

A.7 Other
Groundwater NA Indicator Results
Auto Repair on Vliet BRRTS #03-41-286924

Well MW-1/1R

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
05/10/17	0.96	6.84	34.00	10.50	1027.00	NS	NS	NS	NS
10/08/18	MW-1 ABANDONED/REMOVED DURING EXCAVATION PROJECT								
11/06/18	MW-1 REPLACED WITH MW-1R								
12/18/18	0.88	7.01	44.80	13.50	981.00	NS	NS	NS	NS
03/13/19	3.30	7.48	-178.4	8.64	1512.00	NS	NS	NS	NS
10/08/19	0.12	7.19	-128.1	15.40	2786.00	NS	NS	NS	NS
01/07/20	1.61	6.83	-148.0	11.19	2395.00	NS	NS	NS	NS
ENFORCE MENT STANDARD = ES – Bold						10	250	0.3	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						<i>2</i>	<i>125</i>	<i>0.15</i>	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
 Note: Elevations are presented in feet mean sea level (msl).

Well MW-2

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
05/10/17	0.61	7.35	241.00	11.20	748.00	NS	NS	NS	NS
12/18/18	0.97	7.42	248.50	13.31	869.00	NS	NS	NS	NS
03/13/19	3.29	6.96	-97.1	8.58	810.00	NS	NS	NS	NS
10/08/19	NOT SAMPLED								
01/07/20	NOT SAMPLED								
ENFORCE MENT STANDARD = ES – Bold						10	250	0.3	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						<i>2</i>	<i>125</i>	<i>0.15</i>	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
 Note: Elevations are presented in feet mean sea level (msl).

Well MW-3

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
05/10/17	2.92	7.28	284.00	12.80	595.00	NS	NS	NS	NS
12/18/18	1.40	7.32	287.00	13.56	430.00	NS	NS	NS	NS
03/13/19	NOT SAMPLED								
10/08/19	NOT SAMPLED								
01/07/20	NOT SAMPLED								
ENFORCE MENT STANDARD = ES – Bold						10	250	0.3	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						<i>2</i>	<i>125</i>	<i>0.15</i>	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
 Note: Elevations are presented in feet mean sea level (msl).

A.7 Other
Groundwater NA Indicator Results
Auto Repair on Vliet BRRTS #03-41-286924

Well MW-4

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
05/10/17	1.22	7.43	262.00	12.60	582.00	NS	NS	NS	NS
12/18/18	1.22	7.24	292.10	14.07	616.00	NS	NS	NS	NS
03/13/19	NOT SAMPLED					NS	NS	NS	NS
10/08/19	NOT SAMPLED								
01/07/20	NOT SAMPLED								
ENFORCE MENT STANDARD = ES – Bold						10	250	0.3	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						<i>2</i>	<i>125</i>	<i>0.15</i>	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
 Note: Elevations are presented in feet mean sea level (msl).

Well MW-5

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
05/10/17	1.33	7.46	235.00	13.90	1744.00	NS	NS	NS	NS
12/18/18	1.30	7.38	231.60	12.70	1253.00	NS	NS	NS	NS
03/13/19	NOT SAMPLED					NS	NS	NS	NS
10/08/19	NOT SAMPLED								
01/07/20	NOT SAMPLED								
ENFORCE MENT STANDARD = ES – Bold						10	250	0.3	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						<i>2</i>	<i>125</i>	<i>0.15</i>	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
 Note: Elevations are presented in feet mean sea level (msl).

Well MW-6

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
12/18/18	0.94	7.29	140.00	13.75	1147.00	NS	NS	NS	NS
03/13/19	3.27	7.37	-227.8	8.94	1579.00	NS	NS	NS	NS
10/08/19	0.30	7.25	135.20	15.44	1201.00	NS	NS	NS	NS
01/07/20	1.48	6.83	-116.6	12.71	1826.00	NS	NS	NS	NS
ENFORCE MENT STANDARD = ES – Bold						10	250	0.3	300
PREVENTIVE ACTION LIMIT = <i>PAL - Italics</i>						<i>2</i>	<i>125</i>	<i>0.15</i>	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
 Note: Elevations are presented in feet mean sea level (msl).

A.7 Other
Groundwater NA Indicator Results
Auto Repair on Vliet BRRTS #03-41-286924

Well MW-7

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
10/08/19	1.12	7.10	40.70	15.97	4847.00	NS	NS	NS	NS
01/07/20	5.03	7.04	261.60	11.49	1004.00	NS	NS	NS	NS
ENFORCE MENT STANDARD = ES – Bold						10	250	0.3	300
PREVENTIVE ACTION LIMIT = PAL - Italics						<i>2</i>	<i>125</i>	<i>0.15</i>	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million

ns = not sampled

nm = not measured

ORP = Oxidation Reduction Potential

Note: Elevations are presented in feet mean sea level (msl).

**A.7. Other
 Slug Test Calculations
 Auto Repair on Vliet**

MW-1

	ft/s	cm/s	m/yr
K	1.20E-05	3.66E-04	115.35
	sq ft/s	sq cm/s	
T	5.44E-05	5.05E-02	

MW-2

	ft/s	cm/s	m/yr
K	3.79E-05	1.16E-03	364.30
	sq ft/s	sq cm/s	
T	2.17E-04	2.02E-01	

MW-5

	ft/s	cm/s	m/yr
K	1.60E-05	4.88E-04	153.79
	sq ft/s	sq cm/s	
T	8.66E-05	8.04E-02	

Date	Elv. (High)	Elv. (Low)	Distance (ft)	Hyd Grad (I)
5/10/2017	674.00	668.00	121	0.0495868
12/18/2018	672.00	668.00	132	0.0303030
3/13/2019	672.00	669.00	60	0.0500000
10/8/2019	673.00	668.00	120	0.0416667
1/7/2020	672.00	668.00	121	0.0330579

Average 0.0409229

	K (m/yr)	I	n	Flow Velocity (m/yr)
MW-1	115.35	0.0409229	0.3	15.73486
MW-2	364.3	0.0409229	0.3	49.69404
MW-5	153.79	0.0409229	0.3	20.97844

A.7 Other

Auto Repair on Vliet

Free Product Recovery -- By METCO

DATE		MW-1	GALS REC./PERIOD	TOT GALS RECOVERED
02/16/17	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	3 No Sock 0.262	0.26	0.26
05/10/17	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	36 No Sock 4.79	4.79	5.05
05/11/17	Inches of FP Gals Rec. w/ Absorbent Sock Gals Rec. w/ Bailer	8 No Sock 0.497	0.50	5.55