September 25, 2019

Barbara Flietner
875 S 4th Avenue
Park Falls, WI 54552

Re: Webster VOC Contamination Status Report Update
26507 Lakeland Avenue, Webster, WI 54893
WDNR BRRTS #02-07-000337

Dear Barbara:

This letter report outlines the activities completed at the Webster VOC Contamination site in Webster, Wisconsin since the closure request submitted by MSA Professional Services, Inc. (MSA) on July 2, 2018. The scope of work completed by MSA was prepared to address the Wisconsin Department of Natural Resources (WDNR) request for further investigation as outlined in a January 22, 2019 email. The tasks completed included additional monitoring well sampling, advancement of soil borings around the building, offsite discrete groundwater sampling, and soil vapor extraction system pilot testing.

Monitoring Well Sampling

Groundwater samples were collected in July and August 2019. The groundwater monitoring results are summarized in **Attachment A.1**.

Groundwater monitoring wells 91-6 and 91-5A were sampled on July 16, 2019 and August 21, 2019, respectively. Tetrachloroethylene was detected at a concentration of 2.87 ug/L and toluene was detected at a concentration of 3.31 ug/L at monitoring well 91-6. There were no contaminants detected above laboratory detection limits in the groundwater sample collected from monitoring well 91-5A.

A second quarterly monitoring event will be completed in October 2019.

Soil Borings

Four soil borings were advanced by Geiss Soil & Samples (Geiss) under the direction of MSA around the western perimeter of the building to determine if soil contamination was present outside the building footprint and to collect grab groundwater samples to define the extent of groundwater contamination detected at GP-1 in previous sampling. GP-5 was advanced near the southwest building corner, GP-6 near the northwest corner, GP-7 along the north side of the building, and GP-8 slightly downgradient to the west. Two soil samples were collected from each boring for laboratory analysis. Soil analytical results are included in **Attachment A.2**.

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Discrete Groundwater Sampling

Grab groundwater samples were collected from the four soil borings advanced around the perimeter of the building footprint as well as four additional borings advanced to the north, west and south of the property (GP-9, GP-10, GP-11 and GP-12). Grab groundwater samples were collected at the water table in each of these borings. Deeper groundwater samples were also collected in the two borings to the west and northwest (GP-10 and GP-11).

Pilot Testing

Geiss installed two soil vapor extraction (SVE) wells where soil borings GP-5 and GP-6 were advanced, near the southwest and northwest building corners. Both wells are 20 feet deep and screened from 5 feet bgs to 20 feet bgs. SGS Environmental Contracting delivered the SVE system enclosure and piping to the site and assembled the enclosure near the northwestern building corner. PVC piping was run from each well with FERNCO flexible couplings to facilitate piping removal upon completion of the pilot test.

MSA staff began the pilot test on July 17, 2019. The test ran for a duration of six hours from 8:00 to 14:00. PID readings and system flow rates were collected once every half hour for the duration of the test and well vacuum/pressure readings for nearby wells (91-6 and 91-5A) were collected once every half hour for the first two hours of the test and once every hour for the last four hours of the test. Two TO-15 30-minute vapor samples (analyzed for VOCs) were collected during the test – one from 10:20 to 10:50 (VS-1) and one from 13:30 to 14:00 (VS-2). Since the system had been previously used at a petroleum clean-up site, samples were collected pre-filter to prevent cross-contamination (PID readings collected pre-filter were lower than those collected post-filter). Based on decreasing PID concentrations over the course of the test, the pilot test period was shortened from eight hours to six hours. Vapor analytical results from the two pilot test vapor samples are included in **Attachment A.4**.

After the conclusion of the pilot test, the system was shut down and PVC piping was removed from the wells and stored behind the system enclosure along the western building wall.

Results

<u>Monitoring Well Groundwater Sampling Results</u>

The revised horizontal extent of the groundwater contaminant plume based on additional information gathered from recent monitoring well sampling and grab groundwater sampling is illustrated on **Attachment B.3.b**.

Tetrachloroethylene concentrations fell below the NR 140 Enforcement Standard (ES) at monitoring well 91-6 during the July 2019 sampling event. Toluene was also detected above the laboratory detection limit at monitoring well 91-6, however, the concentration did not exceed any DNR standards.

There were no contaminants detected above laboratory detection limits in monitoring well 91-5A when it was sampled in August 2019. Tetrachloroethylene had previously been detected

above the NR 140 Preventive Action Limit (PAL) at monitoring well 91-5A during the December 2017 sampling event.

Soil Sampling Results

No elevated PID readings or odors were detected in soil samples collected from the four soil borings advanced around the perimeter of the building. The highest PID reading observed was 11.6 ppm at GP-7 between 32 and 34 feet bgs (approximate depth of the water table).

There were no contaminants detected above laboratory detection limits in any of the soil samples collected. Soil samples were collected from a shallower (between 6 and 14 feet bgs) and deeper (between 28 and 32 feet bgs) interval in each boring.

Discrete Groundwater Sampling Results

Discrete groundwater samples collected from GP-5 (19.9 ug/L), GP-6 (15.2 ug/L), GP-7 (7.06 ug/L), GP-8 (50.2 ug/L), GP-10-30 (28.6 ug/L) and GP-11-30 (17.5 ug/L) had concentrations of tetrachloroethylene above the NR 140 Enforcement Standard (ES). The highest levels of tetrachloroethylene were detected in the groundwater sample collected from soil boring GP-8, advanced to the west of the building. Tetrachloroethylene was detected above the NR 140 Preventive Action Limit (PAL) at GP-9 (1.52 ug/L). Tetrachloroethylene was not detected above laboratory detection limits in groundwater samples collected from either of the deep grab groundwater samples (GP-10-60, GP-11-60) or GP-12. Trichloroethylene was detected above the PAL at GP-8 (1.54 ug/L) and GP-11-30 (1.15 ug/L).

Petroleum compounds, including benzene, ethylbenzene, naphthalene, toluene and xylenes were detected above their respective ESs in the groundwater sample collected from soil boring GP-12, advanced near the northeastern corner of Main Street West and Muskey Avenue South, adjacent to The Tap Bar and Grill. It is expected that this petroleum groundwater contamination is a residual condition from the former fueling station located to the east (Rob's Amoco, BRRTS #03-07-170228).

Pilot Test and Vapor Sampling Results

PID readings collected from the system during pilot test operation began at 12.9 ppm and 29.0 ppm pre- and post-filter and ended at 0.8 ppm pre-filter. At approximately 2.5 hours into the pilot test, readings from the pre- and post- filter sample ports had become relatively equalized and just one pre-filter reading was collected for the remainder of the test. PID readings were also collected from individual well sample ports (GP-5 and GP-6). GP-5 tended to have slightly higher PID concentrations for the duration of the test.

The system flow rate was relatively stable throughout the test, ranging from 70 to 75 cubic feet per minute (CFM). A vacuum was measured in monitoring well 91-6 for the duration of the test, with an initial reading of -0.11 inches of water prior to system startup, a high of -0.59 inches of water at three hours into the test, and -0.22 inches of water at the conclusion of the test. A positive pressure was measured in monitoring well 91-5A, ranging from +0.05 inches of water prior to system startup and a high of +0.41 inches of water at the conclusion of the

test. One vacuum reading (-0.06 inches of water) was measured at 91-5A approximately three hours into the test.

Tetrachloroethylene and trichloroethylene were detected above their respective Residential Sub-Slab Vapor VRSLs in both vapor samples collected during the pilot test. Tetrachloroethylene was detected at a concentration of 6,820 ug/m^3 in sample VS-1 and 7,920 ug/m^3 in sample VS-2. Trichloroethylene was measured at a concentration of 191 ug/m^3 in sample VS-1 and 229 ug/m^3 in sample VS-2. Contaminant concentrations generally appeared to increase between the mid-test and end-of-test samples. Based on results from the two vapor samples collected during the pilot test, approximately 0.012 pounds of TCE were removed over the course of the six-hour test.

Conclusions & Recommendations

Based on the results of the first round of monitoring well sampling, tetrachloroethylene concentrations have decreased in both wells – below the ES in monitoring well 91-6 and below the PAL in monitoring well 91-5A. These wells will be sampled again in October 2019.

Soil sampling results do not indicate a need for additional soil sampling at the site. There were no contaminants detected above laboratory detection limits in any of the soil samples collected from the borings advanced at the site.

Discrete groundwater sampling has indicated tetrachloroethylene concentrations exceeding the ES in borings advanced in the vicinity of the residence (former dry cleaner building) and to the west at borings GP-10 and GP-11 (northwest and southwest of the site, respectively). Tetrachloroethylene was detected above the PAL in boring GP-9 (advanced to the northwest of the site). Tetrachloroethylene was not detected above the laboratory detection limit at GP-12 (advanced to the southwest of the site). Due to these detections, additional borings are required to delineate the extent of groundwater contamination to the north/northwest of the site.

MSA recommends that four additional water table grab groundwater samples be collected within right of ways to the north and northwest of the site to help define the extent of groundwater impacts exceeding PALs and ESs. Additional deep groundwater sampling is not recommended based on the lack of detections in the deep groundwater samples collected as part of previous site investigation activities.

Although the extent of groundwater ES exceedances was extended based on the grab groundwater sampling results, MSA does not recommend additional sub-slab vapor sampling at nearby properties. Based on the lack of detections above DNR standards in sub-slab sampling at the Grace United Methodist Church and the Webster Fire Department located direction northwest and southwest (respectively) of the subject site, no additional sub-slab vapor sampling is believed to be necessary at properties further downgradient to the west.

Approximately 0.012 pounds of tetrachloroethylene (PCE) were estimated to have been removed during the six hour pilot test conducted in July 2019. This is a fairly low removal rate during a pilot test in a primarily sand environment such as is present at this site. The PCE concentration increased slightly during the test. However, no large source of PCE appears to

be present beneath the building based on these results, as was previously speculated based on the lack of definition of a soil source area for the historic groundwater contamination detected in the area.

MSA does not believe operation of a soil vapor extraction system at this site is warranted based on these results. The sub-slab depressurization system installed beneath the former drycleaner building will be protective of the vapor intrusion pathway. No sub-slab vapors exceeding standards were detected in the two closest downgradient buildings.

Barbara, please call when you have reviewed these results to discuss the next scope of work at the site.

Sincerely,

MSA Professional Services, Inc.

Erica Klingfus
Environmental Scientist

Jayne Englebert
Senior Project Hydrogeologist

EAK:JE

Enclosures:

Attachment A.1	Groundwater Analytical Results
Attachment A.2	Soil Analytical Results
Attachment A.4	Vapor Analytical Results
Attachment B.3.b	Groundwater Isoconcentration

Cc: Jerry Rand
Chris Saari (email copy only)

Attachment A.1. Groundwater Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

	Acetone	Benzene	sec-Butyl benzene	2-Butanone (MEK)	Chloroform	Chloromethane	Ethylbenzene	Dichlorodifluoromethane	1,2-Dichlorobenzene	cis-1,2-Dichloroethene	1,2-Dichloroethane	Naphthalene	Tetrachloroethene	Toluene	Trichloroethene	Xylenes	Groundwater Elevation
NR 140 ES	**9000**	**5**	**NS**	**4000**	**6**	**30**	**700**	**1000**	**600**	**70**	**5**	**100**	**5**	**800**	**5**	**2000**	
NR 140 PAL	*1800*	*0.5*	*NS*	*800*	*0.6*	*3*	*140*	*200*	*60*	*7*	*0.5*	*10*	*0.5*	*160*	*0.5*	*400*	
	Groundwater Concentrations in ug/l (or ppb)																
91-1																	
9/17/1991		<0.2							<1.0		<0.5		<0.5	<0.5	<0.2		947.23
10/14/1991		0.6					<1.0		<1.0		<0.5		<0.5	1.0	<0.2	<1.0	947.39
5/5/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
8/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
6/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.45	<0.3	<0.5	<0.62	949.04
6/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	949.56
6/12/2007		<0.20	<0.20		<0.20		<0.10		<0.80	<0.20		<1.0	<0.30	<0.40	<0.20	<0.40	948.21
7/5/2016	1.3 J	<0.042		<1.1	<0.21	<0.080		<0.075			0.13 J	<0.064	<0.13	<0.059	<0.051		950.78
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.35
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	951.75
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	951.76
91-2A																	
9/17/1991		<0.2							<1.0		<0.5		<0.5	<0.5	<0.2		947.44
10/14/1991		0.5					<1.0		<1.0		<0.5		<0.5	0.9	<0.2	<1.0	947.56
5/5/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	*1.4*	<0.20	<0.20	<0.50	
8/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
6/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	*0.711*	<0.3	<0.5	<0.62	948.57
6/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	*1.19*	ND	ND	<0.62	949.09
6/12/2007		<0.20	<0.20		<0.20		<0.10		<0.80	<0.20		<1.0	*1.78*	<0.40	<0.20	<0.40	947.80
7/5/2016	1.9 J	<0.042		<1.1	<0.21	0.18 J		<0.075			0.15 J	<0.064	0.30 J	<0.059	<0.051		950.31
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	0.38 J	<0.14	<0.052		950.88
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	951.26
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	951.24
91-2B																	
9/17/1991		0.5							1.4		<0.5		**112.0**	<0.5	**6.1**		947.42
10/14/1991		<0.2					<1.0		1.4		<0.5		**105.0**	<0.5	**7.2**	<1.0	947.55
5/5/2004		0.2	0.85	0.85	<0.20		<0.50		0.24	0.86		<0.25	**8.7**	<0.20	0.47	0.47	
8/12/2004		0.29	0.91	0.91	<0.20		<0.50		0.27	0.67		<0.28	**7.6**	<0.20	*0.52*	0.52	
6/22/2005		0.377	1.6	1.6	<0.2		<0.5		<0.60	<0.4		<0.8	**5.57**	<0.3	<0.5	<0.5	949.75
6/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	*3.43*	<0.3	<0.5	<0.5	950.26
6/12/2007		0.38	<0.20		<0.20		<0.10		<0.80	<0.20		<1.0	*3.71*	<0.40	0.92	0.92	948.98
7/5/2016	2.4 J	<0.042		<1.1	<0.21	<0.080		<0.075			0.093 J	<0.064	*1.5*	<0.059	<0.051		951.47
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	*1.1*	<0.14	<0.052		952.07
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	*1.1*	<0.17	<0.18	<0.24	952.43
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.45

Attachment A.1. Groundwater Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

	Acetone	Benzene	sec-Butyl benzene	2-Butanone (MEK)	Chloroform	Chloromethane	Ethylbenzene	Dichlorodifluoromethane	1,2-Dichlorobenzene	cis-1,2-Dichloroethene	1,2-Dichloroethane	Naphthalene	Tetrachloroethene	Toluene	Trichloroethene	Xylenes	Groundwater Elevation
NR 140 ES	**9000**	**5**	**NS**	**4000**	**6**	**30**	**700**	**1000**	**600**	**70**	**5**	**100**	**5**	**800**	**5**	**2000**	
NR 140 PAL	*1800*	*0.5*	*NS*	*800*	*0.6*	*3*	*140*	*200*	*60*	*7*	*0.5*	*10*	*0.5*	*160*	*0.5*	*400*	
	Groundwater Concentrations in ug/l (or ppb)																
91-5A																	
9/17/1991		<0.2							<1.0		<0.5		**8**	<0.5	<0.2		947.82
10/14/1991		0.4					<1.0		<1.0		<0.5		**5.1**	0.8	<0.2	<1.0	947.93
5/5/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	*1.8*	<0.20	<0.20	<0.50	
8/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	*1*	<0.20	<0.20	<0.50	
6/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.45	<0.3	<0.5	<0.62	949.51
6/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	950.17
6/12/2007		<0.20	<0.20		<0.20		<0.10		<0.80	<0.20		<1.0	*1.15*	<0.40	<0.20	<0.40	948.96
7/5/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.12 J	<0.064	*2.5*	<0.059	<0.051		951.33
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	*1.8*	<0.14	<0.052		951.91
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	*2.3*	<0.17	<0.18	<0.24	952.21
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	*2*	<0.50	<0.33	<1.50	952.24
8/21/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<3.00	
91-5B																	
9/17/1991		<0.2							<1.0		<0.5		<0.5	<0.5	<0.2		947.81
10/14/1991		0.4					<1.0		<1.0		*0.8*		<0.5	<0.5	<0.2	<1.0	947.93
5/5/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
8/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
6/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.5		<0.8	0.678	<0.3	<0.5	<0.62	949.53
6/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.5		<0.8	0.91	<0.3	<0.5	<0.62	950.14
6/12/2007		<0.20	<0.20		<0.20		<0.10		<0.80	<0.10		<1.0	<0.30	<0.40	<0.20	<0.40	948.90
7/5/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.19 J	<0.064	<0.13	<0.059	<0.051		951.25
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.85
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.18
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.22
91-6																	
9/17/1991		<0.2							<1.0		<0.5		**31.8**	<0.5	0.4		948.09
10/14/1991		0.3					<1.0		<1.0		*<0.5*		**32.0**	<0.5	*0.7*	<1.0	948.20
5/5/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	**86**	<0.20	0.23	<0.50	
8/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	**95**	<0.20	0.3	<0.50	
6/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	**38.9**	<0.3	<0.5	<0.62	949.75
6/21/2006		*<1.55*	<2.0		<1.0		<2.5		<3.0	<2.0		<4.0	**42.7**	<1.5	*<2.5*	<3.1	950.18
6/12/2007		*<1.0*	<1.0		<1.0		<0.5		<4.0	<1.0		<5.0	**48.8**	<2.0	*<1.0*	<2.0	948.99
7/6/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.12 J	<0.064	**55.2**	<0.059	*0.77*		951.36
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	**38.4**	<0.14	*0.54*		951.88
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	**45.7**	<0.17	*0.72*	<0.24	953.19
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	**17**	<0.50	*<0.33*	<1.50	952.21
7/16/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	*2.87*	3.31	<1.00	<3.00	

Attachment A.1. Groundwater Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

	Acetone	Benzene	sec-Butyl benzene	2-Butanone (MEK)	Chloroform	Chloromethane	Ethylbenzene	Dichlorodifluoromethane	1,2-Dichlorobenzene	cis-1,2-Dichloroethene	1,2-Dichloroethane	Naphthalene	Tetrachloroethene	Toluene	Trichloroethene	Xylenes	Groundwater Elevation
NR 140 ES	**9000**	**5**	**NS**	**4000**	**6**	**30**	**700**	**1000**	**600**	**70**	**5**	**100**	**5**	**800**	**5**	**2000**	
NR 140 PAL	*1800*	*0.5*	*NS*	*800*	*0.6*	*3*	*140*	*200*	*60*	*7*	*0.5*	*10*	*0.5*	*160*	*0.5*	*400*	
	Groundwater Concentrations in ug/l (or ppb)																
91-7																	
9/17/1991		<0.2							<1.0		<0.5		<0.5	<0.5	<0.2		948.05
10/14/1991		<0.2					<1.0		<1.0		<0.5		*0.6*	<0.5	<0.2	<1.0	948.08
5/5/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
8/12/2004		<0.20	<0.25		<0.20		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
6/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.45	<0.3	<0.5	<0.62	949.70
6/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	*<0.71*	<0.3	<0.5	<0.62	950.11
6/12/2007		<0.20	<0.20		<0.20		<0.10		<0.80	<0.20		<1.0	<0.30	<0.40	<0.20	<0.40	948.91
7/6/2016	2.8 J	<0.042		<1.1	<0.21	<0.080		<0.075			<0.072	<0.064	*1.6*	<0.059	<0.051		951.32
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.84
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.15
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.18
7/16/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<3.00	
OW-1																	
8/4/1986		*0.5*									<0.3		*0.6*	<0.1	<0.1		
9/23/1986		<0.2									<0.3		*3.3*	<0.1	<0.1		
9/17/1991		<0.2							<1.0		<0.5		**13.8**	<0.5	<0.2		947.25
10/14/1991		*1.1*					3.3		<1.0		*<0.5*		**9.4**	0.5	<0.2	1.1	947.43
5/5/2004		<0.20	<0.25		*1.5*		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
8/12/2004		<0.20	<0.25		*0.69*		<0.50		<0.20	<0.50		<0.25	<0.50	<0.20	<0.20	<0.50	
6/22/2005		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.45	<0.3	<0.5	<0.62	949.22
6/21/2006		<0.31	<0.4		<0.2		<0.5		<0.60	<0.4		<0.8	<0.71	<0.3	<0.5	<0.62	949.86
6/12/2007		<0.20	<0.20		<0.20		<0.10		<0.80	<0.20		<1.0	<0.30	<0.40	<0.20	<0.40	948.48
7/6/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.14 J	<0.064	<0.13	<0.059	<0.051		951.01
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.69
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.02
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.07
OW-2																	
9/23/1986		<0.2									<0.3		*0.7*	<0.1	<0.1		
9/17/1991		<0.2							<1.0		*4.3*		*2.3*	<0.5	<0.2		947.25
10/14/1991		0.2					<1.0		<1.0				*1.2*	<0.5	<0.2	<1.0	947.20
5/5/2004		<0.20	<0.25		<0.20		<0.50		*<0.20*	<0.50		*<0.25*	<0.5	<0.20	<0.20	<0.50	
8/12/2004		<0.20	<0.25		<0.20		<0.50		*<0.20*	<0.50		*<0.25*	<0.5	<0.20	<0.20	<0.50	
6/22/2005		<0.31	<0.4		<0.2		<0.5		*<0.60*	<0.4		*<0.8*	<0.45	<0.3	<0.5	<0.62	949.24
6/21/2006		<0.31	<0.4		<0.2		<0.5		*<0.60*	<0.4		*<0.8*	<0.71	<0.3	<0.5	<0.62	949.84
6/12/2007		<0.20	<0.20		<0.20		<0.10		*<0.80*	<0.20		*<1.0*	<0.30	<0.40	<0.20	<0.40	948.47
7/6/2016	<0.64	<0.042		<1.1	<0.21	<0.080		<0.075			0.085 J	<0.064	<0.13	<0.059	<0.051		950.94
10/3/2016	<2.0	<0.16		<1.1	<0.21	<0.25		<0.23			<0.17	<0.20	<0.25	<0.14	<0.052		951.70
9/26/2017	<8.8	<0.34	<0.12	<2.4	<0.46	<1.1	<0.14	<0.31	<0.21	<0.20	<0.32	<0.42	<0.16	<0.17	<0.18	<0.24	952.04
12/13/2017	<3.0	<0.50	<2.2	<3.0	<2.5	<0.50	<0.50	<0.22	<0.50	<0.26		<2.5	<0.50	<0.50	<0.33	<1.50	952.07

Attachment A.1. Groundwater Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

	Acetone	Benzene	sec-Butyl benzene	2-Butanone (MEK)	Chloroform	Chloromethane	Ethylbenzene	Dichlorodifluoromethane	1,2-Dichlorobenzene	cis-1,2-Dichloroethene	1,2-Dichloroethane	Naphthalene	Tetrachloroethene	Toluene	Trichloroethene	Xylenes	Groundwater Elevation
NR 140 ES	**9000**	**5**	**NS**	**4000**	**6**	**30**	**700**	**1000**	**600**	**70**	**5**	**100**	**5**	**800**	**5**	**2000**	
NR 140 PAL	*1800*	*0.5*	*NS*	*800*	*0.6*	*3*	*140*	*200*	*60*	*7*	*0.5*	*10*	*0.5*	*160*	*0.5*	*400*	
	Groundwater Concentrations in ug/l (or ppb)																
Soil Boring Groundwater Samples																	
GP-1																	
7/5/2016	7.2 J	0.094 J		1.3 J	0.33 J	<0.080		0.21 J			0.15 J	0.14 J	**19**	0.13 J	0.28 J		
GP-5																	
7/15/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	**19.9**	<1.00	<1.00	<3.00	
GP-6																	
7/15/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	**15.2**	<1.00	<1.00	<3.00	
GP-7																	
7/15/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	**7.06**	<1.00	<1.00	<3.00	
GP-8																	
7/15/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	**50.2**	<1.00	*1.54*	<3.00	
GP-9																	
7/16/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	*1.52*	<1.00	<1.00	<3.00	
GP-10-30																	
7/16/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	**28.6**	<1.00	<1.00	<3.00	
GP-10-60																	
7/16/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<3.00	
GP-11-30																	
7/16/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	2.71	<1.00	<5.00	**17.5**	<1.00	*1.15*	<3.00	
GP-11-60																	
7/16/2019	<50.0	<1.00	<1.00	<10.0	<5.00	<2.50	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	3.96	
GP-12																	
7/16/2019	<250	**35.5**	6.94	<50.0	<25.0	<12.5	**992**	<25.0	<5.00	<5.00	<5.00	**329**	<5.00	**1540**	<5.00	**5420**	
Rob's Amoco Wells																	
RMW-1																	
12/3/1997		<0.010					<0.25				<0.25	<0.10	<0.25	<0.10		<0.25	
RMW-2																	
12/3/1997		<0.010					<0.25				<0.25	<0.10	*2.5*	<0.10		<0.25	
RMW-3																	
12/3/1997		<0.010					<0.25				<0.25	<0.10	<0.25	<0.10		<0.25	
RMW-4																	
12/3/1997		<0.010					<0.25				<0.25	<0.10	*3.2*	<0.10		<0.25	
RMW-5																	
12/3/1997		<0.010					<0.25				<0.25	<0.10	<0.25	<0.10		<0.25	
RMW-10																	
5/6/1998		<0.010					5.8				<0.25	5.1	*3.1*	0.15		4.1	

Exceedance Highlights:
BOLD font indicates NR 140 Enforcement Standard (ES) exceedance.
Italic font indicates NR 140 Preventative Action Limit (PAL) exceedance.
BTEX and other VOC compounds detected in at least one sample are included in table. See laboratory report for all results.
NS: No published standard.

Table Notes:
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).
Blanks indicate contaminant was not analyzed.
J: Laboratory qualifer indicating the estimated concentration at or above the Limit of Detection and below the Limit of Quantitation.

Attachment A.2. Soil Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	GP-1	GP-3	GP-3	GP-4	GP-5		GP-6		GP-7		GP-8		OW-1							
DEPTH to Water Table (ft BGS)													UNK	UNK	UNK	UNK	UNK	UNK		
Date Collected	7/5/2016	7/5/2016	7/5/2016	7/5/2016	7/15/2019	7/15/2019	7/15/2019	7/15/2019	7/15/2019	7/15/2019	7/15/2019	7/15/2019	7/1986							
DEPTH (ft BGS)	10	10	20	10	6-8	28-30	8-10	30-32	8-10	30-32	12-14	30-32	5	15	25	30	35	45	Soil RCLs (mg/kg)	
SATURATED OR UNSATURATED	UNSAT	UNSAT	UNSAT	UNSAT	UNSAT	UNSAT	UNSAT	UNSAT	UNSAT	UNSAT	UNSAT	UNSAT	UNK	UNK	UNK	UNK	UNK	UNK		
SOIL TYPE	sand	sand	sand	sand									UNK	UNK	UNK	UNK	UNK	UNK	December 2017 Table	Background
	Soil Concentrations in mg/kg (or ppm)																		Non-Industrial Direct Contact	Soil to GW	Surficial BTV
VOC ANALYTES																					
Benzene	<0.0046	<0.0047	<0.0044	<0.0047	<0.0279	<0.0285	<0.0348	<0.0290	<0.0309	<0.0300	<0.0352	<0.0279	<0.4	<0.4	<0.4	<0.4	<0.4	*0.6*	1.6	0.0051	
n-Butylbenzene	<0.0128	<0.0131	<0.0122	<0.0133	<0.348	<0.357	<0.435	<0.363	<0.387	<0.375	<0.440	<0.348							108	NS	
sec-Butylbenzene	<0.0125	<0.0127	<0.0119	<0.0129	<0.348	<0.357	<0.435	<0.363	<0.387	<0.375	<0.440	<0.348							145	NS	
Ethylbenzene	<0.0168	<0.0172	<0.0161	<0.0174	<0.0697	<0.0714	<0.0869	<0.0726	<0.0774	<0.0751	<0.0880	<0.0697	*29.6*	<0.4	<0.4	<0.4	<0.4	<0.4	8.2	1.57	
p-Isopropylbenzene	<0.0188	<0.0192	<0.0180	<0.0195	<0.139	<0.143	<0.174	<0.145	<0.155	<0.150	<0.176	<0.139							NS	NS	
Methylene chloride	<0.0980	<0.1000	<0.0936	<0.1010	<0.697	<0.714	<0.869	<0.726	<0.774	<0.751	<0.880	<0.697							61.8	0.0026	
Methyl tert butyl ether	<0.0099	<0.0101	<0.0095	<0.0103	<0.0279	<0.0285	<0.0348	<0.0290	<0.0309	<0.0300	<0.0352	<0.0279							63.8	0.027	
Naphthalene	<0.0128	<0.0131	<0.0122	<0.0133	<0.348	<0.357	<0.435	<0.363	<0.387	<0.375	<0.440	<0.348							5.52	0.6582	
n-Propylbenzene	<0.0158	<0.0161	<0.0151	<0.0163	<0.139	<0.143	<0.174	<0.145	<0.155	<0.150	<0.176	<0.139							264	NS	
Tetrachloroethene	<0.0202	<0.0206	<0.0193	<0.0209	<0.0697	<0.0714	<0.0869	<0.0726	<0.0774	<0.0751	<0.0880	<0.0697	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	33	0.0045	
Trichloroethene	<0.0151	<0.0154	<0.0145	<0.0157	<0.0279	<0.0285	<0.0348	<0.0290	<0.0309	<0.0300	<0.0352	<0.0279	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.3	0.0036	
Toluene	<0.0168	<0.0172	<0.0161	<0.0174	<0.139	<0.143	<0.174	<0.145	<0.155	<0.150	<0.176	<0.139	*45.7*	<0.2	0.3	0.3	0.8	1.2	818	1.1072	
1,2,3-Trichlorobenzene	<0.0152	<0.0155	<0.0146	<0.0158	<0.0697	<0.0714	<0.0869	<0.0726	<0.0774	<0.0751	<0.0880	<0.0697							62.6	NS	
1,2,4-Trimethylbenzene	<0.0116	<0.0119	<0.0111	<0.0120	<0.139	<0.143	<0.174	<0.145	<0.155	<0.150	<0.176	<0.139							219	1.3787*	
1,3,5-Trimethylbenzene	<0.0122	<0.0124	<0.0116	<0.0126	<0.139	<0.143	<0.174	<0.145	<0.155	<0.150	<0.176	<0.139							182	1.3787*	
Xylene (Total)	<0.0423	<0.0432	<0.0404	<0.0438	<0.181	<0.186	<0.226	<0.189	<0.201	<0.195	<0.229	<0.181	*111.7*	<2.0	<2.0	<2.0	<2.0	*8.9*	260*	3.96*	
No. of Individual Exceedances (DC)																					
Cumulative Hazard Index (DC)																					
Cumulative Cancer Risk (DC)																					

Exceedance Highlights:
BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.
Blanks indicate constituent was not analyzed
NS: No published standard.

Table Notes:
J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

Attachment A.2. Soil Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	OW-2						OW-3			OW-4		OW-5		OW-6			OW-7			OW-8		
DEPTH to Water Table (ft BGS)	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
Date Collected	7/1986						7/1986			7/1986		7/1986		7/1986			7/1986			7/1986		
DEPTH (ft BGS)	5	15	25	30	35	40	5'	10'	40'	5'	45'	5'	45'	5'	10'	45'	5'	10'	45'	5'	10'	45'
SATURATED OR UNSATURATED	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
SOIL TYPE	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
Soil Concentrations in mg/kg (or ppm)																						
VOC ANALYTES																						
Benzene	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
n-Butylbenzene																						
sec-Butylbenzene																						
Ethylbenzene	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
p-Isopropylbenzene																						
Methylene chloride																						
Methyl tert butyl ether																						
Naphthalene																						
n-Propylbenzene																						
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	<0.2	0.2	0.4	0.5	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichlorobenzene																						
1,2,4-Trimethylbenzene																						
1,3,5-Trimethylbenzene																						
Xylene (Total)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
No. of Individual Exceedances (DC)																						
Cumulative Hazard Index (DC)																						
Cumulative Cancer Risk (DC)																						

Exceedance Highlights:
BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.
Blanks indicate constituent was not analyzed
NS: No published standard.

Table Notes:
J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

Attachment A.2. Soil Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	OW-9		SB-1		SB-2		SB-3	SB-4			SB-5	SB-6	SB-7				SB-8	SB-9			
DEPTH to Water Table (ft BGS)	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
Date Collected	7/1986		6/17/1991		7/9/1991		6/18/1991	7/11/1991			6/26/1991	6/26/1991	7-17-1991				7/8/1991	7-23-1991			
DEPTH (ft BGS)	5'	40'	9-11'	34-36'	24-26'	34-36'	34-36'	34-36'	44-46'	69-71'	34-36'	34-36'	8-11'	38-40'	60-62'	64-66'	34-36'	8-10'	40-42'	60-62'	68-70'
SATURATED OR UNSATURATED	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
SOIL TYPE	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
Soil Concentrations in mg/kg (or ppm)																					
VOC ANALYTES																					
Benzene	<0.4	<0.4	<0.0021	<0.0022	<0.0035	<0.0036	<0.0021	<0.0025	<0.0029	<0.0029	<0.0020	<0.0020	<0.0020	<0.0020	<0.0025	<0.0025	<0.0018	<0.0019	<0.0019	<0.0023	<0.0023
n-Butylbenzene																					
sec-Butylbenzene																					
Ethylbenzene	<0.4	<0.4	<0.0043	<0.0043	<0.0069	<0.0071	<0.0043	<0.0049	<0.0058	<0.0058	<0.0039	<0.0039	<0.0039	<0.0039	<0.0049	<0.0049	<0.0037	<0.0039	<0.0039	<0.0045	<0.0045
p-Isopropylbenzene																					
Methylene chloride			<0.0098	<0.0098	<0.0170	<0.0180	<0.0098	0.0429	0.0431	0.0492	<0.0098	<0.0098	<0.0099	<0.0099	0.0137	0.0224	<0.0092	<0.0098	<0.0098	0.0146	<0.0110
Methyl tert butyl ether																					
Naphthalene																					
n-Propylbenzene																					
Tetrachloroethene	<0.2	<0.2	<0.0020	0.0349	<0.0035	<0.0036	<0.0020	<0.0025	<0.0029	0.0058	<0.0020	0.0024	<0.0020	<0.0020	<0.0025	<0.0025	<0.0018	<0.0019	<0.0019	<0.0023	<0.0023
Trichloroethene	<0.2	<0.2	<0.0021	<0.0022	<0.0035	<0.0036	<0.0021	<0.0025	<0.0029	<0.0029	<0.0020	<0.0020	<0.0020	<0.0020	<0.0025	<0.0025	<0.0018	<0.0019	<0.0019	<0.0023	<0.0023
Toluene	<0.2	<0.2	<0.0020	<0.0020	<0.0035	<0.0036	<0.0020	<0.0025	<0.0029	<0.0029	<0.0020	<0.0020	<0.0020	<0.0020	<0.0025	<0.0025	<0.0018	<0.0019	<0.0019	<0.0023	<0.0023
1,2,3-Trichlorobenzene																					
1,2,4-Trimethylbenzene																					
1,3,5-Trimethylbenzene																					
Xylene (Total)	<2.0	<2.0	<0.0086	<0.0086	<0.0138	<0.0142	<0.0086	<0.0098	<0.0116	<0.0116	<0.0078	<0.0078	<0.0078	<0.0078	<0.0098	<0.0098	<0.0074	<0.0078	<0.0078	<0.0090	<0.0090
No. of Individual Exceedances (DC)																					
Cumulative Hazard Index (DC)																					
Cumulative Cancer Risk (DC)																					

Exceedance Highlights:
BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.
Blanks indicate constituent was not analyzed
NS: No published standard.

Table Notes:
J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

Attachment A.2. Soil Analytical Table
Webster Quik Wash
BRRTS# 02-07-000337

SAMPLE/BORING #	SB-10	SB-11	SB-12		SB-13	SB-14	SB-15	SB-16			SB-17			SB-18		SB-19	
DEPTH to Water Table (ft BGS)	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
Date Collected	6/25/1991	6/25/1991	6/19/1991		6/24/1991	6/19/1991	6/18/1991	8/5/1991			8/6/1991			8/6/1991		8/6/1991	
DEPTH (ft BGS)	34-36'	34-36'	9-11'	34-36'	34-36'	34-36'	34-36'	4-6'	44-46'	64-66'	4-6'	44-46'	69-71'	9-11'	34-36'	14-16'	34-36'
SATURATED OR UNSATURATED	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
SOIL TYPE	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK	UNK
Soil Concentrations in mg/kg (or ppm)																	
VOC ANALYTES																	
Benzene	<0.0024	<0.0024	<0.0043	<0.0022	<0.0023	<0.0022	<0.0018	<0.0023	<0.0023	<0.0025	<0.0025	<0.0020	<0.0022	<0.0020	<0.0022	<0.0020	<0.0020
n-Butylbenzene																	
sec-Butylbenzene																	
Ethylbenzene	<0.0048	<0.0048	<0.0085	<0.0042	<0.0047	<0.0042	<0.0038	<0.0045	<0.0045	<0.0048	<0.0048	<0.0041	<0.0043	<0.0041	<0.0043	<0.0039	<0.0039
p-Isopropylbenzene																	
Methylene chloride	<0.0120	<0.0120	<0.0210	<0.0110	<0.0120	0.0135	<0.0092	<0.0110	<0.0110	<0.0120	<0.0120	<0.0100	<0.0110	<0.0100	<0.0110	<0.0098	<0.0098
Methyl tert butyl ether																	
Naphthalene																	
n-Propylbenzene																	
Tetrachloroethene	<0.0024	<0.0024	<0.0043	<0.0022	<0.0023	<0.0022	<0.0018	<0.0023	<0.0023	<0.0025	<0.0025	<0.0020	<0.0022	<0.0020	0.0093	<0.0020	<0.0020
Trichloroethene	<0.0024	<0.0024	<0.0043	<0.0022	<0.0023	<0.0022	<0.0018	<0.0023	<0.0023	<0.0025	<0.0025	<0.0020	<0.0022	<0.0020	<0.0022	<0.0020	<0.0020
Toluene	<0.0024	<0.0024	<0.0043	<0.0022	0.0042	<0.0022	<0.0018	<0.0023	<0.0023	<0.0025	<0.0025	<0.0020	<0.0022	<0.0020	<0.0022	<0.0020	<0.0020
1,2,3-Trichlorobenzene																	
1,2,4-Trimethylbenzene																	
1,3,5-Trimethylbenzene																	
Xylene (Total)	<0.0096	<0.0096	<0.0170	<0.0084	<0.0094	<0.0084	<0.0076	<0.0090	<0.0090	<0.0096	<0.0096	<0.0082	<0.0086	<0.0082	<0.0086	<0.0078	<0.0078
No. of Individual Exceedances (DC)																	
Cumulative Hazard Index (DC)																	
Cumulative Cancer Risk (DC)																	

Exceedance Highlights:
BOLD font indicates DC RCL exceedance, and BTV exceedance for metals.
Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.
Blanks indicate constituent was not analyzed
NS: No published standard.

Table Notes:
J: Indicates the analyte was detected between the Laboratory Limit of Detection and Laboratory Limit of Quantitation.
<: Indicates the analyte was not detected above the Laboratory Limit of Quantitation.
*: Indicates total xylenes (m-,o-,p- combined) and total trimethylbenzenes (1,2,4- and 1,3,5- combined).

Attachment A.4. Vapor Analytical Table
Former Webster Quik Wash
BRRTS# 02-07-000337

Location	Vapor Samples										Residential Indoor Air VALs	Residential Sub-Slab Vapor VRSL	Small Commercial Indoor Air VALs	Small Commercial Sub-Slab Vapor VRSL
	Murray Apt	Murray Apt	Jaeger Apt	Jaeger Crawl Space	VP-1 (Church utility room north)		VP-2 (Church storage area south)		VP-3 (Fire station garage north)					
Duration or Depth Collected	Sub Slab	24 hour	24 hour	24 hour	Sub Slab		Sub Slab		Sub Slab					
Date	7/5/2016	7/5-6/2016	7/5-6/2016	7/5-6/2016	9/26/2017	12/12/2017	9/26/2017	12/12/2018	9/26/2017	12/12/2017				
1,1-Dichloroethene	<0.44	<0.38	<0.37	<0.37	<0.38	<0.40	<33.2	<0.43	<0.41	<0.40	210	7,000	880	29,000
cis-1,2-Dichloroethene	<0.45	<0.40	<0.38	<0.38	<0.55	<0.57	<47.7	<0.62	<0.60	<0.57	NS	NS	NS	NS
trans-1,2-Dichloroethene	<0.70	<0.62	<0.60	<0.60	<0.47	<0.50	<41.3	<0.54	<0.52	<0.50	NS	NS	NS	NS
Tetrachloroethene	**8,180**	2.5	1.1	12.7	15.6	2.2	170	102	68.4	12	42	1,400	180	6,000
Trichloroethene	5.2	<0.44	<0.43	<0.43	<0.43	<0.45	<37.5	<0.49	<0.47	<0.45	2.1	70	8.8	290
Vinyl chloride	<0.36	<0.31	<0.30	<0.30	<0.42	<0.21	<17.6	<0.23	<0.22	<0.21	1.7	57	28	930

All concentrations reported in micrograms per cubic meter (ug/m^3).

Vapor Action Levels (VALs) based on the Wisconsin Department of Natural Resources (DNR) Guidance Document Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin (PUB-RR-800), and the Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) Calculator for Residential Indoor Air Concentrations and Exterior Soil Gas Concentrations.

Vapor Action Levels (VALs) and Vapor Risk Screening Levels (VRSLs) obtained from the WDNR Indoor Air Vapor Action Levels and Vapor Risk Screening Levels Table based on June 2017 USEPA Regional Screening Level Tables

NS = Constituent has no published standard.

<0.28 = Constituent was not detected above the laboratory limit of detection (LOD).

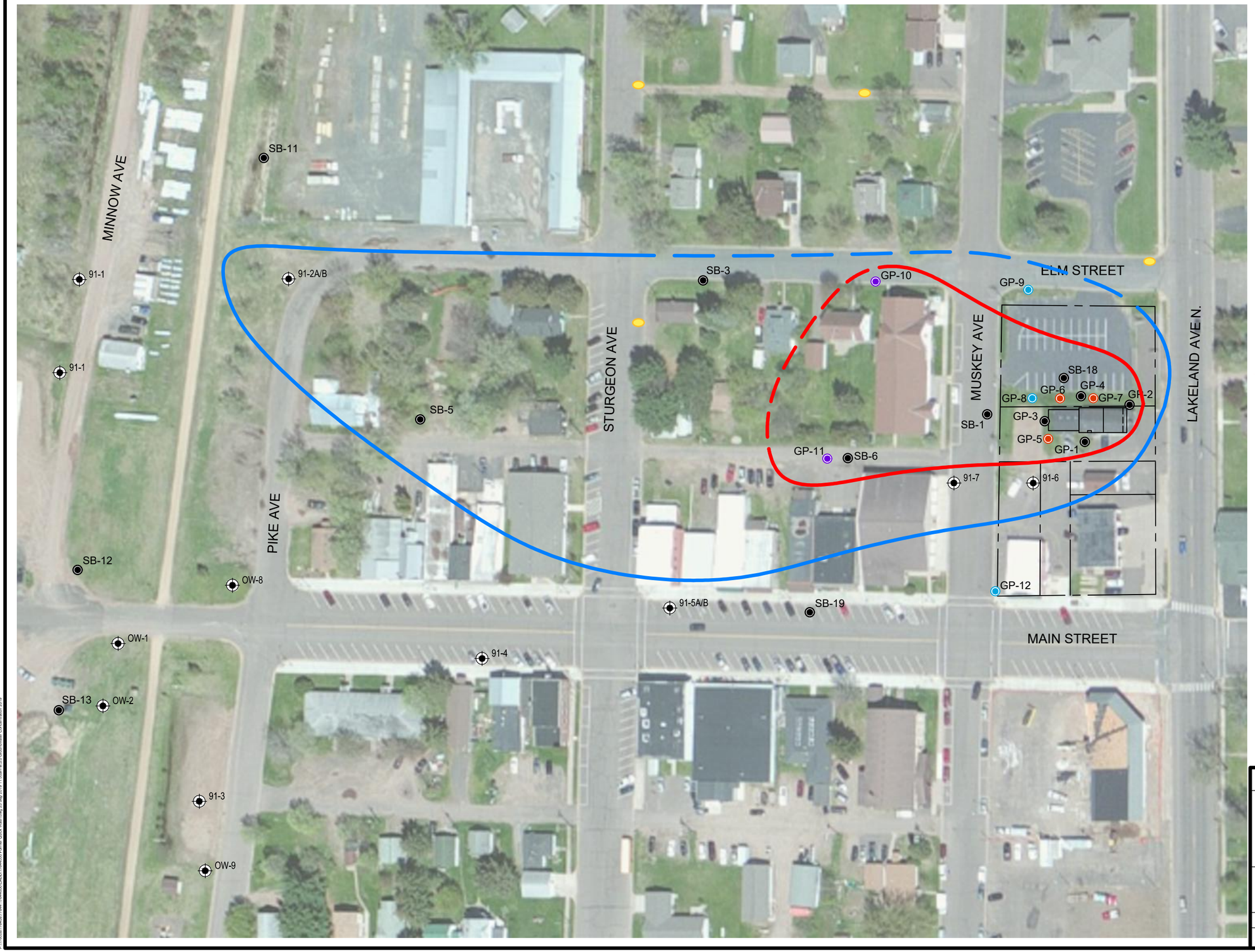
Concentrations in **Bold** text exceed a VAL/VRSL

Soil gas VALS are calculated from the Residual Indoor Air VALs/0.01 (attenuation factor for deep soil gas)

Attachment A.4. Vapor Analytical Table
Former Webster Quik Wash
BRRTS# 02-07-000337

Location	Vapor Samples					Pilot Test		Residential Indoor Air VALs	Residential Sub-Slab Vapor VRSL	Small Commercial Indoor Air VALs	Small Commercial Sub-Slab Vapor VRSL
	VP-4 (Fire station garage south)		VP-5 (The Tap Bar basement)		VP-6 (Shawn's Service Garage)	VS-1 (10:20-10:50)	VS-2 (13:30-14:00)				
Duration or Depth Collected	Sub Slab		Sub Slab		Sub Slab	30 min	30 min				
Date	9/26/2017	12/12/2017	9/26/2017	12/12/2017	12/12/2017	7/17/2019	7/17/2019				
1,1-Dichloroethene	<4.0	<4.0	<31.9	<17.7	<0.46	<0.793	<0.793	210	7,000	880	29,000
cis-1,2-Dichloroethene	<5.7	<5.7	<45.8	<25.4	<0.65	79.8	86.7	NS	NS	NS	NS
trans-1,2-Dichloroethene	<5.0	<5.0	<39.6	<22.0	<0.57	5.08	5.27	NS	NS	NS	NS
Tetrachloroethene	424	596	**7,260**	2,580	201	**6,820**	**7,920**	42	1,400	180	6,000
Trichloroethene	<4.5	<4.5	<36.0	<20.0	2.3	**191**	**229**	2.1	70	8.8	290
Vinyl chloride	<2.1	<2.1	<16.9	<9.4	<0.24	<0.511	<0.511	1.7	57	28	930

All concentrations reported in micrograms per cubic meter (ug/m^3).
Vapor Action Levels (VALs) based on the Wisconsin Department of Natural Resources (DNR) Guidance Document Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin (PUB-RR-800), and the Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL)
Vapor Action Levels (VALs) and Vapor Risk Screening Levels (VRSLs) obtained from the WDNR Indoor Air Vapor Action Levels and Vapor Risk Screening Levels Table based on June 2017 USEPA Regional Screening Level Tables
NS = Constituent has no published standard.
<0.28 = Constituent was not detected above the laboratory limit of detection (LOD).
Concentrations in **Bold** text exceed a VAL/VRSL
Soil gas VALS are calculated from the Residual Indoor Air VALs/0.01 (attenuation factor for deep soil gas)



LEGEND

- 91-1 MONITORING WELL LOCATION
- SB-1 SOIL BORINGS
- SOIL BORING LOCATION (2x SOIL SAMPLES FROM EACH)
- GRAB GROUNDWATER SAMPLE LOCATION (1) (WATER TABLE, ~ 30 FT)
- GRAB GROUNDWATER SAMPLE LOCATION (2) (WATER TABLE AND 60-65 FT DEPTH)
- ESTIMATED GROUNDWATER PLUME EXCEEDING DNR PREVENTATIVE ACTION LIMITS
- ESTIMATED GROUNDWATER PLUME EXCEEDING DNR ENFORCEMENT STANDARDS
- PROPOSED BORING LOCATION

0 100' 200'

FIGURE B.3.d

GROUNDWATER CONCENTRATION MAP (JULY & AUGUST 2019)

FORMER WEBSTER QUICK WASH
WEBSTER, WISCONSIN

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DRAWN BY	ZS	DATE	09/19
CHECKED BY	EK	SCALE	AS SHOWN

SHEET NO. B.3.d
FILE NO. 17644000

P:\17600s\17640s\17644\17644000\CADD\17644000 Former Quick Wash.dwg 25 Sep 2019 11:00am B.3.b Groundwater Concentration 2019