Flow (SCFM)
OW-2	**-1.67**	**6.0**	*-40 to -54*	*3 to 7*
RW-1	**-3.02**	**5.0**	*-5 to -11*	*5.5 to 7*
OW-3	**-1.40**	**5.5**	*-6 to -11*	*2 to 3*
OW-8	**-3.66**	**6.0**	*-8 to -10*	*4 to 11*

Notable Observations:

The vacuum readings for the LNAPL recovery wells continue to be below the typical operating range, which is likely attributed to use of a digital gauge for the vacuum readings. The typical operating range used on the field measurement form is based on historical readings obtained with an analog gauge. However, the flow from the recovery wells is uniform and, thus, no corrective action is recommended at this time.

System Maintenance:

Description of Maintenance Needed:
_____

Date of Maintenance Completion:
_____

ENCLOSURE B – SUB-SLAB DEPRESSURIZATION SYSTEM INSPECTION FORMS

Sub-Slab Depressurization System Inspection Form
Former Rollway Bearing Corporation Facility
Liverpool, New York

Date:	**8/24/2021**	**Inspector (print):**	Nate Winston
Time:	**9:00**	**Inspector (sign):**	
		Weather Conditions	86 deg F, sunny

Reason for Visit (check all that apply):

Routine Inspection/O&M	**X**	Response to Owner Notification	
Other			

Vacuum Measurements

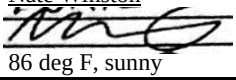
SSD Extraction Point	Vacuum Reading (in W.C.)	SSD Extraction Point	Vacuum Reading (in W.C.)
SSD-01	-7.25	SSD-13	-5.28
SSD-02	-0.15	SSD-14	-2.59
SSD-03	-23.31	SSD-15	-4.36
SSD-04	-19.50	SSD-16	-3.83
SSD-05	-0.01	SSD-17	-1.37
SSD-06	-24.10	SSD-18	-0.24
SSD-07	-23.58	SSD-19	-18.34
SSD-08	-0.08	SSD-20	-0.49
SSD-09	-24.30	SSD-21	-22.63
SSD-10	-0.08	SSD-22	-2.82
SSD-11	-1.04	SSD-23	-0.62
SSD-12	-18.49		

SSD Risers	Yes	No	Comments/Corrective Action Taken
Observable leaking connections		X	
Riser piping supports secure	X		
Defective or damaged instrumentation		X	Replaced batteries in the digital vacuum gauges on each SSDS extraction point
Damage to protective bollards or barriers		X	
Piping Network			
Observable leaking connections		X	
Lateral piping supports secure	X		
New air intakes within 10 ft of discharge points		X	
Discharge Fans			
Inoperable fan(s)		X	

Other Notable Observations

NA

Sub-Slab Vacuum Monitoring Form
Former Rollway Bearing Corporation Facility
Liverpool, New York

Date: 8/24/2021 **Inspector (print):** Nate Winston
Time: 9:00 **Inspector (sign):** 

Weather Conditions 86 deg F, sunny

Vacuum Monitoring Location	Vacuum Reading	Comments/Observations
SS-1	-3.13 in. H_2O	Was not accessible on 8/24/21; measured on 10/14/21
SS-3	-0.61 in. H_2O	
SS-10	-1.40 in. H_2O	
SS-11	-0.15 in. H_2O	
SS-12	-1.30 in. H_2O	
SS-14	-0.15 in. H_2O	
SS-15	-1.43 in. H_2O	
SS-16	-1.01 in. H_2O	
SS-17	-0.22 in. H_2O	
SS-18	-3.66 in. H_2O	
MP-3	-0.42 in. H_2O	
MP-10	-0.44 in. H_2O	
MP-15	-0.45 in. H_2O	
MP-19	-0.13 in. H_2O	
MP-23	-0.75 in. H_2O	
MP-30	-1.49 in. H_2O	
MP-31	-1.96 in. H_2O	