VIA ELECTRONIC MAIL

May 9, 2022

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: **First Quarter 2022 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 First Quarter 2022 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 January through March 2022, and work planned for April through June 2022. The report was prepared in accordance with the requirements of the revised Site Management Plan (SMP), 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 January through March 2022:

LNAPL RECOVERY SYSTEM

- On January 21, 2022, WSP obtained light non-aqueous phase liquid (LNAPL) thickness measurements from wells OW-3, RW-1, and SB-5 (Figure 1). These are the wells where residual LNAPL was removed during a voluntary high-vacuum removal event that occurred on December 6, 2021. On completion of the high vacuum removal event, the absorbents were left out of the wells to evaluate LNAPL recovery.
- WSP conducted an operation, maintenance, and monitoring (OM&M) visit on February 28, 2022, to confirm proper operation of the LNAPL recovery system. The OM&M logs are included in Enclosure A. The LNAPL recovery system was operational during the quarter.
- During the February 28, 2022, OM&M visit, absorbent socks were removed from all wells containing absorbents in preparation for semi-annual LNAPL thickness measurements, which occurred on April 4, 2022. The spent absorbents were weighed and placed in a U.S. Department of Transportation-compliant 55-gallon steel drum for subsequent characterization and offsite disposal (Enclosure B).

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SUB-SLAB DEPRESSURIZATION SYSTEM

- The sub-slab depressurization system (SSDS) installed in the eastern portion of the facility was operational during the quarter (Figure 2). On January 21, 2022, WSP obtained a vacuum reading from SSDS extraction point SSD-03, which exhibited a low vacuum reading in December 2021(i.e., -0.50 inch water column [WC]). The January 2022 vacuum reading from SSD-03 was also low (i.e., -0.59 inch WC). As a result of the low vacuum readings, a new fan for SSD-03 was ordered and was replaced on April 4, 2022.
- On February 28, 2022, 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 sub-slab vacuum monitoring locations (Figure 2). The vacuum readings obtained from the SSDS extraction points and vacuum monitoring locations are documented on the SSDS Inspection Forms, which are included in Enclosure C.

RESULTS OF SAMPLING AND TESTING

- On January 21, 2022, measurable LNAPL was present in wells OW-3 (0.08 foot) and RW-1 (0.02 foot) above the remedial action objective (i.e., LNAPL thickness greater than 0.01 foot). Well SB-5, which contained 1 foot of measurable product in October 2021, was dry.
- WSP estimated that approximately 1.3 gallons of LNAPL were removed from the wells with absorbents during the reporting period.

REPORTS AND DELIVERABLES

- WSP submitted the Fourth Quarter 2021 Progress Report to the NYSDEC on February 24, 2022, which summarized activities conducted from October through December 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 exceptions:

- The vacuum readings for LNAPL recovery wells OW-2 and OW-8, collected on February 28, 2022, 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.
- The vacuum reading at SSD-03 measured on January 21, 2022, (-0.59 inch WC) and February 28, 2022, (-0.25 inch WC) were low compared to previous readings (-24.27 to -25.94 inches WC). The fan for SSD-03 was replaced on April 4, 2022.

WORK PLANNED

The following work has been completed, or is anticipated to be undertaken from April through June 2022:

- On April 4, 2022, WSP conducted an OM&M visit and collected LNAPL thickness measurements from wells RW-1, RW-2, OW-1, OW-2, OW-3, 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. The LNAPL thickness measurements and a description of the OM&M activities will be provided in the next quarterly report. On completion of LNAPL 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.
- WSP will conduct an OM&M visit in June 2022 to ensure proper operation of the LNAPL recovery system and SSDS.
- A site-wide inspection will be performed in June 2022, to evaluate compliance with the institutional controls and the continued effectiveness of engineering controls; to document general site conditions at the time of the inspection; and to

evaluate compliance with requirements of the SMP and the Deed Restriction. The results of the annual site-wide inspection will be provided in the Periodic Review Report (PRR), which will be submitted to the NYSDEC and New York State Department of Health in July 2022.

Please contact us at (315) 374-5574 with any questions regarding this First Quarter 2022 Progress Report, or other aspects of the project.

Sincerely yours,

Brian E. Silfer, P.G.
Practice Leader

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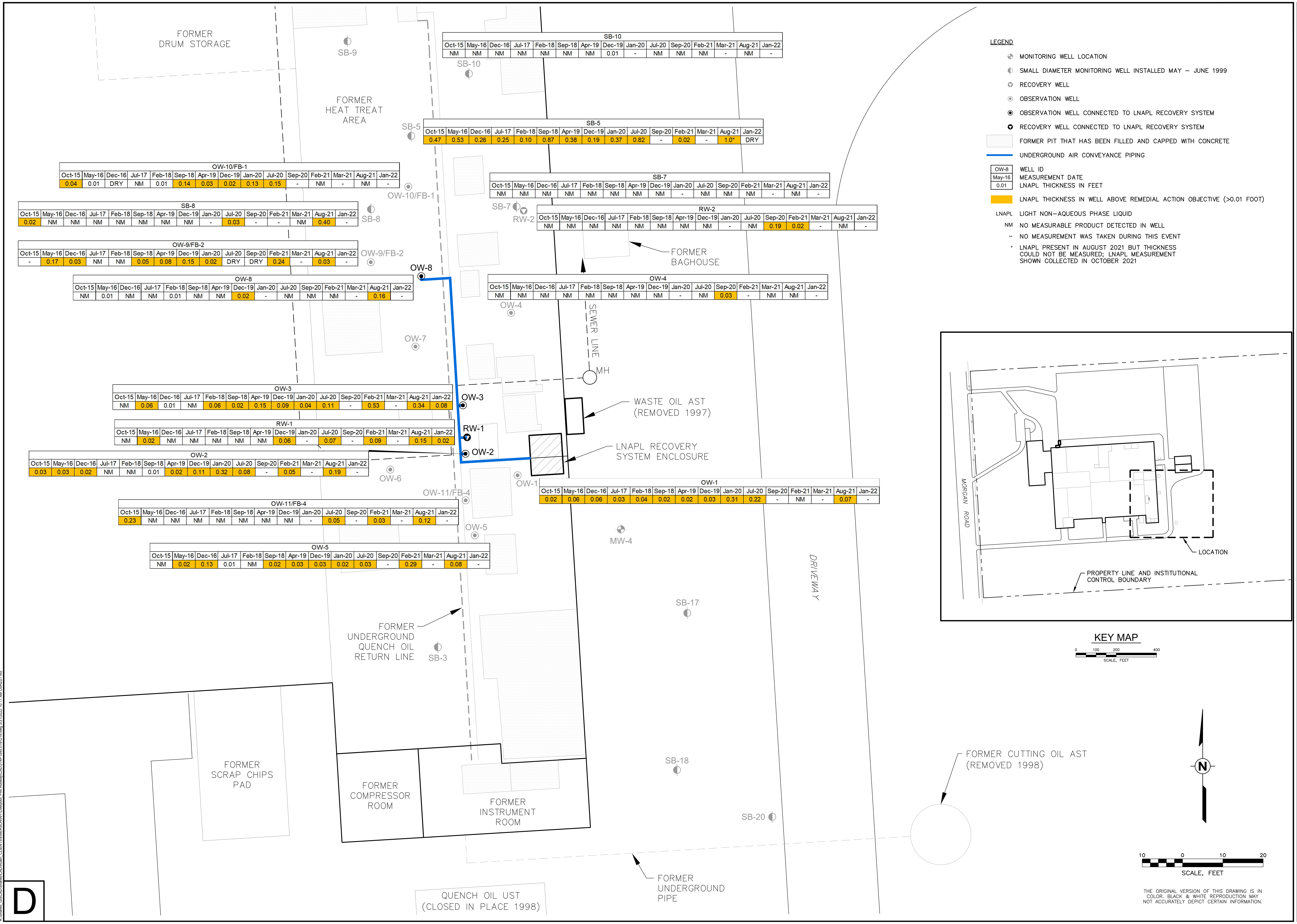
Enclosures

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

FIGURES



KEY MAP

0 100 200 400
SCALE, FEET

LNAPL thickness in well (feet)

Well	Oct-15	May-16	Dec-16	Jul-17	Feb-18	Sep-18	Apr-19	Dec-19	Jan-20	Jul-20	Sep-20	Feb-21	Mar-21	Aug-21	Jan-22
SB-10	NM	NM	NM	NM	NM	NM	NM	0.01	-	NM	NM	NM	-	NM	-
SB-5	0.47	0.53	0.26	0.25	0.10	0.87	0.38	0.19	0.37	0.82	-	0.02	-	1.0*	DRY
OW-10/FB-1	0.04	0.01	DRY	NM	0.01	0.14	0.03	0.02	0.13	0.15	-	NM	-	NM	-
SB-7	NM	NM	NM	NM	NM	NM	NM	NM	-	NM	NM	NM	-	NM	-
SB-8	0.02	NM	NM	NM	NM	NM	NM	NM	-	0.03	-	-	NM	0.40	-
RW-2	NM	NM	NM	NM	NM	NM	NM	NM	-	NM	0.19	0.02	-	NM	-
OW-9/FB-2	-	0.17	0.03	NM	NM	0.05	0.08	0.15	0.02	DRY	DRY	0.24	-	0.03	-
OW-8	NM	0.01	NM	NM	0.01	NM	NM	0.02	-	NM	NM	NM	-	0.16	-
OW-4	NM	NM	NM	NM	NM	NM	NM	NM	-	NM	0.03	-	NM	NM	-
OW-3	NM	0.06	0.01	NM	0.06	0.02	0.15	0.09	0.04	0.11	-	0.53	-	0.34	0.08
RW-1	NM	0.02	NM	NM	NM	NM	NM	0.06	-	0.07	-	0.09	-	0.15	0.02
OW-2	0.03	0.03	0.02	NM	NM	0.01	0.02	0.11	0.32	0.08	-	0.05	-	0.19	-
OW-1	0.02	0.06	0.06	0.03	0.04	0.02	0.02	0.03	0.31	0.22	-	NM	-	0.07	-
OW-11/FB-4	0.23	NM	NM	NM	NM	NM	NM	NM	-	0.05	-	0.03	-	0.12	-
OW-5	NM	0.02	0.13	0.01	NM	0.02	0.03	0.03	0.02	0.03	-	0.29	-	0.08	-

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 — WELL ID
- May-16 — MEASUREMENT DATE
- 0.01 — 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 IN AUGUST 2021 BUT THICKNESS COULD NOT BE MEASURED; LNAPL MEASUREMENT SHOWN COLLECTED IN OCTOBER 2021

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

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

SEAL — DATE

DRAWN BY — CHECKED — APPROVED

LNAPL THICKNESS MEASUREMENTS
FORMER HEAT TREAT DEPARTMENT

FORMER ROLLWAY BEARING CORPORATION FACILITY
LIVERPOOL, NEW YORK

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

WSP USA Inc.
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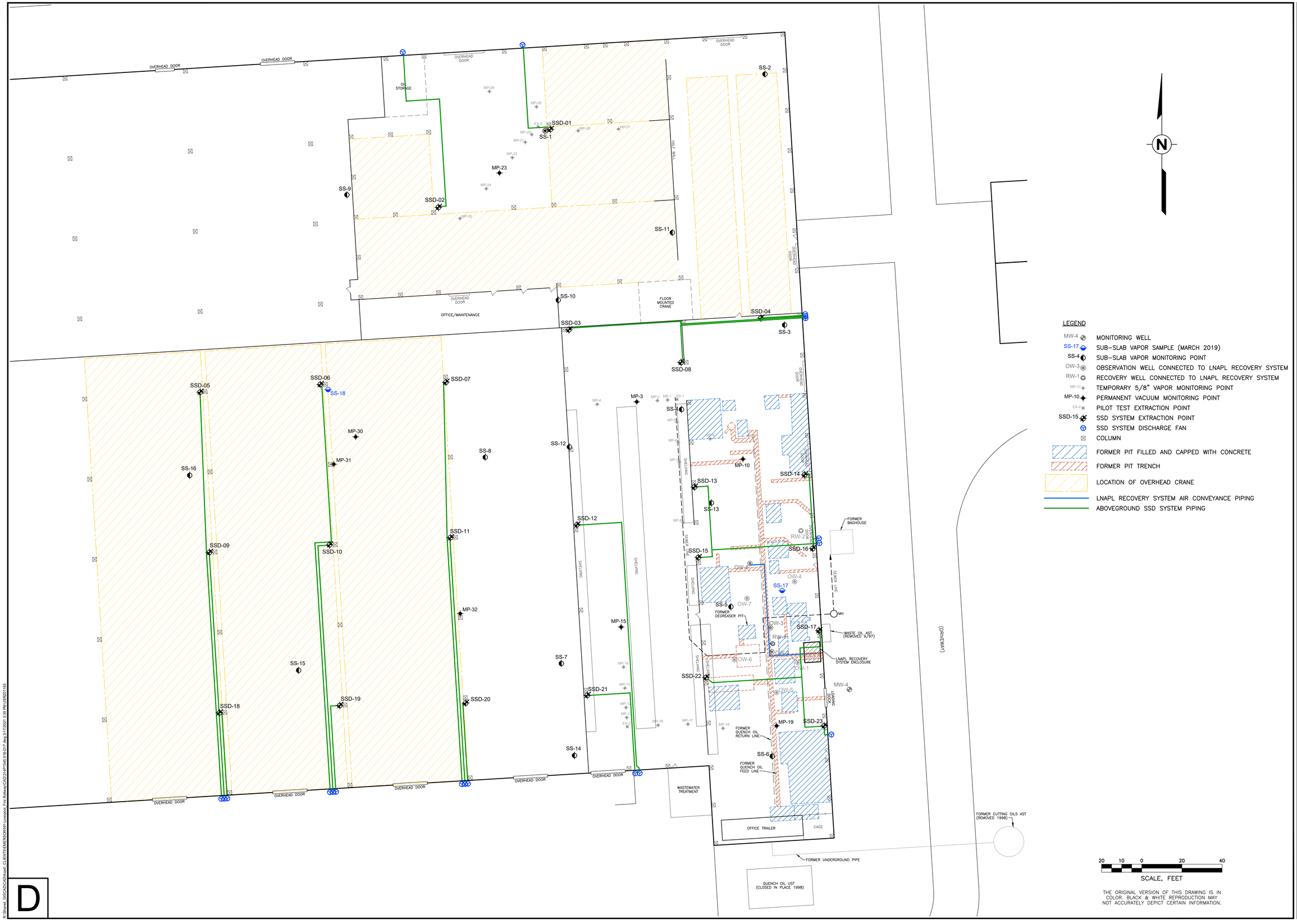
FAYETTEVILLE, NY 13066
TEL: +1 315.655.3900

FIGURE 1

Drawing Number
314P1545.018–D19

D



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

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REVISIONS

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

SEAL

DATE

DRAWN BY	RAZ 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
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ST. LOUIS, MISSOURI

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FIGURE 2

Drawing Number
314P1545.018–D17

ENCLOSURE A – OM&M LOG SHEETS

Table 1

Checklist
LNAPL Recovery System
Former Rollway Bearing Facility
Liverpool, NY

Date: 2/28/22
Arrival Time: 10:00
Departure Time: 17:00

Inspector (print): Nate Winston
Inspector (sign): [signature]
Weather Conditions: 32°F, cloudy

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	**-66**	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	**134**	° F	*120 to 138*	° F
Kilowatt Hour Meter	**172,250**	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	**-3.10**	**5.5**	*-40 to -54*	*3 to 7*
RW-1	**-15.86**	**6.0**	*-5 to -11*	*5.5 to 7*
OW-3	**-7.18**	**6.0**	*-6 to -11*	*2 to 3*
OW-8	**-3.44**	**5.0**	*-8 to -10*	*4 to 11*

Notable Observations:

N/A

System Maintenance:

Description of Maintenance Needed:
N/A

Date of Maintenance Completion:

ENCLOSURE B – ABSORBENT INSPECTION/REPLACEMENT FORM

Field Form for Absorbent Inspection/Replacement
Former Rollway Bearing Facility
Liverpool, New York

Date: February 28, 2022
Arrival Time: 10:00
Departure Time: 17:00

Inspector (print): Nathaniel Winston
Inspector (sign): [signature]
Weather Conditions: 32 F, cloudy

Well ID	Staining (Y/N)	Absorbent Replaced (Y/N)**	Spent Absorbent Weight (in grams)
RW-1	Y	N	1421.0
RW-2	Y	N	1015.0
OW-1	Y	N	399.5
OW-2	Y	N	632.5
OW-3	Y	N	539.0
OW-4	N	N	419.5
OW-5	Y	N	659.5
OW-8	Y	N	676.0
SB-5	Y	N	30.5
SB-7	*	-	-
SB-8	Y	N	31.0
SB-10	*	-	-
OW-10/FB-1	N	N	711.0
OW-9/FB-2	N	N	413.0
OW-11/FB-4	Y	N	425.5

* = no absorbent in well

Notable Observations:

***Absorbents removed from all wells in preparation of collecting LNAPL product measurements in March 2022.*

Well Maintenance:

Description of Maintenance Needed:

NA

Date of Maintenance Completion:

ENCLOSURE C – SUB-SLAB DEPRESSURIZATION SYSTEM INSPECTION FORMS

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

Date:	**2/28/2022**	**Inspector (print):**	Nate Winston
Time:	**10:00**	**Inspector (sign):**	
		Weather Conditions	32 deg F, cloudy

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	-8.66	SSD-13	-6.02	
SSD-02	-0.81	SSD-14	-3.89	
SSD-03*	-0.25	SSD-15	-5.96	
SSD-04	-27.14	SSD-16	-4.02	
SSD-05	-0.64	SSD-17	-2.01	* SSD-03 vacuum reading collected on January 21, 2022, was -0.59.
SSD-06	-26.14	SSD-18	-19.12	
SSD-07	-24.02	SSD-19	-20.99	
SSD-08	-0.89	SSD-20	-1.06	
SSD-09	-25.94	SSD-21	-25.02	
SSD-10	-0.56	SSD-22	-4.11	
SSD-11	-1.28	SSD-23	-1.80	
SSD-12	-18.91			

SSD Risers	Yes	No	Comments/Corrective Action Taken
Observable leaking connections		X	
Riser piping supports secure	X		
Defective or damaged instrumentation		X	
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		SSD-03

Other Notable Observations

NA

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

Vacuum Monitoring Location	Vacuum Reading		Comments/Observations
SS-1	-3.66	in. H_2O	
SS-3	-0.81	in. H_2O	
SS-10	-0.86	in. H_2O	
SS-11	-2.92	in. H_2O	
SS-12	-1.01	in. H_2O	
SS-14	-0.11	in. H_2O	
SS-15	-1.04	in. H_2O	
SS-16	-0.40	in. H_2O	
SS-17	-0.66	in. H_2O	
SS-18	-1.72	in. H_2O	
MP-3	-0.30	in. H_2O	
MP-10	-0.26	in. H_2O	
MP-15	-0.09	in. H_2O	
MP-19	-0.13	in. H_2O	
MP-23	-0.70	in. H_2O	
MP-30	-1.29	in. H_2O	
MP-31	-0.80	in. H_2O	
MP-32	-0.18	in. H_2O	*Measurement collected on April 4, 2022.*