

10 September 2010

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New York State Department of Environmental Conservation  
Division of Environmental Remediation - Region 9  
270 Michigan Avenue  
Buffalo, New York 14203



RE: Monthly Progress Report – August 2010  
Greif, Inc. Facility – Tonawanda, New York  
NYSDEC VCP Number V00334-9

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***Key Actions  
This Period:***

- Performed routine operations and maintenance (O&M) and data collection and recording on the Sub-Slab Depressurization (SSD) system. Data collected included liquid level measurements in selected Site wells and monitoring points (Table 1), vacuum/pressure readings in vacuum monitoring points (Table 2), and treatment system operational data (Table 3). The locations of wells and other monitoring points are presented in Figure 1. A map showing the distribution of vacuum in the sub-slab at the facility on 13 August 2010 is provided in Figure 2.
- Procurement of additional GAC vessels and planning for shipment of hazardous spent GAC vessels.
- Completed preparation of a Technical Memorandum presenting the results of the pre-remediation characterization efforts and proposing a change in the selected remedy for the Former Varnish Underground Storage Tank (UST) Area and submitted the Technical Memorandum to the New York State Department of Environmental Conservation (NYSDEC).
- Continued evaluation of SSD system pilot test data and preparation of a final SSD system design.

***Problems/  
Resolutions:***

- None.

**Analytical Data Received:** • None

**Documents Submitted:** • Monthly Progress Report for July 2010 dated 10 August 2010.

**Anticipated Actions – September 2010:**

- Routine O&M of the Pilot SSD System and DNAPL recovery equipment and adjustment of extraction and recovery parameters as necessary based on Site data and observations.
- Shipment of hazardous spent GAC vessels from the treatment building and receipt of a replacement GAC vessel.
- Evaluation of SSD System pilot test data and results and preparation of a final design for the SSD System.
- Receive comments from the NYSDEC regarding the Technical Memorandum for the Former Varnish Underground Storage Tank (UST) Area.

**NYSDEC-Approved Field Decisions:** • None.

**Prepared By:**



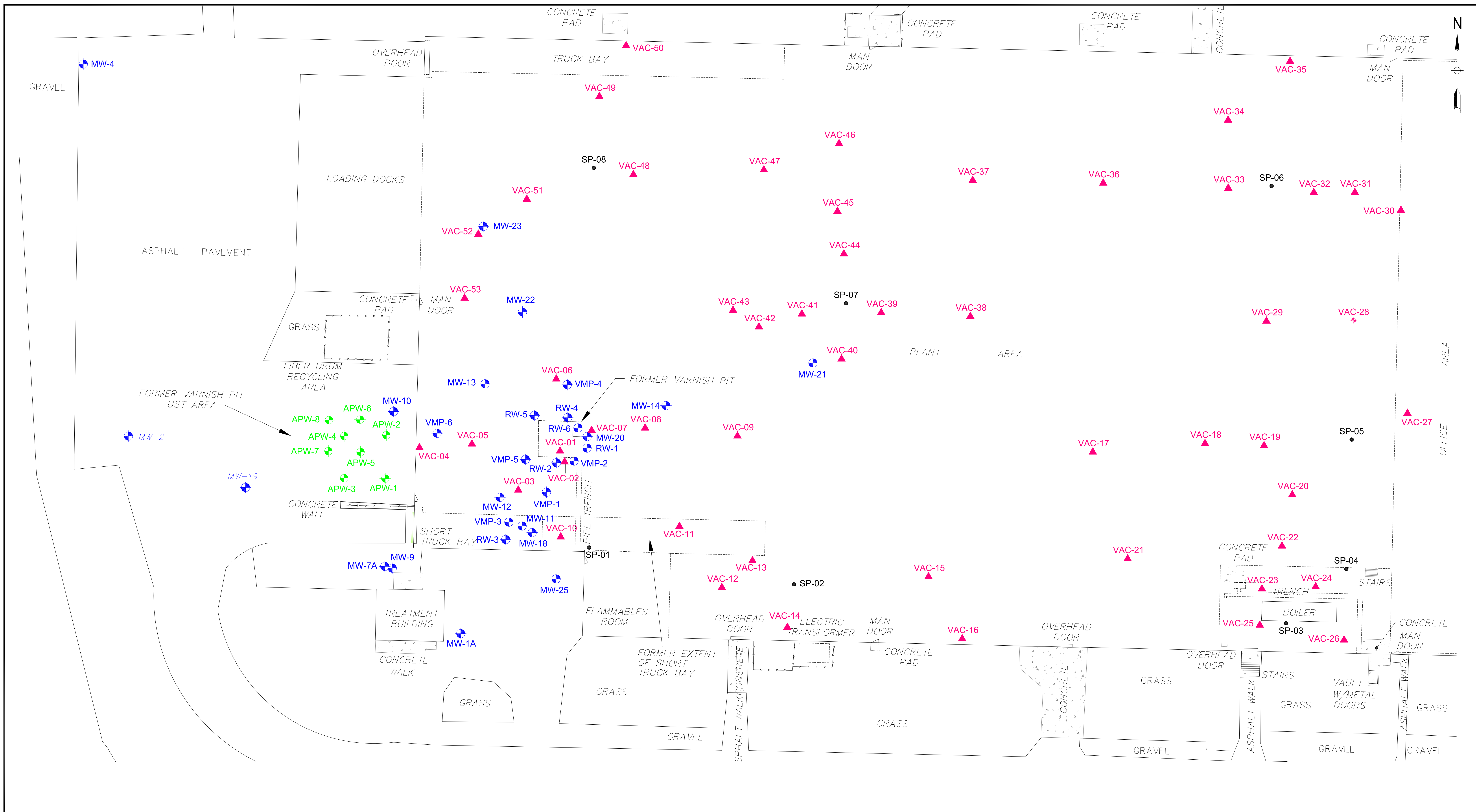
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Jon S. Fox, P.G.  
Senior Consultant

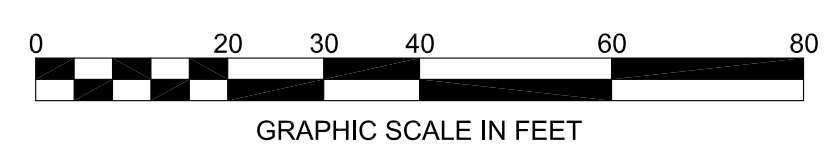
**Date:** 10 September 2010

Cc: Robert Powell, C.S.P., A.R.M. (Sonoco)  
Pete Gruene (Sonoco)  
Patrick Wolfe (Greif)  
James Charles, Esq. (NYSDEC)  
Matt Forcucci (NYSDOH)  
Gregory Sutton, P.E. (NYSDEC)  
A. Joseph White (NYSDEC)

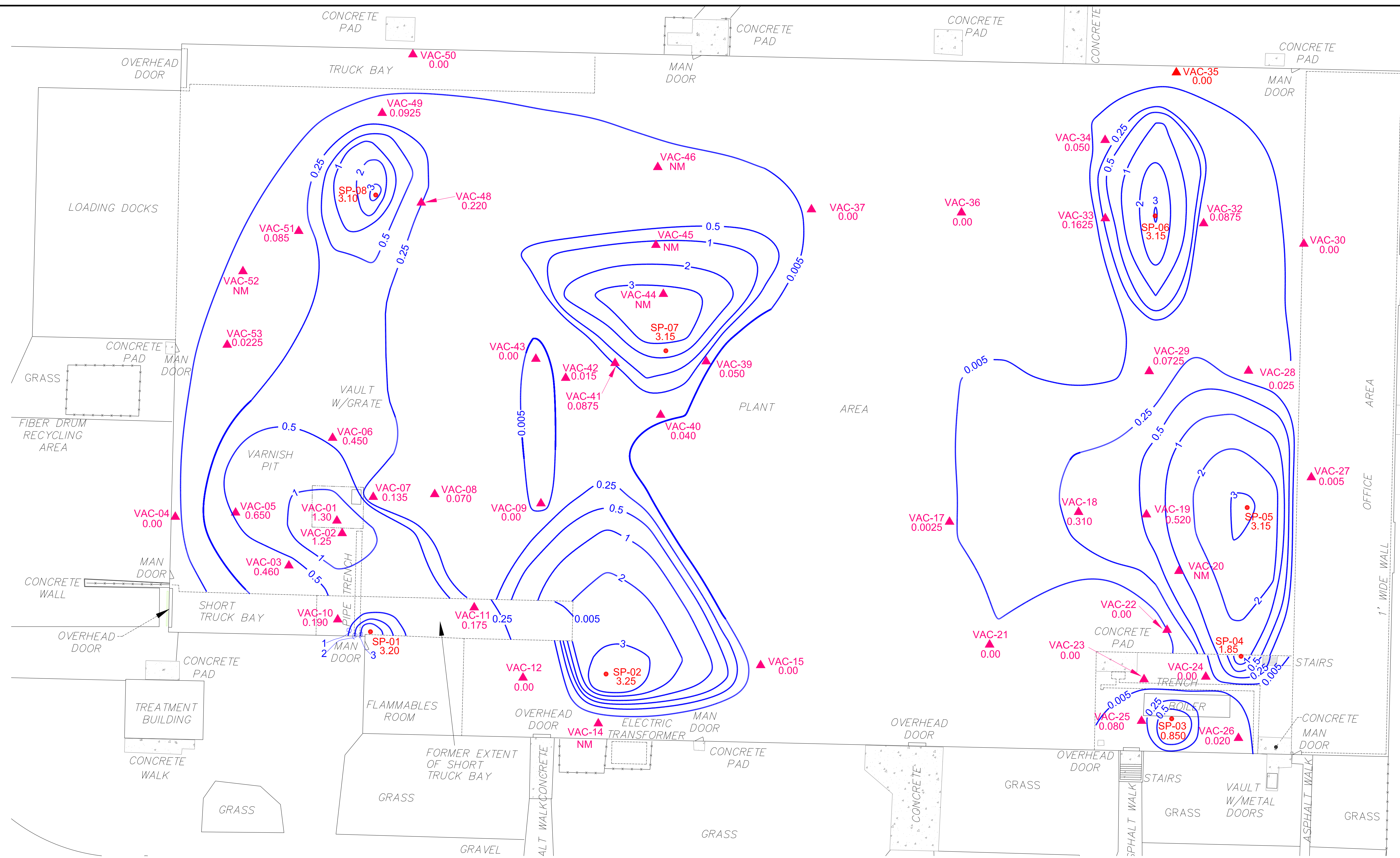
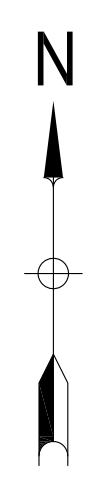
John Mohlin, P.E. (ERM)  
Rob Sents (ERM)



- LEGEND**
- ▲ Vacuum Monitoring Point Location
  - Monitoring or Recovery Well Location
  - + Antenna Placement Well
  - Suction Point Location
  - Former Varnish Pit



<p>TITLE</p> <p><b>SAMPLE AND MEASUREMENT LOCATIONS</b></p> <p><b>GREIF FACILITY-TONAWANDA, NEW YORK</b></p> <p><b>NYSDEC VCP NUMBER V00334-9</b></p>			
<p>PREPARED FOR</p> <p><b>SONOCO PRODUCTS COMPANY</b></p>			
<p>Environmental Resources Management</p>	<p>SCALE</p> <p><b>GRAPHIC</b></p>	<p>FIGURE</p> <p><b>1</b></p>	
<p>DRAWN:</p> <p>EMF</p>	<p>JOB NO.:</p> <p>0112477.01</p>	<p>FILE NAME:</p> <p>0112477-01-011</p>	<p>DATE</p> <p>09-Sept-2010</p>

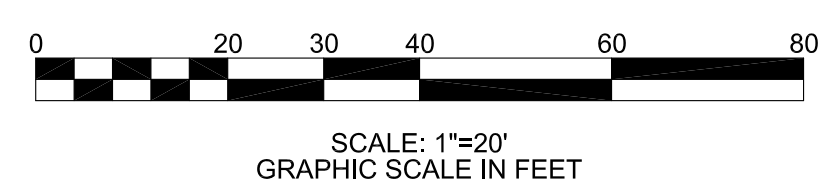


**LEGEND**

- Suction Point Location
- ▲ Vacuum Monitoring Point Location (with measured vacuum in " H<sub>2</sub>O)
- 0.040
- NM Not Measured
- 0.5 Vacuum Contour (" H<sub>2</sub>O)
- Former Varnish Pit

**NOTES:**

1. " H<sub>2</sub>O = inches of water column



TITLE			
SUBSURFACE VACUUM DISTRIBUTION			
13 AUGUST 2010			
GREIF FACILITY-TONAWANDA, NEW YORK			
PREPARED FOR			
SONOCO PRODUCTS COMPANY			
Environmental Resources Management DRAWN: EMF	SCALE	FIGURE	2
	GRAPHIC	DATE	
JOB NO.: 0112477.01	FILE NAME:	0112477-01-010 R07-Sept-2010	

Map Source: Wm. Schutt & Associates, P.C., 37 Central Ave, Lancaster, NY, Survey File: D10135103, WSA Proj.#01351.

**Table 1**  
**Summary of Non-Aqueous Phase Liquid Thicknesses in Wells**  
**Greif Facility - Tonawanda, New York**  
**NYSDEC VCP Number V00334-9**

WELL	RW-1 (ft.) (DNAPL)	RW-2 (ft.) (DNAPL)	RW-4 (ft.) (DNAPL)	RW-5 (ft.) (LNAPL)	RW-6 (ft.) (DNAPL)	VMP-2 (ft.) (DNAPL)	VMP-5 (ft.) (DNAPL)	MW-20 (ft.) (DNAPL)	MW-23 (ft.) (LNAPL)
<b>Date</b>									
19-May-08	0.00	0.00	0.00	0.00	NI	0.00	HS	0.09	0.14
30-May-08	0.00	0.16	0.00	0.00	NI	0.00	HS	0.03	0.14
16-Jun-08	0.00	0.14	0.00	0.02	NI	0.00	0.02	0.07	0.13
25-Jun-08	0.00	0.16	0.00	0.02	NI	0.00	HS	0.07	0.26
3-Jul-08	0.00	0.16	0.00	0.02	NI	0.00	HS	0.09	0.18
23-Jul-08	0.00	0.16	0.00	0.02	NI	0.00	HS	0.10	0.09
6-Aug-08	0.03	0.16	0.00	0.04	NI	0.00	HS	0.11	0.09
19-Aug-08	0.03	0.16	0.00	0.04	NI	0.00	HS	0.13	0.11
21-Nov-08	HS	0.11	0.00	0.00	NI	0.00	HS	0.22	0.29
17-Dec-08	HS	0.11	0.00	0.00	NI	0.00	HS	0.24	0.29
14-Jan-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	HS	0.13
26-Feb-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	0.01	0.24
12-Mar-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	0.00	0.09
22-Apr-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	0.00	0.11
13-May-09	0.00	0.00	0.00	0.00	NI	0.00	0.00	0.00	0.09
25-Jun-09	NM	0.00	NM	0.00	NI	0.00	0.00	NM	0.12
17-Jul-09	NM	0.00	NM	0.00	NI	0.00	0.00	NM	0.11
27-Aug-09	0.00	0.00	0.00	0.00	NI	0.00	NM	NM	0.09
25-Sep-09	0.00	0.00	0.00	0.00	NM	0.00	NM	0.04	0.11
16-Oct-09	NM	0.00	0.00	0.00	NM	0.00	NM	NM	0.11
19-Nov-09	NM	0.00	NM	NM	NM	0.00	NM	NM	0.21
17-Dec-09	0.00	0.00	NM	NM	NM	0.00	0.00	0.01	0.23
14-Jan-10	0.00	0.00	0.00	NM	NM	0.00	0.00	0.01	0.21
17-Feb-10	0.00	0.00	NM	NM	NM	0.00	0.00	0.01	0.17
18-Mar-10	0.00	0.00	0.00	0.00	NM	0.00	0.00	0.01	0.09
13-Apr-10	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.01	0.12
18-May-10	0.00	0.00	0.00	0.00	0.53	0.00	NM	0.01	0.08
15-Jun-10	0.00	0.00	0.00	NM	0.01*	0.00	0.00	0.01	0.07
14-Jul-10	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.07
13-Aug-10	0.00	NM	0.00	NM	0.08	0.00	0.00	HS	0.10

**Notes:**

All values are reported in feet as measured with an electronic interface probe.

HS - heavy sheen but no measureable thickness.

NM - not measured; was covered with pallets or other surface obstruction.

NI - not installed as of this date.

\* - Product level after ERM initiated DNAPL recovery test

**Table 2**  
**Summary of Vacuum/Pressure Readings**  
**Greif Inc. Tonawanda, NY**  
**NYSDEC VCP Number V00334-9**

Location	Vac-01	Vac-02	Vac-03	Vac-04	Vac-05	Vac-06	Vac-07	Vac-08	Vac-09	Vac-10	Vac-11	Vac-12	Vac-13	Vac-14
Date														
16-Jun-10	0.1175	0.1375	0.1375	0	0.1425	0.1625	0.095	0.0325	0	0.10	0.0950	0	NM	0
14-Jul-10	1.65	1.45	0.47	0	0.68	0.46	0.125	0.0525	0	0.1625	0.16	0	0	0
13-Aug-10	1.3	1.25	0.46	0	0.65	0.45	0.135	0.07	0	0.19	0.175	0	0	NM

Location	Vac-15	Vac-16	Vac-17	Vac-18	Vac-19	Vac-20	Vac-21	Vac-22	Vac-23	Vac-24	Vac-25	Vac-26	Vac-27	Vac-28
Date														
16-Jun-10	0	NM	0.0025	0.25	0.42	0.175	0	0.0075	0	0	0.089	0.020	0.005	0.0175
14-Jul-10	0	0	NM	0.31	0.54	0.205	0	0	NM	NM	NM	NM	0.005	0.01
13-Aug-10	0	0	0.0025	0.31	0.52	NM	0	0	0	0	0.08	0.02	0.005	0.025

Location	Vac-29	Vac-30	Vac-31	Vac-32	Vac-33	Vac-34	Vac-35	Vac-36	Vac-37	Vac-38	Vac-39	Vac-40	Vac-41	Vac-42
Date														
16-Jun-10	0.040	0	0	0.040	0.0675	0.0225	NM	0	0.030	NM	0.025	0.0275	0.0525	0.0025
14-Jul-10	NM	NM	NM	NM	0.125	0.0325	0	0	0	NM	0.03	0.0325	NM	0.005
13-Aug-10	0.0725	0	0.0375	0.0875	0.1625	0.05	0	0	0	0	0.05	0.04	0.0875	0.015

Location	Vac-43	Vac-44	Vac-45	Vac-46	Vac-47	Vac-48	Vac-49	Vac-50	Vac-51	Vac-52	Vac-53
Date											
16-Jun-10	0.0025	0.0425	0.015	0.0125	NM	0.2125	0.0925	0	0.080	0.0125	0.0125
14-Jul-10	0	NM	NM	0.0125	NM	0.21	0.0875	NM	0.8	0.0175	0.0225
13-Aug-10	0	NM	NM	NM	NM	0.22	0.0925	0	0.085	NM	0.0225

**Notes:**

- All vacuum and/or pressure readings are reported in inches of water column ("H2O).
- NM = not measured; was covered with pallets or other surface obstructions

**Table 3**  
**Summary of Treatment System Data**  
**Greif Facility - Tonawanda, New York**  
**NYSDEC VCP Number V00334-9**

Location Units	Header Vacuum						Header Air Flow					
	PG-101 " H <sub>2</sub> O	PG-102 " H <sub>2</sub> O	PG-103 " H <sub>2</sub> O	PG-104 " H <sub>2</sub> O	PG-105 " H <sub>2</sub> O	PG-106 " H <sub>2</sub> O	PG-101 cfm	PG-102 cfm	PG-103 cfm	PG-104 cfm	PG-105 cfm	PG-106 cfm
Date												
17-Dec-09	NF	-11.5	NM	NF	NF	NF	NF	NM	NM	NF	NF	NF
14-Jan-10	NF	-40	NM	NF	NF	NF	NF	94	NM	NF	NF	NF
17-Feb-10	NF	-4.2	NM	NF	NF	NF	NF	16	NM	NF	NF	NF
18-Mar-10	NF	-1.95	NM	NF	NF	NF	NF	15	NM	NF	NF	NF
13-Apr-10	NF	-2.85	-13.0	NF	NF	NF	NF	73	233	NF	NF	NF
18-May-10	NF	-3.95	-13.0	NF	NF	NF	NF	83	212	NF	NF	NF
15-Jun-10	NF	-2.60	-15.5	NF	NF	NF	NF	65	225	NF	NF	NF
14-Jul-10	NM	-1.75	-4.10	NM	NM	NF	NM	26	75	NM	NM	NF
13-Aug-10	-3.75	-1.30	-3.75	-3.70	-3.75	NF	67	19	73	65	82	NF

Location Units	Pre-Carbon			Mid-Carbon		Post-Carbon		
	Pressure " H <sub>2</sub> O	Temp °F	PID ppm	Temp °F	PID ppm	Temp °F	PID ppm	Flow cfm
Date								
17-Dec-09	+10.5	103	0.0	98	0.0	67	0.0	120
14-Jan-10	+7.5	114	46.5	102	18.7	91	13.9	73
17-Feb-10	+9.5	114	0.0	111	0.0	99	0.0	88
18-Mar-10	+9.0	115	0.0	108	0.0	98	0.0	98
13-Apr-10	+9.0	118	4.7	109	2.0	98	1.1	225
18-May-10	+8.5	108	3.0	103	2.2	94	1.7	220
15-Jun-10	+10.0	114	3.3	103	0.0	89	0.0	245
14-Jul-10	+11.0	112	5.2	106	4.1	98	1.9	263
13-Aug-10	+10.5	118	2.6	112	2.0	103	1.3	255

**Location Key**

PG-101 = Suction Pits 05, 06, 07 and 08; PG-102 = interior of former varnish pit; PG-103 horizontal suction points through former varnish pit's north, west, and south walls.  
PG-104 = Suction Pit 05, 06, 07, and 08; PG-105 Suction Pit 01 and 02; PG-106 = not connected

**Notes:**

- Vacuum and pressure data are reported in inches of water; negative data represent vacuum; positive data represent pressure.
- Air flow data are based on measured air velocity and are reported in cubic feet per minute.
- Temperature reported in degrees Fahrenheit.
- PID = photoionization detector reading reported in parts per million.
- NM = not measured
- NF = no flow anticipated as the piping associated with these measurement locations was/is not connected.