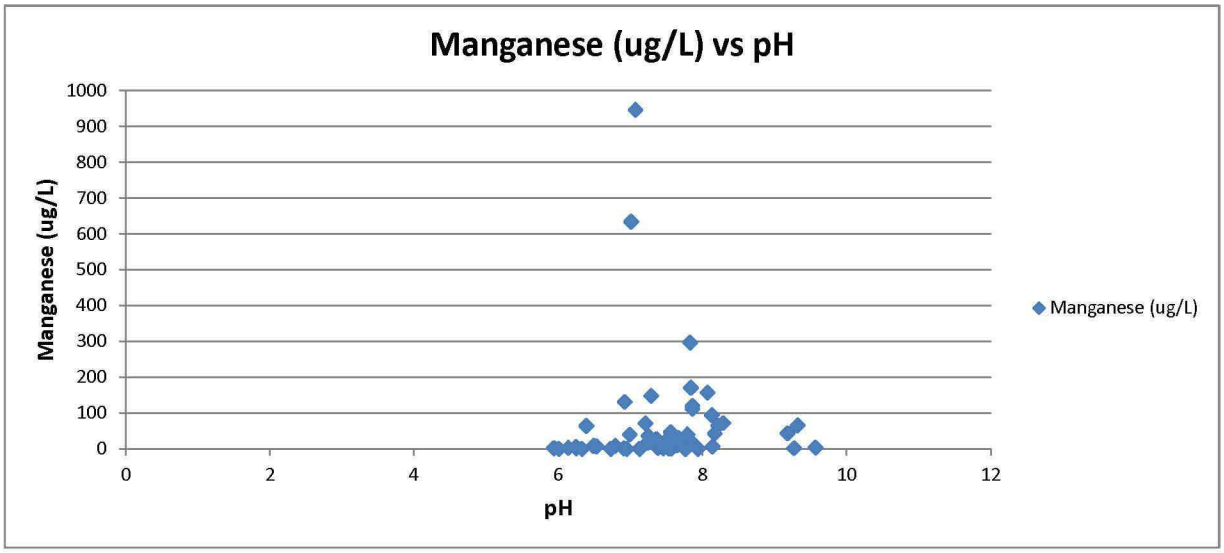
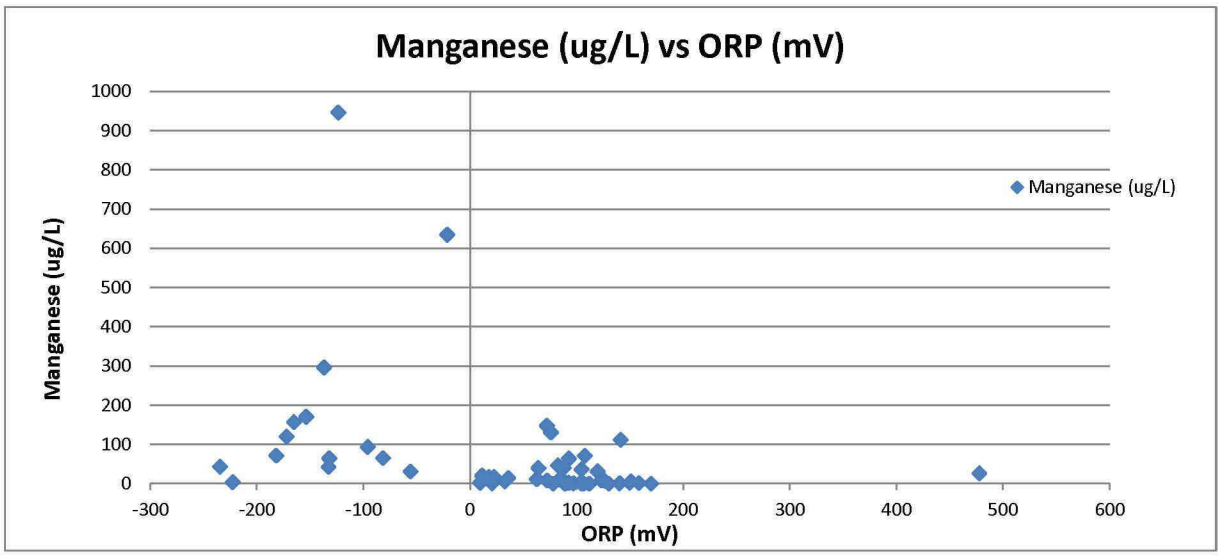
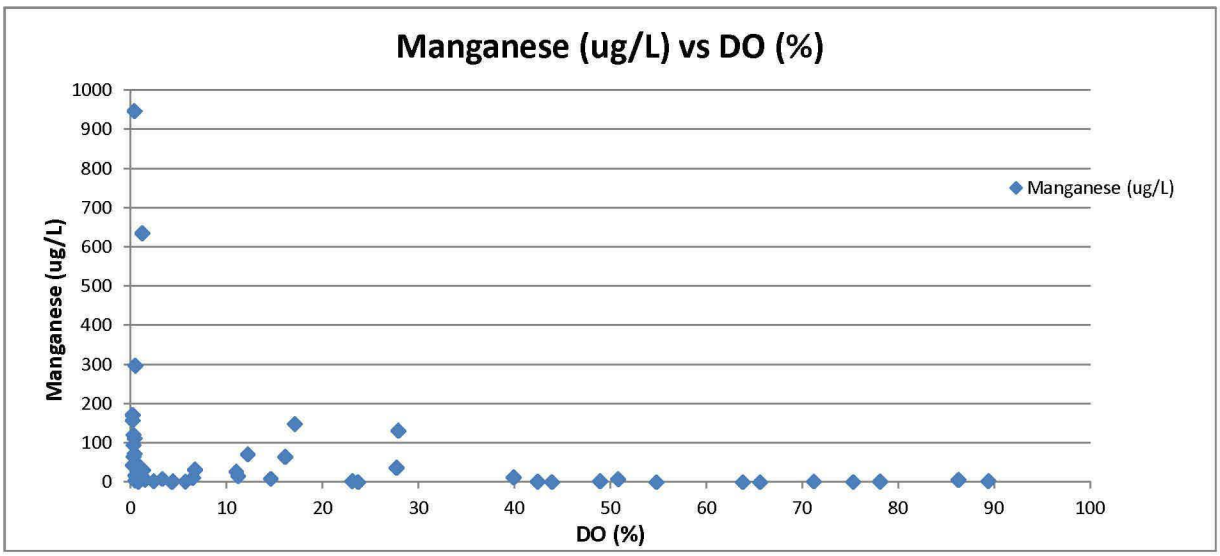

Manganese (ug/L) vs pH
Manganese (ug/L)
pH
Manganese (ug/L)

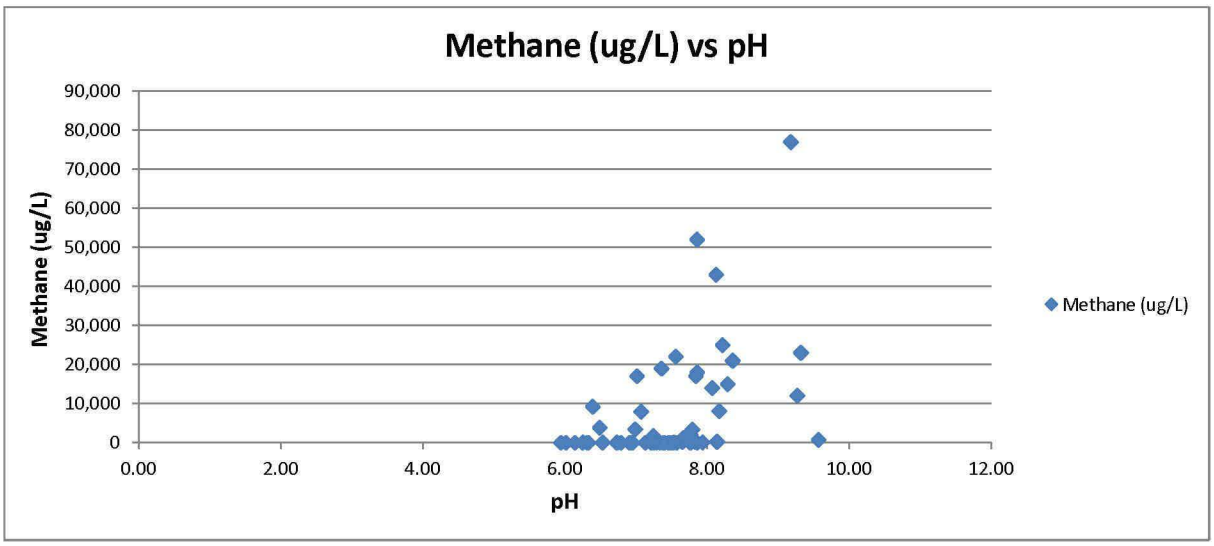

Manganese (ug/L) vs ORP (mV)
Manganese (ug/L)
ORP (mV)
Manganese (ug/L)

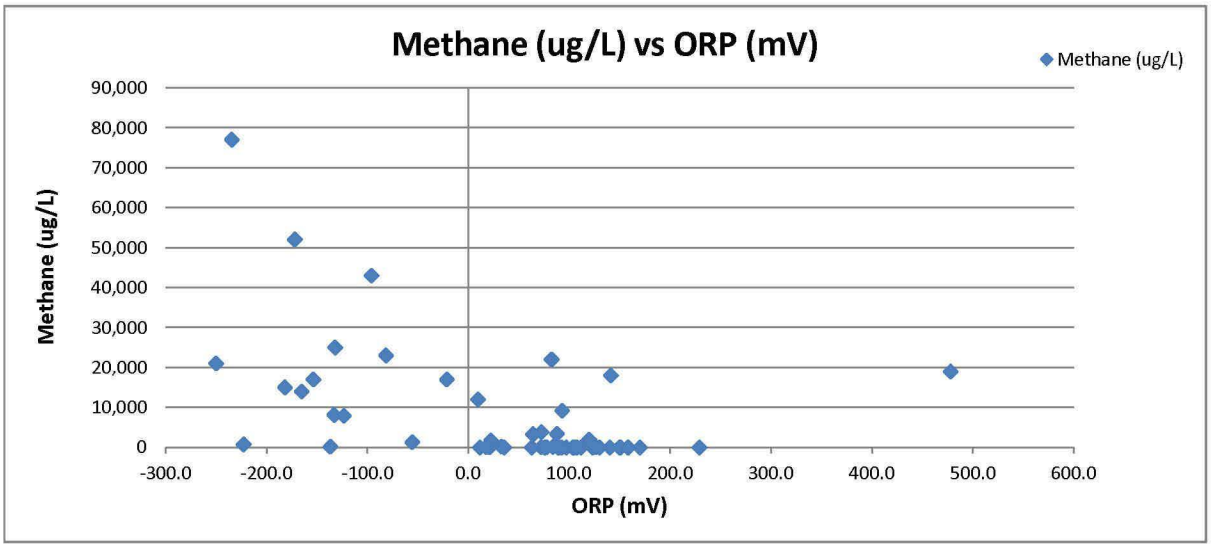

Manganese (ug/L) vs DO (%)
Manganese (ug/L)
DO (%)
Manganese (ug/L)

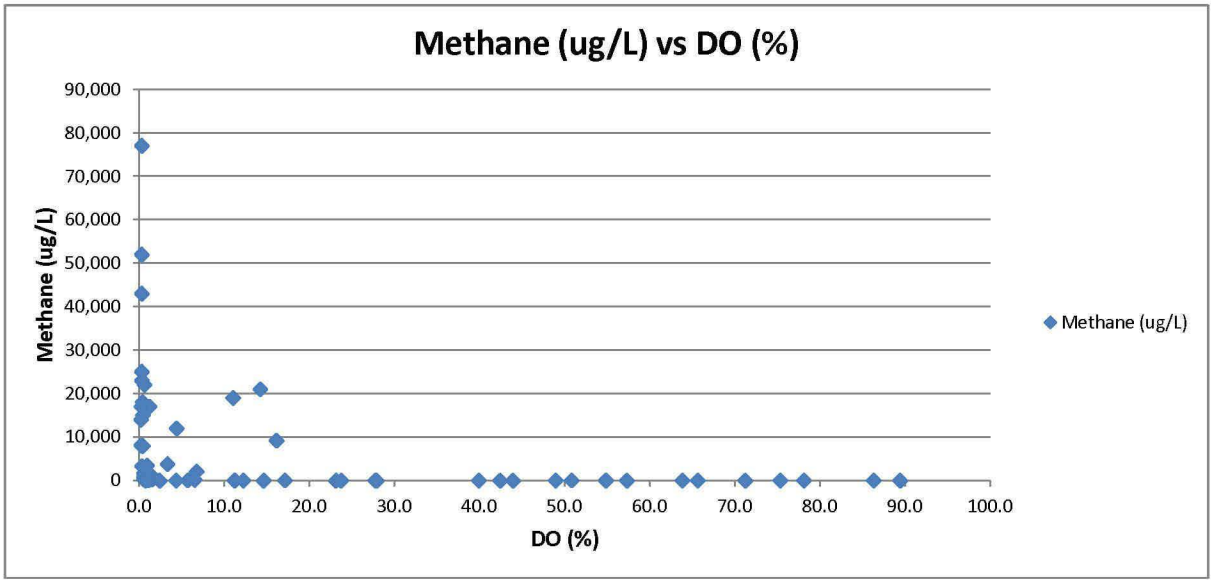
DIM0186145

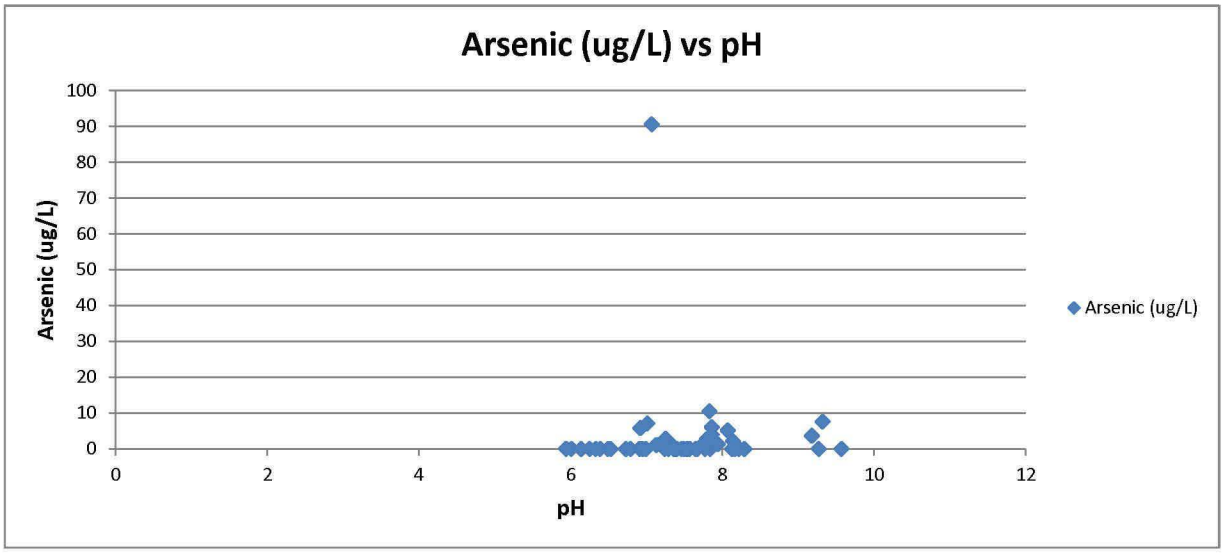
Well ID	Date	Owner Name	Sample #	Location Description	Temp (° C)	Specific Conductivity (mS/cm)	DO (%)	pH (units)	ORP (mv)	Flow Rate (ml/min)	Water Quality Comments	Sample Number	Methane (ug/L)	Metals (All Concentrations in ug/L)																			
														Aluminum	Arsenic (ug/L)	Barium	Boron	Calcium	Chromium	Cobalt	Copper	Iron (ug/L)	Lead	Lithium	Magnesium	Manganese (ug/L)	Nickel	Potassium	Selenium	Sodium	Strontium	Uranium	Vanadium	Zinc
HW01	1/25/2012		HW01	Well Head/Pump Station	8.83	0.141	4.4	9.27	9.4	560	effervescence is occurring. Turbidity=1.14	HW01	12000	30 U	2 U	304	50 U	7890	2 U	1 U	2 U	100 U	1 U	200 U	3640	2.2	1 U	2000 U	5 U	18100	655	1 U	5 U	2 U
HW02	1/25/2012		HW02	At door to Basement Pump Station	10.53	0.260	0.4	7.86	141.2	1,200	Turbidity = 22	HW02	18000	30 U	4	267	50 U	30900	2 U	1 U	3.5	1580	1.9	200 U	5560	112	1.2	2000 U	5 U	15700	658	4	5 U	2 U
HW03	2/14/2012		HW03	Well Head. Next to door to Basement Pump Station	8.65	0.250	0.4	8.29	-181.7	1,100	bubbles noticed, not effervescent Turbidity=8.57	HW03	15000	30 U	2 U	821	50 U	29000	2 U	1 U	5.5	711	1 U	200 U	8070	72	1.8	2000 U	5 U	14500	936	1 U	5 U	46.1
HW04	1/24/2012		HW04	At door to Basement Pump Station	10.07	0.288	0.5	7.24	22.3	550	slight effervescence during purge Turbidity=4.2	HW04	1700	30 U	1 U	231	50 U	32300	2 U	1 U	5.2	106	1.4	200 U	6650	16.9	1.5	2000 U	5 U	17300	273	1.2	5 U	99
HW05	1/26/2012		HW05	At door to Home Pump Station	9.67	0.262	6.7	7.77	119.7	710		HW05	2000	30 U	2 U	254	50 U	35300	2 U	1 U	2.5	620	1 U	200 U	6820	31.6	1.2	2000 U	5 U	13200	720	4.5	5 U	5.5
HW06	1/26/2012		HW06	Well Head/Pump Station	9.70	0.349	0.3	9.32	-81.6	640	Turbidity = 79	HW06	23000	2020	7.6	164	325	2570	10.8	1.3	7.2	2970	1.8	236	799	65.3	6.8	2110	5 U	83700	229	2.1	5 U	33.7
HW07	2/15/2012		HW07	Well Head/Pump Station	8.71	0.275	17.1	7.29	72.0	500	EPA OSC approved stabilization	HW07	57	30 U	2 U	137	50 U	36500	2 U	1 U	7.5	100 U	3.2	200 U	7590	148	3.1	2000 U	5 U	9230	200 U	2.1	5 U	19.2
HW08a	1/25/2012		HW08a	Well Head/Pump Station	8.66	0.106	16.1	6.39	92.8	1,000		HW08a	9200	37.5	2 U	36	50 U	14400	2 U	1 U	11.3	100 U	2.8	200 U	2790	64.3	1 U	2000 U	5 U	2670	200 U	1 U	5 U	8.6
												HW08a-F		30 U	2 U	37.9	50 U	14200	2 U	1 U	9	100 U	1.2	200 U	2760	64	1	2000 U	5 U	2660	200 U	1 U	5 U	8.2
HW09	2/3/2012		HW09	Point just outside location of water pump	9.32	0.198	42.4	6.25	97.0	420		HW09	4.3 J	30 U	1 U	93.8	50 U	23000	2 U	1 U	37.5	100 U	1.6	200 U	3900	1.3	1.1	2000 U	5 U	8110	200 U	1 U	5 U	15.9
HW11	2/13/2012		HW11	Treatment Shed/Pump Station	8.83	0.257	0.6	7.56	82.5	600	Effervescence in flow through cell.	HW11	22000	30 U	1 U	163	50 U	35400	2 U	1 U	2 U	100 U	1 U	200 U	8110	46.5	1.5	2000 U	5 U	9400	472	1.9	5 U	3.5
HW12	1/26/2012		HW12	Treatment Shed/Pump Station	9.93	0.241	0.3	7.86	-172.1	1,000		HW12	52000	30 U	6	707	53.8	28500	2 U	1 U	2 U	1240	1 U	200 U	4770	120	1.2	2000 U	5 U	19300	629	1.8	5 U	5.4
HW13	1/30/2012		HW13	Well Head/Pump Station	6.66	0.268	1.3	7.67	-55.7	460		HW13	1300	30 U	2 U	225	50 U	31900	2 U	1 U	2 U	2870	1 U	200 U	6620	31	1.6	2000 U	5 U	12600	764	3.2	5 U	4
HW	1/26/2012		HW	Treatment Shed/Pump Station	9.91	0.239	3.3	6.49	72.3	1,000		HW	3800	30 U	1 U	89.3	50 U	29900	2 U	1 U	2.1	100 U	1	200 U	5270	8.3	1.6	2000 U	5 U	9420	200 U	1 U	5 U	3.6
HW14	2/7/2012		HW14a	Treatment Shed/Pump Station	10.21	0.267	0.2	8.07	-165.2	2,000	According to SL_ (?) well has fast rate. Purge stopped due to demand. 913 purge started. 914-916 flow stopped. Turbidity=0.81	HW15a	14000	30 U	5.1	582	50 U	31900	2 U	1 U	2	109	1 U	200 U	10300	157	1.4	2000 U	5 U	16900	803	1 U	5 U	2 U
HW16	2/10/2012		HW16	Treatment Shed/Pump Station	9.97	0.500	0.3	8.22	-132.1	650	Effervescence in flow through cell. Sulfur odor.	HW16	25000	102	1 U	2910	88.4	35000	2 U	1 U	2 U	464	1 U	200 U	10200	64.8	1.8	2110	5 U	50200	1800	1 U	5 U	2 U
HW17	1/27/2012		HW17	Spigot	11.39	0.261	0.3	7.79	64.1	620	Flow rate decrease due to break in water pressure.	HW17	3300	30 U	2.7	239	50 U	33100	2 U	1 U	3.5	100 U	1 U	200 U	6640	40	1.2	2000 U	5 U	12100	835	3.7	5 U	6.5
HW18	1/30/2012		HW18	Well Head/Spigot	9.69	0.242	1.5	8.14	32.8	1,100		HW18	190	34.6	2.2	276	186	16000	2 U	1 U	2 U	100 U	1 U	200 U	2730	6.2	1 U	2000 U	5 U	45600	954	1 U	5 U	2 U
HW19	1/23/2012		HW19	Well Head	9.13	0.291	14.6	6.79	123.3	900		HW19	2 J	30 U	1 U	229	50 U	37600	2 U	1 U	7.4	100 U	1 U	200 U	7120	8.2	1.6	2000 U	5 U	9030	200 U	1 U	5 U	6.9
HW20	1/30/2012		HW20	At door to Basement Pump Station	10.12	0.198	23.1	7.38	103.4	1,000		HW20	9.5 U	30 U	2 U	32.8	50 U	22400	2 U	1 U	4.5	100 U	2.4	200 U	5710	2.6	1 U	2000 U	5 U	6210	200 U	1 U	5 U	12.7
HW	2/9/2012	Ex. 6 - Personal Privacy	HW	Spigot	10.66	0.154	50.8	6.53	126.4	900		HW2	19	30 U	1 U	31.8	50 U	18600	2 U	1 U	6.4	366	1 U	200 U	2450	7.3	1 U	2000 U	5 U	9770	200 U	1 U	5 U	9.3
HW21	2/9/2012		HW21	Spigot	6.06	0.239	1.2	7.01	-21.4	400		HW21	17000	5220	7.1	516	50 U	27900	4.9	3.8	14	8530	22.7	200 U	6510	635	7.7	2690	5 U	18000	433	1.7	5.8	33.2
HW22	2/8/2012		HW22	Spigot	9.85	0.187	11.2	7.34	35.8	770	no sulfur odor. Minor signs of effervescence. Water shows light brown color, sediment. Turbidity=18	HW22	3.6	34.6	1	185	50 U	26600	2 U	1 U	15.5	375	2	200 U	4980	14.8	1.4	2000 U	5 U	13600	359	1.7	5 U	2 U
HW23	1/27/2012		HW23	At window to Basement Pump Station	8.72	0.367	0.5	9.57	-222.6	650		HW23	740	30 U	1 U	139	251	1310	2 U	1 U	2 U	100 U	1 U	204	500 U	3.8	1 U	2000 U	5 U	68000	200 U	1 U	5 U	2 U
HW24	1/30/2012		HW24		9.85	0.246	1.0	8.07	-77.0	530																								
HW25	1/31/2012		HW25	Point just outside location of water pump	9.92	0.324	0.3	8.13	-96.0	520		HW26	43000	30 U	2 U	1780	69.6	27300	2 U	1 U	4.4	100 U	1 U	200 U	7360	94	1	2000 U	5 U	27400	817	1 U	5 U	2 U
HW26	2/13/2012		HW26	Front Door	9.41	0.221	54.8	7.76	89.1	1,200		HW27	4.2	30 U	1.7	122	50 U	28800	2 U	1 U	4.7	100 U	1 U	200 U	5700	1 U	1.2	2000 U	5 U	10000	334	3	5 U	2 U
HW28	2/3/2012		HW28a	At door to Basement Pump Station	9.92	0.115	65.6	6.01	169.9	1,000		HW28a	1.2 U	30 U	1 U	94.8	50 U	12600	2 U	1 U	27.9	100 U	1.7	200 U	1910	1 U	1 U	2000 U	5 U	6730	200 U	1 U	5 U	2 U
HW28	1/31/2012		HW29	At door to Garage Pump Station	8.16	1.127	0.3	9.18	-234.4	1,100	Effervescence observed.	HW29	77000	51	3.7	315	241	5200	2 U	1 U	3.2	112	1 U	478	1140	43.4	1 U	2330	6.7	195000	374	1 U	5 U	2.9
HW29	2/6/2012		HW30	At window to Basement Pump Station	10.25	0.275	6.5	7.65	84.0	600		HW30	120	30 U	1 U	120	64.5	35000	2 U	1 U	2 U	100 U	1 U	200 U	7860	10.4	1.3	2000 U	5 U	14000	1290	3	5 U	2 U
HW30	2/6/2012		HW31	Pump Station	7.07	0.352	0.2	7.84	-153.7	900		HW31	17000	30 U	1 U	534	64.6	33000	2 U	1 U	2 U	158	1 U	200 U	8880	171	1.4	2000 U	5 U	26700	903	1 U	5 U	2.1
HW-31	2/1/2012		HW32	At door to Basement Pump Station	9.22	0.255	0.5	7.83	-136.9	800		HW32	210	30 U	10.5	369	50 U	32600	2 U	1 U	2 U	166	1 U	200 U	9260	297	1.1	2000 U	5 U	8130	539	1 U	5 U	2 U
HW33	2/1/2012		HW33		9.65	0.289	78.1	6.91	140.2	1,000		HW33	1.3	30 U	2 U	61.8	50 U	30600	2 U	1 U	11	100 U	1.7	200 U	7910	1.3	1.1	2000 U	5 U	12500	200 U	1 U	5 U	3.8
HW34	2/1/2012		HW34		10.13	0.367	0.1	8.02	173.2	2,222	Per EPA Direction we stopped water quality readings.																							
HW35	1/31/2012		HW35	At door to Basement Pump Station	9.35	0.267	86.3	6.25	150.7	1,100		HW35	6.6	240	2 U	101	50 U	14300	2 U	1 U	74	478	21.2	200 U	2280	5.4	1.3	2000 U	5 U	28700	200 U	1 U	5 U	98.3
HW36N	2/10/2012		HW36n	At door to Basement Pump Station	6.63	0.152	48.9	7.46	92.8	1,100		HW36N	1.2 U	30 U	1 U	154	50 U	24900	2 U	1 U	2.7	172	1 U	200 U	2970	2.1	1.1	2000 U	5 U	2830	200 U	1 U	5 U	2.3
HW38	2/8/2012		HW38	At door to Basement Pump Station	10.17	0.133	63.8	6.73	104.7	500		HW38	5	30 U	1 U	116	50 U	16100	2 U	1 U	25.6	100 U	1.4	200 U	3300	1 U	1 U	2000 U	5 U	5670	200 U	1 U	5 U	5.5 J
HW39	2/3/2012		HW39	Well Head	7.39	0.514	0.2	8.17	-132.9	670	Temp might be impacted by potential backflow from tank inside shed. Per discussion with EPA and possible explanation for temp by S(?)LR, stopped readings	HW39	8100	30 U	1 U	3530	58.8	36100	2 U	1 U	2 U	100 U	1 U	200 U	7530	42.6	1.6	2550	5 U	47400	2750	1 U	5 U	2.1

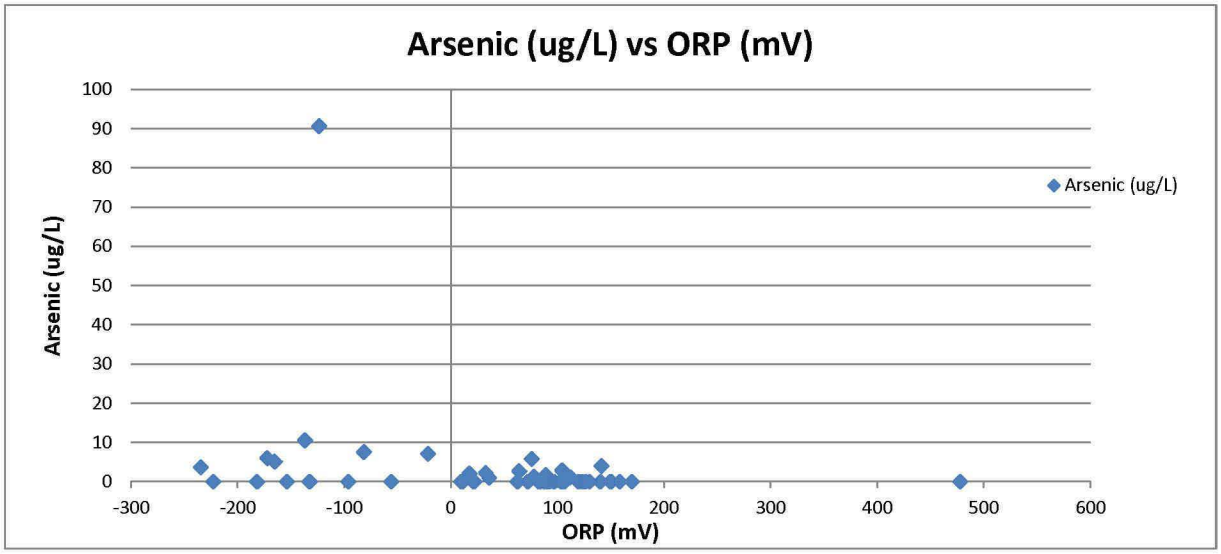
HW40	2/2/2012		HW40	Well Head	10.01	0.354	23.7	6.95	130.3	470		HW40	3.2 U	30 U	1 U	163	50 U	36500	2 U	1 U	12.3	100 U	3.1	200 U	8830	1 U	1.4	2000 U	5 U	21700	531	1.8	5 U	4.4
HW41	2/2/2012		HW41	At door to Basement Pump Station	9.39	0.360	0.7	7.49	11.3	1,200		HW41	4 J	30 U	1 U	139	50 U	44500	2 U	1 U	2 U	100 U	1 U	200 U	9480	21	1.4	2000 U	5 U	23100	319	3.2	5 U	2.1
HW42	2/2/2012		HW42	Spigot	8.32	0.123	75.3	6.33	107.0	490	Water is clear, no odor. No bubbles.	HW42	6.2 U	30 U	1 U	30.9	50 U	7970	2 U	1 U	40.1	100 U	1 U	200 U	1500	1 U	1 U	2000 U	5 U	11700	200 U	1 U	5 U	5.5
HW43	2/6/2012		HW43	Well Head/Pump Station	7.06	0.270	2.4	7.57	89.8	700		HW43	1.2 U	30 U	1 U	213	50 U	37100	2 U	1 U	3.6	240	1 U	200 U	8210	1.9	1.4	2000 U	5 U	10900	484	4	5 U	2 U
HW44	2/9/2012		HW44	Well Head/Pump Station	9.07	0.162	39.9	7.40	62.6	300		HW44	0.9	30 U	1 U	18.7	50 U	21800	2 U	1 U	2 U	100 U	1 U	200 U	5060	11.8	1 U	2000 U	5 U	5320	200 U	1 U	5 U	5
HW45	2/6/2012		HW45	Spigot	8.98	0.241	4.3	7.77	89.5	600		HW45	1.2 U	30 U	1 U	164	50 U	32200	2 U	1 U	2 U	100 U	1 U	200 U	7910	1 U	1.3	2000 U	5 U	7260	1100	1.4	5 U	2 U
HW46	2/2/2012		HW46	At door to Basement Pump Station	10.37	0.262	89.4	6.14	149.6	900	EPA Kelly Chase had requested 2 more readings. DO fluctuating w/ change in flow rate.	HW46	6.2 U	30 U	1 U	104	50 U	26100	2 U	1 U	17.3	100 U	1 U	200 U	4670	2.5	1.7	4220	5 U	14900	200 U	1 U	5 U	10.9
HW47	2/8/2012		HW47	At door to Basement Pump Station	9.76	0.367	0.4	7.07	-123.5	900		HW47	7900	30 U	90.7	485	120	23700	2 U	1 U	10.1	4550	1 U	200 U	3950	947	1	2000 U	5 U	53600	757	1 U	5 U	2 U
HW48	2/8/2012		HW48	Front Door	8.92	0.208	43.9	7.13	111.9	1,000		HW48	0.9	30 U	1.1	39	50 U	31700	2 U	1 U	5.8	100 U	1 U	200 U	4500	1 U	1.3	2000 U	5 U	6660	200 U	2	5 U	2 U
HW49	2/9/2012		HW49	Front Door	10.12	0.283	27.7	7.25	104.5	1,100		HW49	1.2 U	30 U	2.9	89.2	50 U	41100	2 U	1 U	5.3	100 U	1 U	200 U	5770	36.3	1.7	2000 U	5 U	12600	291	2.2	5 U	2.3
HW50												HW50	0.6																					
HW51	2/7/2012	Ex. 6 - Personal Privacy	HW51	At door to Basement Pump Station	9.61	0.204	0.9	6.99	87.6	850	water is highly effervescent, grayish color to it, little bit of sulfur odor, slight mineral smell, clear @ 12:33. Turbidity=1.48	HW51	3400	46.5	1 U	69.1	50 U	28000	2 U	1 U	34.4	100 U	1.2	200 U	6780	39.9	1.4	2000 U	5 U	5230	212	1	5 U	2.7 J
HW52	1/31/2012		HW52	Spigot	10.09	0.220	11.0	7.36	477.7	220	Pump came on and water surged. Chlorination system associated with well system.	HW52	19000	30 U	2 U	536	50 U	25500	2 U	1 U	3.1	100 U	1 U	200 U	5140	26.8	1	2000 U	5 U	11400	527	1.1	5 U	21.3
HW53	2/13/2012		HW53	At door to Basement Pump Station	9.80	0.250	12.2	7.21	107.7	1,300		HW53	1.2 U	30 U	1.8	110	50 U	35100	2 U	1 U	4.4	100 U	1 U	200 U	5890	71.1	1.4	2000 U	5 U	5940	200 U	1	5 U	2.2
HW54	2/10/2012		HW54	At door to Basement Pump Station	9.25	0.307	5.7	7.53	20.8	470		HW54	15	30 U	1 U	159	50 U	38400	2 U	1 U	2.4	100 U	1 U	200 U	9540	1.1	1.5	2000 U	5 U	11600	200 U	2.2	5 U	2 U
HW55	2/13/2012		HW55	Spigot	8.59	0.252	1.1	7.86	17.5	700		HW55	21	30 U	2.1	295	50 U	34100	2 U	1 U	2 U	100 U	1 U	200 U	6040	16.7	1.5	2000 U	5 U	12500	553	8.4	5 U	2 U
HW56												HW56	8700																					
HW57	2/14/2012		HW57	At door to Basement Pump Station	9.13	0.150	27.9	6.92	75.8	440	Water cloudy, light brown	HW57	1	1630	5.8	123	50 U	21800	2 U	1 U	19.3	11200	3.5	200 U	4690	131	3.2	2000 U	5 U	6130	200 U	3.4	5 U	9.7
HW58	2/14/2012		HW58	At door to Basement Pump Station	9.00	0.254	0.8	7.94	78.0	925	Water clear	HW58	77	30 U	1.3	192	50 U	32700	2 U	1 U	2 U	100 U	1 U	200 U	6540	1 U	1.2	2000 U	5 U	13000	954	3.7	5 U	2 U
HW59	2/14/2012		HW59	Spigot	9.40	0.138	71.2	5.94	158.3	1,050		HW59	1.2 U	30 U	1 U	88.3	50 U	14500	2 U	1 U	27.3	100 U	1	200 U	2400	1.7	1.1	3270	5 U	5710	200 U	1 U	5 U	11.7
HW60	3/5/2012		HW60		10.39	0.289	14.2	8.36	-250.0	900		HW60	21000																					
HW61	3/6/2012		HW61		9.62	0.299	57.3	6.31	228.9	1,000		HW61	1.2 U																					
											Drinking water MCL			2,000	10	2,000			100		1,000	300	15			50			50			30		5,000
											Maximum		77,000	5220	90.7	3,530	325	44,500	10.8	3.8	74	11,200	22.7	478	10,300	947	7.7	4,220	6.7	195,000	2,750	8.4	5.8	99
											Minimum		0.6	34.6	1	18.7	53.8	1,310	4.9	1.3	2	106	1	204	799	1.1	1	2,110	6.7	2,660	212	1	5.8	2.1
											Average		10,140	942	8.7	352	138	26,508	7.9	2.6	13	1,851	4.0	306	5,717	80	1.7	2,754	6.7	20,919	727	2.7	5.8	16
											Median		2650	77	3.3	163	88	28,900	7.9	2.6	6.8	471	1.8	236	5,770	31	1.4	2,550	6.7	12,500	642	2.2	5.8	6.7

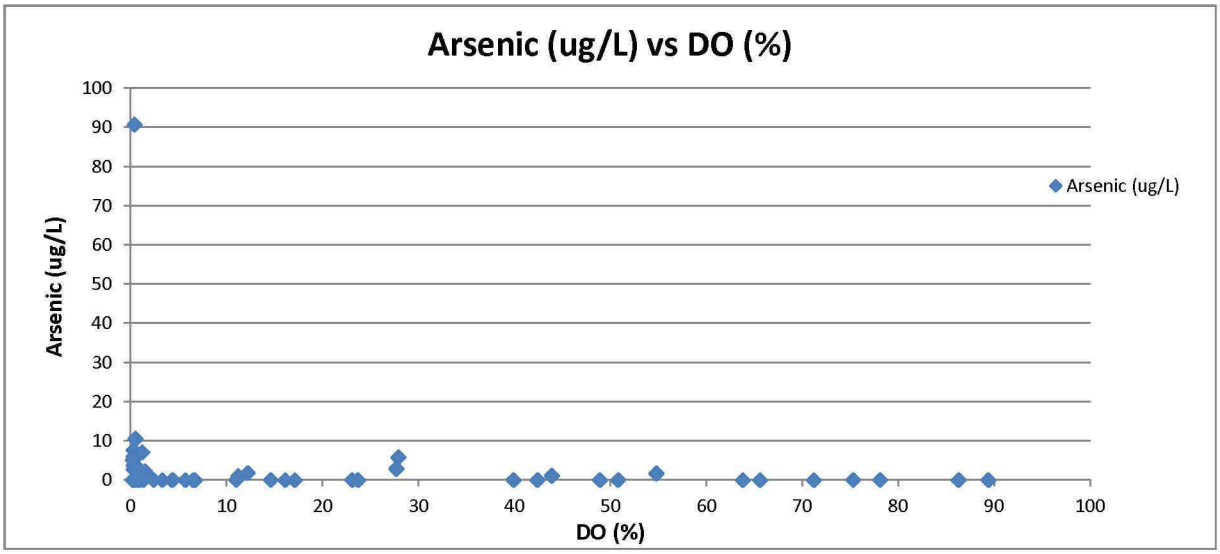

Methane (ug/L) vs pH
Methane (ug/L)
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Methane (ug/L)

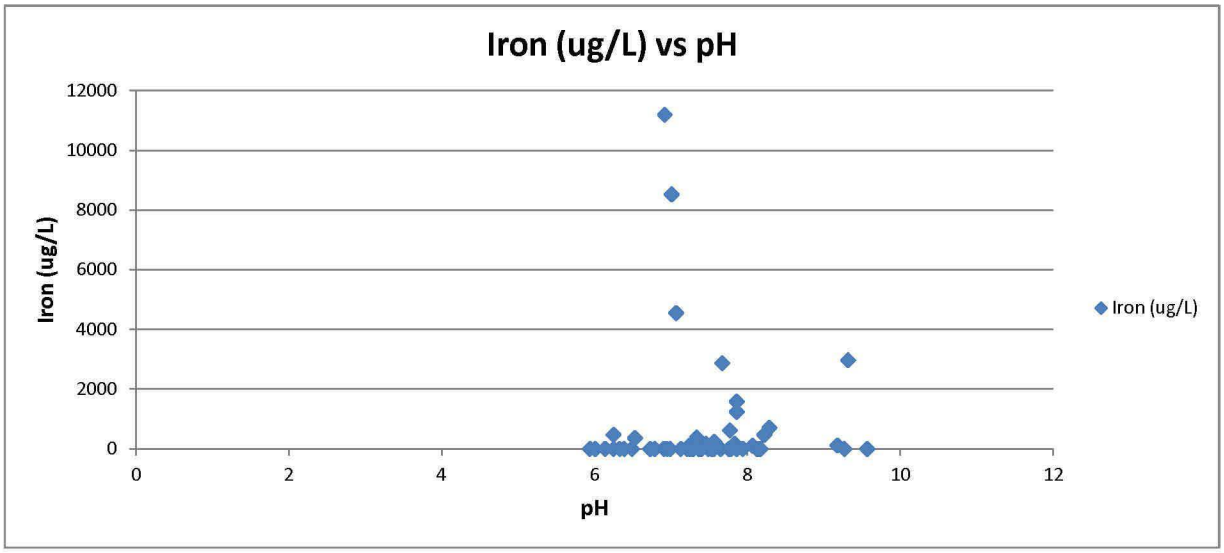

Methane (ug/L) vs ORP (mV)
Methane (ug/L)
Methane (ug/L)
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
-300.0
-200.0
-100.0
0.0
100.0
200.0
300.0
400.0
500.0
600.0
ORP (mV)

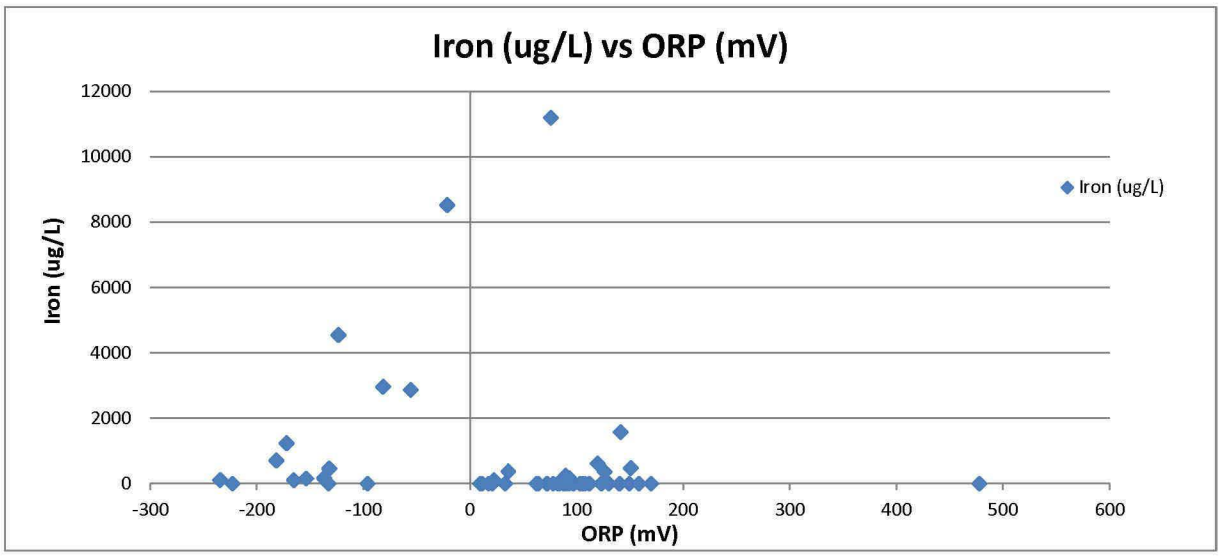

Methane (ug/L) vs DO (%)
Methane (ug/L)
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
80.0
90.0
100.0
DO (%)
Methane (ug/L)

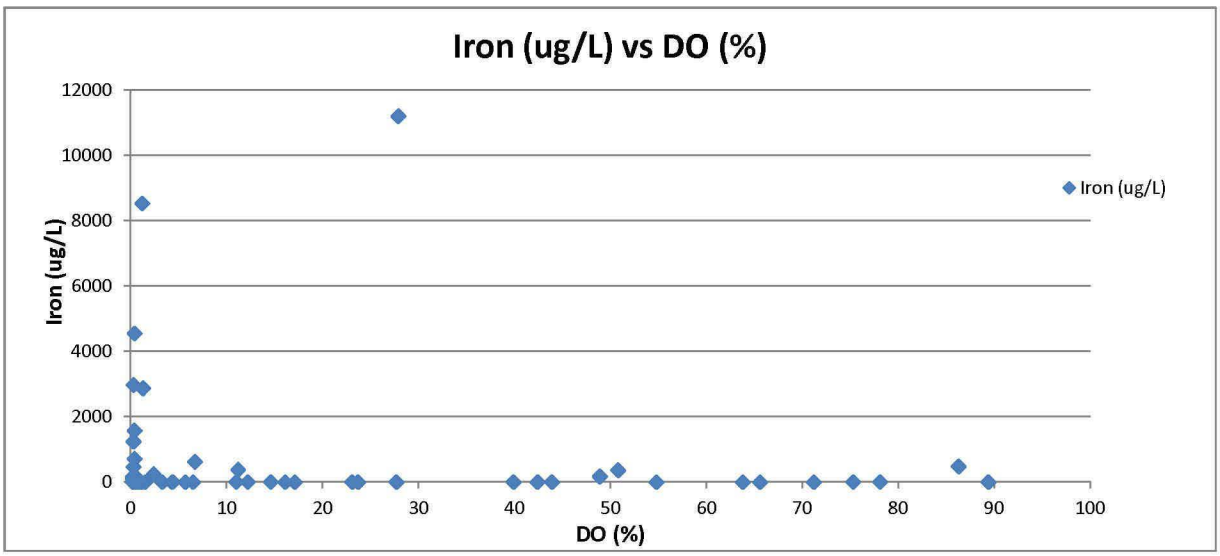

Arsenic (ug/L) vs pH
Arsenic (ug/L)
pH
Arsenic (ug/L)


Arsenic (ug/L) vs ORP (mV)
Arsenic (ug/L)
ORP (mV)
Arsenic (ug/L)


Arsenic (ug/L) vs DO (%)
Arsenic (ug/L)
DO (%)
Arsenic (ug/L)


Iron (ug/L) vs pH
Iron (ug/L)
pH
Iron (ug/L)
0
2000
4000
6000
8000
10000
12000
0
2
4
6
8
10
12


Iron (ug/L) vs ORP (mV)
Iron (ug/L)
ORP (mV)
Iron (ug/L)
0
2000
4000
6000
8000
10000
12000
-300
-200
-100
0
100
200
300
400
500
600


Iron (ug/L) vs DO (%)
Iron (ug/L)
DO (%)
Iron (ug/L)
0
2000
4000
6000
8000
10000
12000
0
10
20
30
40
50
60
70
80
90
100