Table 1: 2013 Johnson Creek Non-detect Parameters

JS2		
Parameter	**PQL**	**Units**
Ammonia as N	<0.10	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Dissolved Nickel	<1.0	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L
Dissolved Zinc	<2.5	ug/L
Color	<5.0	Color Unit

JS4		
Parameter	**PQL**	**Units**
Ammonia as N	<0.10	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Dissolved Nickel	<1.0	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L
Dissolved Zinc	<2.5	ug/L

JS5		
Parameter	**PQL**	**Units**
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Dissolved Nickel	<1.0	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L
Dissolved Zinc	<2.5	ug/L

Table 2: 2013 Sherman Creek Non-detect Parameters

SH105		
Parameter	**PQL**	**Units**
Total Suspended Solids	<4.0	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Dissolved Nickel	<1.0	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L

SH109		
Parameter	**PQL**	**Units**
Total Suspended Solids	<4.0	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Mercury Dissolved	<0.0010	ug/L
Dissolved Nickel	<1.0	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<1.0	ug/L
Dissolved Zinc	<2.5	ug/L

SH113		
Parameter	**PQL**	**Units**
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Dissolved Nickel	<1.0	ug/L
Dissolved Silver	<0.1	ug/L

Table 3: 2013 Ophir Creek Non-detect Parameters

SH103		
Parameter	**PQL**	**Units**
Ammonia as N	<0.10	mg/L
Total Suspended Solids	<4.0	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Total Recoverable Iron	<0.05	ug/L
Dissolved Lead	<0.16	ug/L
Mercury Dissolved	<0.0010	ug/L
Dissolved Nickel	<1.0	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L

SH111		
Parameter	**PQL**	**Units**
Ammonia as N	<0.10	mg/L
Chloride	<1.0	mg/L
Total Suspended Solids	<4.0	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Copper	<1.0	ug/L
Total Recoverable Iron	<0.05	ug/L
Dissolved Lead	<0.16	ug/L
Total Recoverable Manganese	<1.0	ug/L
Mercury Dissolved	<0.0010	ug/L
Dissolved Nickel	<1.0	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L

Table 4: 2013 Slate Creek Non-detect Parameters

MLA		
Parameter	**PQL**	**Units**
Nitrate as N	<0.050	mg/L
Ammonia as N	<0.10	mg/L
Total Suspended Solids	<4.0	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Copper	<1.0	ug/L
Dissolved Lead	<0.16	ug/L
Dissolved Nickel	<1.0	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L

SMP-5		
Parameter	**PQL**	**Units**
Total Suspended Solids	<4.0	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L

SLB		
Parameter	**PQL**	**Units**
Total Suspended Solids	<4.0	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L

Table 4 Continued: 2013 Slate Creek Non-detect Parameters

SLC		
Parameter	**PQL**	**Units**
Total Suspended Solids	<4.0	mg/L
Dissolved Arsenic	<2.5	ug/L
Dissolved Cadmium	<0.1	ug/L
Dissolved Chromium	<2.5	ug/L
Dissolved Lead	<0.16	ug/L
Total Recoverable Selenium	<1.0	ug/L
Dissolved Silver	<0.1	ug/L

Table 5: 2013 Outfall 001 Non-detect Parameters

Outfall 001		
Parameter	**PQL**	**Units**
Total Recoverable Arsenic	<2.5	ug/L
Total Chromium	<2.5	ug/L
Total Recoverable Silver	<0.1	ug/L
Total Recoverable Cadmium	<0.02	ug/L
Total Recoverable Lead	<0.16	ug/L

Table 6: 2013 Outfall 002 Non-detect Parameters

Outfall 002		
Parameter	**PQL**	**Units**
Total Recoverable Arsenic	<2.5	ug/L
Total Chromium	<2.5	ug/L
Total Recoverable Silver	<0.1	ug/L
Total Recoverable Lead	<0.16	ug/L

Table 7: Station JS2 2013 Water Quality Data Summary Statistics

Parameter Un	its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	2	7.2	5.2	12	0.0%	0	4.4	2.2
Dissolved Oxygen	mg/L	8.14	14.81	6.67	12	0.0%	0	12.08	2.0
pH	pH	6.7	7.94	1.24	12	0.0%	0	7.25	0.4
Conductivity	umhos/cm	17.3	49.7	32.4	12	0.0%	0	25.1	9.1
Lab Turbidity	NTU	0	0.53	0.53	12	33.3%	4	0.12	0.1
Nitrate as N	mg/L	0.053	0.377	0.324	12	0.0%	0	0.198	0.1
Ammonia as N	mg/L	0	0	0	12	100.0%	12	0	0.0
Sulfate	mg/L	0.75	2.22	1.47	12	0.0%	0	1.38	0.5
Chloride	mg/L	0	1	1	12	91.7%	11	0.1	0.3
Total Dissolved Solids	mg/L	11	26	15	12	0.0%	0	19.8	5.0
Total Suspended Solids	mg/L	0	10.4	10.4	12	91.7%	11	0.9	3.0
Hardness, Total	mg/L	10.4	19.3	8.9	12	0.0%	0	14.6	3.3
Total Recoverable Aluminum	ug/L	2.5	112	109.5	12	0.0%	0	16	31.0
Dissolved Arsenic	ug/L	0	0	0	12	100.0%	12	0	0.0
Dissolved Cadmium	ug/L	0	0	0	12	100.0%	12	0	0.0
Dissolved Chromium	ug/L	0	0	0	12	100.0%	12	0	0.0
Dissolved Copper	ug/L	0	1	1	12	91.7%	11	0.1	0.3
Total Recoverable Iron	mg/L	0	0.35	0.35	12	83.3%	10	0.0341	0.1
Dissolved Lead	ug/L	0	0	0	12	100.0%	12	0	0.0
Total Recoverable Manganese	ug/L	0	6.7	6.7	12	58.3%	7	1	1.9
Mercury Dissolved	ug/L	0	0.0011	0.0011	12	91.7%	11	0.0001	0.0
Dissolved Nickel	ug/L	0	0	0	12	100.0%	12	0	0.0
Total Recoverable Selenium	ug/L	0	0	0	12	100.0%	12	0	0.0
Dissolved Silver	ug/L	0	0	0	12	100.0%	12	0	0.0
Dissolved Zinc	ug/L	0	0	0	12	100.0%	12	0	0.0
Color	Color Unit	0	0	0	12	100.0%	12	0	0.0

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 8: Station JS4 2013 Water Quality Data Summary Statistics

Parameter Un	its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	-0.1	8.6	8.7	12	0%	0	4	3.1
Dissolved Oxygen	mg/L	8.61	15.45	6.84	12	0%	0	12.82	2.15
pH	pH	6.92	7.93	1.01	12	0%	0	7.58	0.3
Conductivity	umhos/cm	34	149	115	12	0%	0	63.2	31.1
Lab Turbidity	NTU	0.12	6.55	6.43	12	0%	0	0.97	1.84
Nitrate as N	mg/L	0.084	0.762	0.678	12	0%	0	0.44	0.218
Ammonia as N	mg/L	0	0	0	12	100%	12	0	0
Sulfate	mg/L	1.69	15	13.31	12	0%	0	7.58	3.82
Chloride	mg/L	0	1.9	1.9	12	50%	6	0.7	0.8
Total Dissolved Solids	mg/L	0	83	83	12	8%	1	50	24
Total Suspended Solids	mg/L	0	18	18	12	83%	10	1.9	5.3
Hardness, Total	mg/L	22.9	61.2	38.3	12	0%	0	40.5	16
Total Recoverable Aluminum	ug/L	9.3	334	324.7	12	0%	0	52.5	92.8
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	1.6	1.6	12	92%	11	0.1	0.5
Total Recoverable Iron	mg/L	0	0.933	0.933	12	75%	9	0.112	0.271
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	2.3	42.8	40.5	12	0%	0	8.7	11.4
Mercury Dissolved	ug/L	0	0.0021	0.0021	12	75%	9	0.0004	0.0007
Dissolved Nickel	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Selenium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	0	0	0	12	100%	12	0	0
Color	Color Unit	0	25	25	12	50%	6	6.2	8.3

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 9: Station JS5 2013 Water Quality Data Summary Statistics

Parameter Un	its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	0.4	8.3	7.9	12	0%	0	4.1	2.8
Dissolved Oxygen	mg/L	8.18	14.64	6.46	12	0%	0	12.45	2.1
pH	pH	6.81	7.93	1.12	12	0%	0	7.5	0.35
Conductivity	umhos/cm	27	126.8	99.8	12	0%	0	54.3	27.2
Lab Turbidity	NTU	0	2.94	2.94	12	8%	1	0.63	1.04
Nitrate as N	mg/L	0.082	1.26	1.178	12	0%	0	0.552	0.343
Ammonia as N	mg/L	0	0.13	0.13	12	92%	11	0.01	0.04
Sulfate	mg/L	1.47	15.7	14.23	12	0%	0	6.94	4.02
Chloride	mg/L	0	2.1	2.1	12	67%	8	0.5	0.8
Total Dissolved Solids	mg/L	15	85	70	12	0%	0	42.6	19.4
Total Suspended Solids	mg/L	0	6	6	12	92%	11	0.5	1.7
Hardness, Total	mg/L	17.3	57.9	40.6	12	0%	0	33.7	15
Total Recoverable Aluminum	ug/L	6.2	148	141.8	12	0%	0	29.8	42.1
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	1.3	1.3	12	92%	11	0.1	0.4
Total Recoverable Iron	mg/L	0	0.369	0.369	12	75%	9	0.053	0.112
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	1.6	14.1	12.5	12	0%	0	4.5	3.7
Mercury Dissolved	ug/L	0	0.0015	0.0015	12	92%	11	0.0001	0.0004
Dissolved Nickel	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Selenium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	0	0	0	12	100%	12	0	0
Color	Color Unit	0	10	10	12	58%	7	2.9	4

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 10: Station SH103 2013 Water Quality Data Summary Statistics

Parameter	Units	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	0.8	9.9	9.1	11	0%	0	5	3.3
Dissolved Oxygen	mg/L	7.54	17.74	10.2	11	0%	0	11.86	2.92
pH	pH	6.77	7.51	0.74	11	0%	0	7.18	0.21
Conductivity	umhos/cm	39.8	773	733.2	11	0%	0	189	225.2
Lab Turbidity	NTU	0	0.23	0.23	11	45%	5	0.09	0.09
Nitrate as N	mg/L	0.085	8.73	8.645	11	0%	0	2.576	3.019
Ammonia as N	mg/L	0	0	0	11	100%	11	0	0
Sulfate	mg/L	3.51	279	275.49	11	0%	0	87.58	109.91
Chloride	mg/L	0	6.6	6.6	11	55%	6	1.8	2.4
Total Dissolved Solids	mg/L	17	514	497	11	0%	0	176	194
Total Suspended Solids	mg/L	0	0	0	11	100%	11	0	0
Hardness, Total	mg/L	19.7	346	326.3	11	0%	0	127.1	134
Total Recoverable Aluminum	ug/L	3.3	10.6	7.3	11	0%	0	5.7	2.1
Dissolved Arsenic	ug/L	0	0	0	11	100%	11	0	0
Dissolved Cadmium	ug/L	0	0	0	11	100%	11	0	0
Dissolved Chromium	ug/L	0	0	0	11	100%	11	0	0
Dissolved Copper	ug/L	0	1.6	1.6	11	55%	6	0.6	0.7
Total Recoverable Iron	mg/L	0	0	0	11	100%	11	0	0
Dissolved Lead	ug/L	0	0	0	11	100%	11	0	0
Total Recoverable Manganese	ug/L	0	2.8	2.8	11	64%	7	0.6	1
Mercury Dissolved	ug/L	0	0	0	11	100%	11	0	0
Dissolved Nickel	ug/L	0	0	0	11	100%	11	0	0
Total Recoverable Selenium	ug/L	0	0	0	11	100%	11	0	0
Dissolved Silver	ug/L	0	0	0	11	100%	11	0	0
Dissolved Zinc	ug/L	0	2.6	2.6	11	91%	10	0.2	0.8
Color	Color Unit	0	10	10	11	45%	5	3.2	3.4

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 11: Station SH105 2013 Water Quality Data Summary Statistics

Parameter	Units	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	-0.1	10.2	10.3	12	0%	0	4.7	3.7
Dissolved Oxygen	mg/L	8.22	20.82	12.6	12	0%	0	13.3	3.58
pH	pH	6.77	7.74	0.97	12	0%	0	7.42	0.31
Conductivity	umhos/cm	64	195.9	131.9	12	0%	0	97.9	36.1
Lab Turbidity	NTU	0.11	0.92	0.81	12	0%	0	0.24	0.22
Nitrate as N	mg/L	0.199	1.89	1.691	12	0%	0	0.975	0.553
Ammonia as N	mg/L	0	0.42	0.42	12	58%	7	0.09	0.14
Sulfate	mg/L	7.5	35.1	27.6	12	0%	0	19.27	9.76
Chloride	mg/L	1.9	11	9.1	12	0%	0	5.1	3.1
Total Dissolved Solids	mg/L	33	137	104	12	0%	0	77	36
Total Suspended Solids	mg/L	0	0	0	12	100%	12	0	0
Hardness, Total	mg/L	30.6	90.4	59.8	12	0%	0	56	20.7
Total Recoverable Aluminum	ug/L	9.1	70	60.9	12	0%	0	20.1	16.5
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	1.2	1.2	12	92%	11	0.1	0.3
Total Recoverable Iron	mg/L	0	0.192	0.192	12	83%	10	0.021	0.057
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	1.7	19.4	17.7	12	0%	0	6.5	5.8
Mercury Dissolved	ug/L	0	0.0014	0.0014	12	92%	11	0.0001	0.0004
Dissolved Nickel	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Selenium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	0	3.9	3.9	12	83%	10	0.5	1.3
Color	Color Unit	0	20	20	12	25%	3	8.3	6.9

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 12: Station SH109 2013 Water Quality Data Summary Statistics

Parameter Un	its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	-0.1	10.9	11	12	0%	0	4.2	3.9
Dissolved Oxygen	mg/L	7.04	20.46	13.42	12	0%	0	12.77	3.66
pH	pH	7.01	7.81	0.8	12	0%	0	7.53	0.23
Conductivity	umhos/cm	46.2	119.4	73.2	12	0%	0	61.7	21.5
Lab Turbidity	NTU	0	0.56	0.56	12	17%	2	0.16	0.15
Nitrate as N	mg/L	0	0.29	0.29	12	8%	1	0.159	0.095
Ammonia as N	mg/L	0	0.079	0.079	12	92%	11	0.007	0.023
Sulfate	mg/L	3.32	9.75	6.43	12	0%	0	6.96	2.26
Chloride	mg/L	0	3.1	3.1	12	58%	7	0.9	1.2
Total Dissolved Solids	mg/L	0	90	90	12	8%	1	51	23
Total Suspended Solids	mg/L	0	0	0	12	100%	12	0	0
Hardness, Total	mg/L	25.1	50.9	25.8	12	0%	0	40	7.4
Total Recoverable Aluminum	ug/L	6	39.5	33.5	12	0%	0	13	9.4
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	1.9	1.9	12	83%	10	0.2	0.6
Total Recoverable Iron	mg/L	0	0.127	0.127	12	92%	11	0.011	0.037
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	0	3.4	3.4	12	17%	2	1.2	0.9
Mercury Dissolved	ug/L	0	0	0	12	100%	12	0	0
Dissolved Nickel	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Selenium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	0	0	0	12	100%	12	0	0
Color	Color Unit	0	20	20	12	42%	5	5	6

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 13: Station SH111 2013 Water Quality Data Summary Statistics

Parameter Un	its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	2	10.7	8.7	8	0%	0	6.4	3
Dissolved Oxygen	mg/L	7.04	18.24	11.2	8	0%	0	11.12	3.64
pH	pH	6.98	7.77	0.79	8	0%	0	7.49	0.28
Conductivity	umhos/cm	26.5	48.2	21.7	8	0%	0	37	7.2
Lab Turbidity	NTU	0	0.25	0.25	8	38%	3	0.1	0.09
Nitrate as N	mg/L	0	0.615	0.615	8	13%	1	0.175	0.195
Ammonia as N	mg/L	0	0	0	8	100%	8	0	0
Sulfate	mg/L	1.37	3.98	2.61	8	0%	0	2.27	0.85
Chloride	mg/L	0	0	0	8	100%	8	0	0
Total Dissolved Solids	mg/L	13	40	27	8	0%	0	25	8
Total Suspended Solids	mg/L	0	0	0	8	100%	8	0	0
Hardness, Total	mg/L	16.5	30.1	13.6	8	0%	0	21.1	4.6
Total Recoverable Aluminum	ug/L	4.3	8.6	4.3	8	0%	0	5.6	1.5
Dissolved Arsenic	ug/L	0	0	0	8	100%	8	0	0
Dissolved Cadmium	ug/L	0	0	0	8	100%	8	0	0
Dissolved Chromium	ug/L	0	0	0	8	100%	8	0	0
Dissolved Copper	ug/L	0	0	0	8	100%	8	0	0
Total Recoverable Iron	mg/L	0	0	0	8	100%	8	0	0
Dissolved Lead	ug/L	0	0	0	8	100%	8	0	0
Total Recoverable Manganese	ug/L	0	0	0	8	100%	8	0	0
Mercury Dissolved	ug/L	0	0	0	8	100%	8	0	0
Dissolved Nickel	ug/L	0	0	0	8	100%	8	0	0
Total Recoverable Selenium	ug/L	0	0	0	8	100%	8	0	0
Dissolved Silver	ug/L	0	0	0	8	100%	8	0	0
Dissolved Zinc	ug/L	0	3.5	3.5	8	88%	7	0.4	1.2
Color	Color Unit	0	5	5	8	75%	6	1.2	2.3

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 14: Station SH113 2013 Water Quality Data Summary Statistics

Parameter	Un its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	1.5	11.7	10.2	19	0%	0	6.1	3.2
Dissolved Oxygen	mg/L	7.07	19.26	12.19	19	0%	0	12.06	3.01
pH	pH	7.08	7.85	0.77	19	0%	0	7.53	0.18
Conductivity	umhos/cm	99.7	278	178.3	19	0%	0	159.4	42.5
Lab Turbidity	NTU	0	0.79	0.79	12	8%	1	0.23	0.2
Nitrate as N	mg/L	0.394	4.1	3.706	12	0%	0	1.618	0.959
Ammonia as N	mg/L	0.18	1.33	1.15	12	0%	0	0.62	0.35
Sulfate	mg/L	14.3	52.5	38.2	12	0%	0	35.4	12.2
Chloride	mg/L	5.2	11.6	6.4	12	0%	0	8	2.2
Total Dissolved Solids	mg/L	68	209	141	12	0%	0	129	45
Total Suspended Solids	mg/L	0	6	6	12	92%	11	0.5	1.7
Hardness, Total	mg/L	43.8	124	80.2	19	0%	0	86	25.8
Total Recoverable Aluminum	ug/L	7	61	54	12	0%	0	14.6	14.98
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	1.5	1.5	12	83%	10	0.2	0.5
Total Recoverable Iron	mg/L	0	0.232	0.232	12	83%	10	0.026	0.069
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	2.1	101	98.9	23	0%	0	25.5	29.8
Mercury Dissolved	ug/L	0	0.0011	0.0011	12	83%	10	0.0002	0.0004
Dissolved Nickel	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Selenium	ug/L	0	2.4	2.4	12	83%	10	0.3	0.8
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	0	3.6	3.6	12	92%	11	0.3	1
Color	Color Unit	0	15	15	12	58%	7	3.8	5.7

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 15: Station MLA 2013 Water Quality Data Summary Statistics

Parameter	Units	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	0.2	19.5	19.3	12	0%	0	6.3	6.8
Dissolved Oxygen	mg/L	6.86	14.23	7.37	12	0%	0	10.8	2.89
pH	pH	6.89	7.89	1	12	0%	0	7.38	0.31
Conductivity	umhos/cm	33.4	132.5	99.1	12	0%	0	71.2	30.6
Lab Turbidity	NTU	0.13	1.02	0.89	12	0%	0	0.53	0.25
Nitrate as N	mg/L	0	0	0	12	100%	12	0	0
Ammonia as N	mg/L	0	0	0	12	100%	12	0	0
Sulfate	mg/L	1.68	2.77	1.09	12	0%	0	2	0.3
Chloride	mg/L	1.4	2.6	1.2	12	0%	0	1.8	0.4
Total Dissolved Solids	mg/L	40	80	40	12	0%	0	62	15
Total Suspended Solids	mg/L	0	0	0	12	100%	12	0	0
Hardness, Total	mg/L	29.2	64	34.8	12	0%	0	45	11
Total Recoverable Aluminum	ug/L	34.8	111	76.2	12	0%	0	76	25.6
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Iron	mg/L	0.1	0.27	0.17	12	0%	0	0.194	0.055
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	16	62.2	46.2	12	0%	0	30.8	15.5
Mercury Dissolved	ug/L	0	0.0029	0.0029	12	25%	3	0.0017	0.0011
Dissolved Nickel	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Selenium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	0	3.6	3.6	12	92%	11	0.3	1
Color	Color Unit	35	100	65	12	0%	0	67	25

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 16: Station SMP-5 2013 Water Quality Data Summary Statistics

Parameter	Un its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	1	16.2	15.2	19	0%	0	6.3	6
Dissolved Oxygen	mg/L	6.39	15.95	9.56	19	0%	0	12.02	3.01
pH	pH	7.1	8.21	1.11	19	0%	0	7.62	0.32
Conductivity	umhos/cm	53.8	489	435.2	19	0%	0	244.2	148.9
Lab Turbidity	NTU	0.34	1.18	0.84	12	0%	0	0.73	0.27
Nitrate as N	mg/L	0	3.19	3.19	12	25%	3	0.856	1.03
Ammonia as N	mg/L	0	1.5	1.5	12	42%	5	0.36	0.47
Sulfate	mg/L	1.99	225	223.01	12	0%	0	68.28	74.26
Chloride	mg/L	1.4	12.5	11.1	12	0%	0	5.2	3.9
Total Dissolved Solids	mg/L	48	467	419	12	0%	0	175	132
Total Suspended Solids	mg/L	0	0	0	12	100%	12	0	0
Hardness, Total	mg/L	29.8	274	244.2	20	0%	0	112.9	68.4
Total Recoverable Aluminum	ug/L	32.5	129	96.5	19	0%	0	69.2	30.3
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0.1	0.1	12	83%	10	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	1.6	1.6	12	75%	9	0.3	0.6
Total Recoverable Iron	mg/L	0.124	0.647	0.523	19	0%	0	0.303	0.145
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	17.2	161	143.8	23	0%	0	52.6	39.2
Mercury Dissolved	ug/L	0	0.0038	0.0038	12	17%	2	0.0017	0.001
Dissolved Nickel	ug/L	0	3.2	3.2	12	50%	6	0.9	1.1
Total Recoverable Selenium	ug/L	0	0	0	19	100%	19	0	0
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	0	8.6	8.6	12	25%	3	3.8	2.9
Color	Color Unit	25	100	75	12	0%	0	59	26

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 17: Station SLB 2013 Water Quality Data Summary Statistics

Parameter Un	its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	0	14.7	14.7	12	0%	0	5.7	5.5
Dissolved Oxygen	mg/L	7.22	16.13	8.91	12	0%	0	12.61	3.37
pH	pH	7.2	7.97	0.77	12	0%	0	7.75	0.27
Conductivity	umhos/cm	59.3	405	345.7	12	0%	0	193.5	103.2
Lab Turbidity	NTU	0.28	1.16	0.88	12	0%	0	0.75	0.27
Nitrate as N	mg/L	0	3.17	3.17	12	8%	1	0.983	0.987
Ammonia as N	mg/L	0	1.35	1.35	12	33%	4	0.35	0.39
Sulfate	mg/L	2.02	214	211.98	12	0%	0	76.46	68.85
Chloride	mg/L	1.4	12.1	10.7	12	0%	0	5.6	3.2
Total Dissolved Solids	mg/L	52	424	372	12	0%	0	191	114
Total Suspended Solids	mg/L	0	0	0	12	100%	12	0	0
Hardness, Total	mg/L	28.8	267	238.2	12	0%	0	113.7	69.8
Total Recoverable Aluminum	ug/L	28.3	143	114.7	12	0%	0	74.6	36.9
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	1.3	1.3	12	83%	10	0.2	0.5
Total Recoverable Iron	mg/L	0.112	0.514	0.402	12	0%	0	0.257	0.117
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	9.5	81	71.5	12	0%	0	32.6	21.1
Mercury Dissolved	ug/L	0	0.0035	0.0035	12	25%	3	0.0016	0.0012
Dissolved Nickel	ug/L	0	2.3	2.3	12	58%	7	0.7	0.9
Total Recoverable Selenium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	2.8	6.8	4	12	0%	0	4.3	1.3
Color	Color Unit	20	120	100	12	0%	0	57	32

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 18: Station SLC 2013 Water Quality Data Summary Statistics

Parameter Un	its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects	Mean	Standard Deviation
Temp	oC	0	12.9	12.9	12	0%	0	5.1	4.8
Dissolved Oxygen	mg/L	7.37	16.5	9.13	12	0%	0	12.85	3.31
pH	pH	7	7.94	0.94	12	0%	0	7.68	0.31
Conductivity	umhos/cm	45.6	188	142.4	12	0%	0	120.8	43.1
Lab Turbidity	NTU	0.18	1.33	1.15	12	0%	0	0.52	0.31
Nitrate as N	mg/L	0	1.07	1.07	12	25%	3	0.361	0.339
Ammonia as N	mg/L	0	0.52	0.52	12	42%	5	0.13	0.16
Sulfate	mg/L	2.93	83.2	80.27	12	0%	0	31.7	25.09
Chloride	mg/L	2.1	8.9	6.8	12	0%	0	4.9	2.3
Total Dissolved Solids	mg/L	48	213	165	12	0%	0	112	47
Total Suspended Solids	mg/L	0	0	0	12	100%	12	0	0
Hardness, Total	mg/L	31.1	142	110.9	12	0%	0	71.3	32.6
Total Recoverable Aluminum	ug/L	21.1	156	134.9	12	0%	0	60.7	38.3
Dissolved Arsenic	ug/L	0	0	0	12	100%	12	0	0
Dissolved Cadmium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Chromium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Copper	ug/L	0	1.1	1.1	12	92%	11	0.1	0.3
Total Recoverable Iron	mg/L	0.052	0.25	0.198	12	0%	0	0.137	0.07
Dissolved Lead	ug/L	0	0	0	12	100%	12	0	0
Total Recoverable Manganese	ug/L	4.7	33.9	29.2	12	0%	0	16	10.4
Mercury Dissolved	ug/L	0	0.0046	0.0046	12	17%	2	0.0017	0.0013
Dissolved Nickel	ug/L	0	1.1	1.1	12	83%	10	0.2	0.4
Total Recoverable Selenium	ug/L	0	0	0	12	100%	12	0	0
Dissolved Silver	ug/L	0	0	0	12	100%	12	0	0
Dissolved Zinc	ug/L	0	3.8	3.8	12	58%	7	1.3	1.6
Color	Color Unit	15	120	105	12	0%	0	41	34

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table: 19 Outfall 001 2013 Water Quality Data Summary Statistics									
Parameter Un	**its**	**Min**	**Max**	**Range**	**Number of Samples**	**Percent Non-detects**	**Number of Non-detects M**	**ean**	**Standard Deviation**
Temperature	oC	3.8	12.3	8.5	58	0.0%	0	8.4	2.0
Lab Turbidity	NTU	0	2.95	2.95	60	1.7%	1	0.5	0.6
Lab Turbidity 001 Background	NTU	0	2.4	2.4	60	10.0%	6	0.4	0.4
Lab Turbidity Difference	NTU	-1.91	2.64	4.55	60	0.0%	0	0.1	0.7
Total Suspended Solids	mg/L	0	12.8	12.8	359	99.2%	356	0.1	0.9
Sulfate (associated with Na& Mg)	mg/L	19.4	83.4	64	60	0.0%	0	50.0	13.4
Dissolved oxygen	mg/L	6.48	13.53	7.05	58	0.0%	0	10.3	2.1
Hardness Downstream of Outfall	mg/L	32.7	239	206.3	60	0.0%	0	82.6	33.4
Total Recoverable Arsenic	ug/L	0	0	0	16	100.0%	16	0.0	0.0
Total Recoverable Iron	mg/L	0	0.35	0.35	60	40.0%	24	0.1	0.1
Nitrate as N	mg/L	1.44	12.3	10.86	60	0.0%	0	4.5	2.4
Ammonia as N	ug/L	0.65	8.13	7.48	212	0.0%	0	1.92	0.94
Total Recoverable Selenium	ug/L	0	4.2	4.2	17	11.8%	2	1.9	1.1
Total Chromium	ug/L	0	0	0	16	100.0%	16	0.0	0.0
Total Recoverable Nickel	ug/L	0	4.2	4.2	60	83.3%	50	0.3	0.7
Total Recoverable Silver	ug/L	0	0	0	17	100.0%	17	0.0	0.0
Total Recoverable Zinc	ug/L	0	2.5	2.5	60	96.7%	58	0.1	0.4
Total Recoverable Cadmium	ug/L	0	0	0	60	100.0%	60	0.0	0.0
Total Recoverable Aluminum	ug/L	1.6	30.8	29.2	60	0.0%	0	6.5	6.2
Total Recoverable Lead	ug/L	0	0	0	60	100.0%	60	0.0	0.0
Total Recoverable Copper	ug/L	0	4	4	60	98.3%	59	0.1	0.5
Total Recoverable Manganese	ug/L	8.9	307	298.1	60	0.0%	0	71.5	82.2
Total Dissolved Solids	mg/L	199	373	174	60	0.0%	0	267.0	44.0
Mercury Total	ug/L	0	0.006	0.006	16	56.3%	9	0.0	0.0
*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.									
**For a list of PQLs please see Table 22									

Table: 20 Outfall 002 2013 Water Quality Data Summary Statistics

Parameter Un	its	Min	Max	Range	Number of Samples	Percent Non-detects	Number of Non-detects M	ean	Standard Deviation
Temperature oC		1.7	15.2	13.5	54	0.0%	0	7.5	4.9
Lab Turbidity	**NTU**	0.39	2.12	1.73	55	0.0%	0	1.05	0.48
Lab Turbidity 002 Background	**NTU**	0.24	1.61	1.37	55	0.0%	0	0.66	0.32
Total Suspended Solids	**mg/L**	0	11.2	11.2	344	98.3%	338	0.1	0.8
Ammonia as N	**mg/L**	0	1.45	1.45	55	1.8%	1	1.01	0.3
Nitrate as N	**mg/L**	1.67	3.84	2.17	55	0.0%	0	2.58	0.36
Hardness, Total	**mg/L**	129	278	149	55	0.0%	0	236	26
Hardness Downstream of Outfall	**mg/L**	32	272	240	55	0.0%	0	139.7	63.4
Sulfate mg/L		93.3	245	151.7	55	0.0%	0	203.9	28.2
Total Recoverable Arsenic	**ug/L**	0	0	0	15	100.0%	15	0	0
Total Recoverable Iron	**mg/L**	0.13	0.701	0.571	55	0.0%	0	0.369	0.198
Total Recoverable Selenium	**ug/L**	0	1.3	1.3	55	96.4%	53	0	0.2
Total Chromium	**ug/L**	0	0	0	55	100.0%	55	0	0
Total Recoverable Nickel	**ug/L**	0	11.6	11.6	55	10.9%	6	2.5	1.9
Total Recoverable Silver	**ug/L**	0	0	0	55	100.0%	55	0	0
Total Recoverable Zinc	**ug/L**	0	22.7	22.7	55	30.9%	17	5.3	5.4
Total Recoverable Aluminum	**ug/L**	6.4	375	368.6	55	0.0%	0	43.5	48.5
Total Recoverable Cadmium	**ug/L**	0	0.29	0.29	55	10.9%	6	0.09	0.07
Total Recoverable Lead	**ug/L**	0	0	0	55	100.0%	55	0	0
Total Recoverable Copper	**ug/L**	0	3.2	3.2	55	52.7%	29	0.7	0.8
Total Recoverable Manganese	**ug/L**	10.5	195	184.5	63	0.0%	0	66.5	52.7
Total Dissolved Solids	**mg/L**	236	621	385	55	0.0%	0	414	58
Mercury Total	**ug/L**	0	0.0032	0.0032	55	41.8%	23	0.0008	0.00078

*Non -detects are assigned a value of zero for the arithmetic mean, standard deviation and range calculations.

**For a list of PQLs please see Table 22

Table 21

Water Quality Standards used for Receiving Waters			
Parameter	**Water Quality Standard Used**	**Value or Formula**	**Units**
Temperature	Drinking Water	15	ºC
Dissolved Oxygen	Drinking Water	Greater than 4 mg/L	mg/L
pH	Drinking Water	Greater than or equal to 6.5 and less than or equal to 8.5	s.u.
Turbidity	Drinking Water	5 NTU + background value	NTU
Nitrate as N	Drinking Water	10	mg-N/L
Ammonia as N	Acute Toxicity	[0.275/(1+10^(7.204-pH))] + [39.0/(1+10^(pH-7.204))]	mg-N/L
	Chronic Toxicity	[0.0577/(1+10^(7.7.688-pH))] + [2.487/(1+10^(pH-7.688))] * [MIN(2.85, 1.45*10^(0.028*(25-Temp)))]	mg-N/L
Sulfate	Drinking Water	250	mg/L
		200	mg/L
Chloride	Drinking Water	250	mg/L
		200	mg/L
Total Dissolved Solids	Drinking Water	500	mg/L
		1000	mg/L
Total Recoverable Aluminum	Acute Toxicity	750	ug/L
	Chronic Toxicity	87	ug/L
Dissolved Arsenic	Drinking Water	10	ug/L
Dissolved Cadmium	Acute Toxicity	1.136672-[(LN Hardness)(0.041838)]*EXP(1.0166*(LN Hardness)-3.924)	ug/L
	Chronic Toxicity	1.101672-[(LN Hardness)(0.041838)]*EXP(0.7409*(LN Hardness)-4.719)	ug/L
Dissolved Chromium	Drinking Water	100	ug/L
Dissolved Copper	Acute Toxicity	0.96*EXP(0.9422*(LN Hardness)-1.700)	ug/L
	Chronic Toxicity	0.96*EXP(0.8545*(LN Hardness)-1.702)	
Dissolved Iron	Chronic Toxicity	1	mg/l
Total Recoverable Iron	Chronic Toxicity	1	mg/l
Dissolved Lead	Acute Toxicity	1.46203-[(LN Hardness)(0.145712)]*EXP(1.273*(LN Hardness)-1.460)	ug/L
	Chronic Toxicity	1.46203-[(LN Hardness)(0.145712)]*EXP(1.273*(LN Hardness)-4.705)	ug/L
Total Recoverable Manganese	Human Health Consumption of Water + Aquatic Organisms	50	ug/L
	Human Health Consumption of Aquatic Organisms Only	100	ug/L
Mercury Dissolved	Acute Toxicity	1.4	ug/L
	Chronic Toxicity	0.77	ug/L
Dissolved Nickel	Acute Toxicity	EXP(0.846*(LN Hardness)+2.255)	ug/L
	Chronic Toxicity	EXP(0.846*(LN Hardness)+0.0584)	ug/L
Dissolved Selenium	Chronic Toxicity	4.77	ug/L
Total Recoverable Selenium	Chronic Toxicity	5	ug/L
Dissolved Silver	Acute Toxicity	0.85*EXP(1.72*(LN Hardness)-6.59)	ug/L
Dissolved Zinc	Acute Toxicity	0.978*EXP(0.8473*(LN Hardness)+0.884)	ug/L
	Chronic Toxicity	0.986*EXP(0.8473*(LN Hardness)+0.884)	ug/L

*For Outfalls 001/002 refer to the APDES permit

Table 22		
Receiving Waters		
Parameter	Unit	PQL
Nitrate as N	mg/L	0.05
Ammonia as N	mg/L	0.1
Chloride	mg/L	1
Sulfate	mg/L	1
Total Suspended Solids	mg/L	4
Total Dissolved Solids	mg/L	10
Hardness	mg/L	1
Turbidity	NTU	0.1
Arsenic	ug/L	2.5
Cadmium	ug/L	0.1
Chromium	ug/L	2.5
Copper	ug/L	1
Iron	mg/L	0.05
Dissolved Lead	ug/L	0.16
Manganese	ug/L	1
Mercury	ug/L	0.0010
Nickel	ug/L	1
Selenium	ug/L	1
Silver	ug/L	0.1
Zinc	ug/L	2.5
Aluminum	ug/L	1
Color	Color Unit	5

Figure 1: Project Area Map

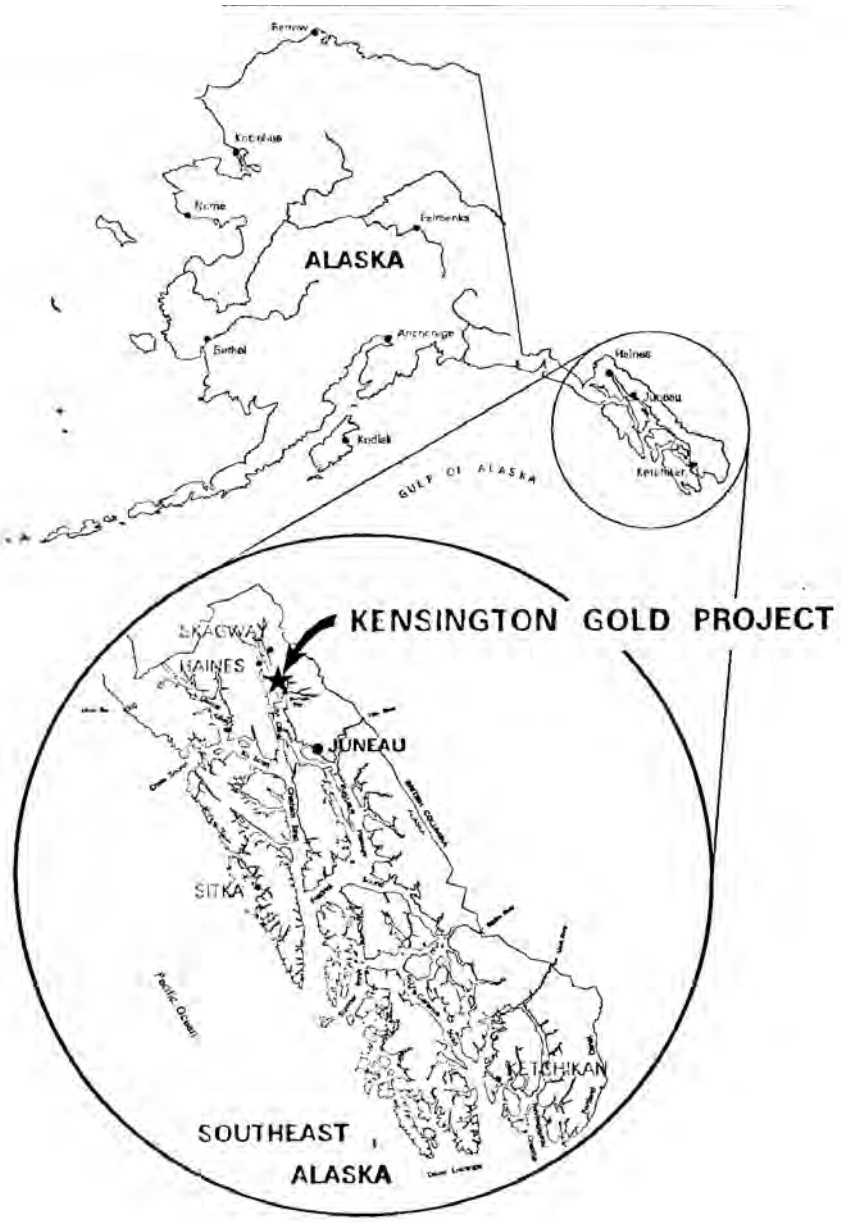


Figure 2: Location of streams and permitted outfalls near Kensington and Jualin Mines, Lynn Canal, southeast Alaska. Water quality monitoring is conducted on Sherman, Ophir, Slate and Johnson Creeks.

Figure 3: Water Treatment Facility Monitoring Sites.

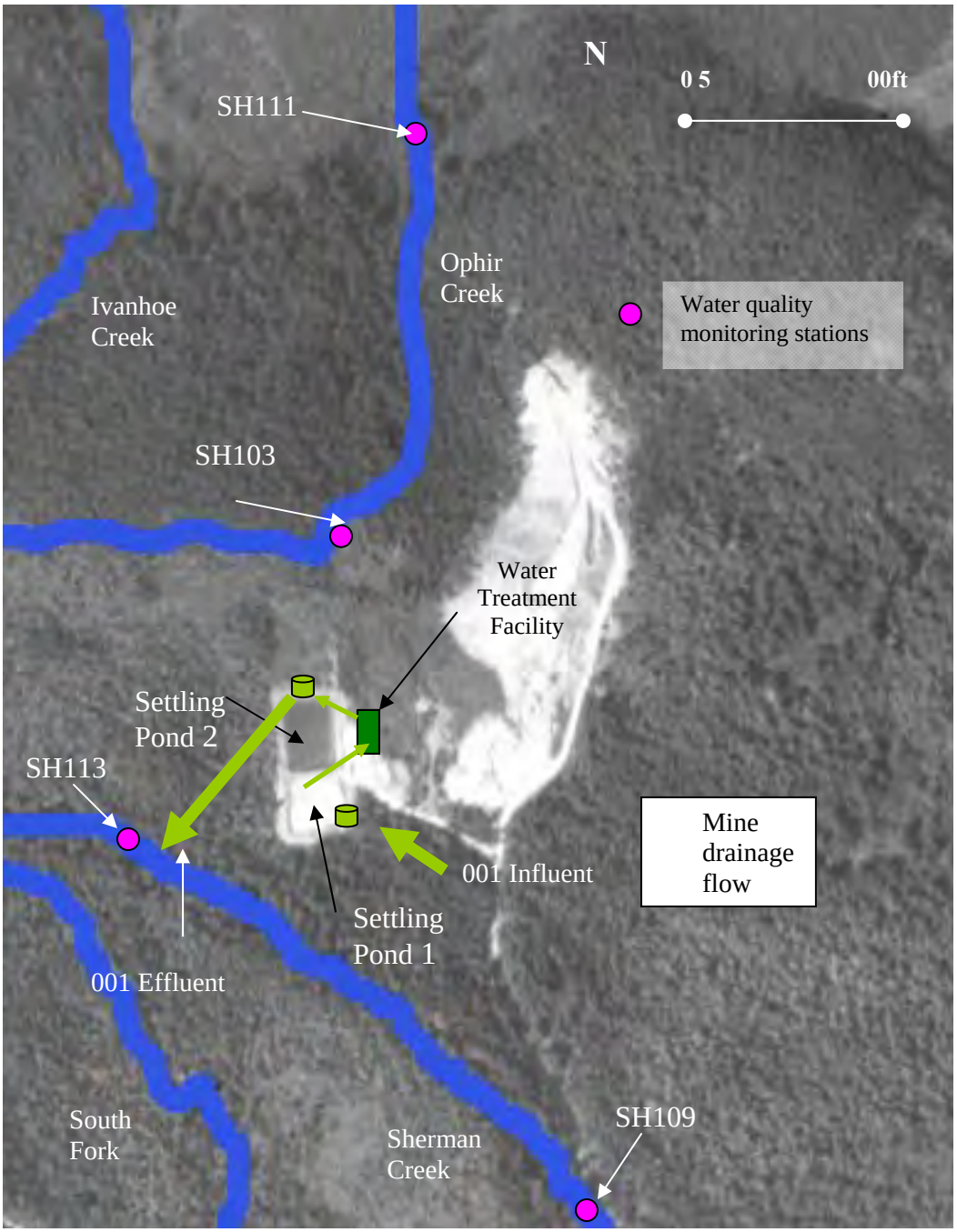


Figure 4: Location of receiving water quality monitoring stations on Sherman and Ophir Creeks.

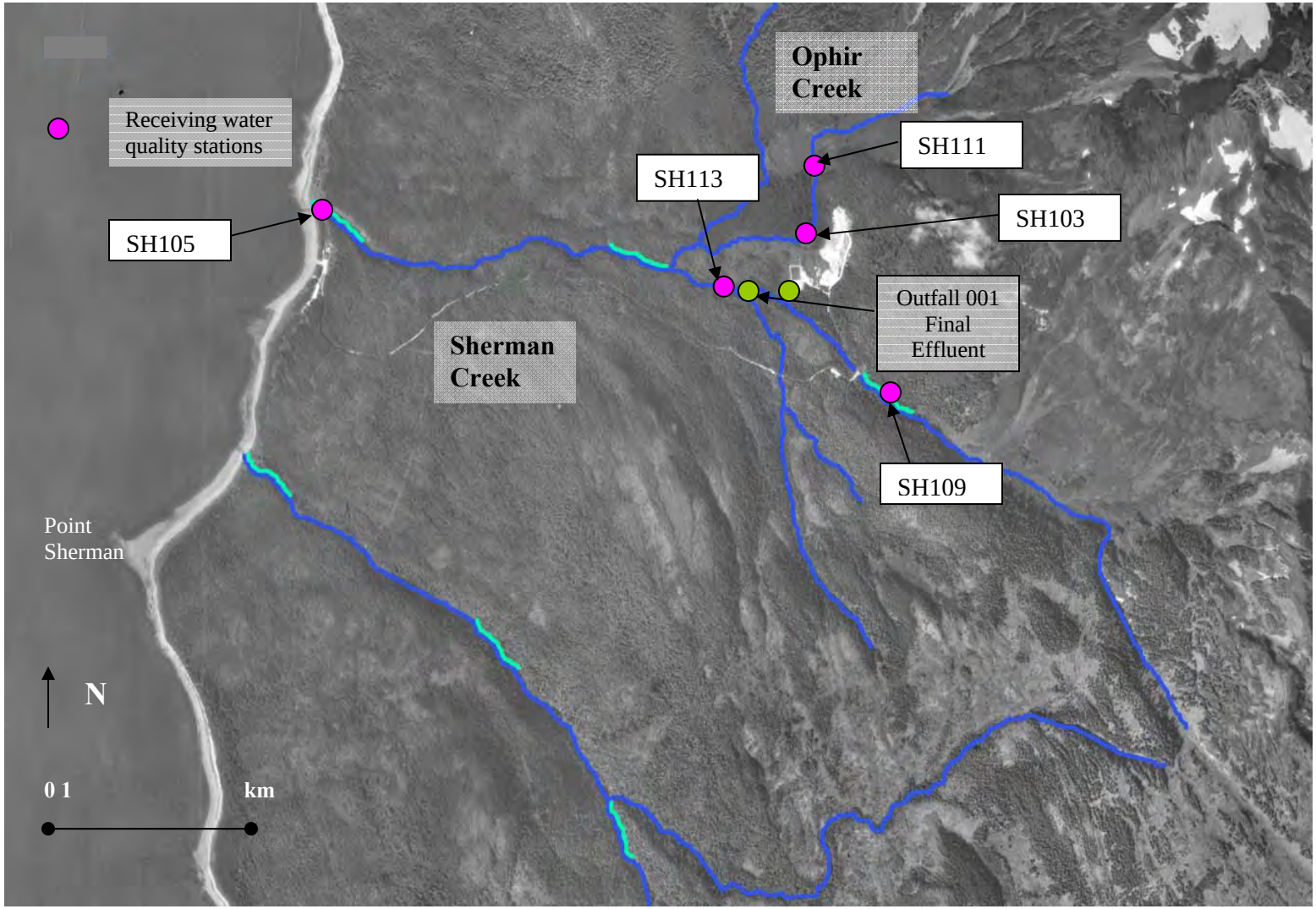


Figure 5: Locations of receiving water quality monitoring stations on Slate and Johnson Creeks.

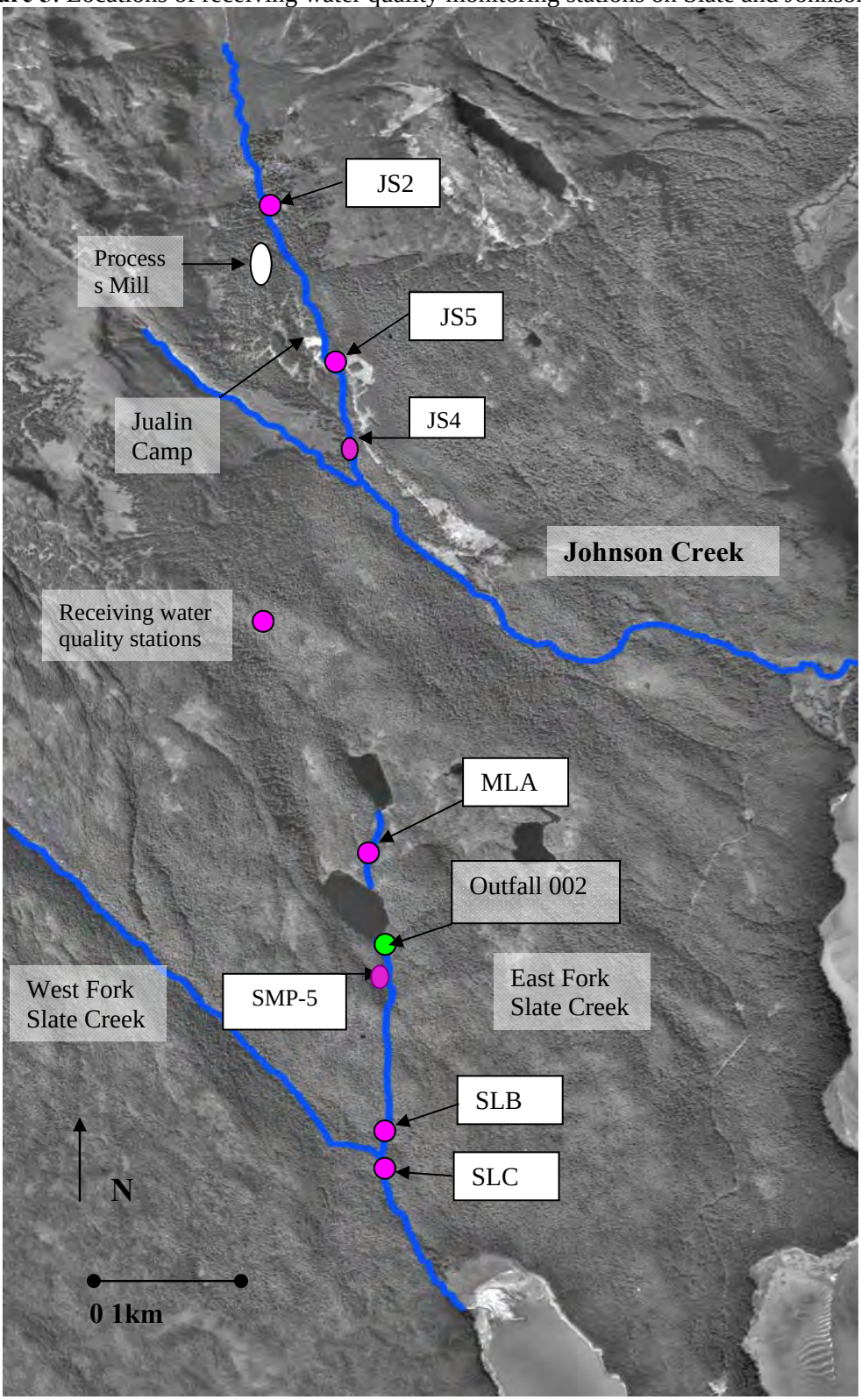
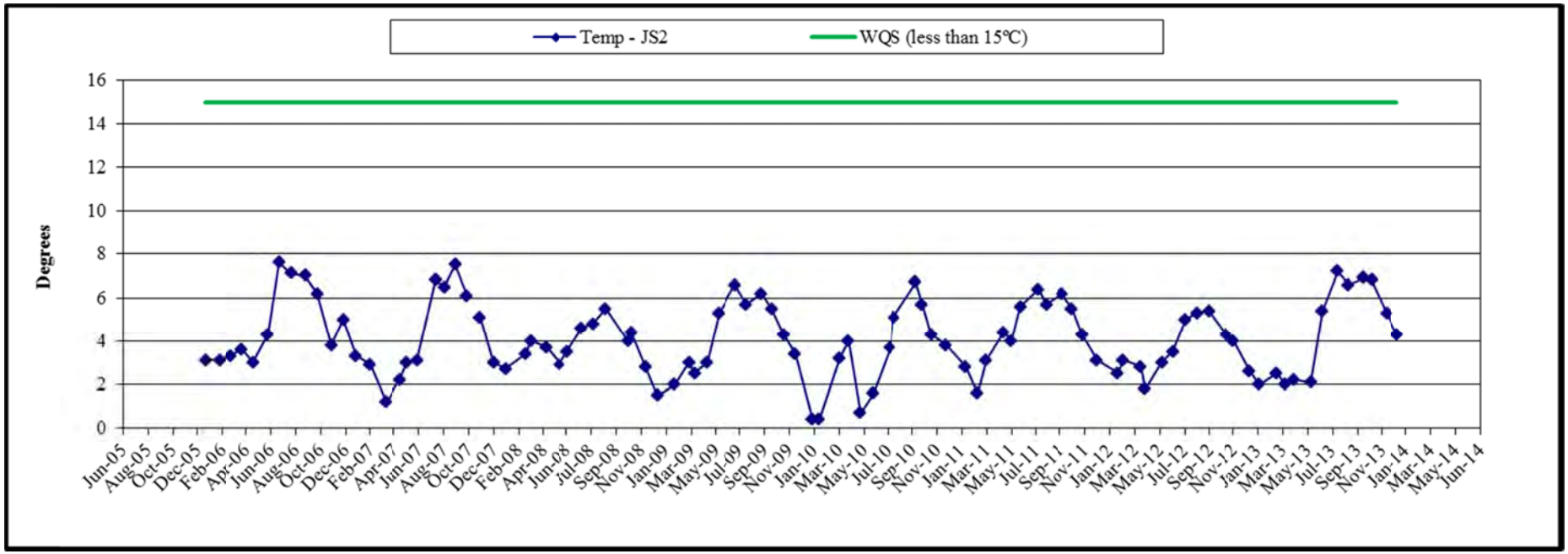


Figure 6a: Johnson Creek (JS2) Monitoring Results 2006 -2013, Field Parameters



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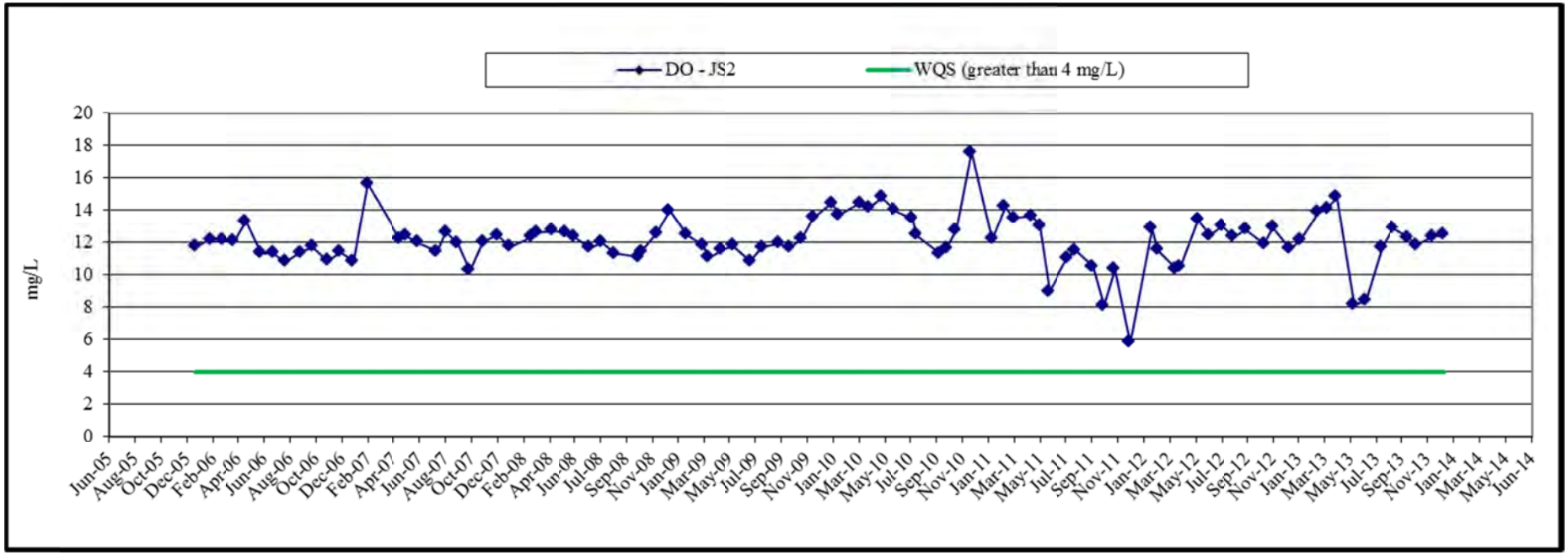

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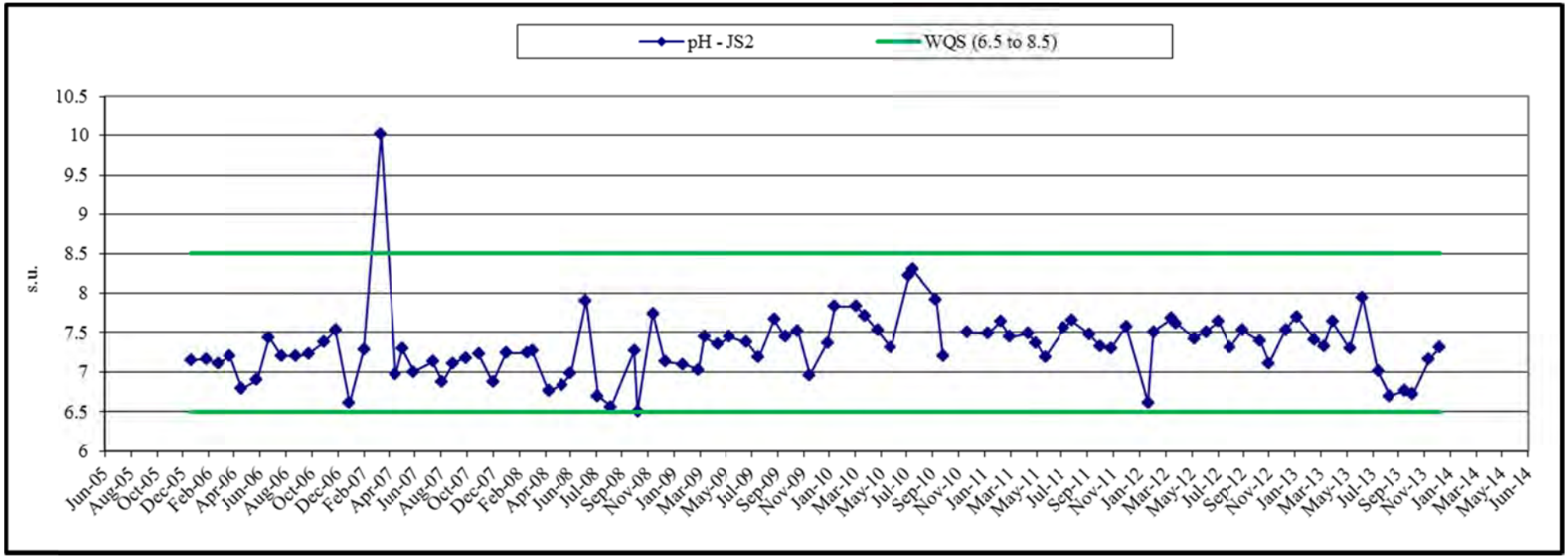

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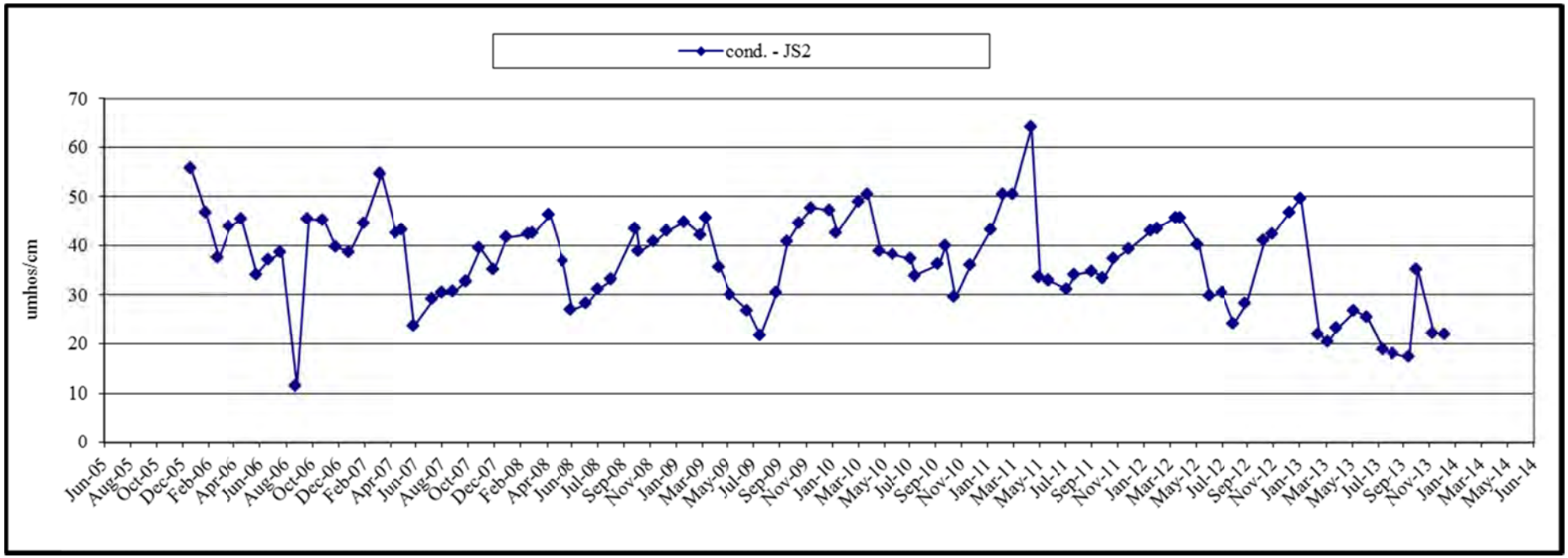
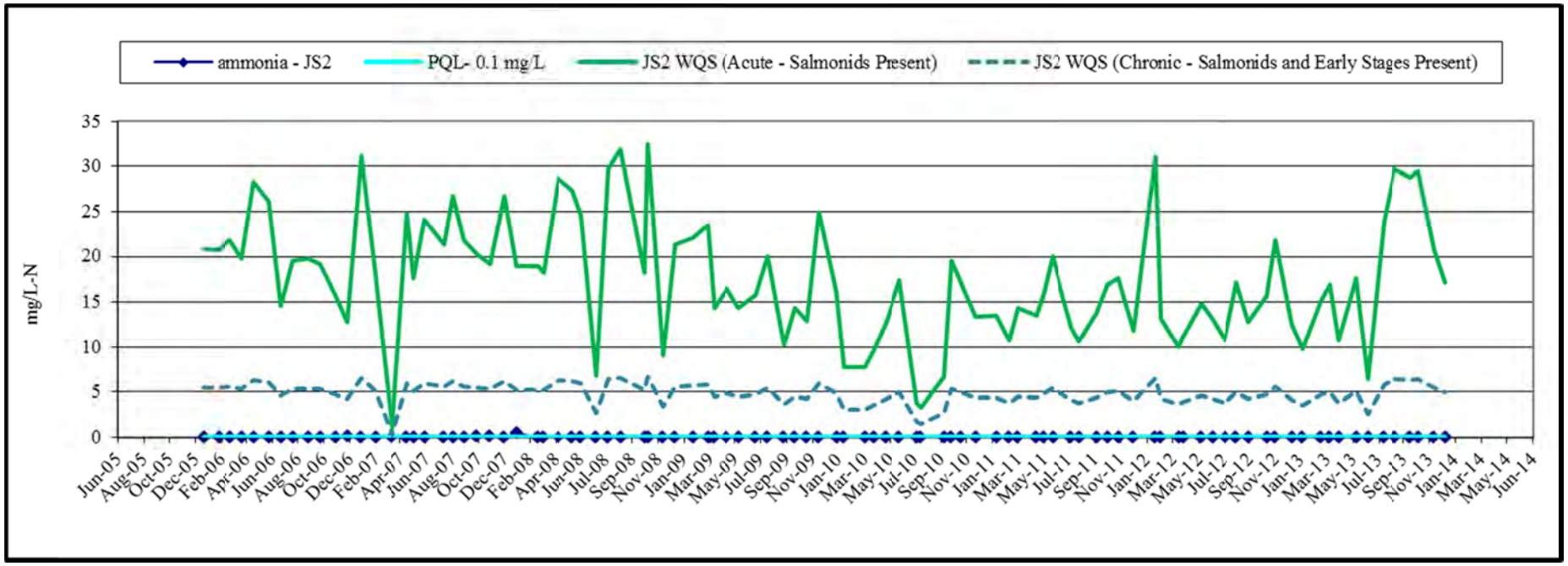


Figure 6b: Johnson Creek (JS2) Monitoring Results 2006 -2013, Major Chemistry



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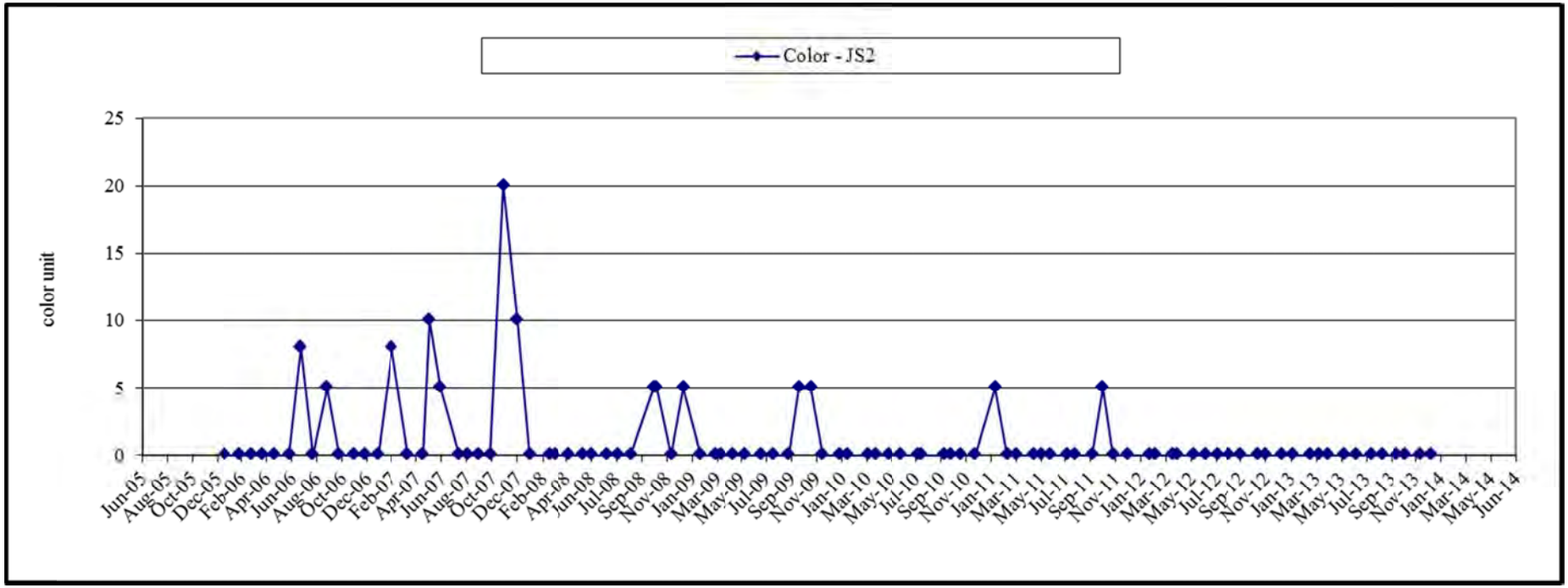

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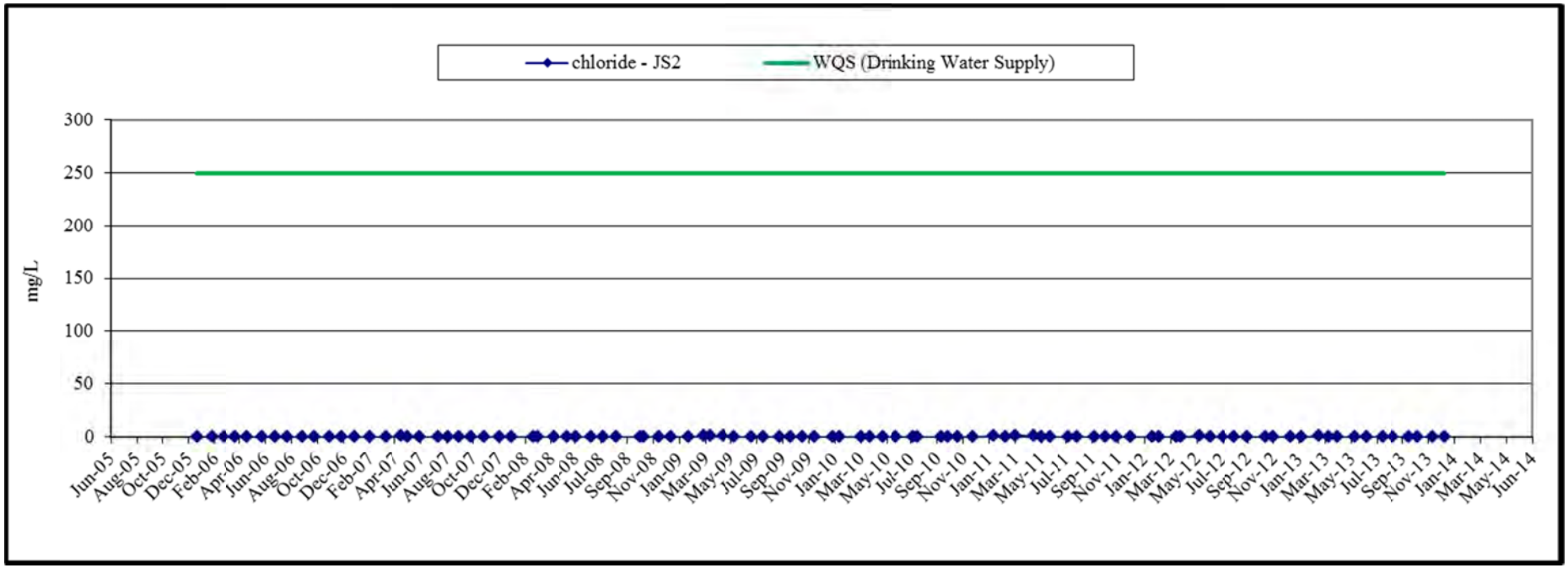

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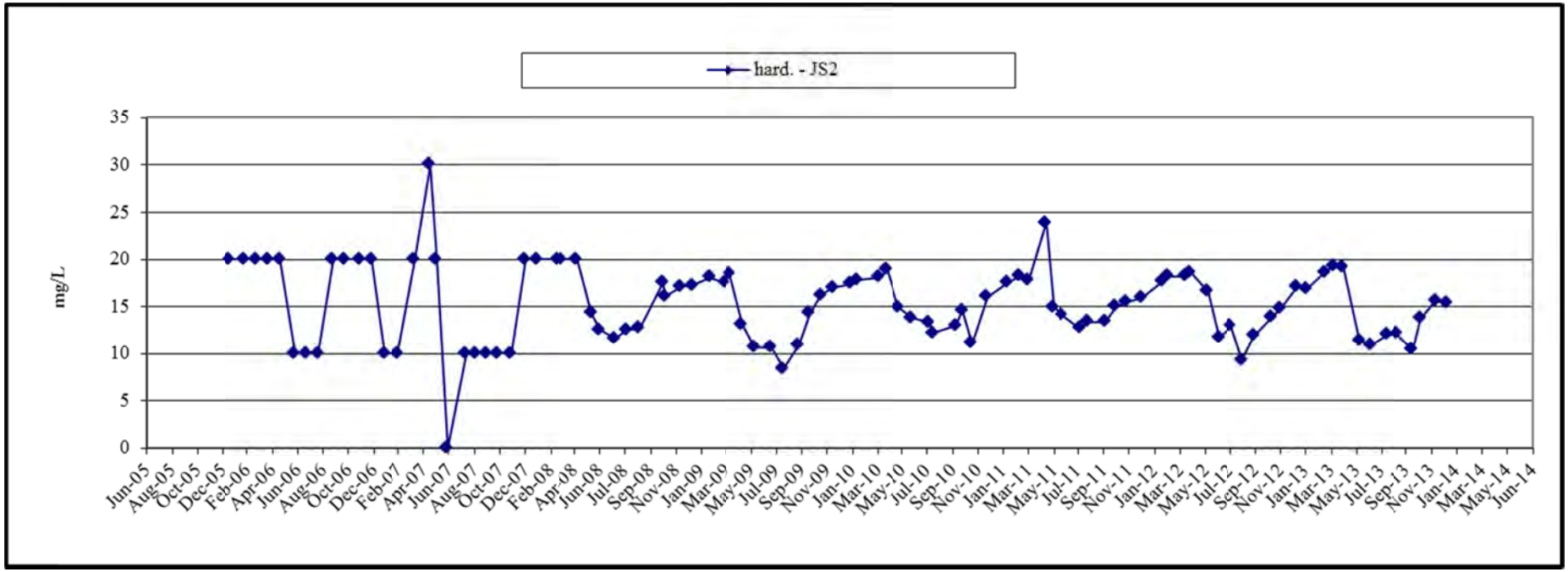

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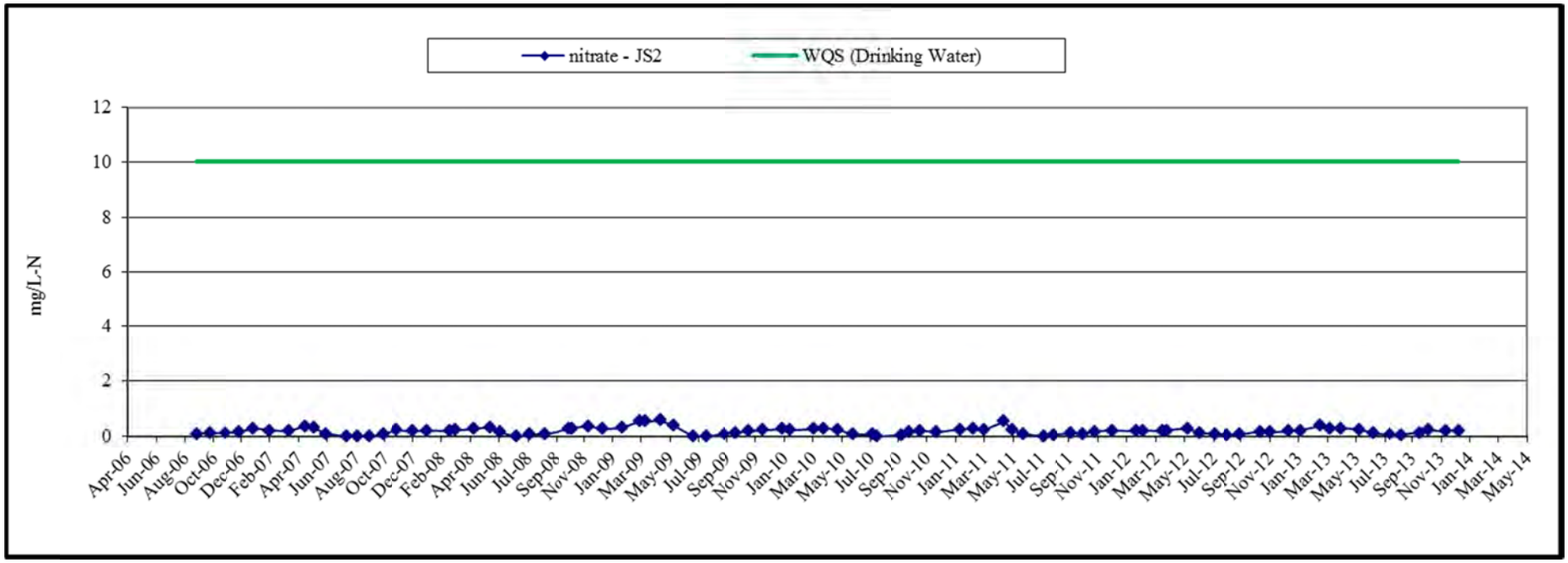

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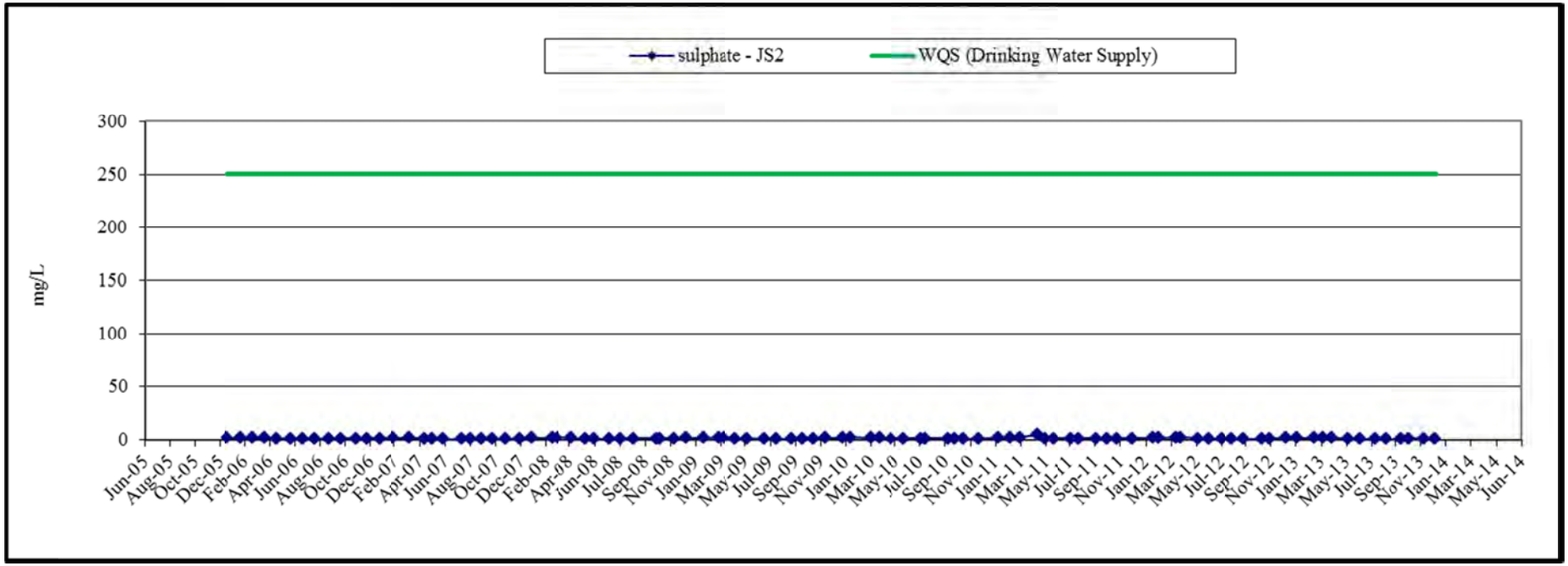

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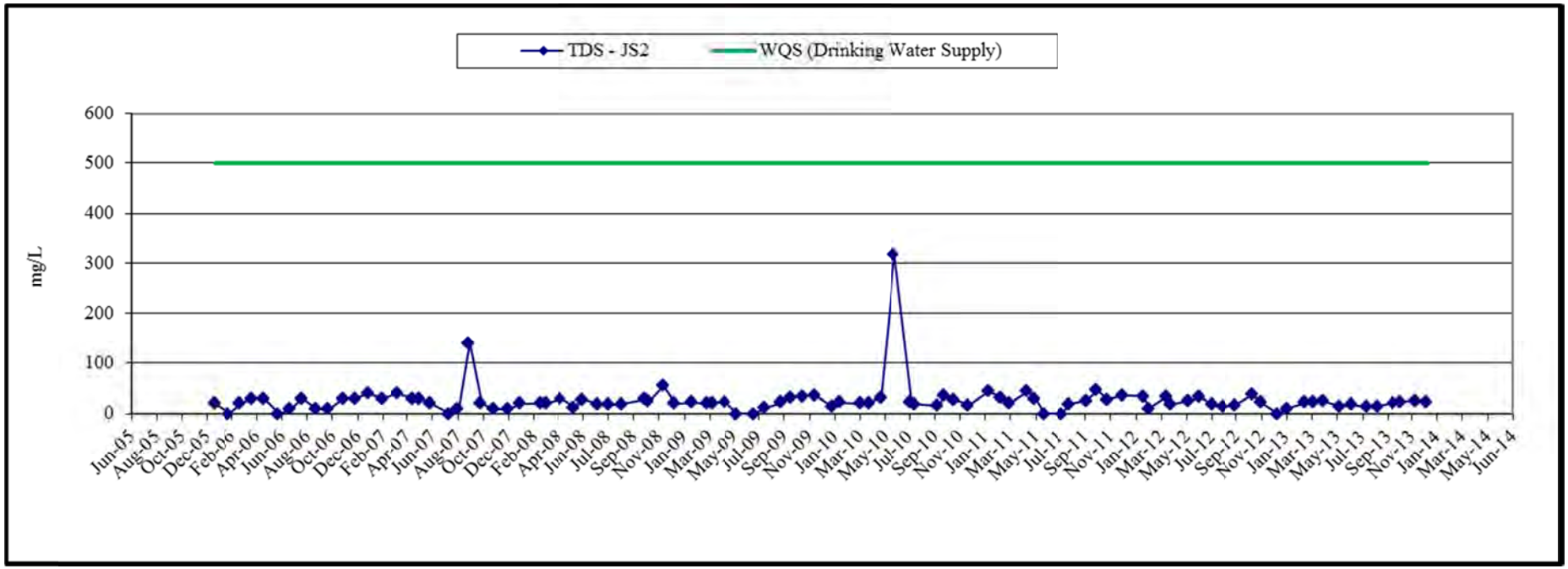

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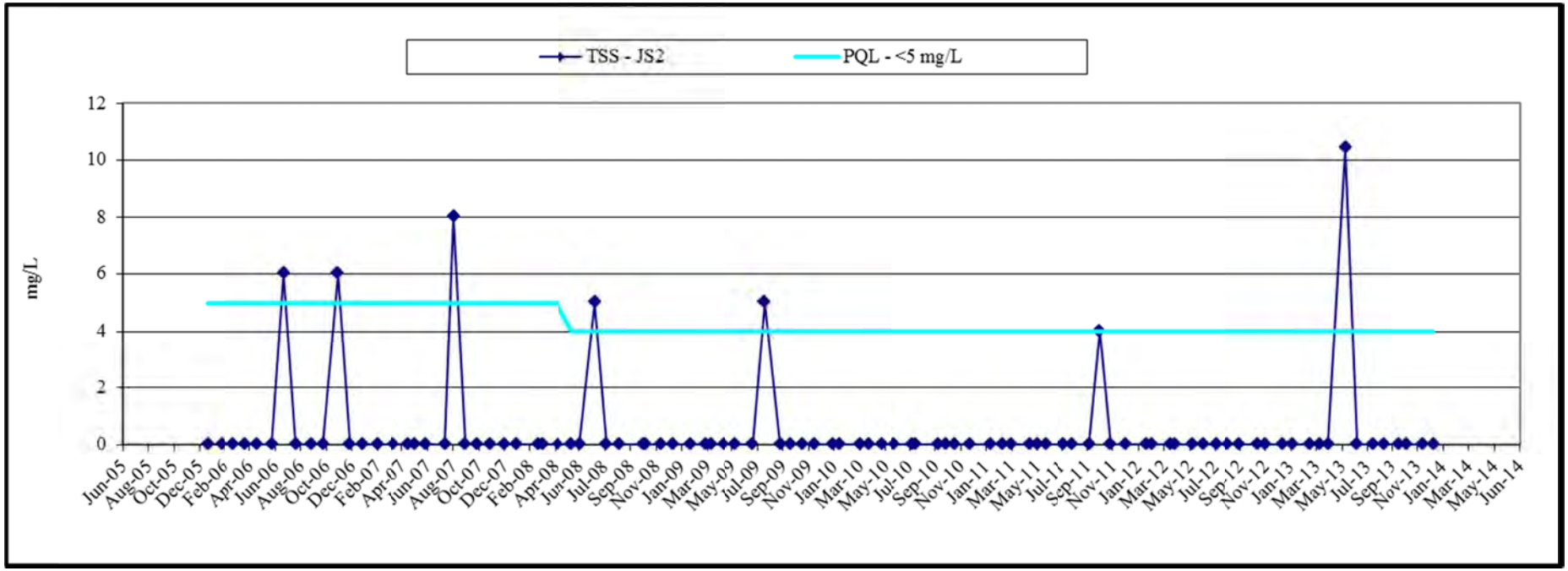

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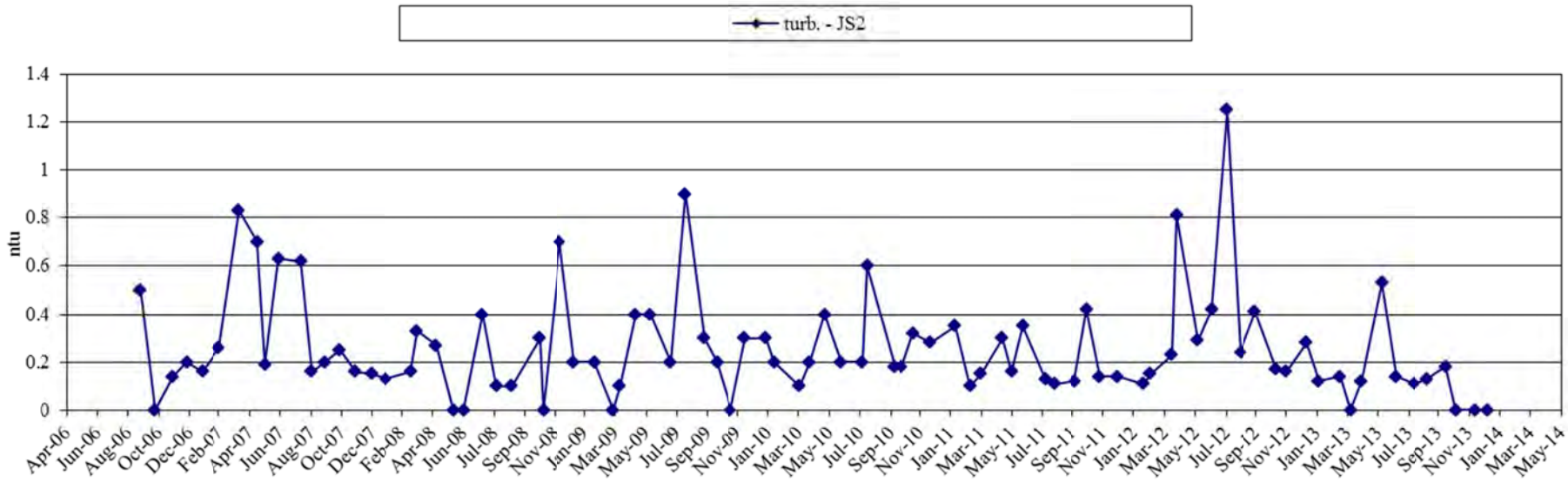
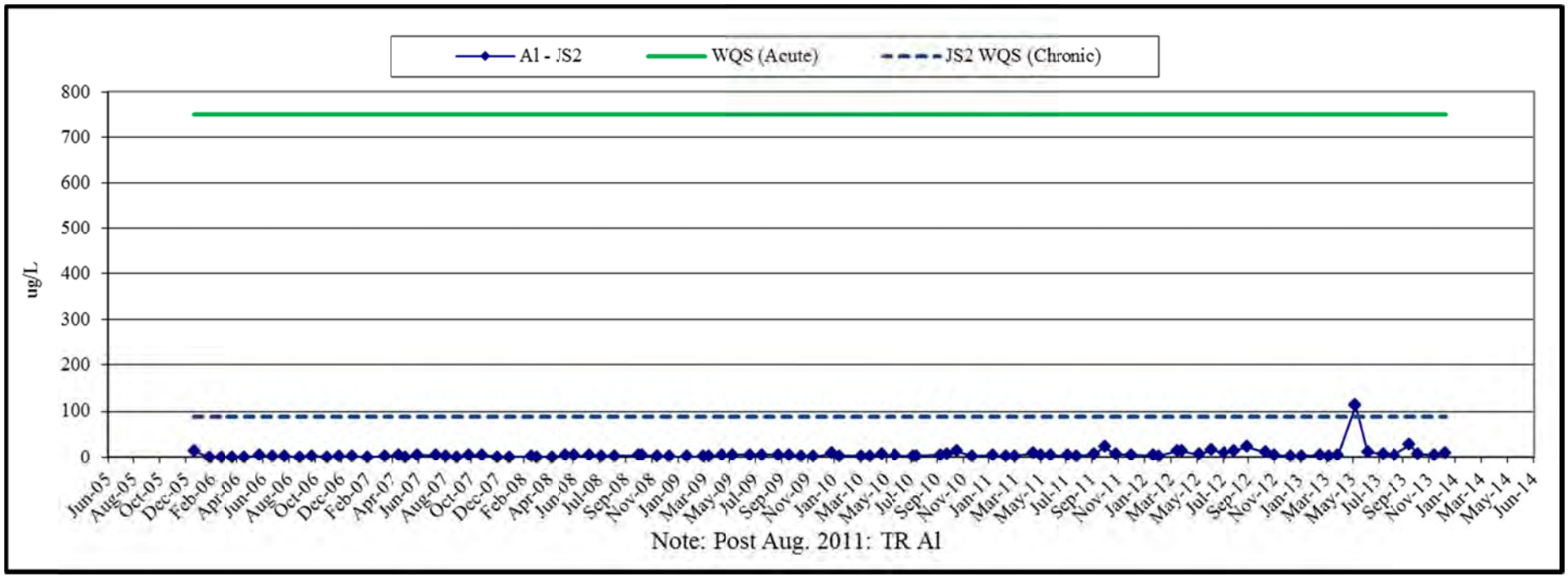


Note: JS2 is the background station used for calculating turbidity standards at JS4 and JS5. Therefore, no criterion is set for JS2.

Figure 6c: Johnson Creek (JS2) Monitoring Results 2006 -2013, Trace Chemistry



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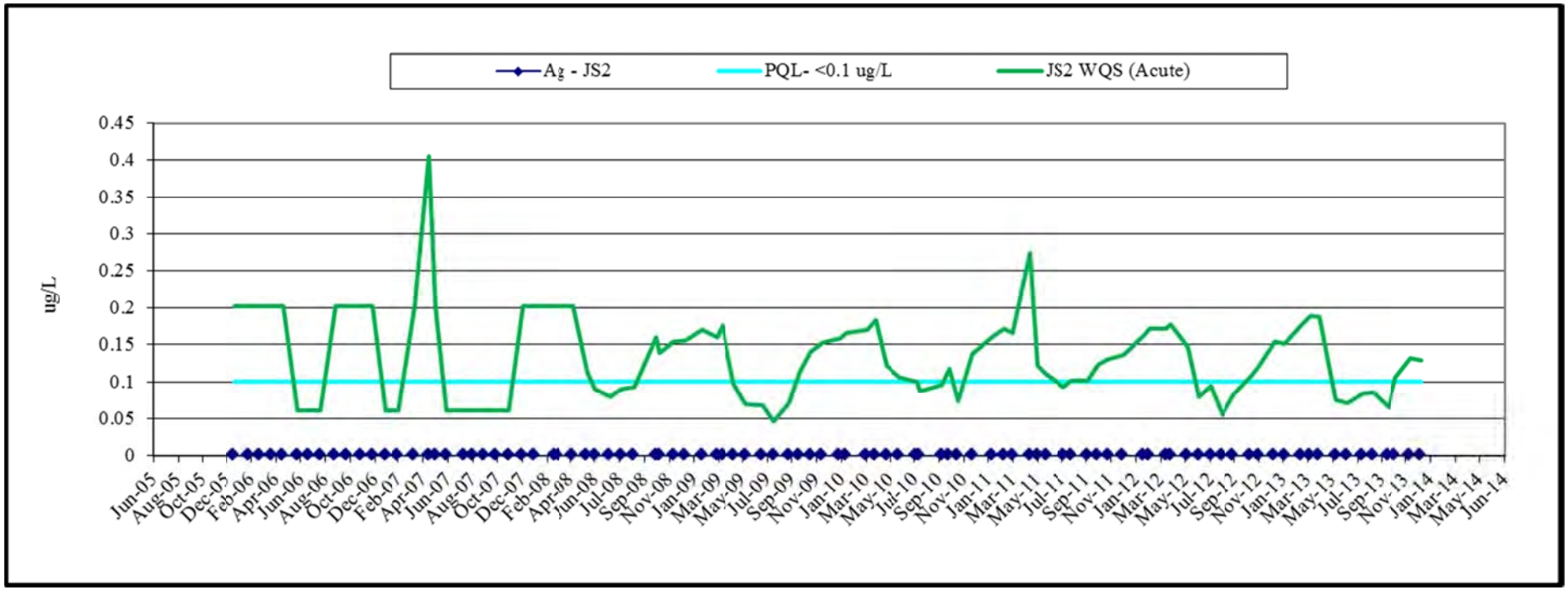

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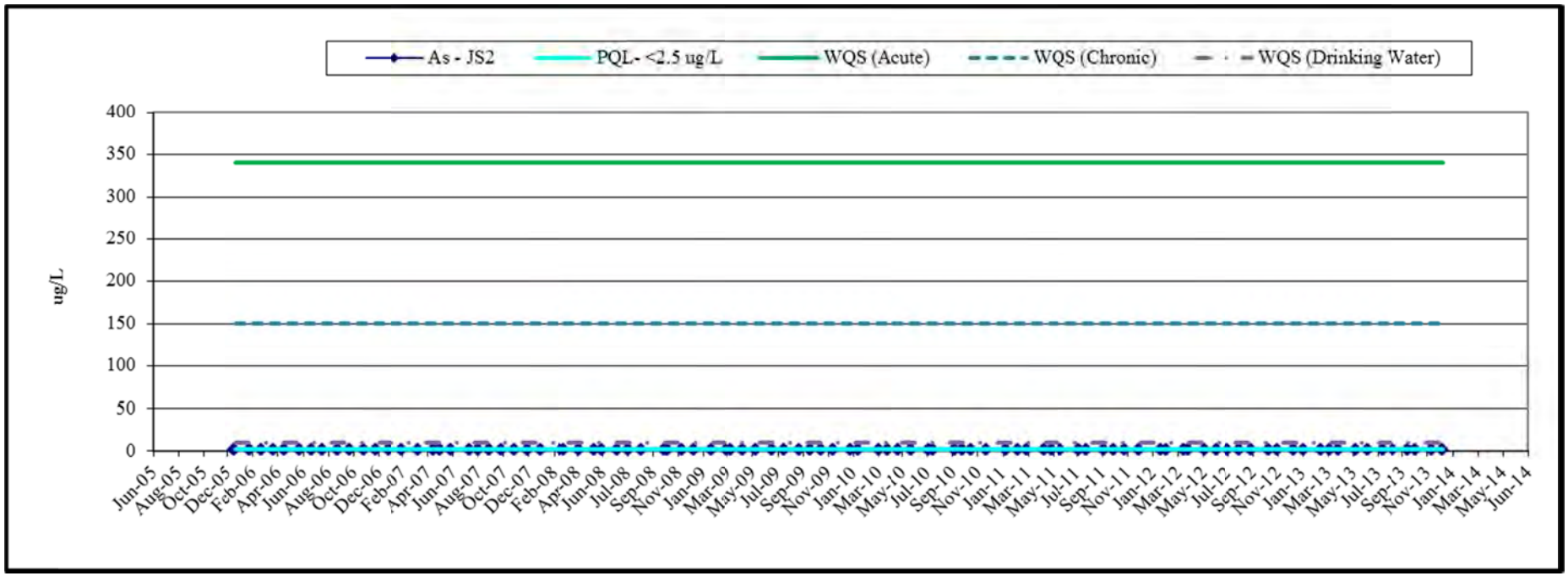

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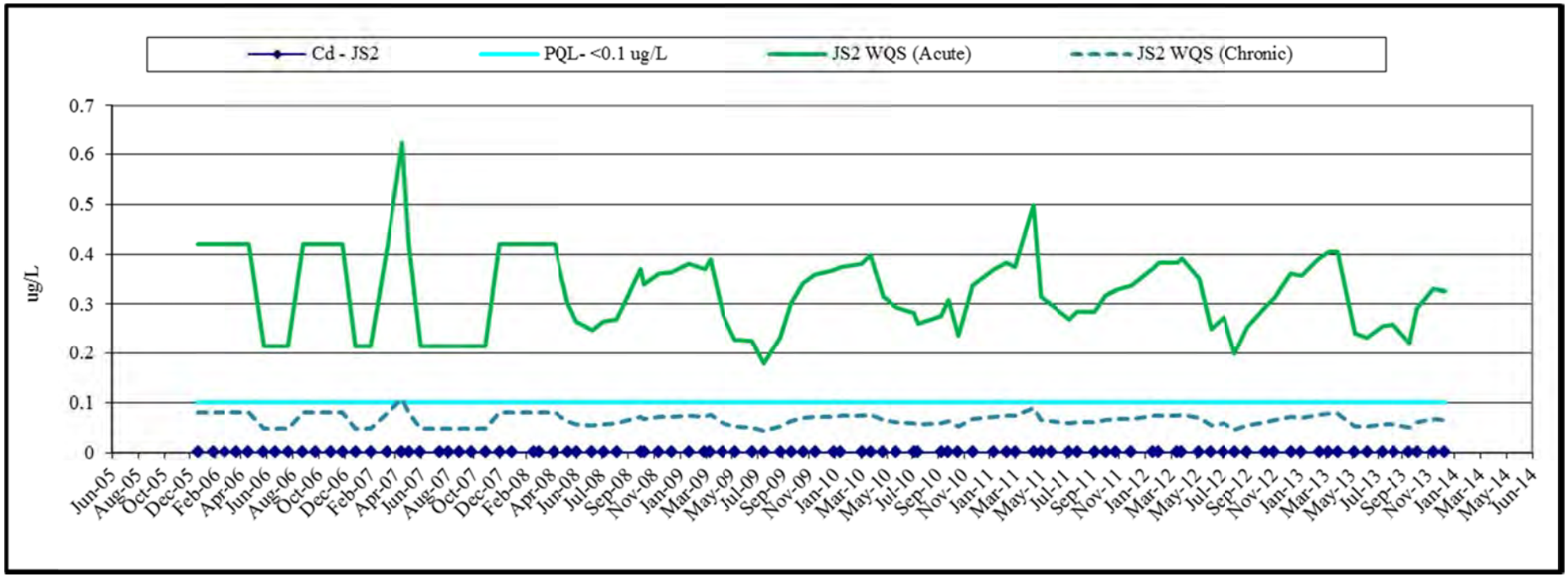

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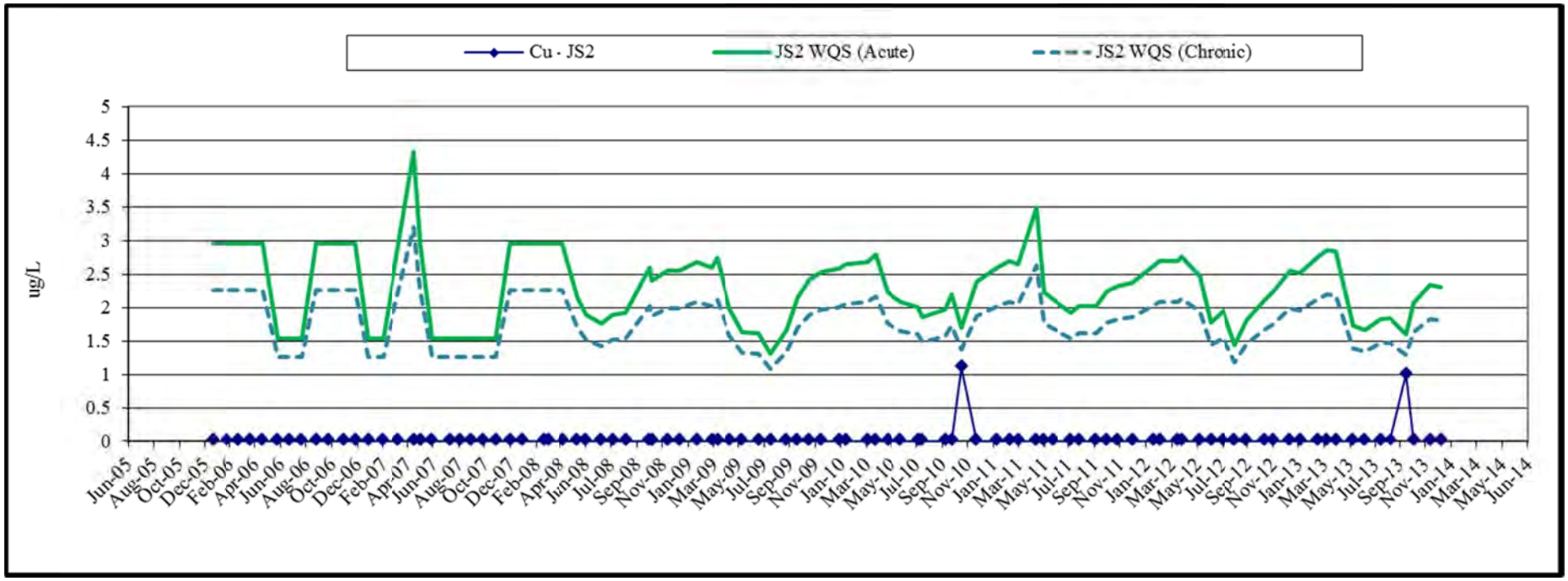

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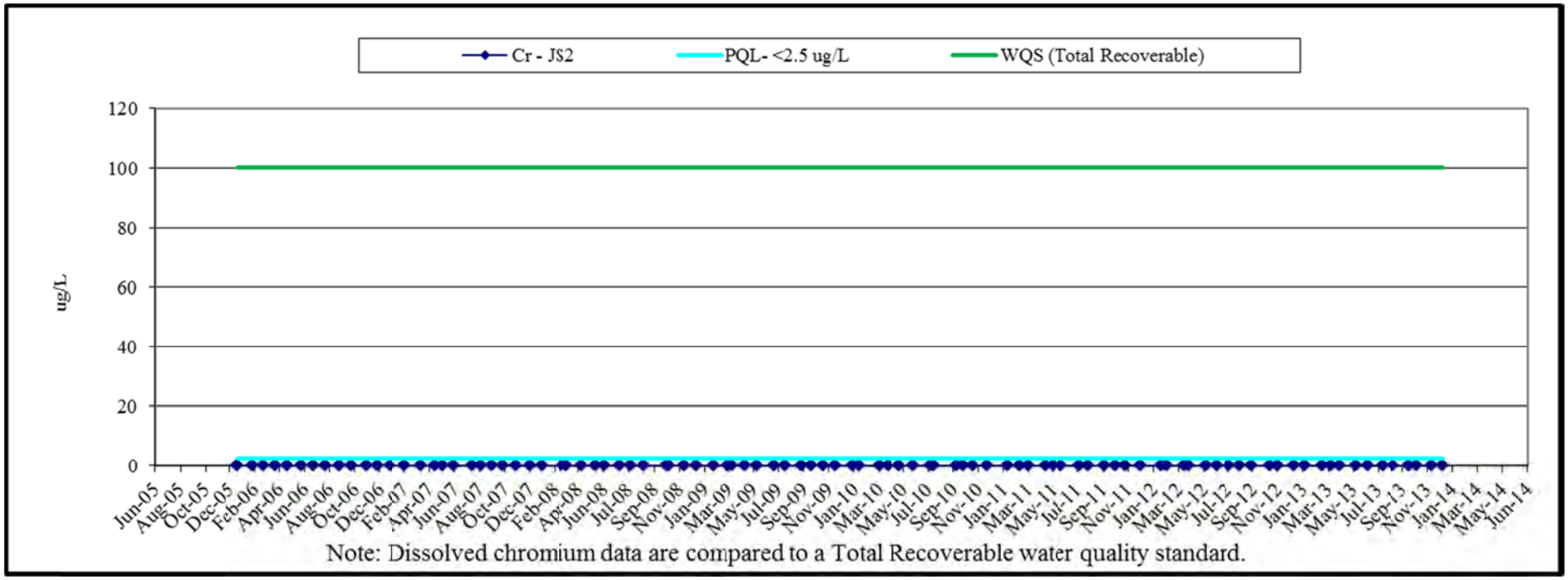

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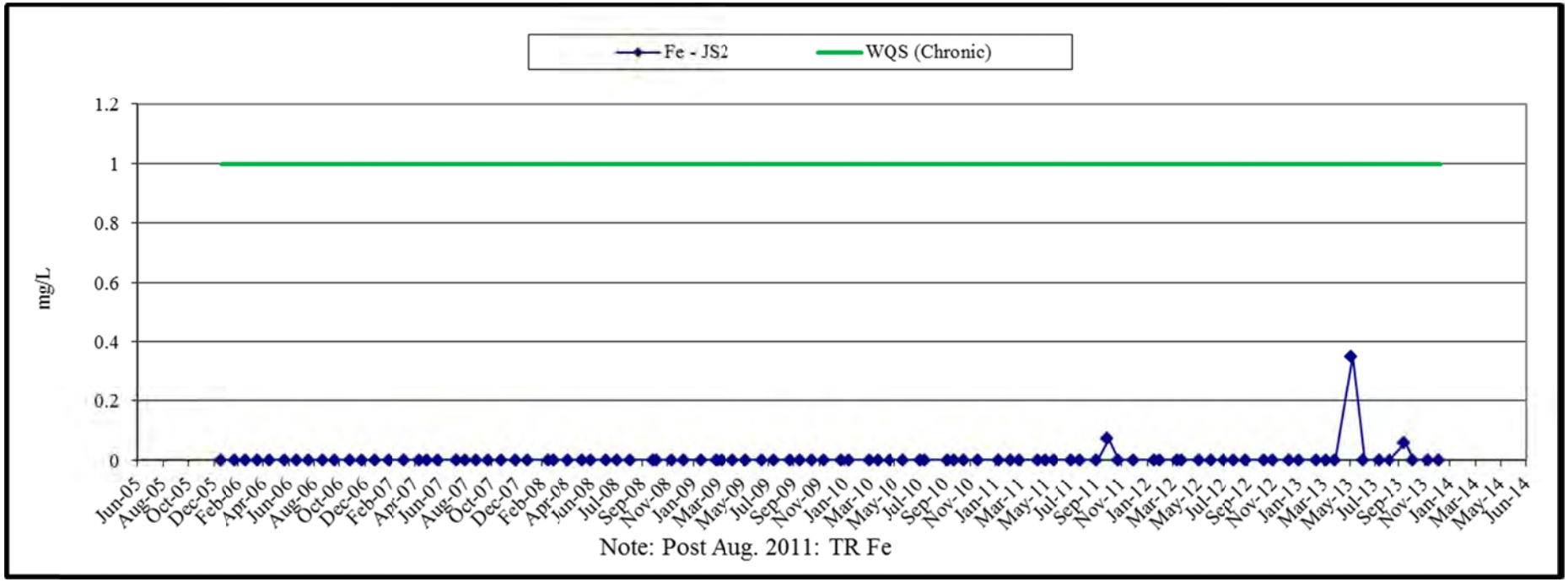

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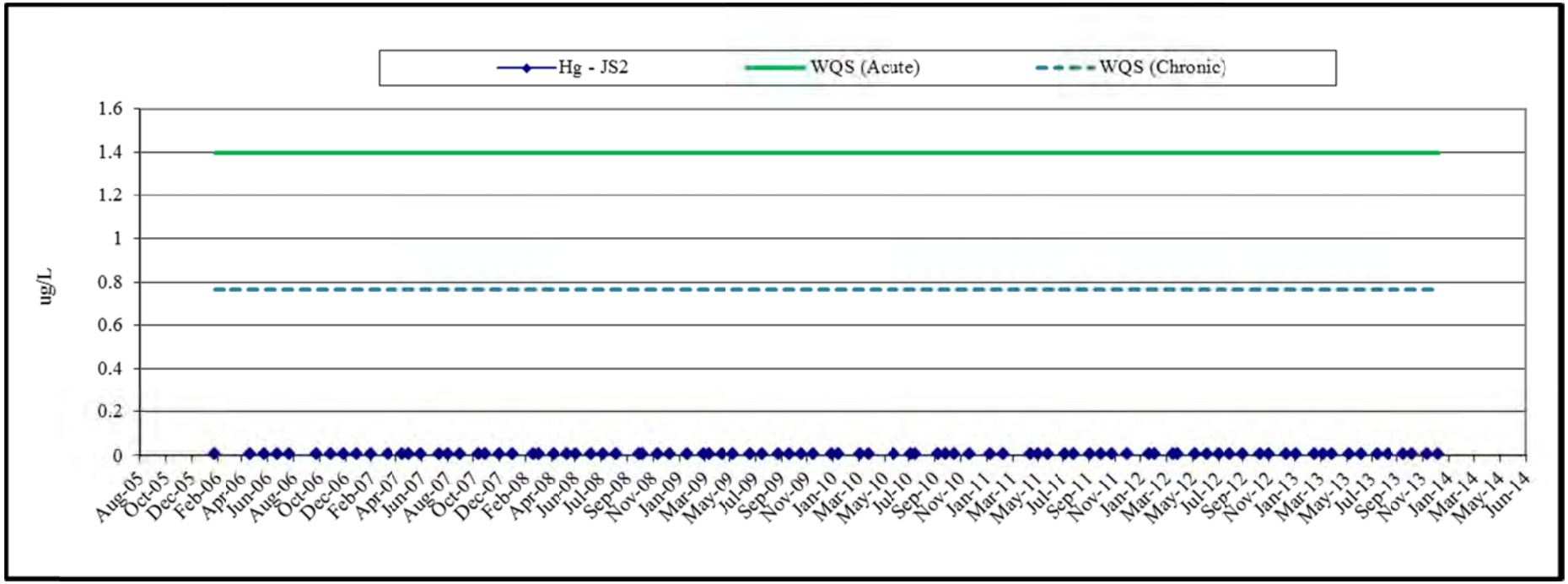

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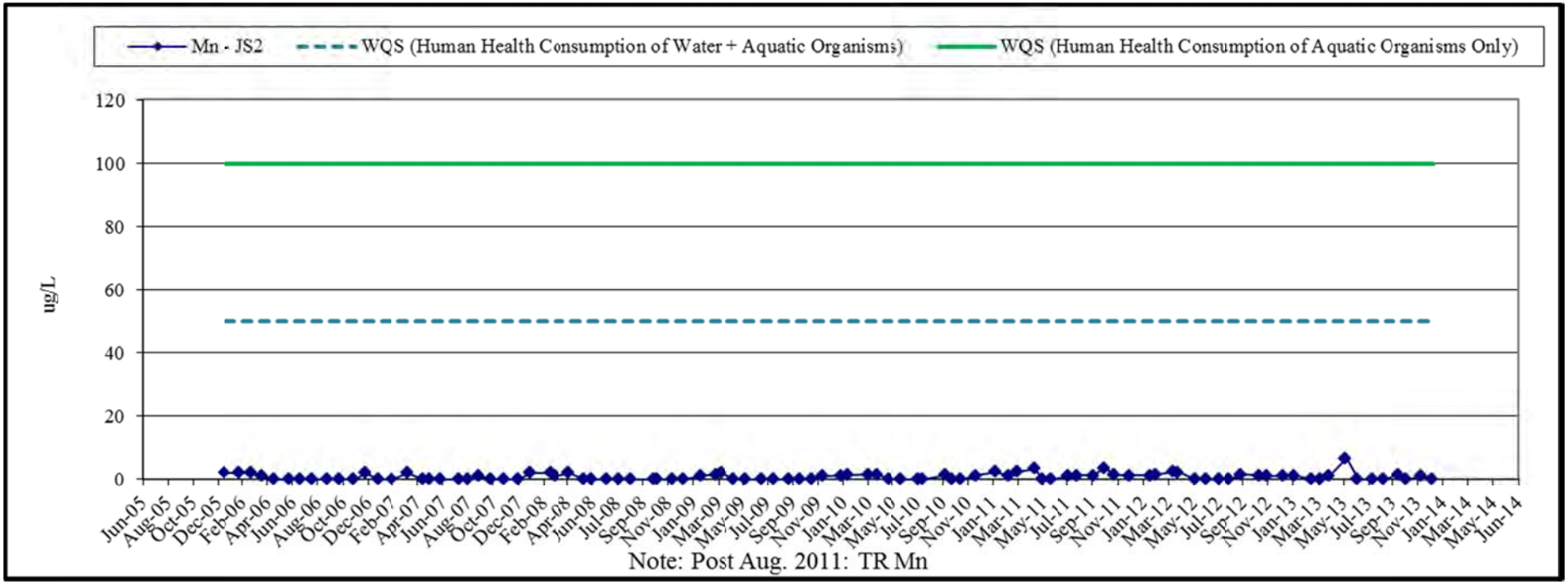

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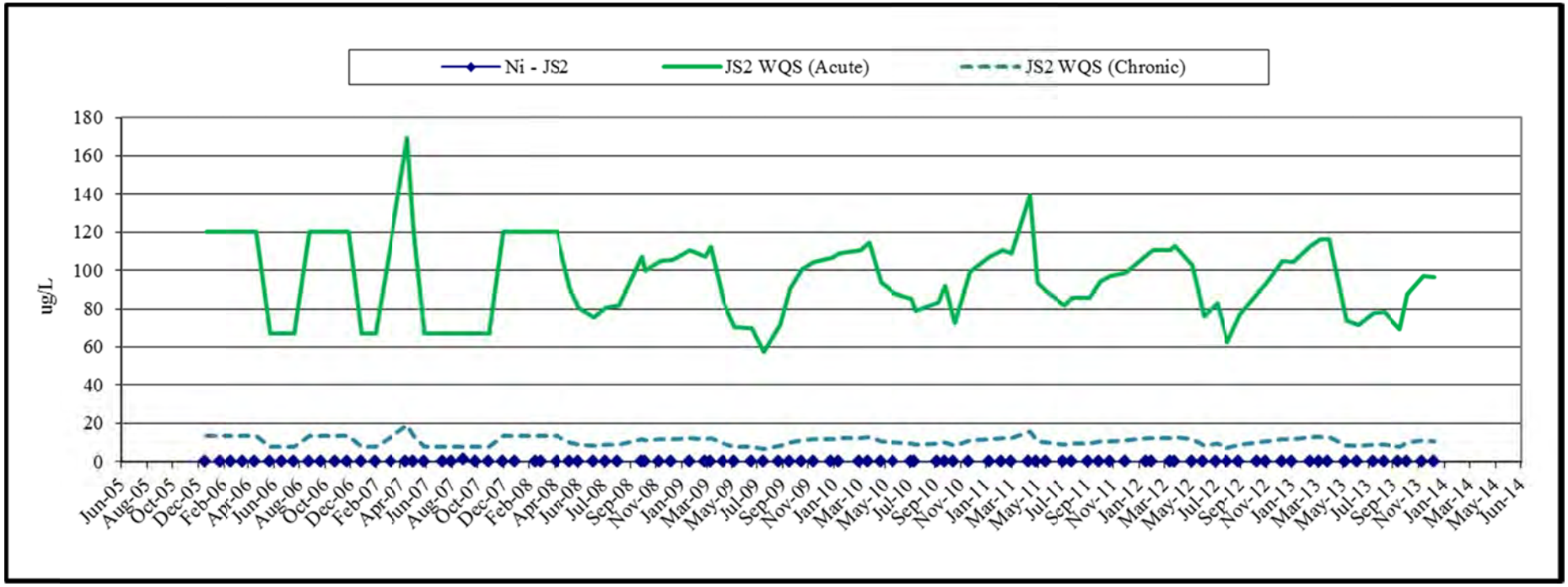

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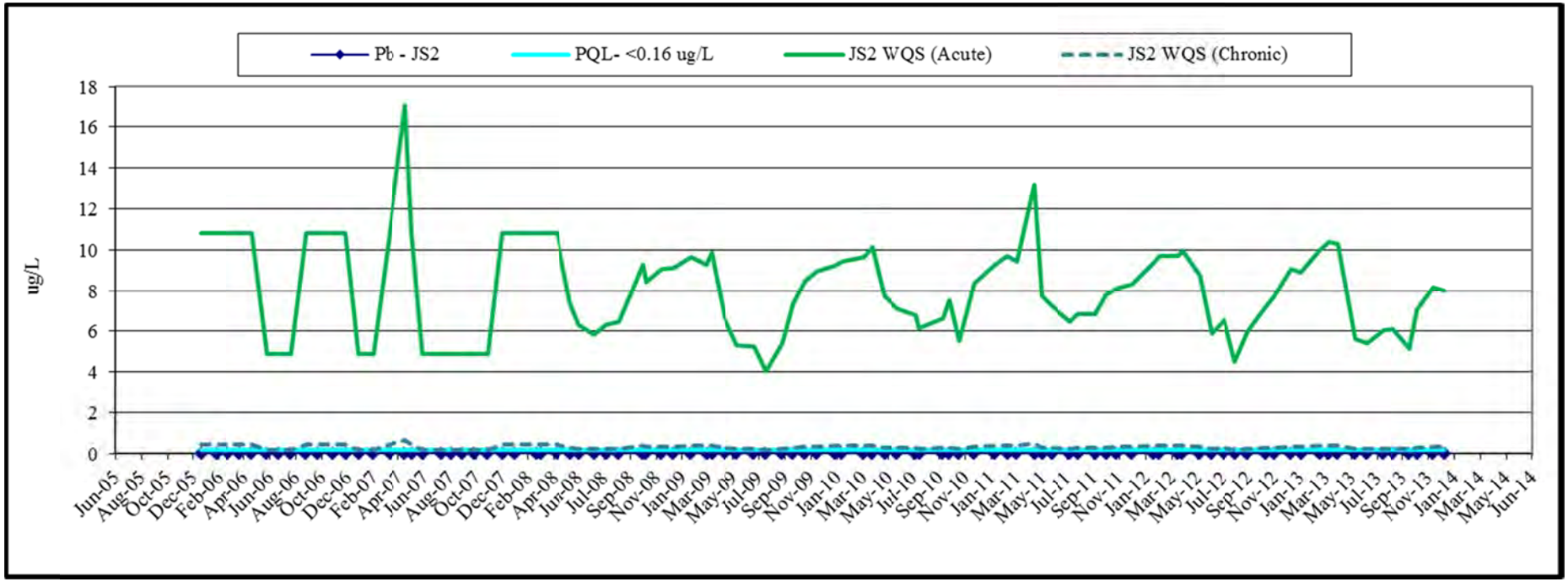

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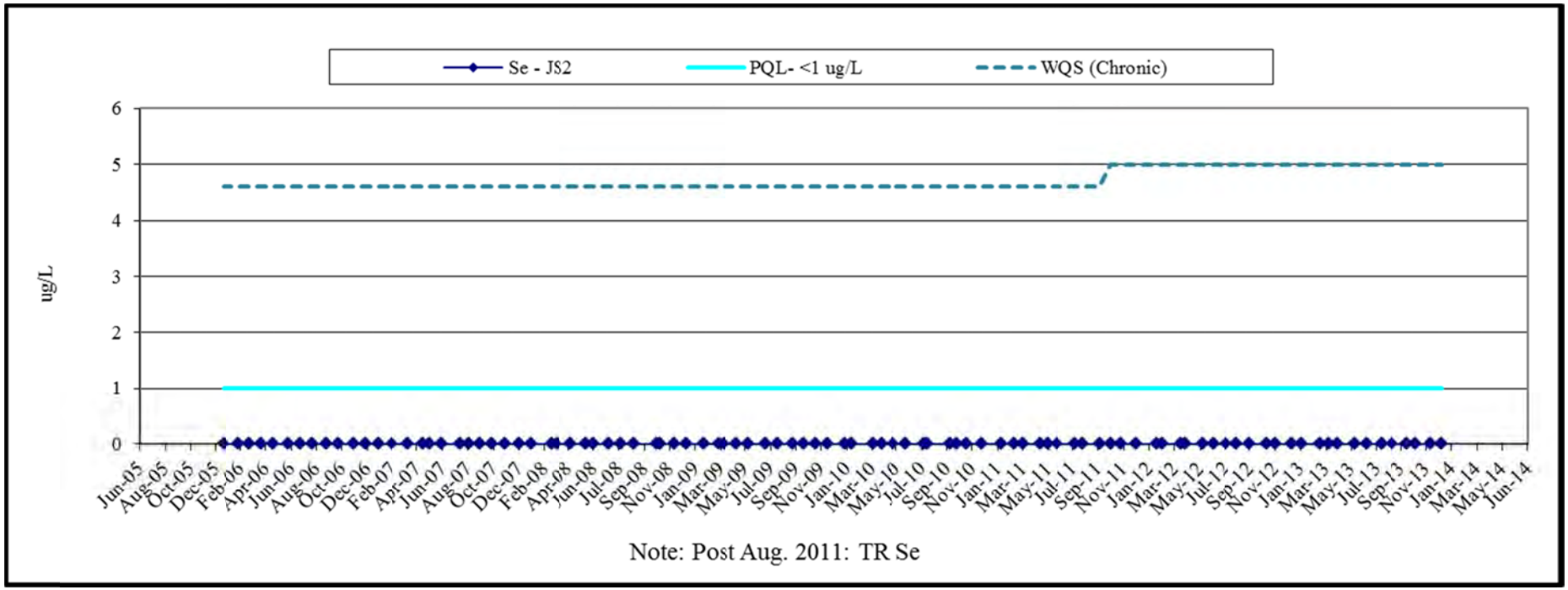

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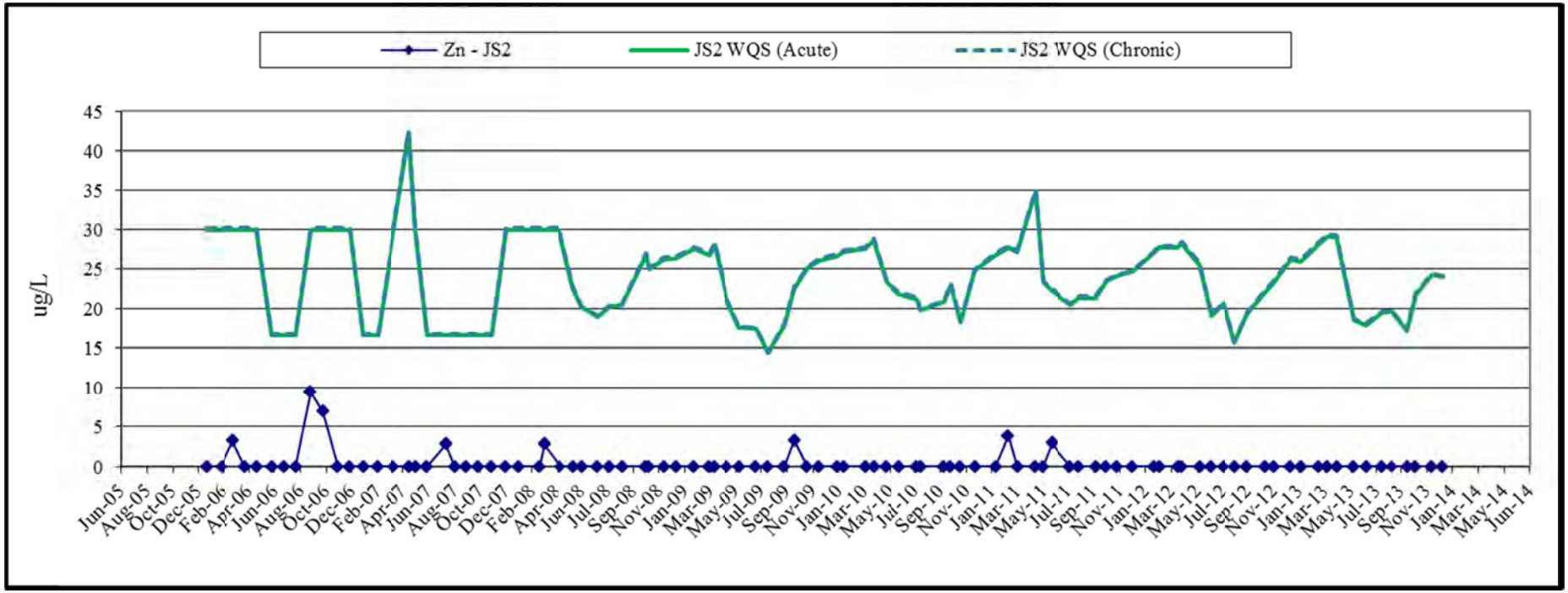
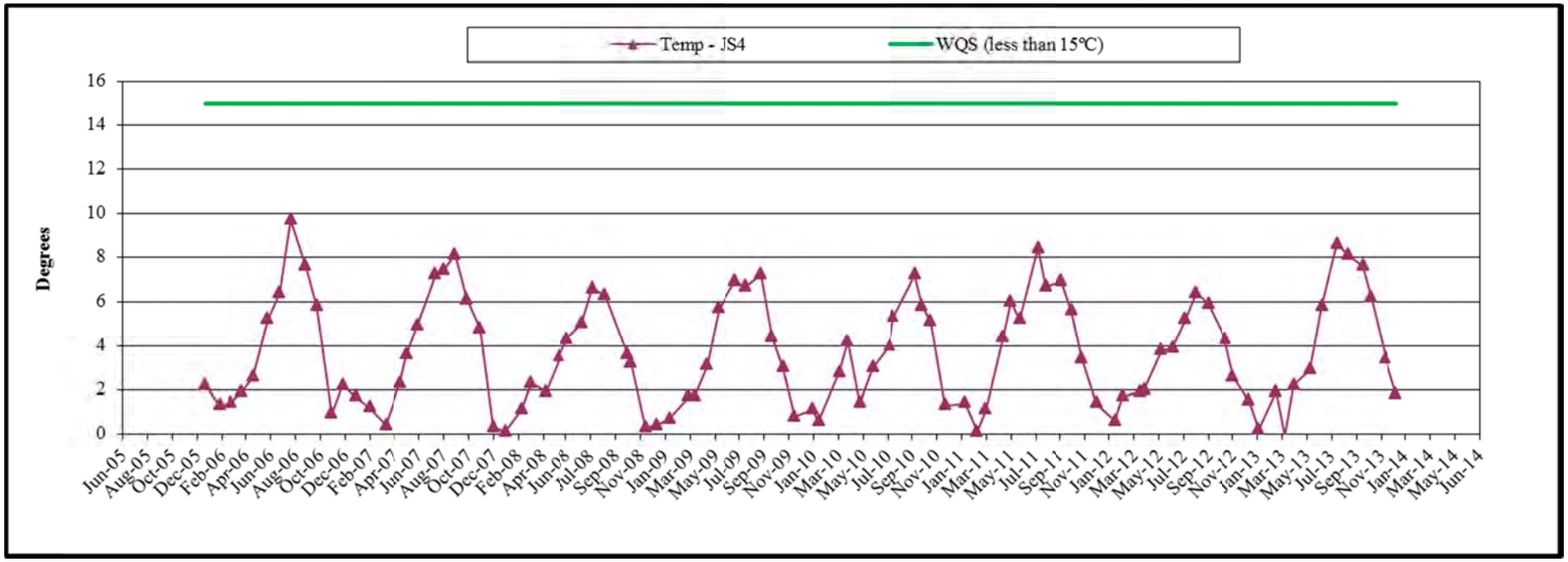


Figure 7a: Johnson Creek (JS4) Monitoring Results 2006-2013, Field Parameters



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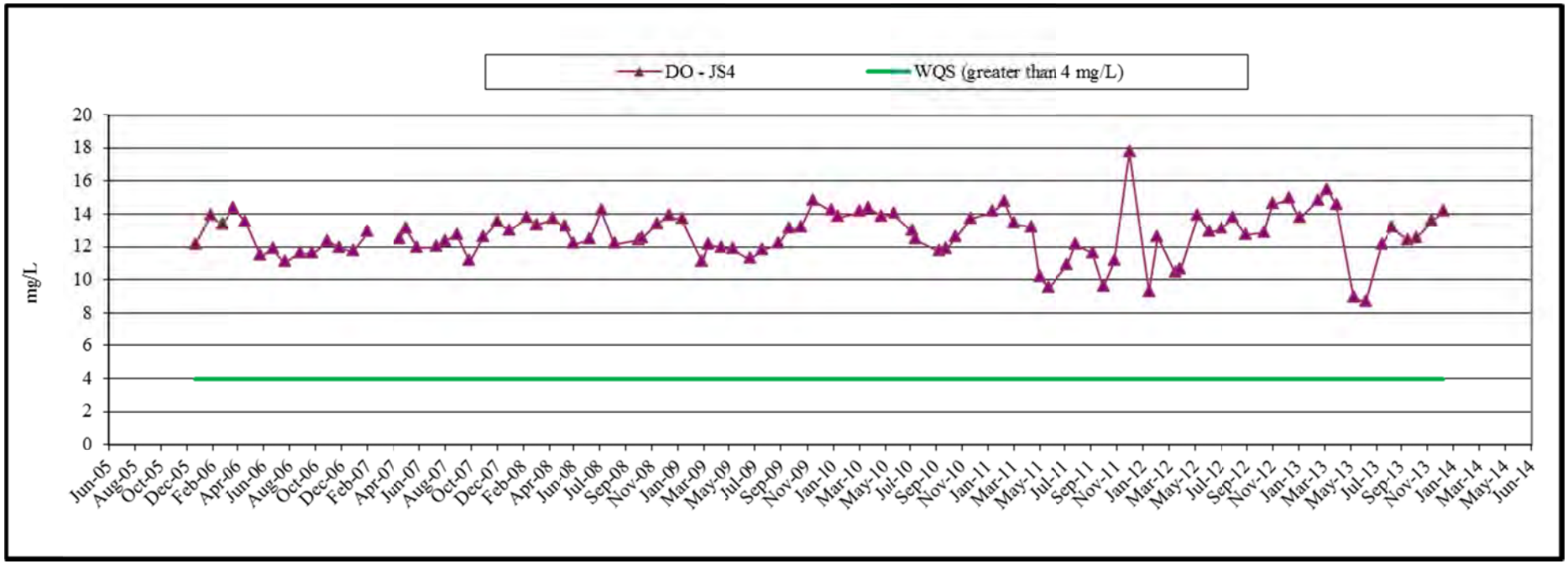

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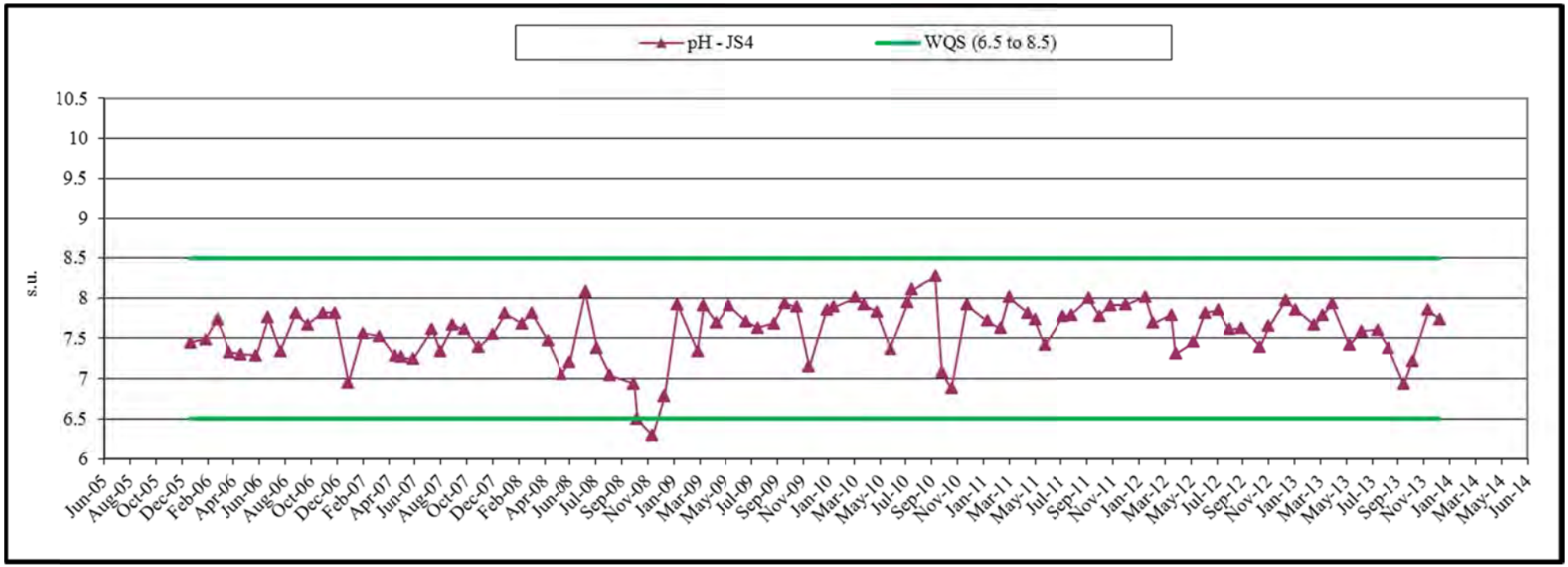


Figure 7b: Johnson Creek (JS4) Monitoring Results 2006-2013, Field Parameters

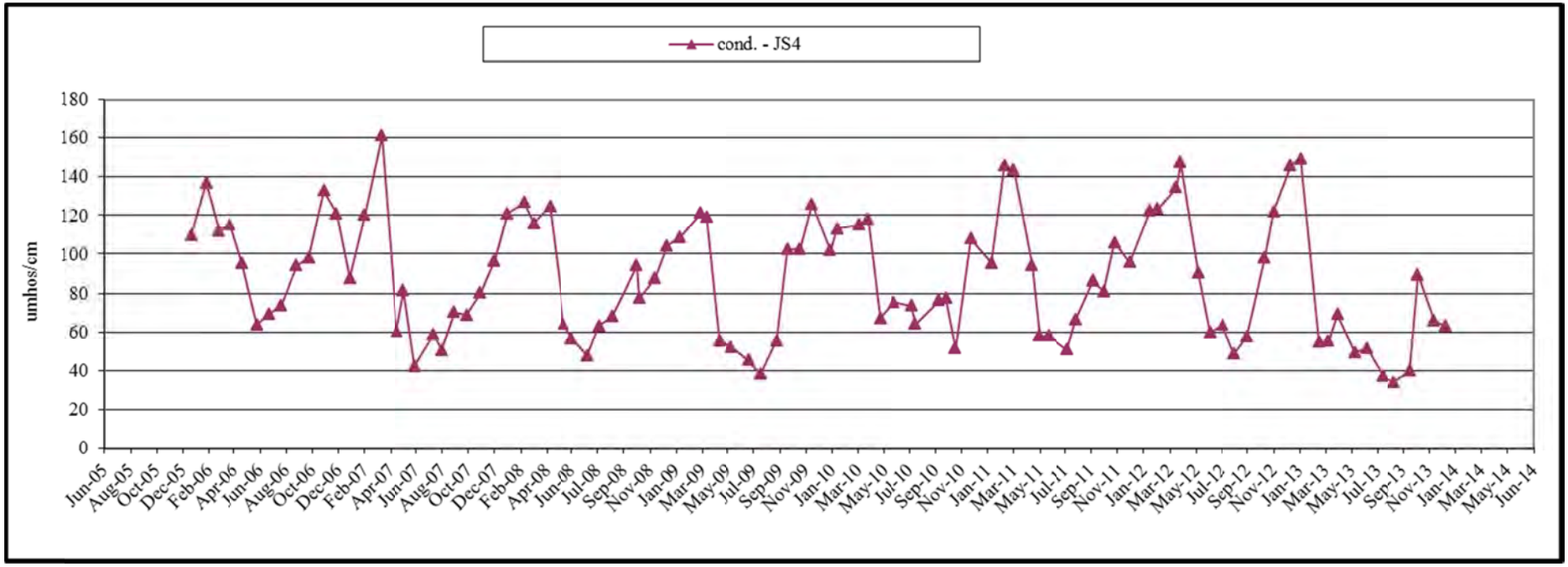
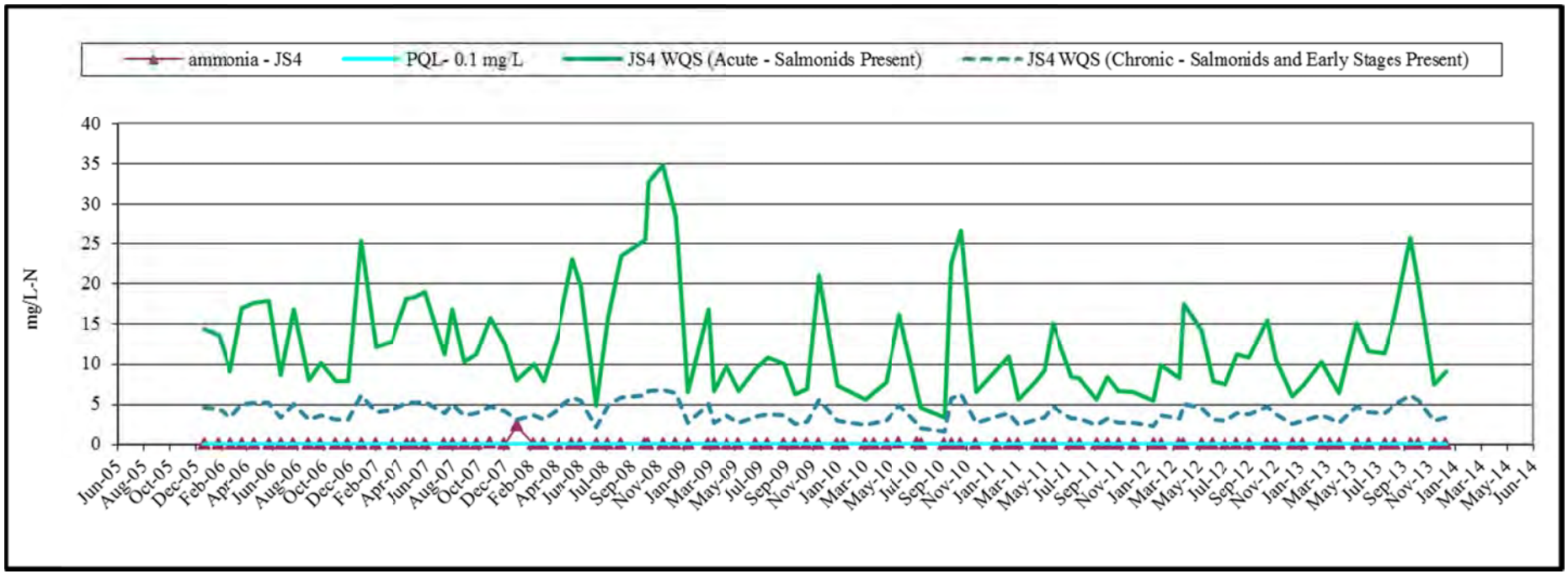


Figure 7b: Johnson Creek (JS4) Monitoring Results 2006-2013, Major Chemistry



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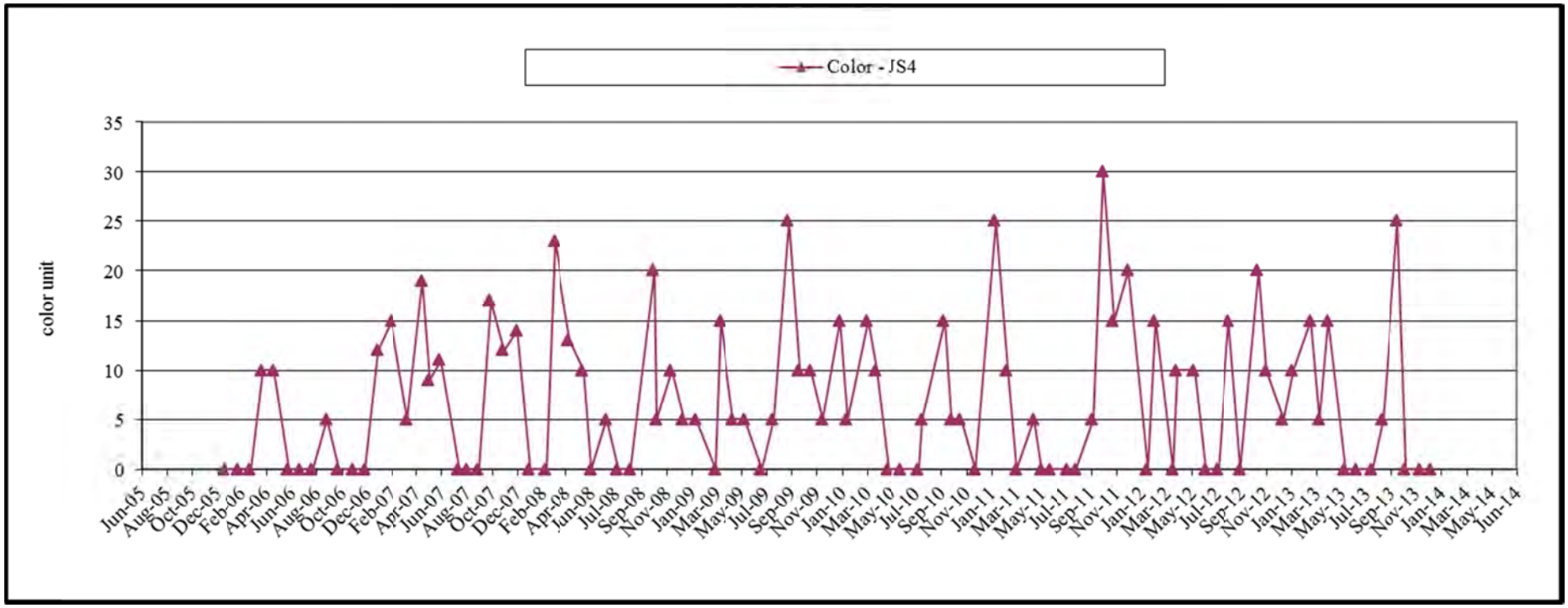

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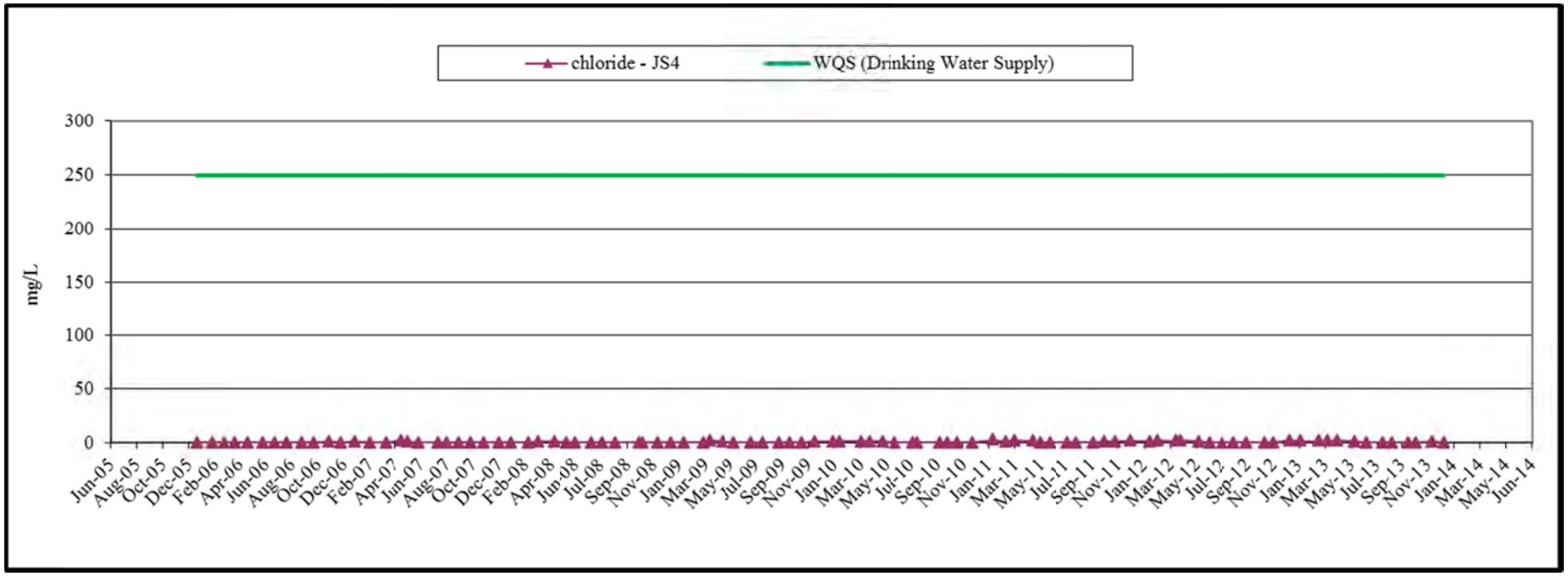

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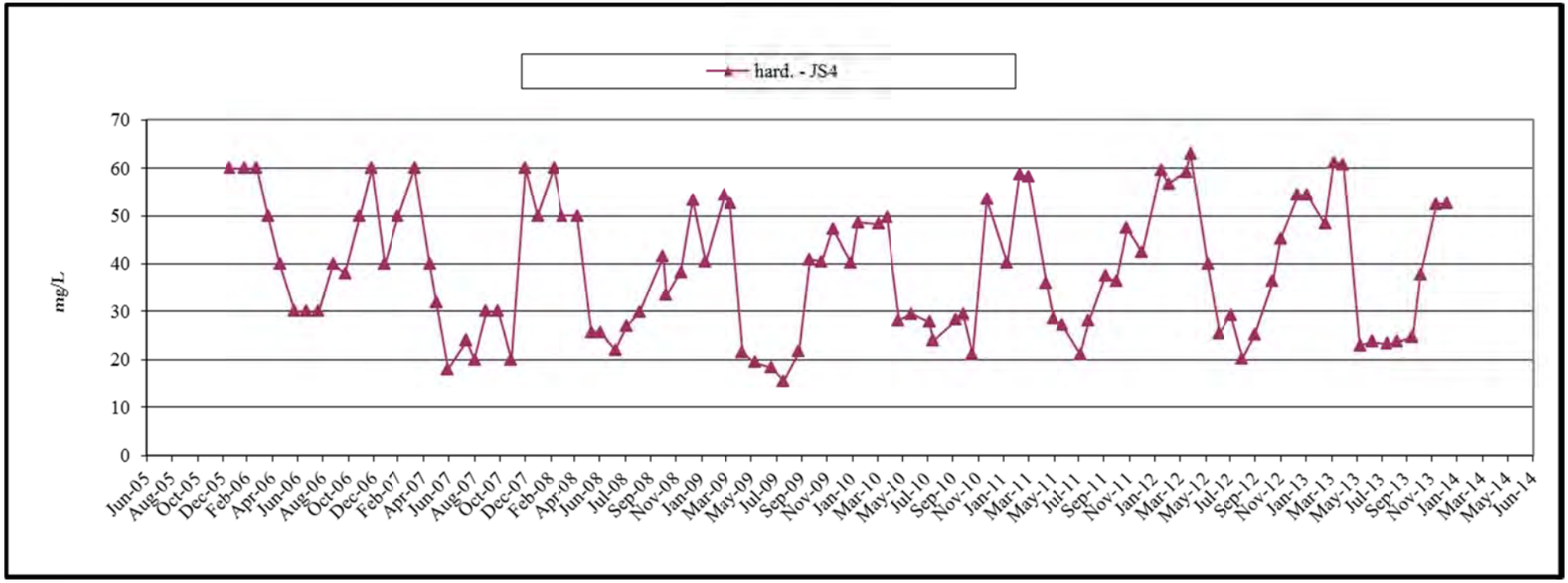

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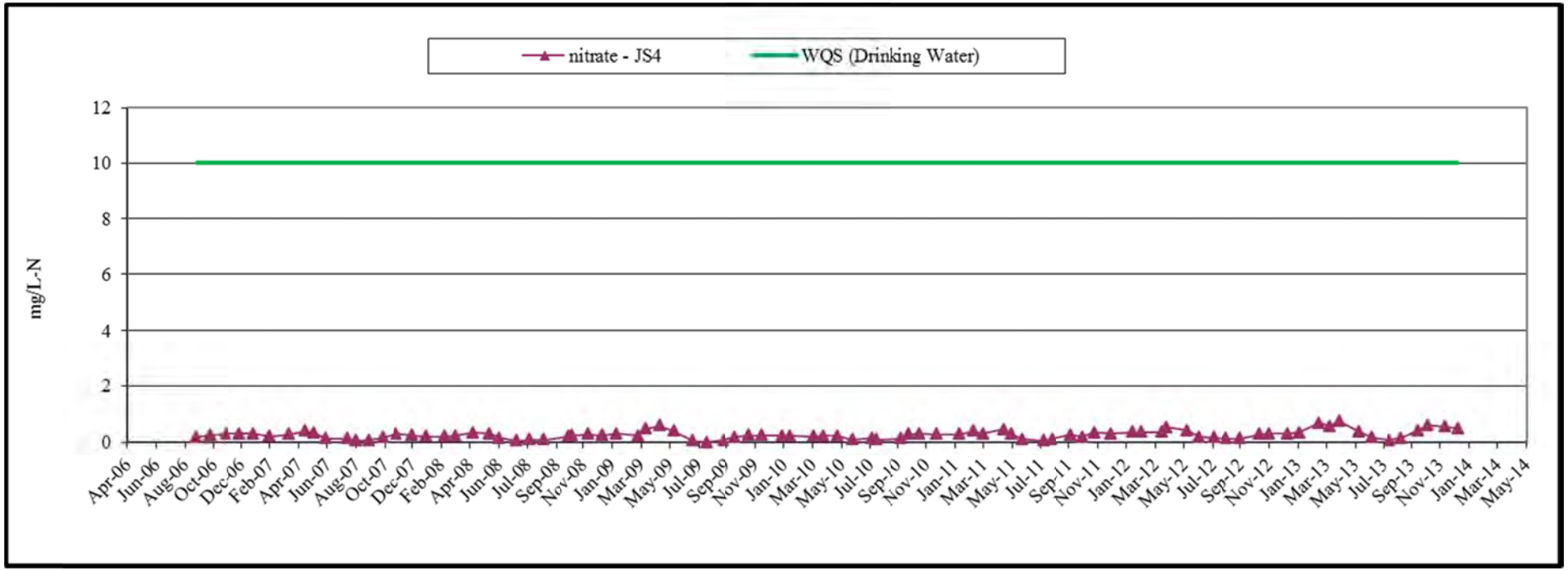

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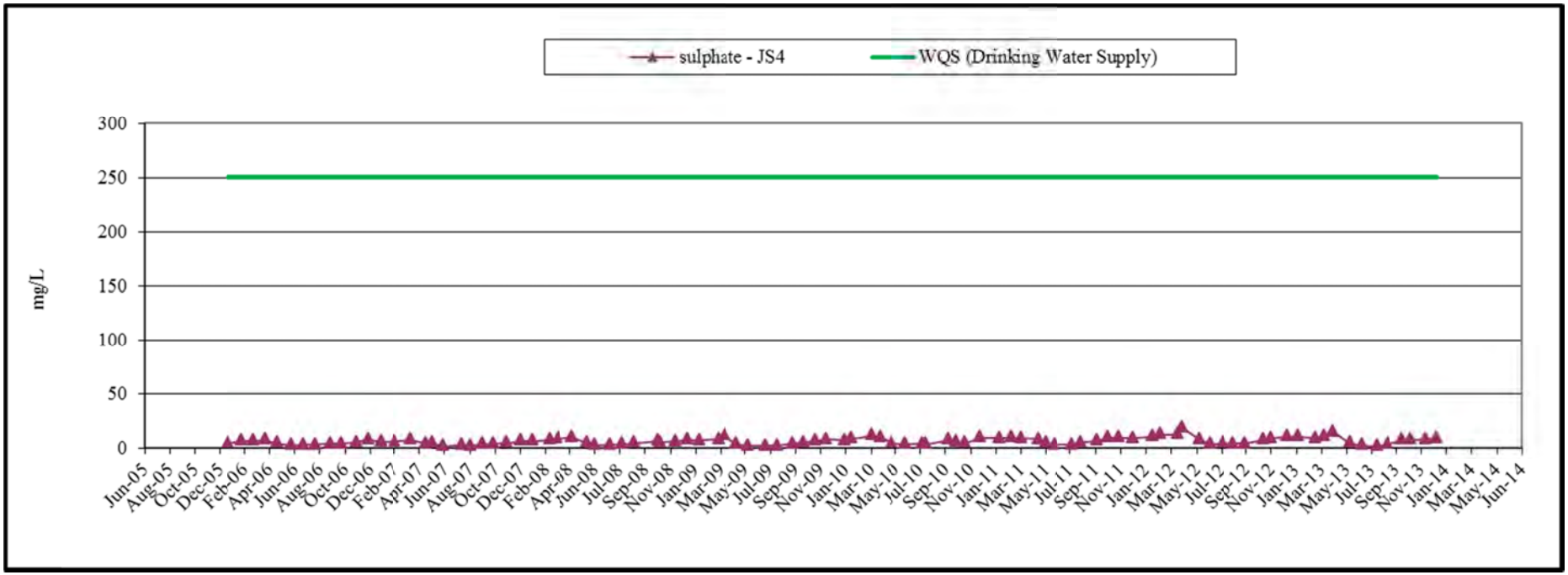

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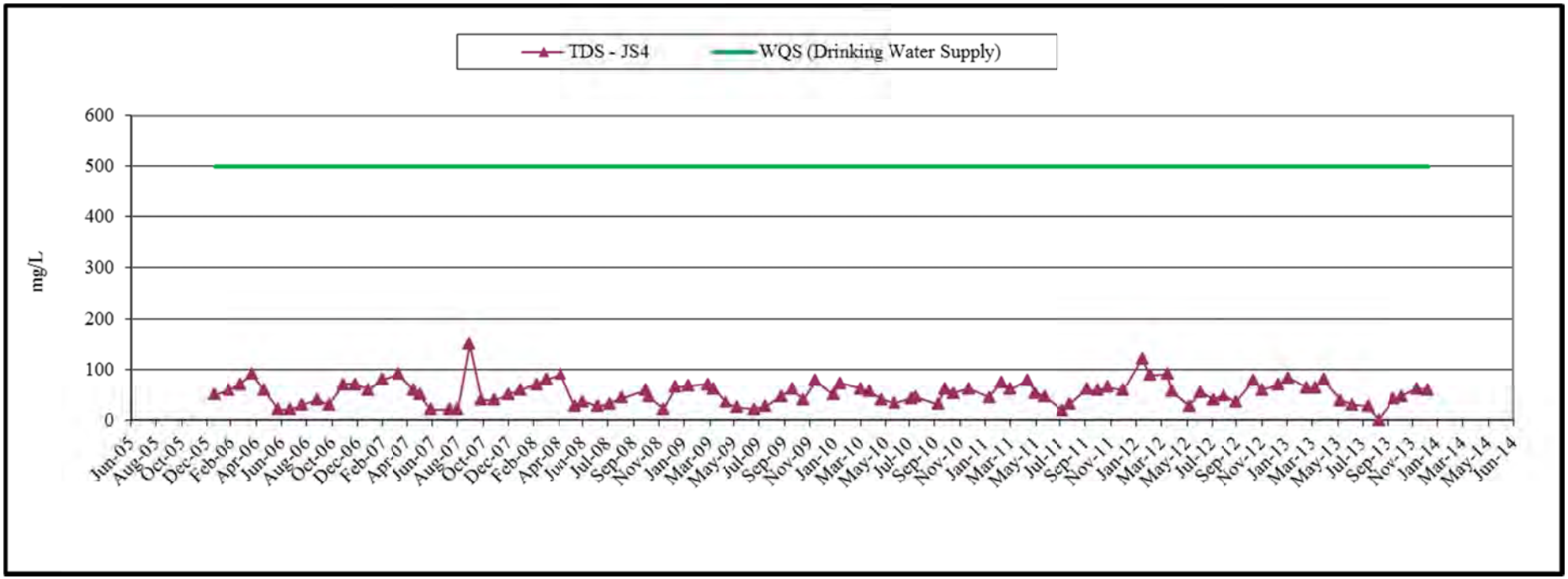

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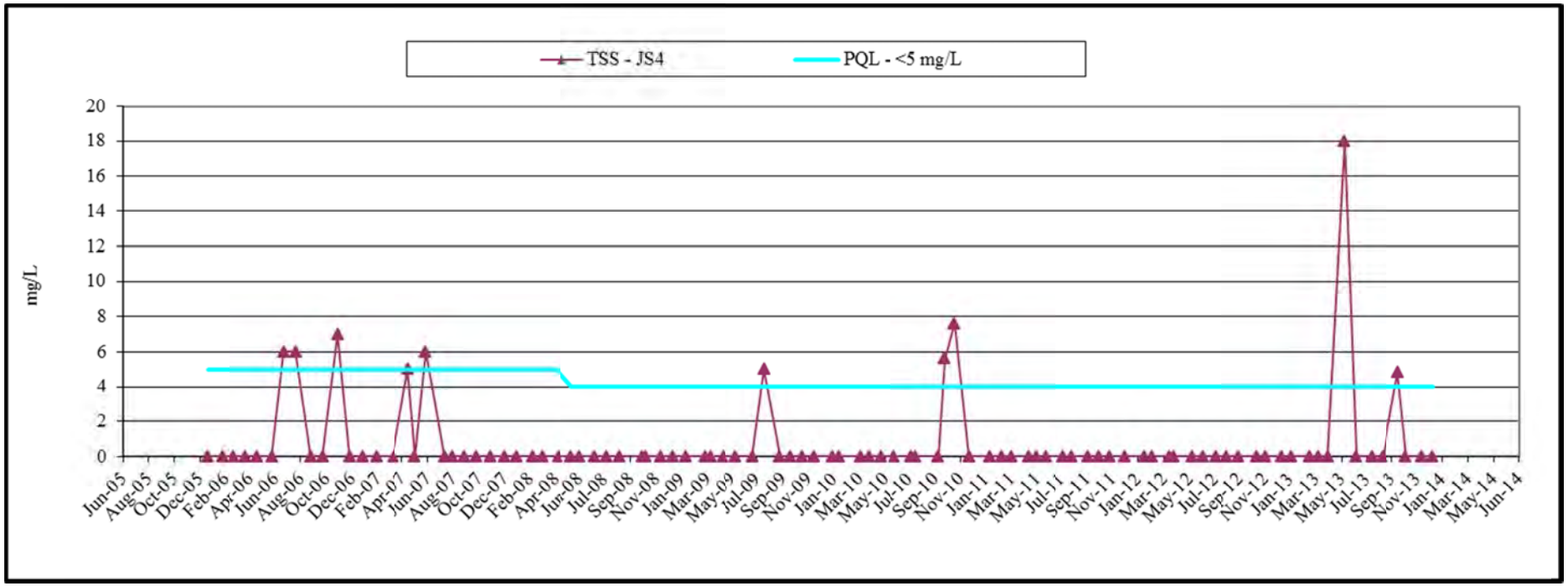

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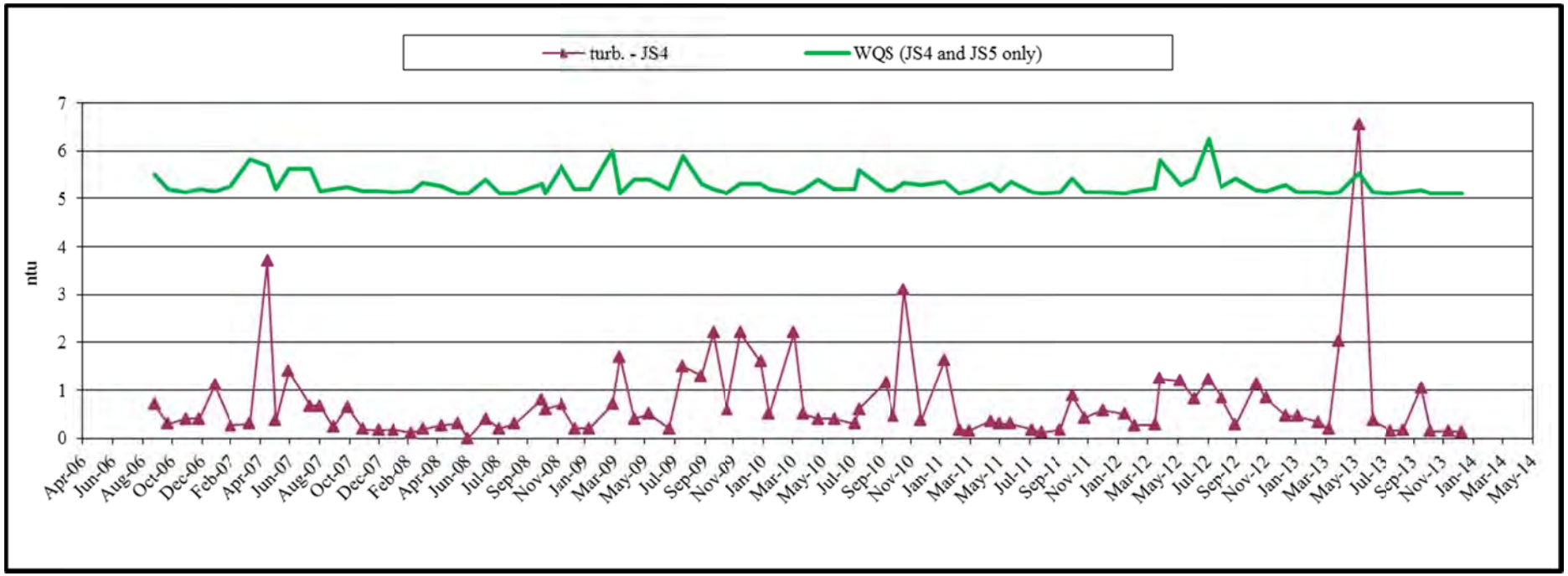
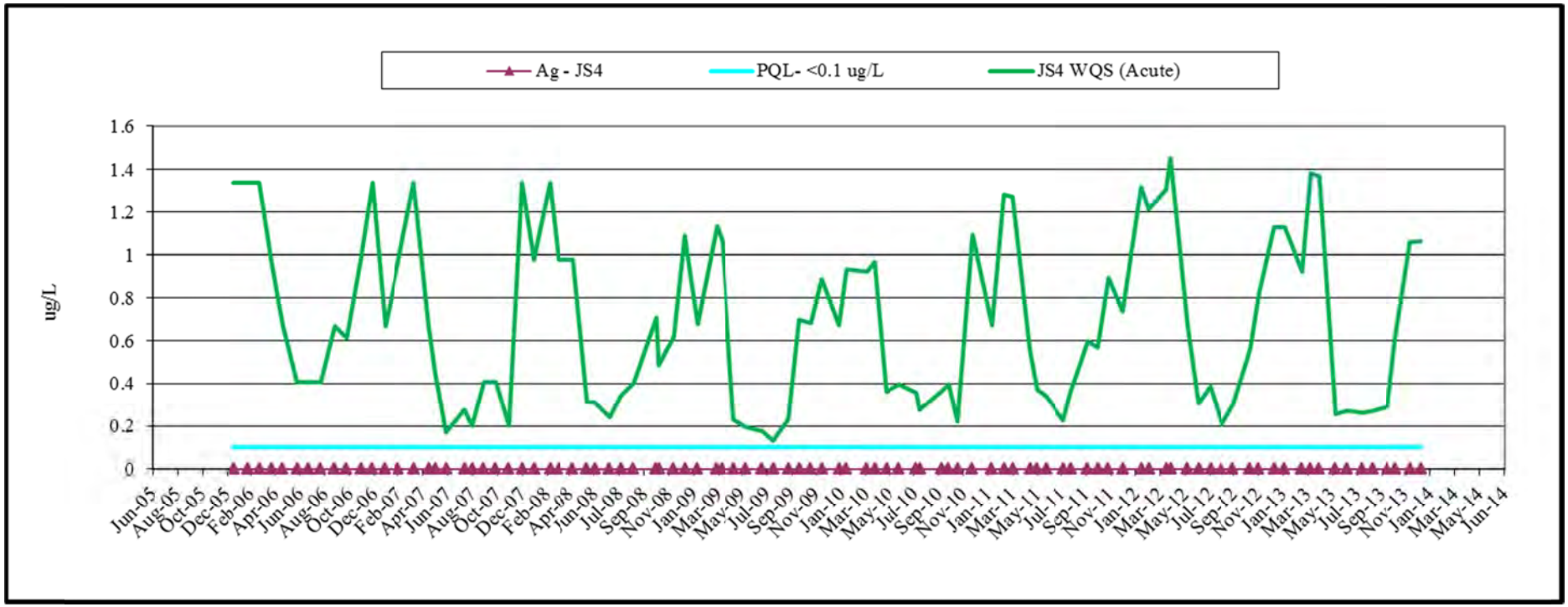


Figure 7c: Johnson Creek (JS4) Monitoring Results 2006-2013, Trace Chemistry



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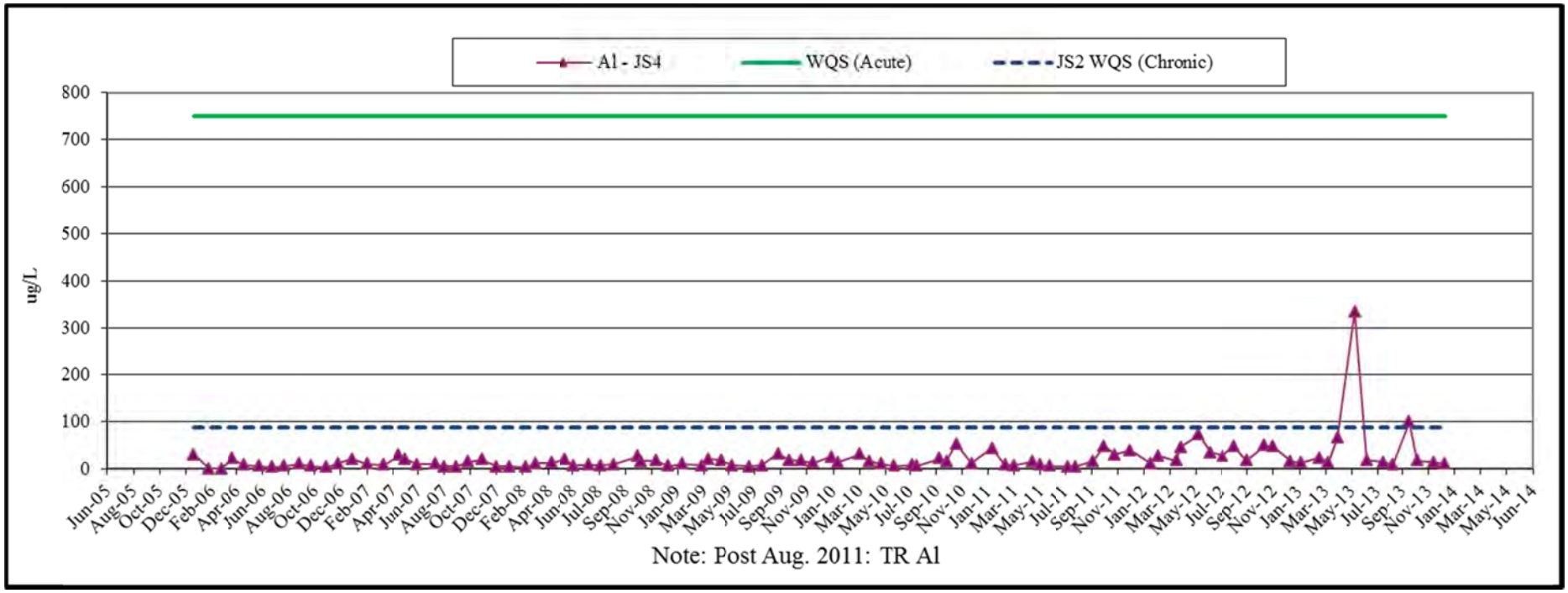

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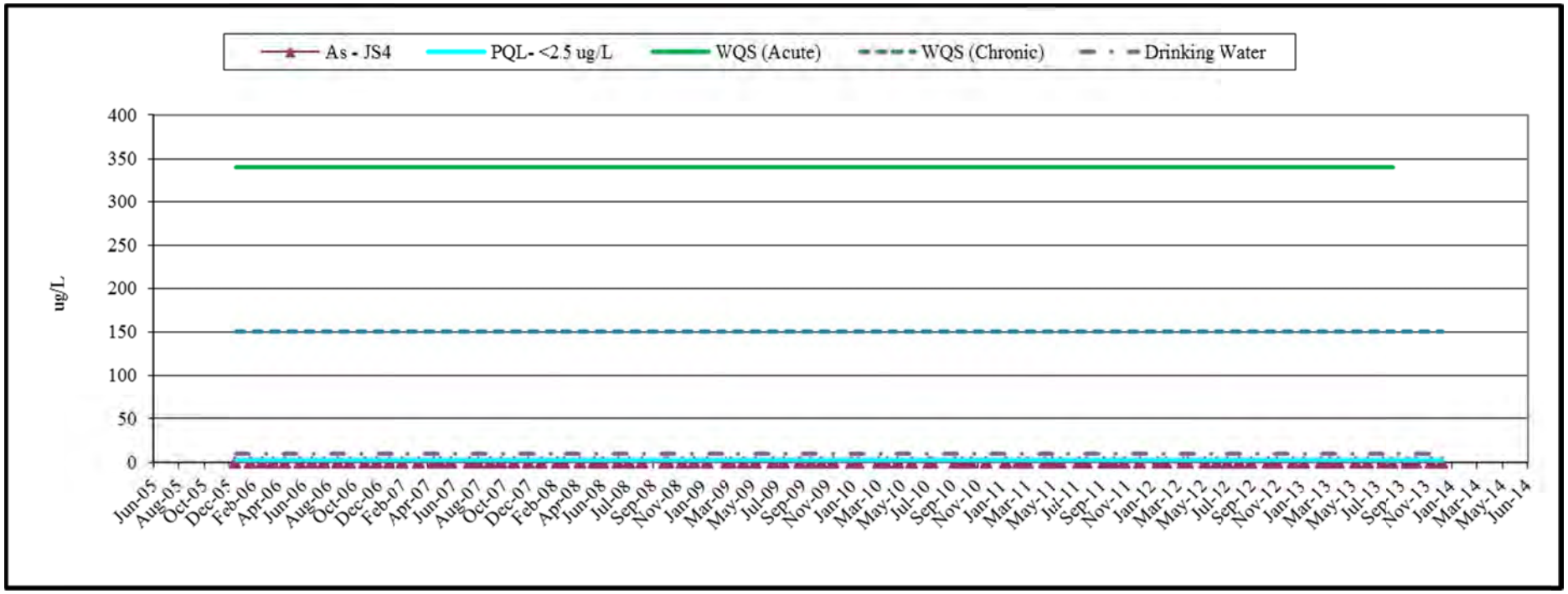

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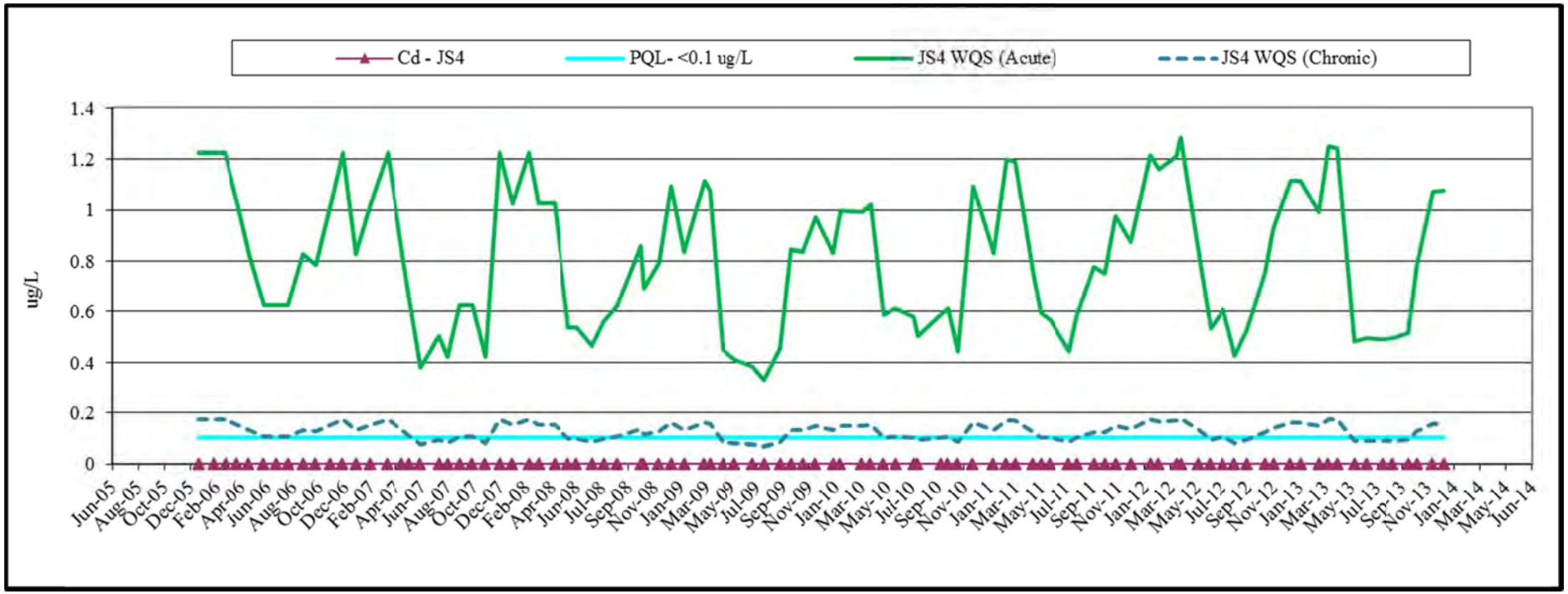

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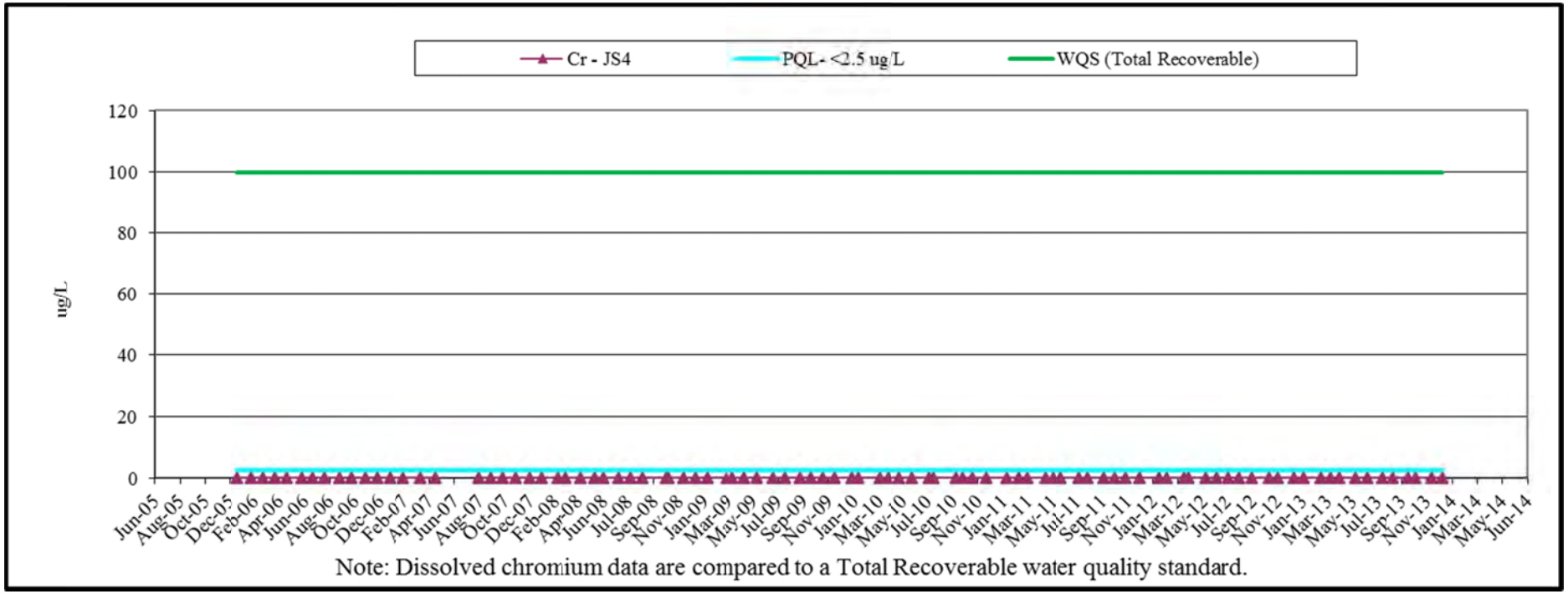

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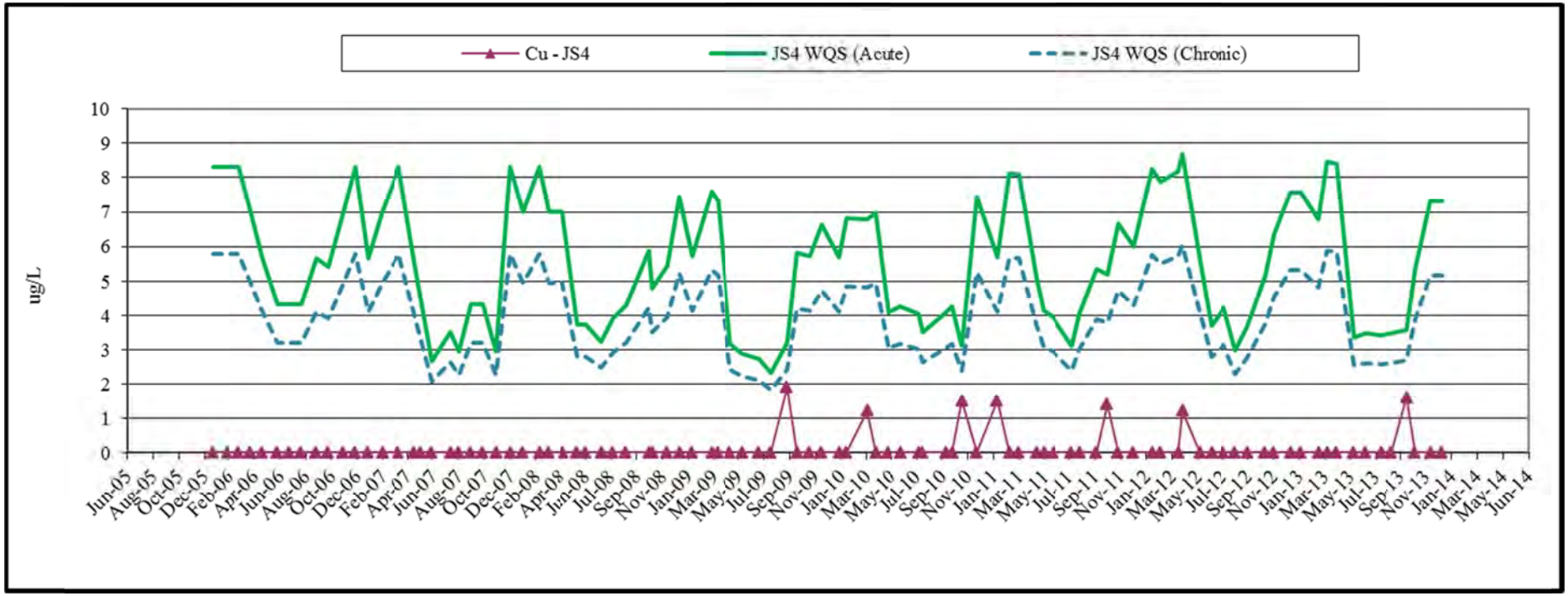

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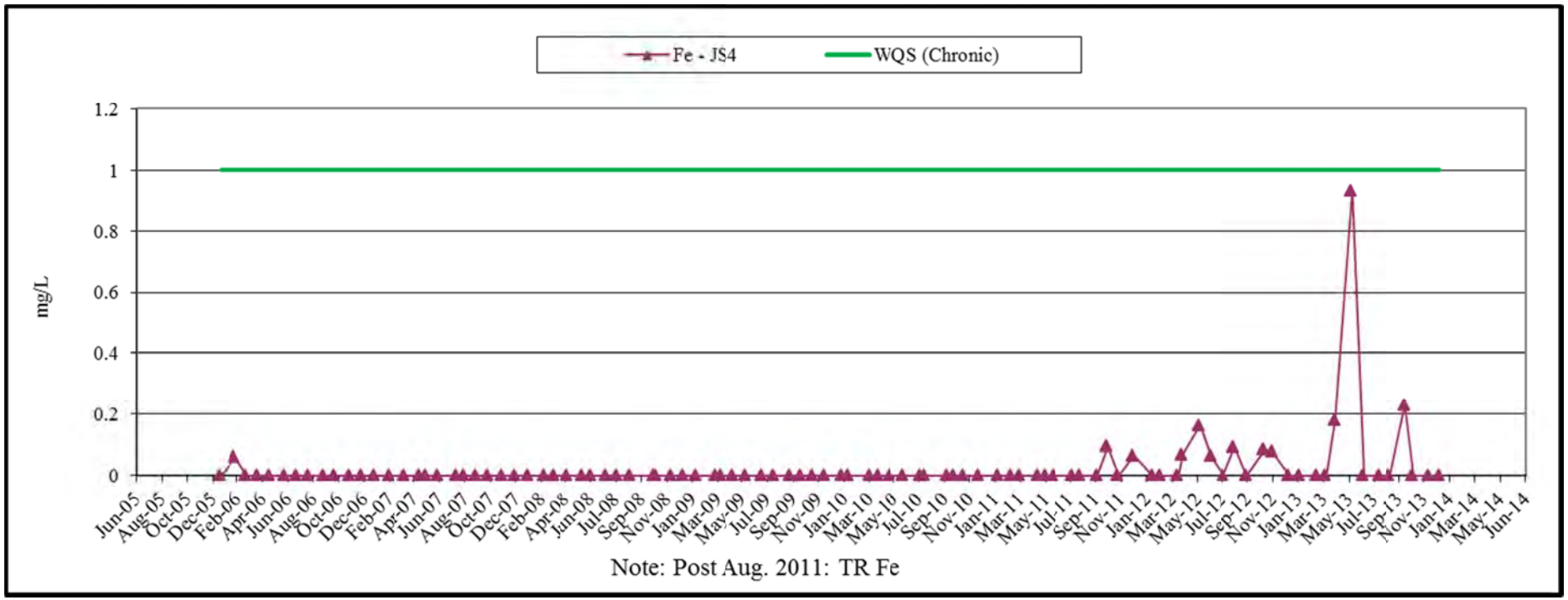

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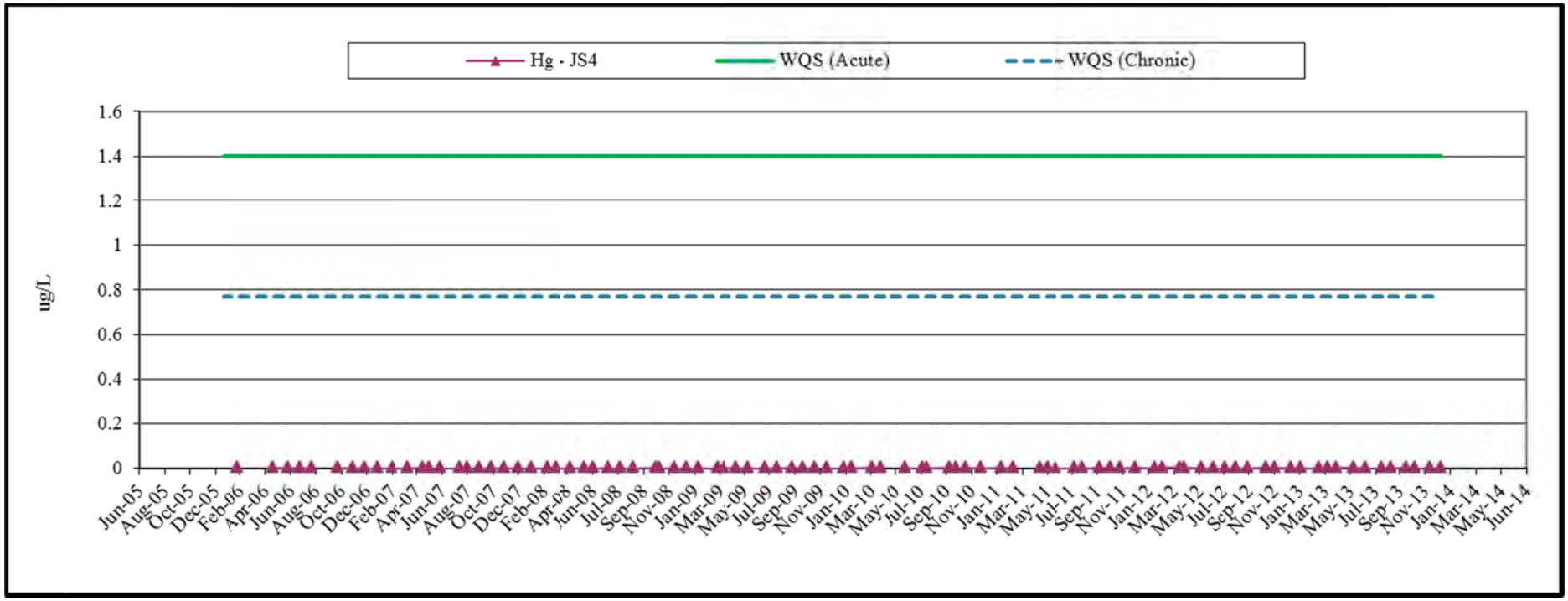
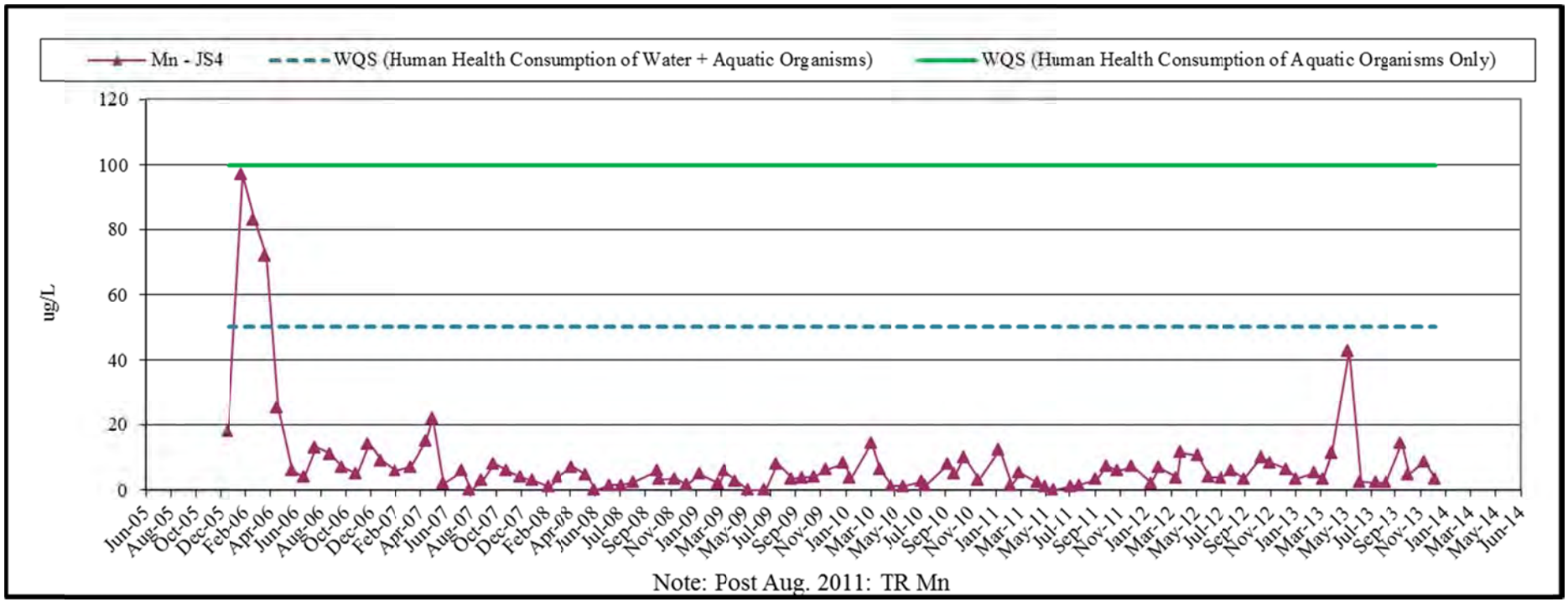


Figure 7c: Johnson Creek (JS4) Monitoring Results 2006-2013, Trace Chemistry



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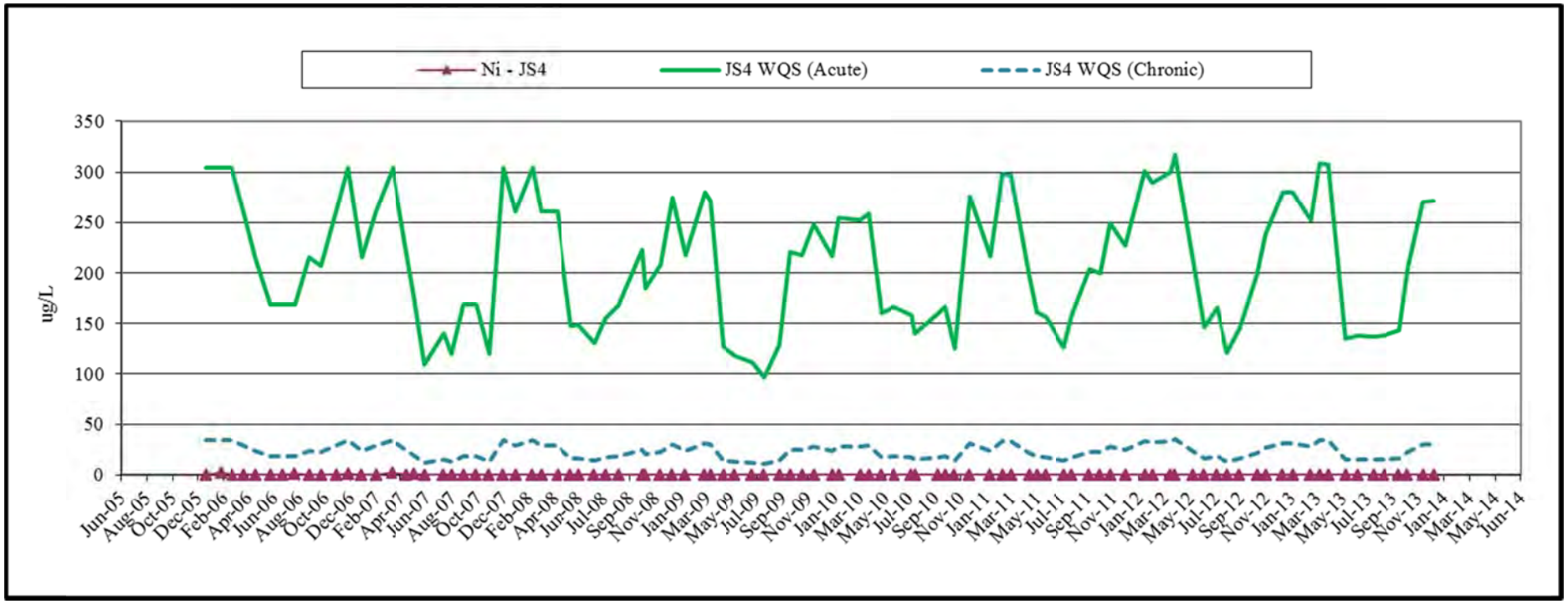

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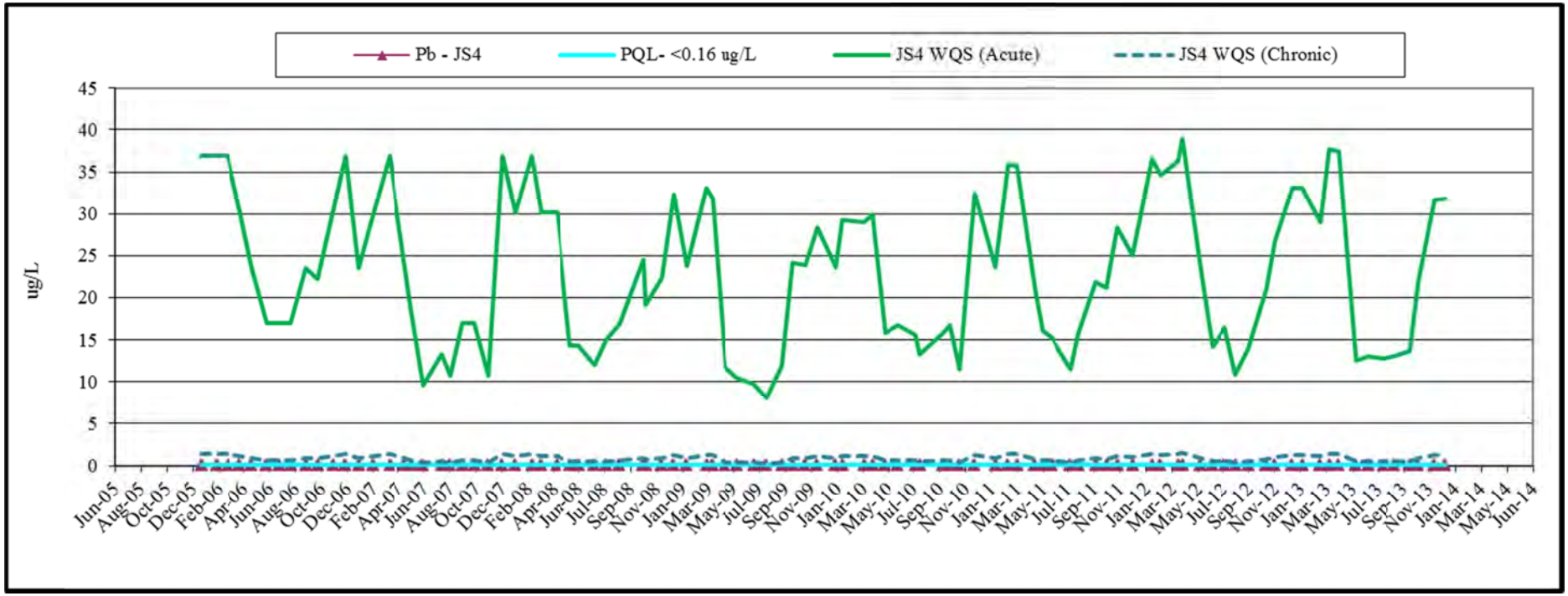


Figure 7c: Johnson Creek (JS4) Monitoring Results 2006-2013, Trace Chemistry

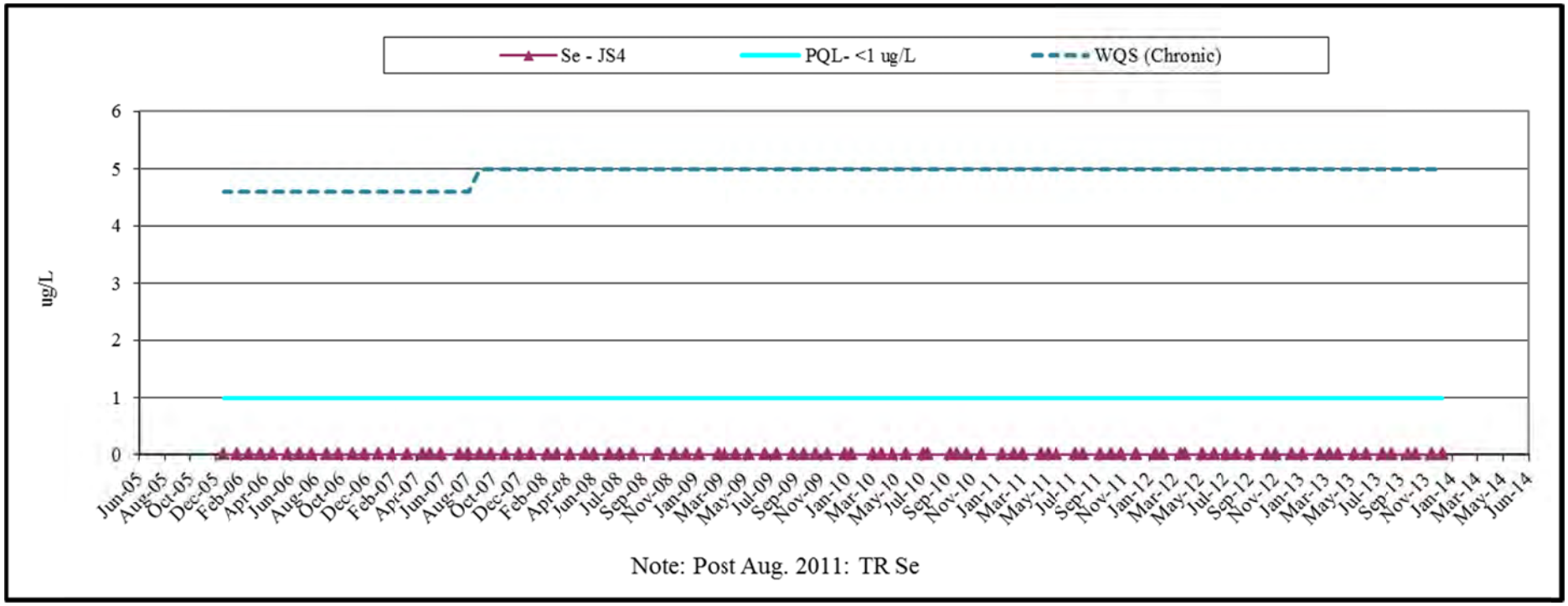


Figure 7c: Johnson Creek (JS4) Monitoring Results 2006-2013, Trace Chemistry

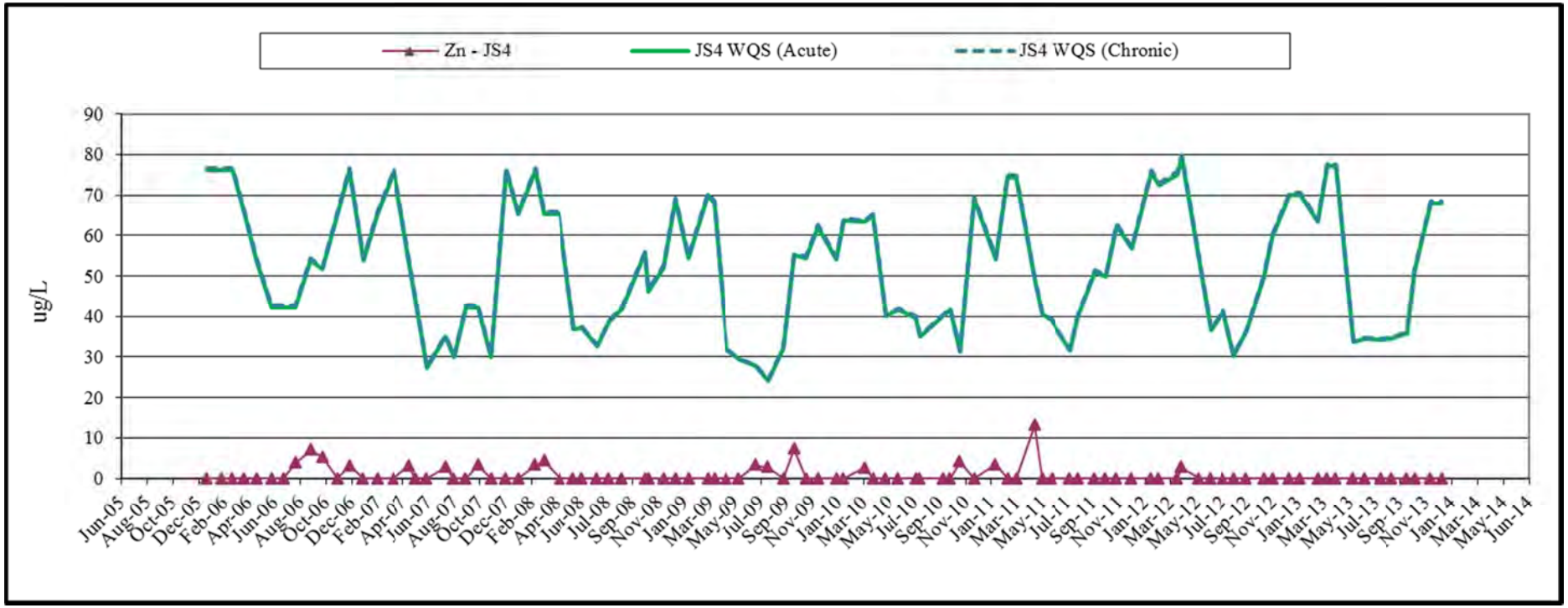


Figure 8a, Johnson Creek (JS5) Monitoring Results 2006-2013, Field Parameters

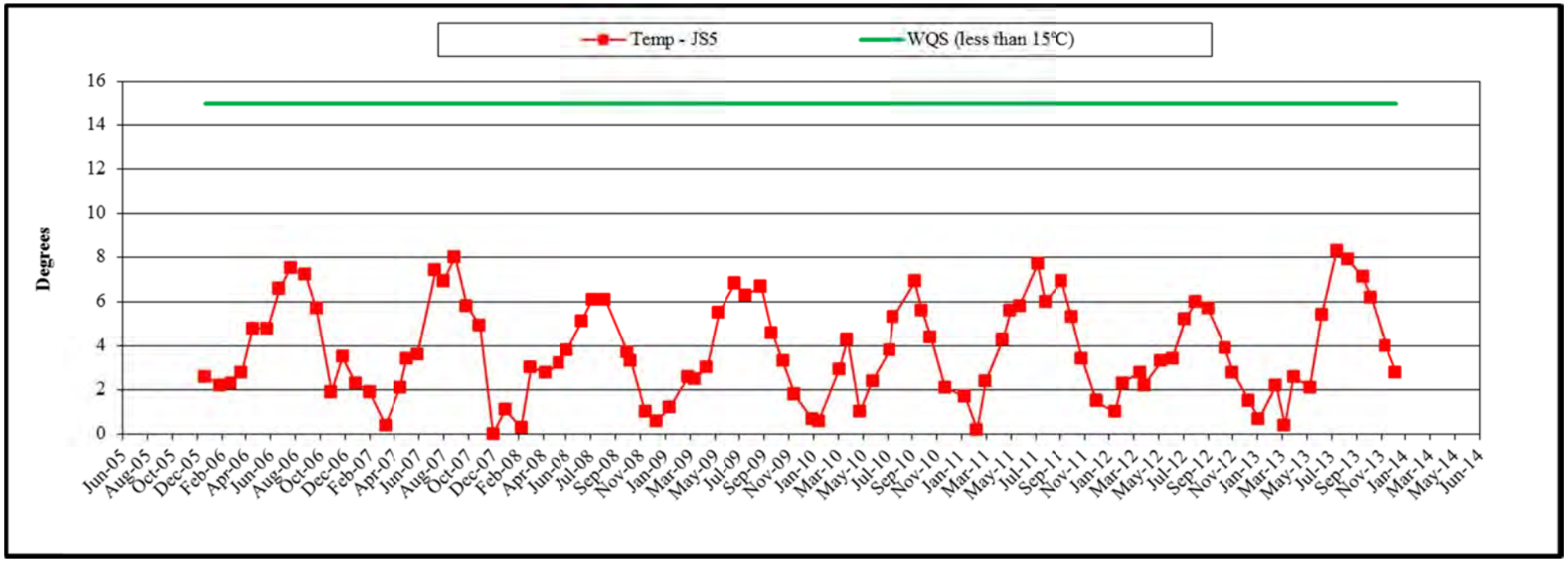


Figure 8a, Johnson Creek (JS5) Monitoring Results 2006-2013, Field Parameters

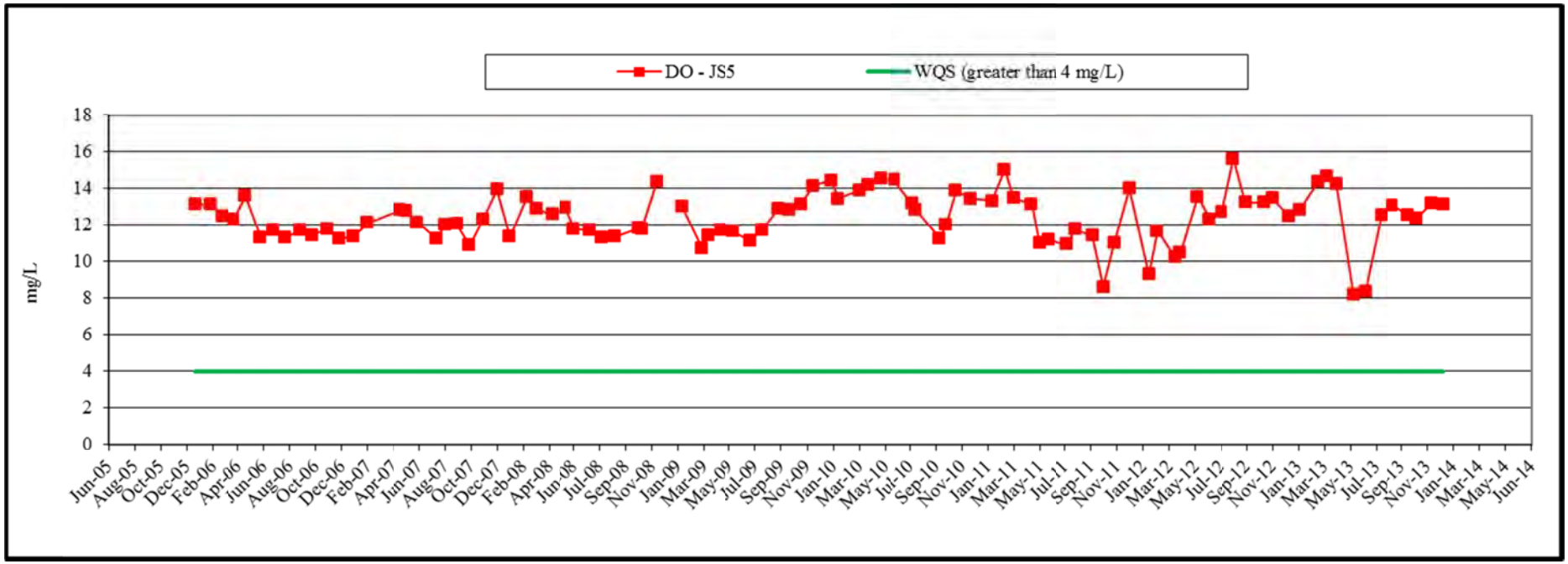


Figure 8a, Johnson Creek (JS5) Monitoring Results 2006-2013, Field Parameters

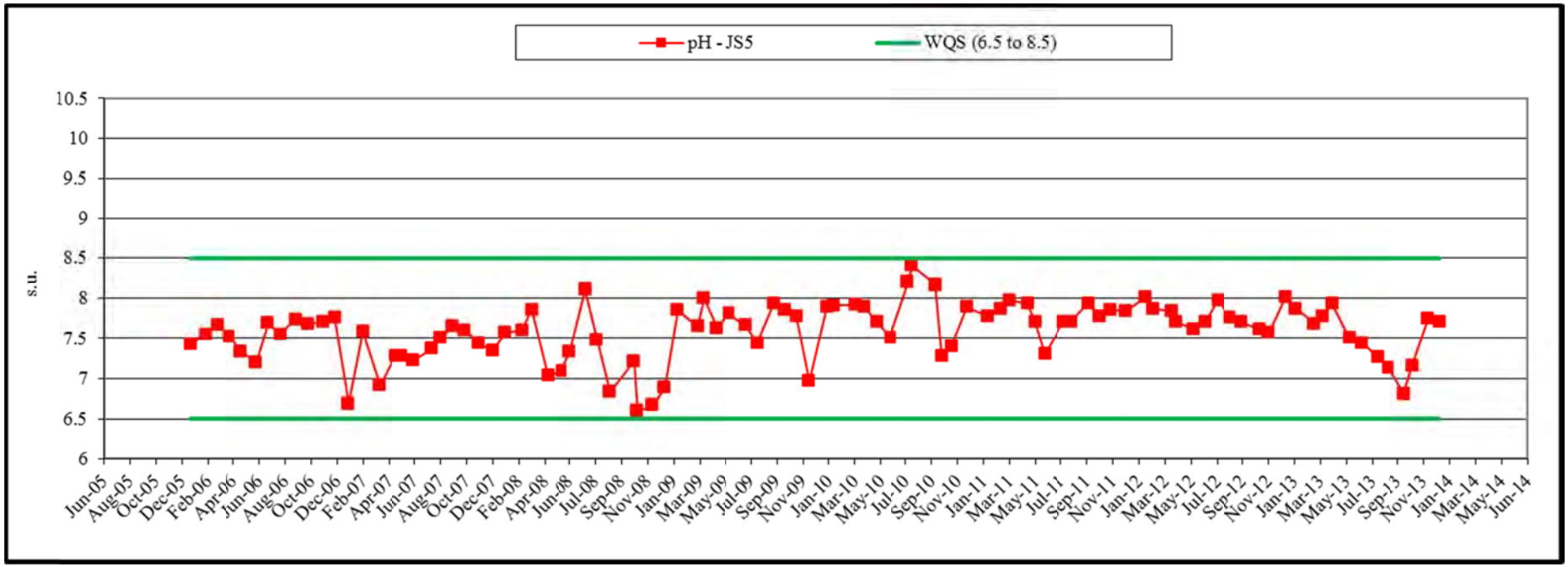


Figure 8a, Johnson Creek (JS5) Monitoring Results 2006-2013, Field Parameters

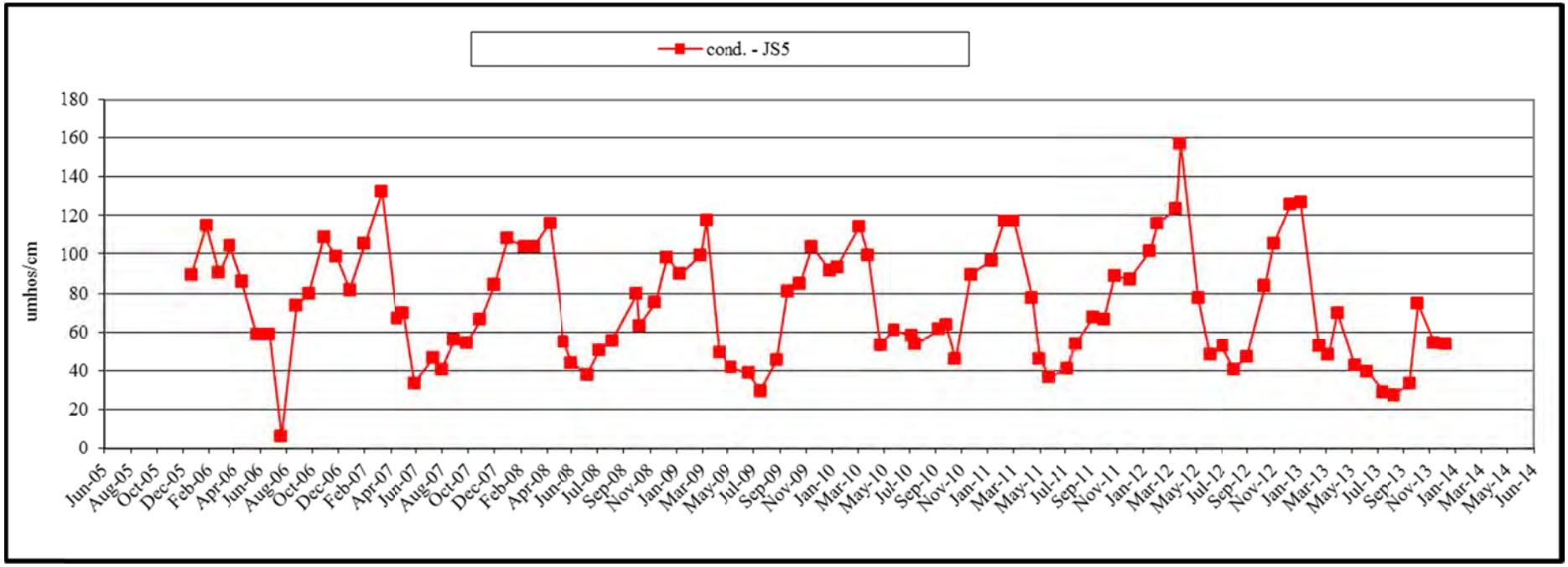


Figure 8b, Johnson Creek (JS5) Monitoring Results 2006-2013, Major Chemistry

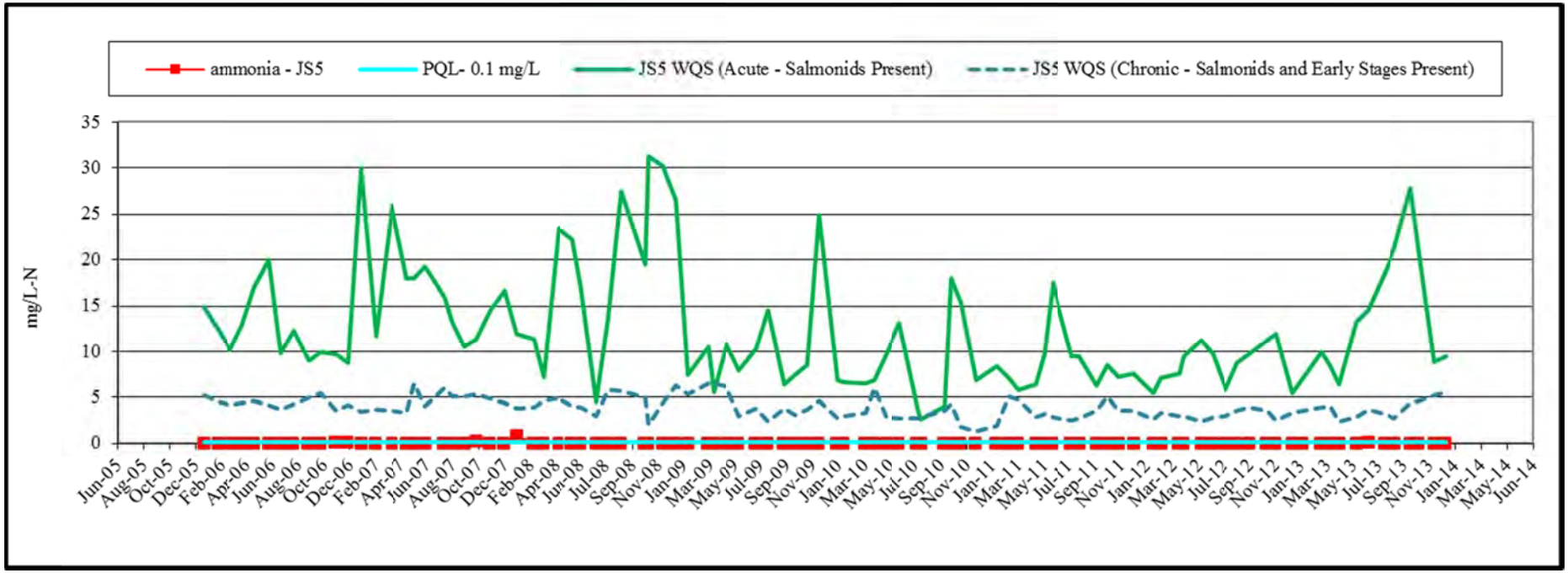


Figure 8b, Johnson Creek (JS5) Monitoring Results 2006-2013, Major Chemistry

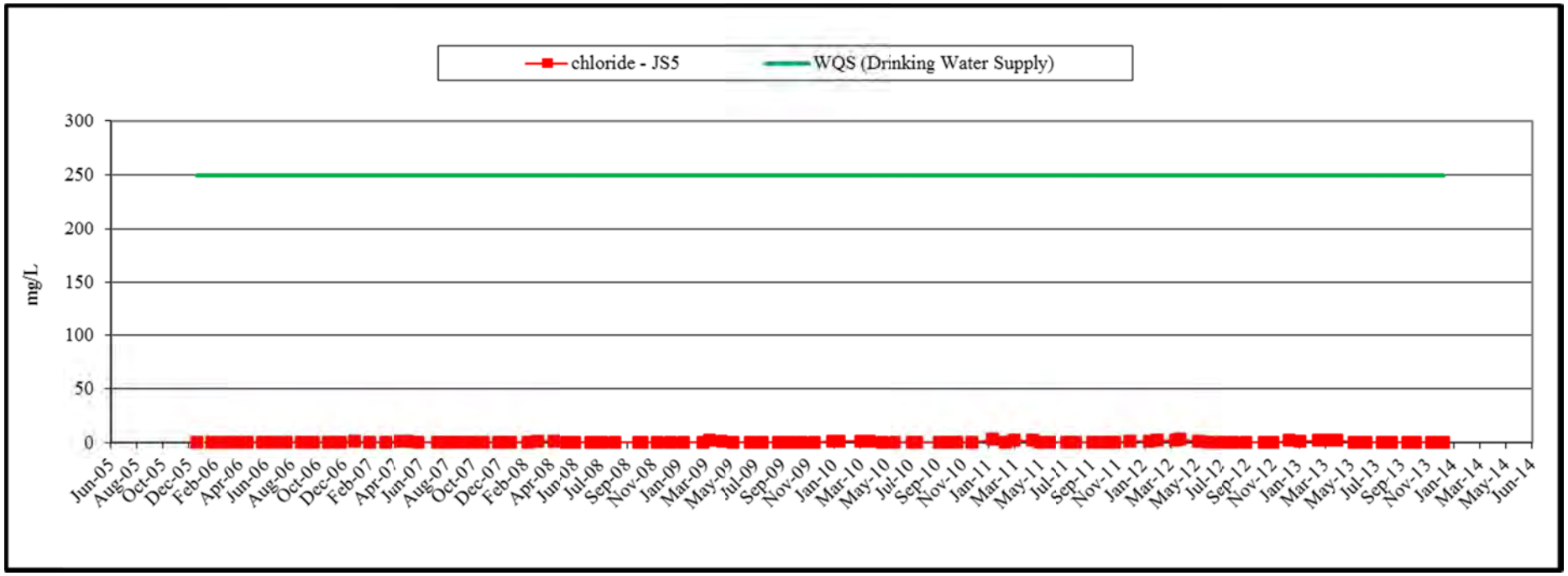
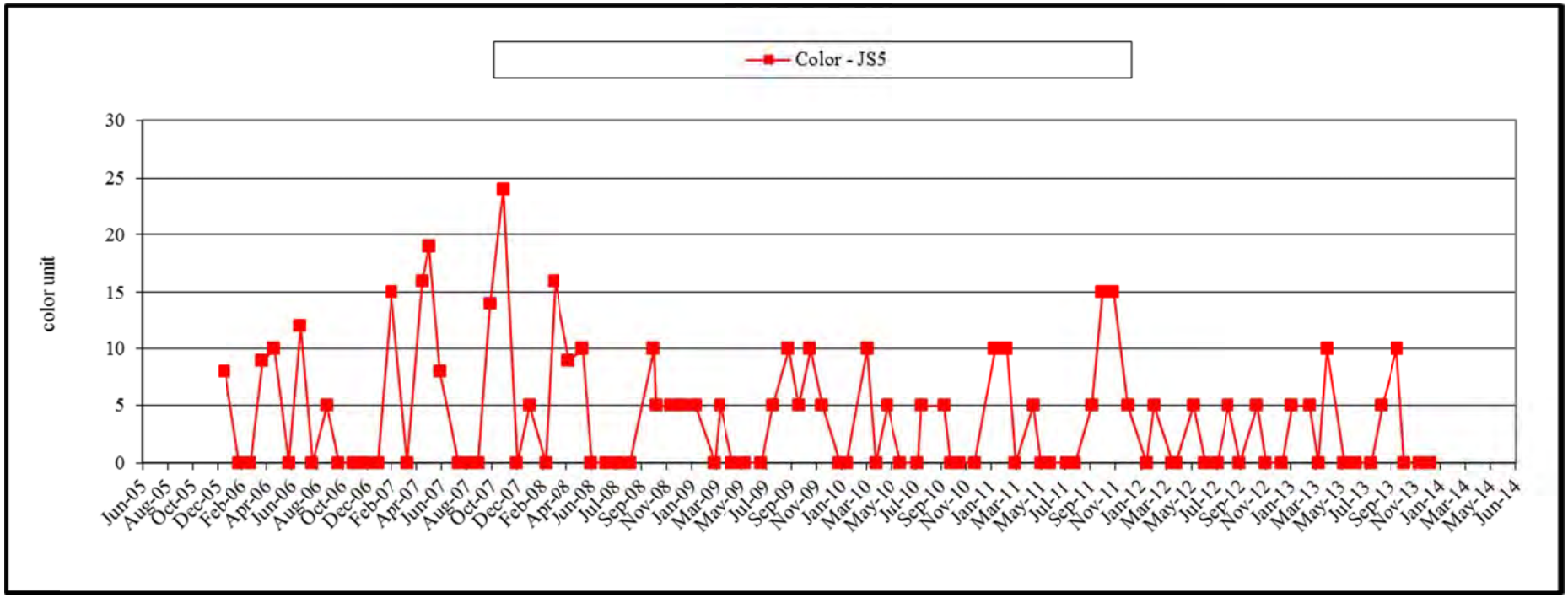


Figure 8b, Johnson Creek (JS5) Monitoring Results 2006-2013, Major Chemistry



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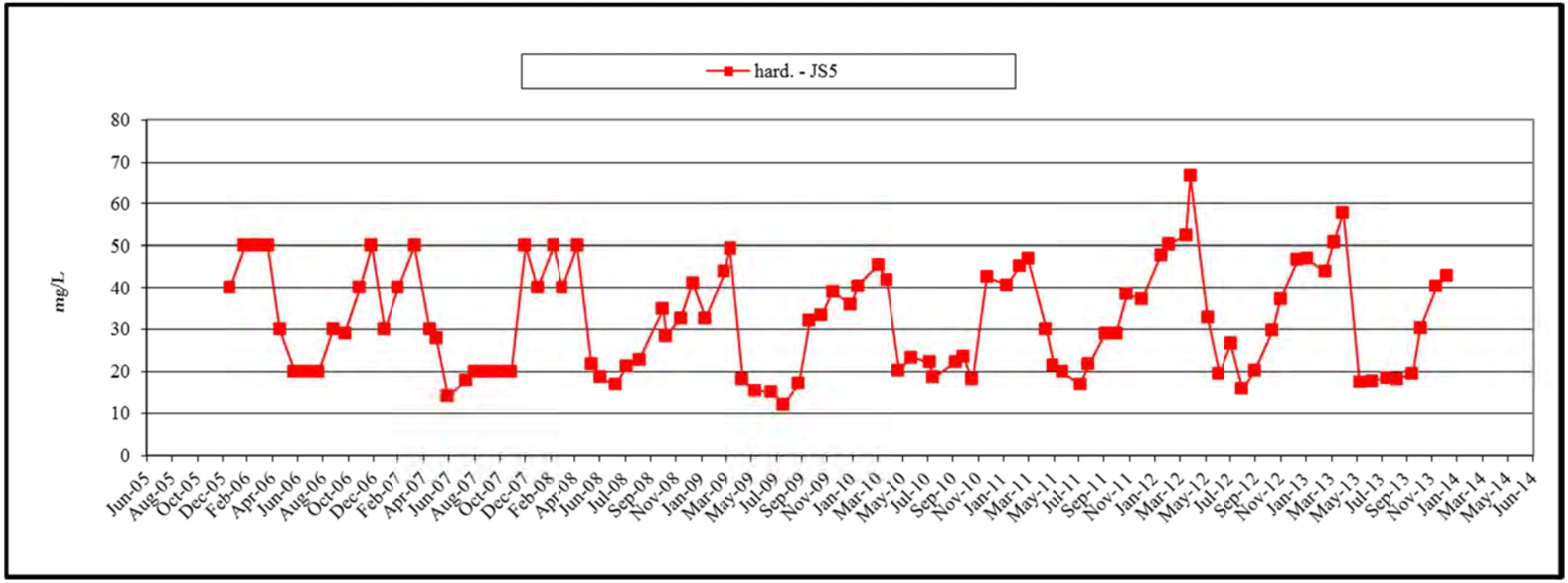

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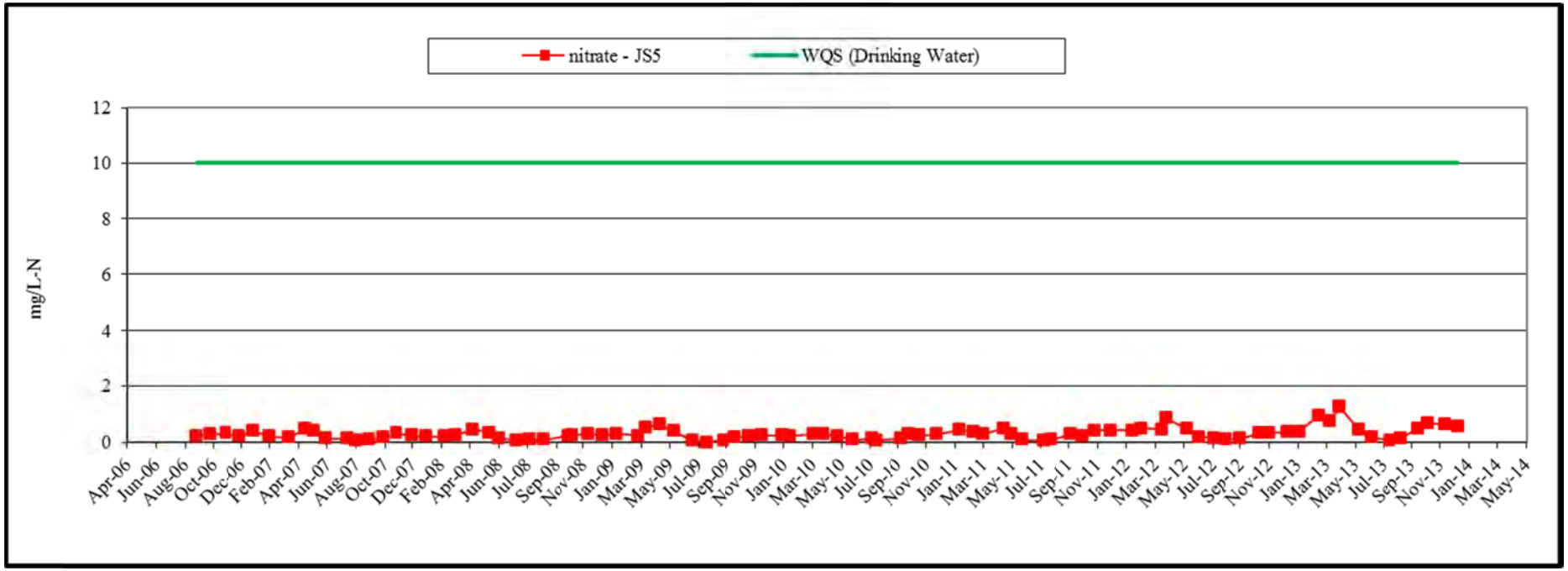

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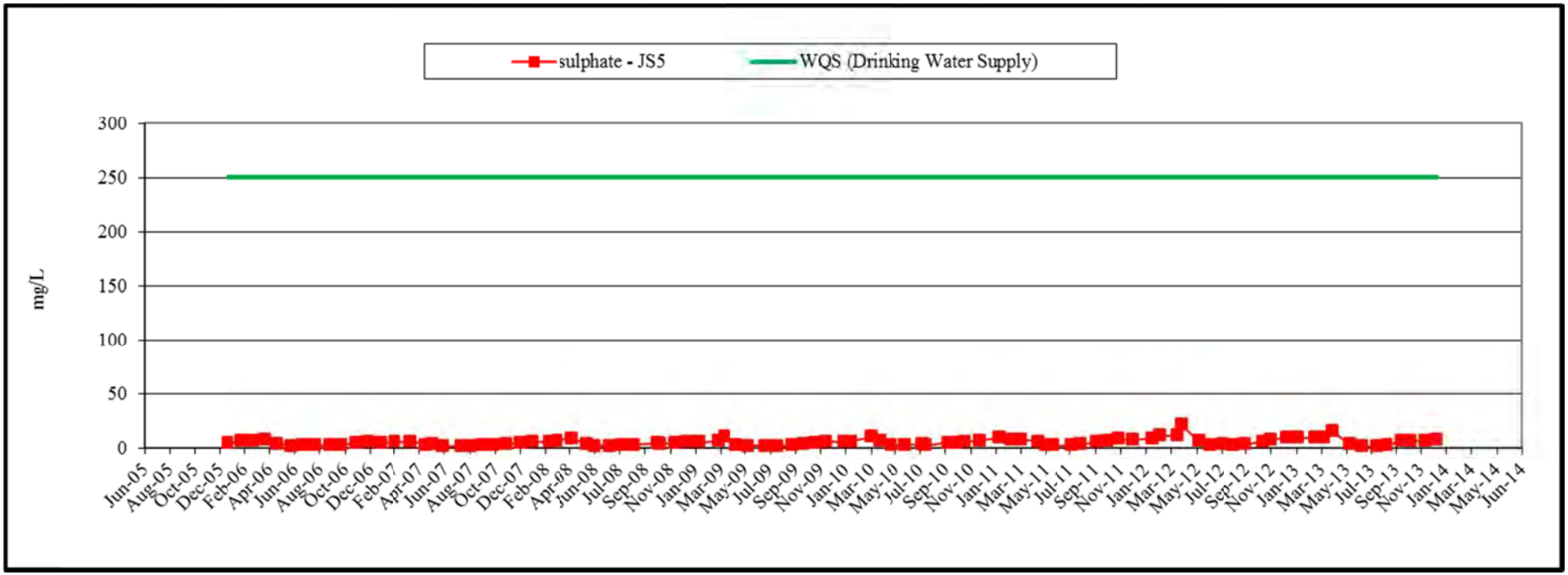


Figure 8b, Johnson Creek (JS5) Monitoring Results 2006-2013, Major Chemistry

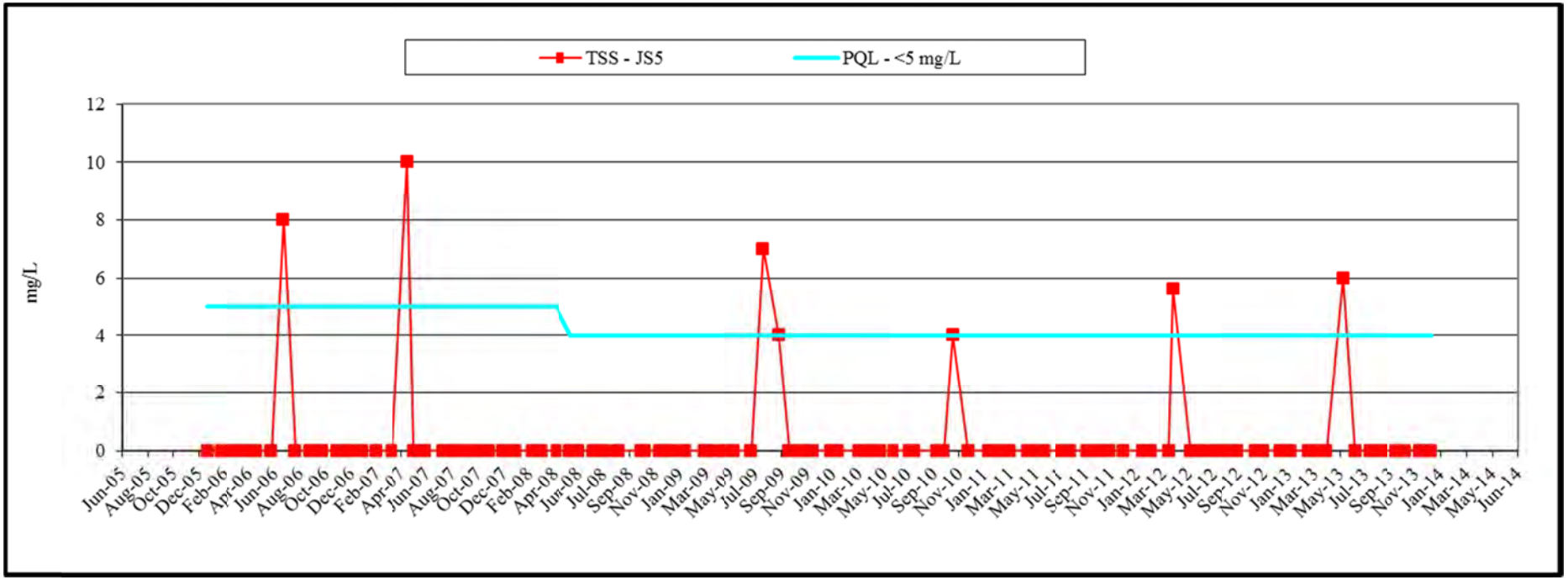


Figure 8b, Johnson Creek (JS5) Monitoring Results 2006-2013, Major Chemistry

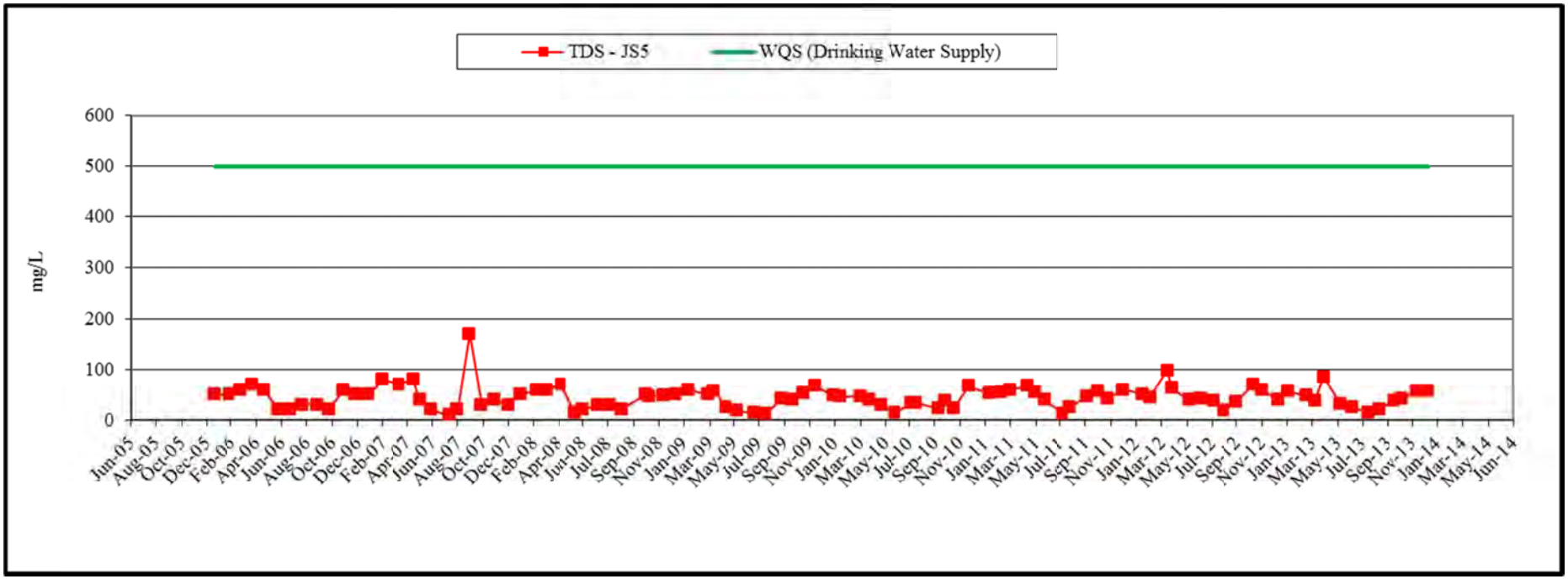


Figure 8b, Johnson Creek (JS5) Monitoring Results 2006-2013, Major Chemistry

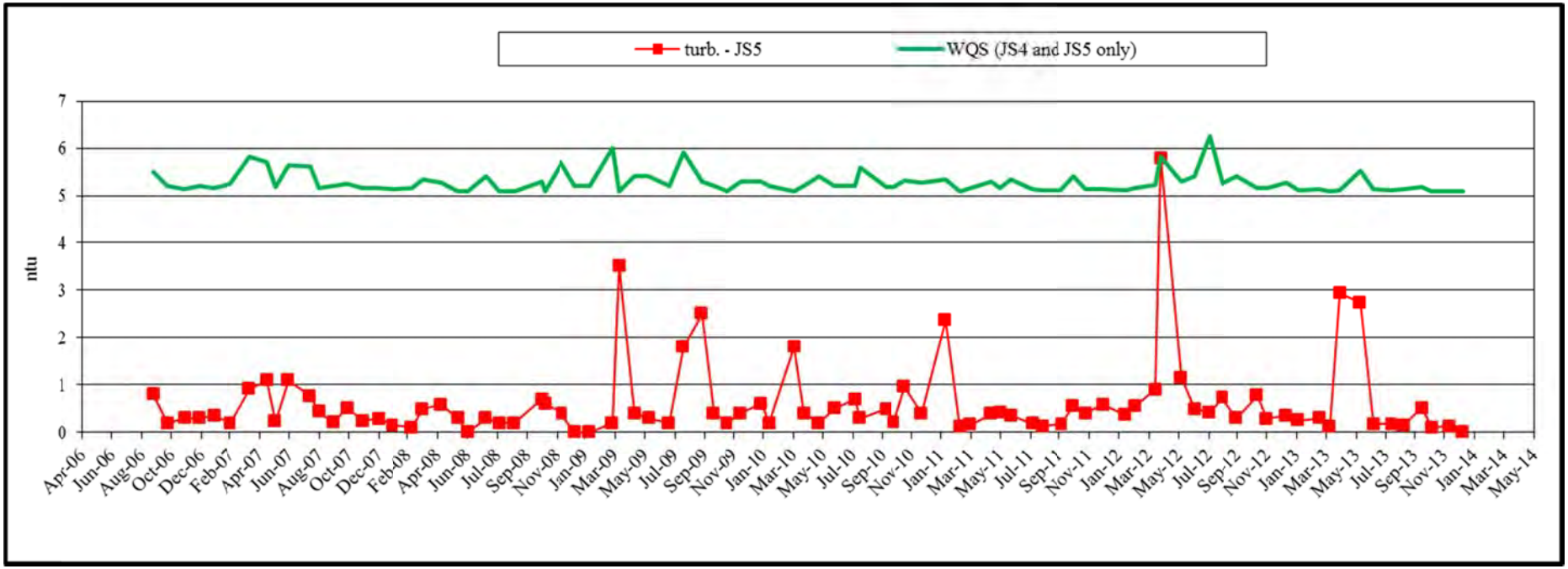
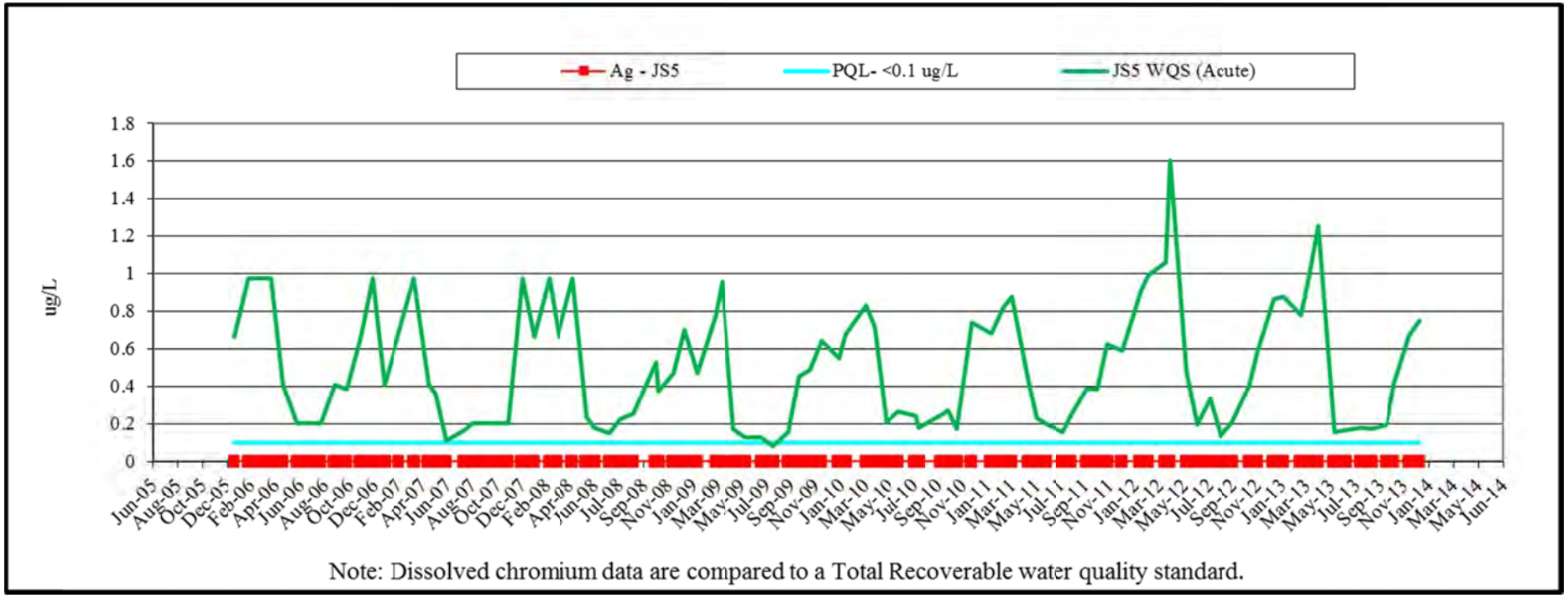


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry



Note: Dissolved chromium data are compared to a Total Recoverable water quality standard.

Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

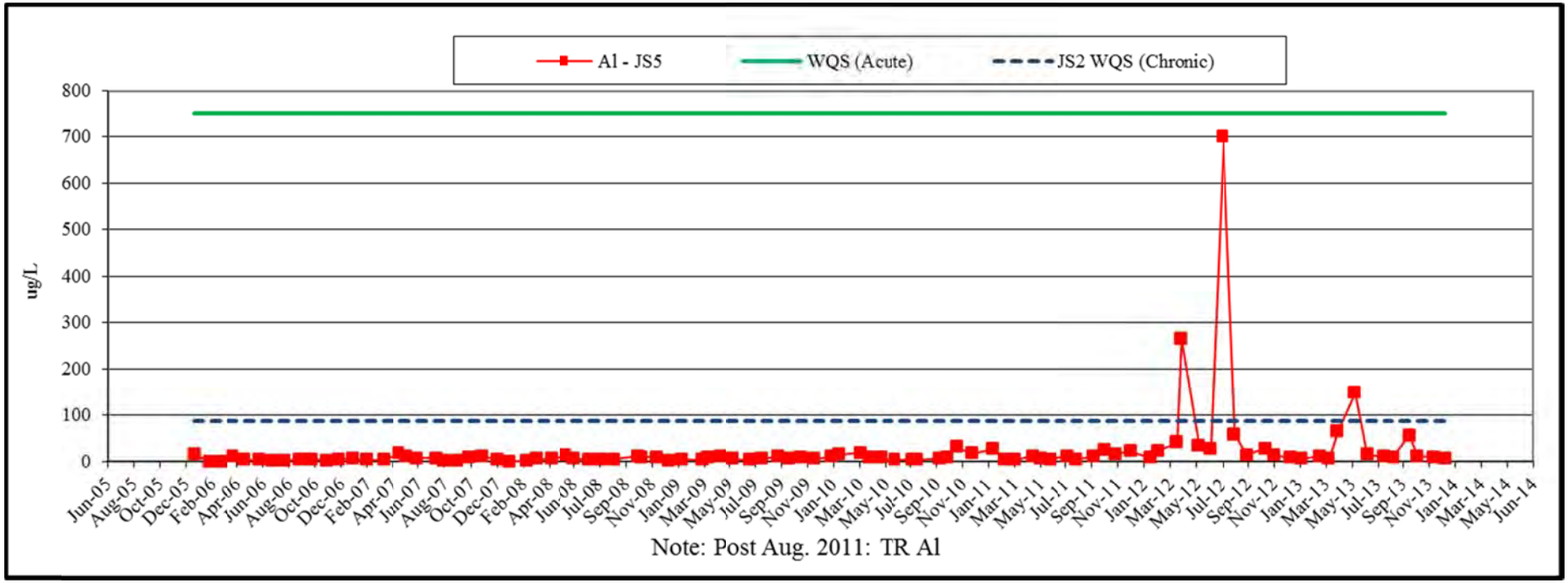


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

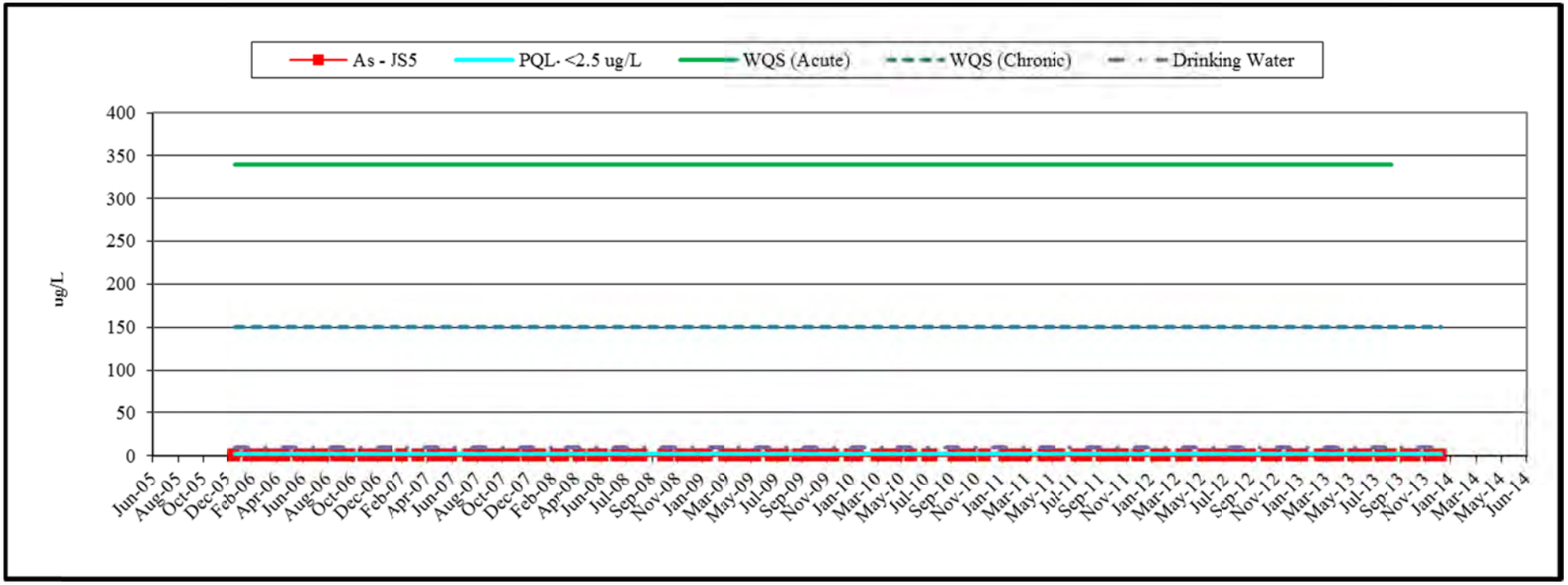


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

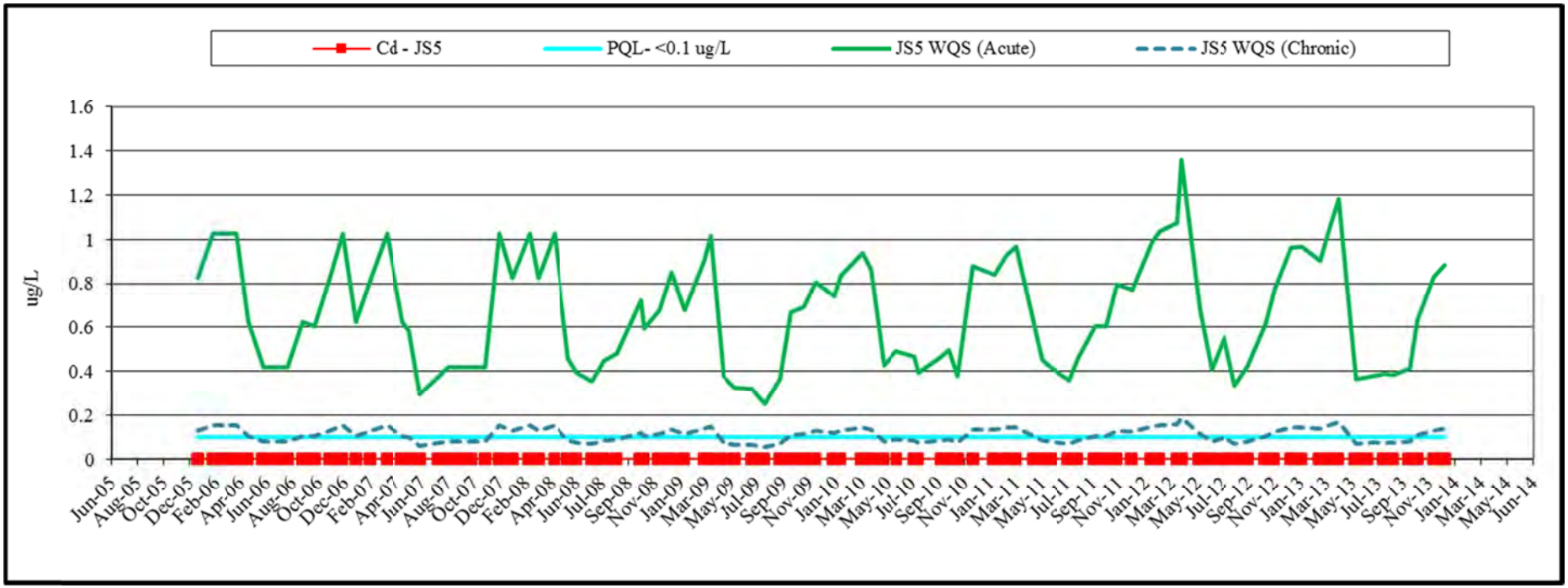


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

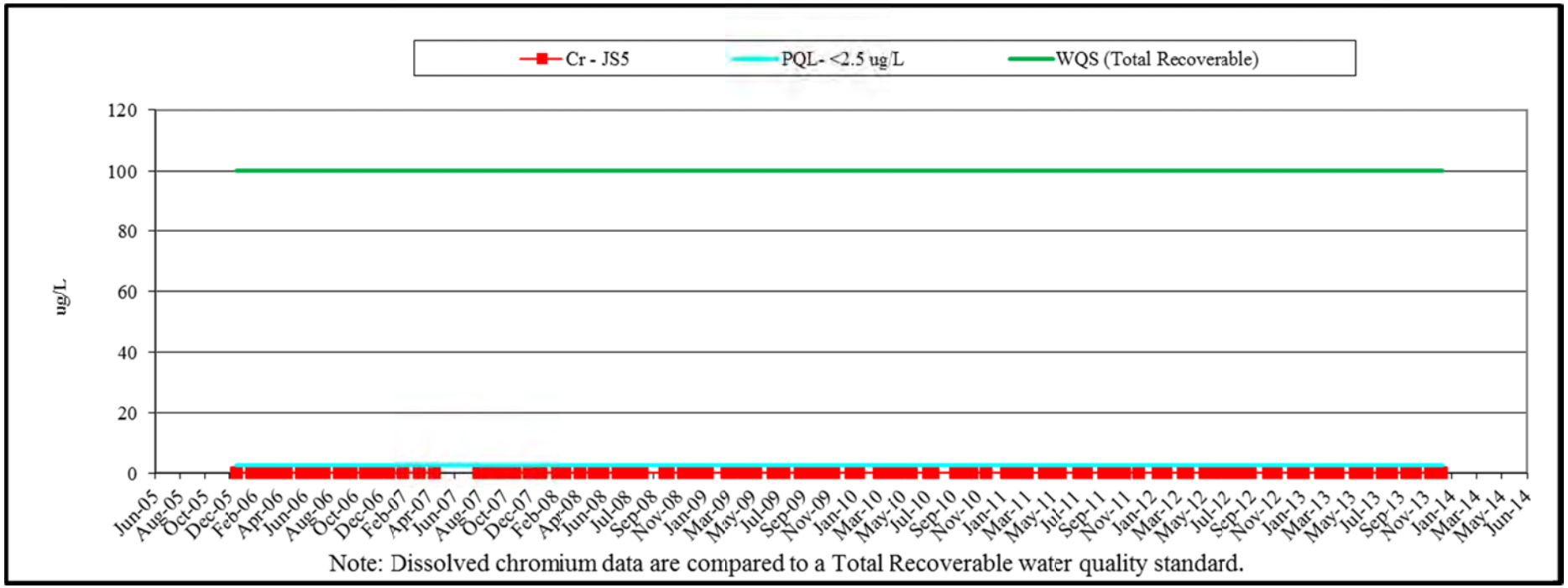


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

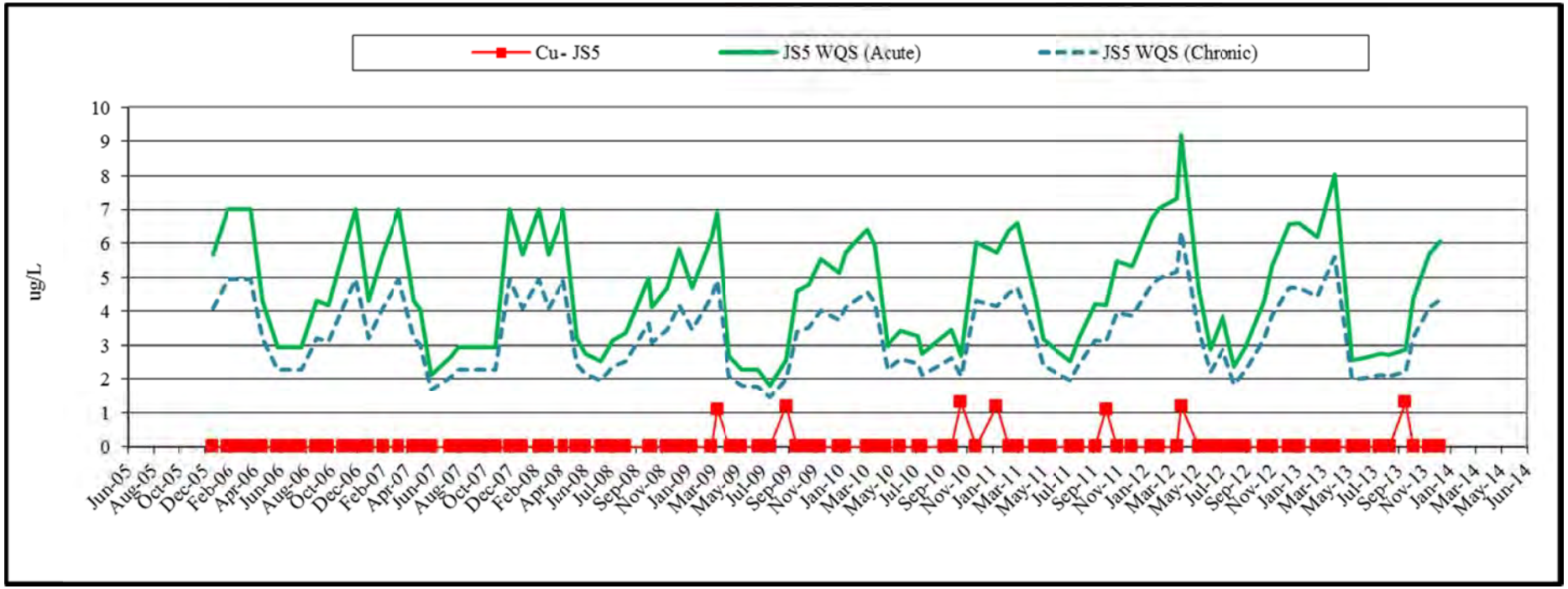


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

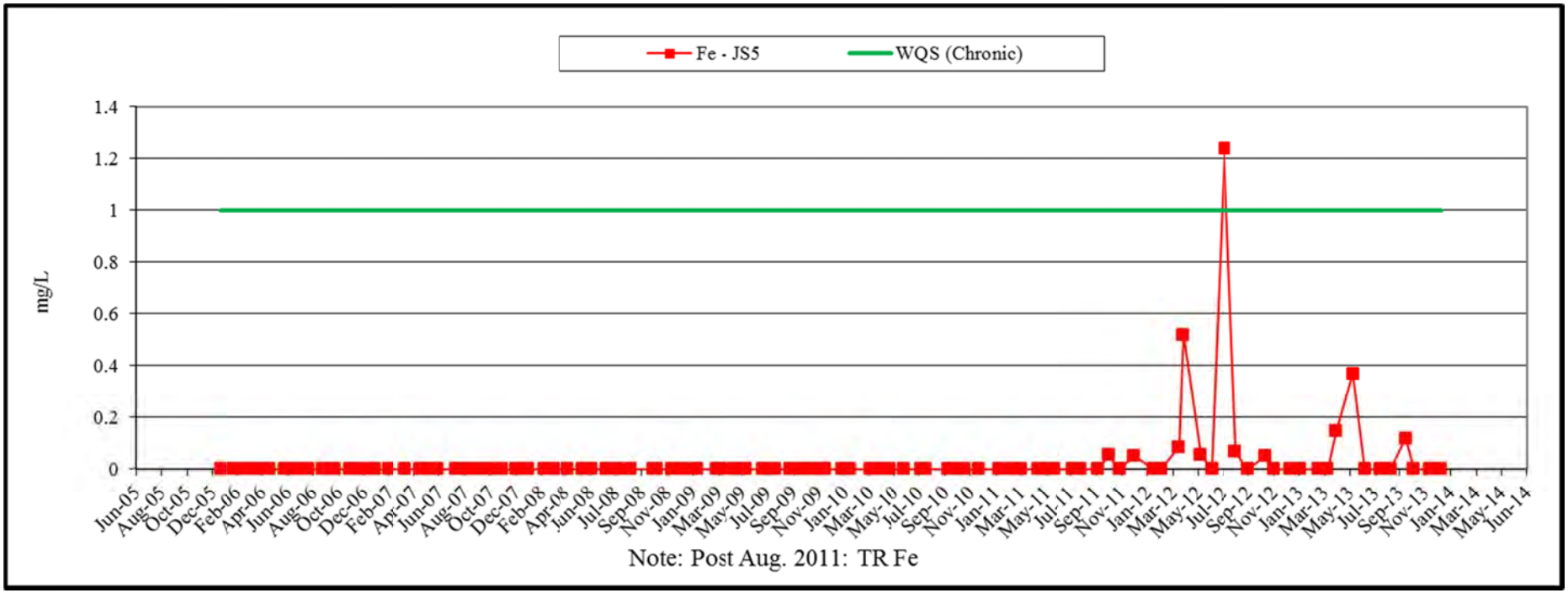


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

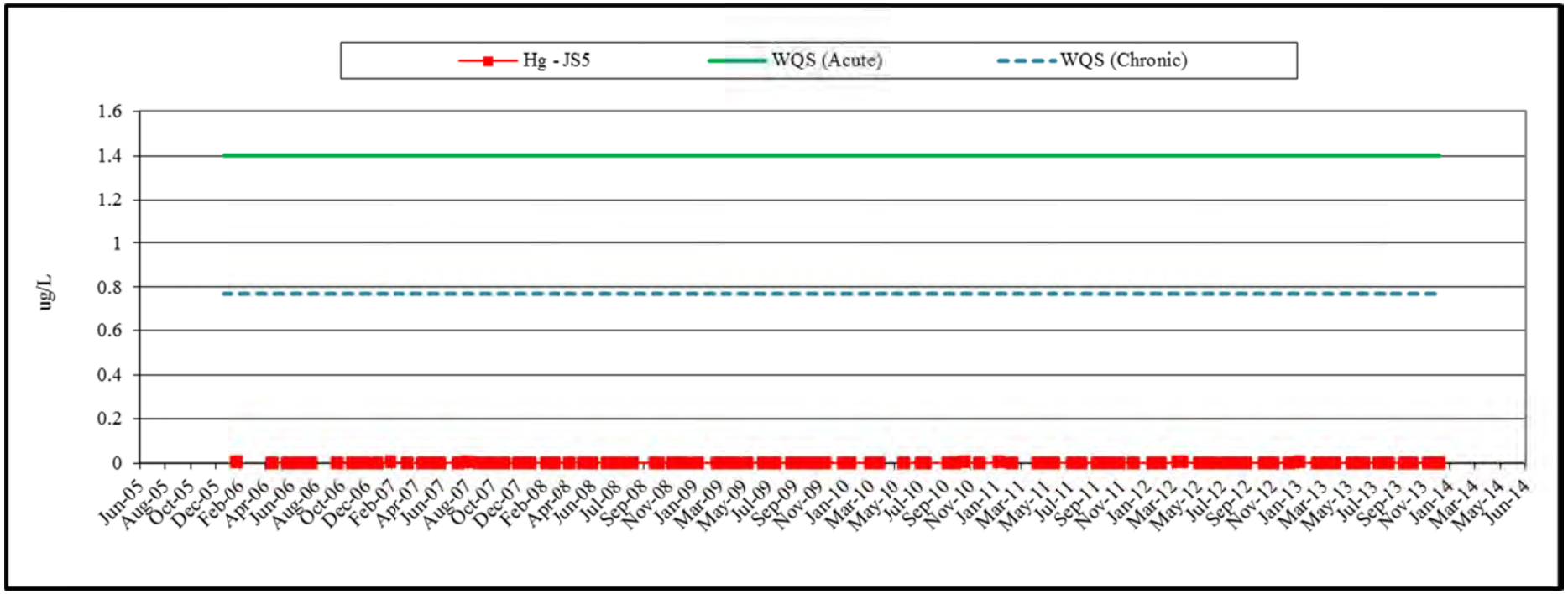


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

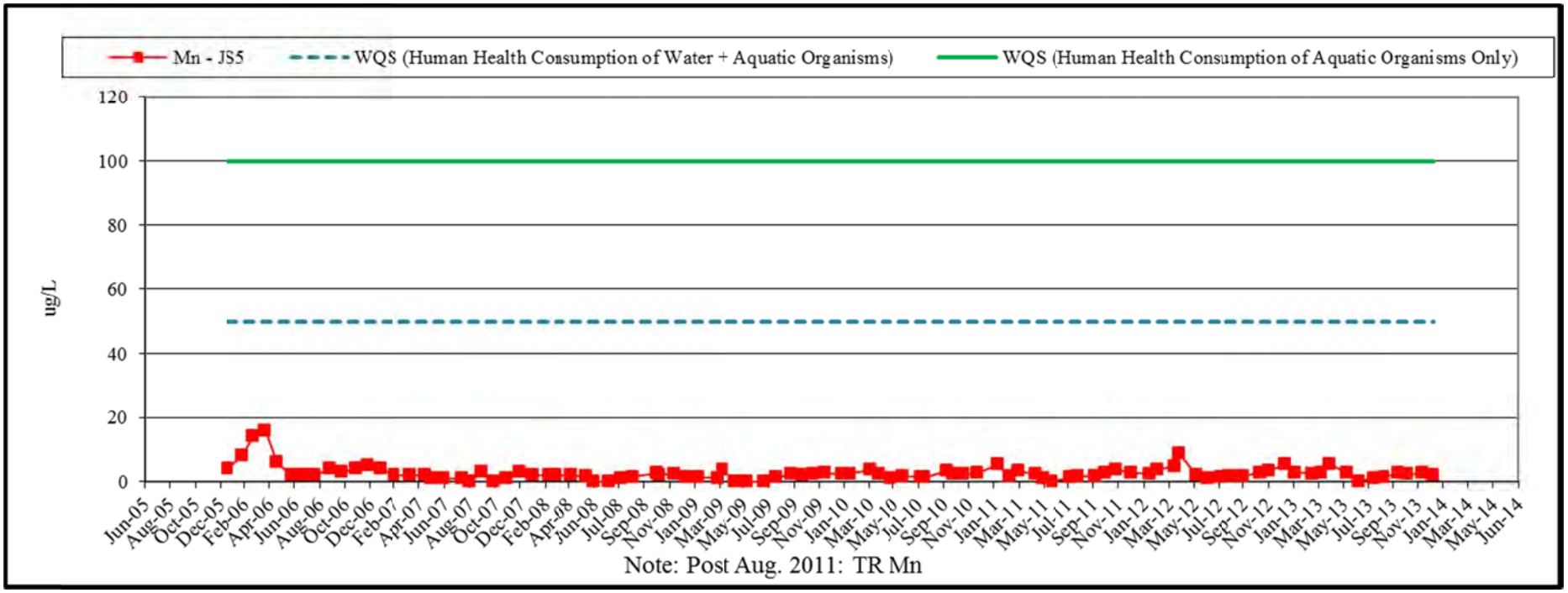


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

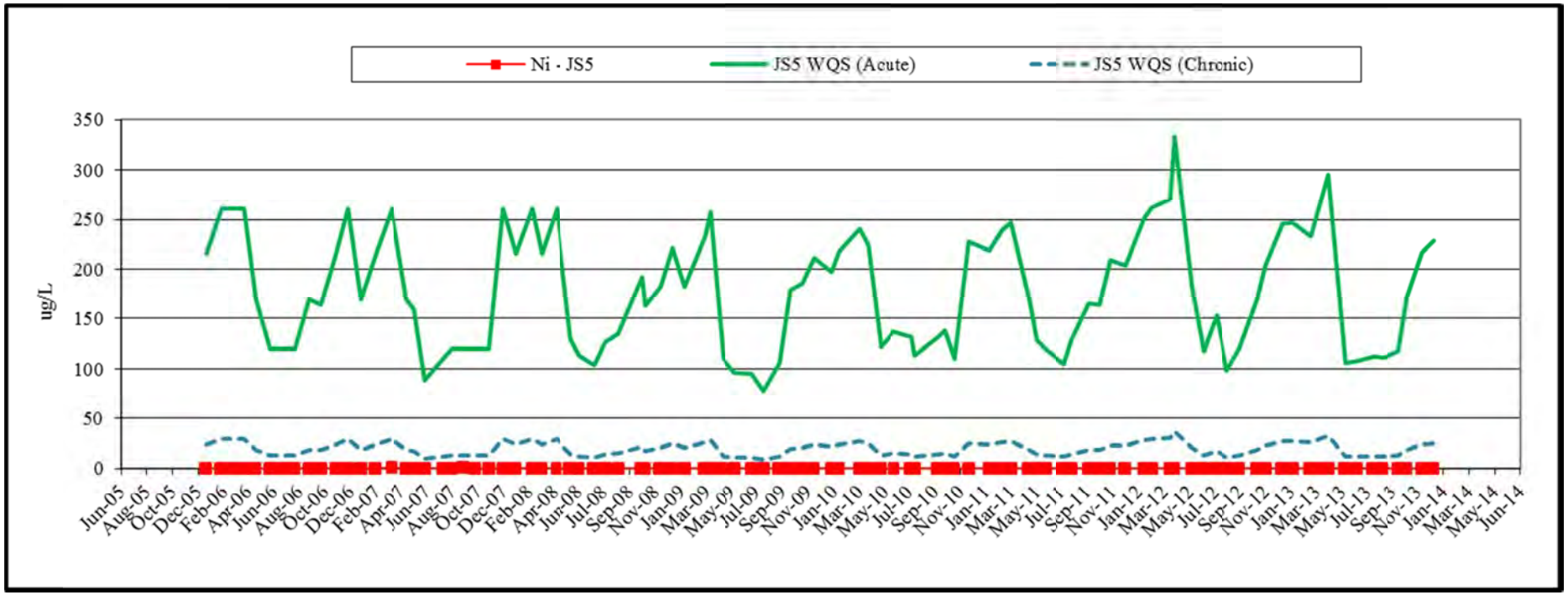


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

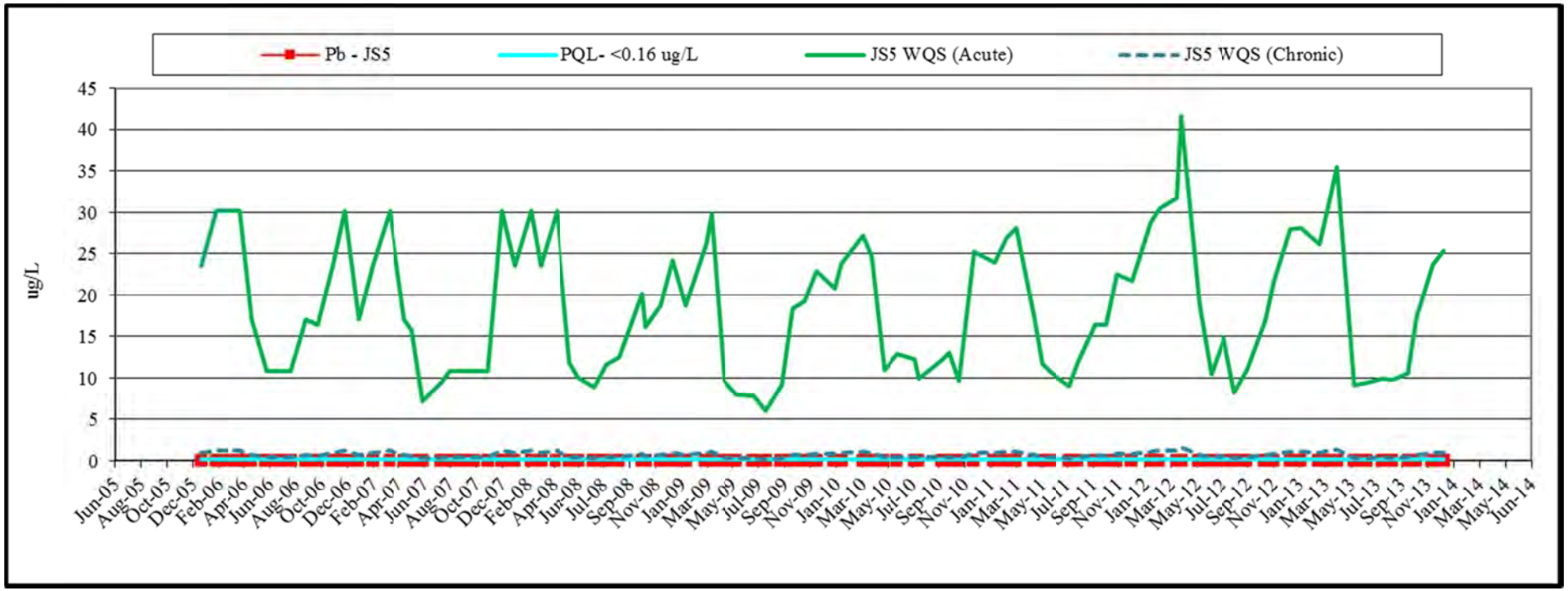


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

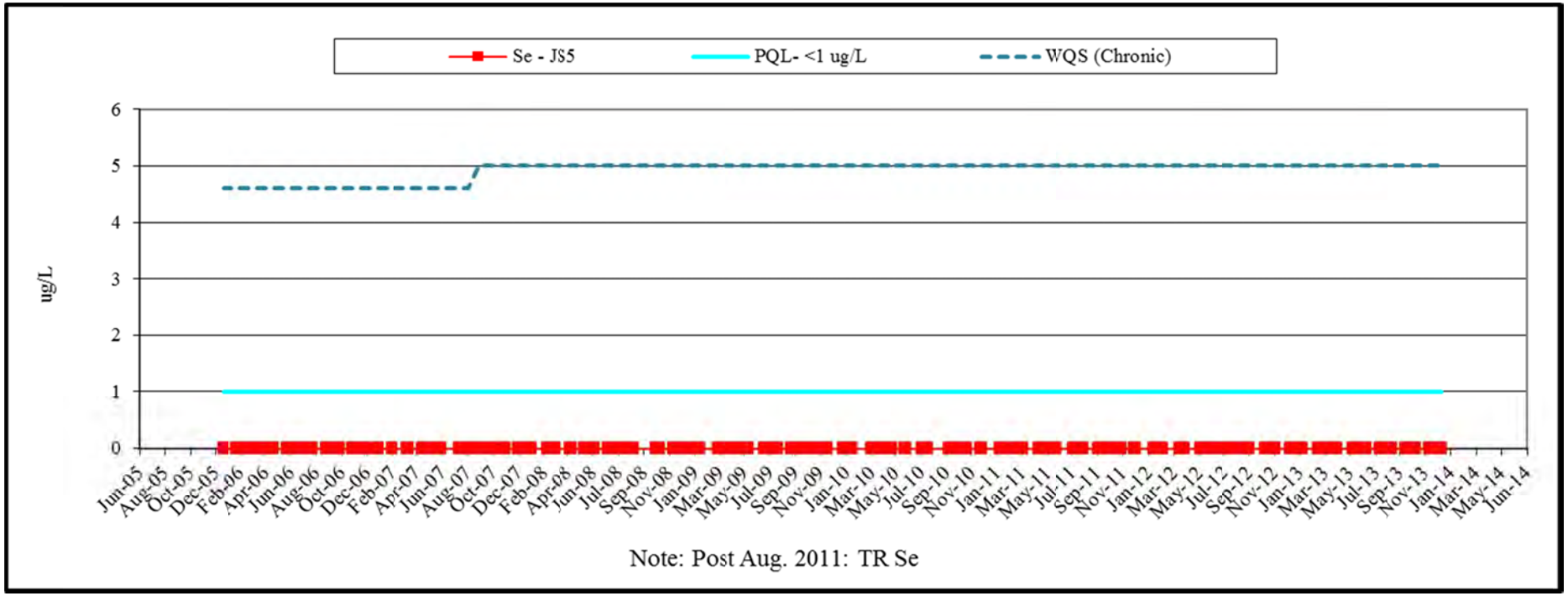


Figure 8c, Johnson Creek (JS5) Monitoring Results 2006-2013, Trace Chemistry

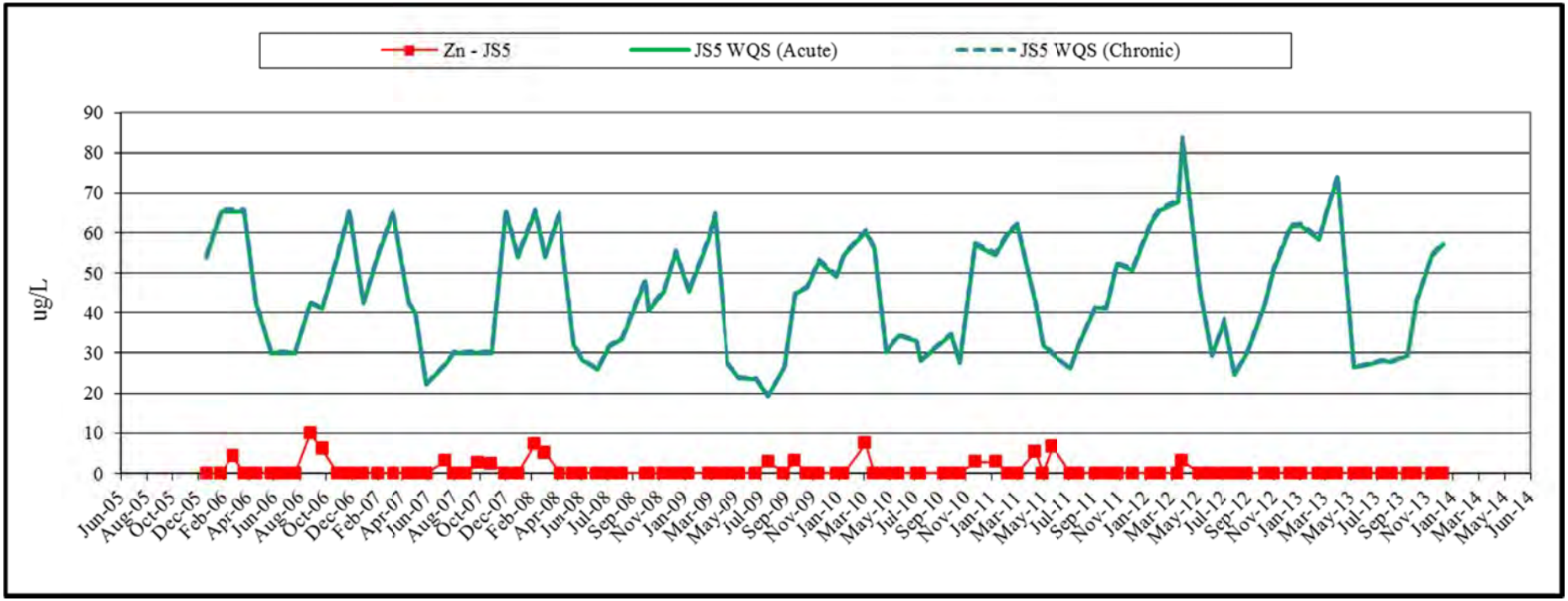


Figure 9a: Slate Creek (MLA) Monitoring Results 2006-2013, Field Parameters

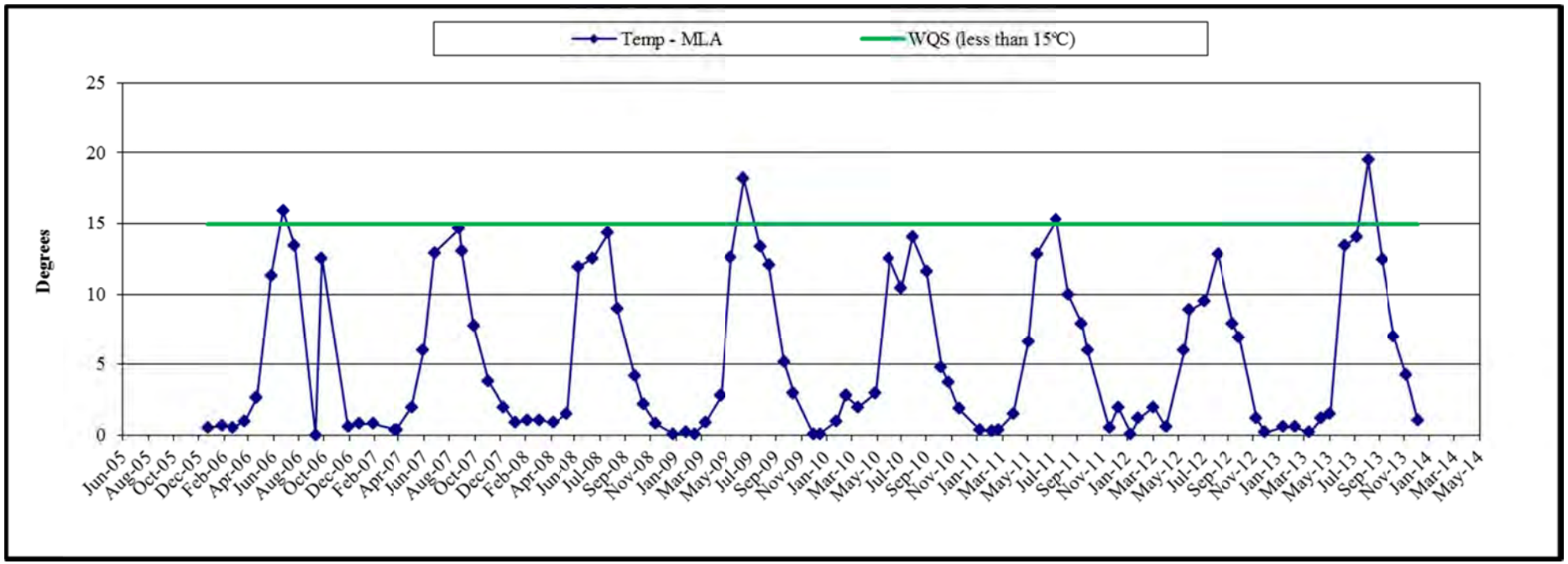


Figure 9a: Slate Creek (MLA) Monitoring Results 2006-2013, Field Parameters

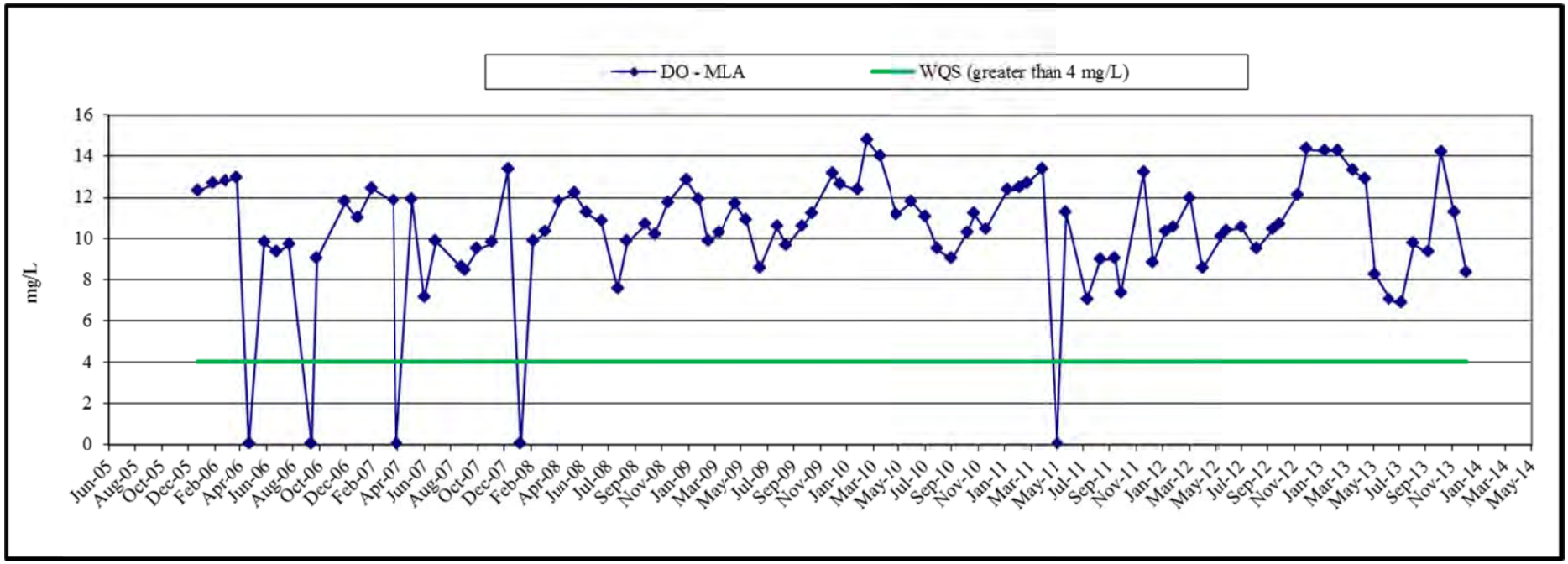


Figure 9a: Slate Creek (MLA) Monitoring Results 2006-2013, Field Parameters

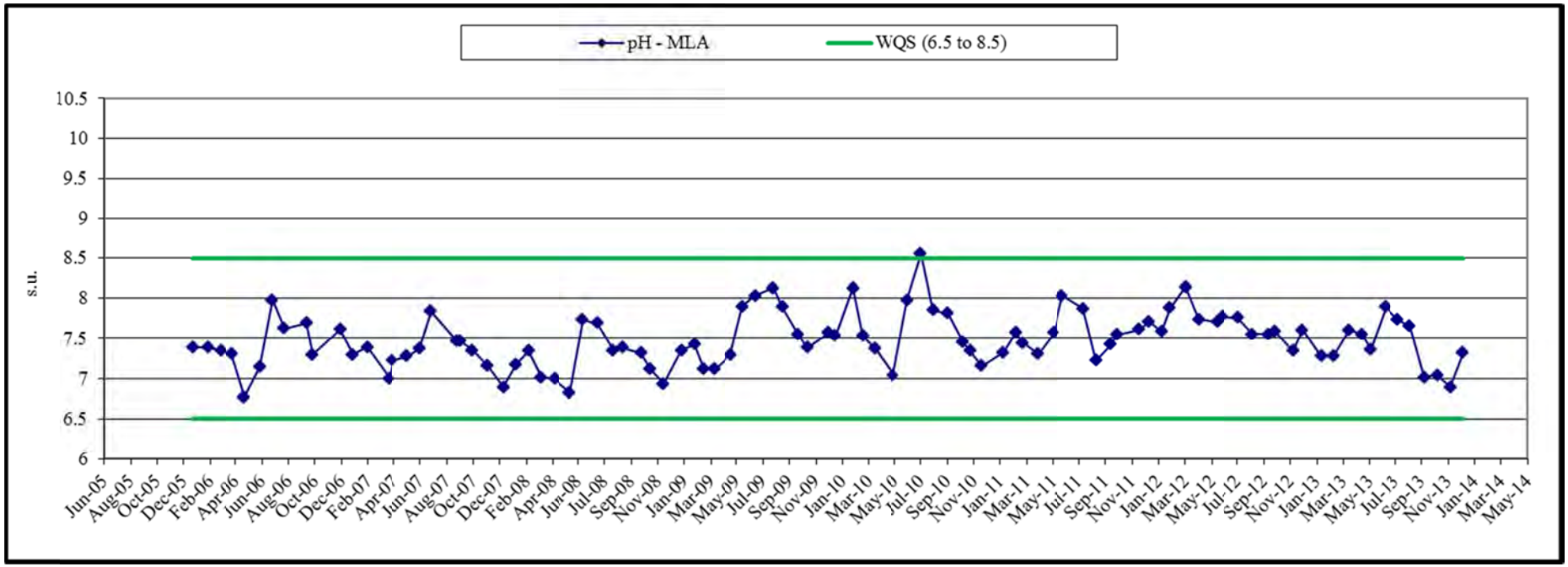


Figure 9a: Slate Creek (MLA) Monitoring Results 2006-2013, Field Parameters

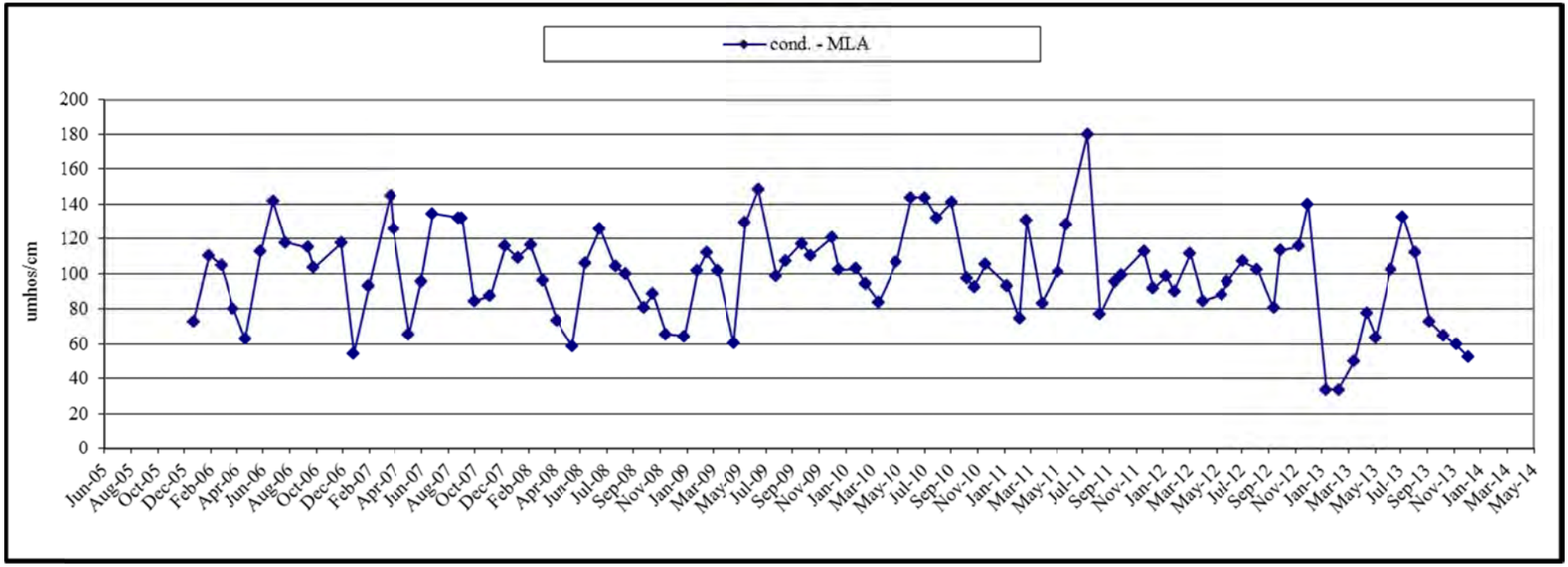


Figure 9b: Slate Creek (MLA) Monitoring Results 2006-2013, Major Chemistry

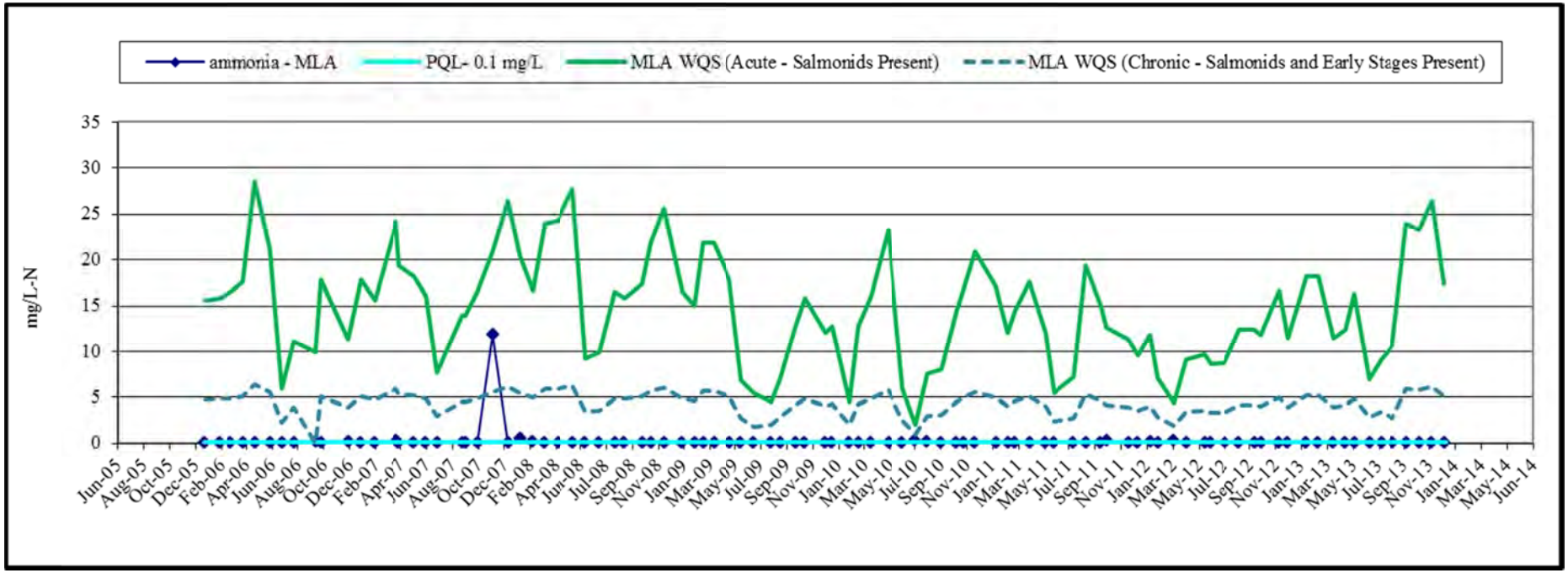
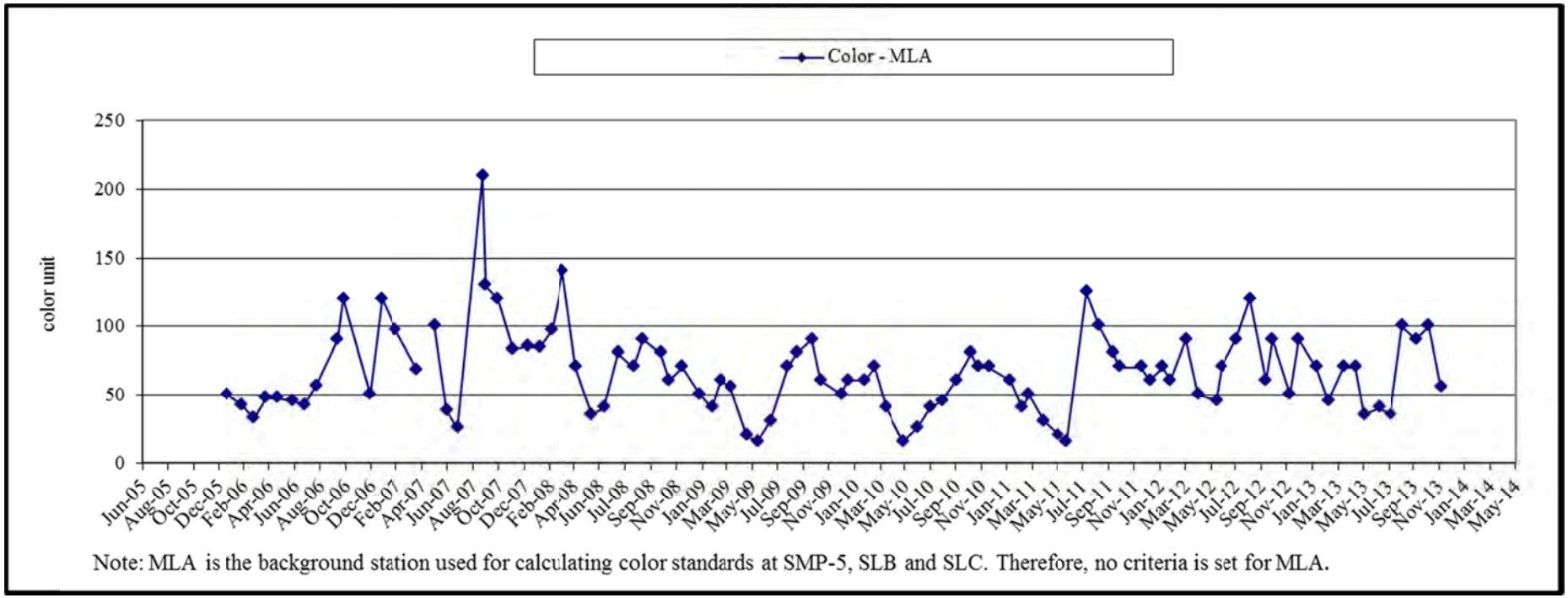


Figure 9b: Slate Creek (MLA) Monitoring Results 2006-2013, Major Chemistry



Note: MLA is the background station used for calculating color standards at SMP-5, SLB and SLC. Therefore, no criteria is set for MLA.

Figure 9b: Slate Creek (MLA) Monitoring Results 2006-2013, Major Chemistry

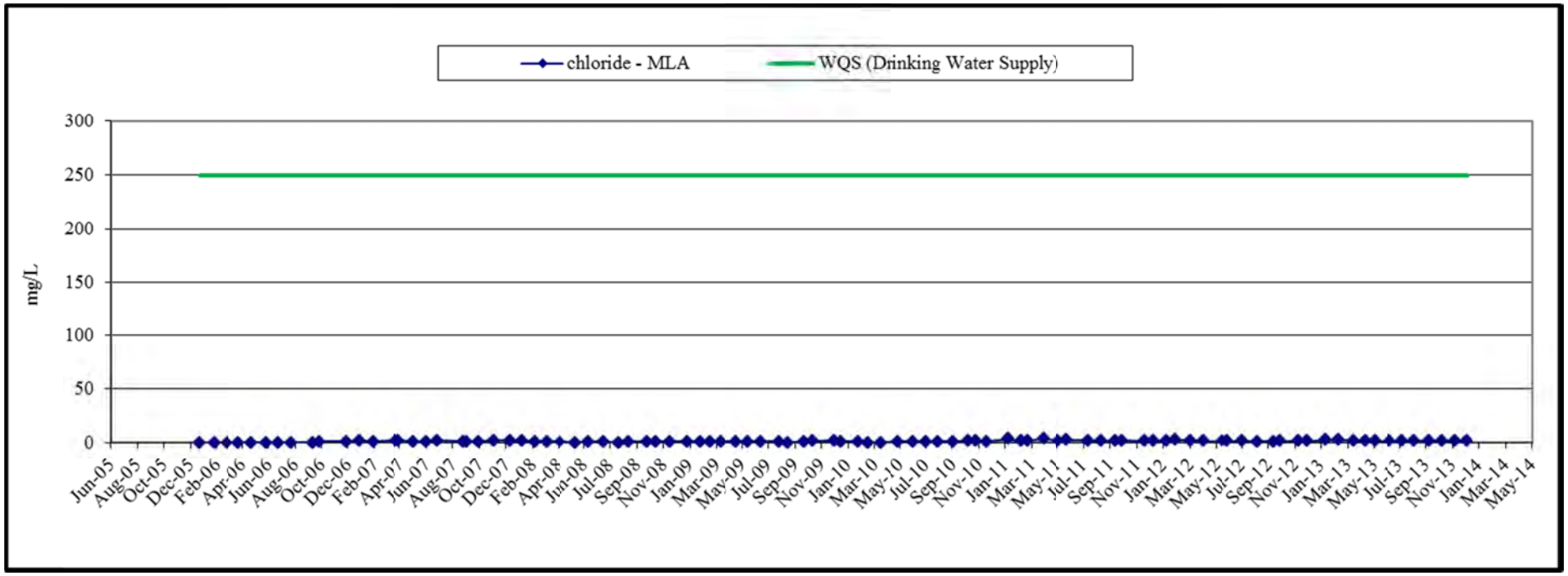
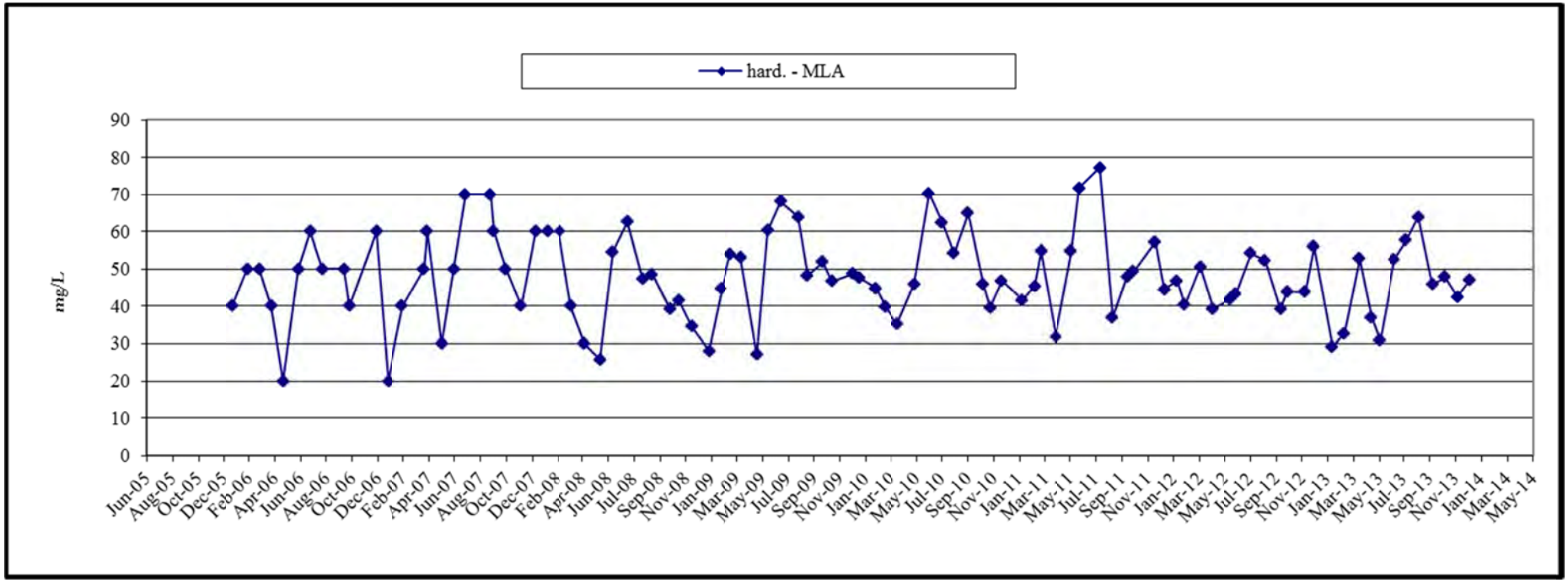


Figure 9b: Slate Creek (MLA) Monitoring Results 2006-2013, Major Chemistry



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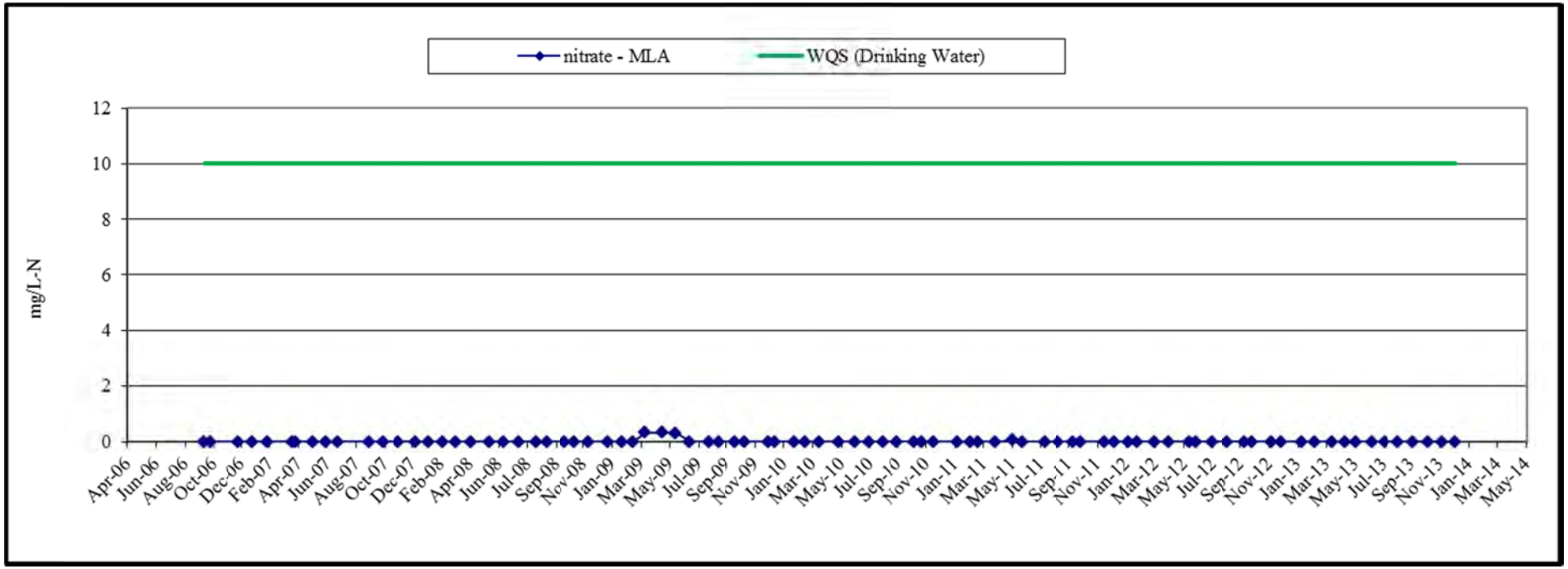

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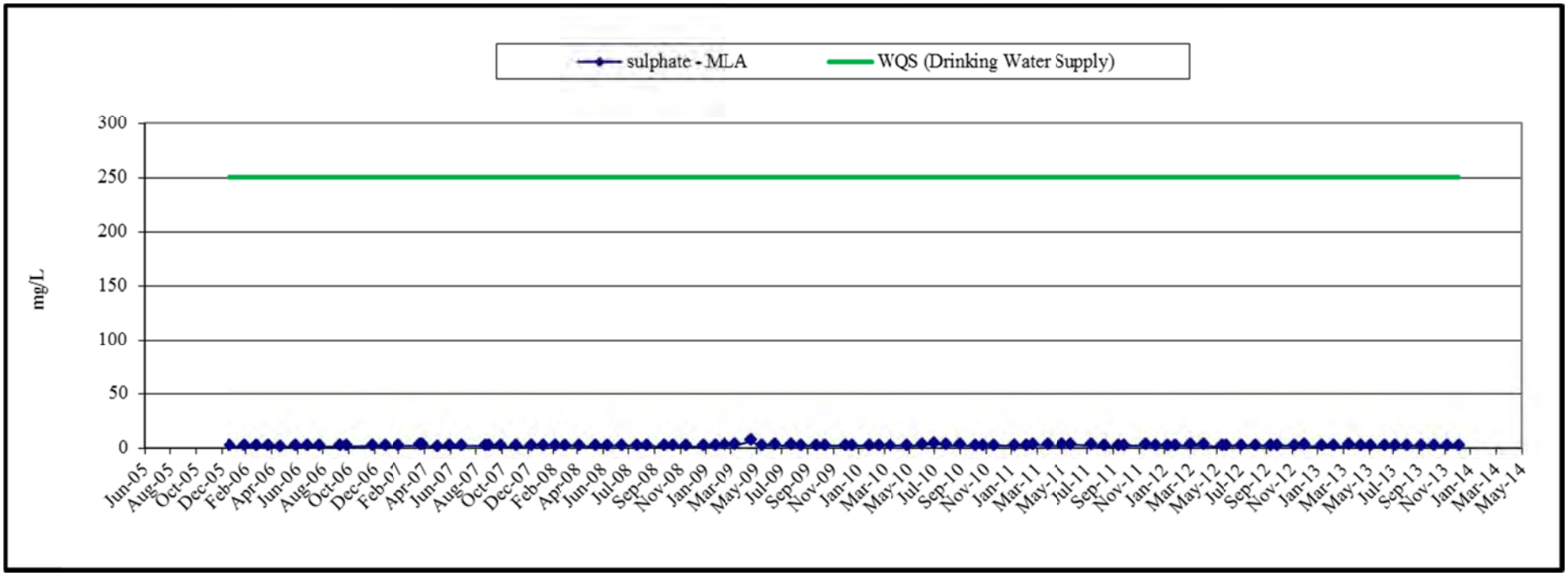

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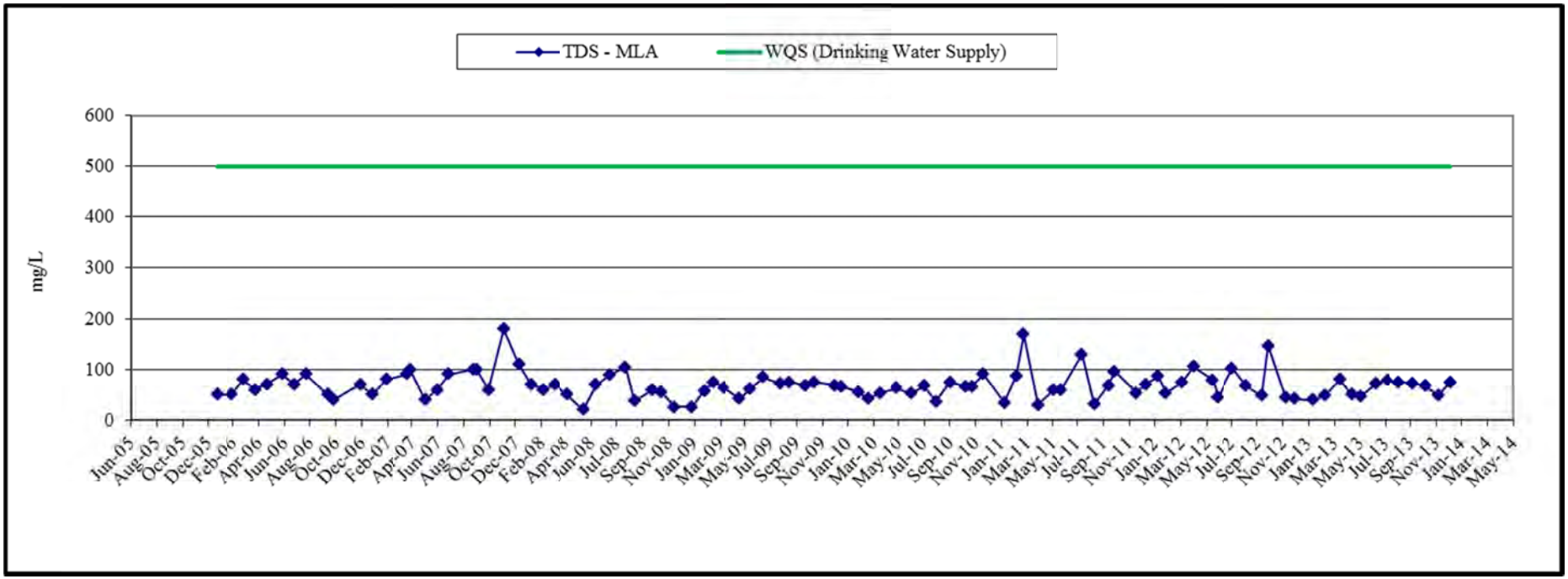

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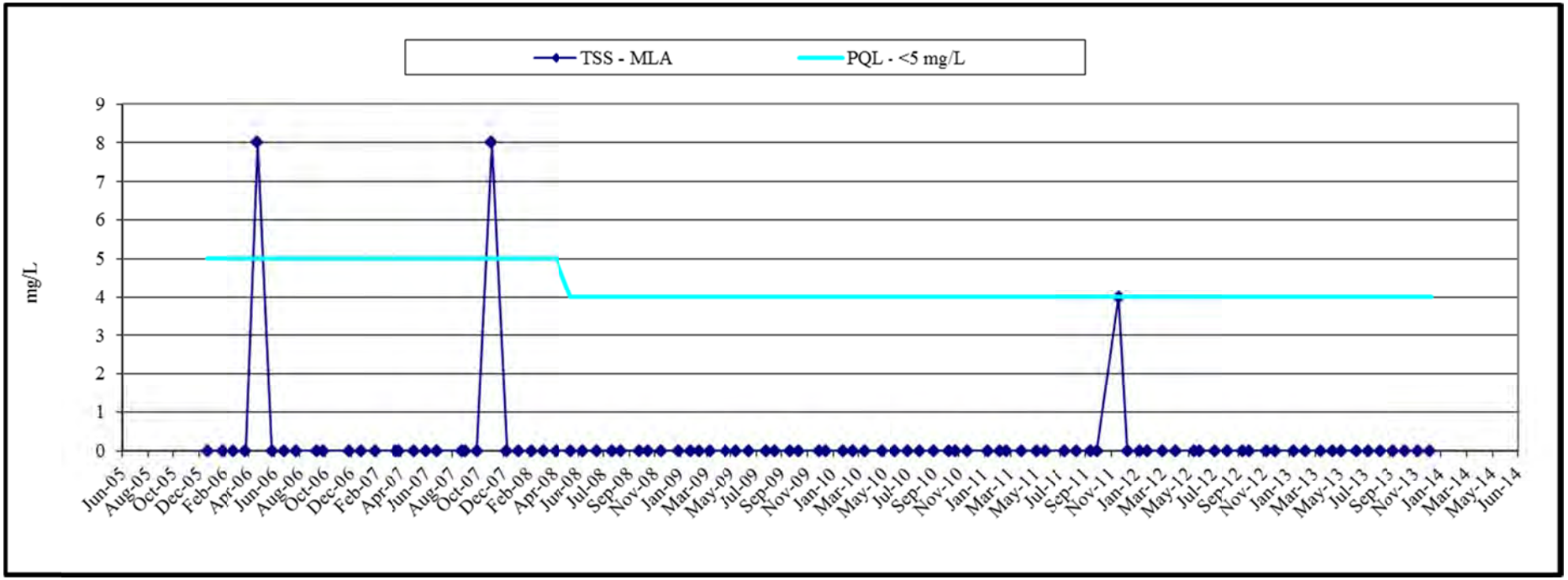

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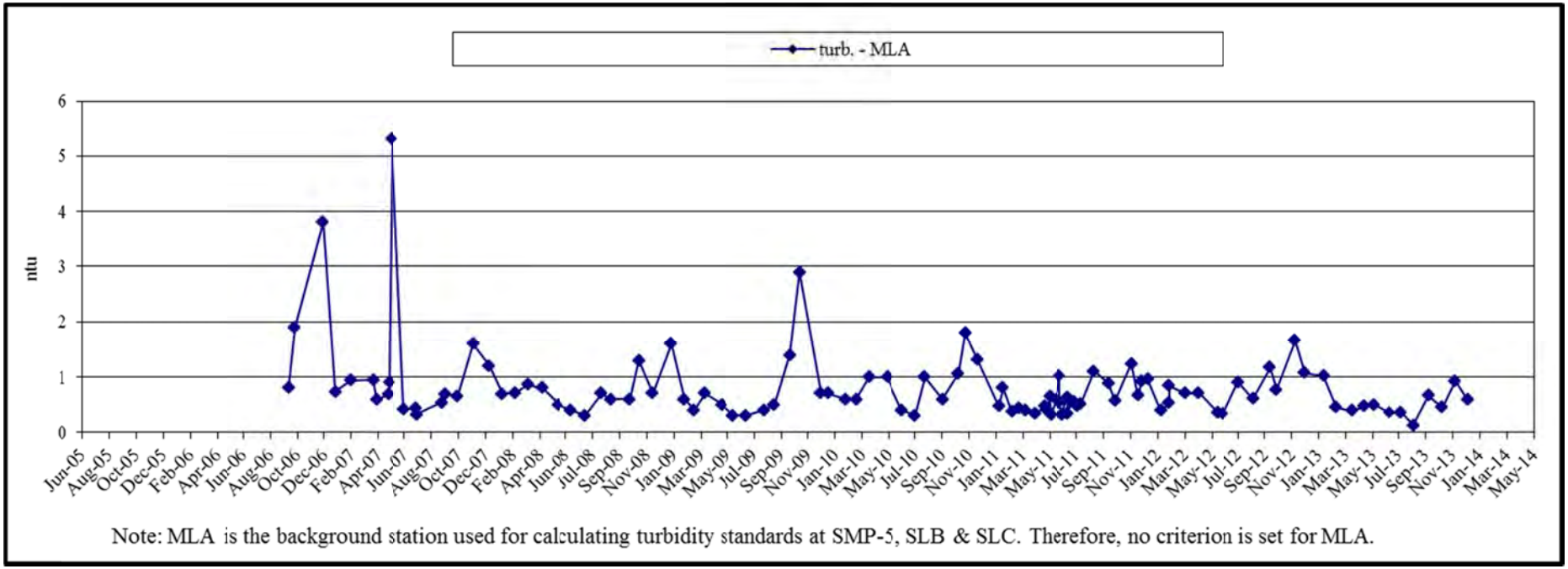
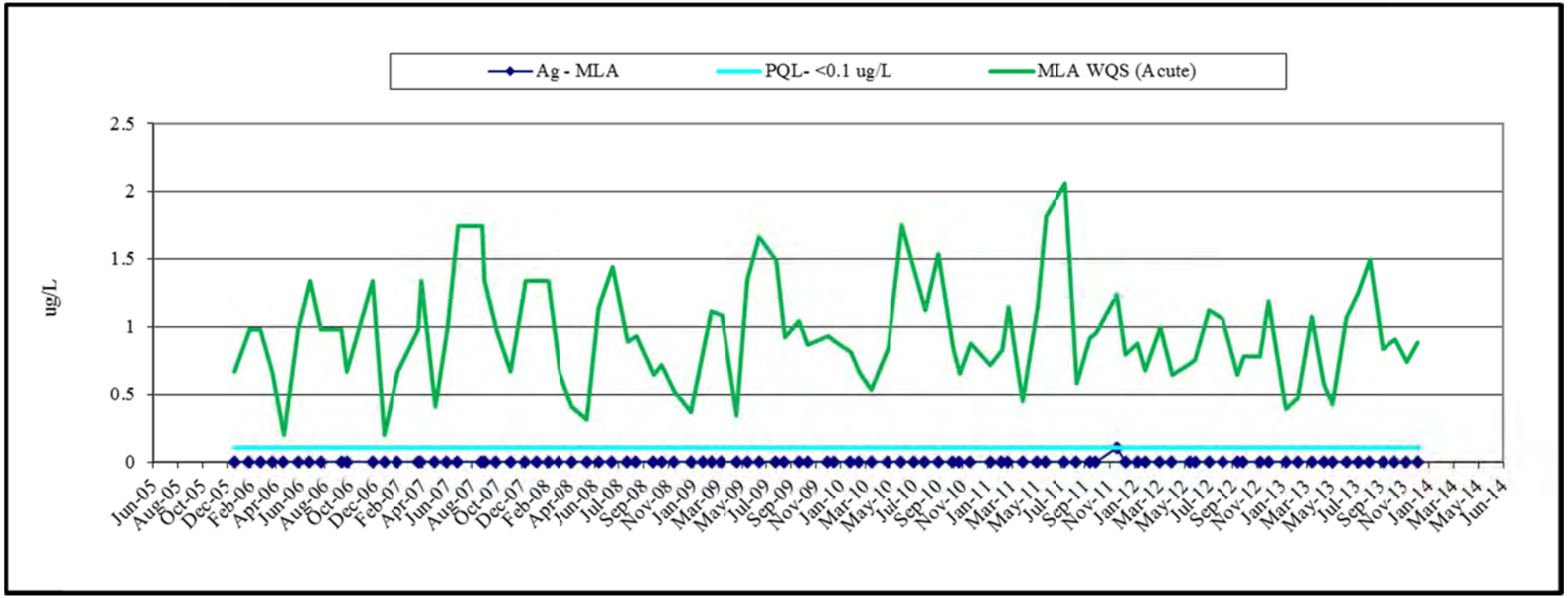


Note: MLA is the background station used for calculating turbidity standards at SMP-5, SLB & SLC. Therefore, no criterion is set for MLA.

Figure 9c: Slate Creek (MLA) Monitoring Results 2006-2013, Trace Chemistry



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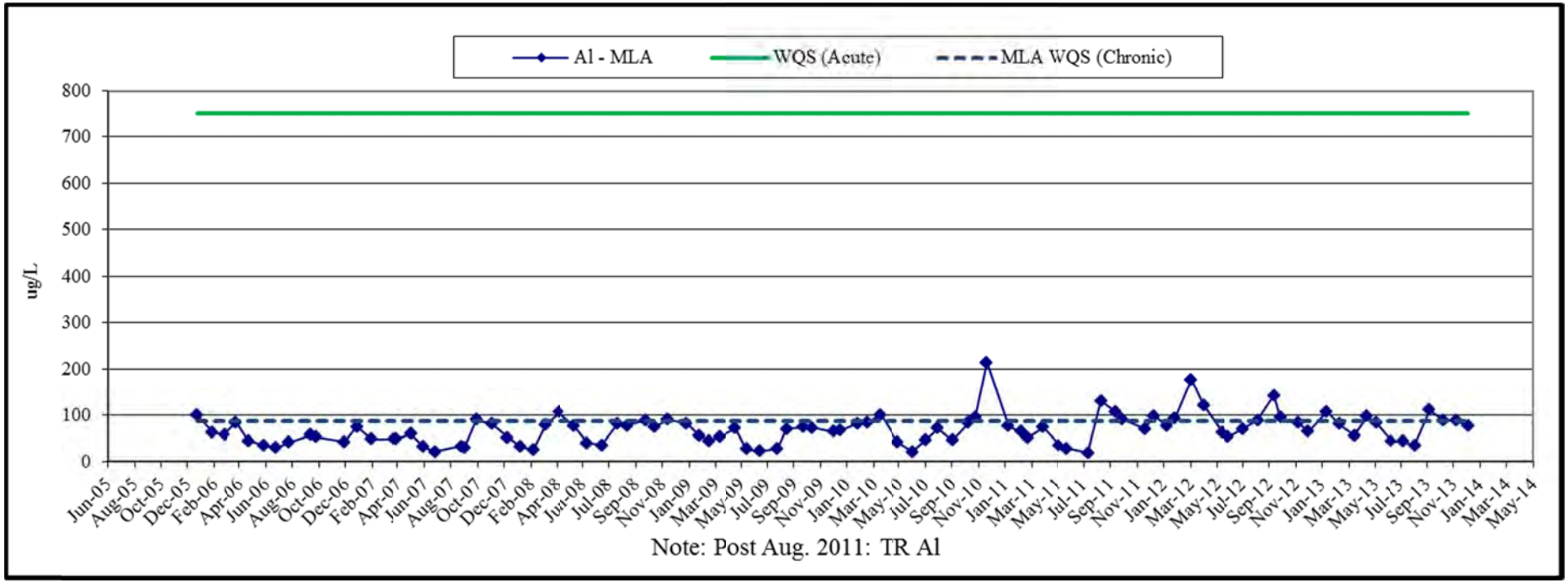

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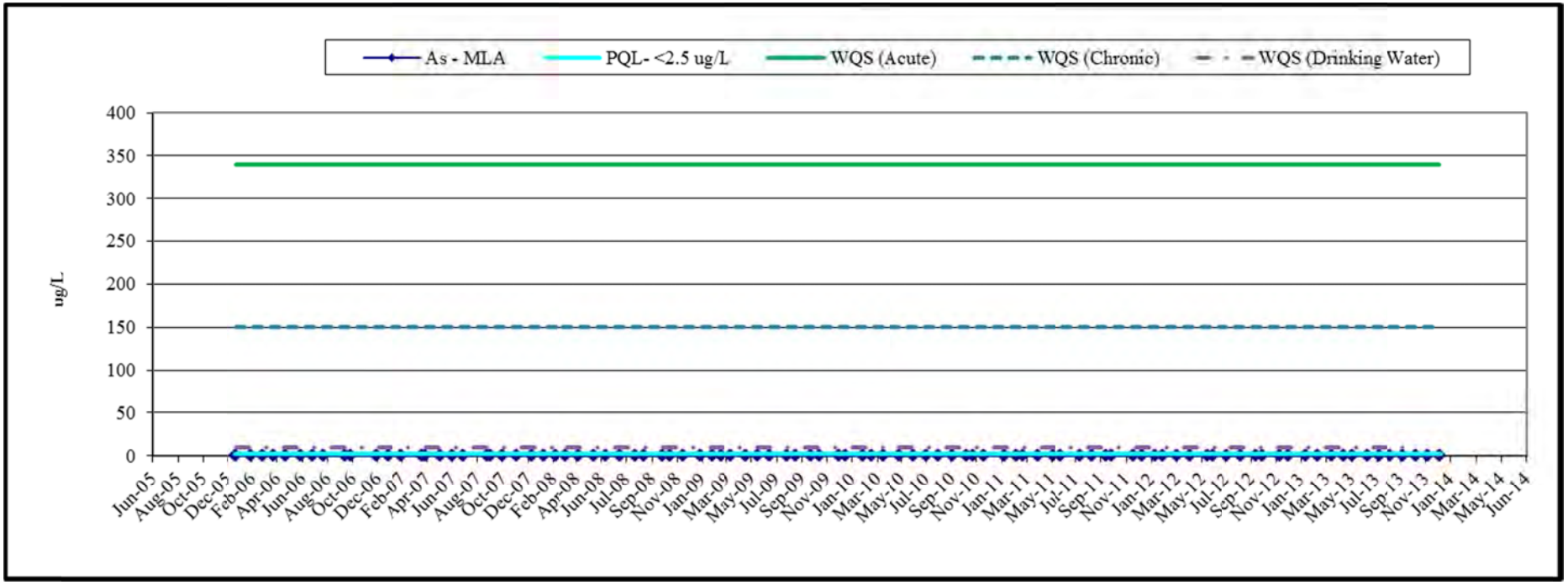

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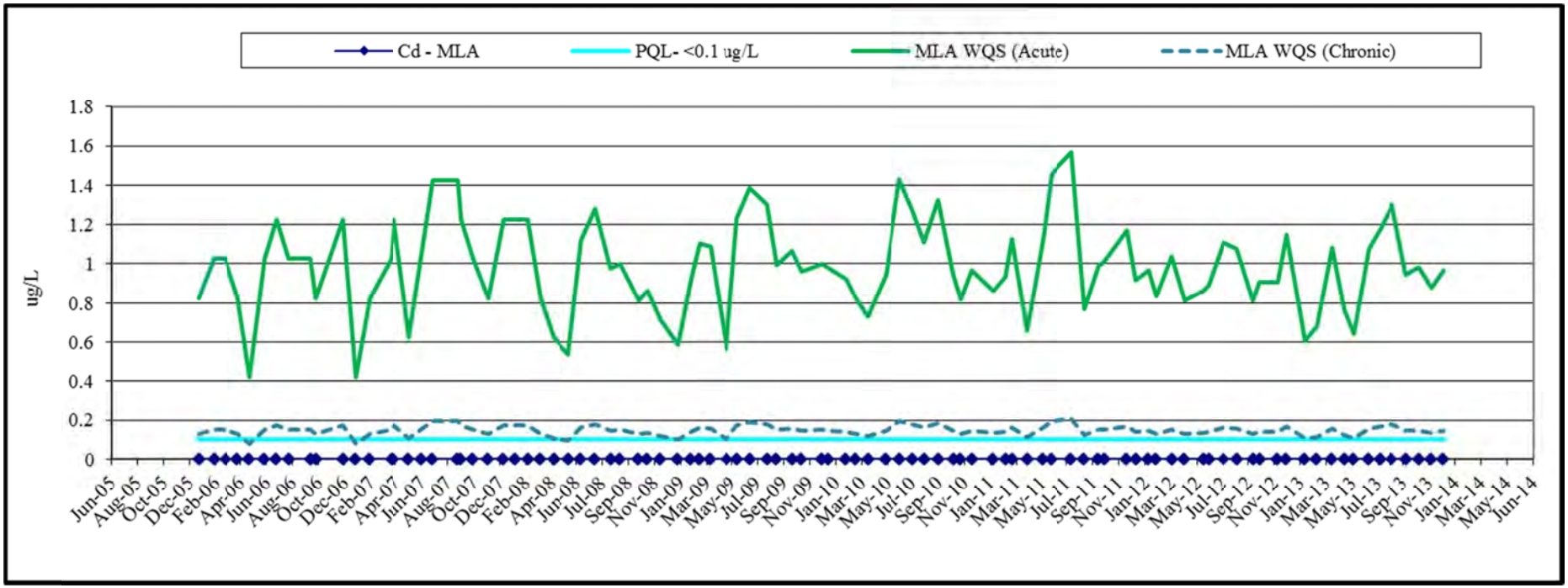

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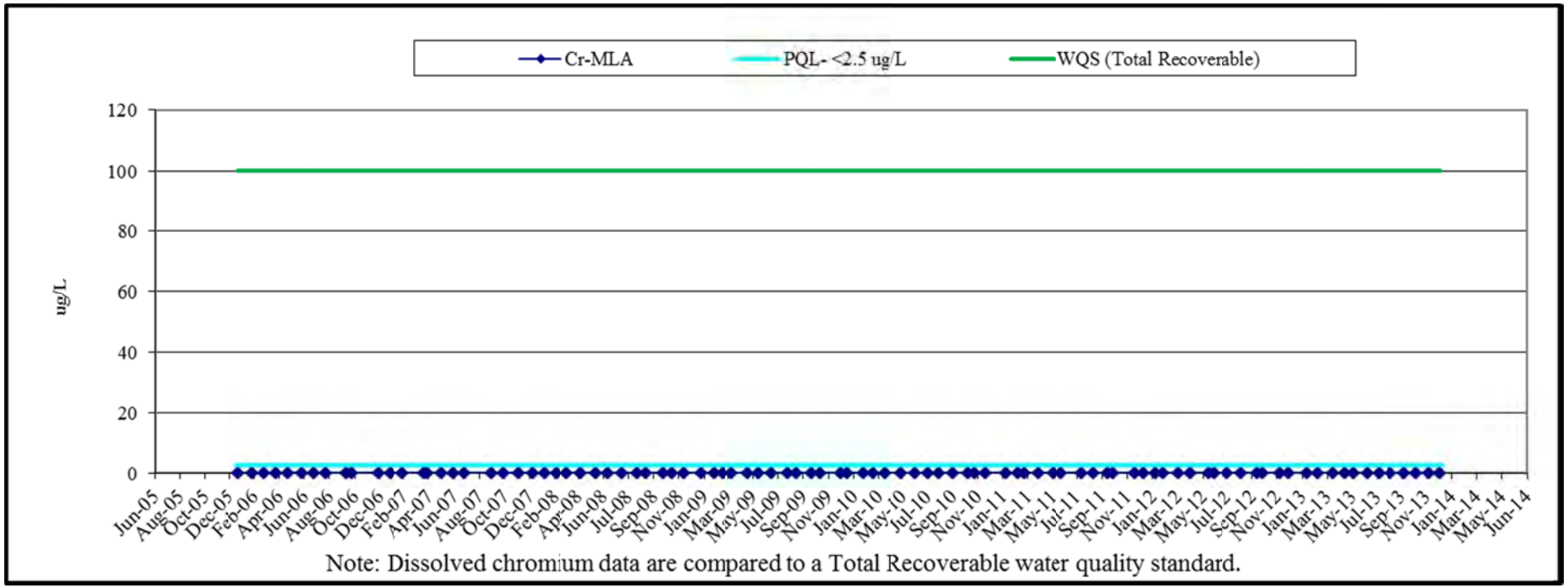
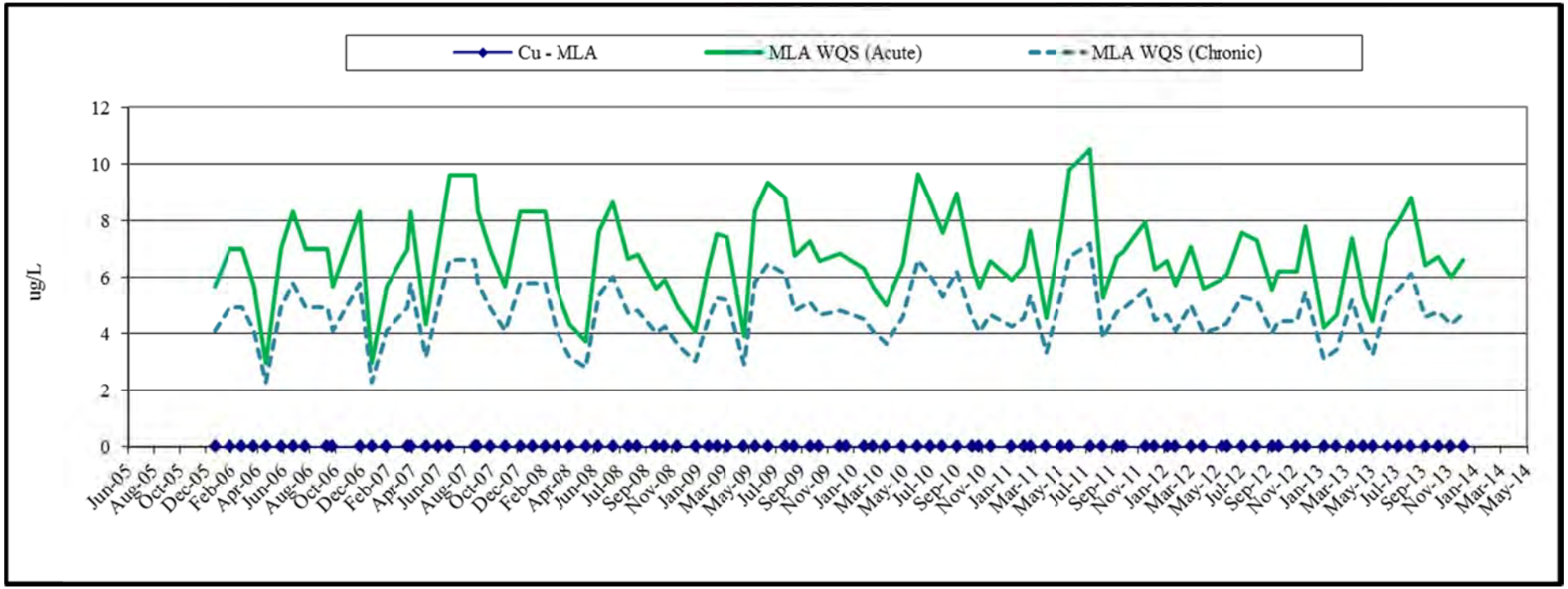


Figure 9c: Slate Creek (MLA) Monitoring Results 2006-2013, Trace Chemistry



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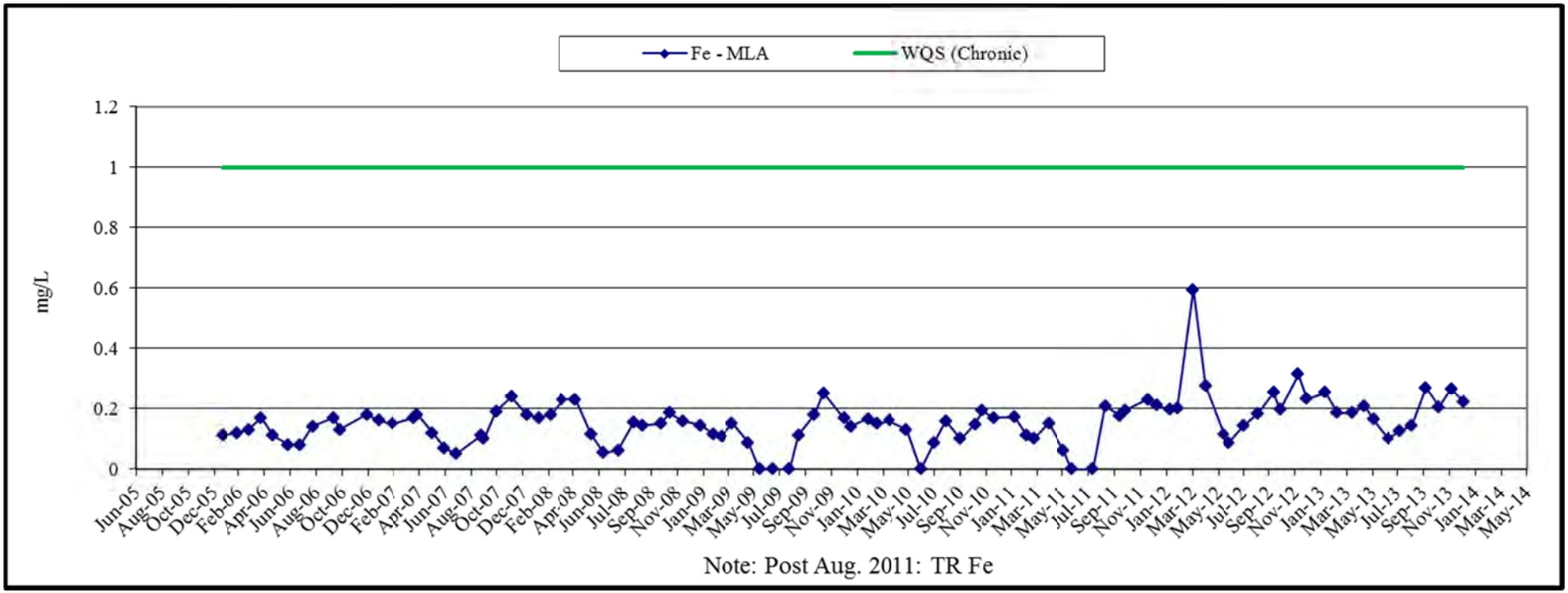

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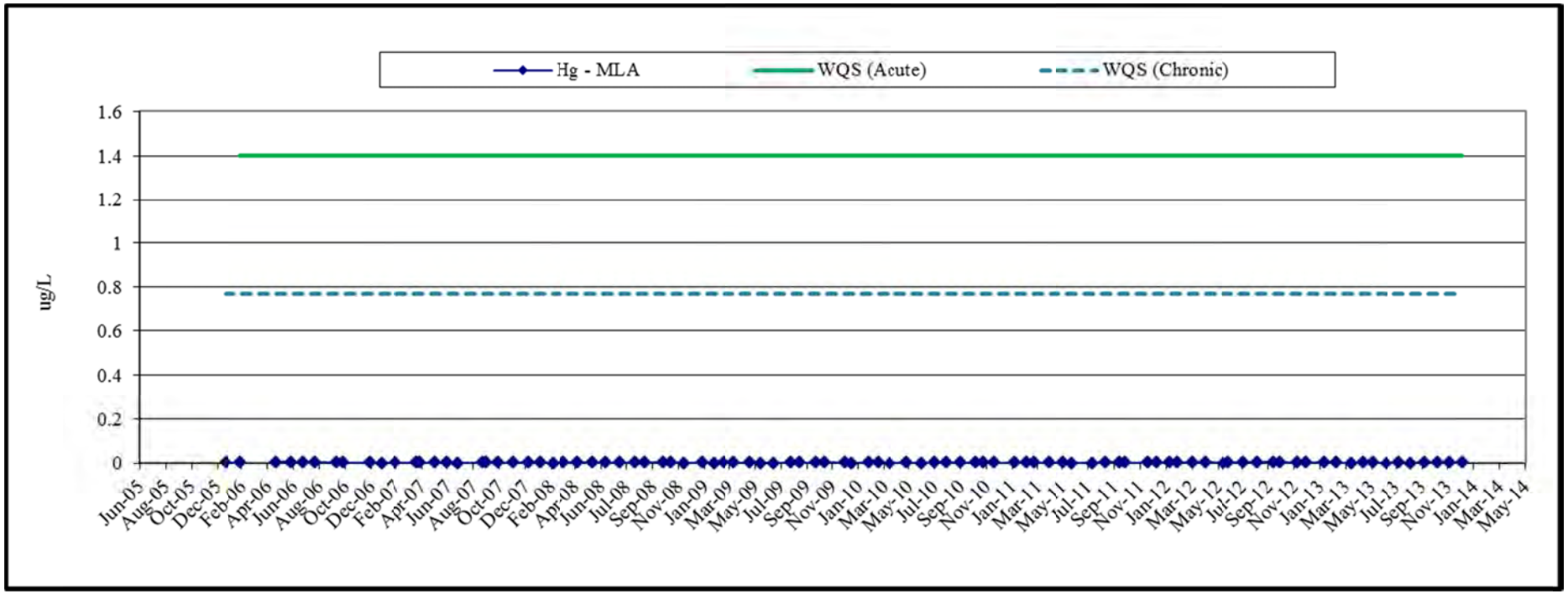

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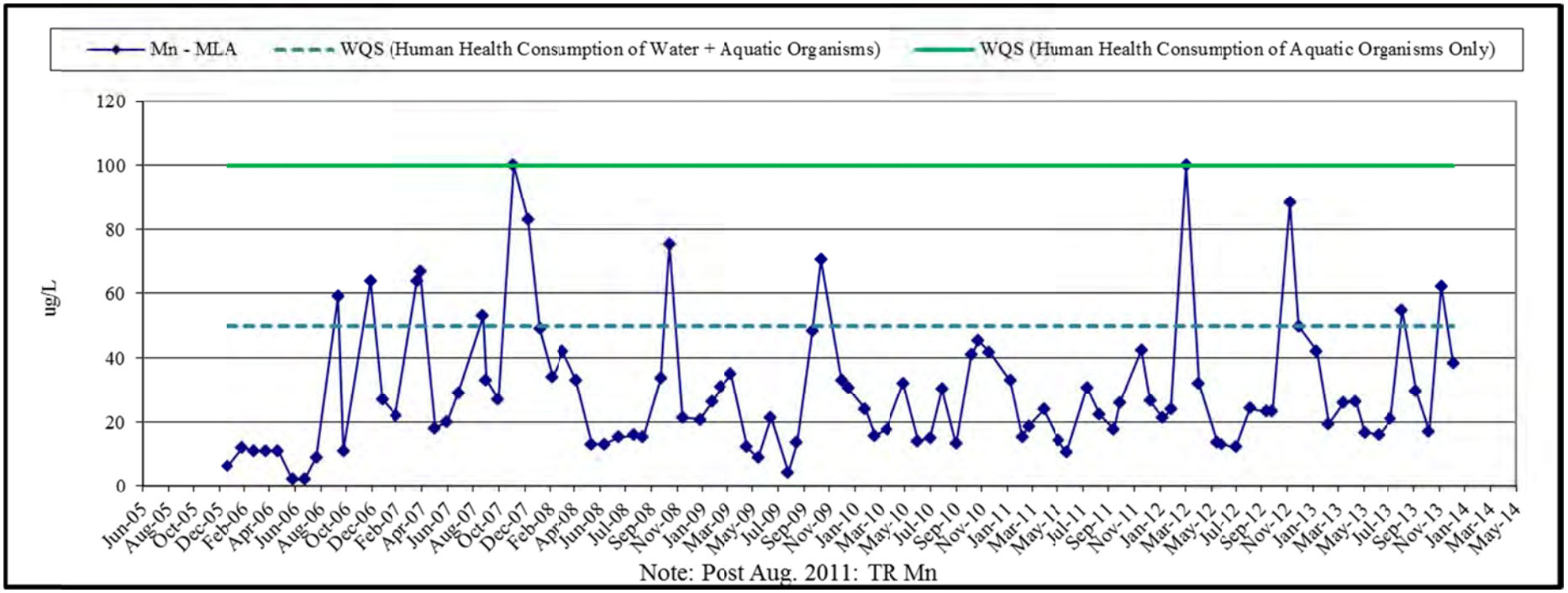


Figure 9c: Slate Creek (MLA) Monitoring Results 2006-2013, Trace Chemistry

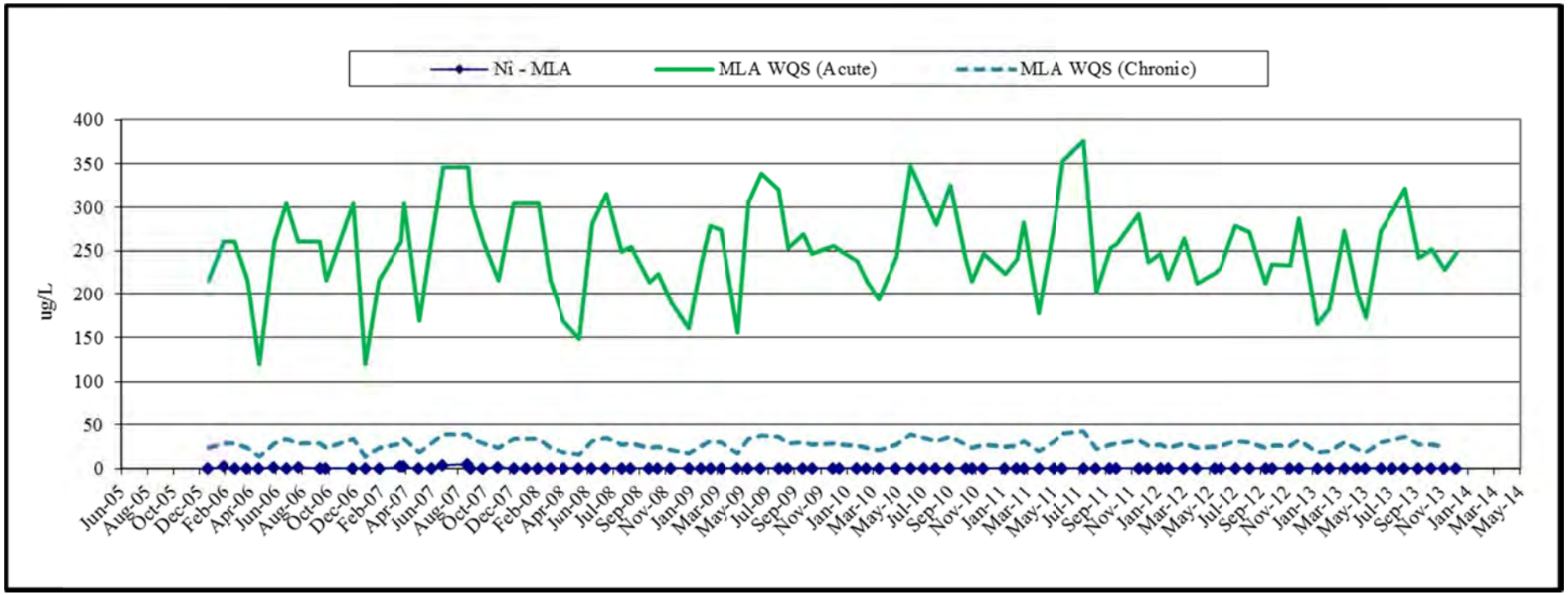


Figure 9c: Slate Creek (MLA) Monitoring Results 2006-2013, Trace Chemistry

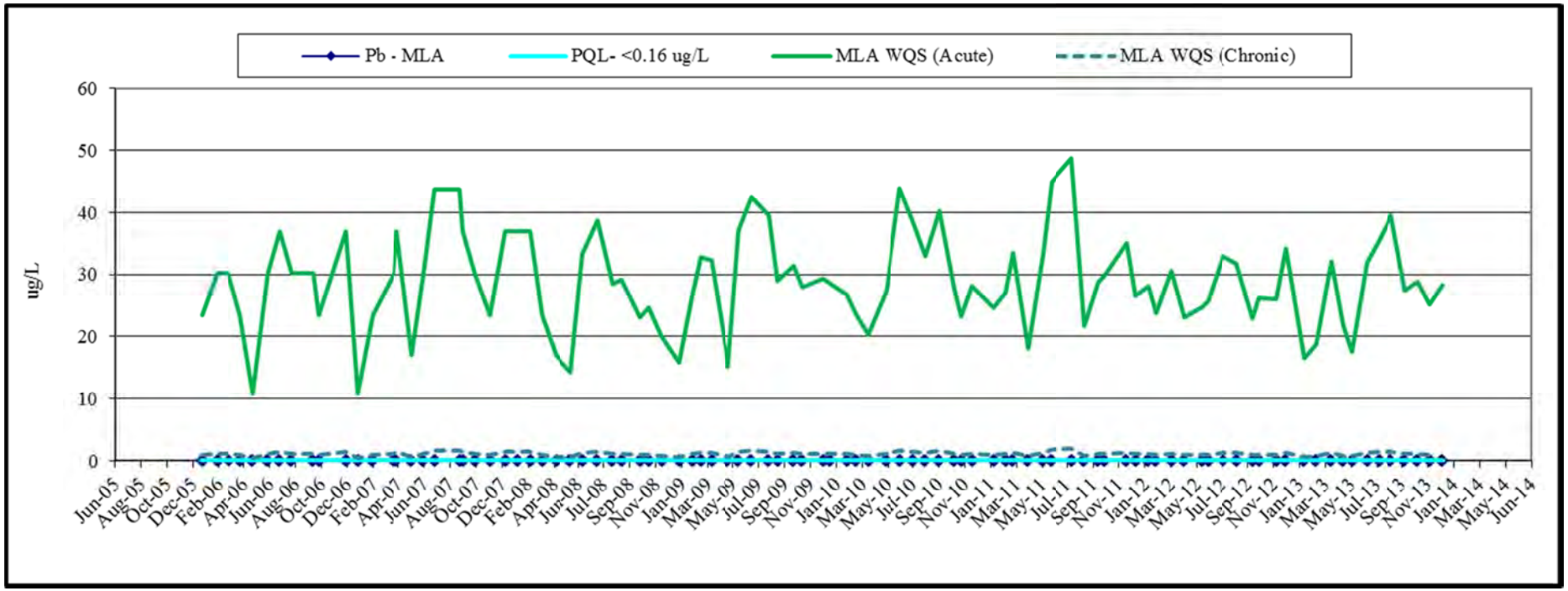


Figure 9c: Slate Creek (MLA) Monitoring Results 2006-2013, Trace Chemistry

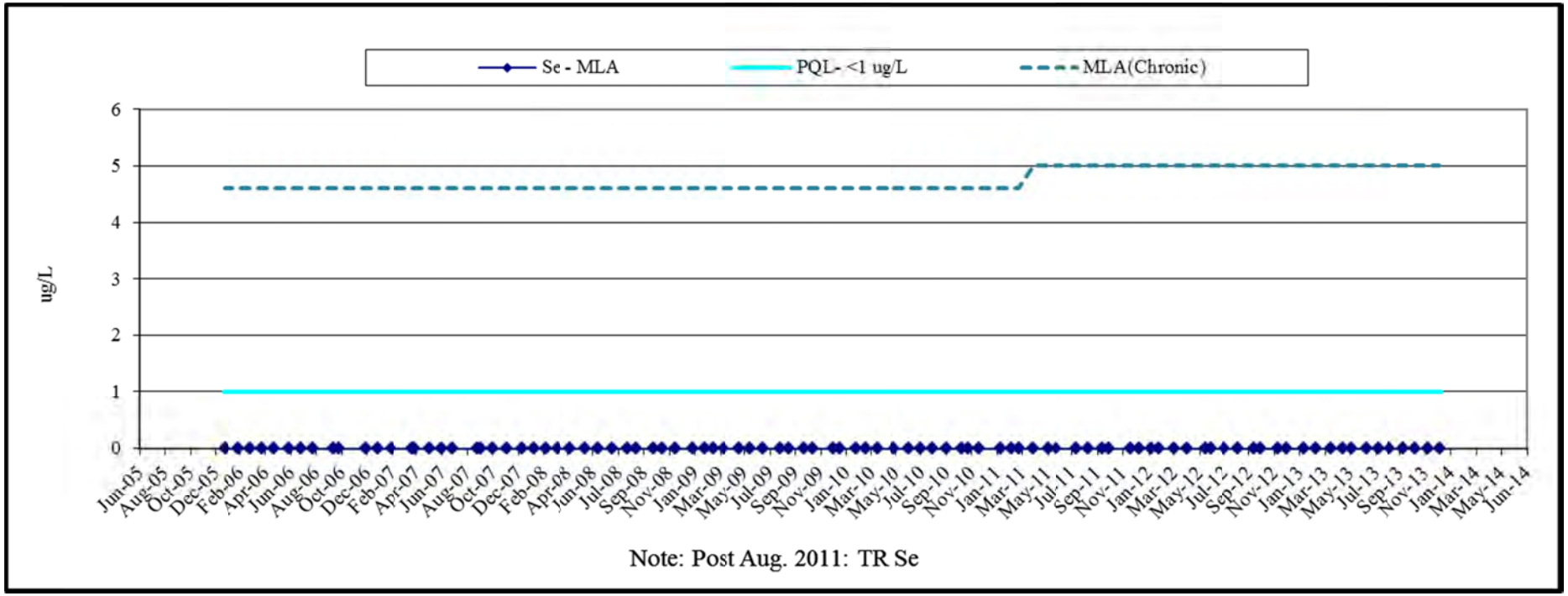


Figure 9c: Slate Creek (MLA) Monitoring Results 2006-2013, Trace Chemistry

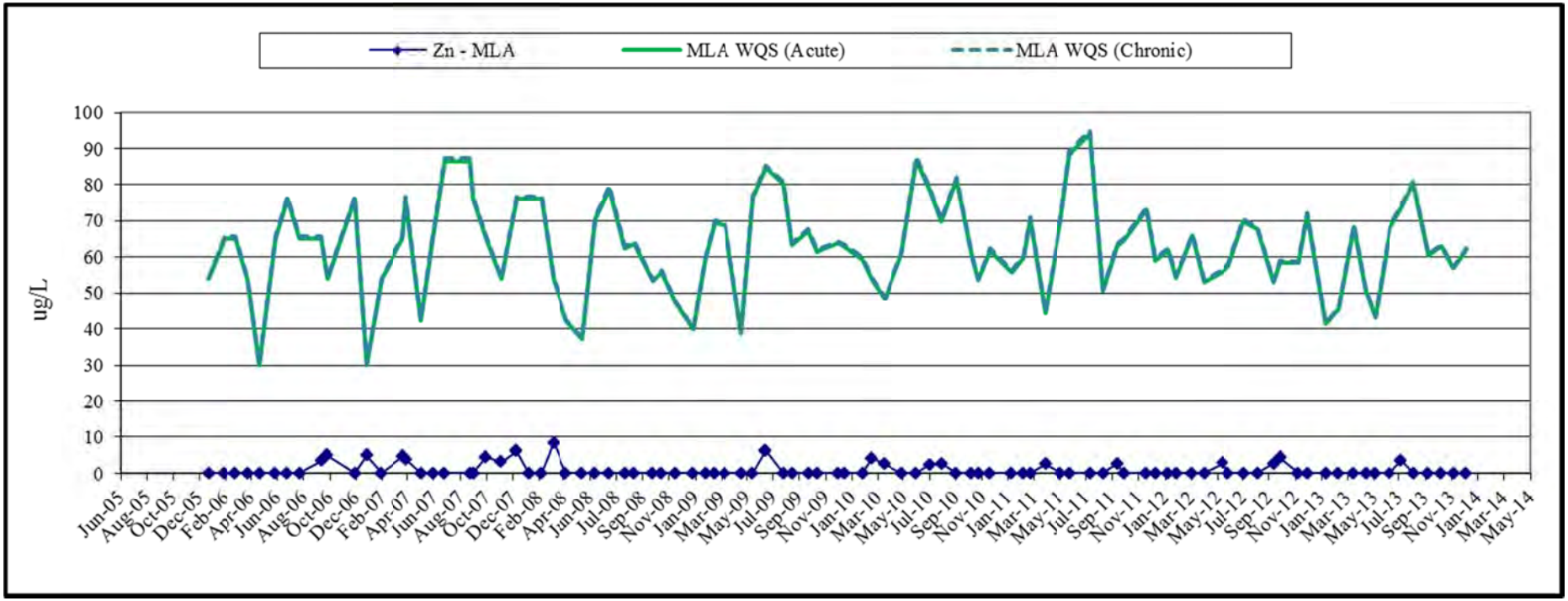


Figure 10a: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Field Parameters

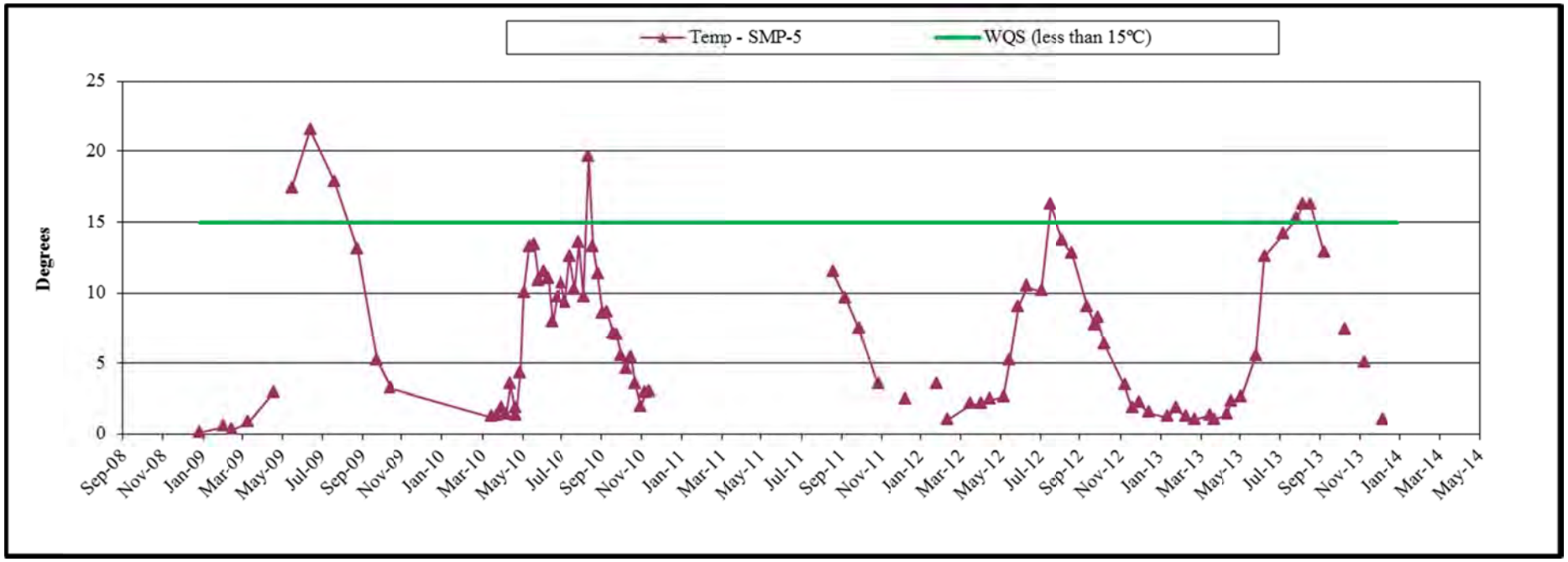


Figure 10a: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Field Parameters

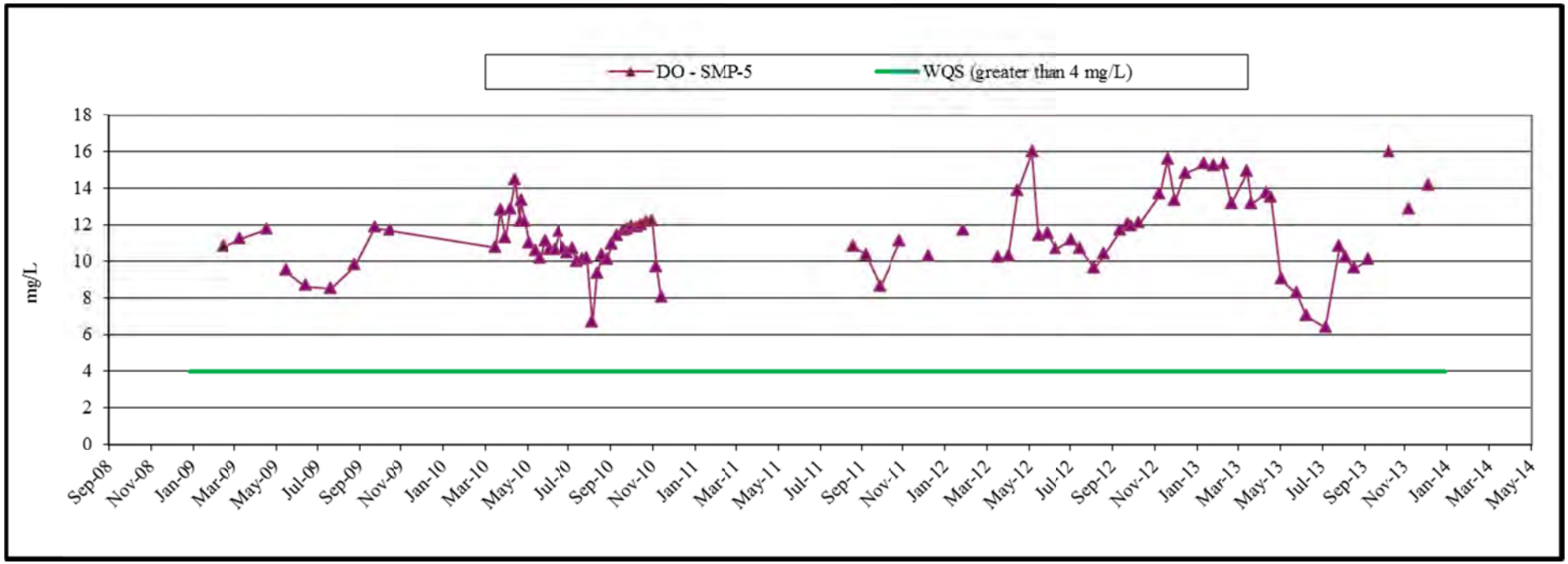


Figure 10a: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Field Parameters

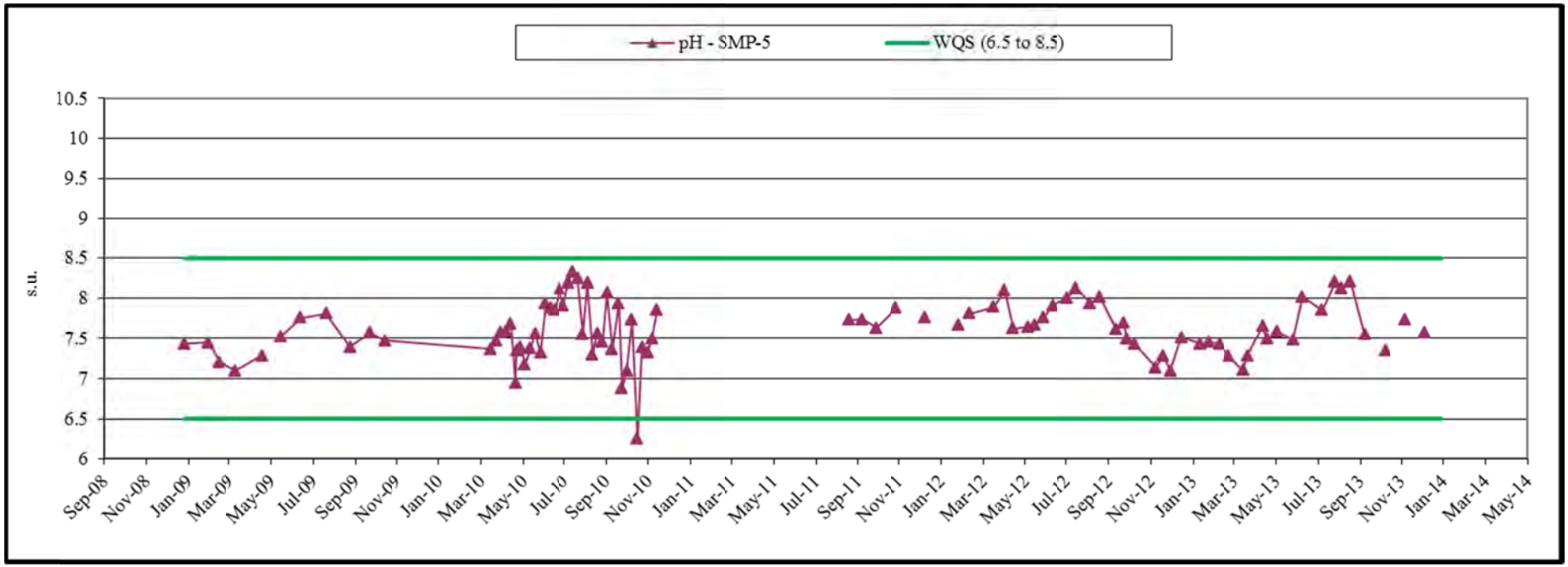


Figure 10a: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Field Parameters

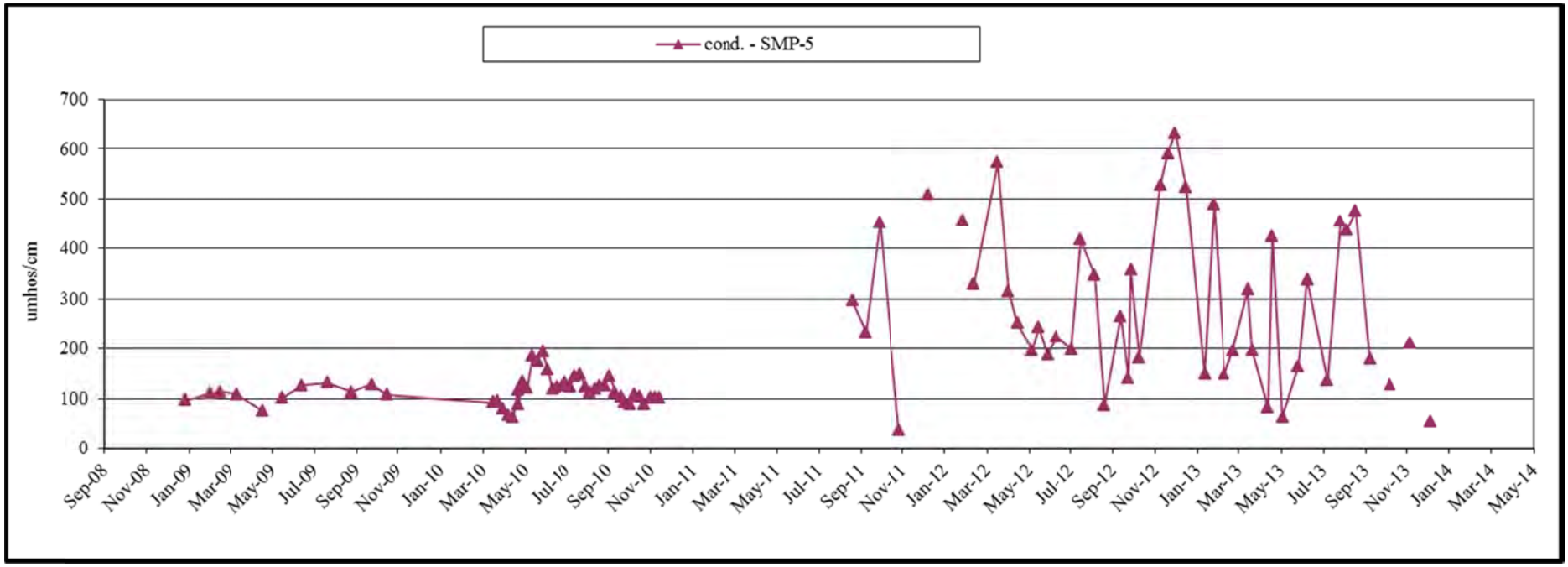


Figure 10b: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Major Chemistry

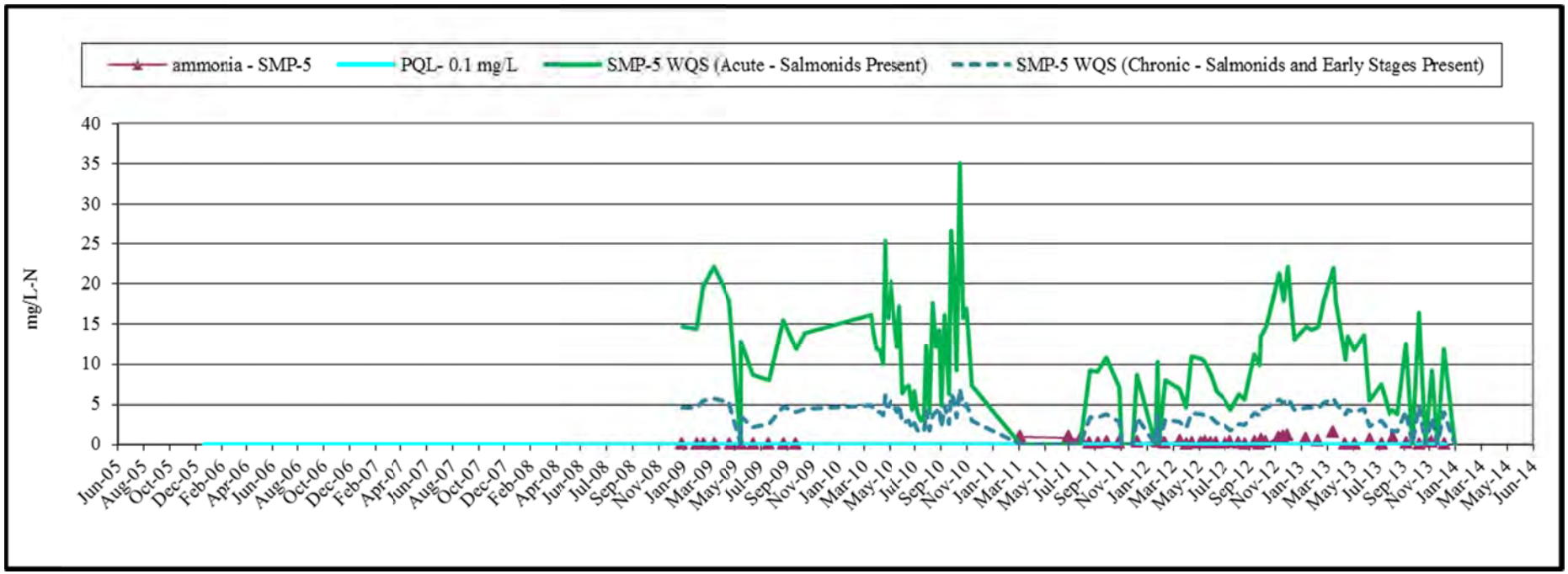


Figure 10b: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Major Chemistry

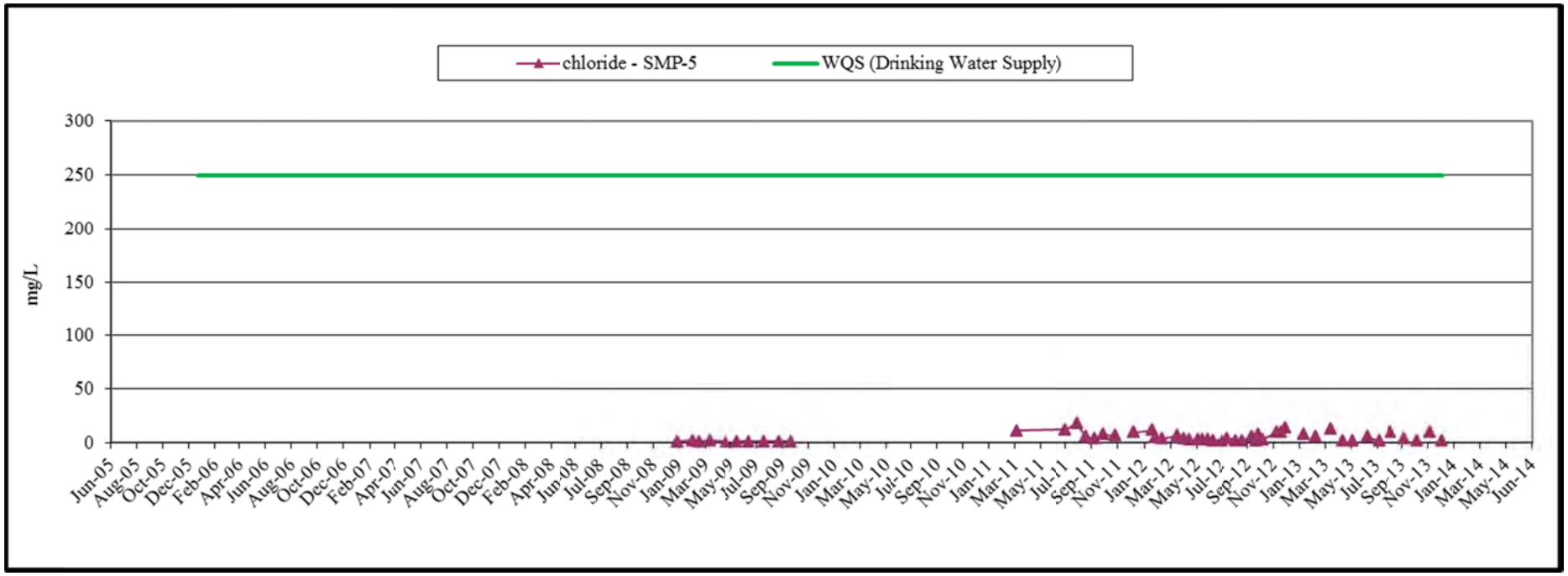
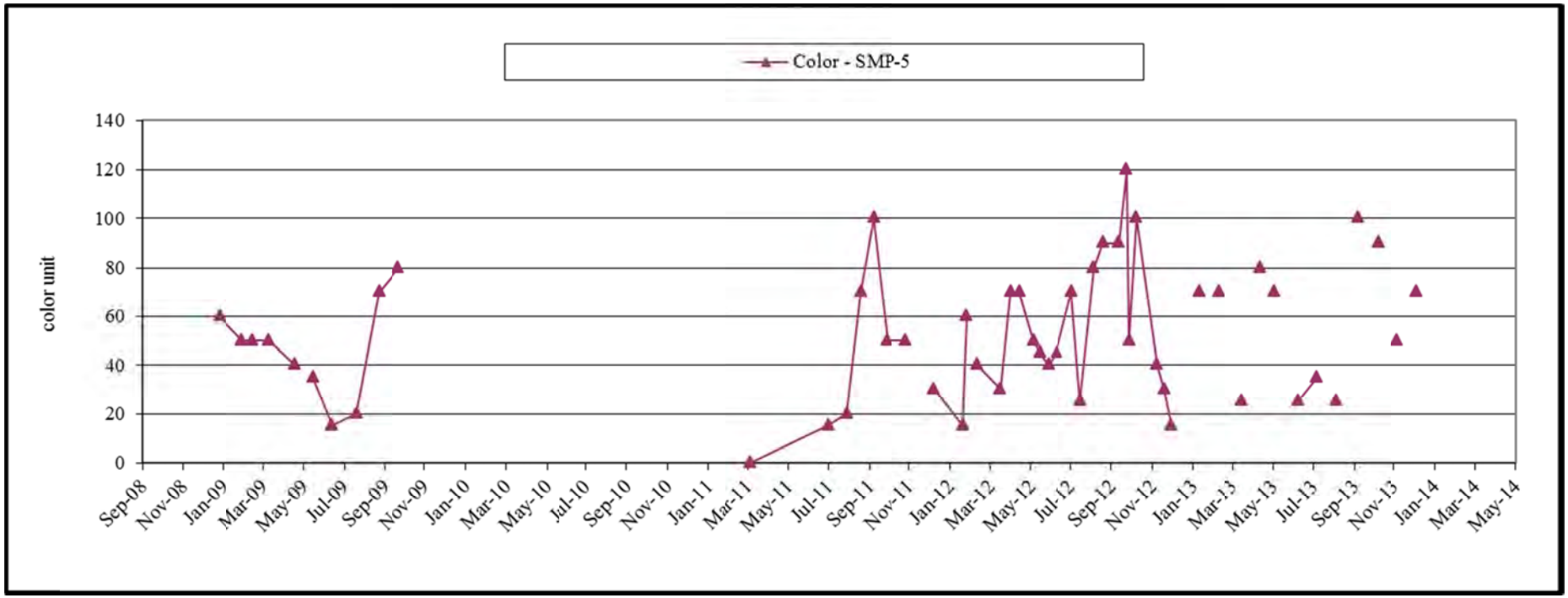


Figure 10b: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Major Chemistry



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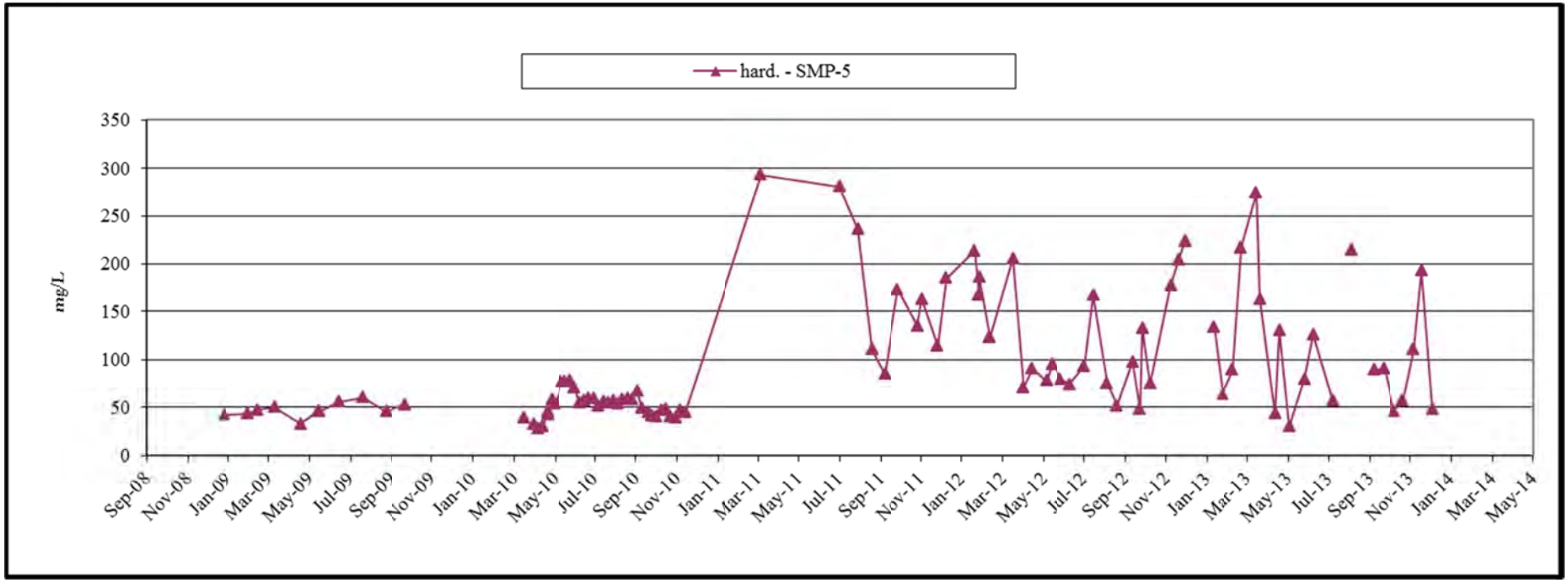
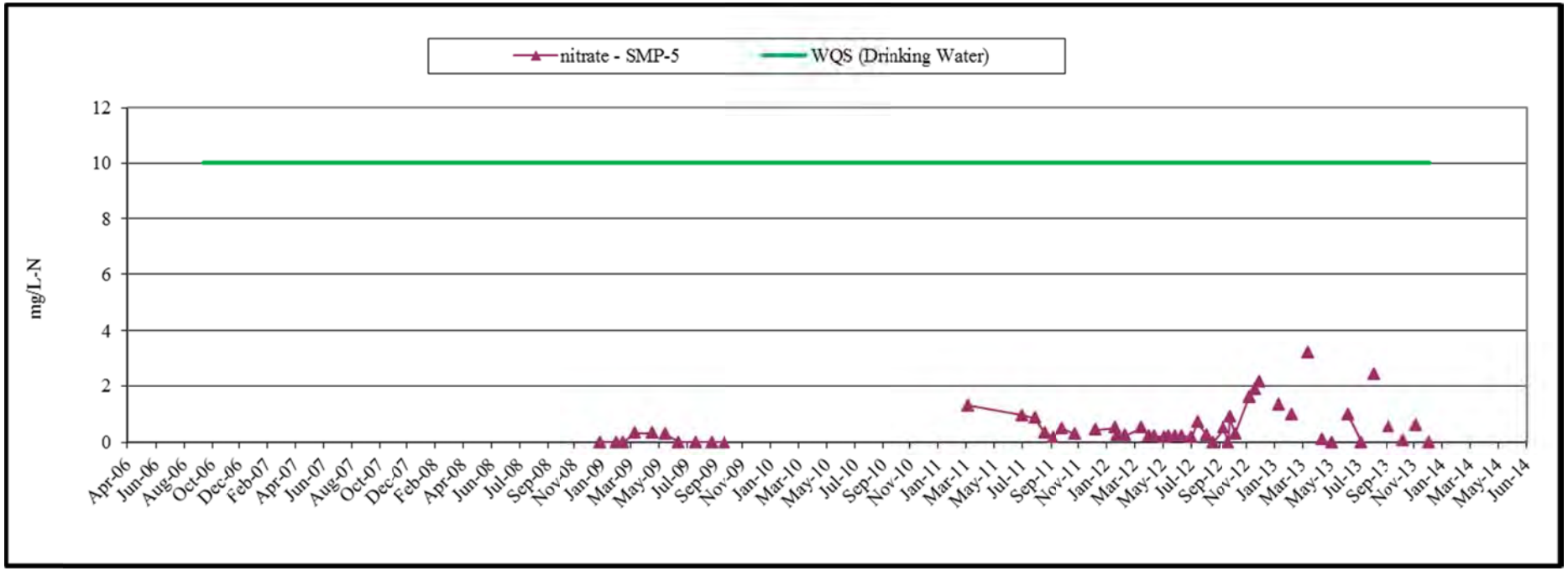


Figure 10b: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Major Chemistry



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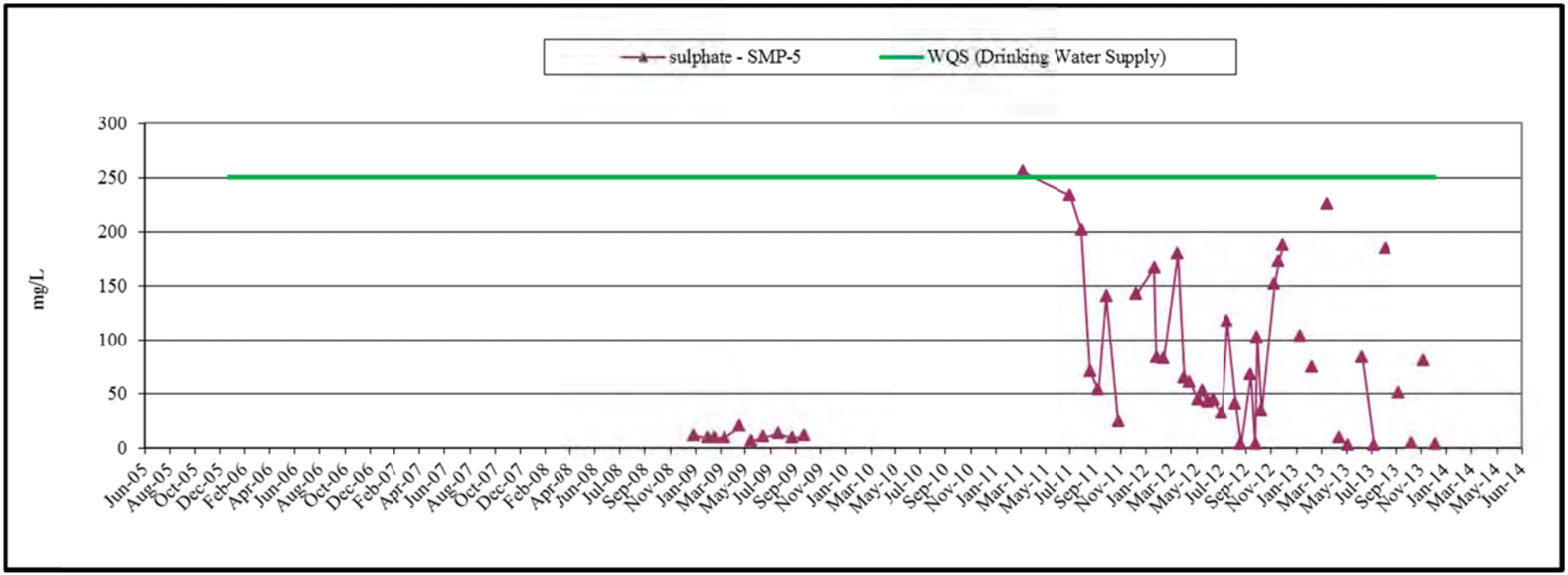

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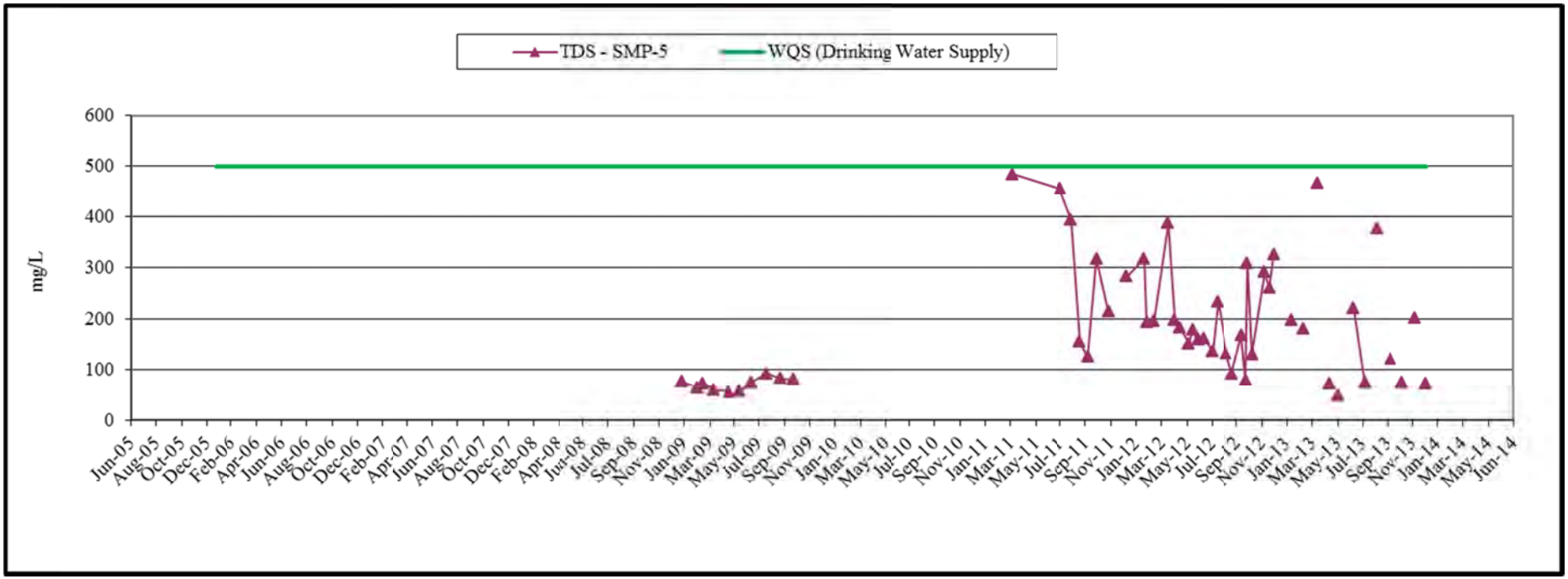

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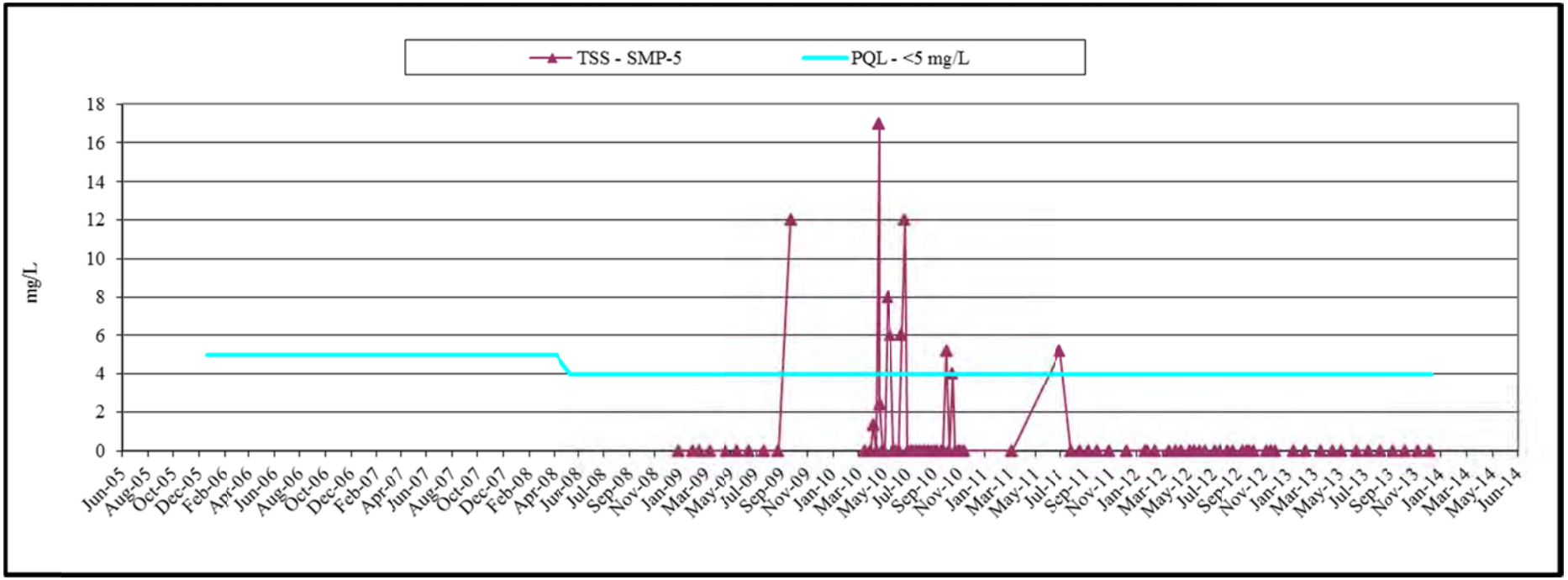

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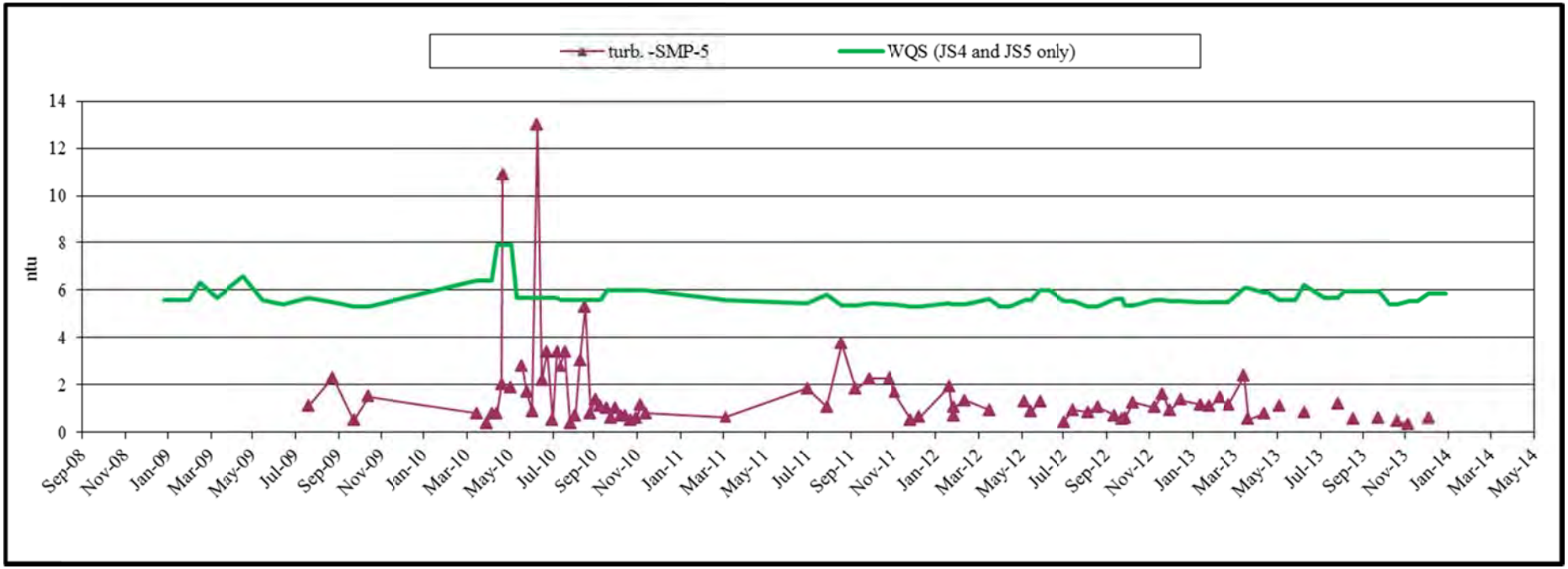


Figure 10c: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Trace Chemistry

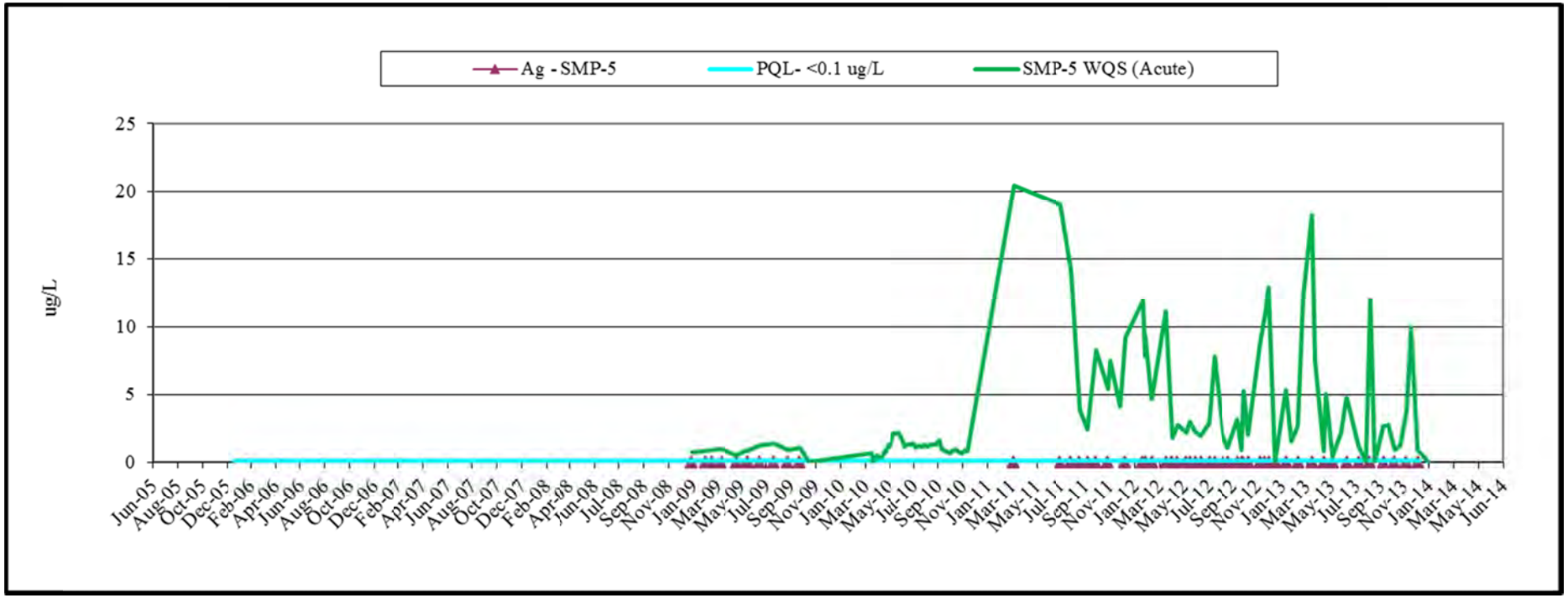
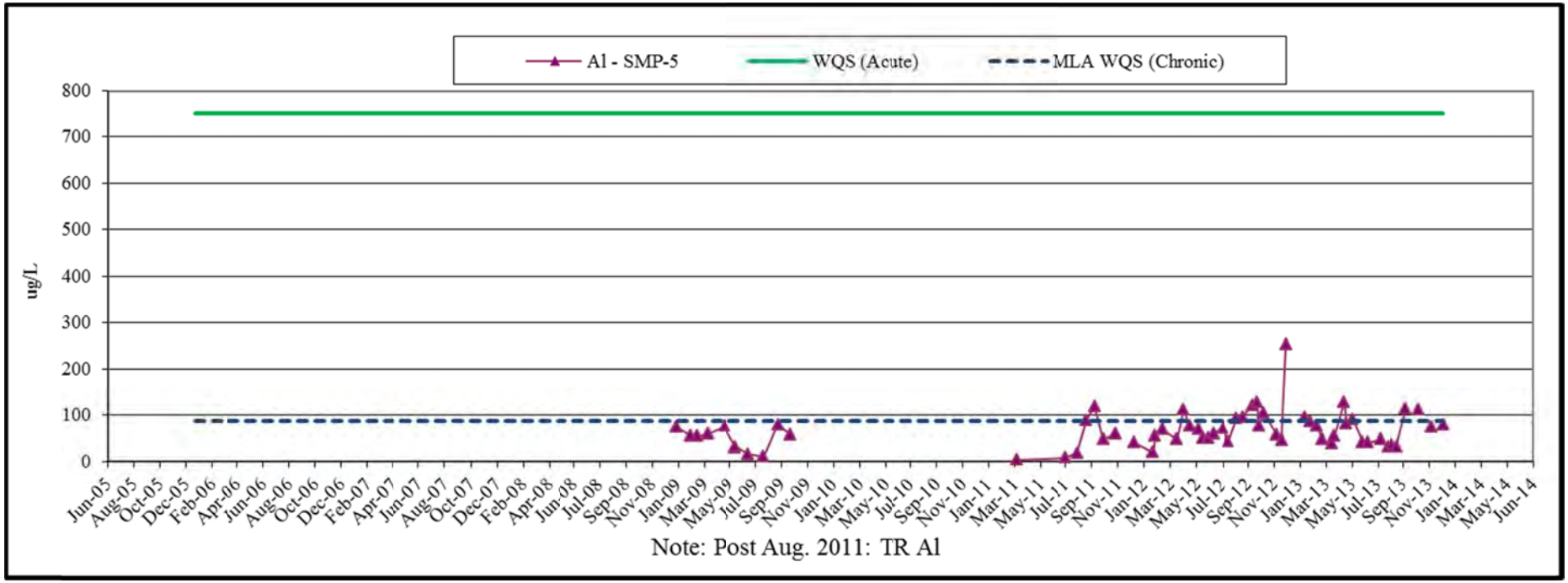


Figure 10c: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Trace Chemistry



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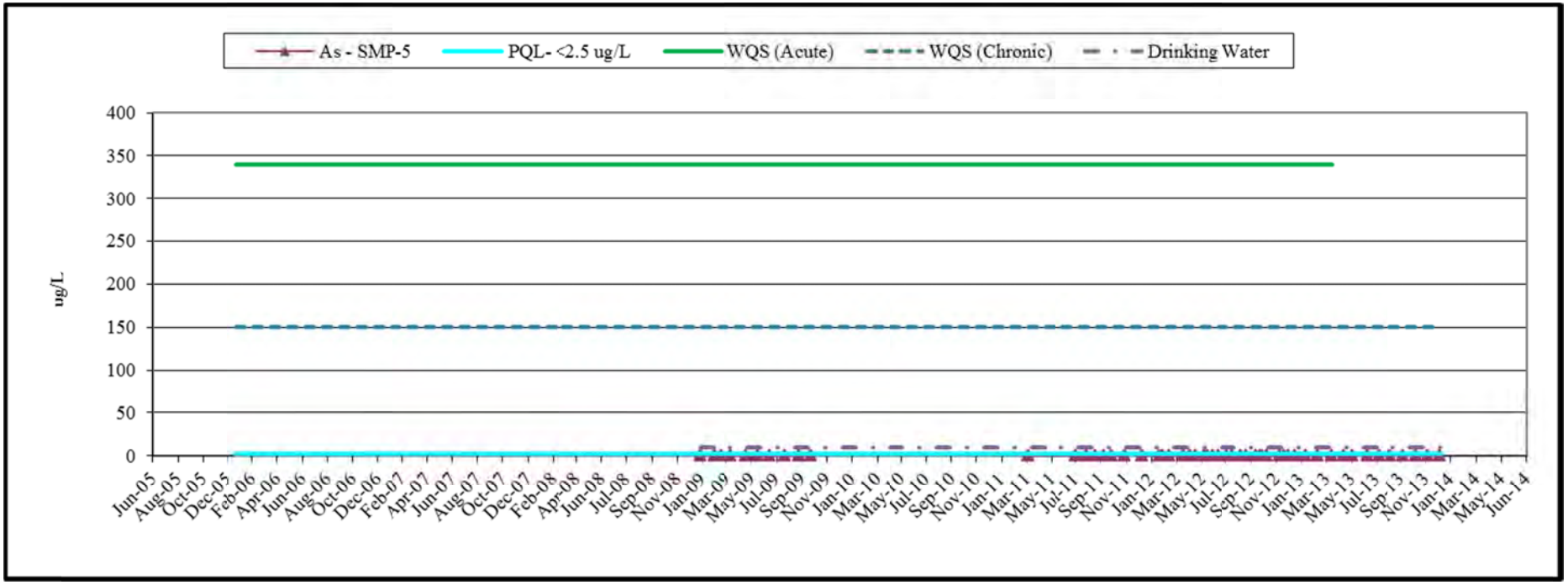

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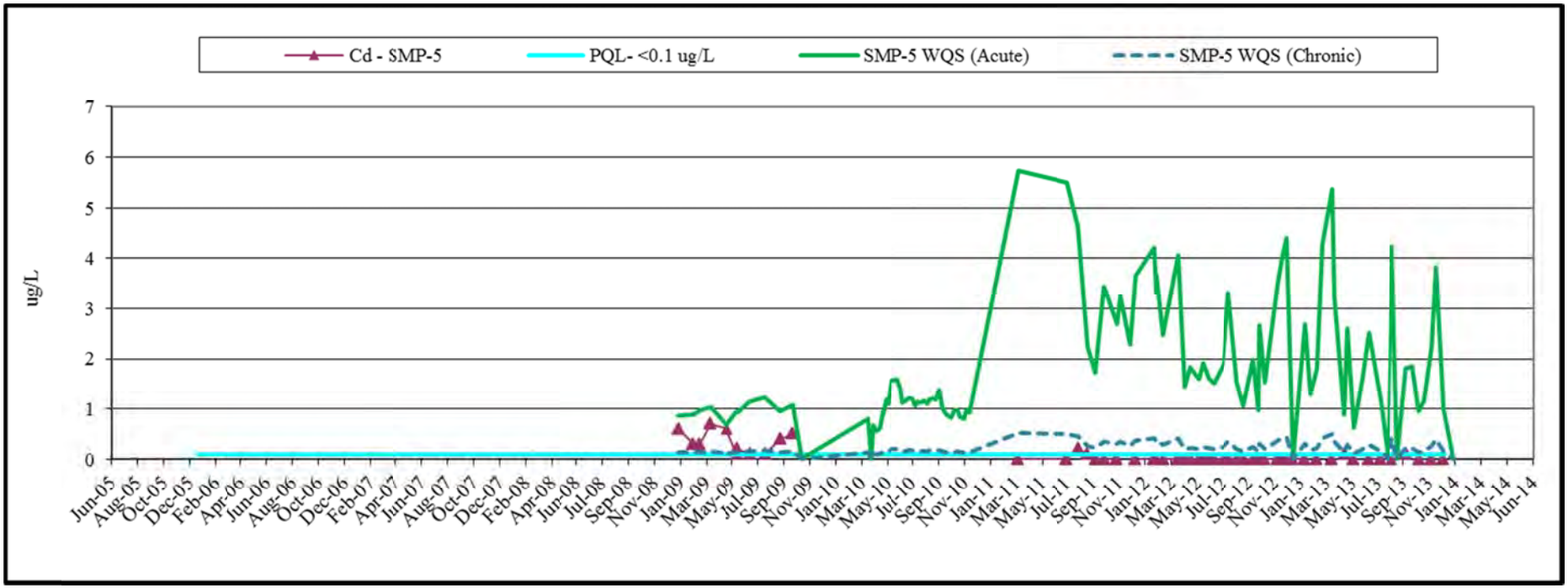

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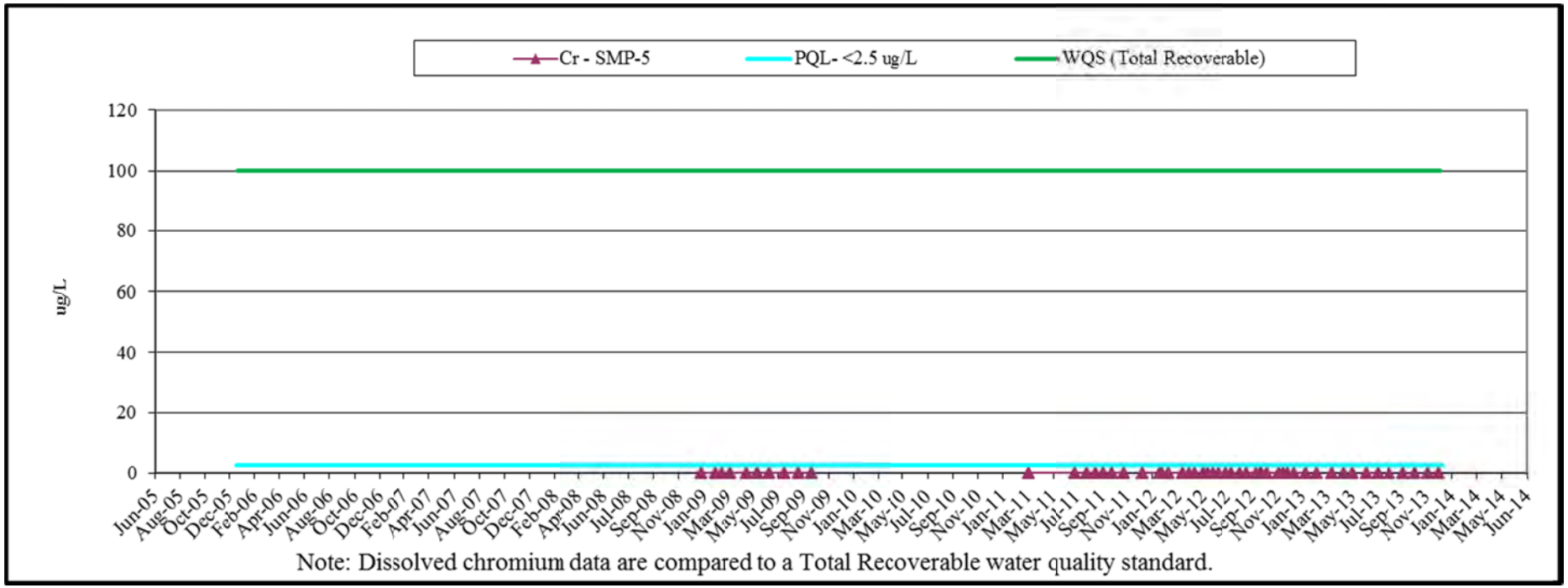
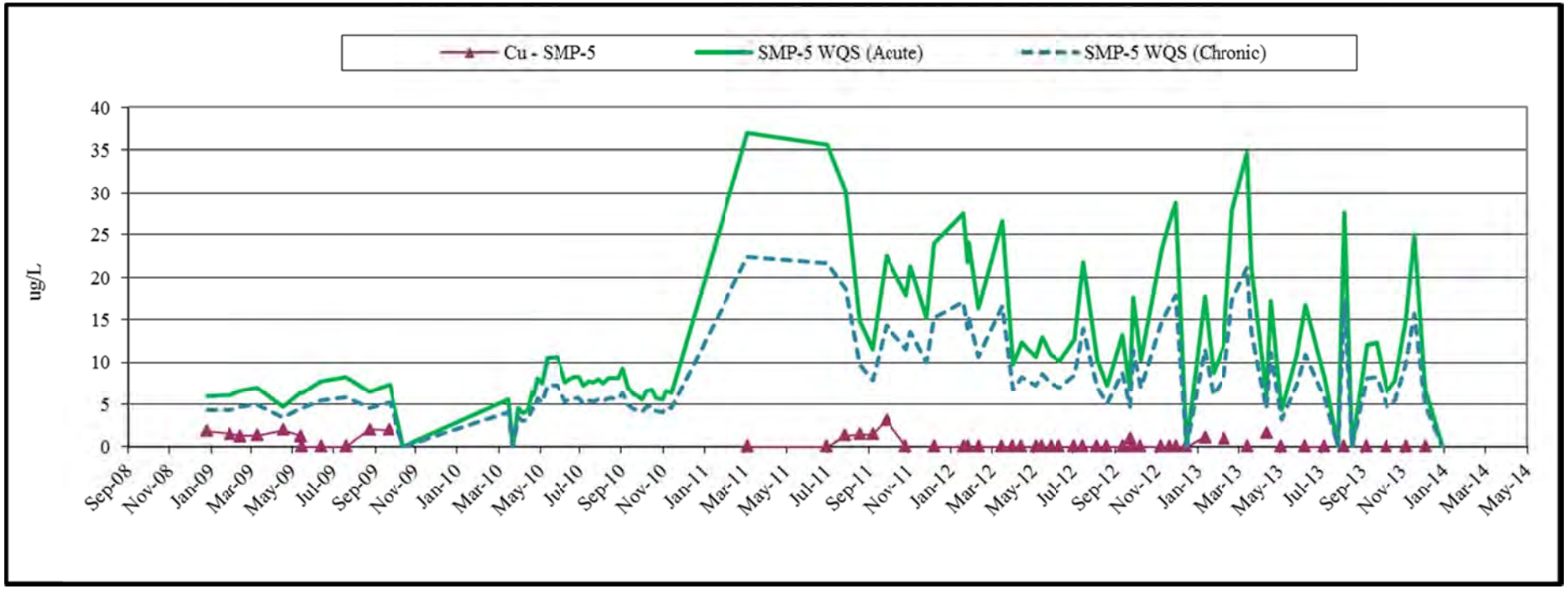


Note: Dissolved chromium data are compared to a Total Recoverable water quality standard.

Figure 10c: Slate Creek (SMP-5) Monitoring Results 2009 – 2013, Trace Chemistry



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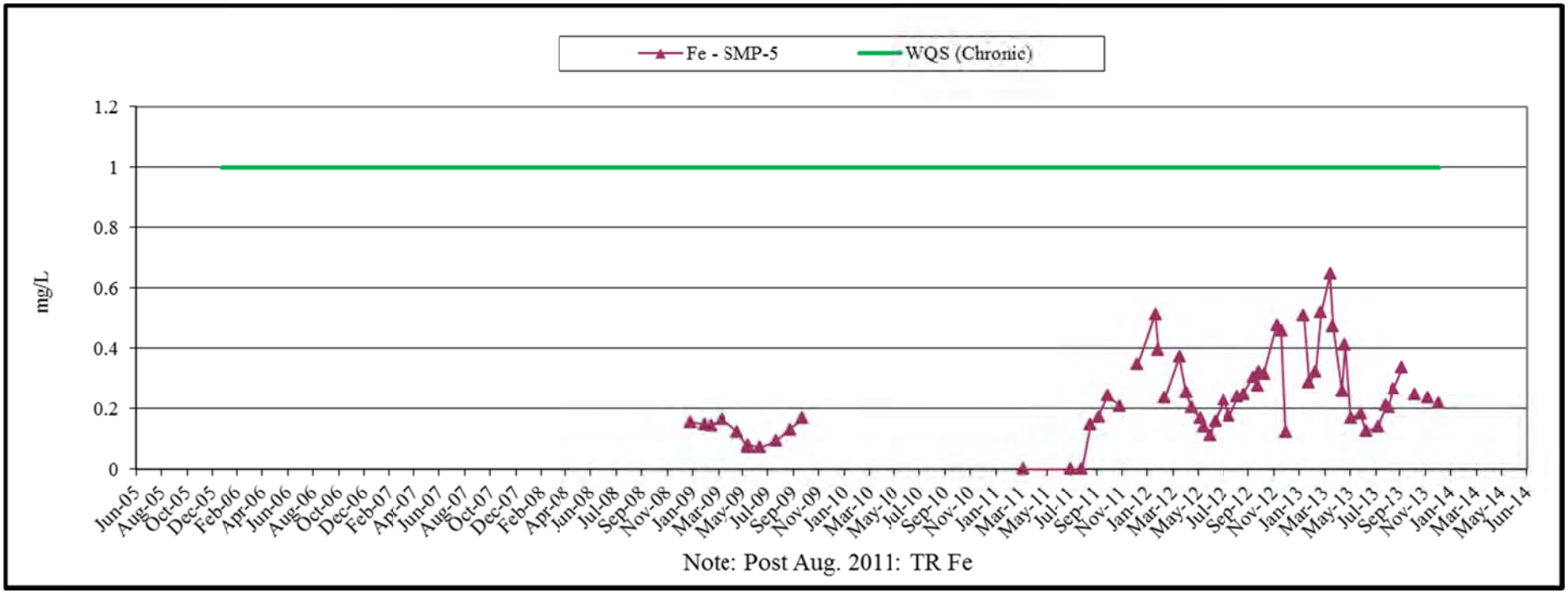

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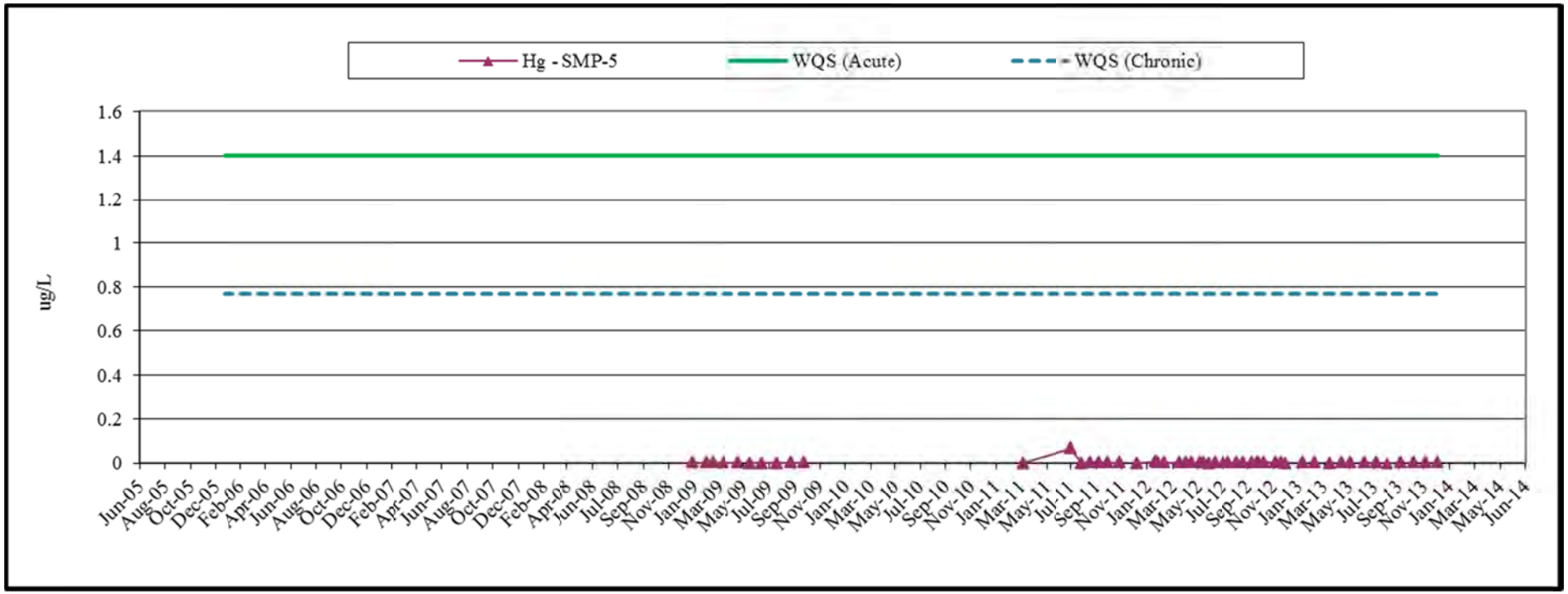

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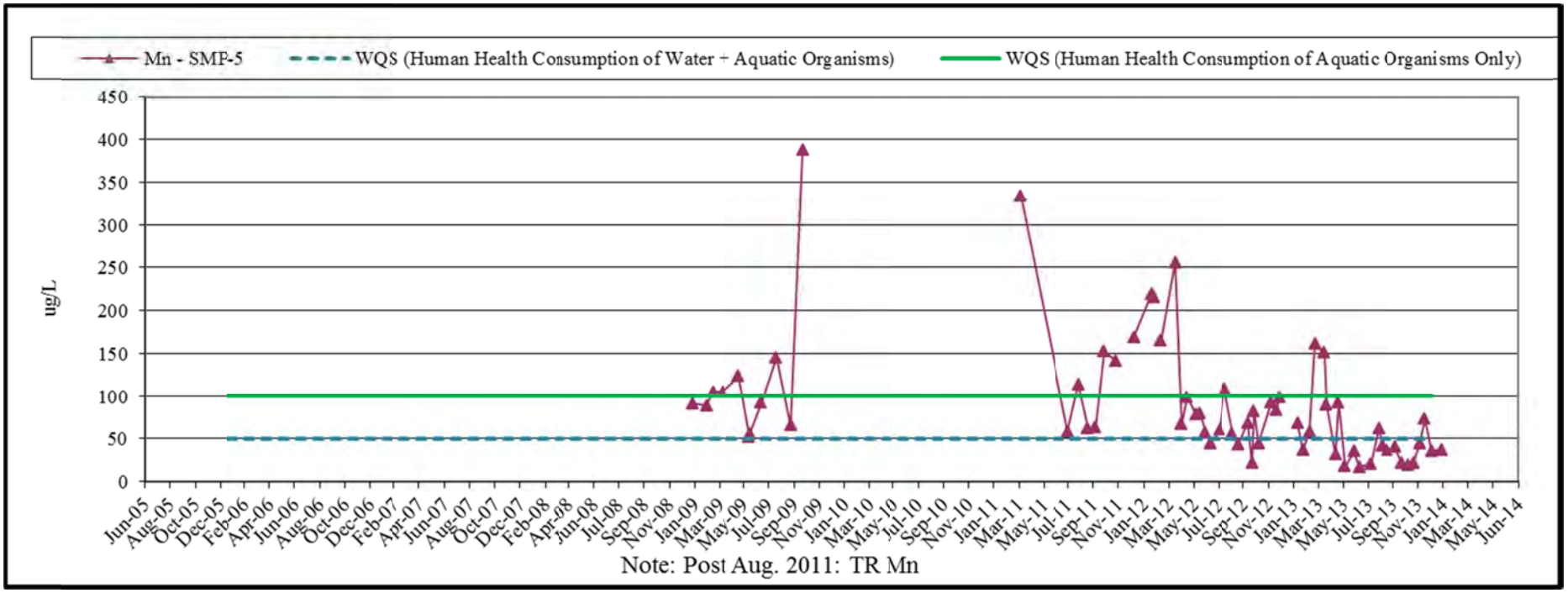

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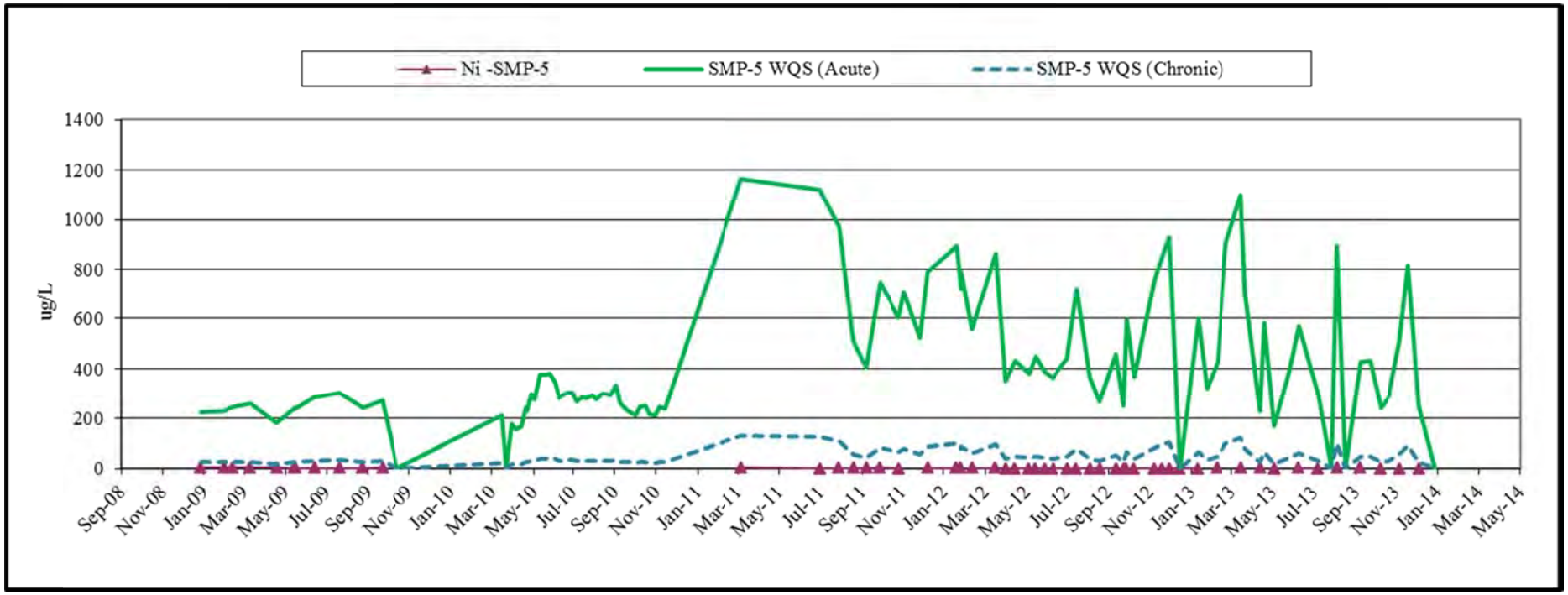

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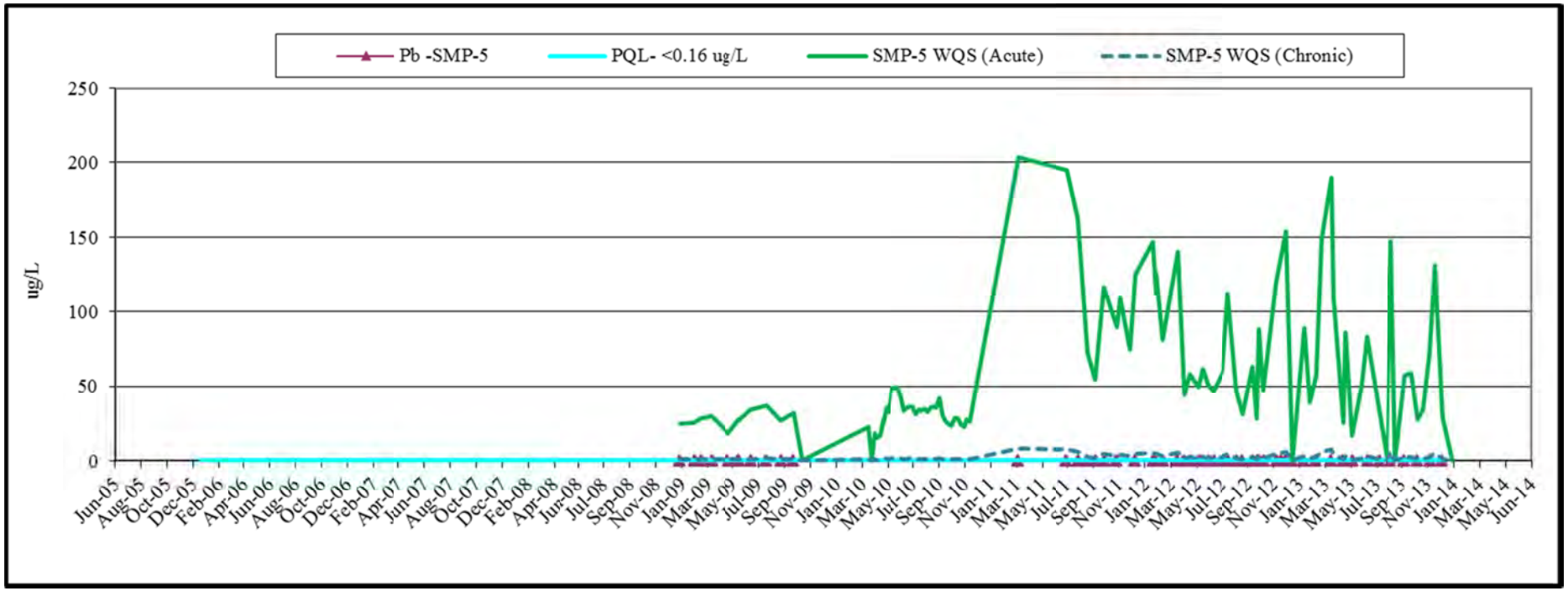

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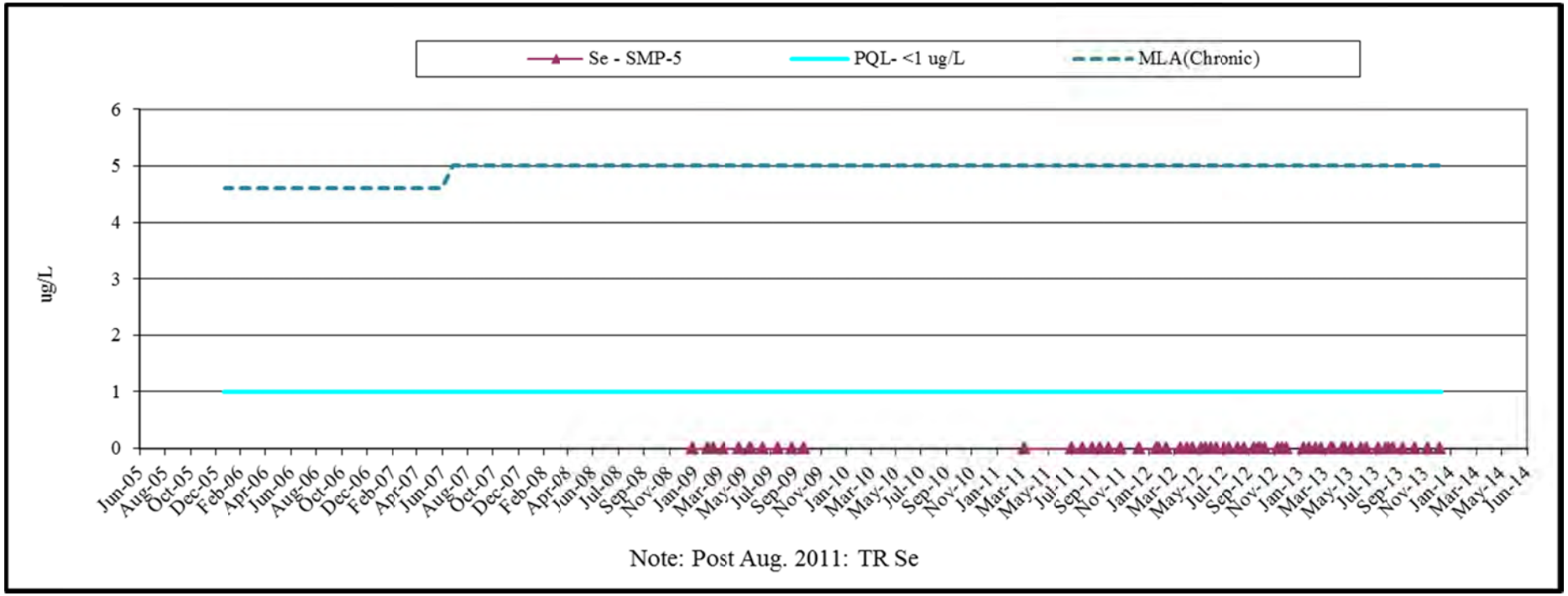

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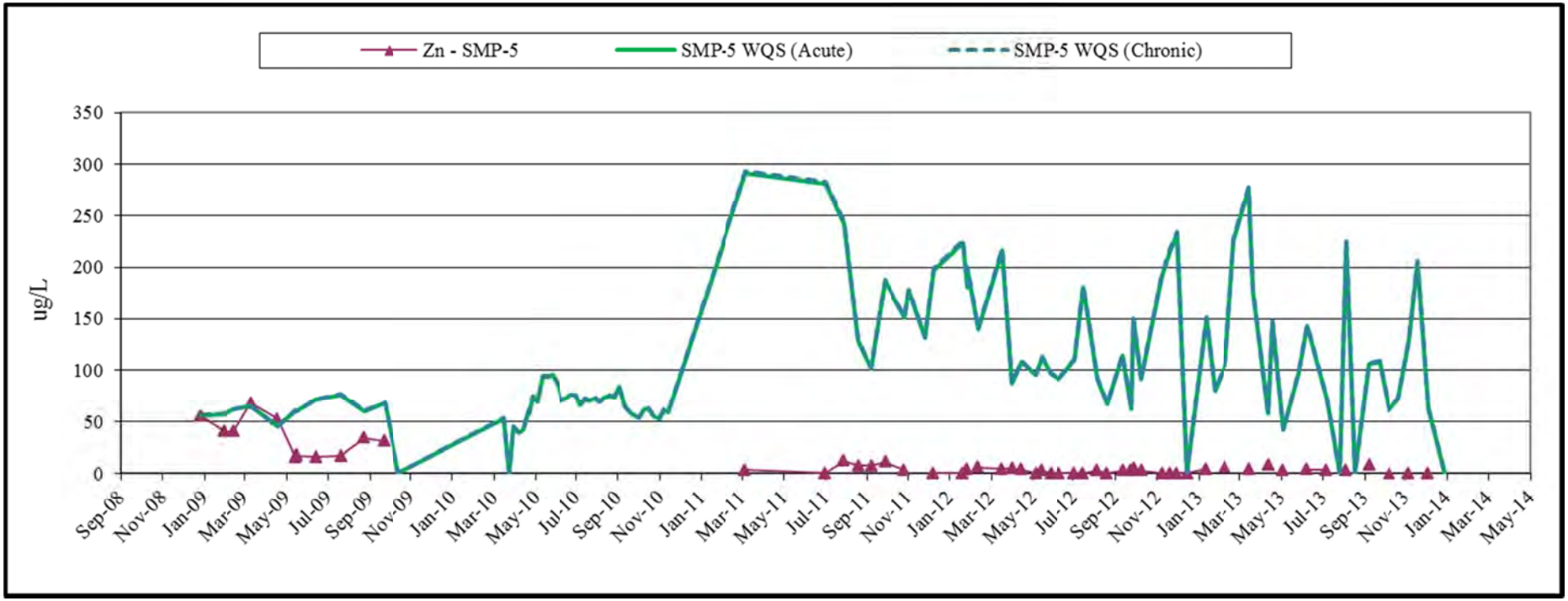
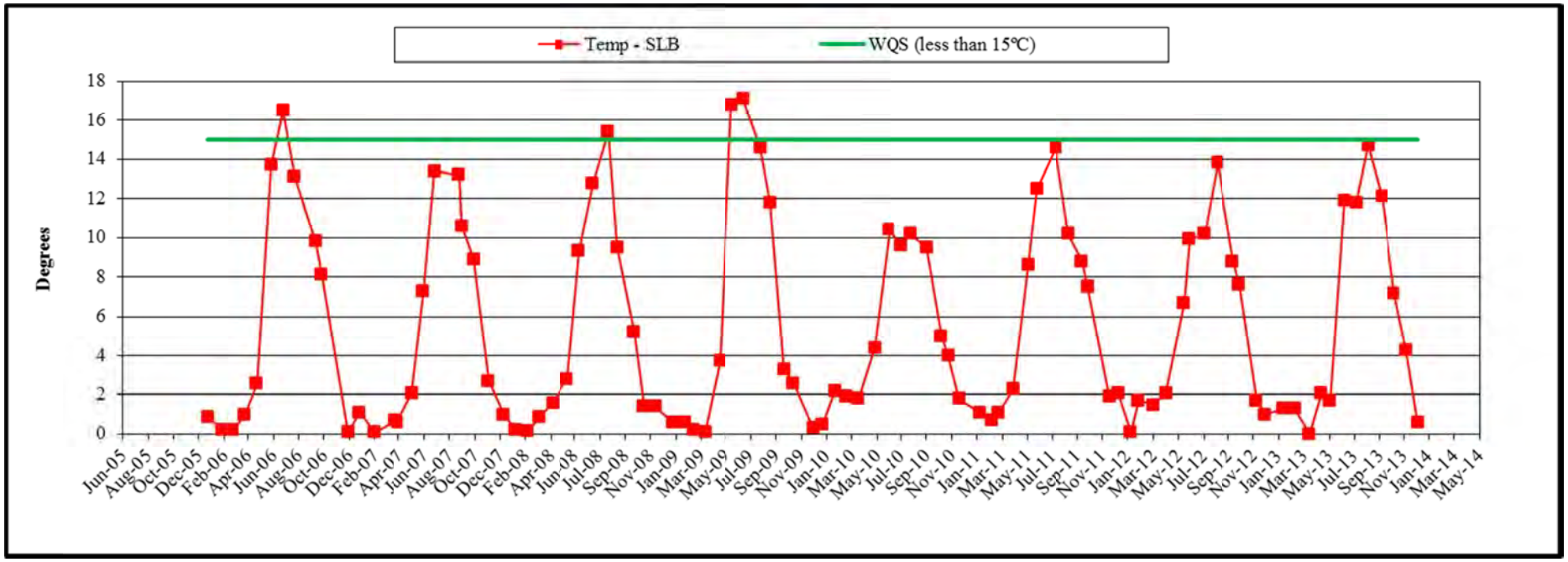


Figure 11a: Slate Creek (SLB) Results 2006-2013, Field Parameters



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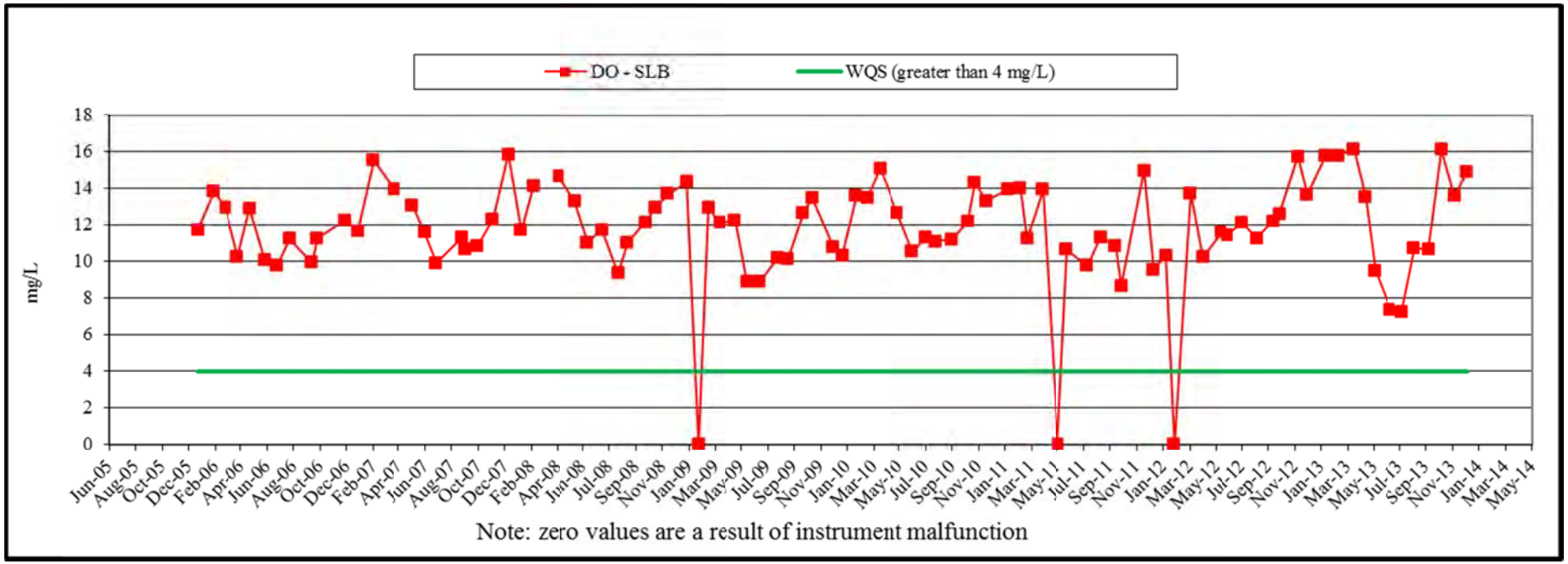

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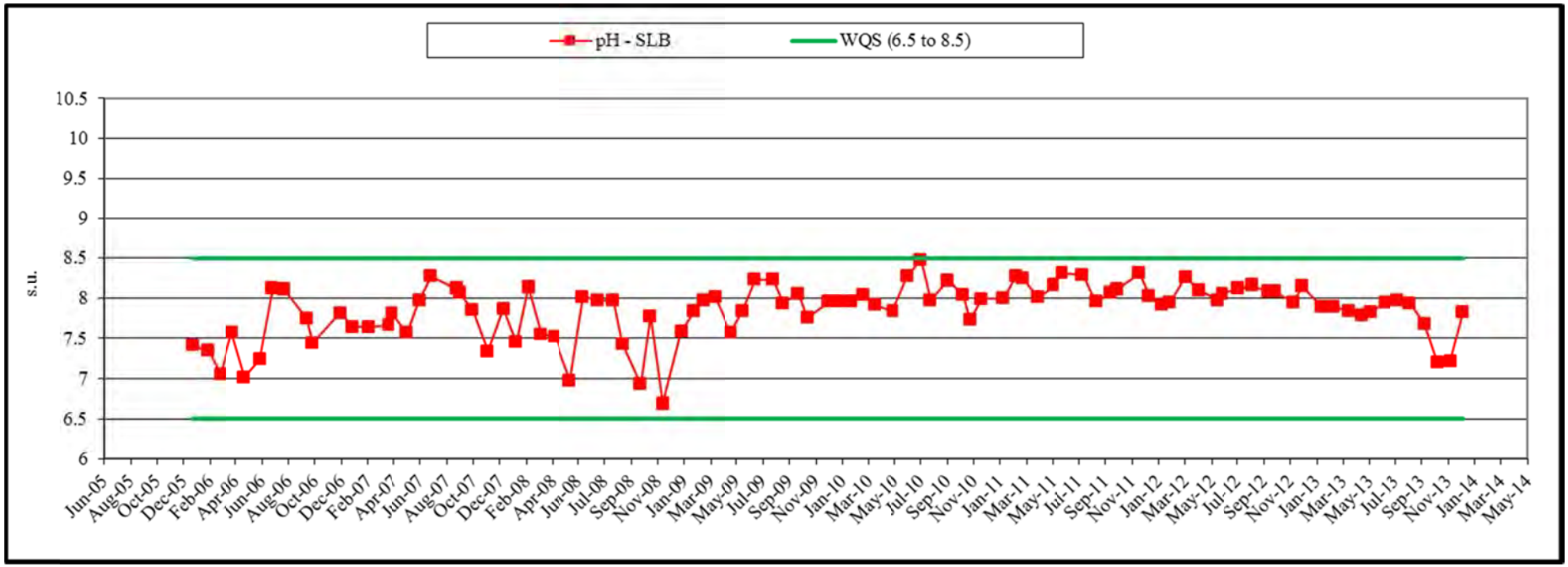

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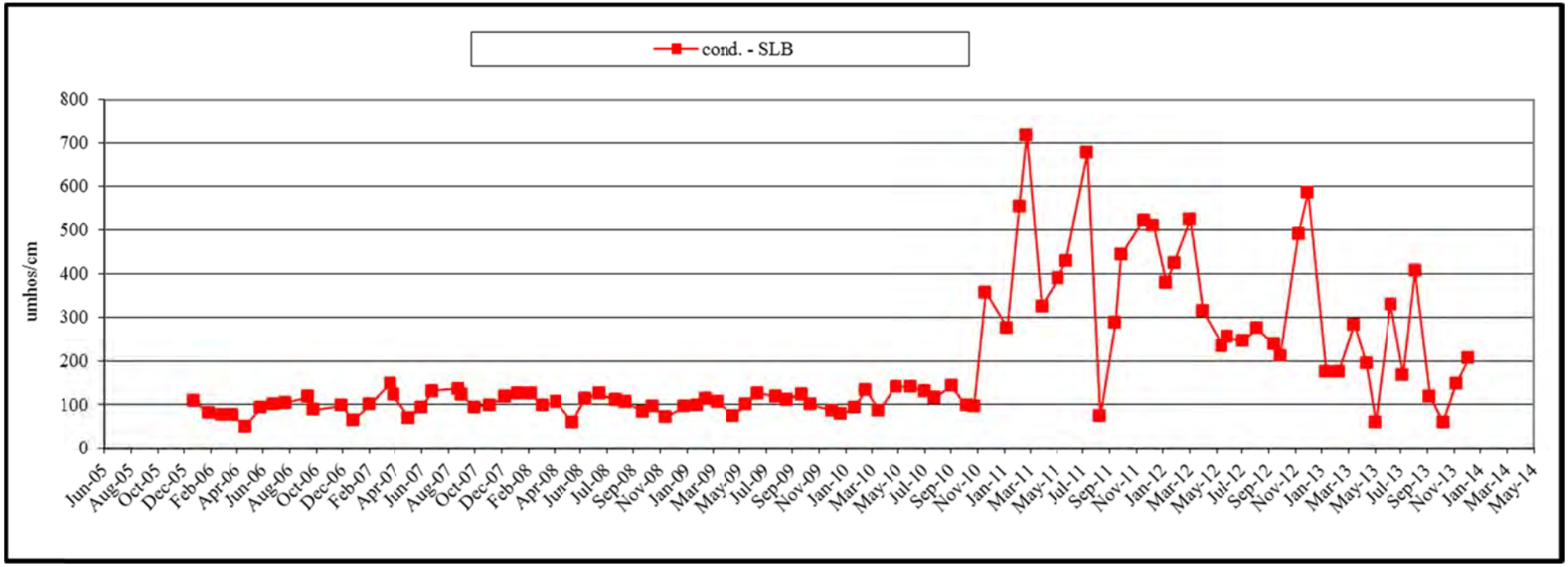
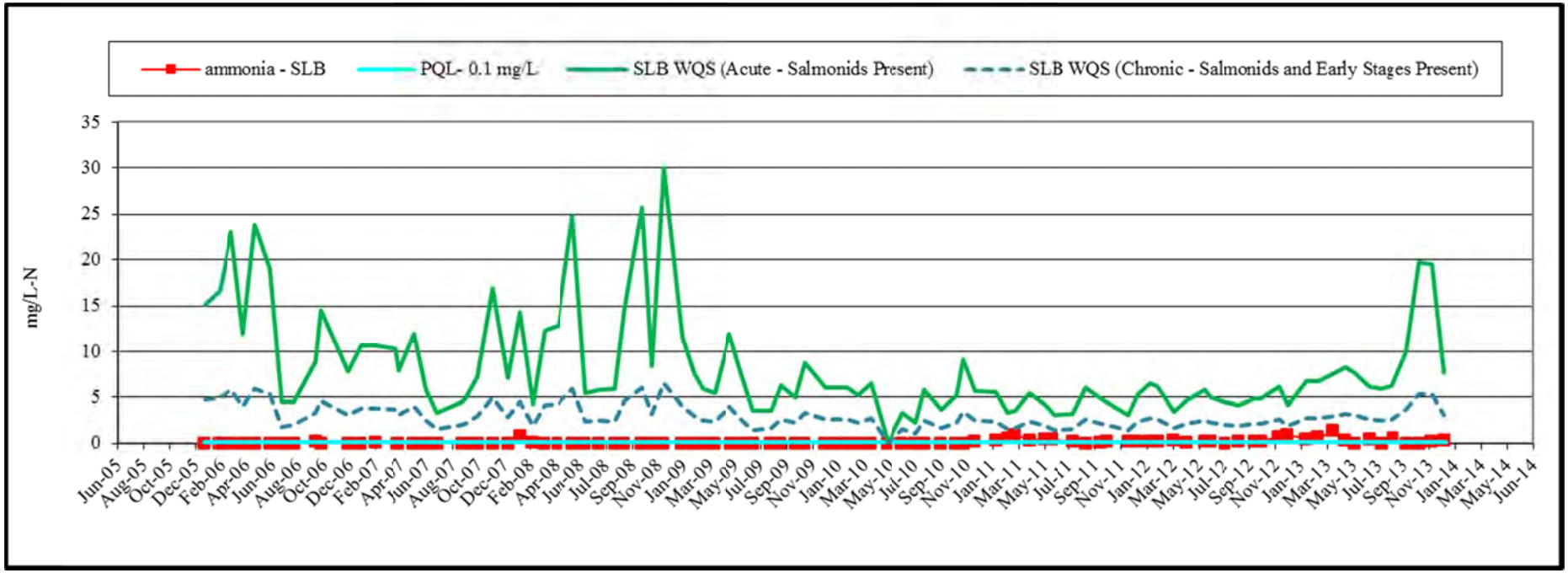


Figure 11b: Slate Creek (SLB) Results 2006-2013, Major Chemistry



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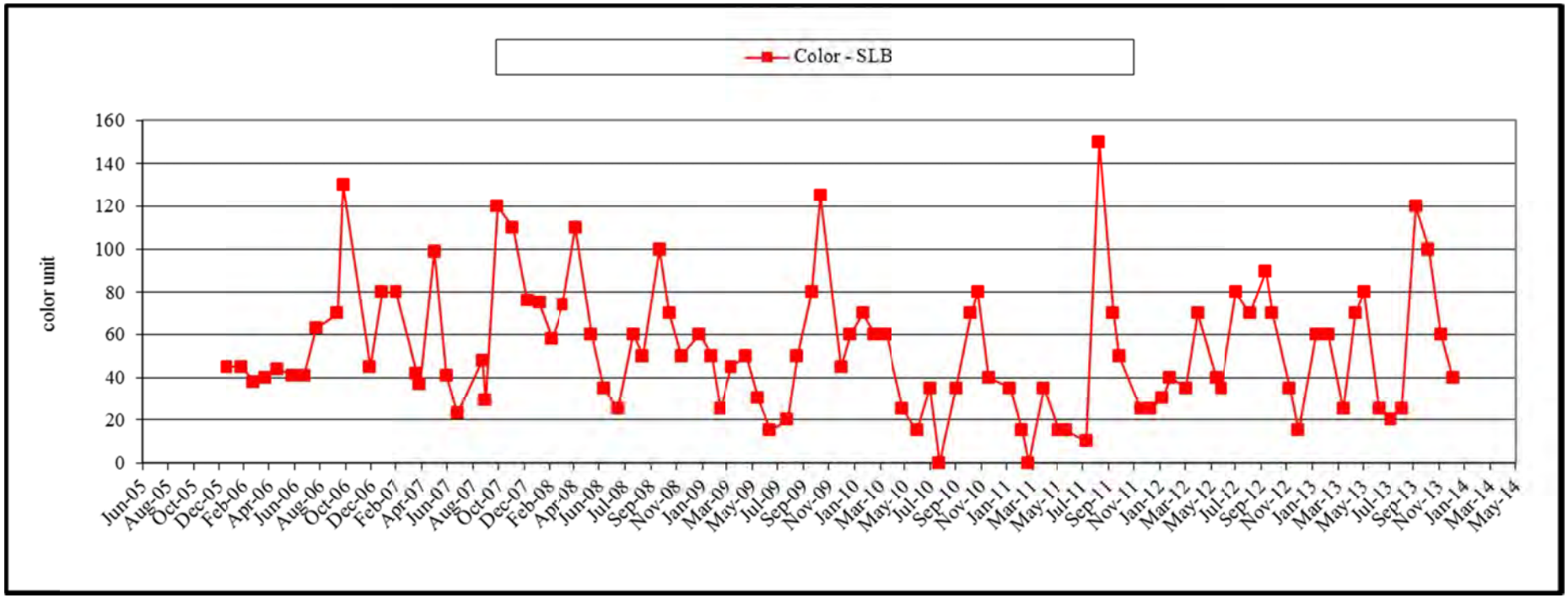

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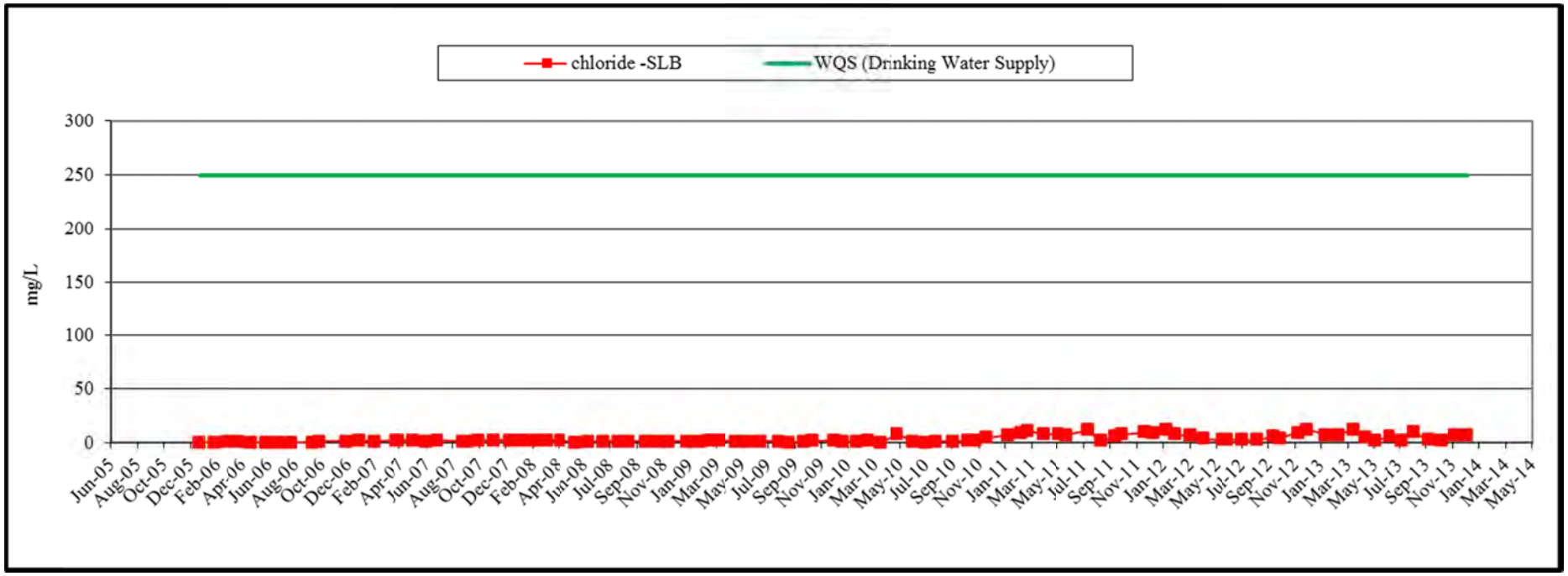

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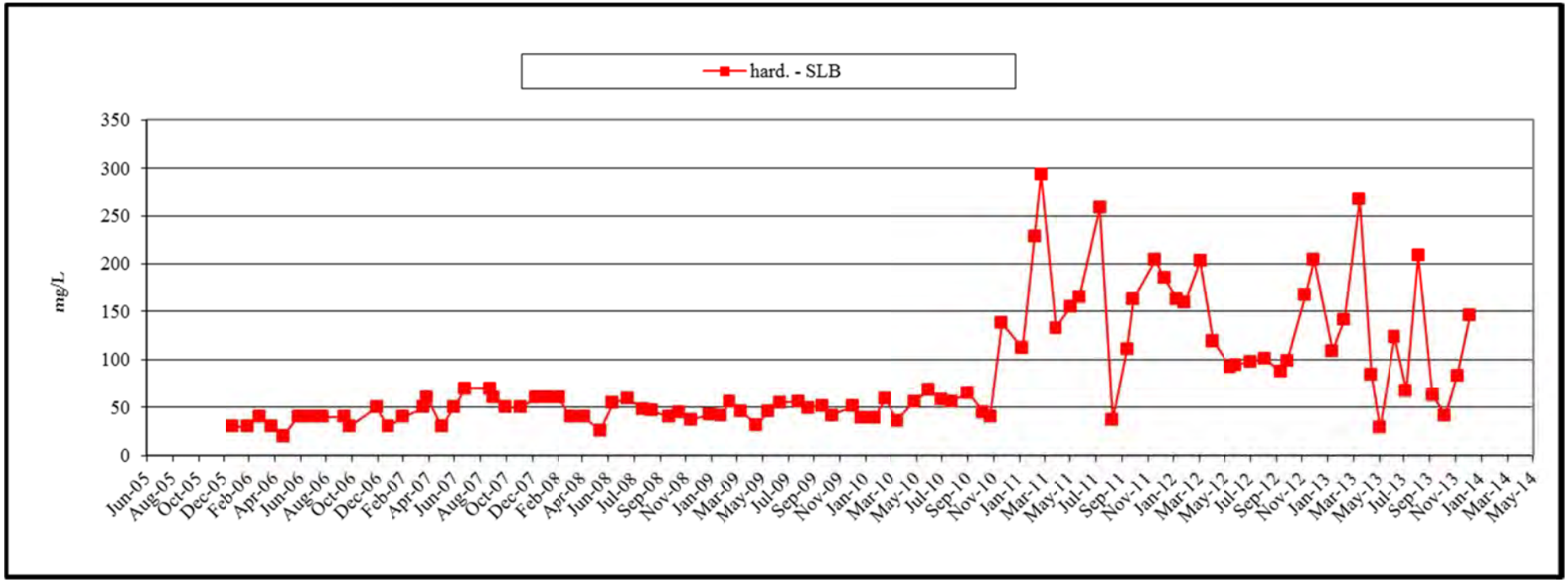

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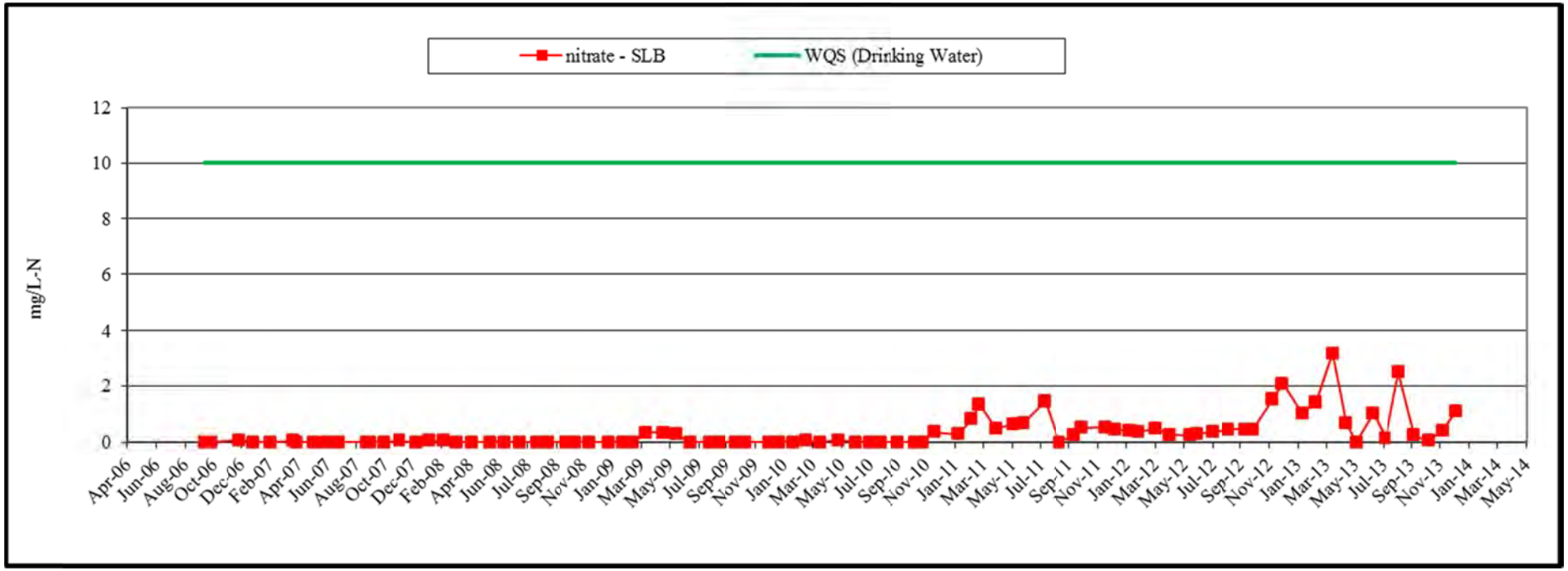

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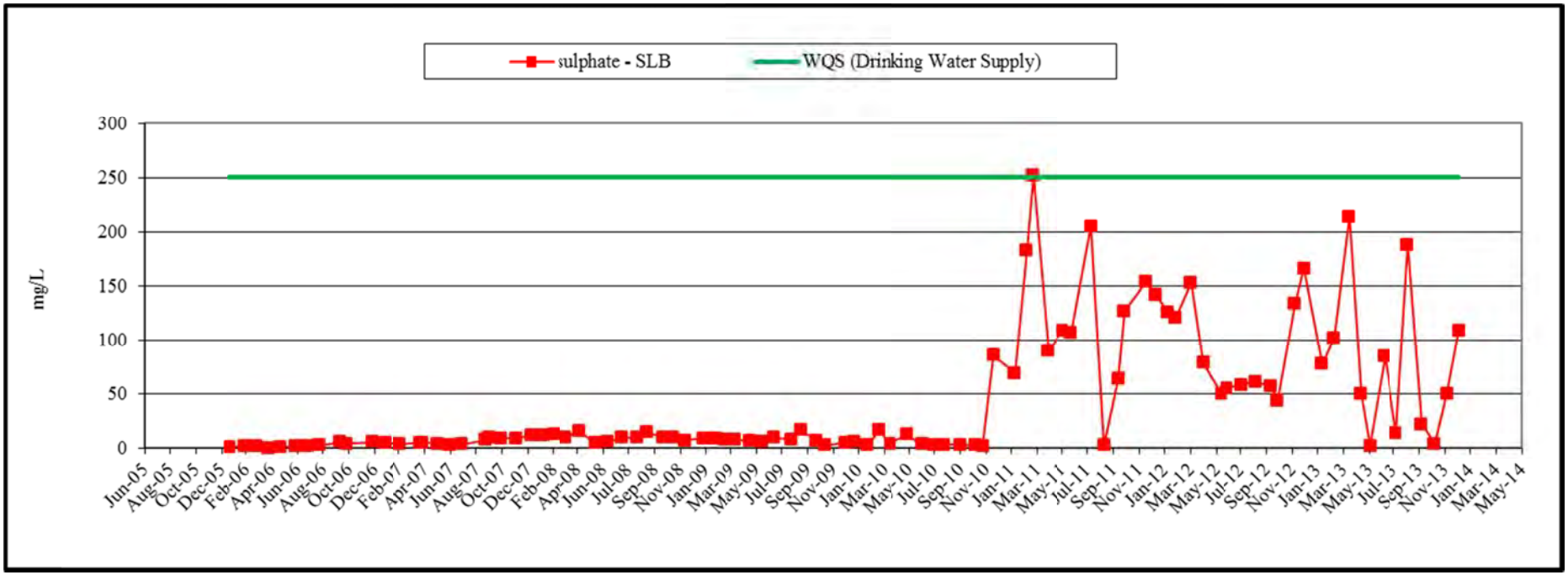

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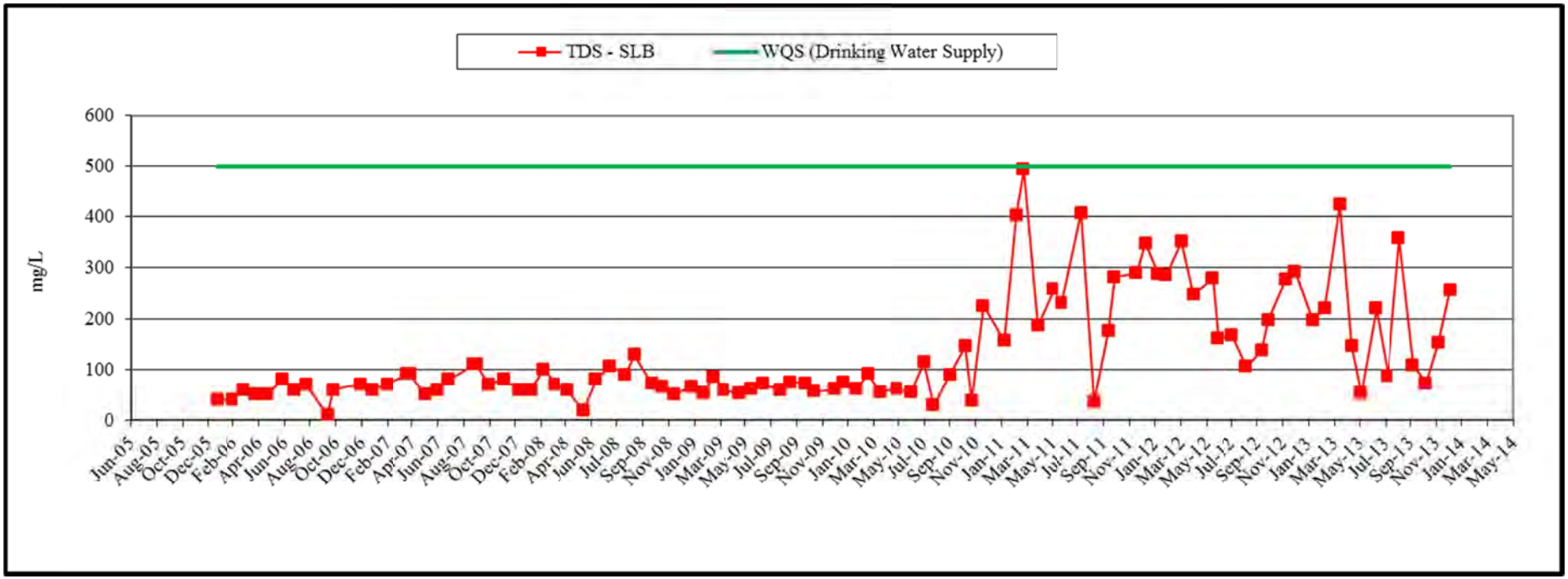

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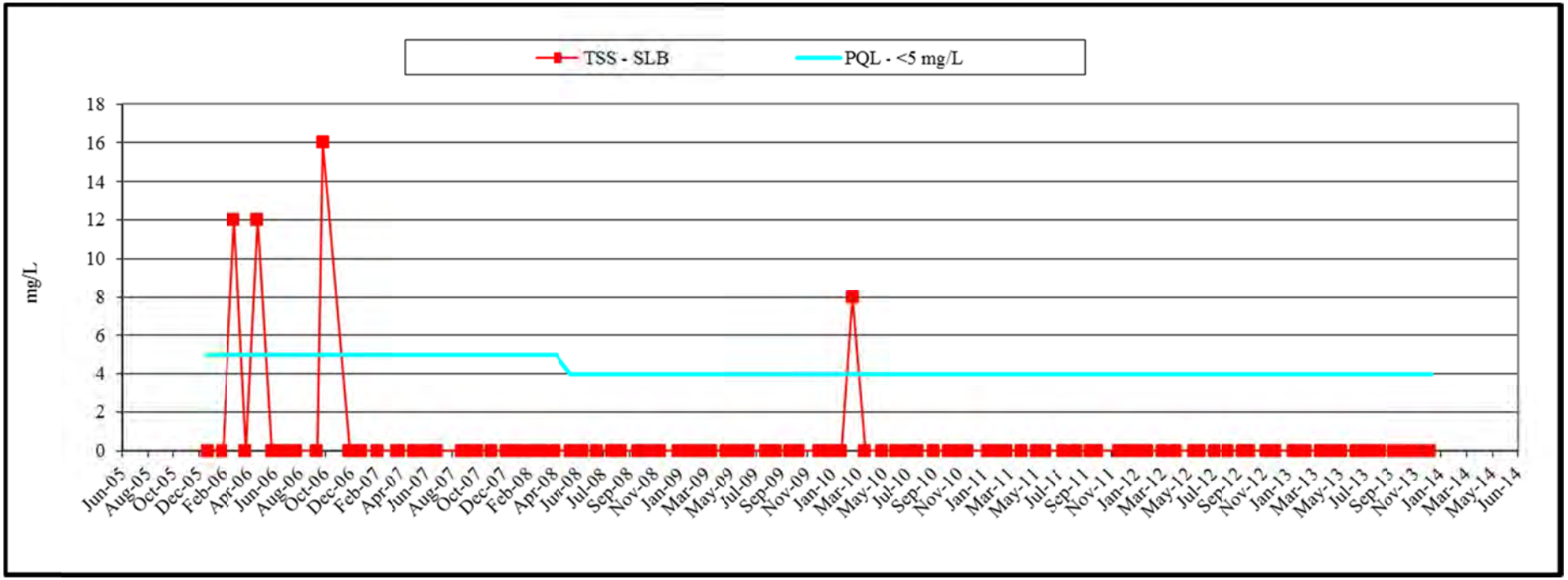

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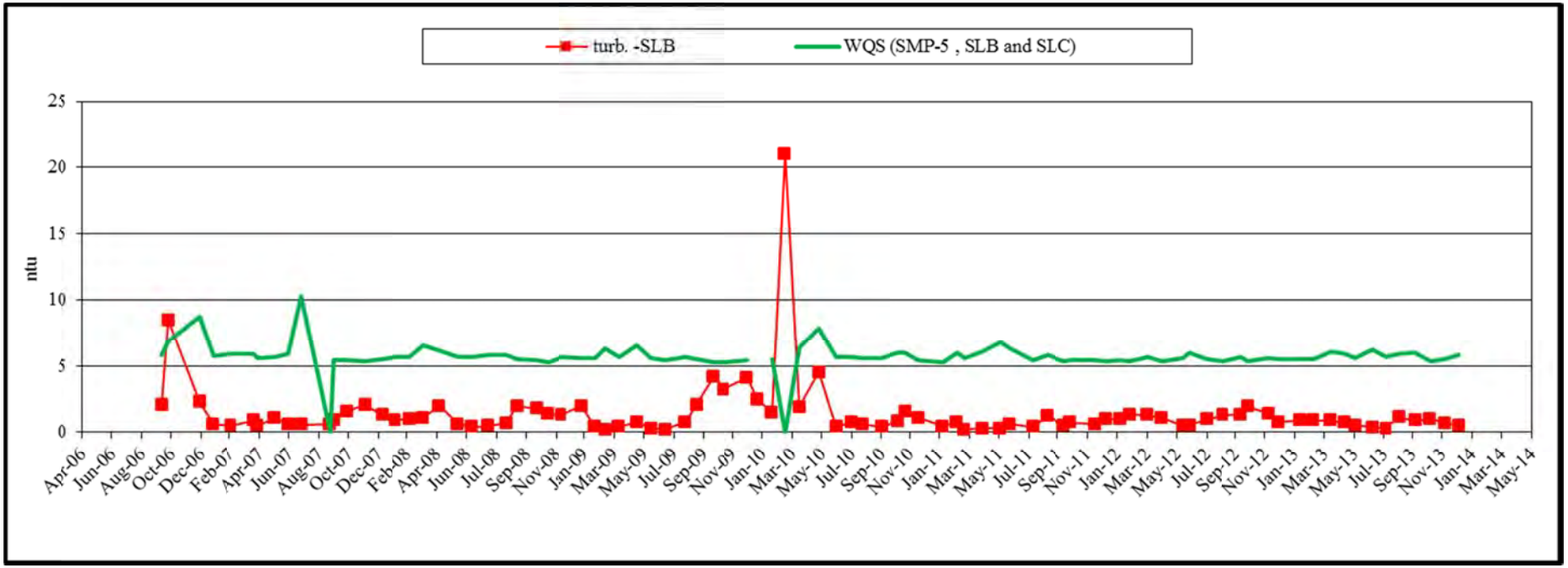
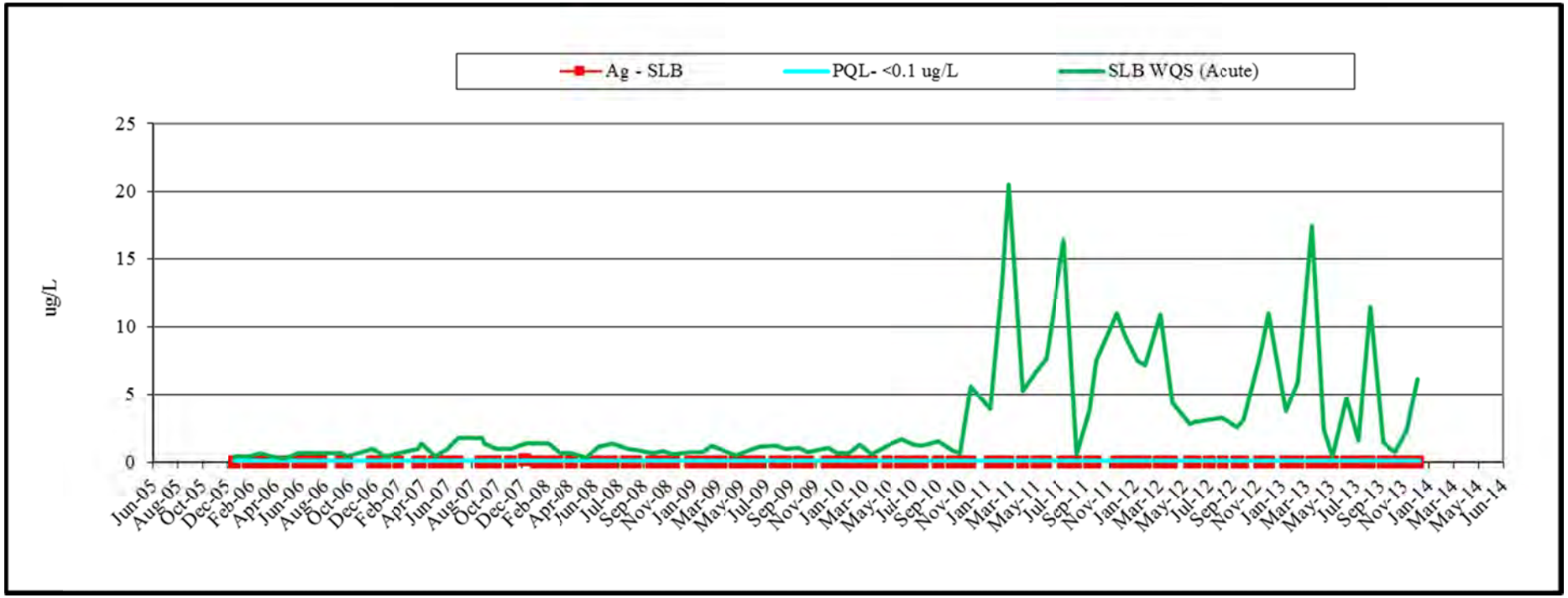


Figure 11c: Slate Creek (SLB) Results 2006-2013, Trace Chemistry



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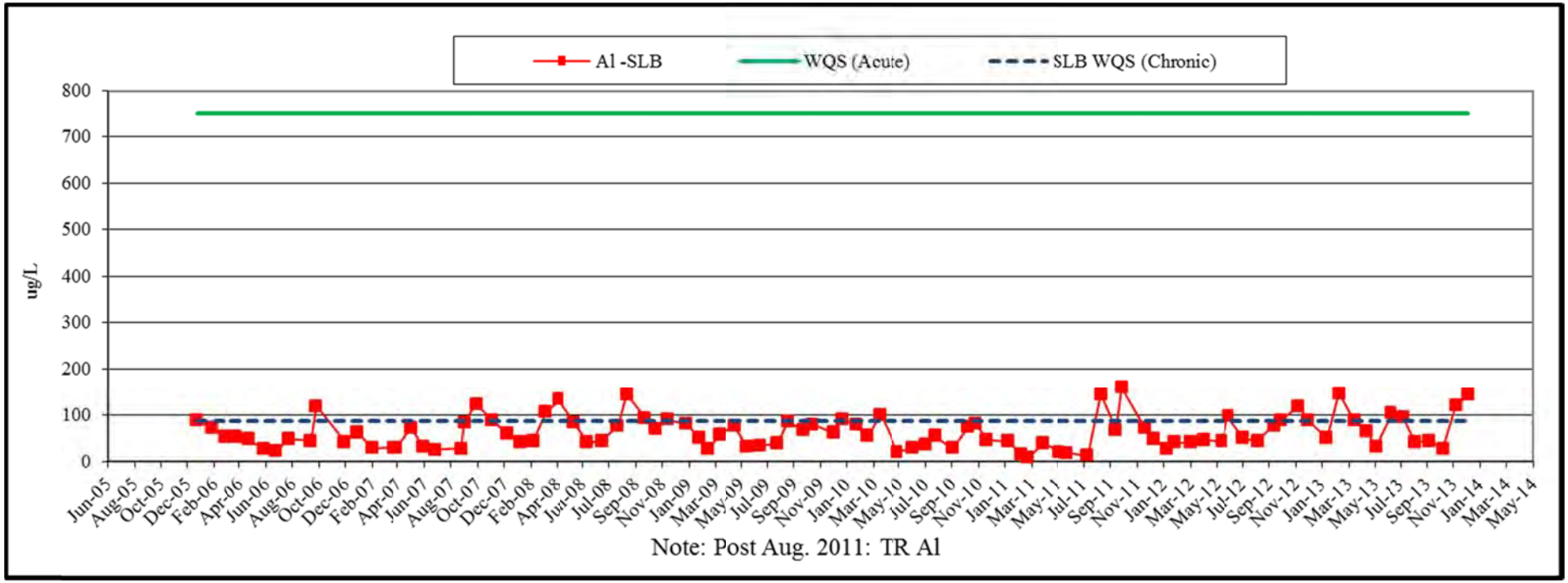

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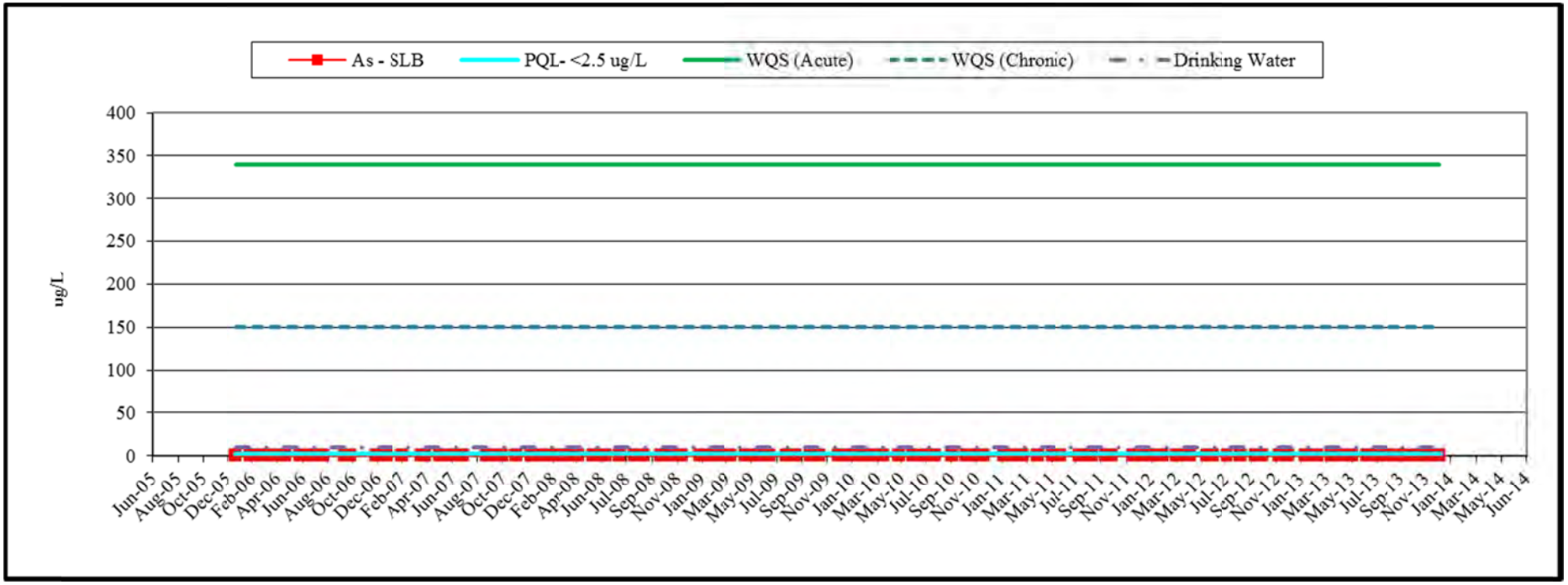

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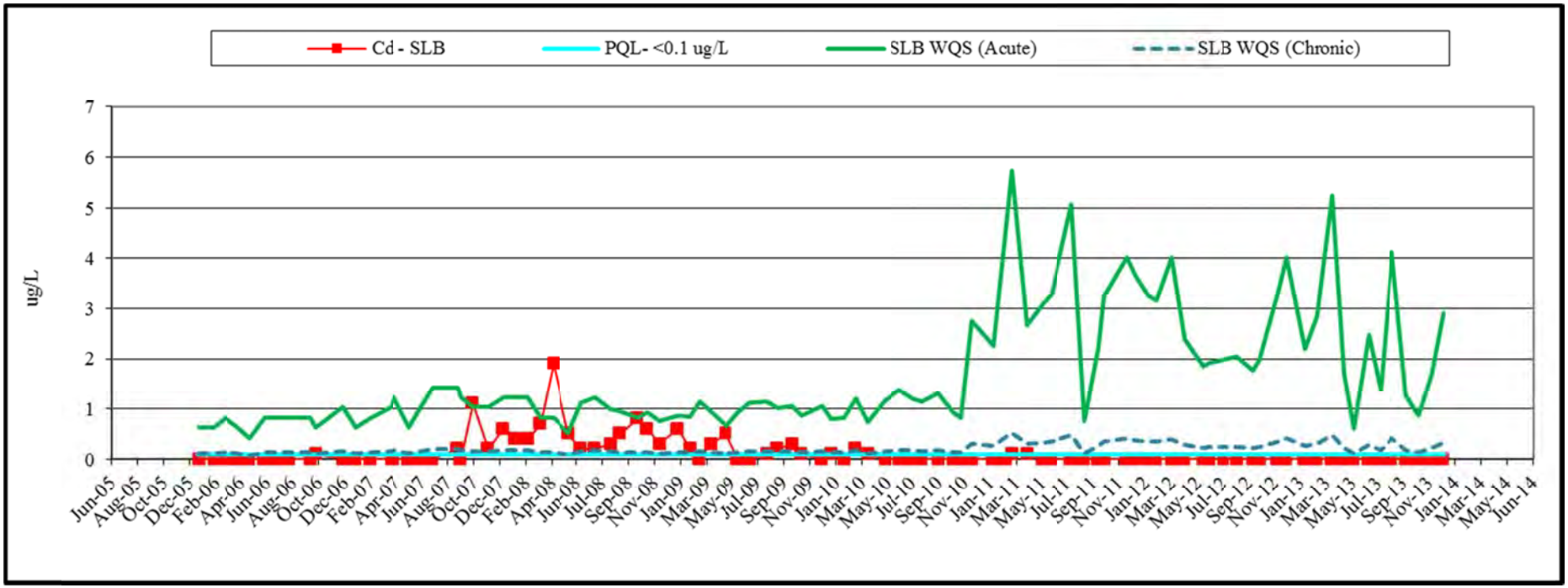

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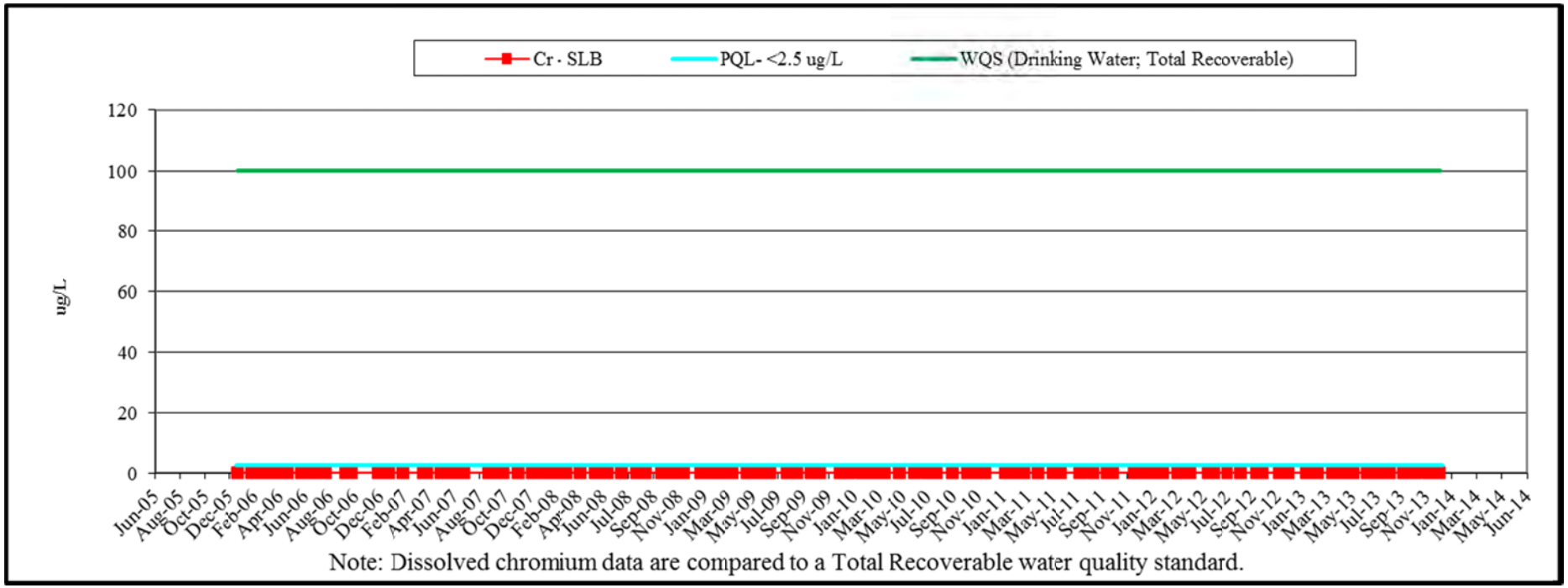

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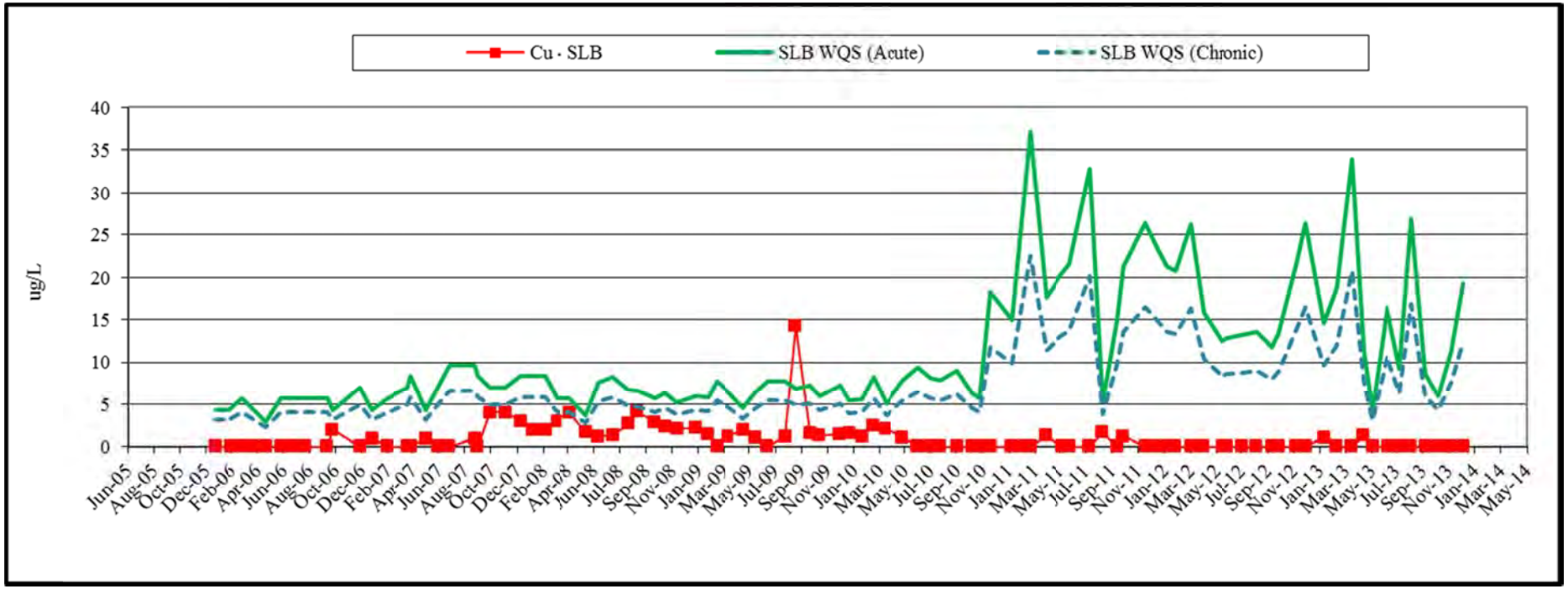

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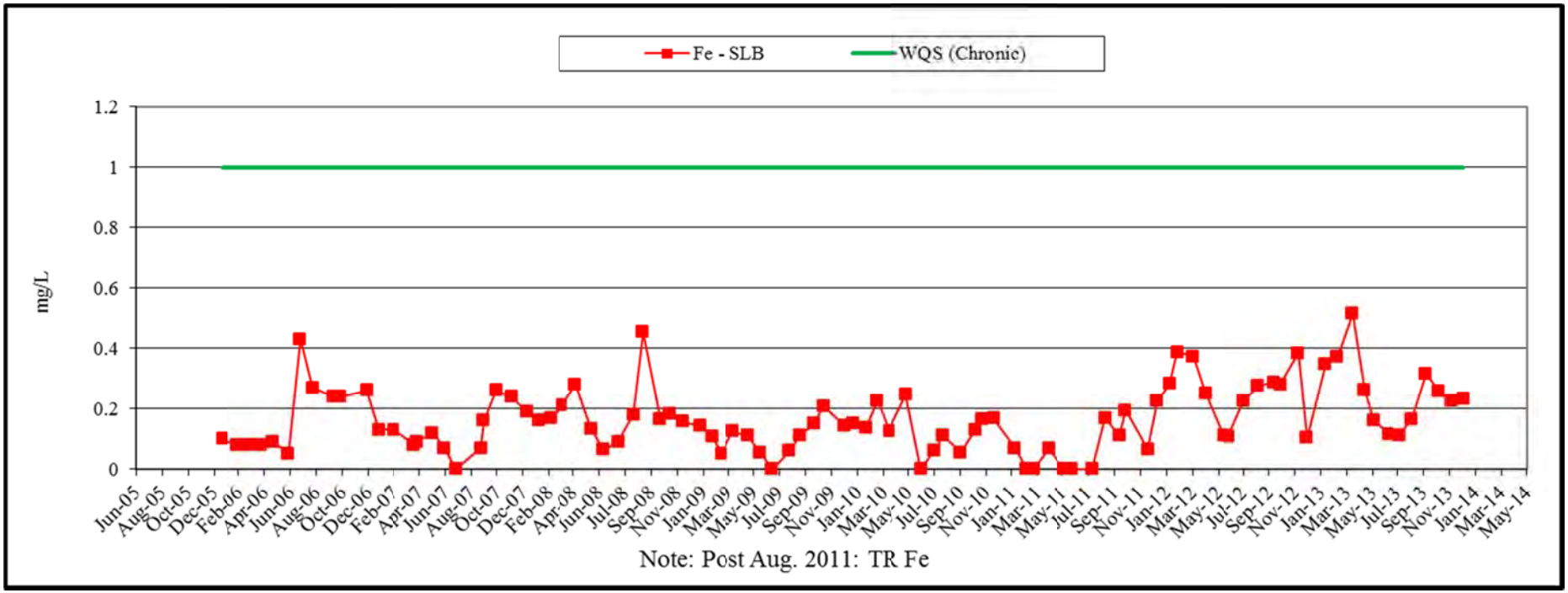

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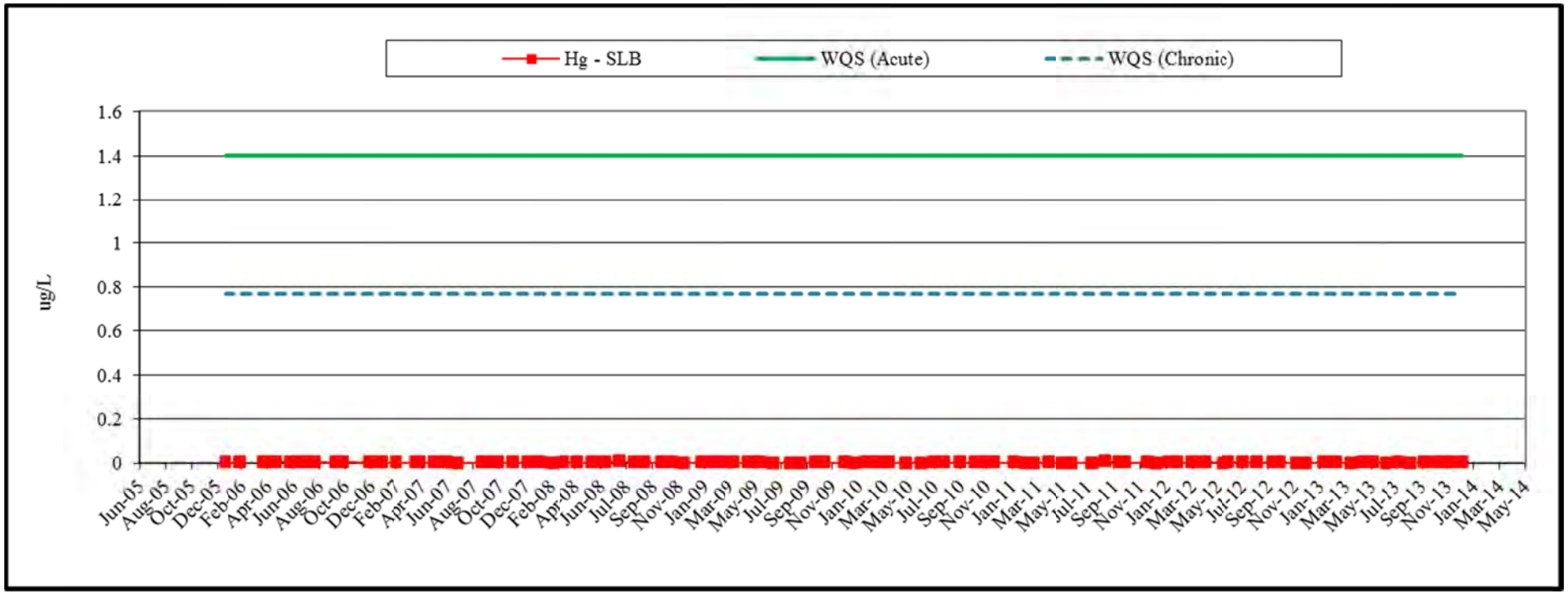

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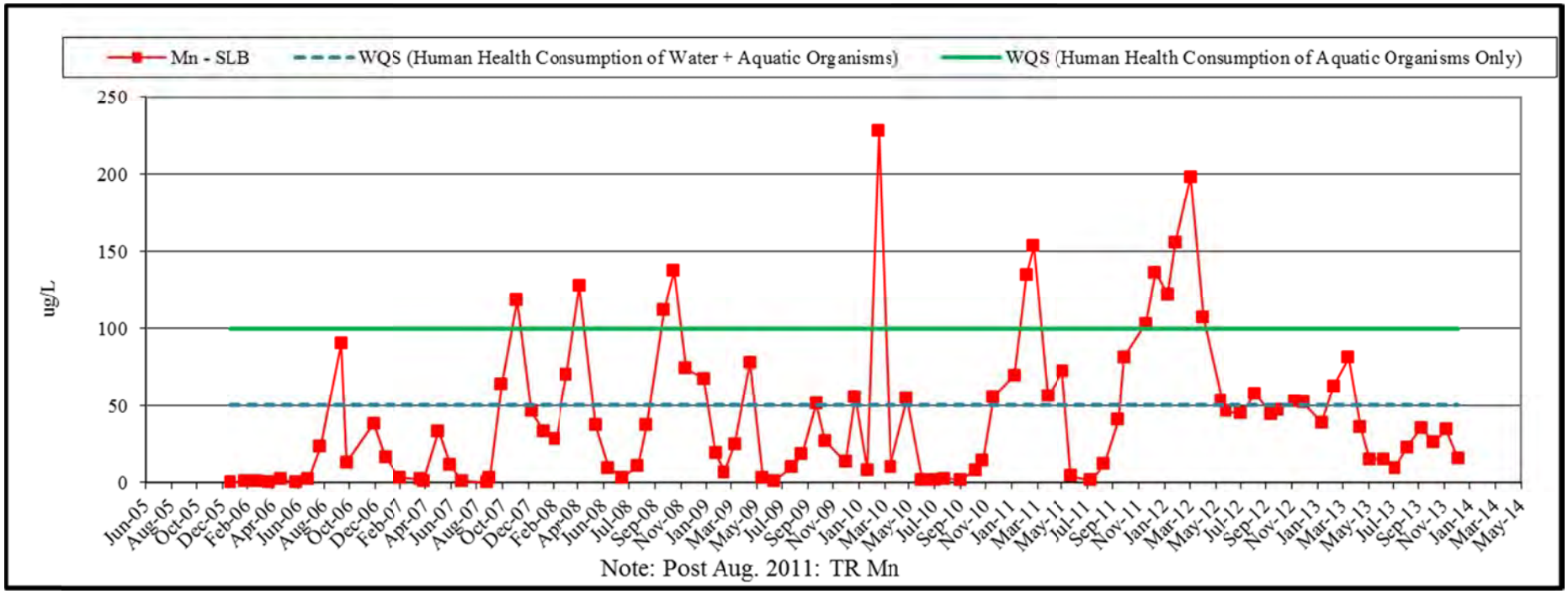

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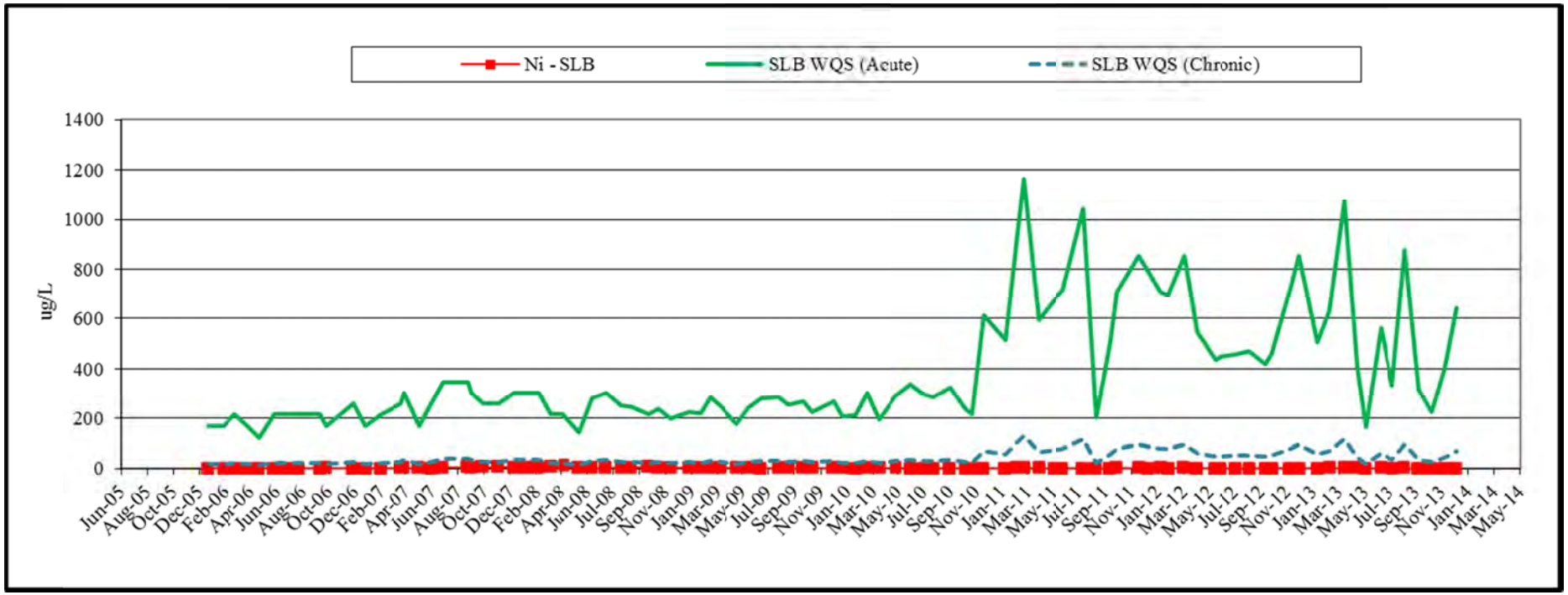


Figure 11c: Slate Creek (SLB) Results 2006-2013, Trace Chemistry

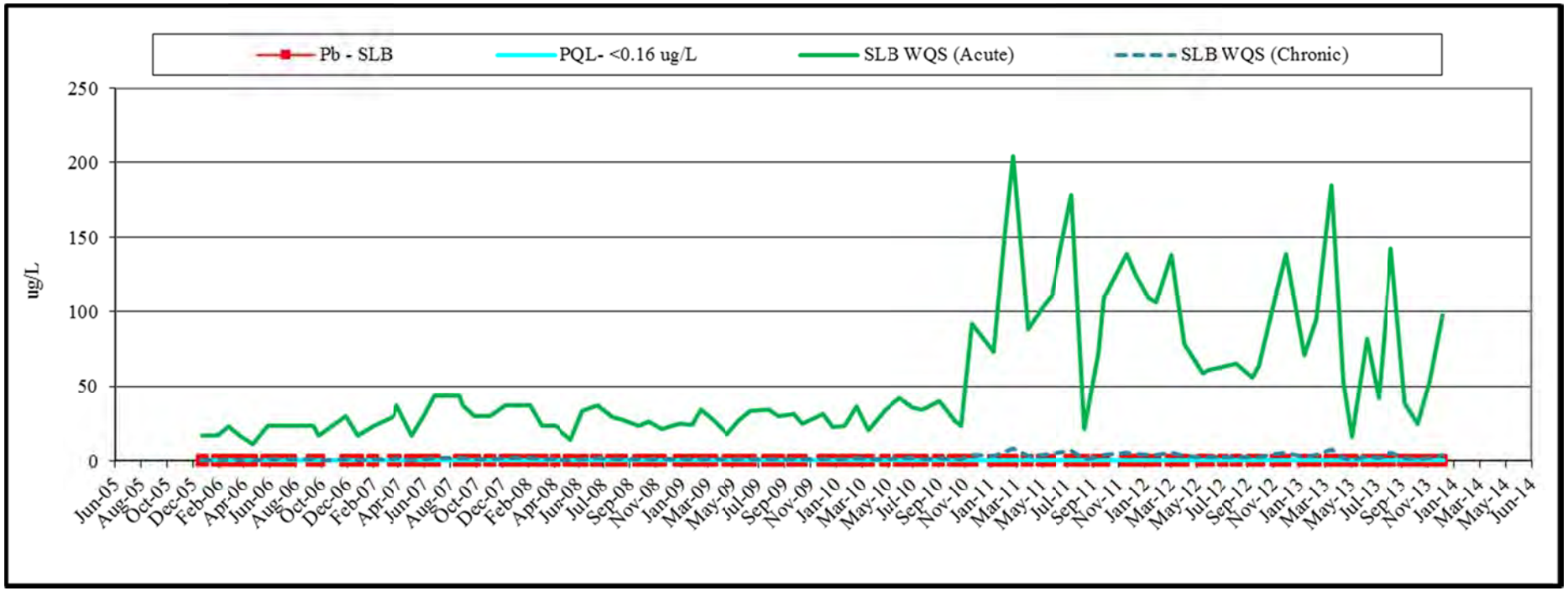


Figure 11c: Slate Creek (SLB) Results 2006-2013, Trace Chemistry

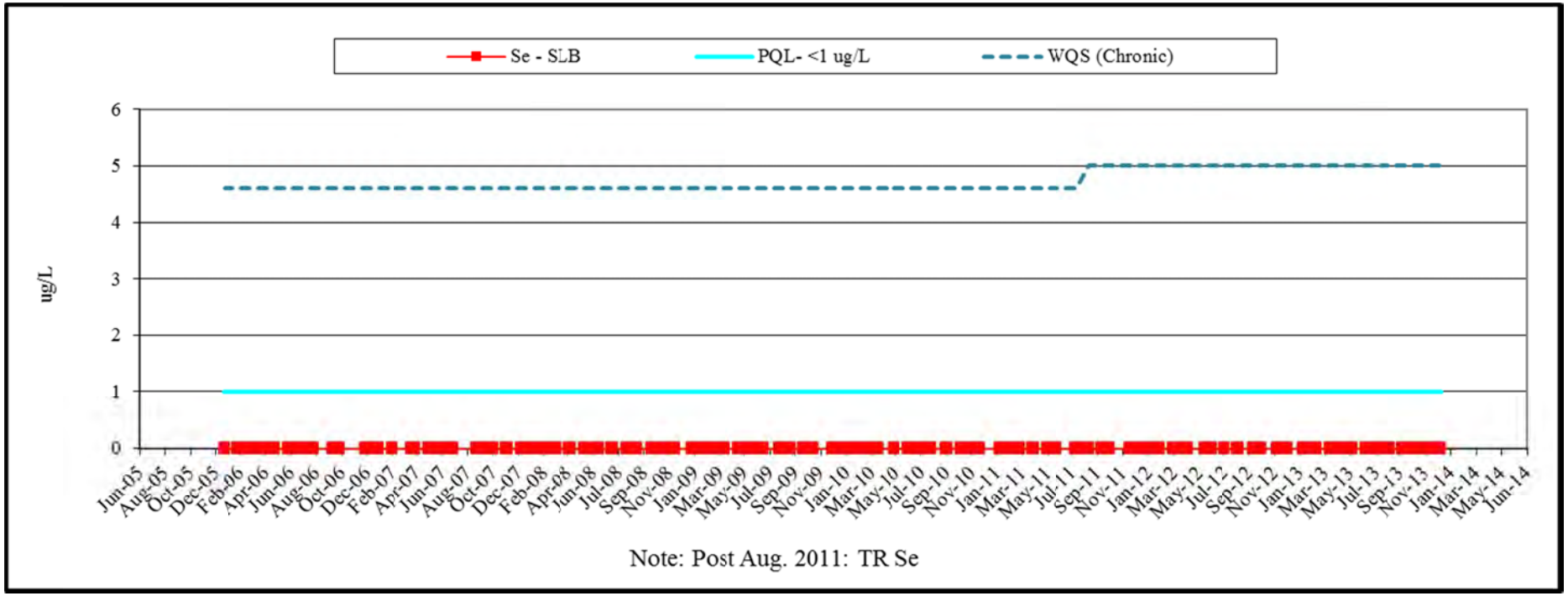


Figure 11c: Slate Creek (SLB) Results 2006-2013, Trace Chemistry

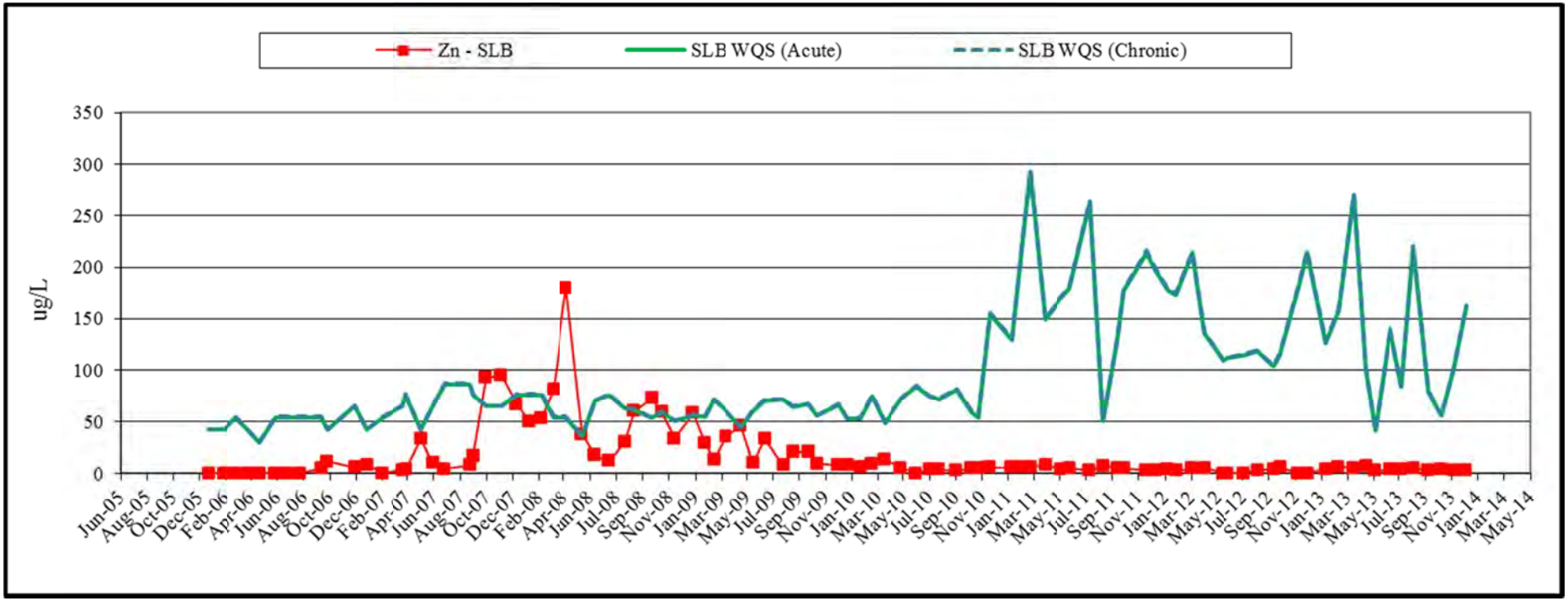


Figure 12a: Slate Creek (SLC) Monitoring Results 2006-2013, Field Parameters

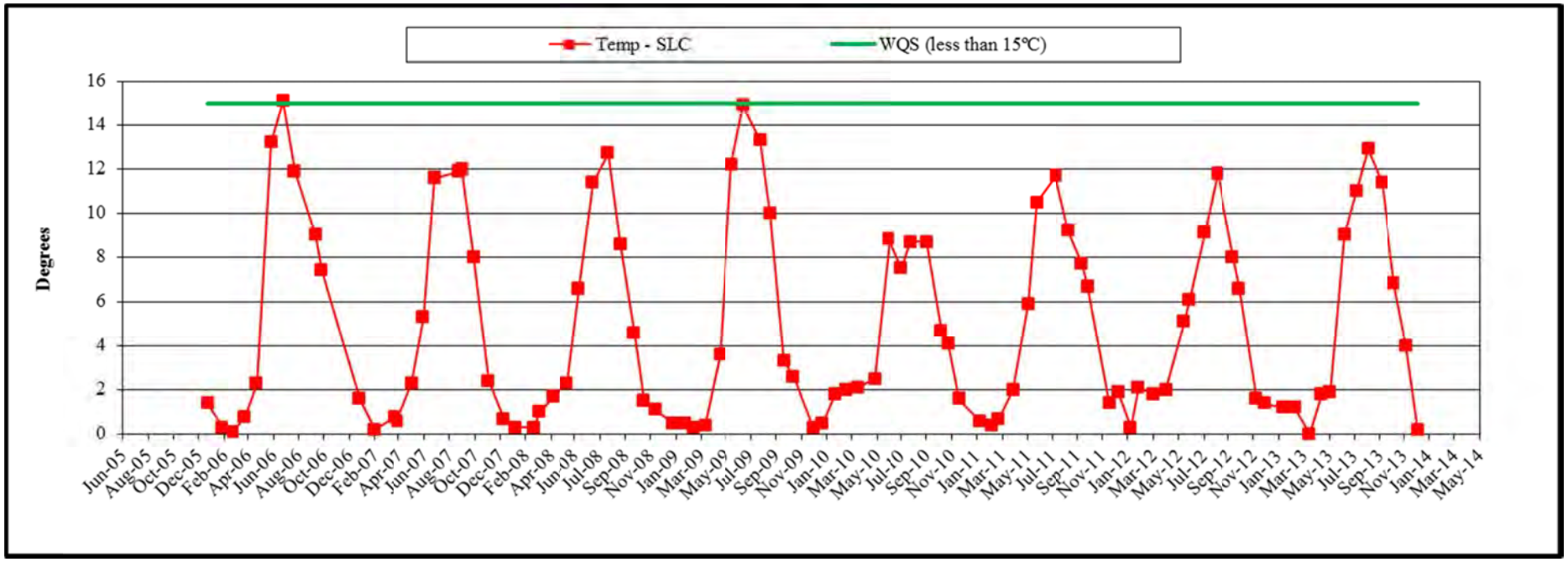


Figure 12a: Slate Creek (SLC) Monitoring Results 2006-2013, Field Parameters

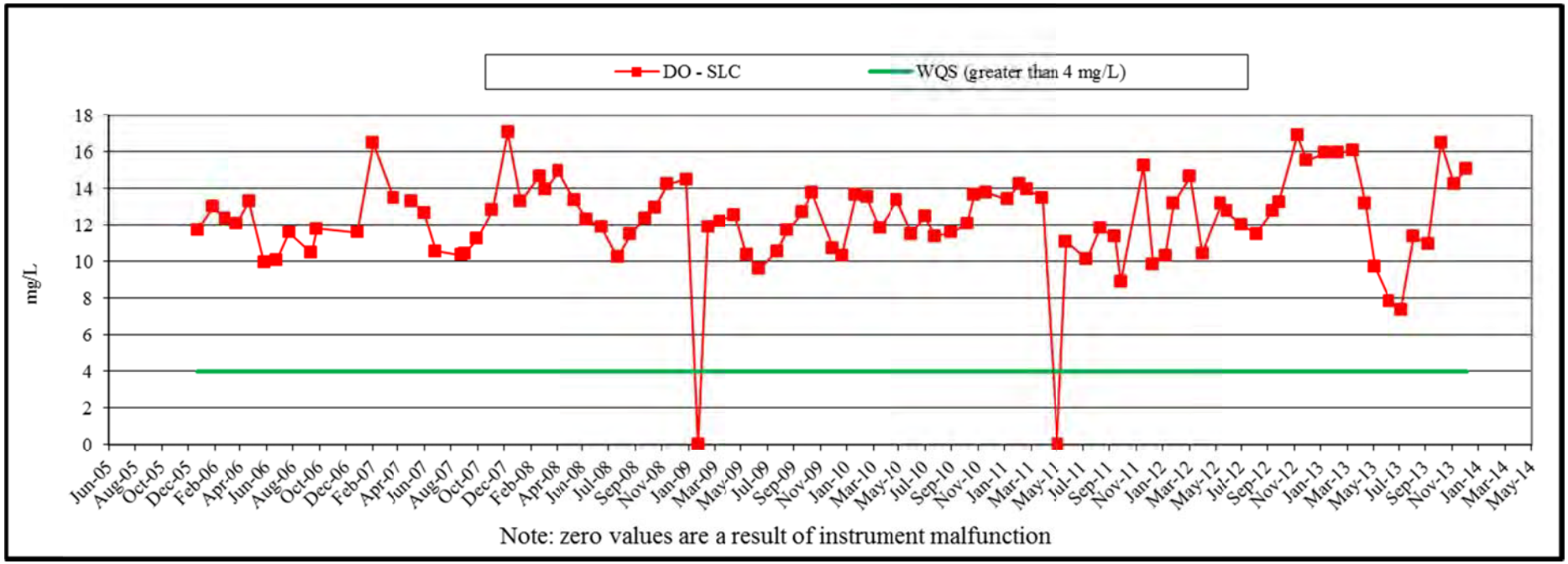


Figure 12a: Slate Creek (SLC) Monitoring Results 2006-2013, Field Parameters

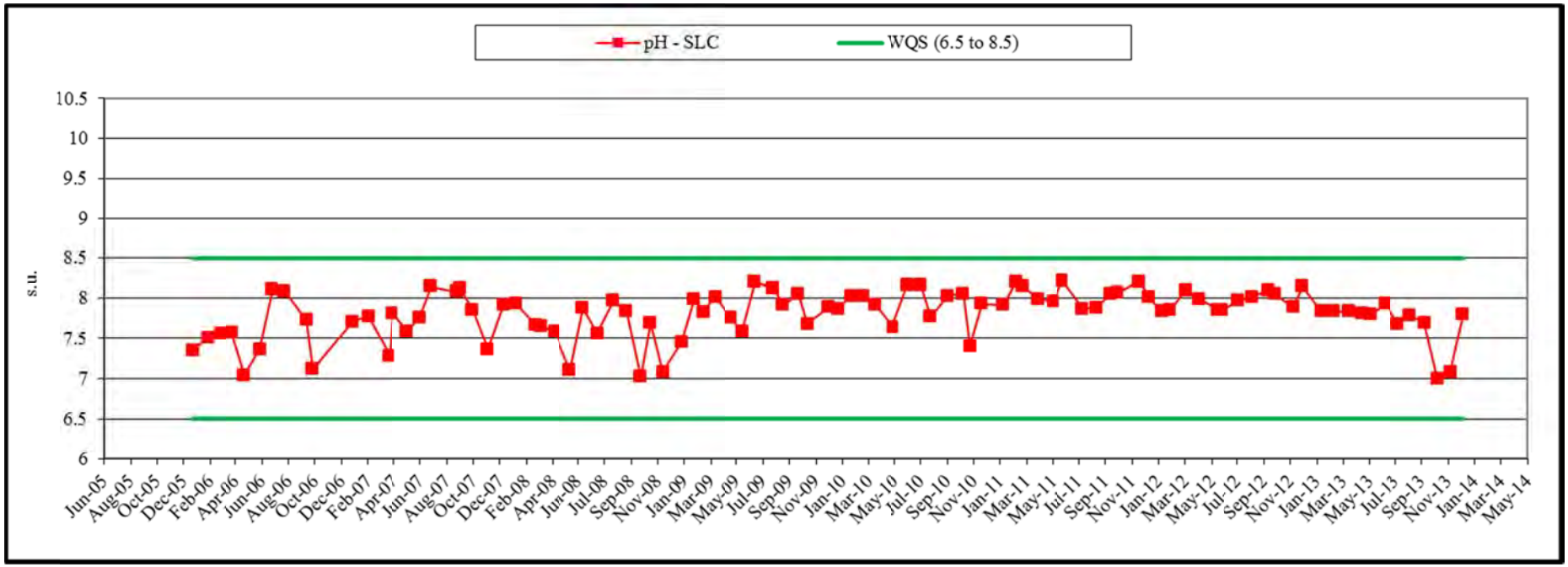


Figure 12a: Slate Creek (SLC) Monitoring Results 2006-2013, Field Parameters

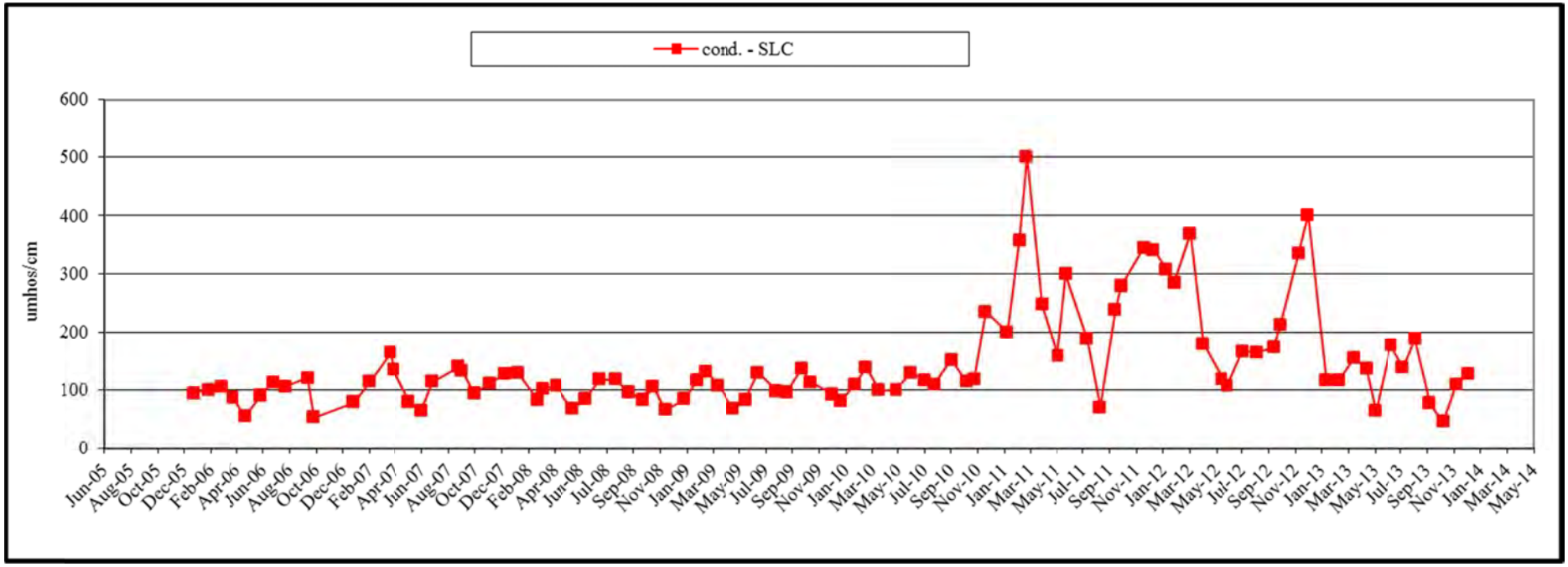


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

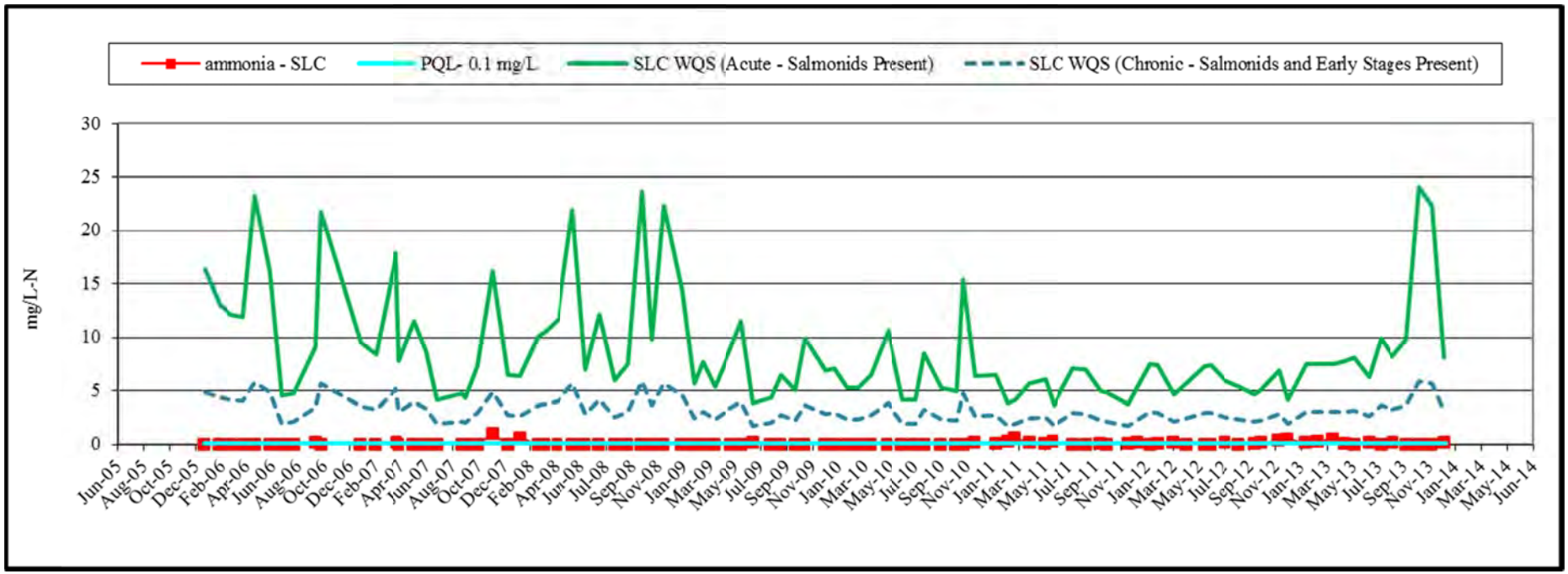


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

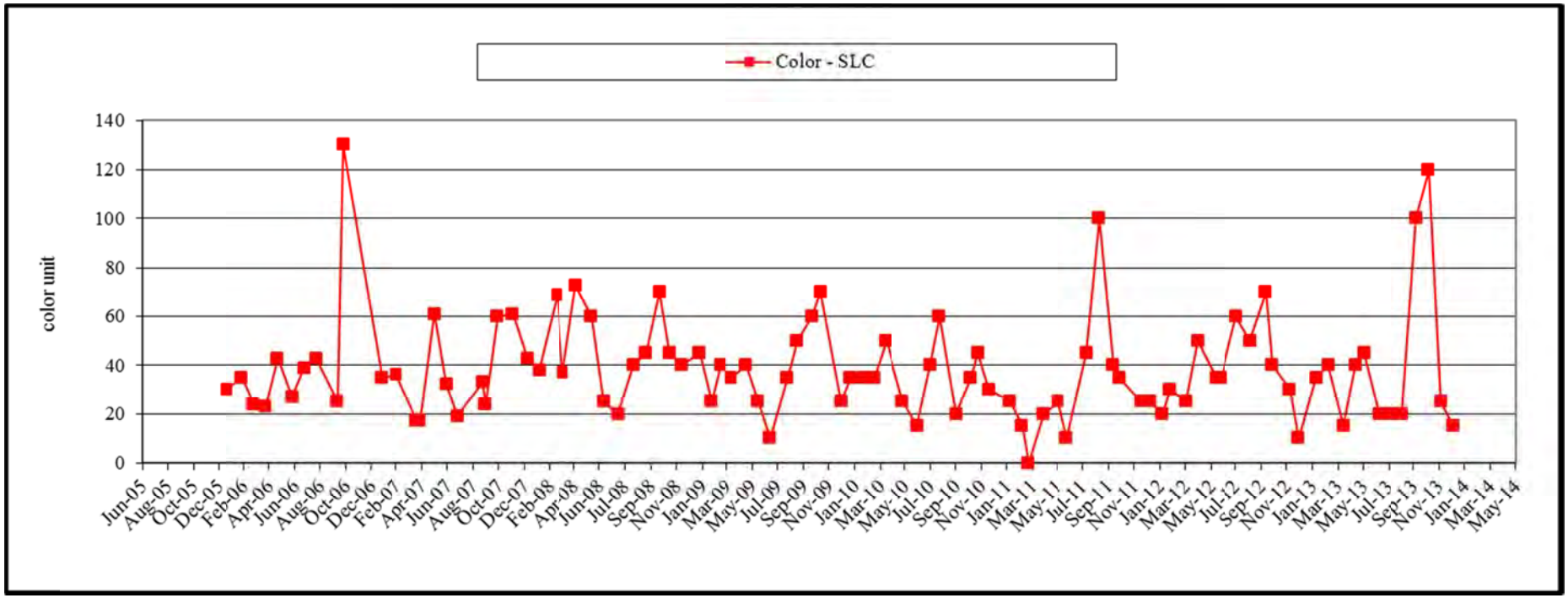


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

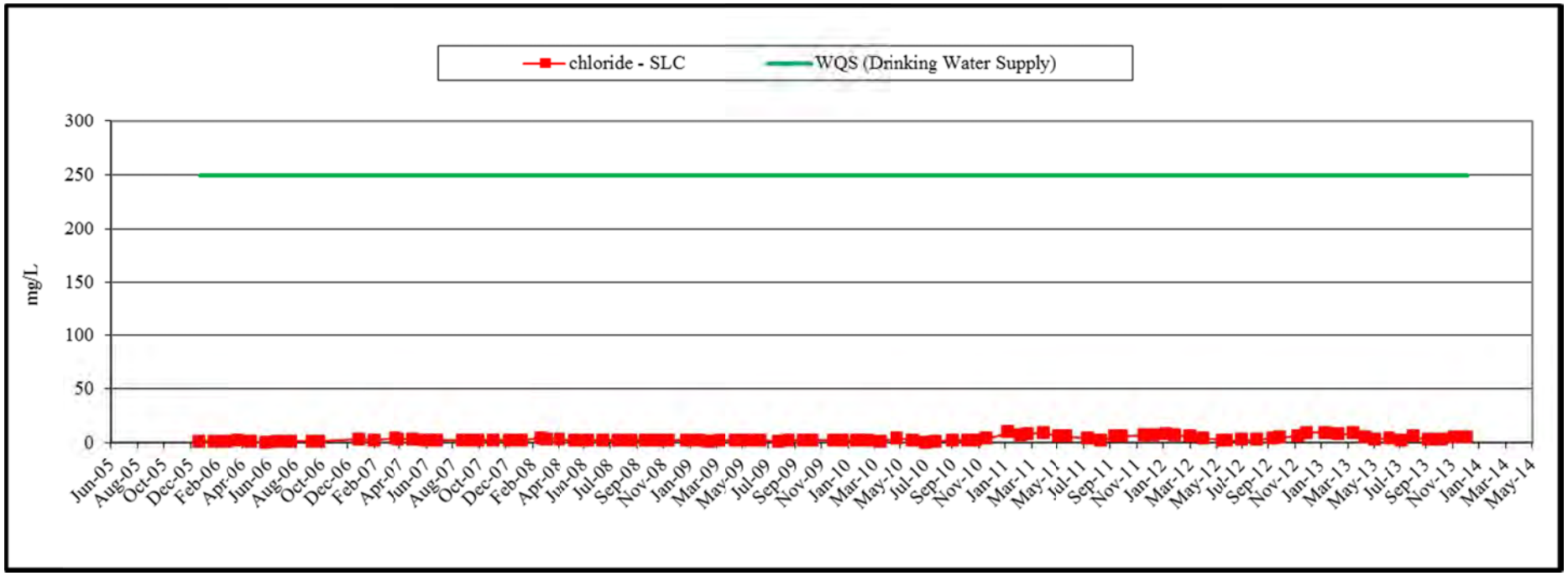


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

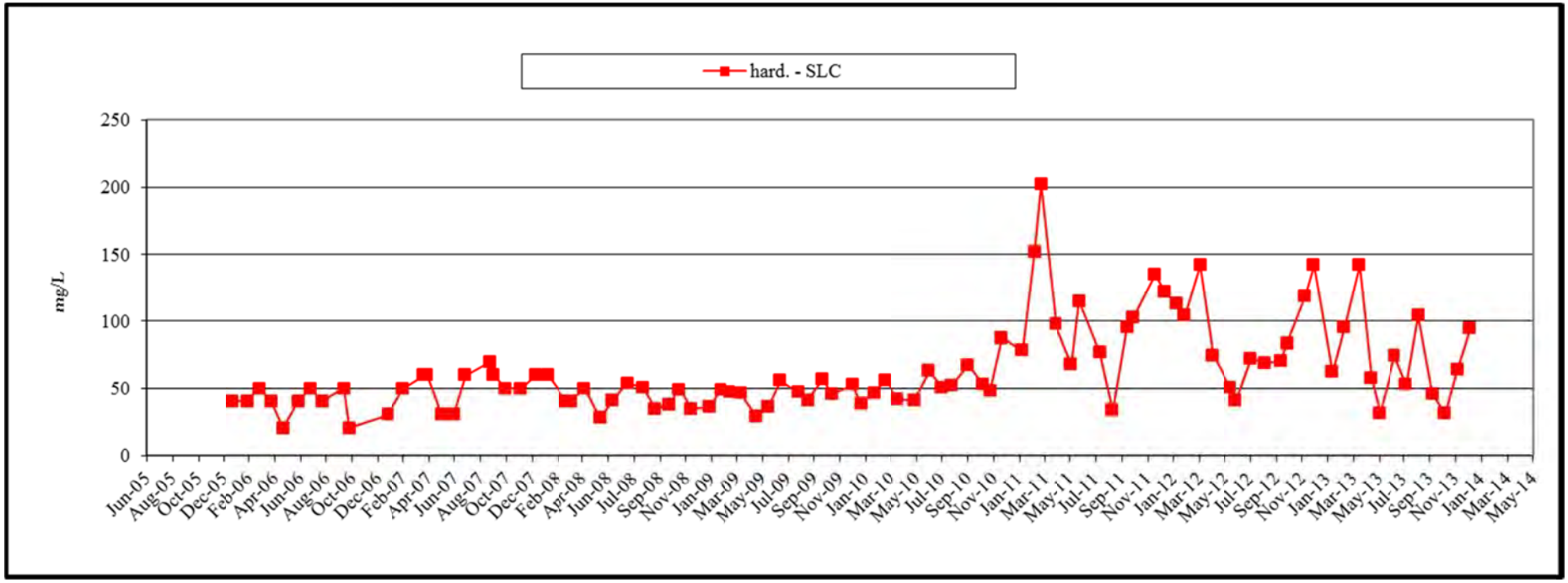


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

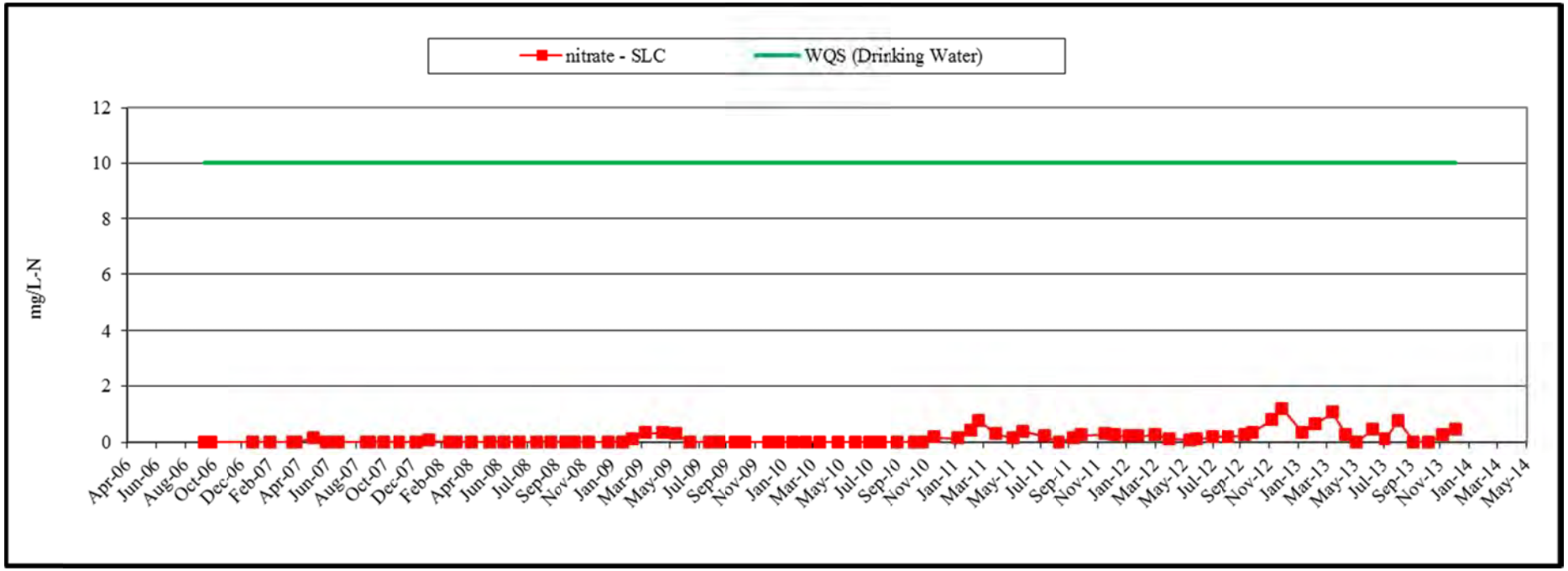


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

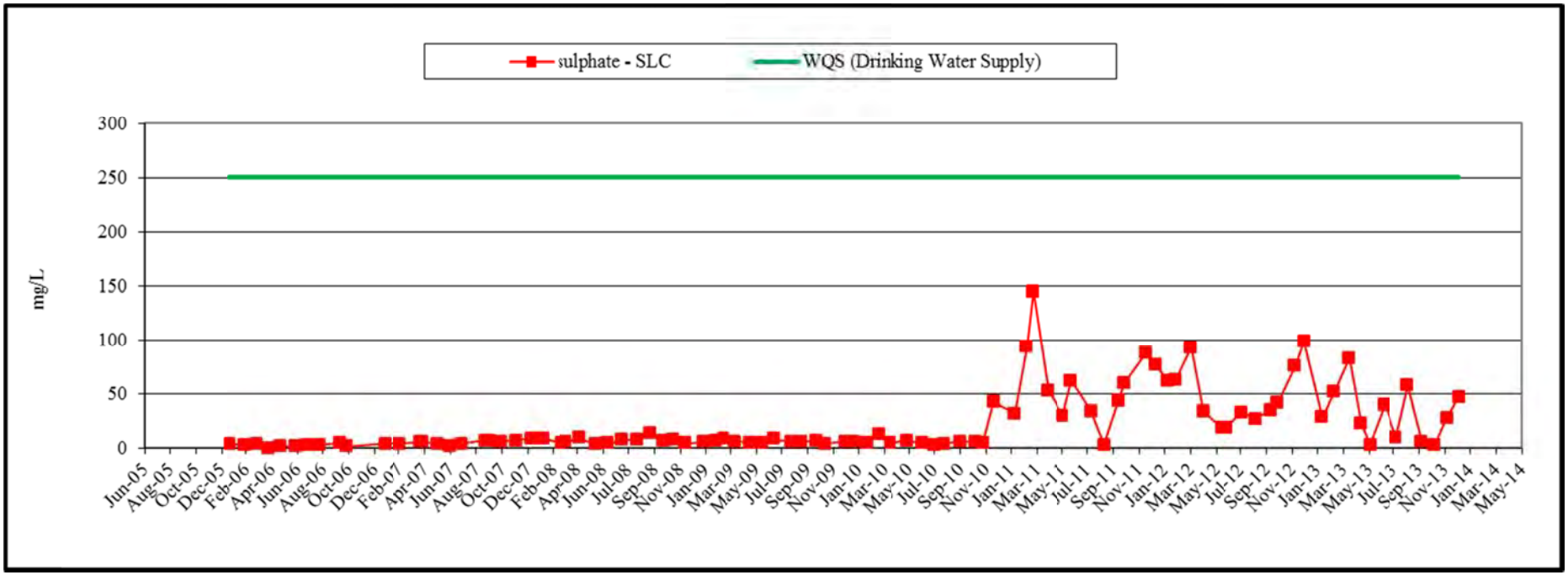


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

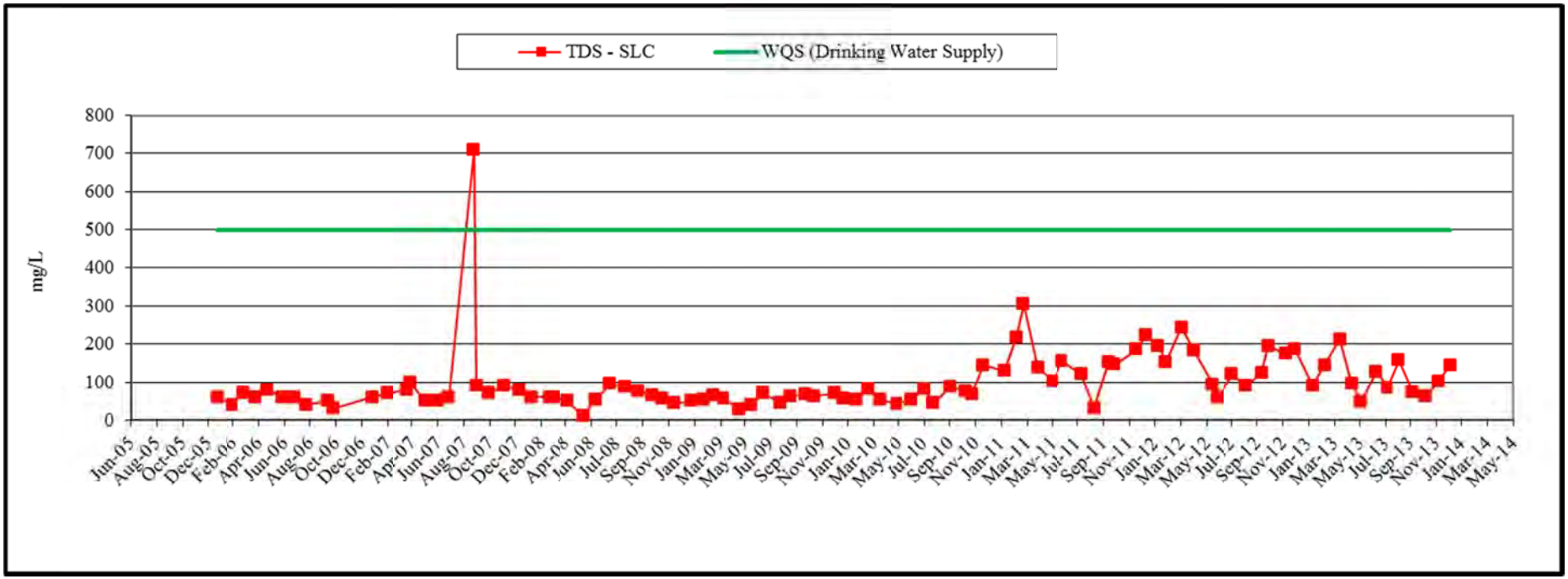


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

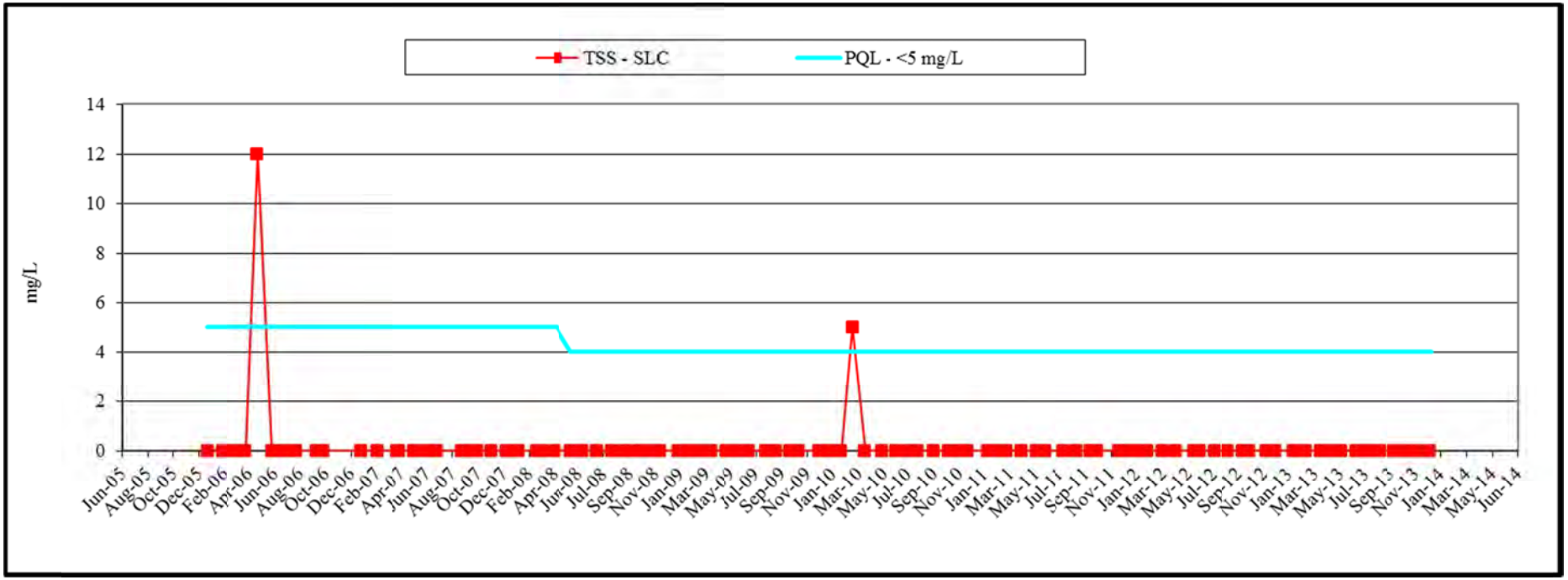


Figure 12b: Slate Creek (SLC) Monitoring Results 2006-2013, Major Chemistry

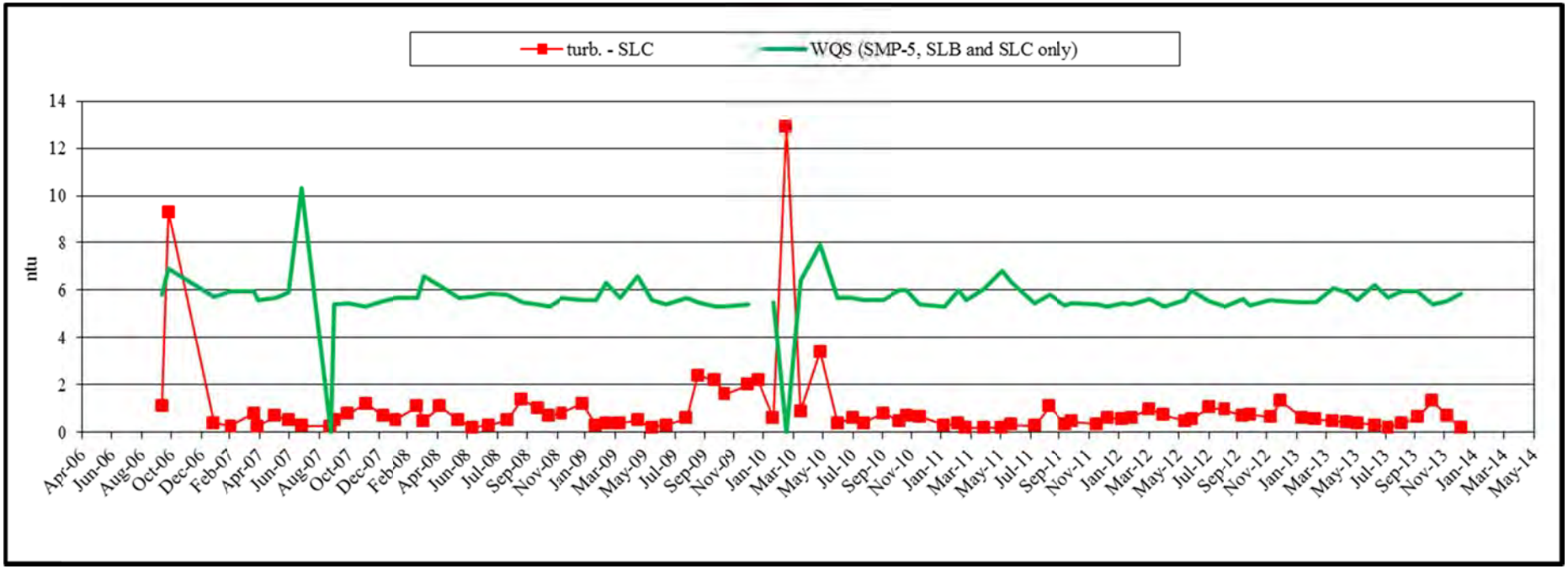


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry

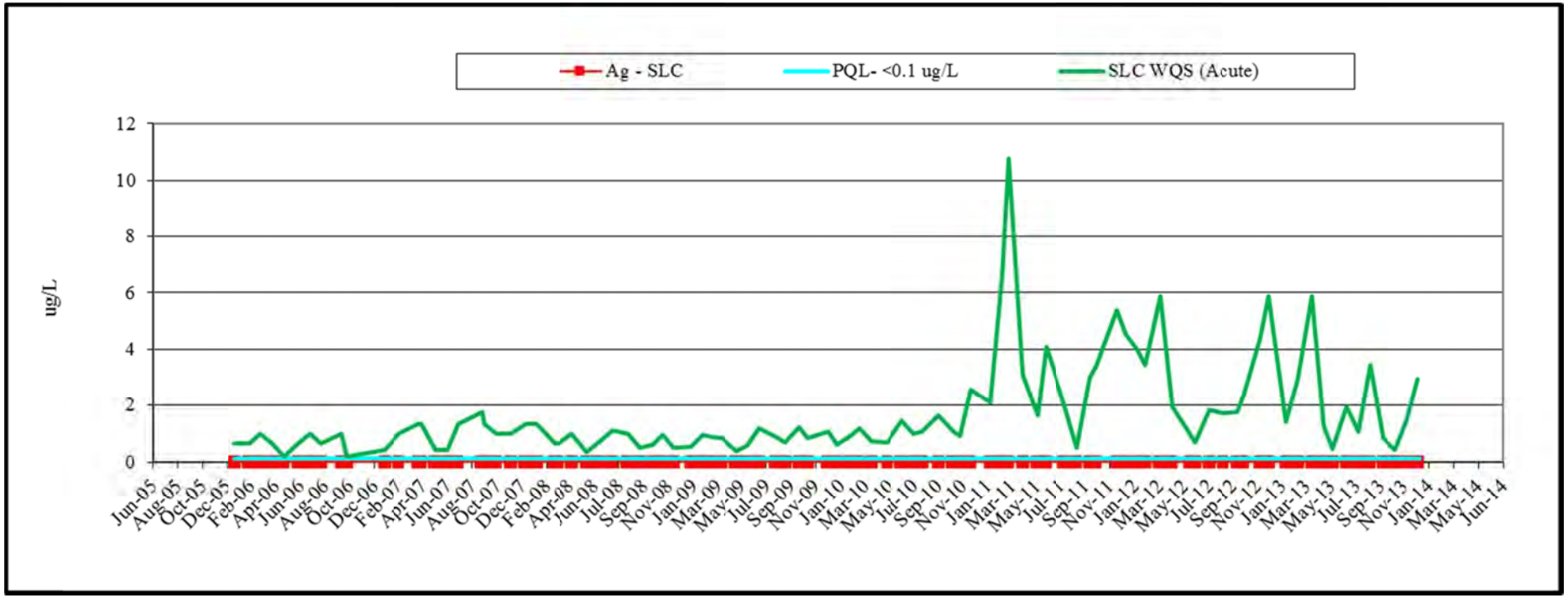


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry

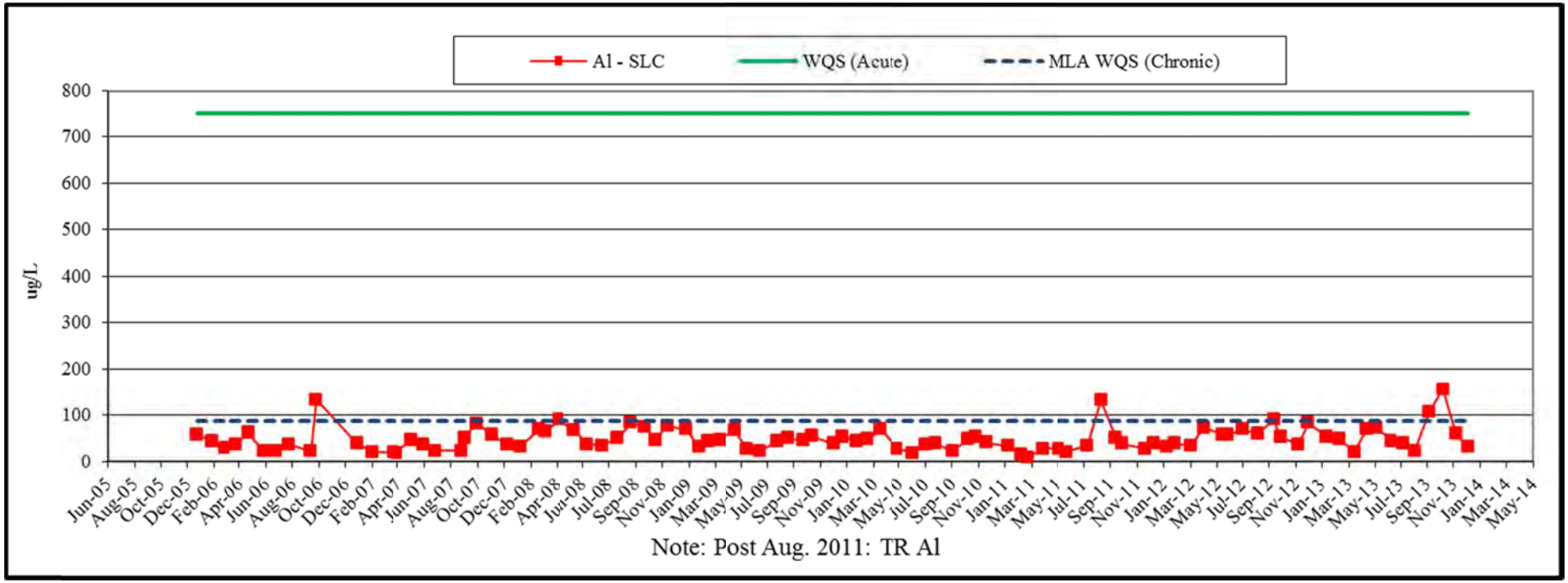


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry

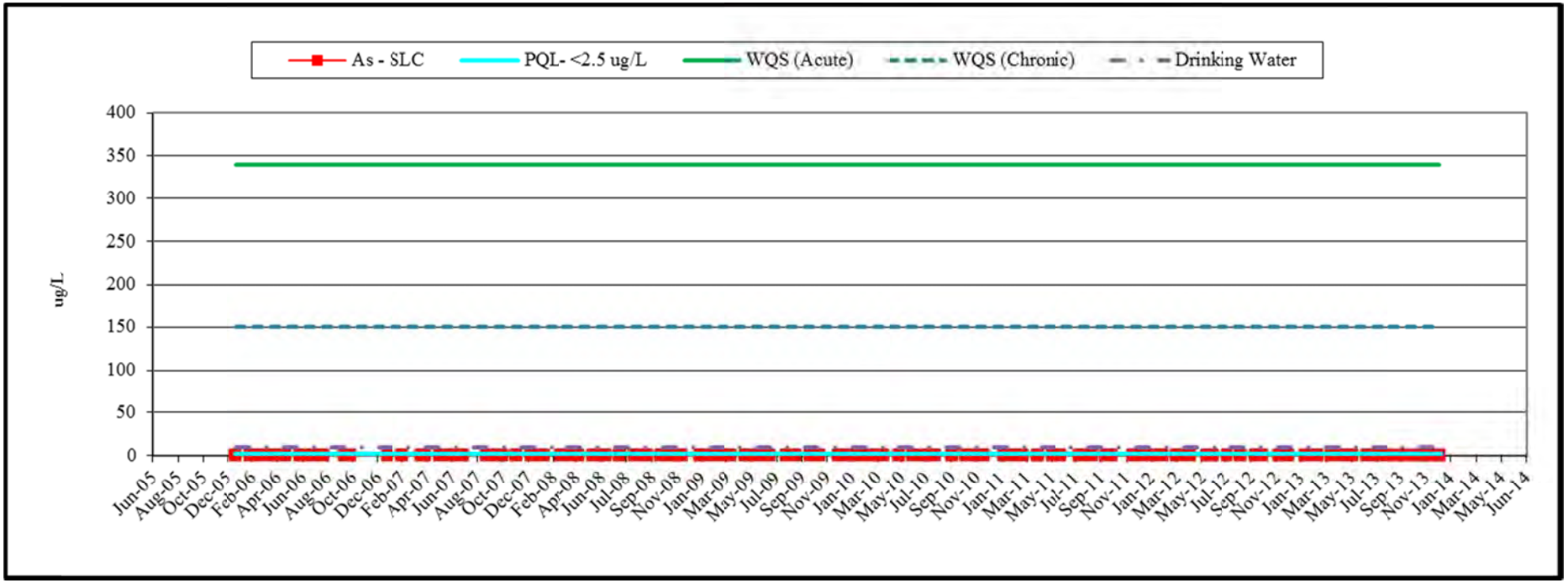


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry

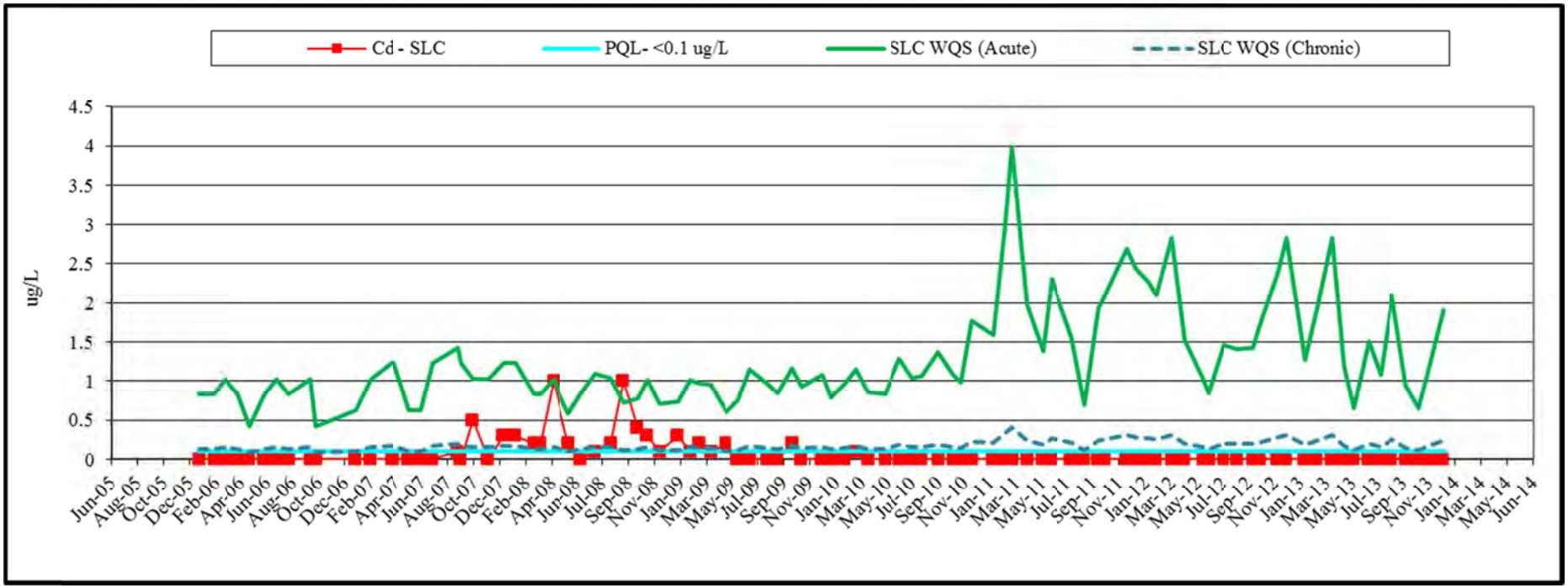
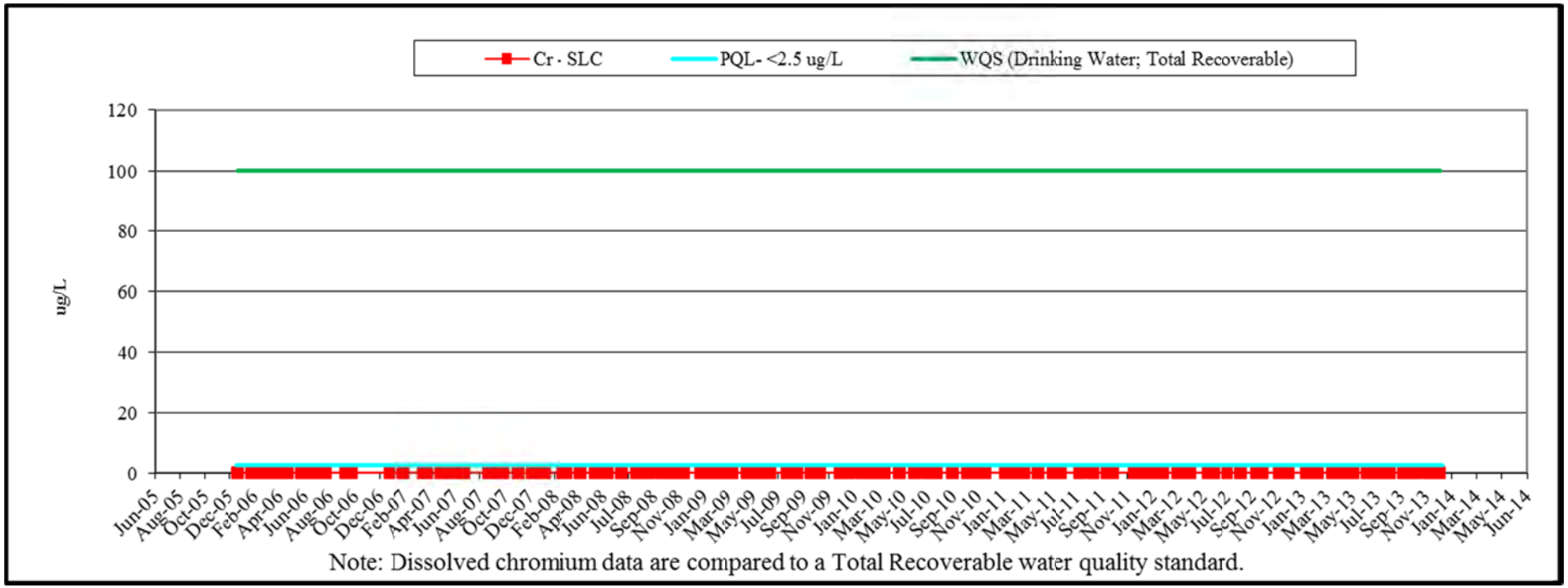


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry



Note: Dissolved chromium data are compared to a Total Recoverable water quality standard.

Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry

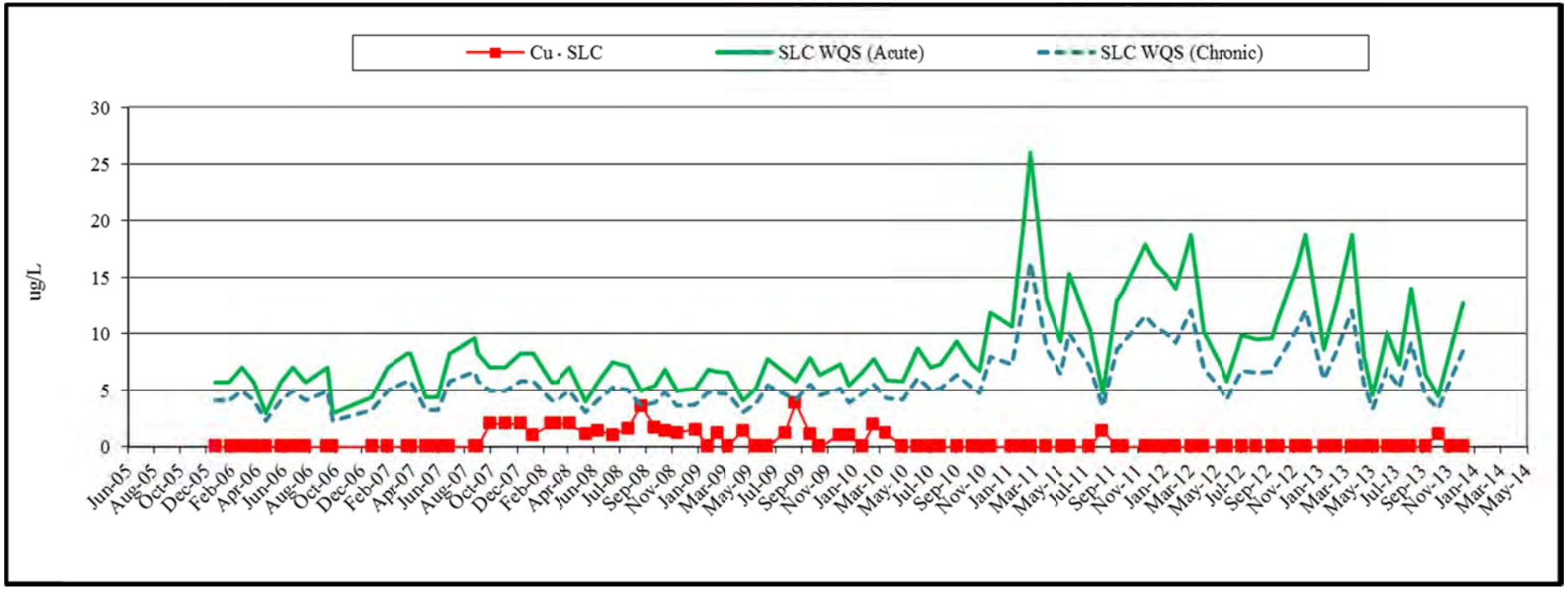


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry

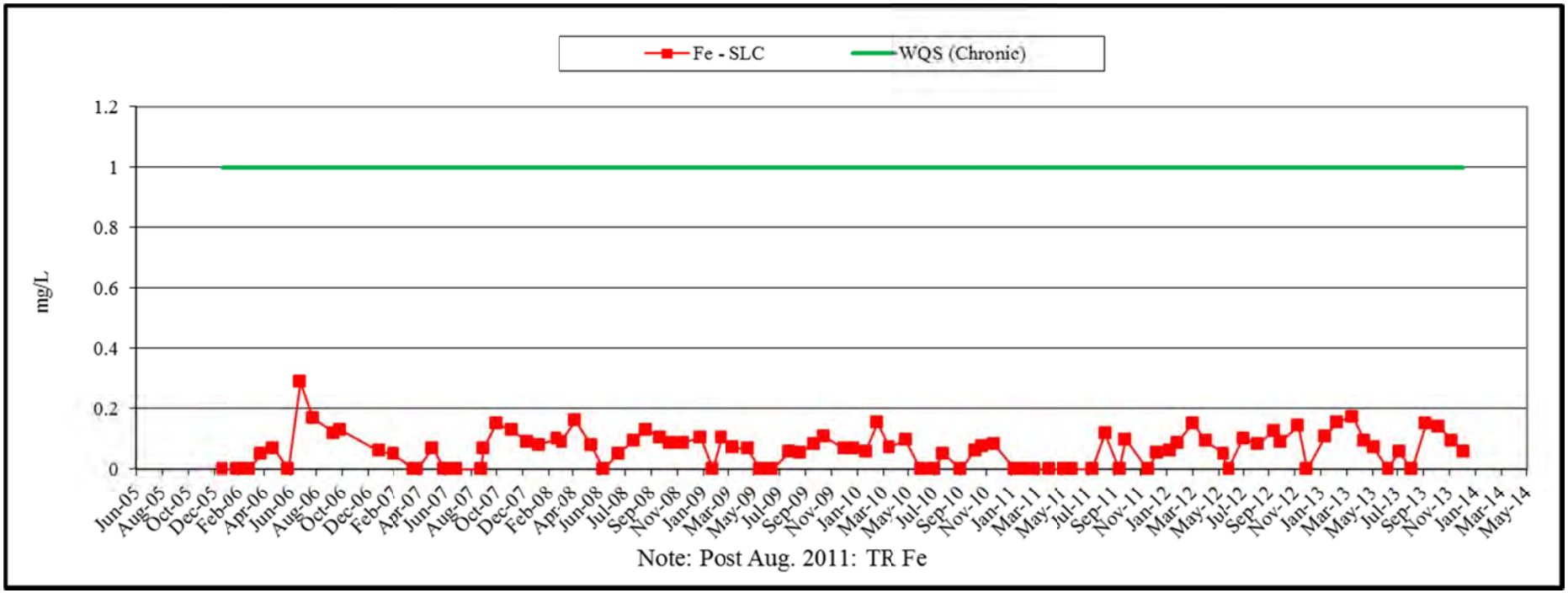


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry

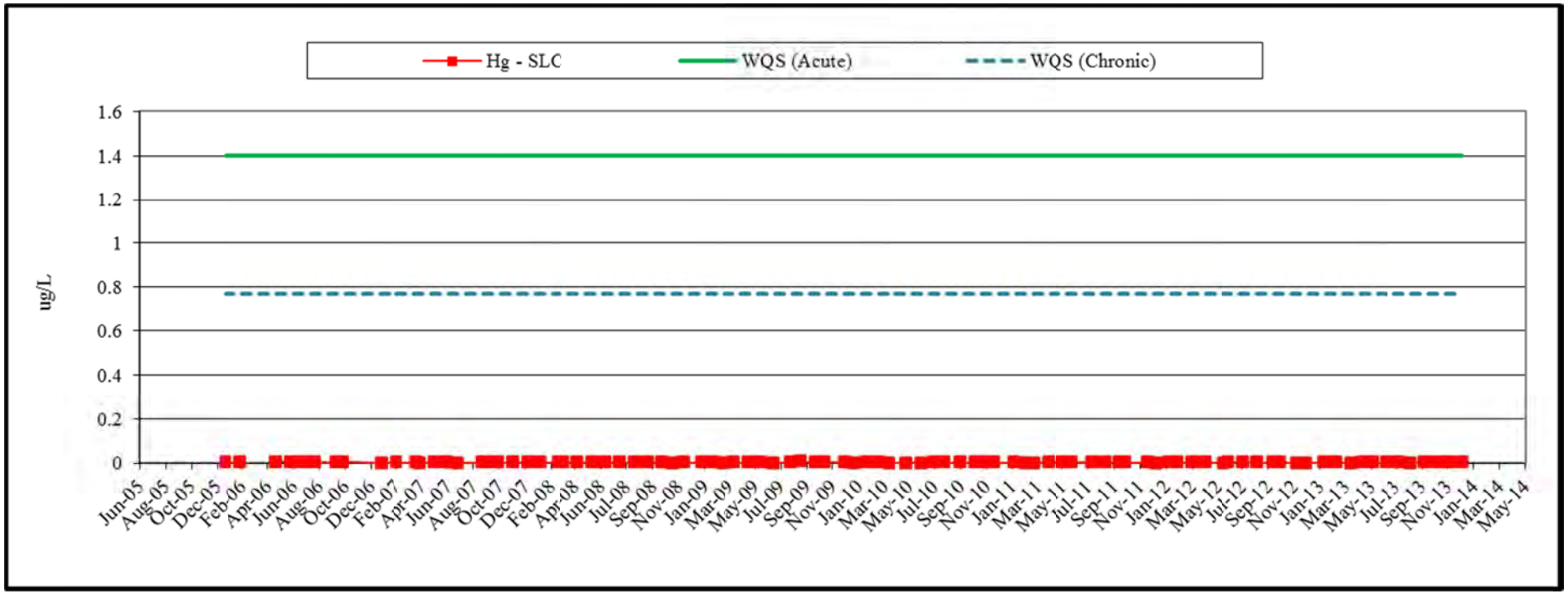
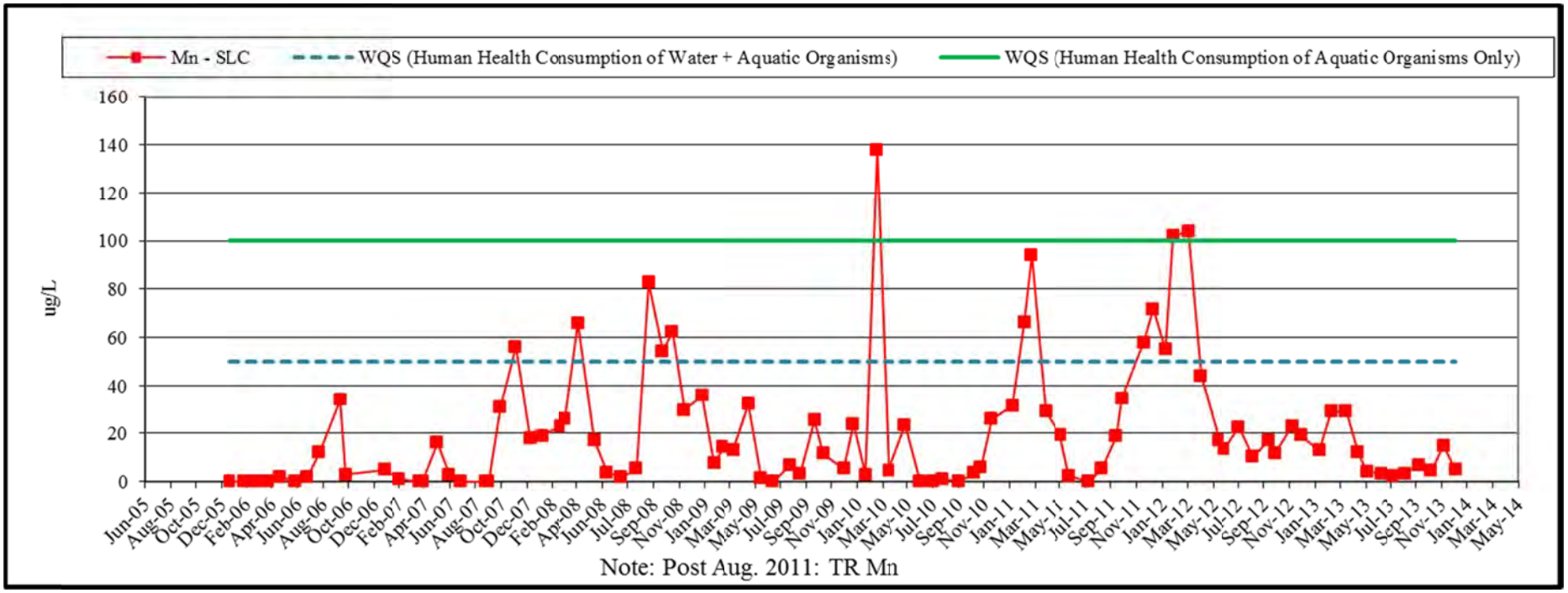


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry



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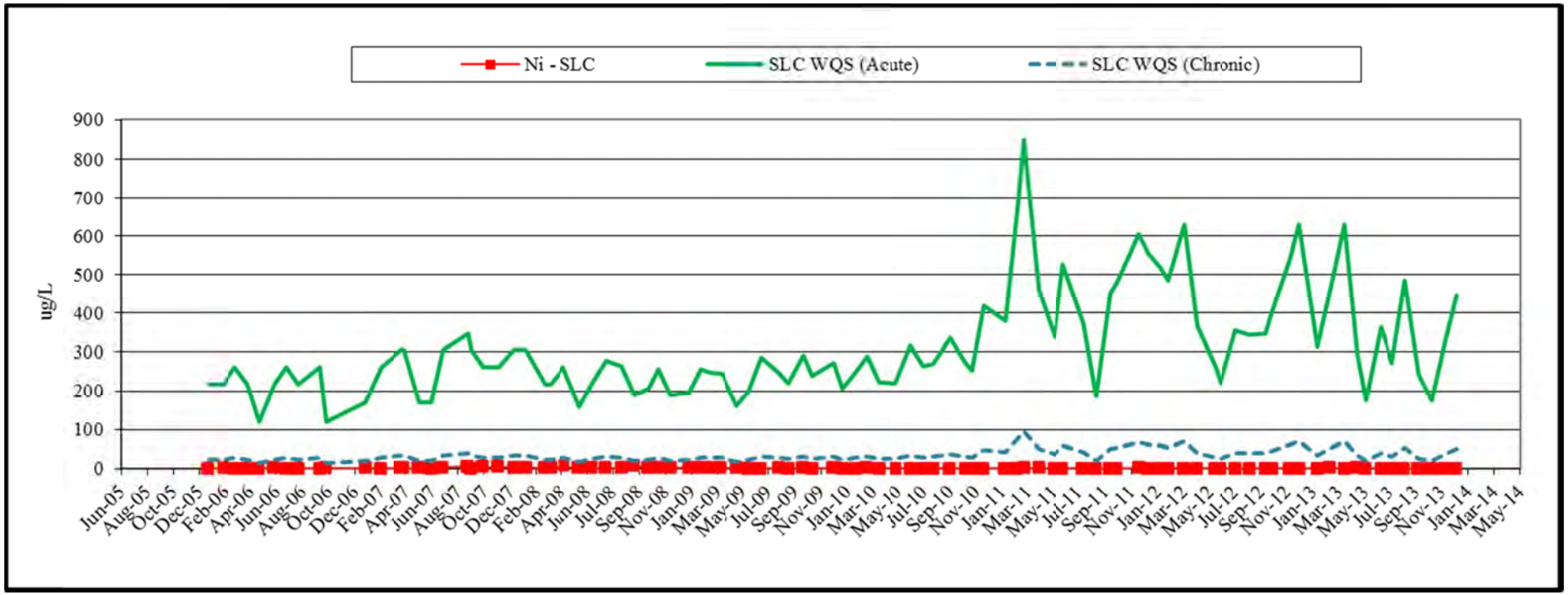

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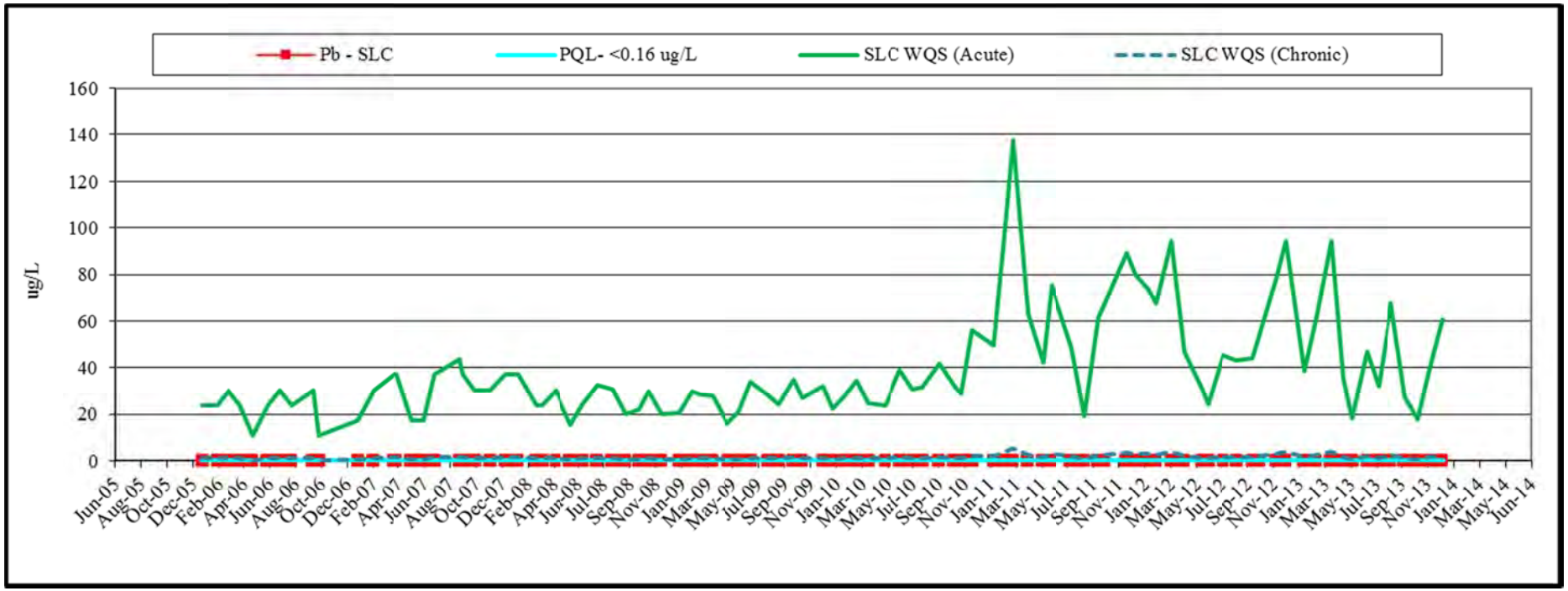

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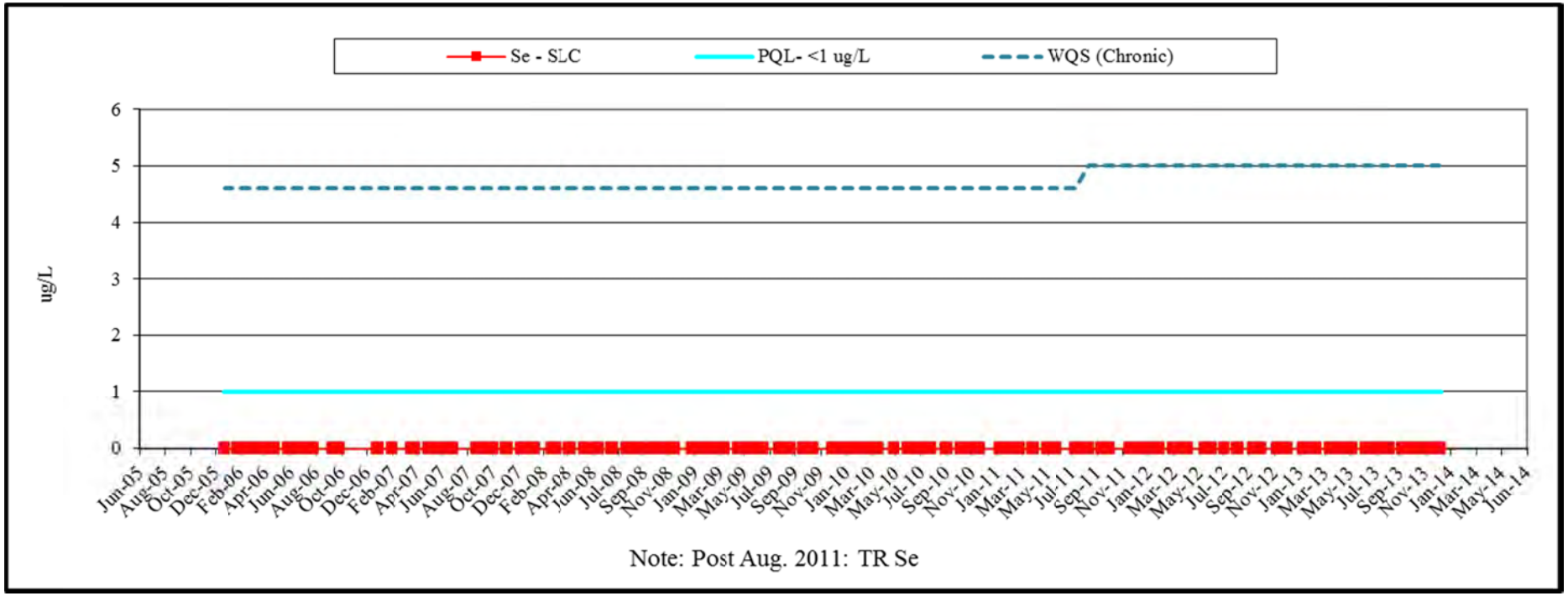


Figure 12c: Slate Creek (SLC) Monitoring Results 2006-2013, Trace Chemistry

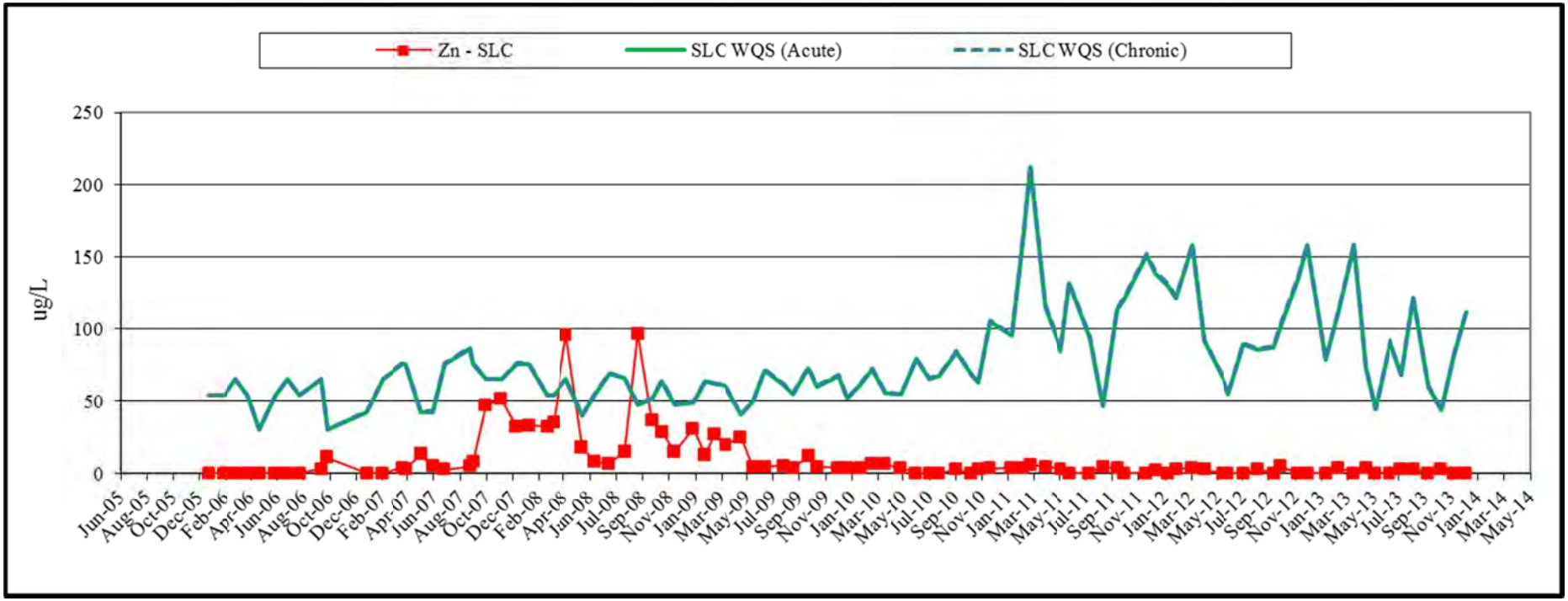


Figure 13a Sherman Creek (SH105) Monitoring Results 2006-2013, Field Parameters

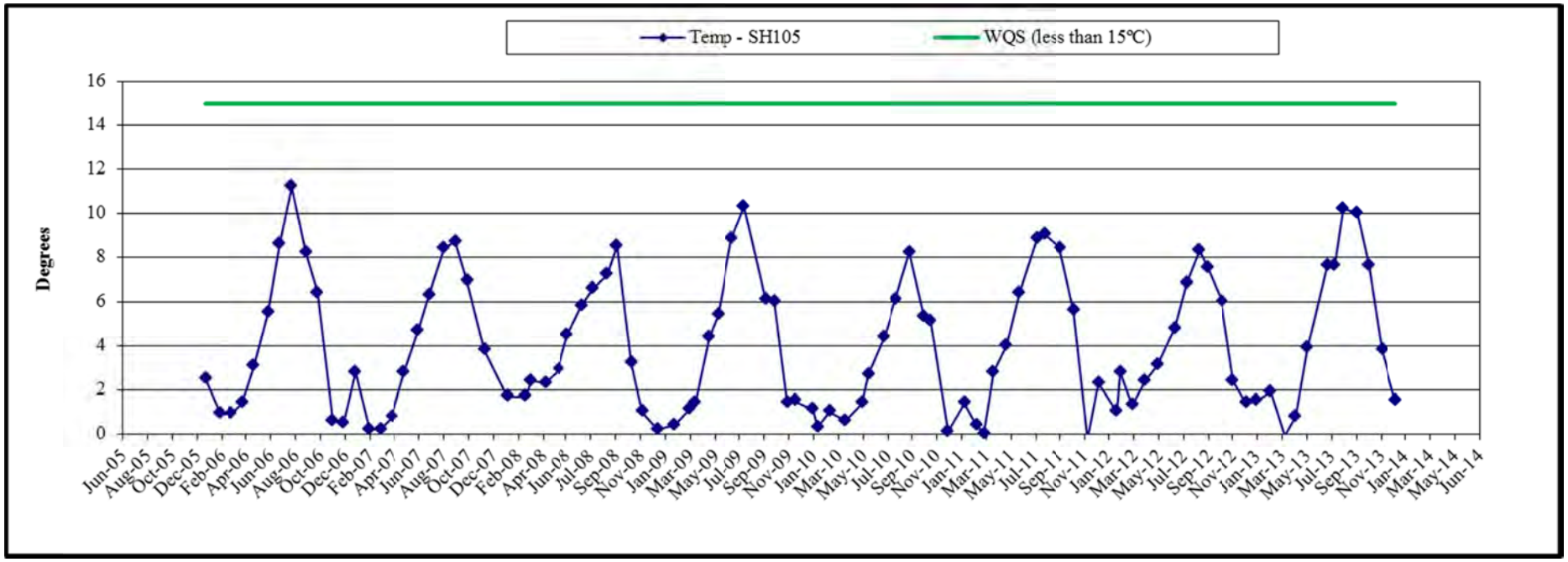


Figure 13a Sherman Creek (SH105) Monitoring Results 2006-2013, Field Parameters

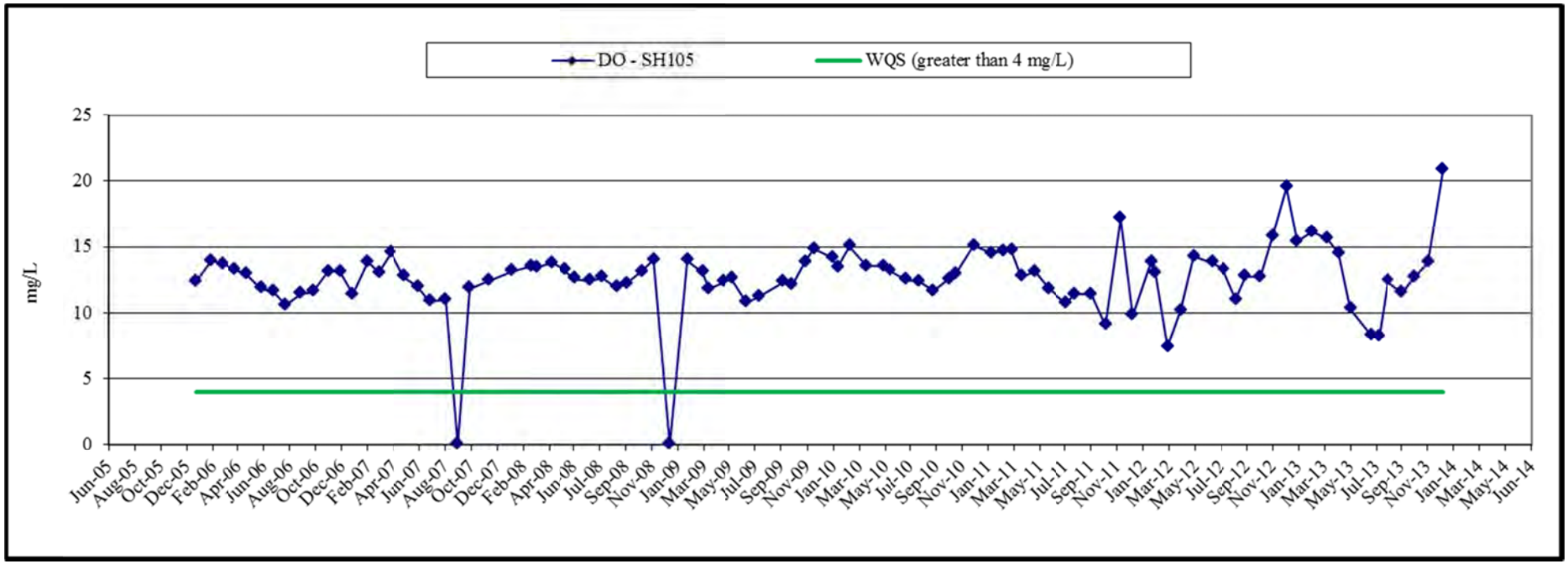


Figure 13a Sherman Creek (SH105) Monitoring Results 2006-2013, Field Parameters

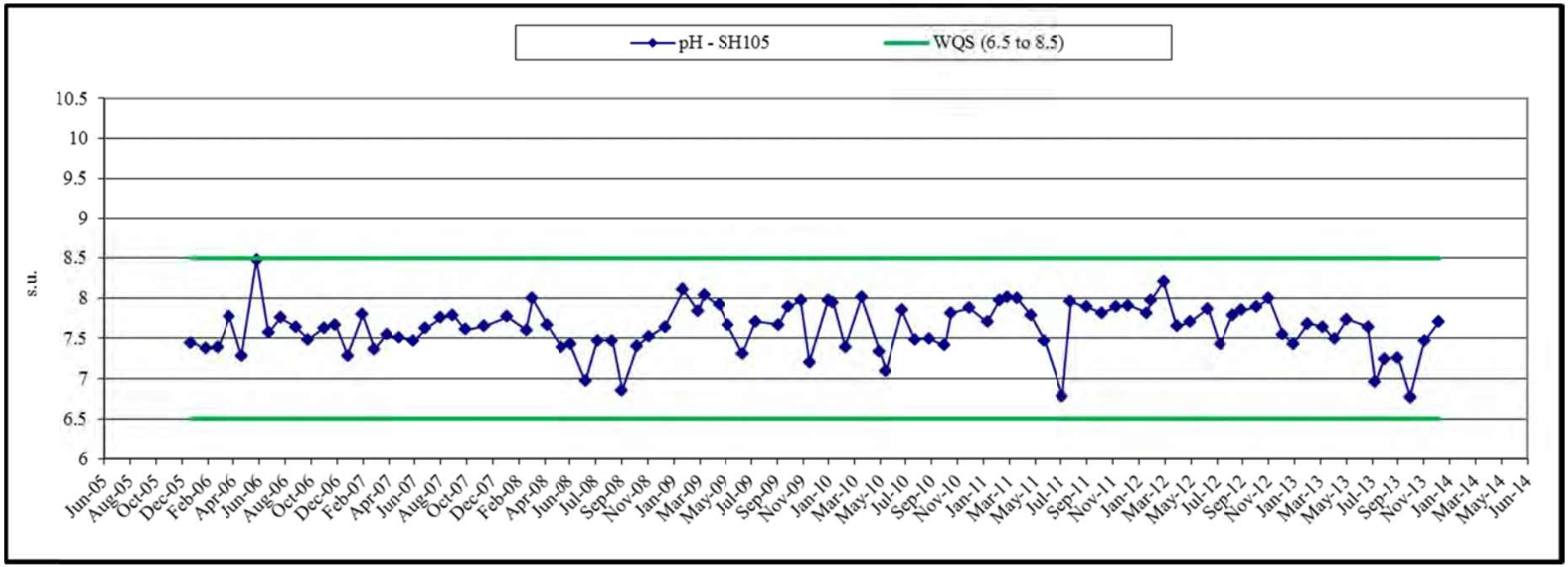


Figure 13a Sherman Creek (SH105) Monitoring Results 2006-2013, Field Parameters

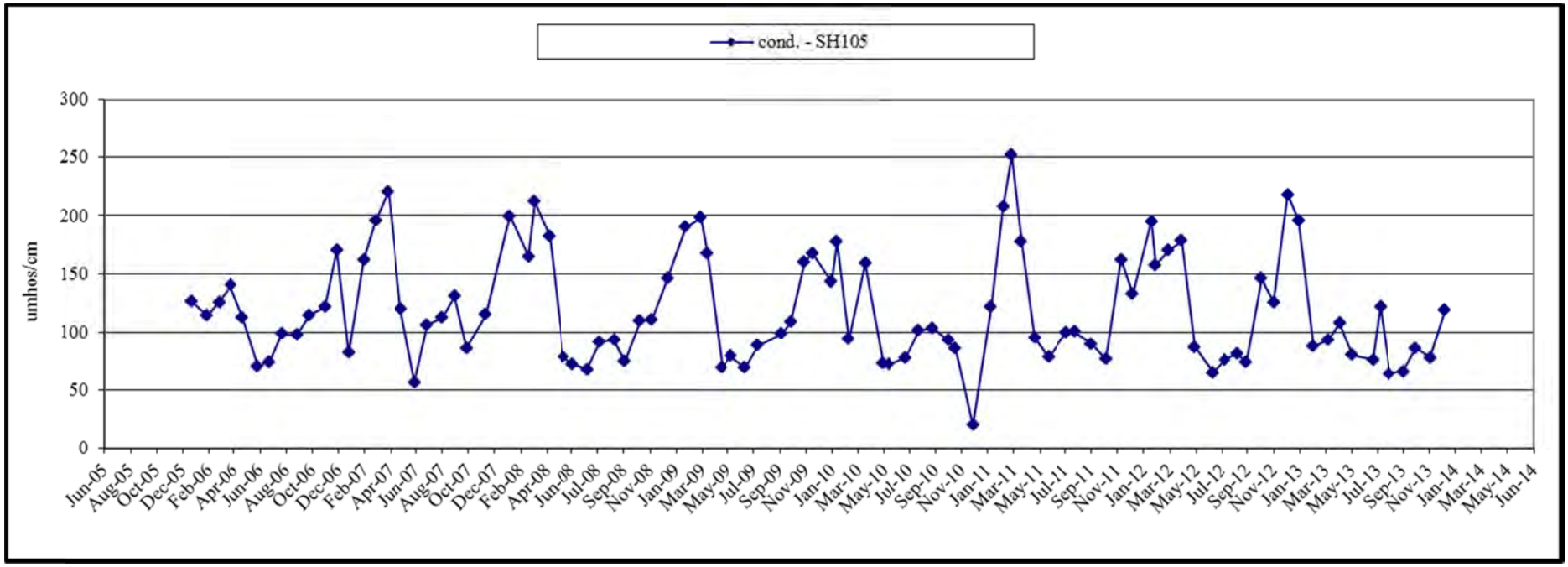


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

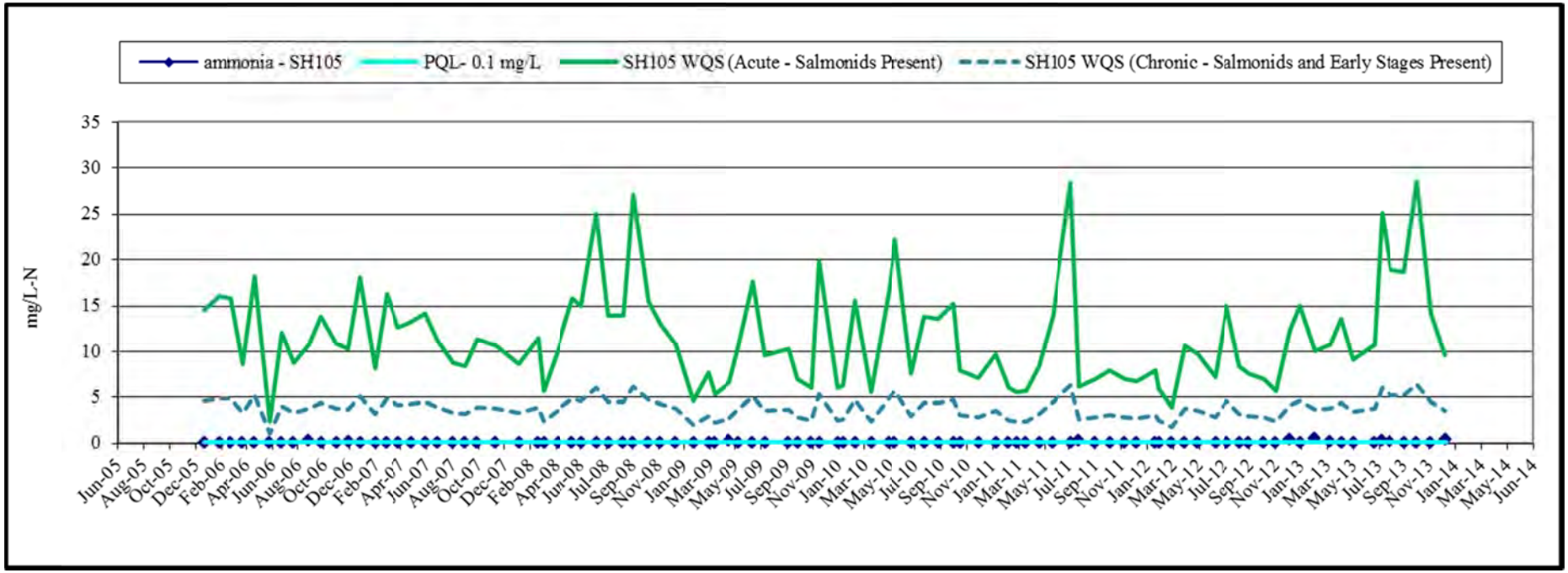


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

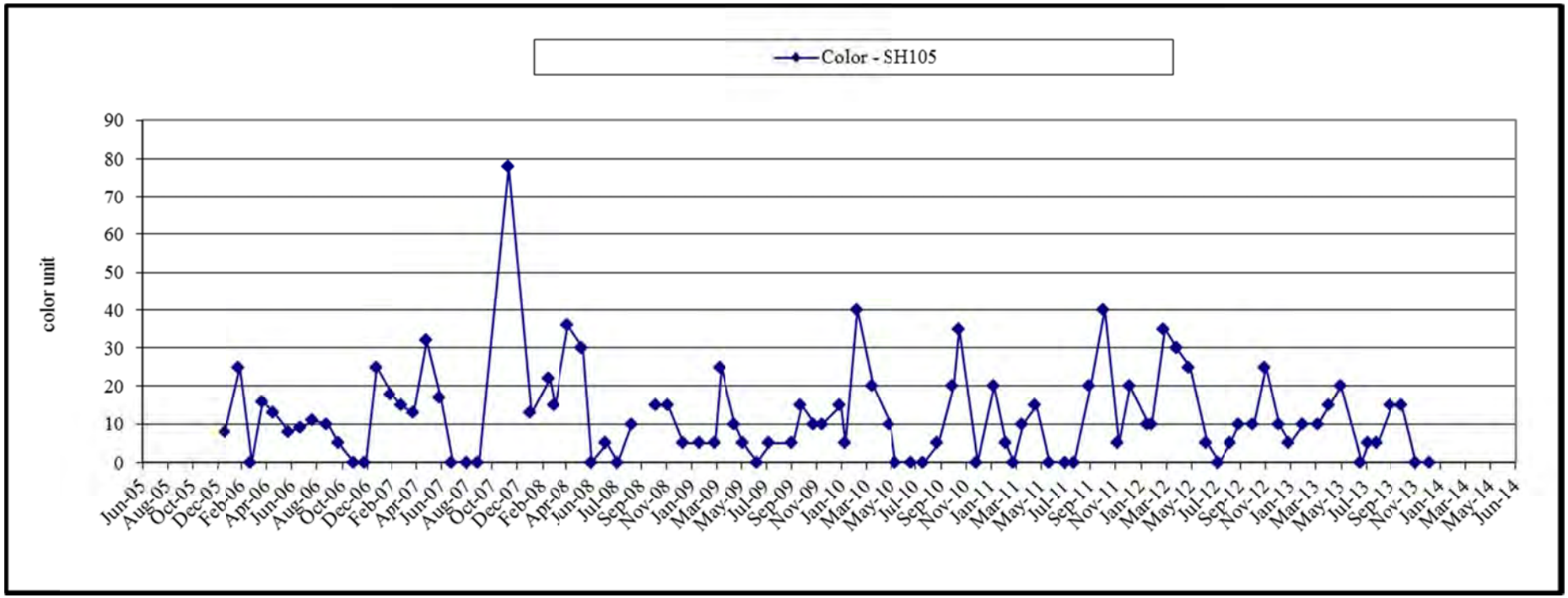


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

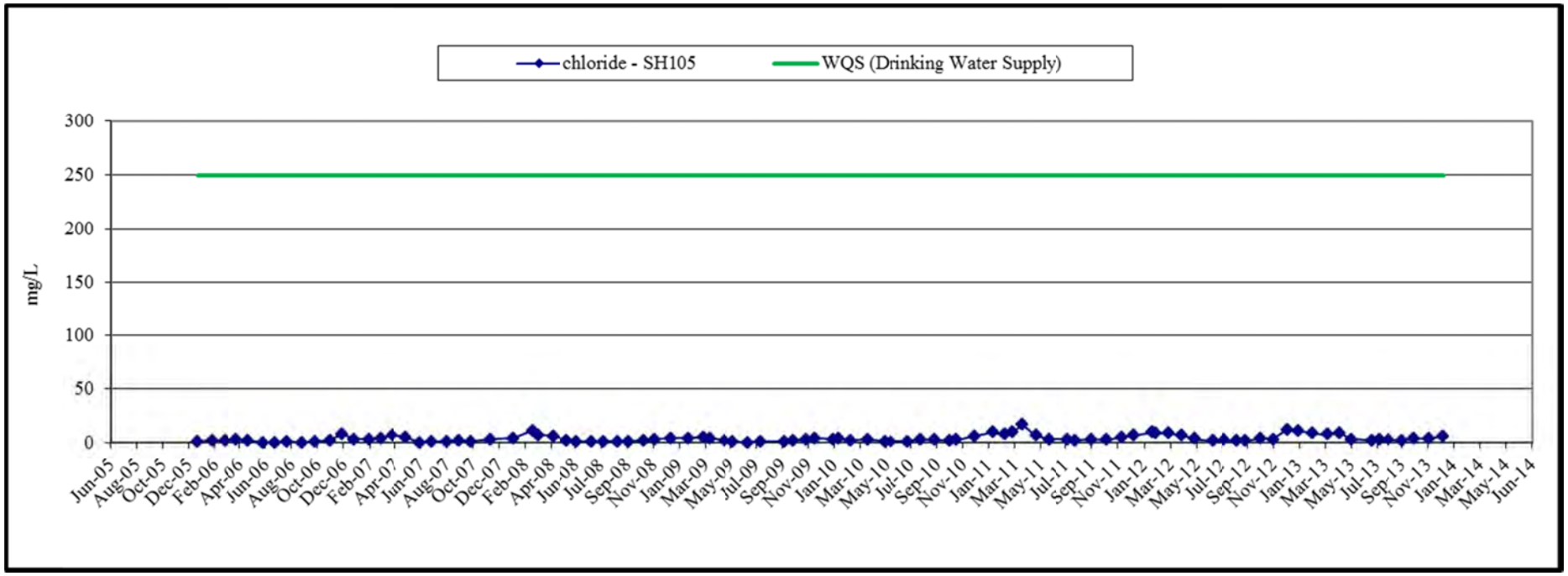


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

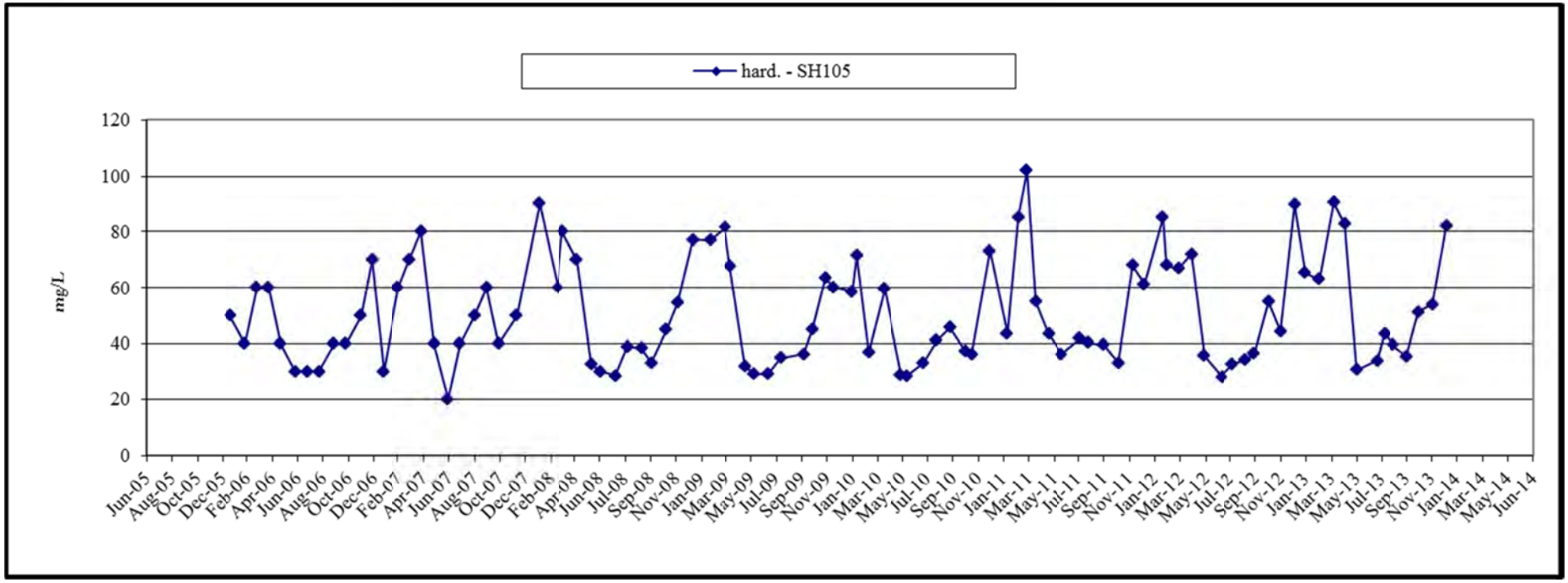


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

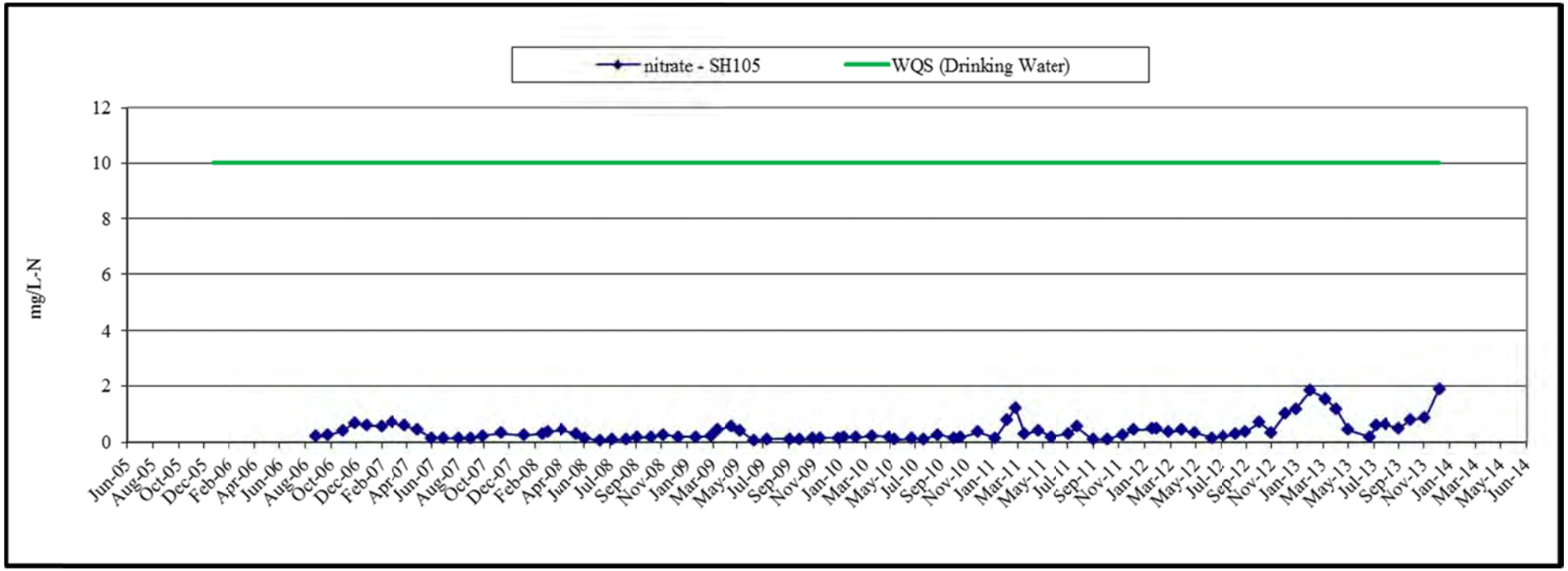


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

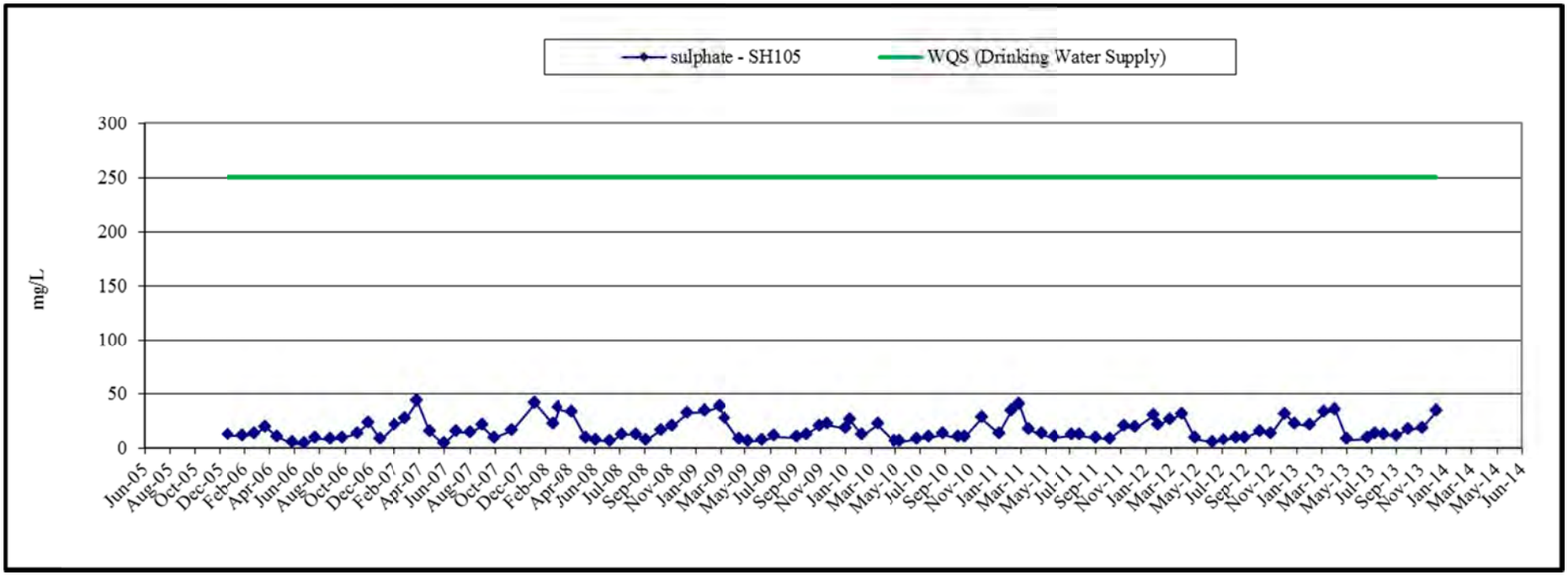


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

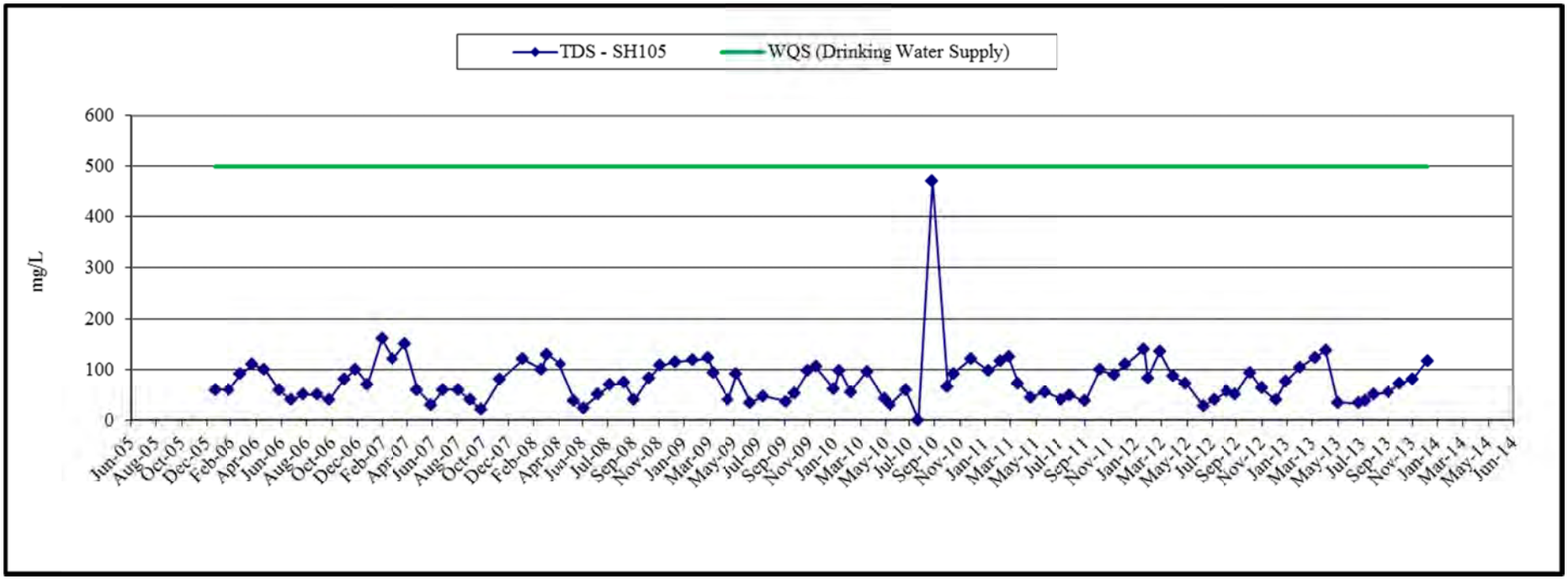


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

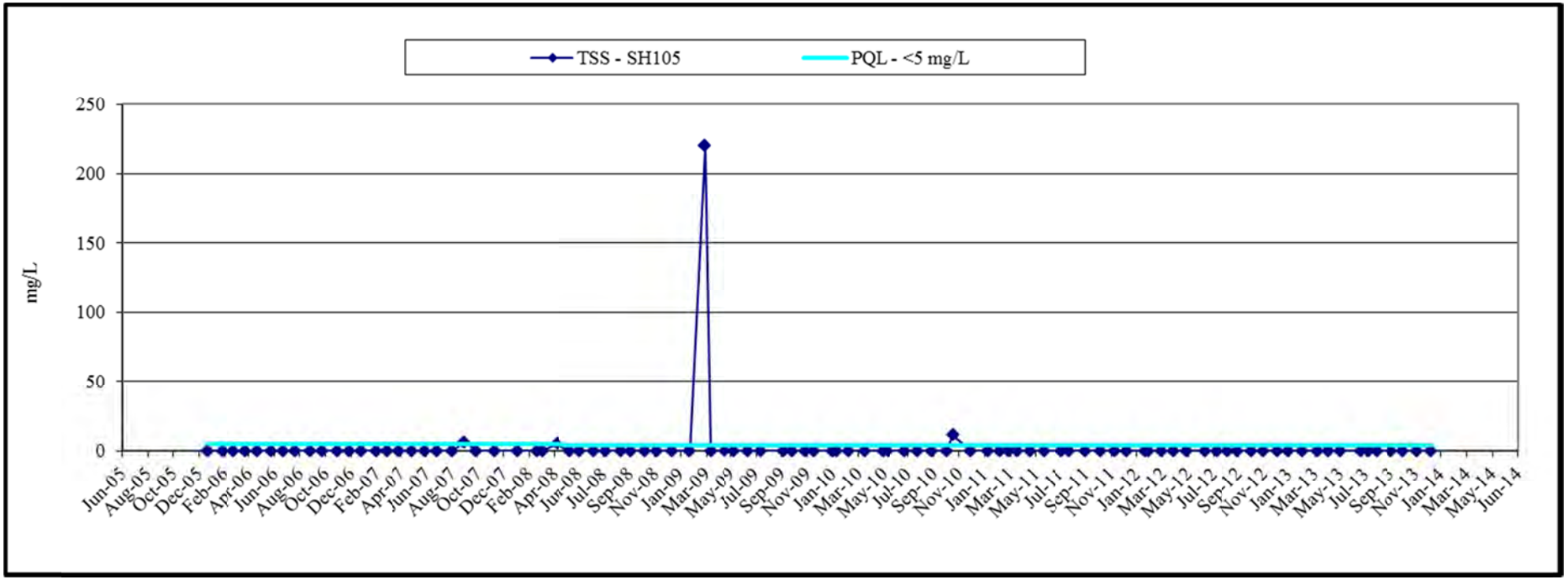


Figure 13b Sherman Creek (SH105) Monitoring Results 2006-2013, Major Chemistry

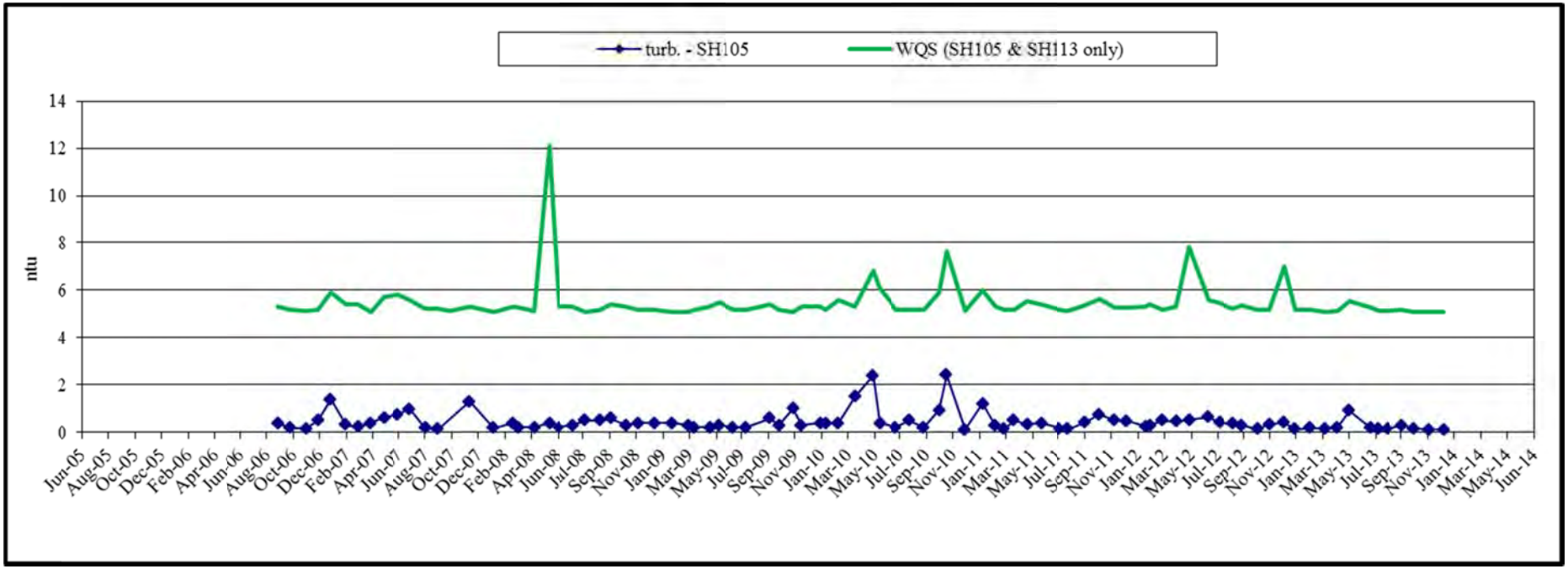


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

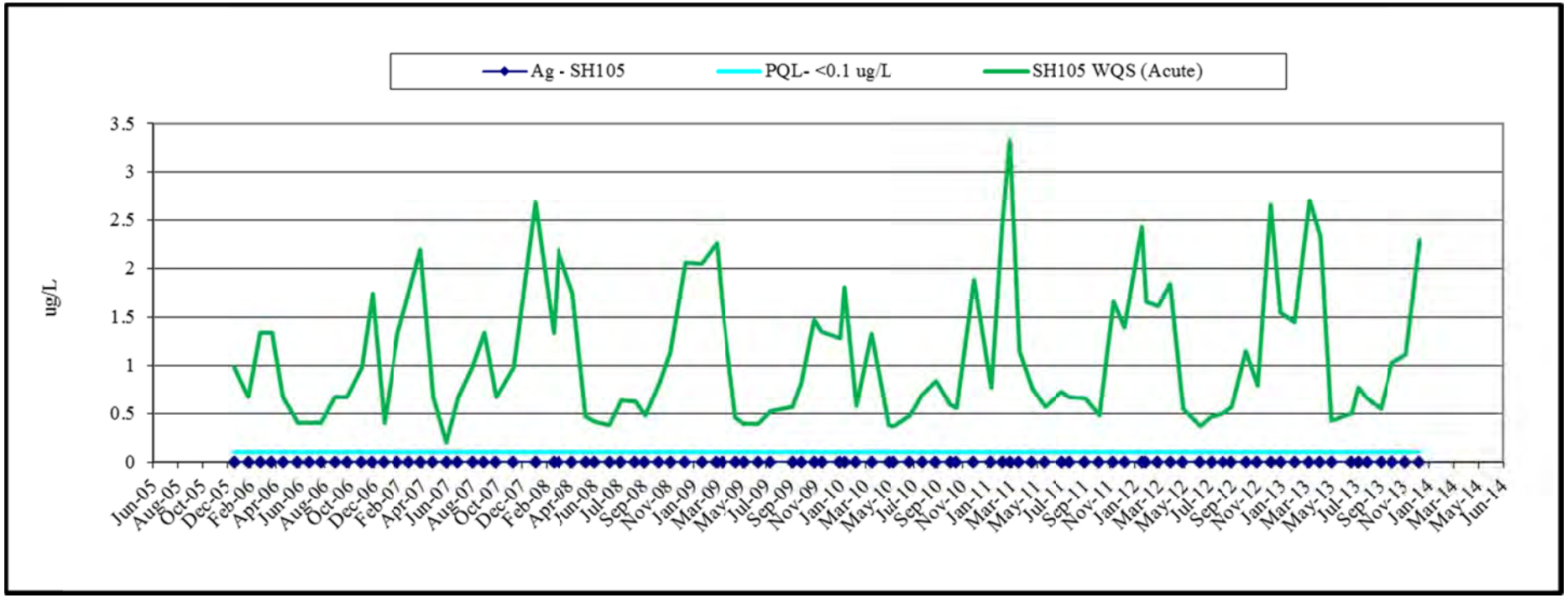


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

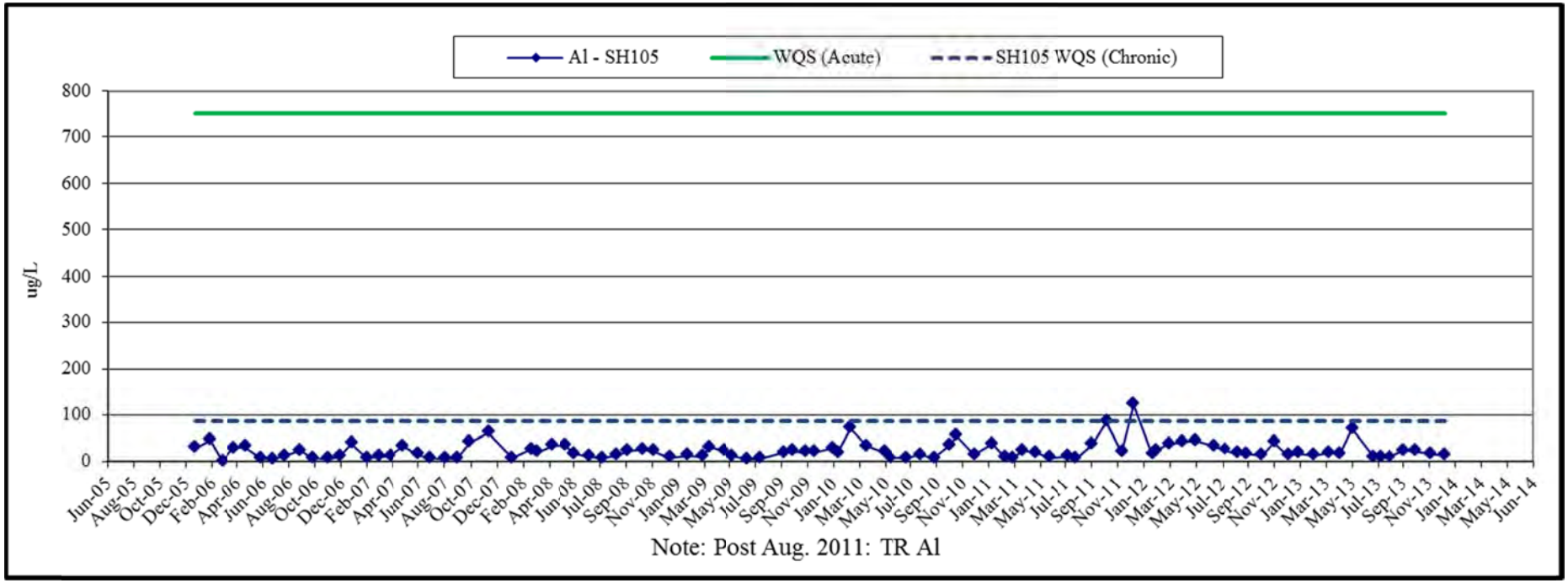


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

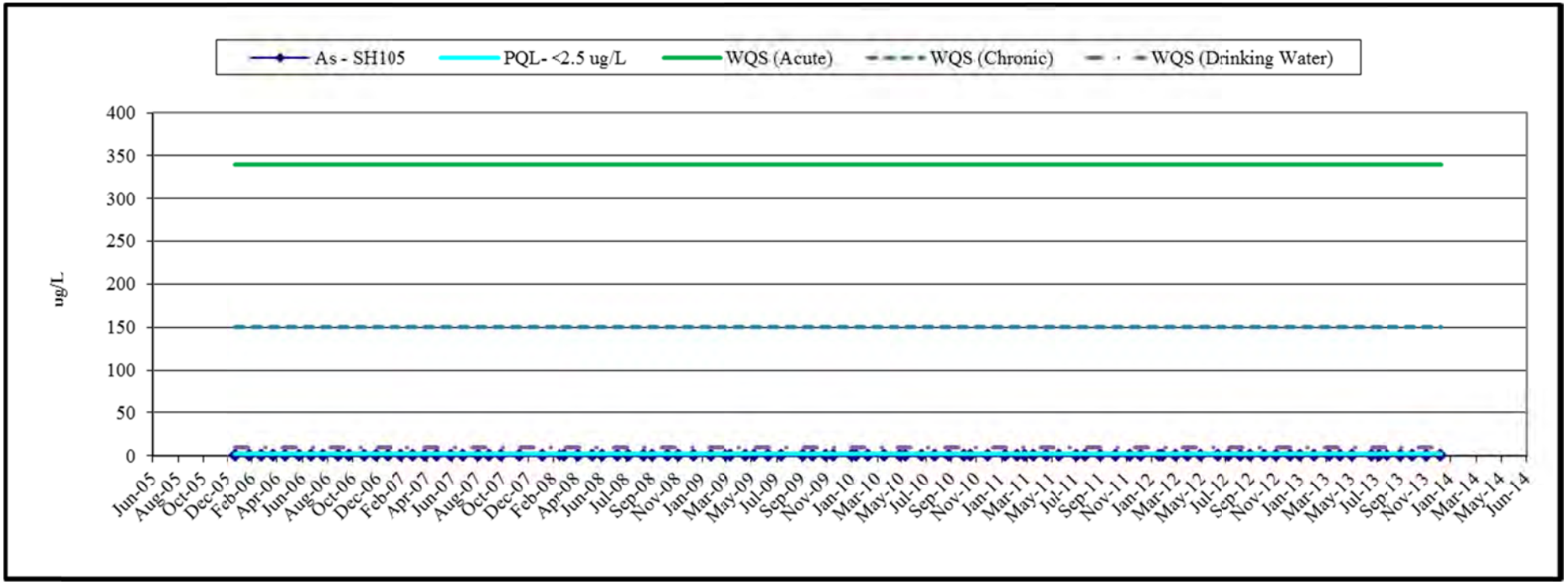


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

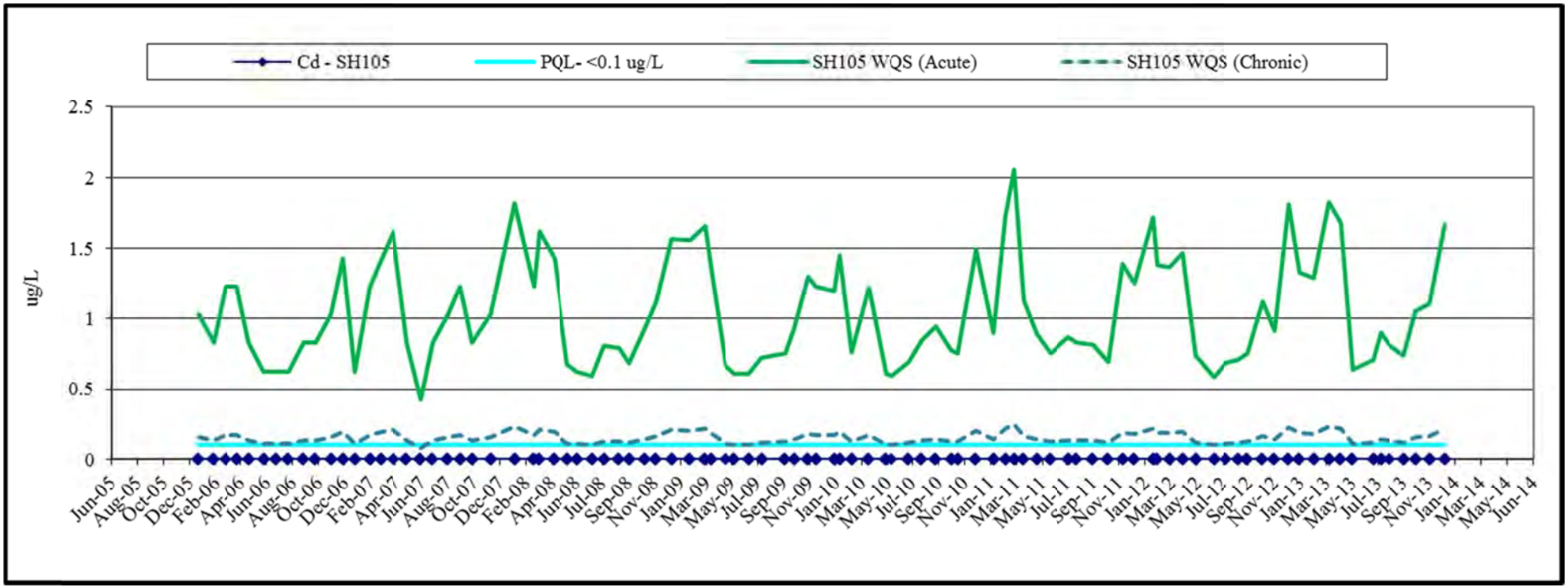


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

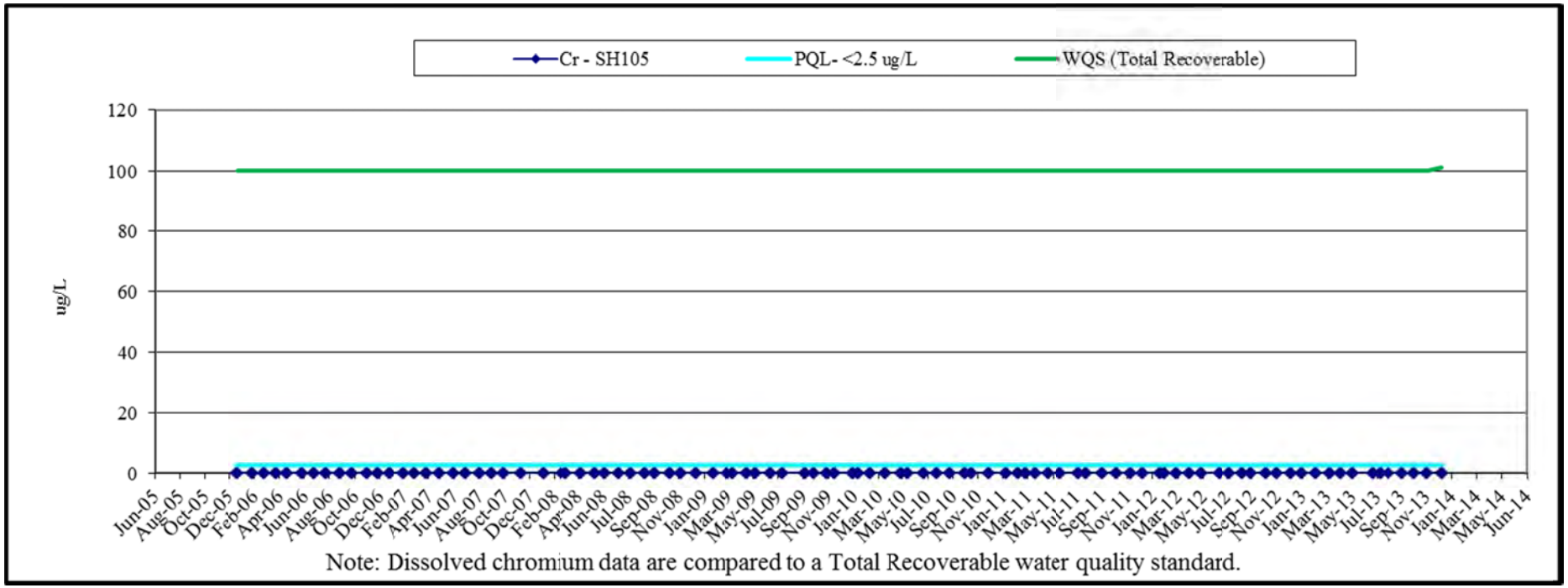


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

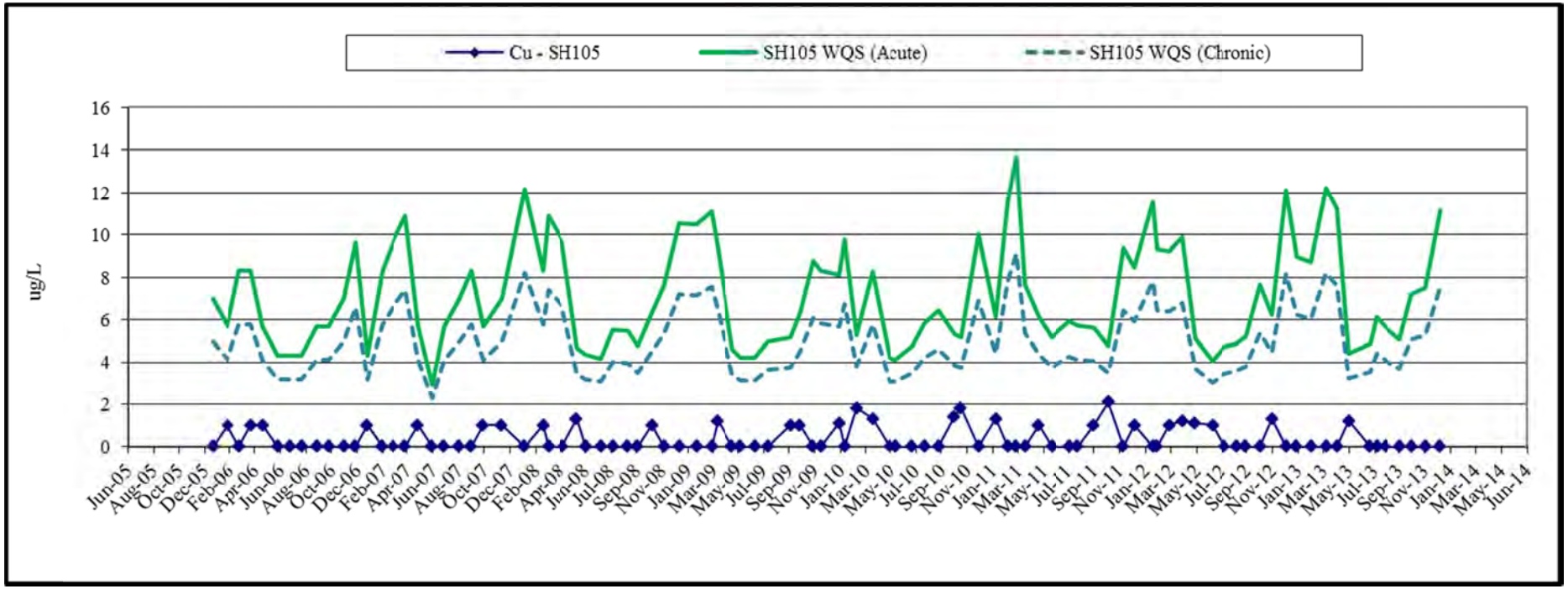


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

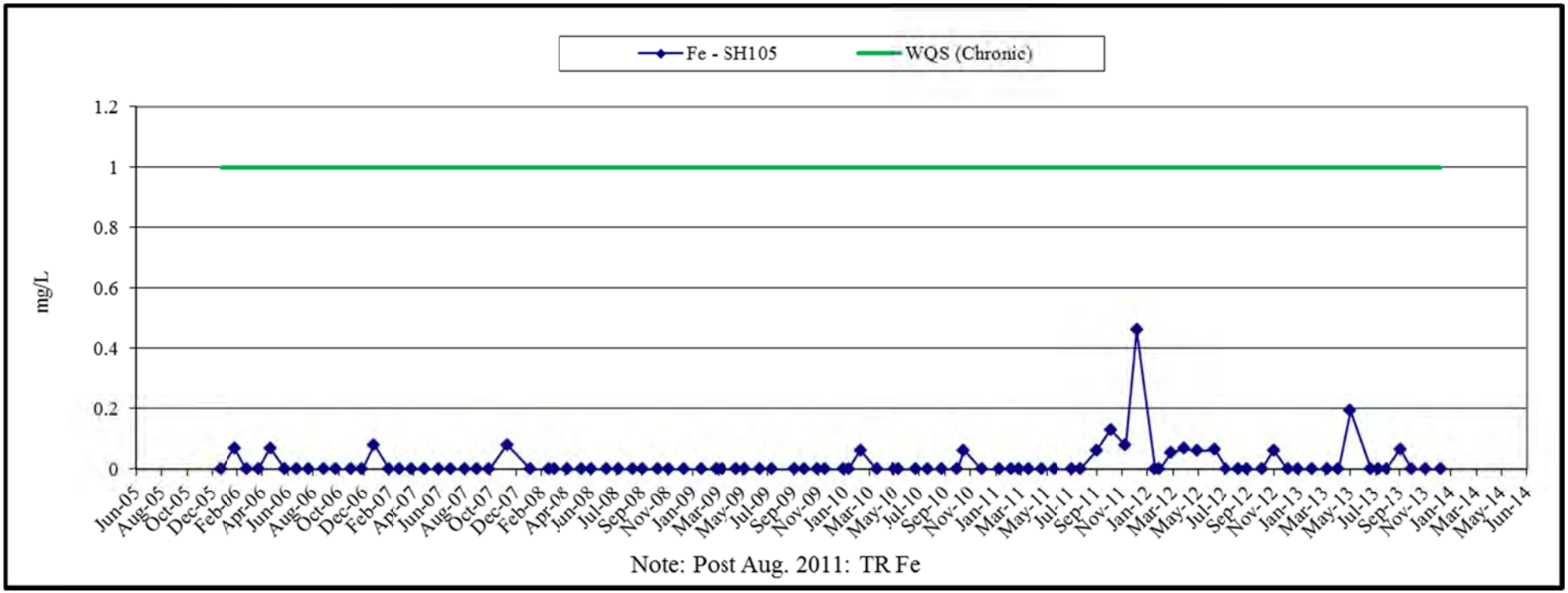


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

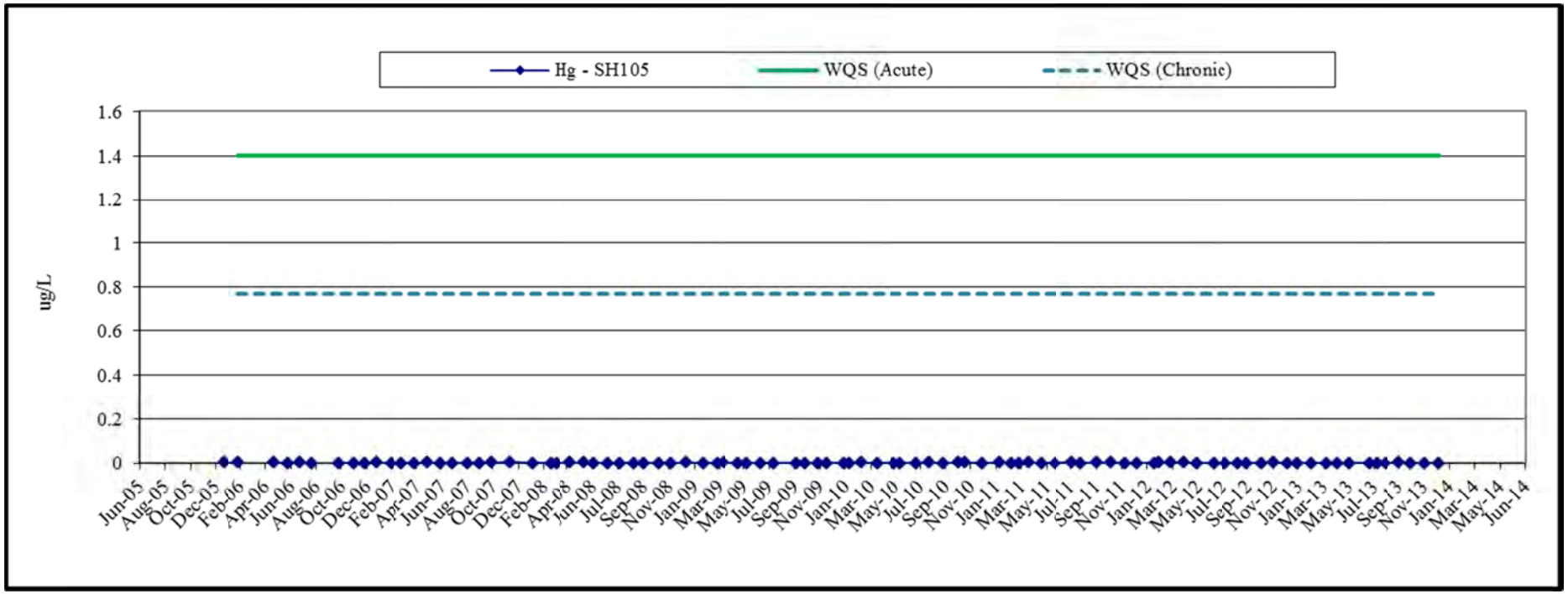


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

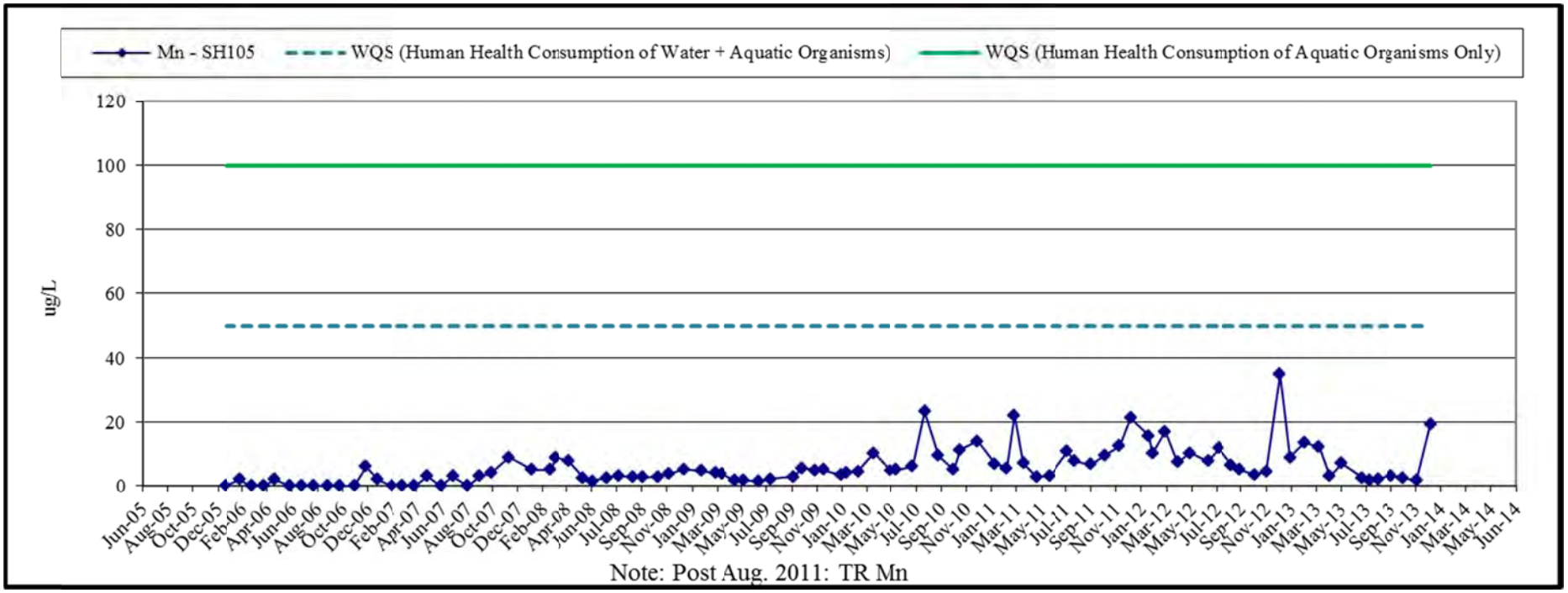


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

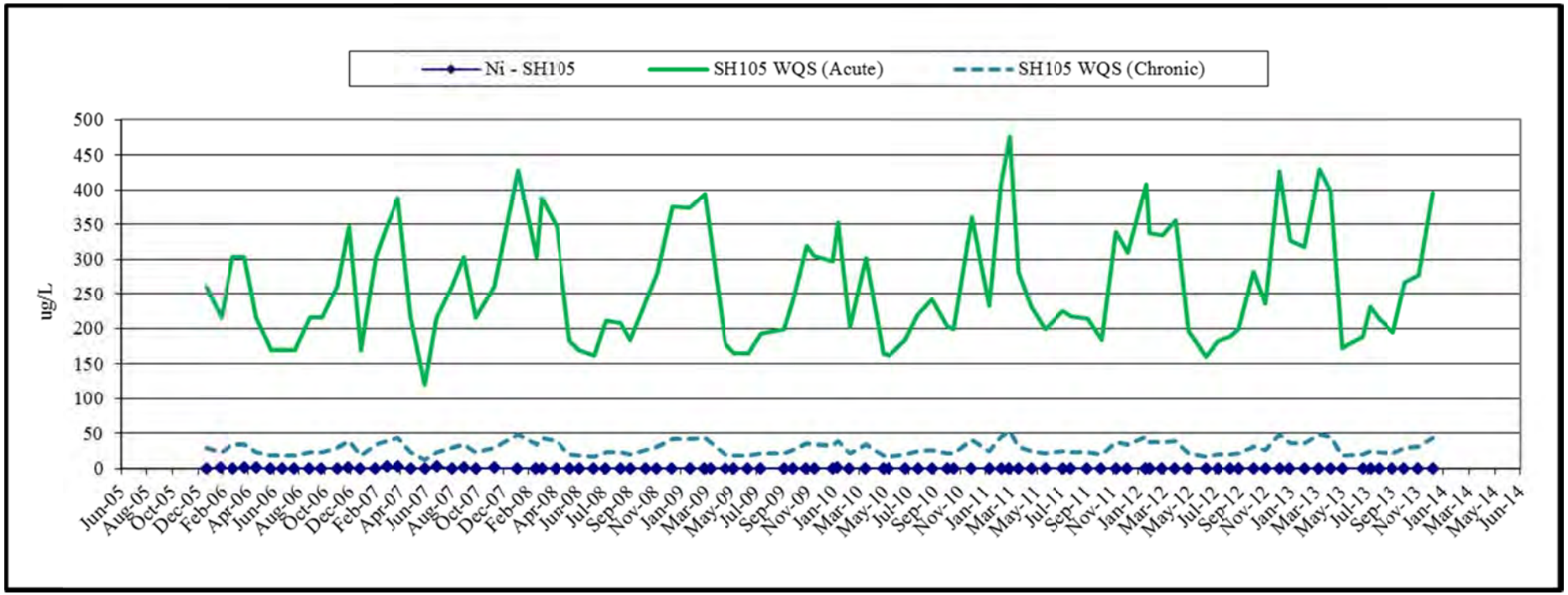


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

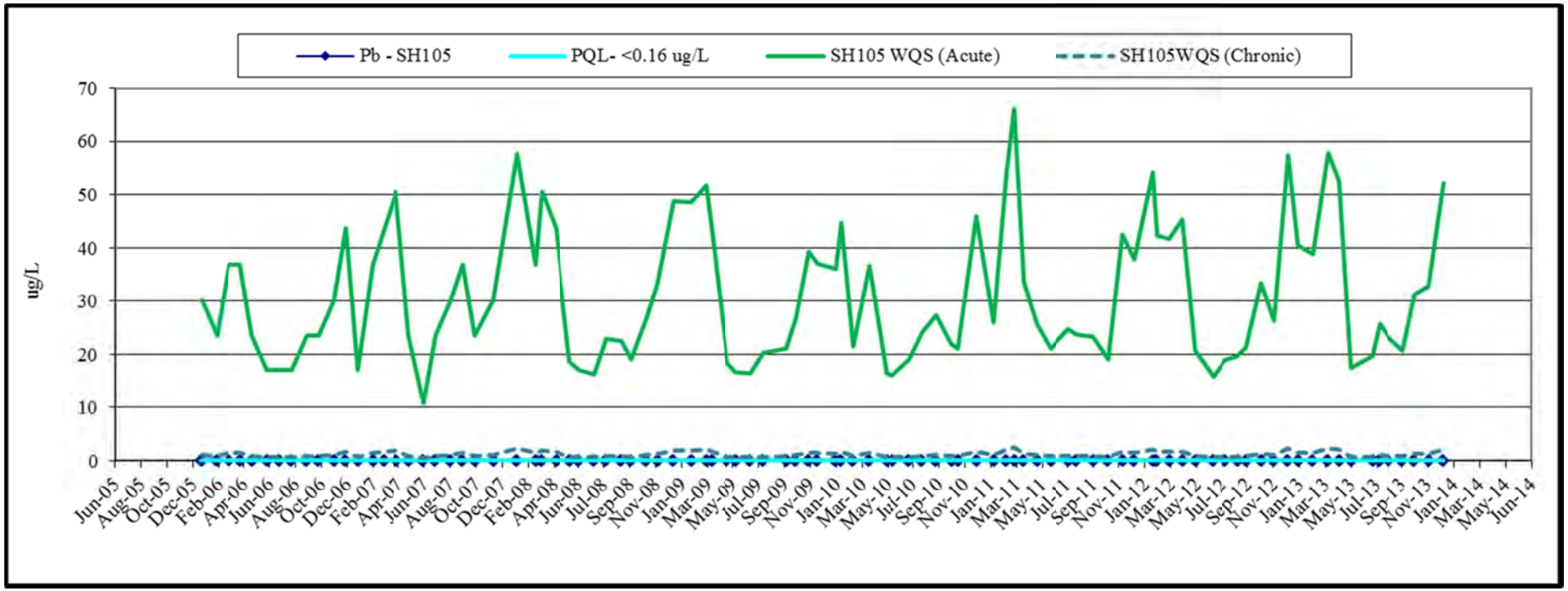


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

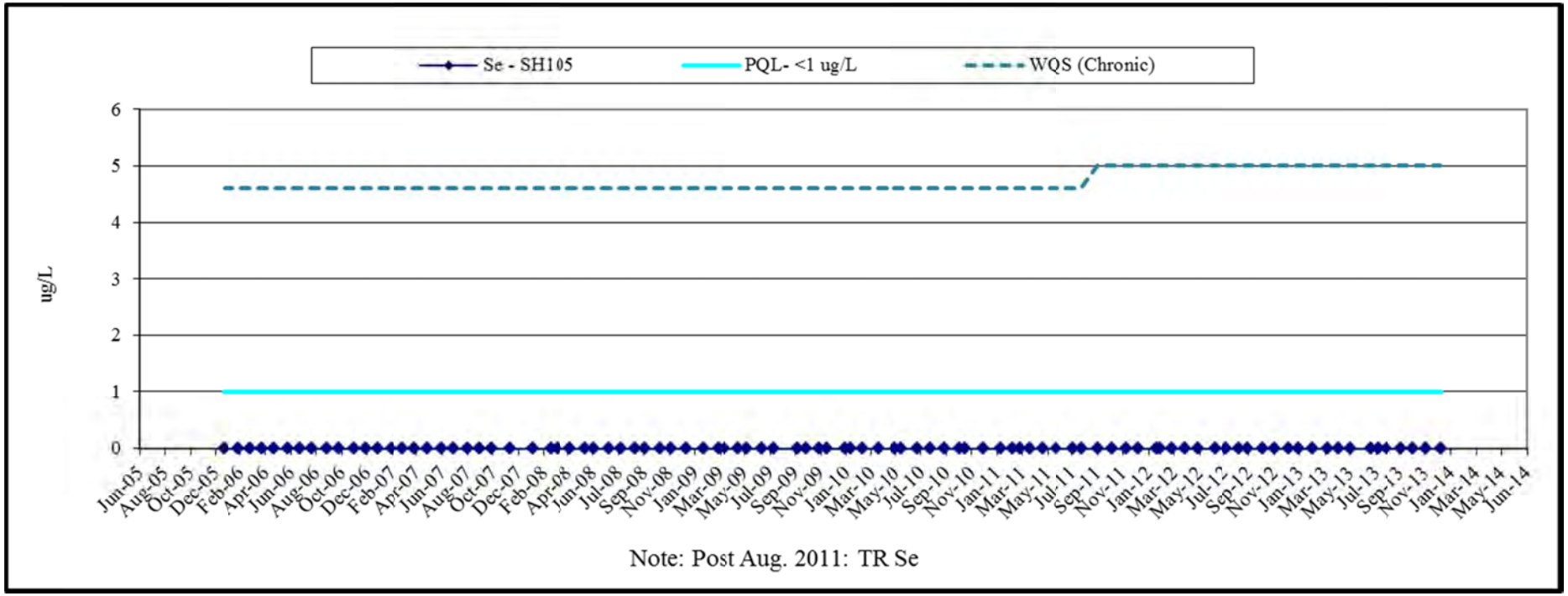


Figure 13c Sherman Creek (SH105) Monitoring Results 2006-2013, Trace Chemistry

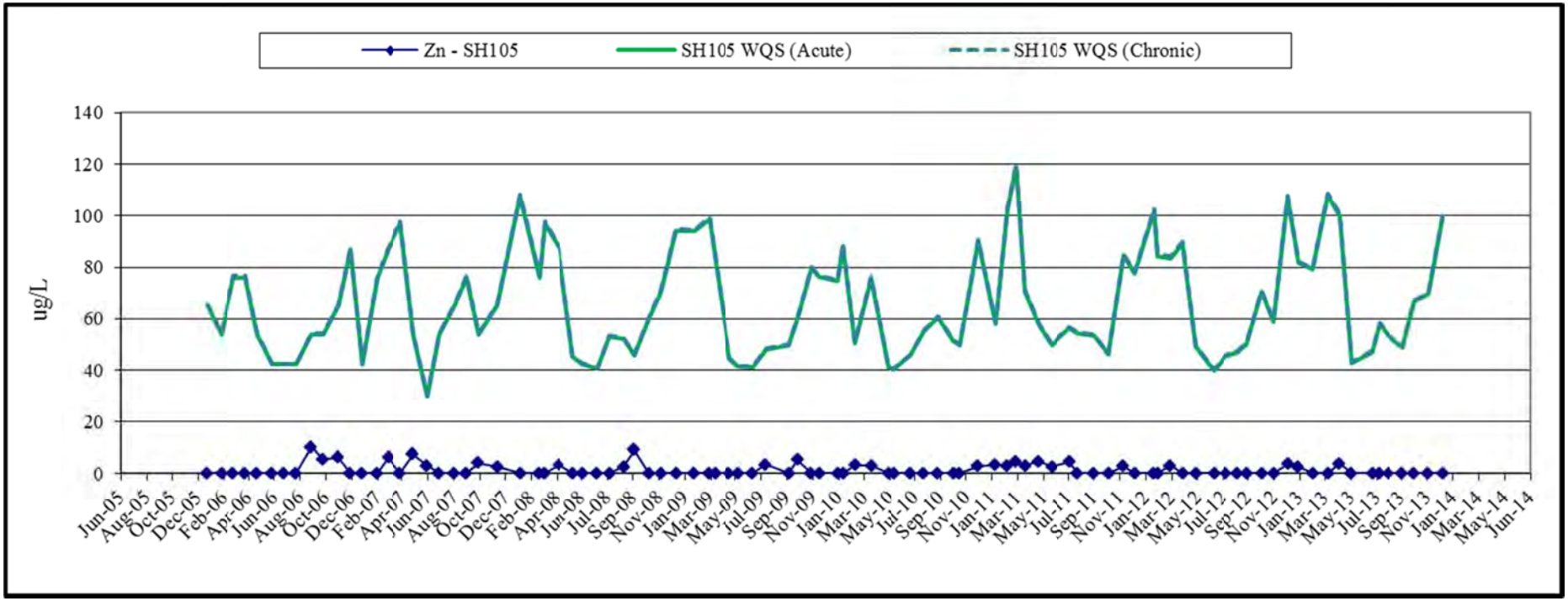


Figure 14a: Sherman Creek (SH109) Monitoring Results 2006-2013, Field Parameters

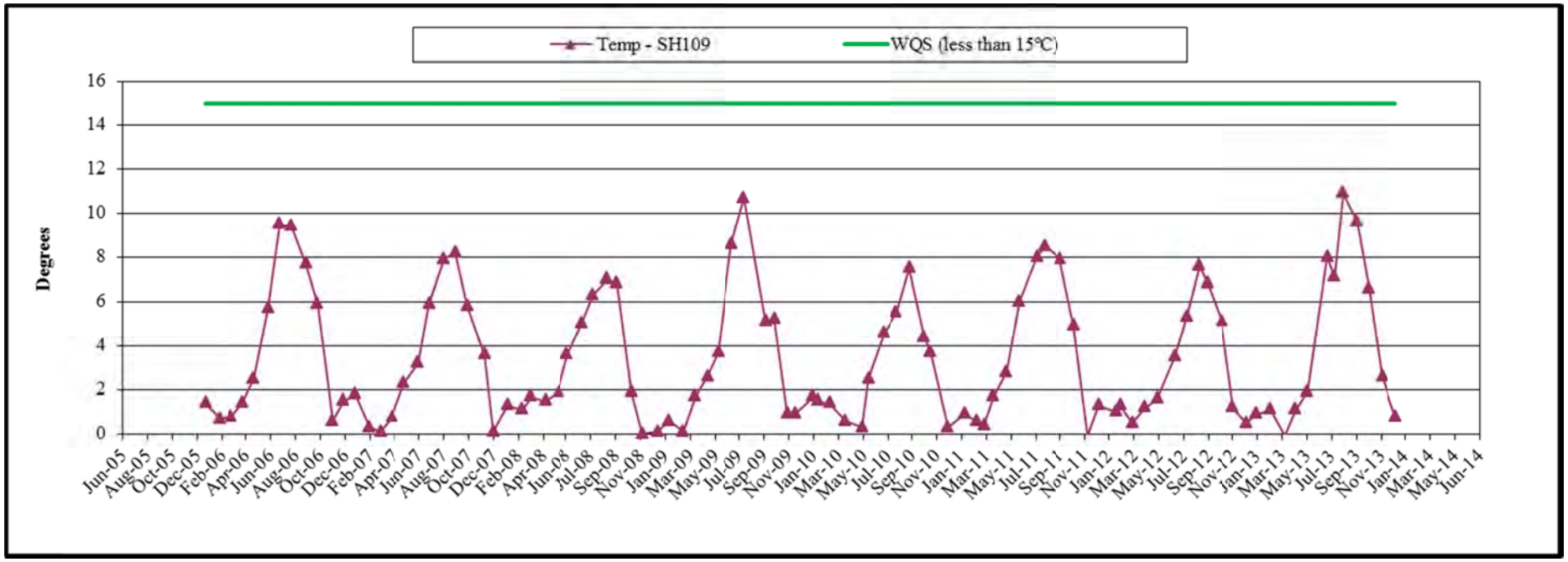


Figure 14a: Sherman Creek (SH109) Monitoring Results 2006-2013, Field Parameters

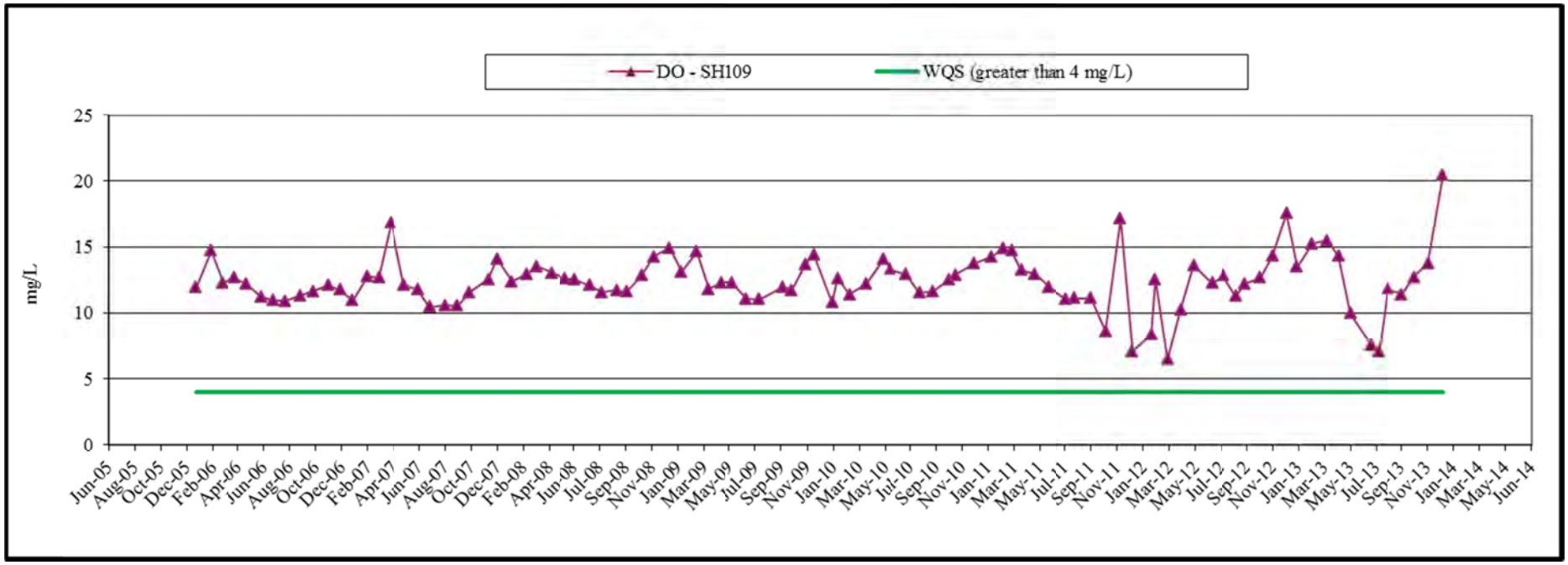


Figure 14a: Sherman Creek (SH109) Monitoring Results 2006-2013, Field Parameters

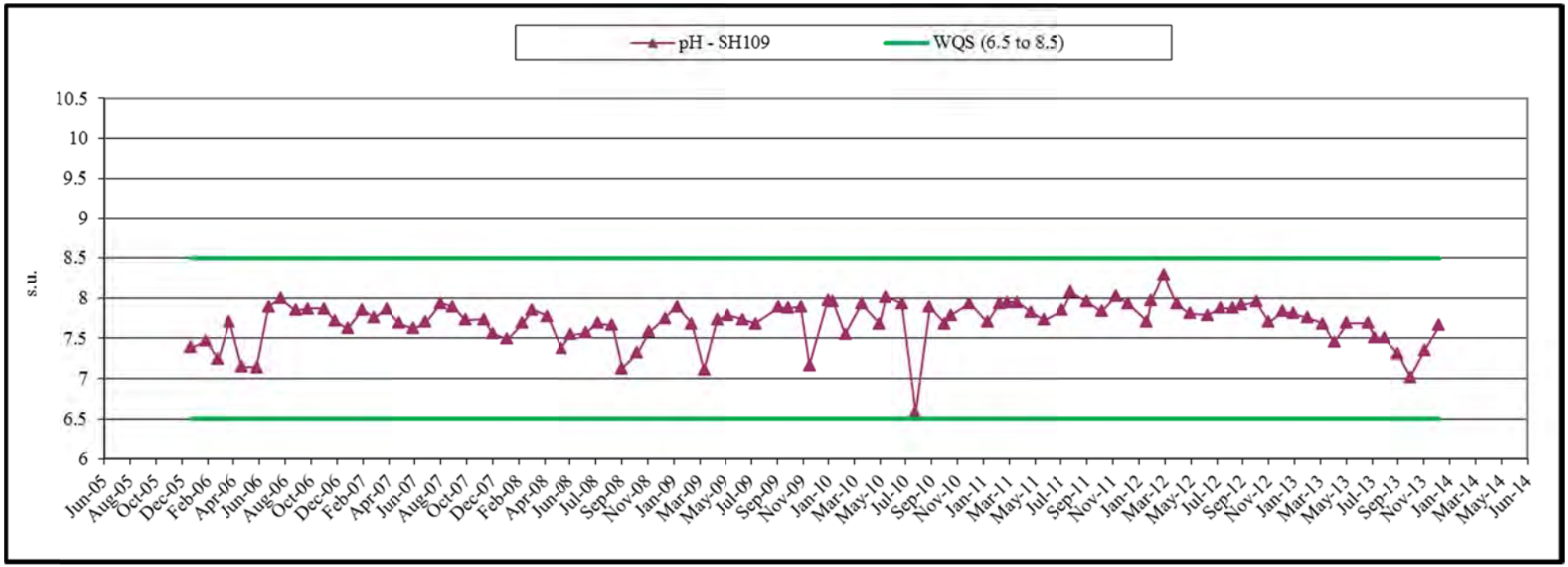


Figure 14a: Sherman Creek (SH109) Monitoring Results 2006-2013, Field Parameters

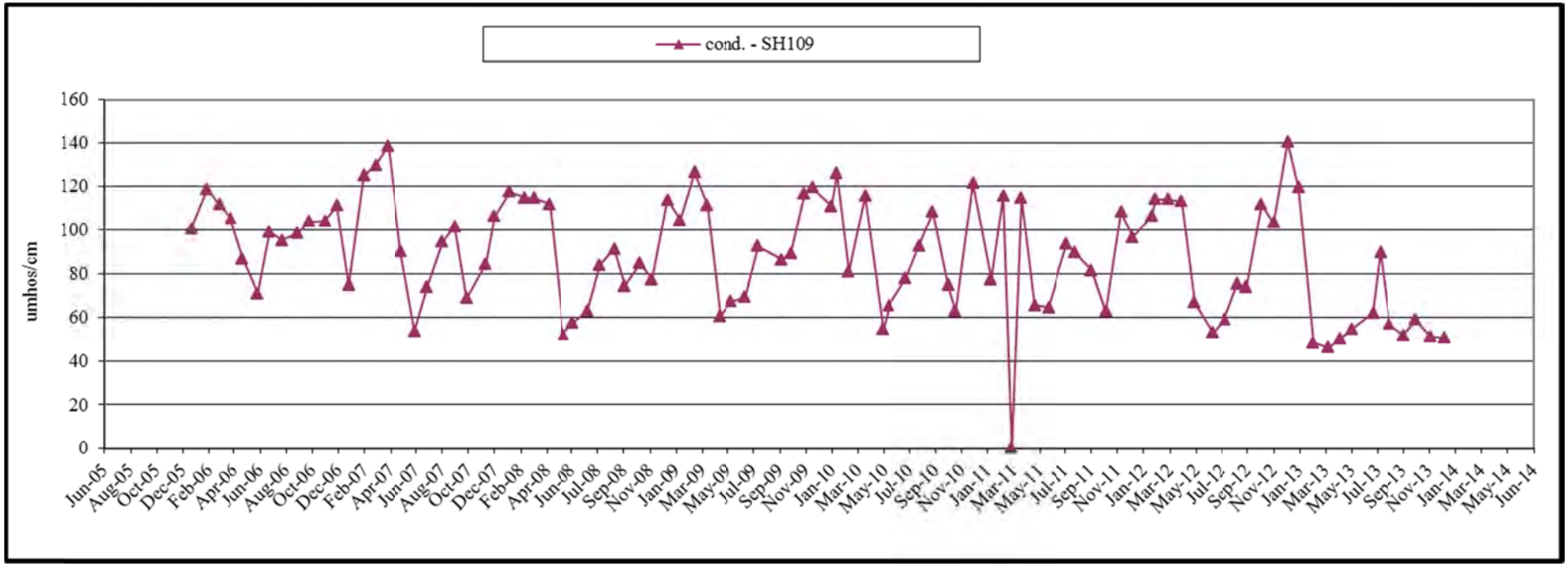


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

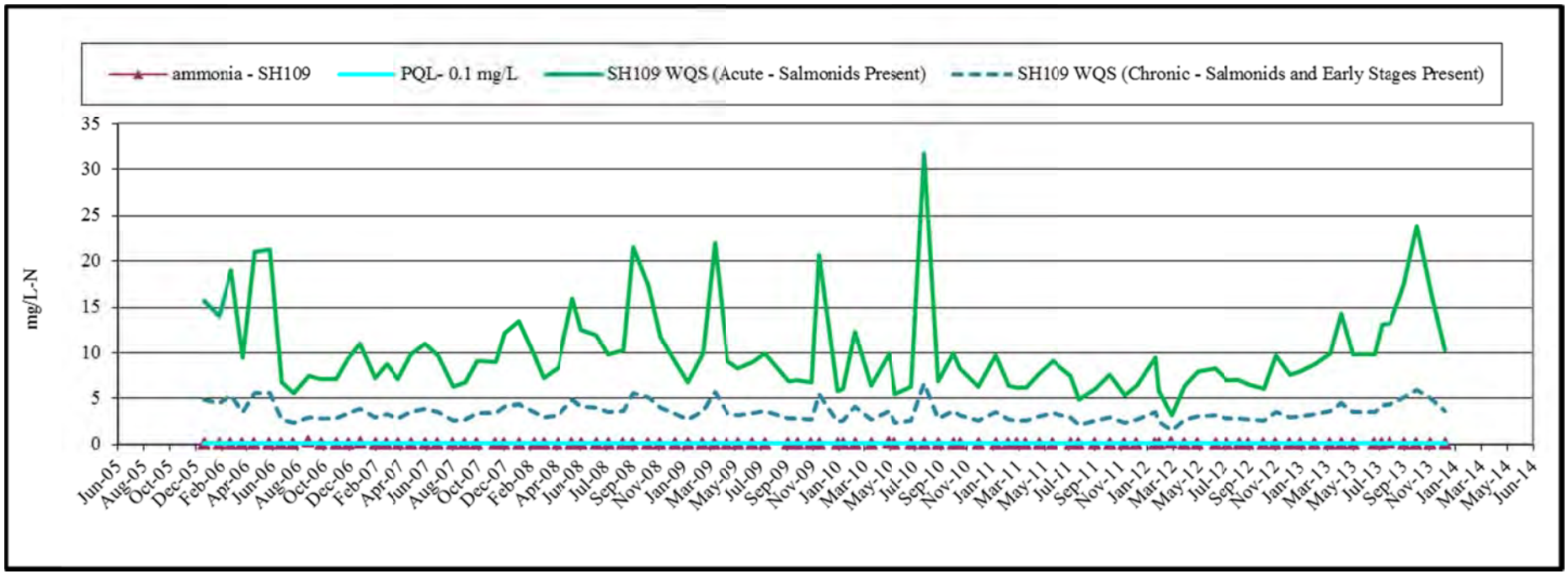


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

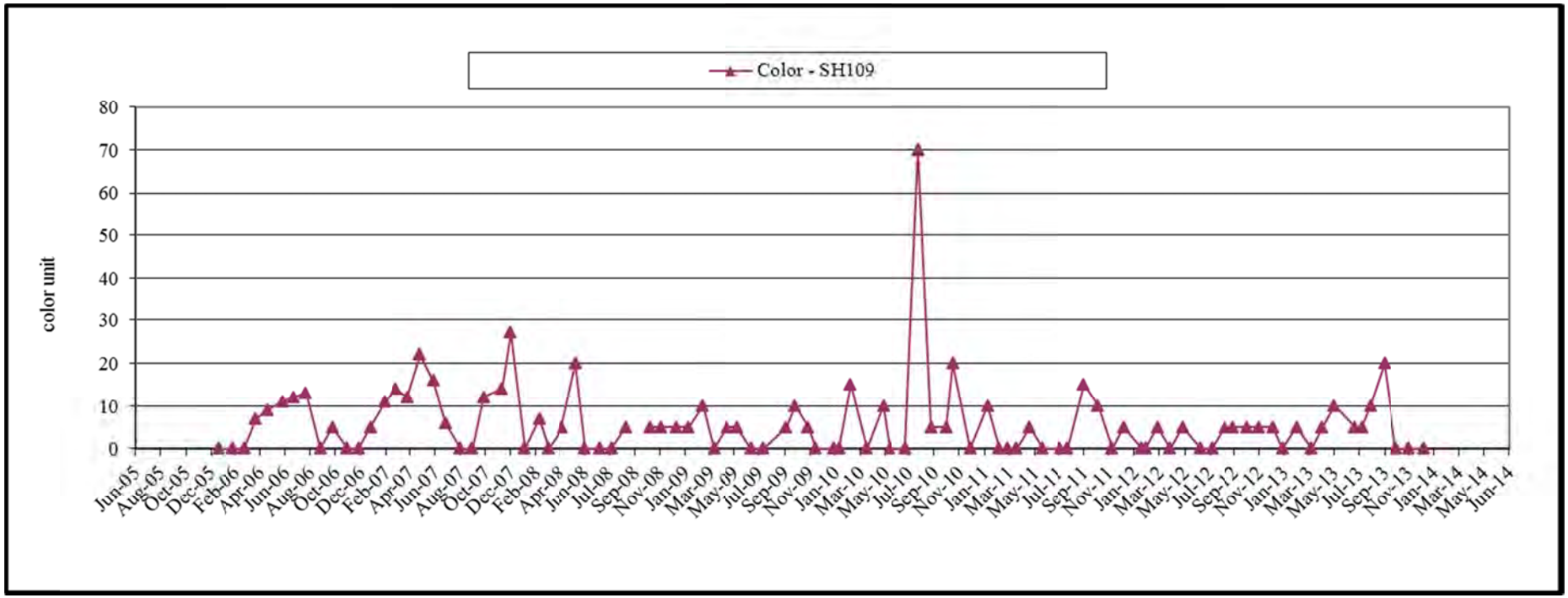


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

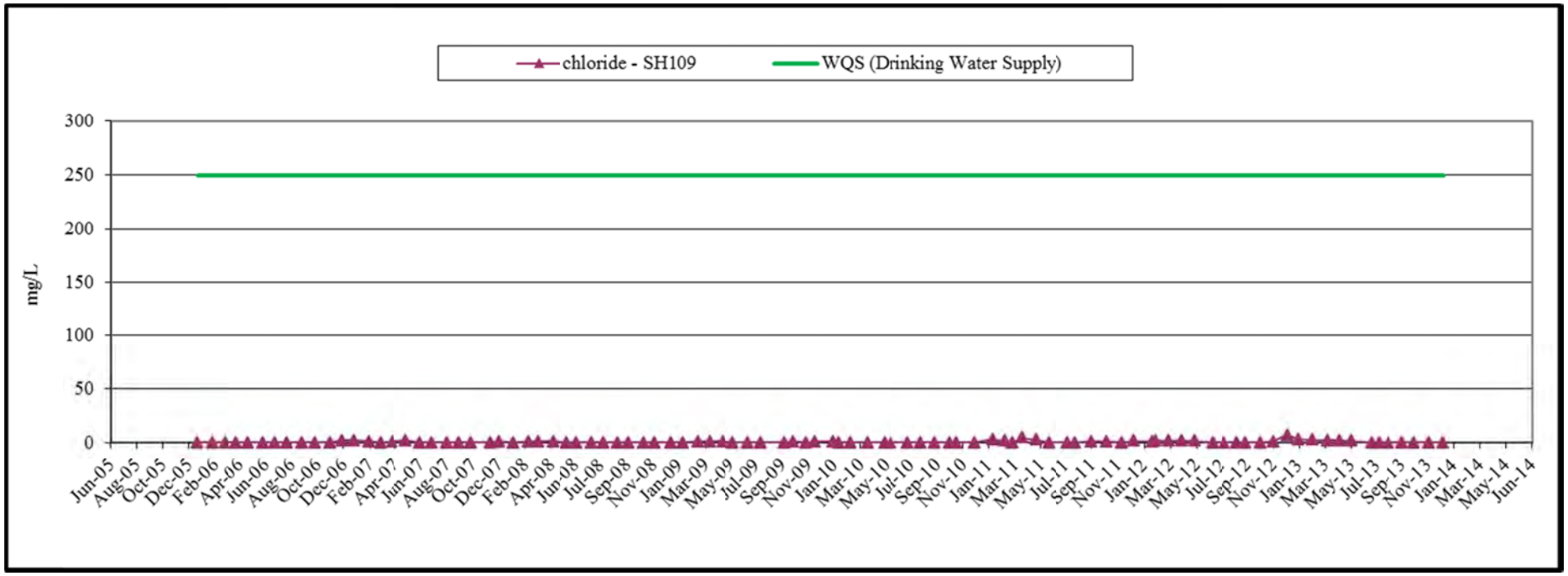


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

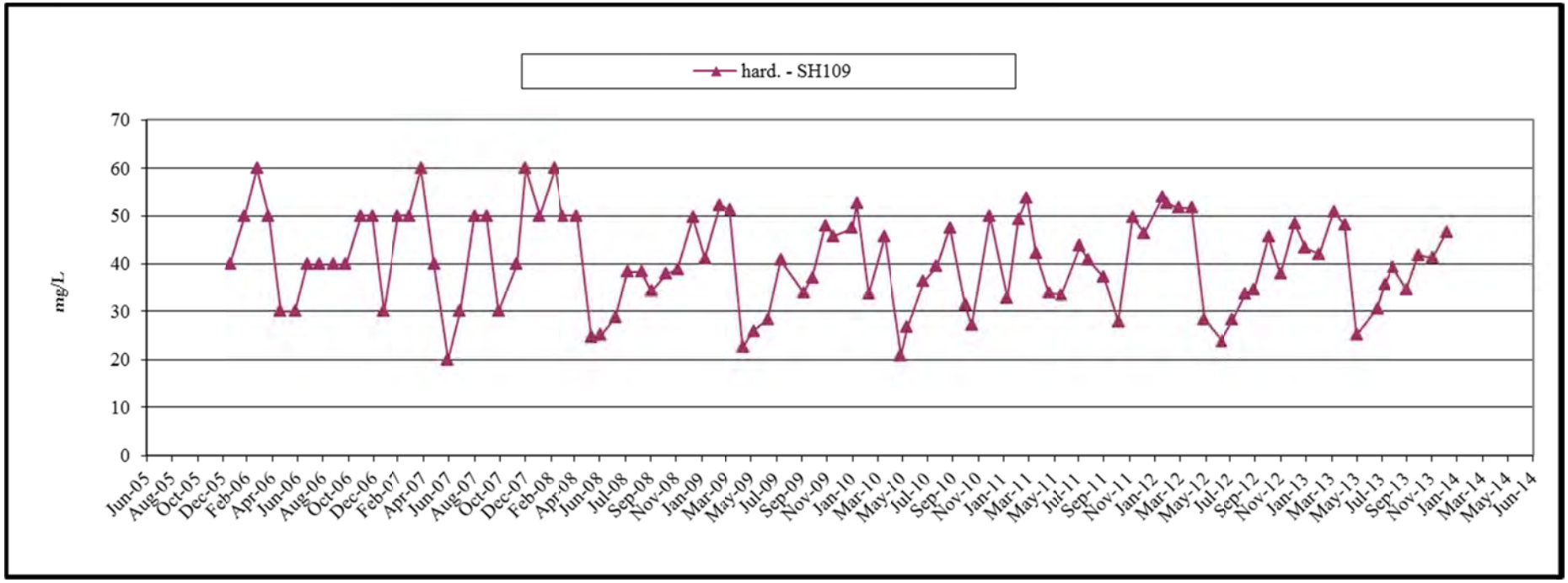


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

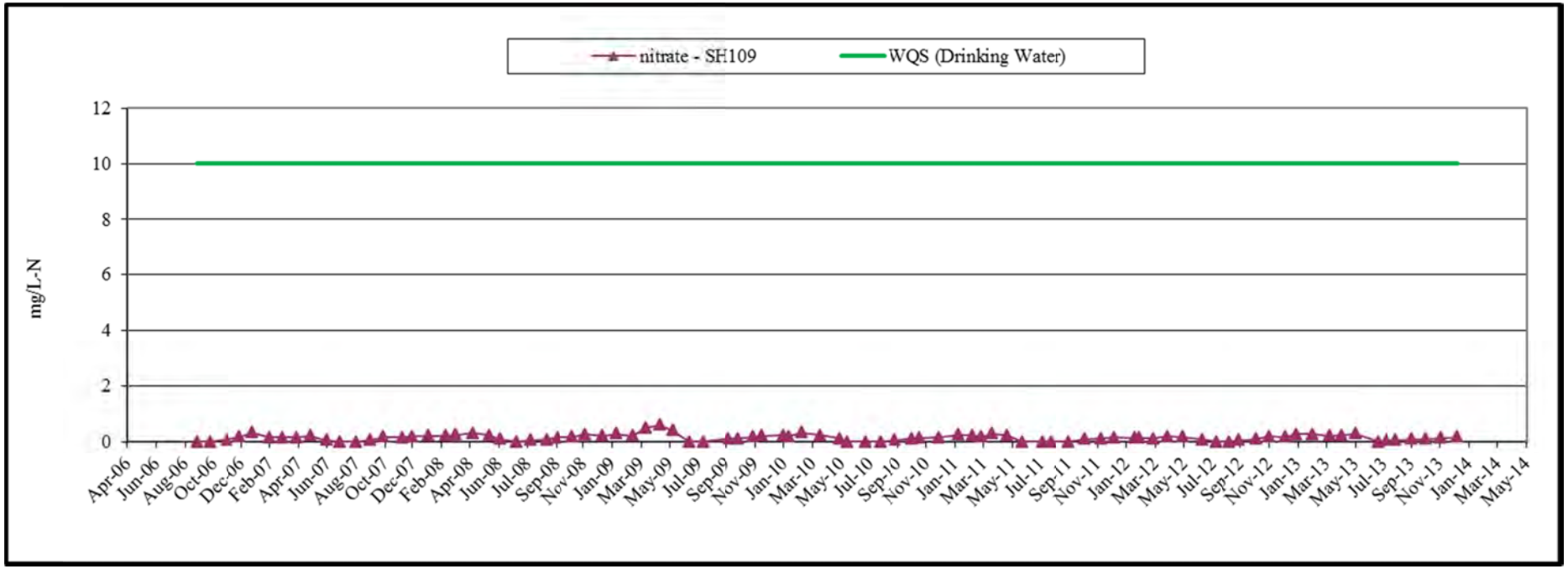


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

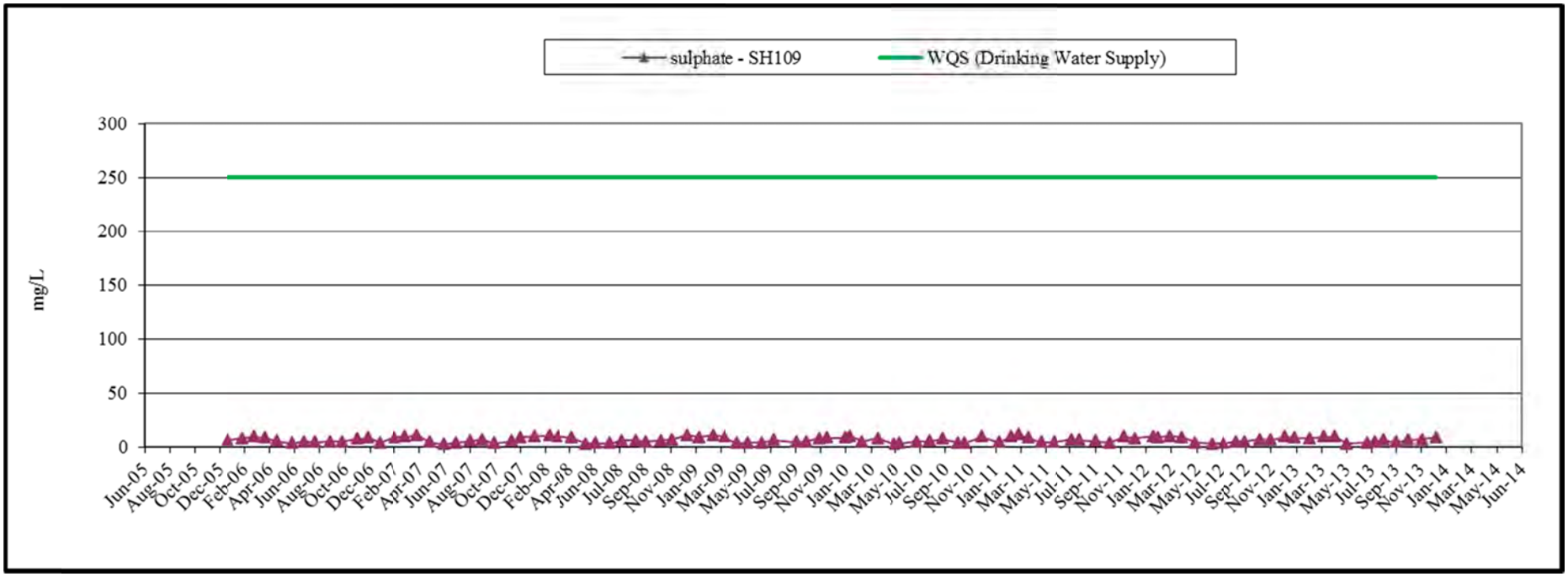


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

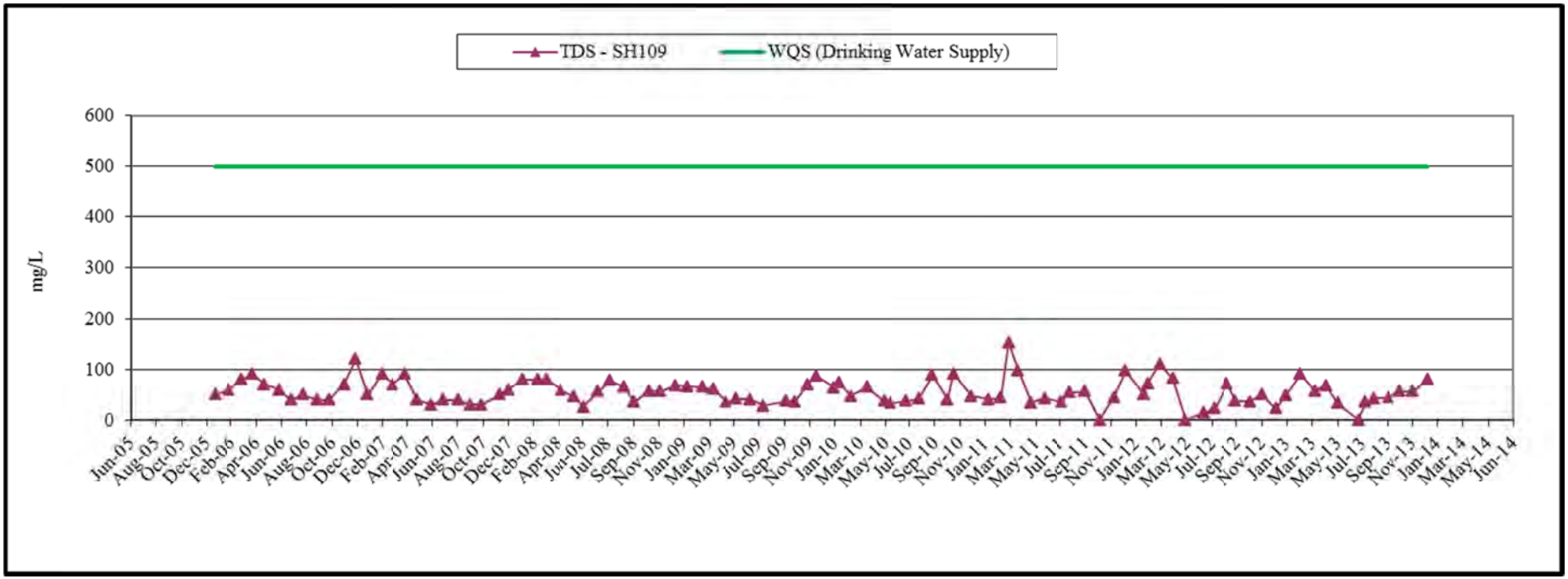


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

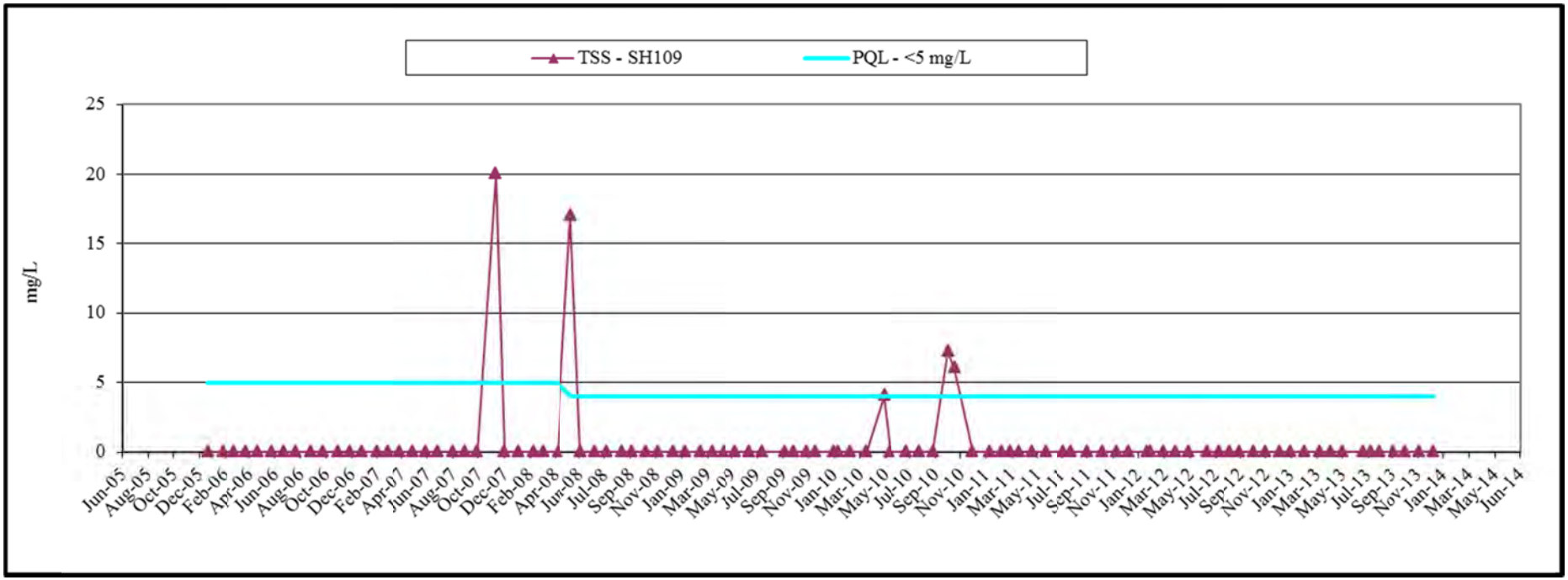


Figure 14b: Sherman Creek (SH109) Monitoring Results 2006-2013, Major Chemistry

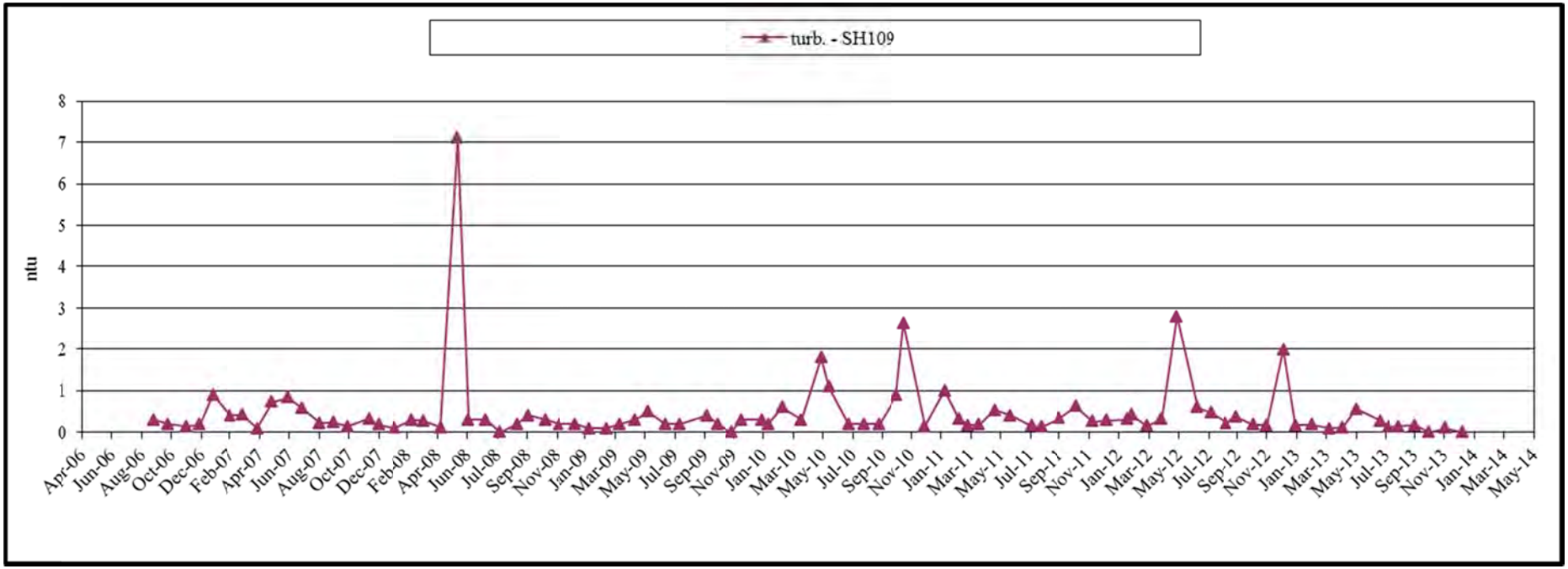


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

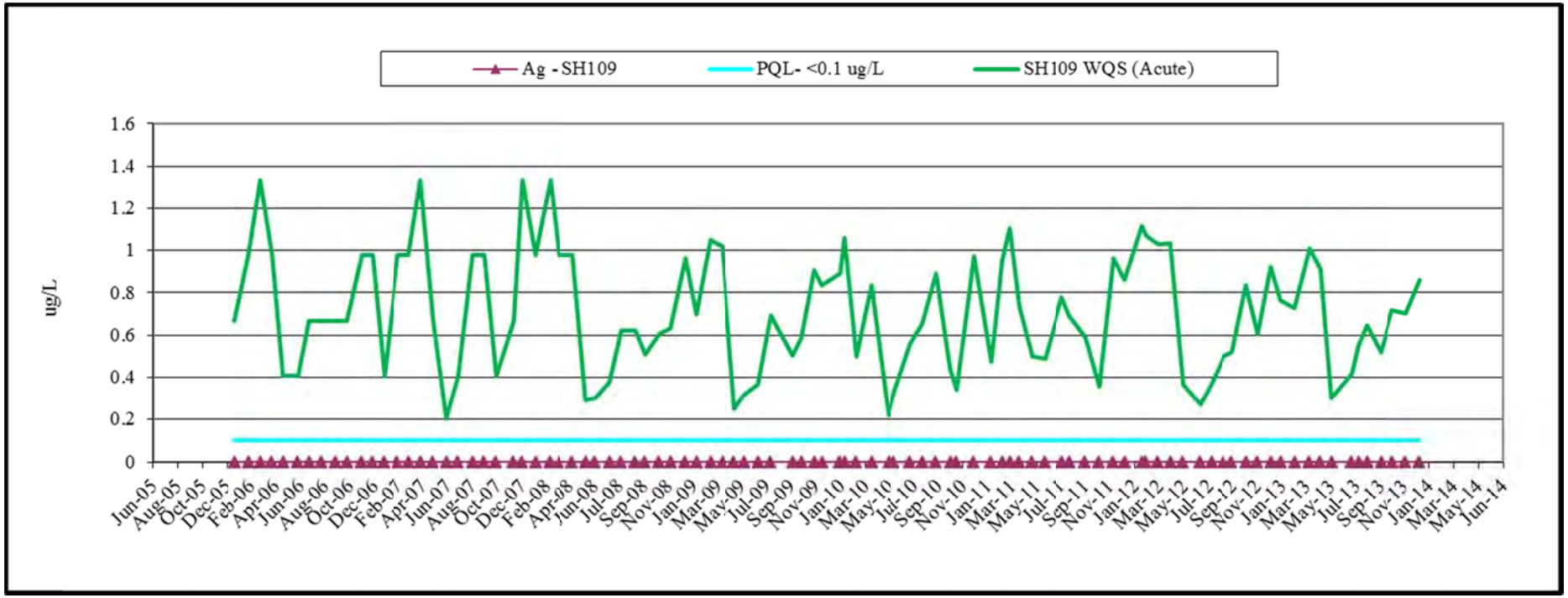


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

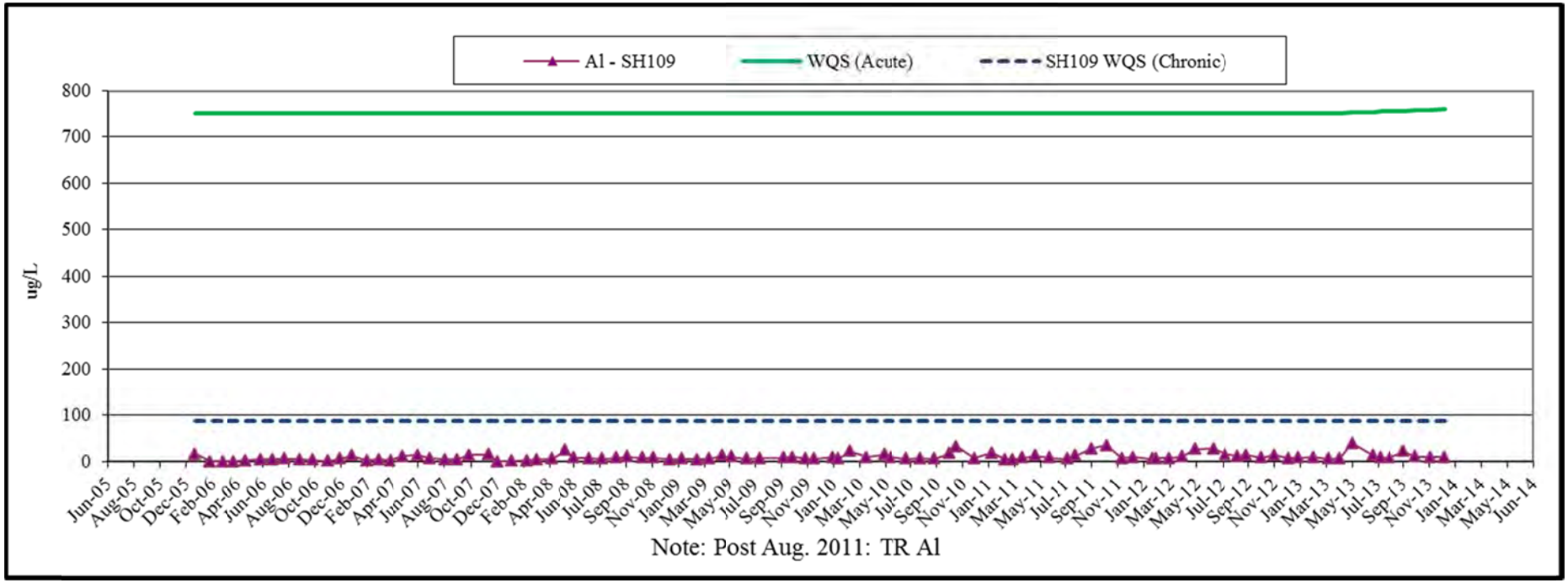


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

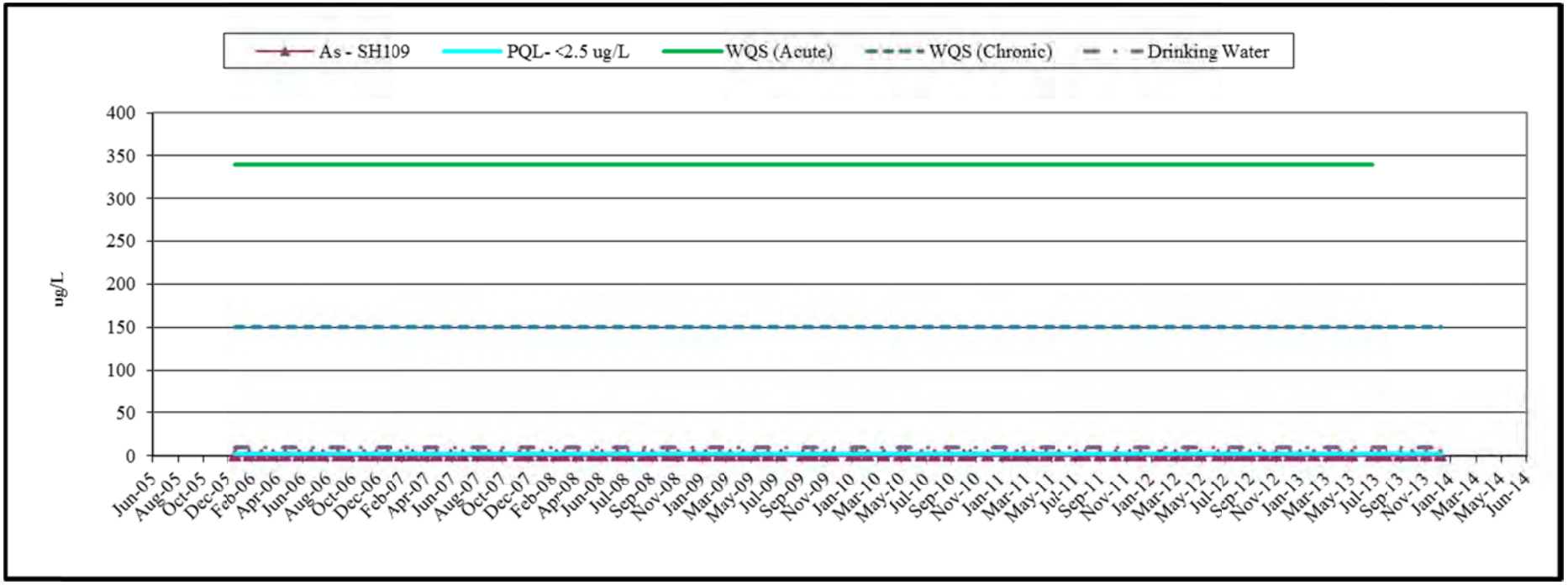


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

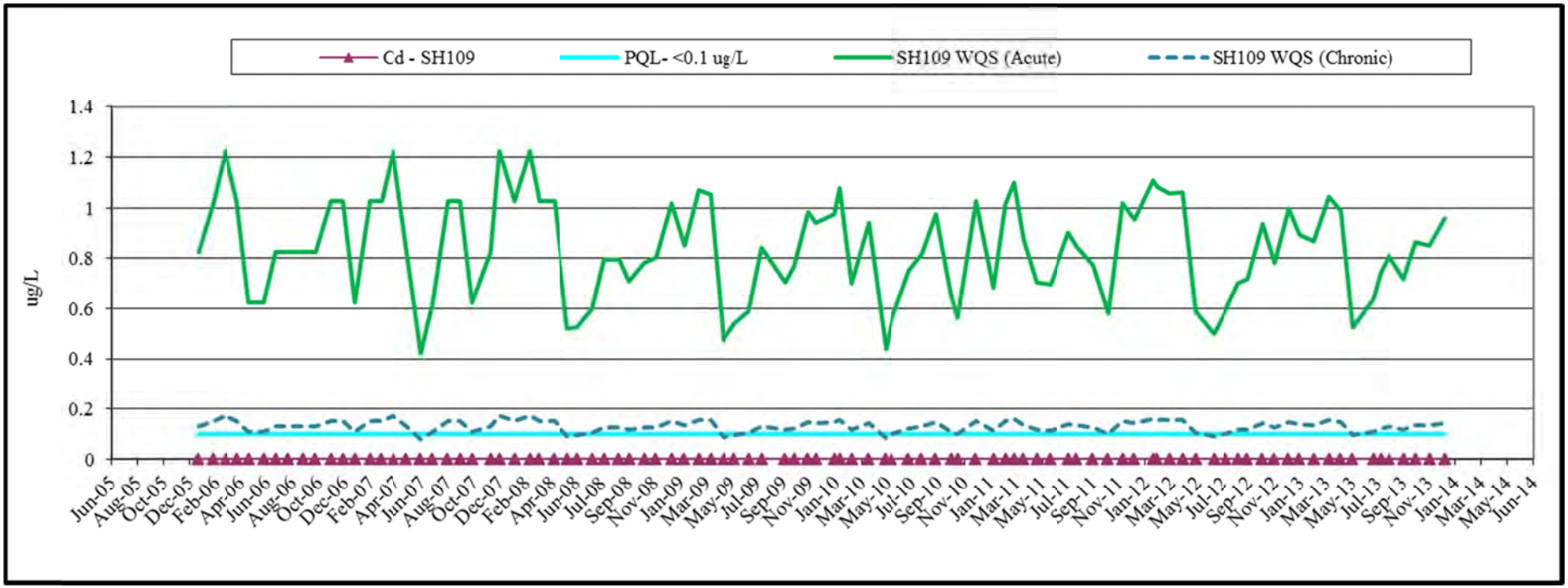
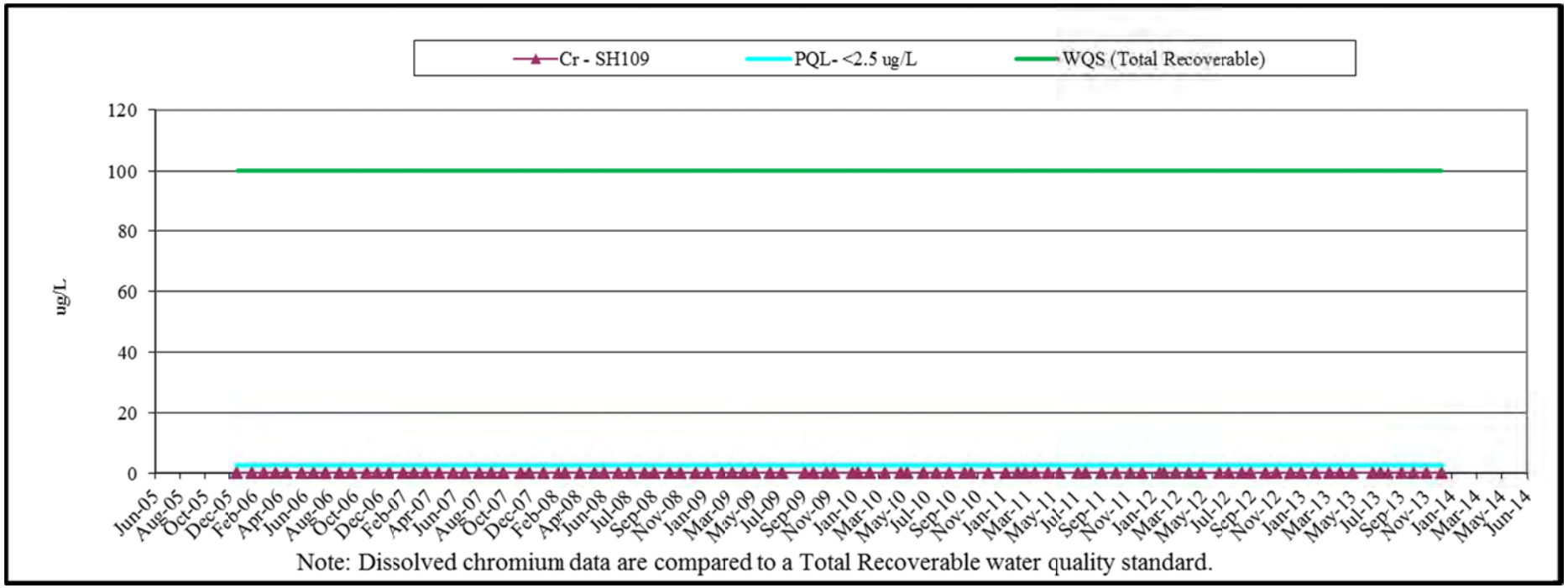


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry



Note: Dissolved chromium data are compared to a Total Recoverable water quality standard.

Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

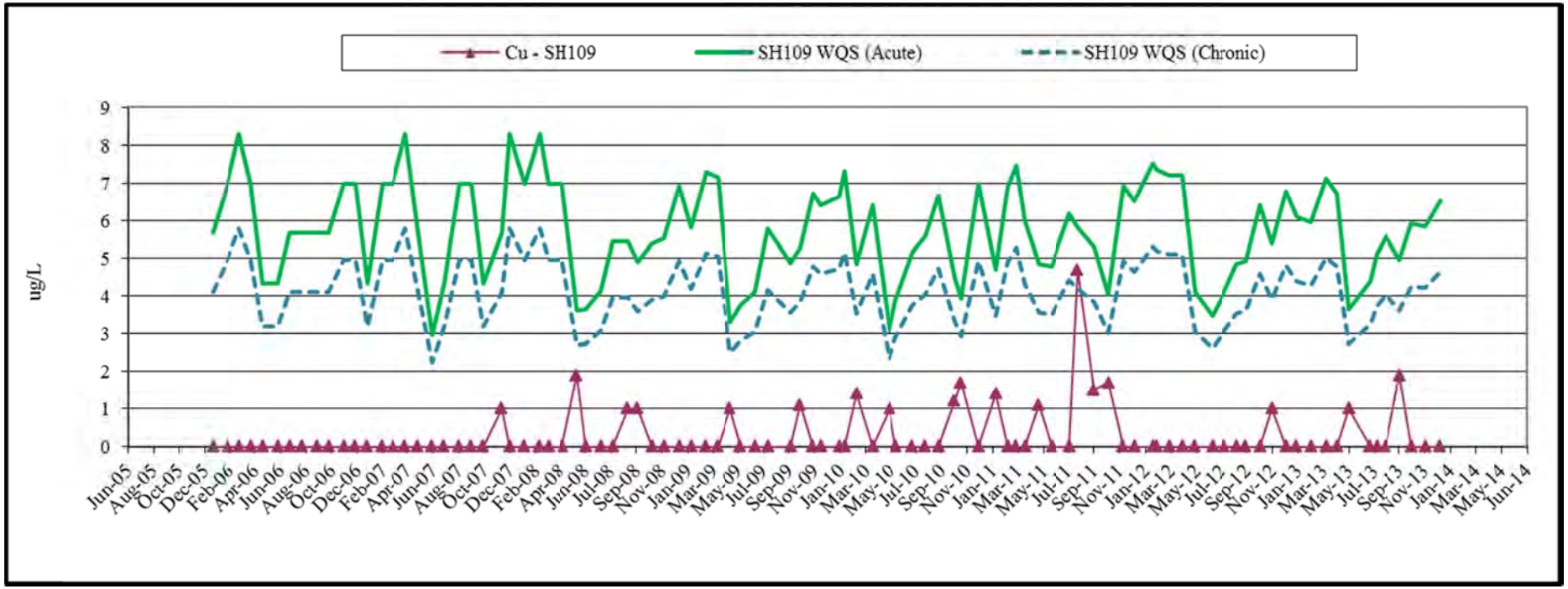


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

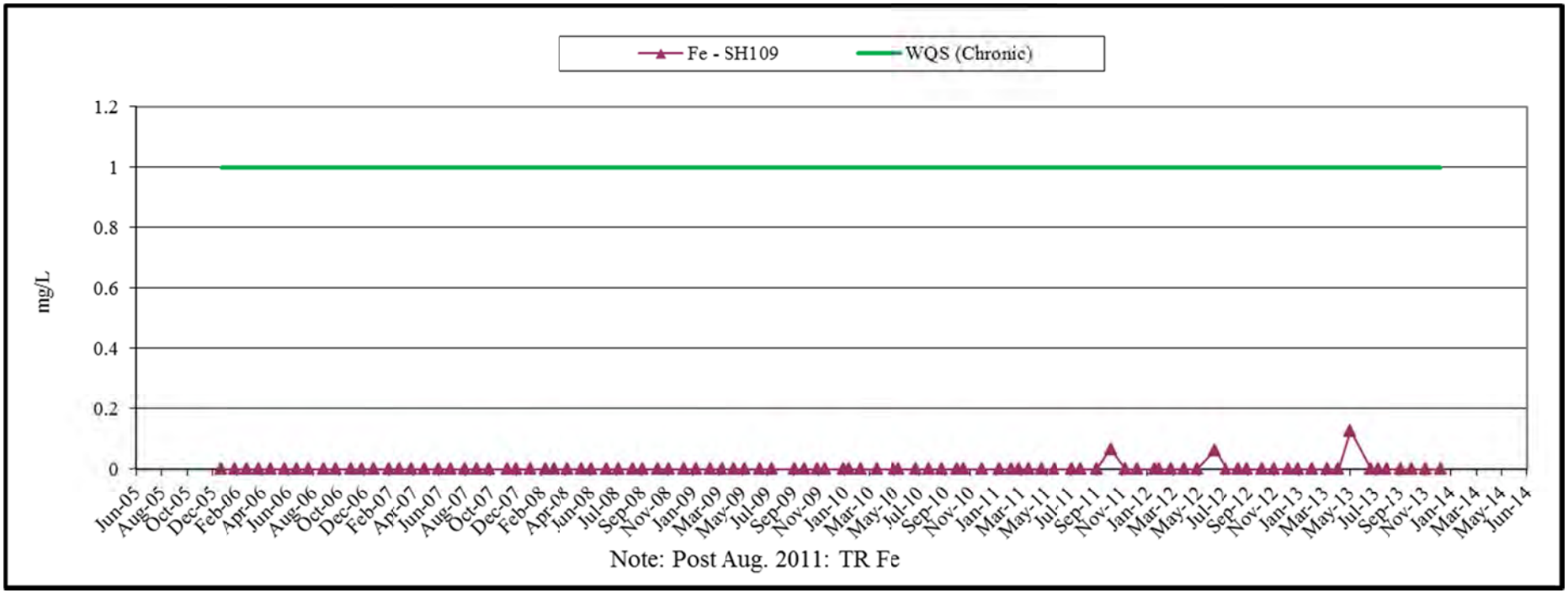


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

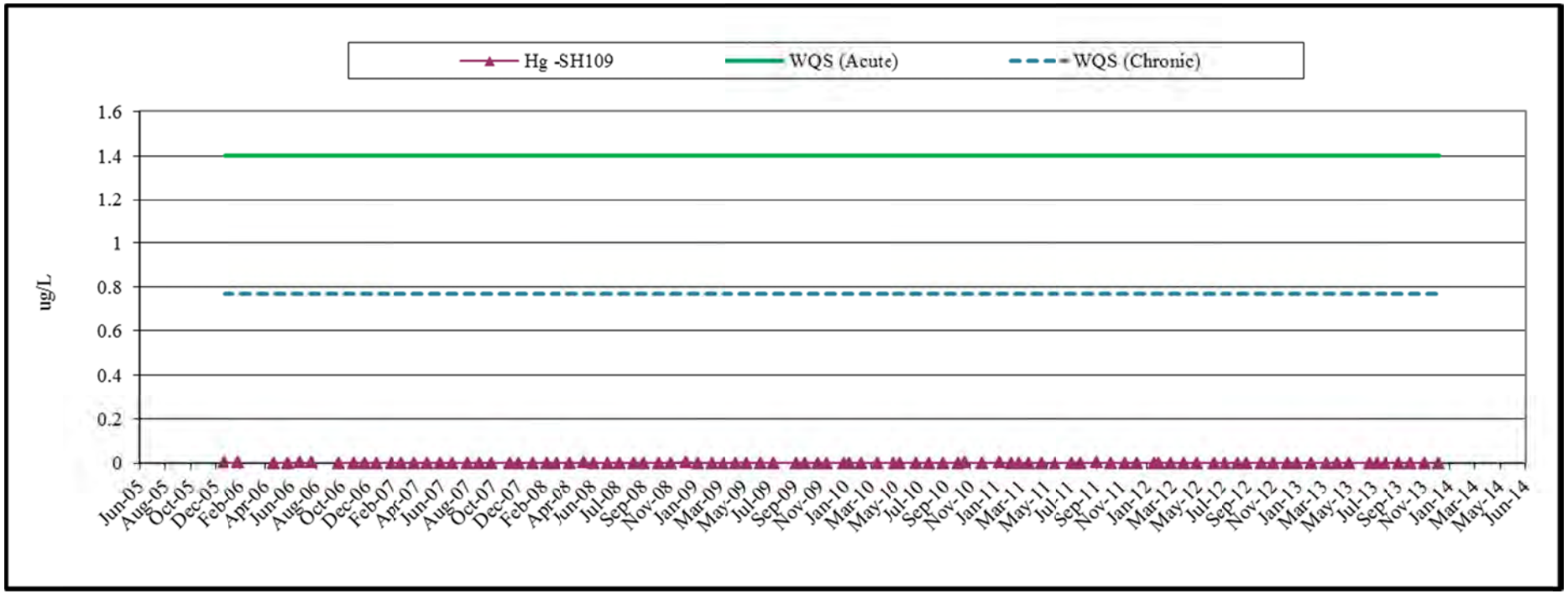


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

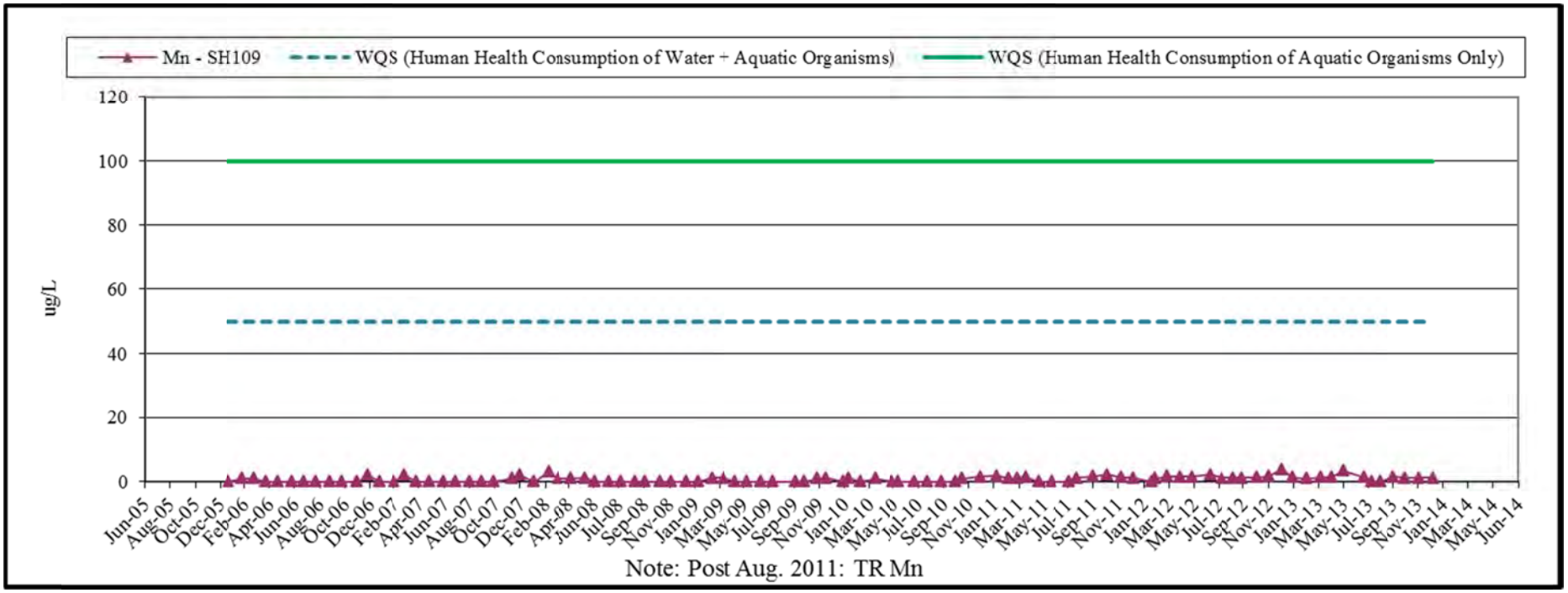


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

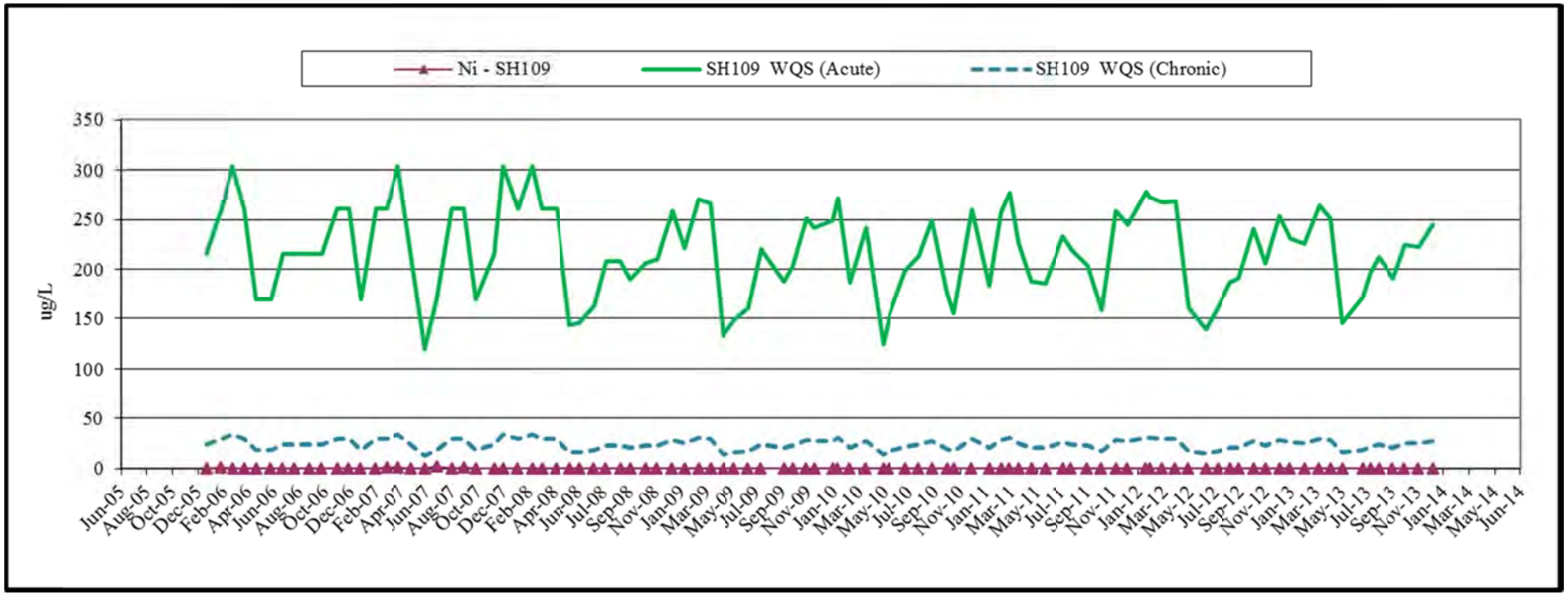


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

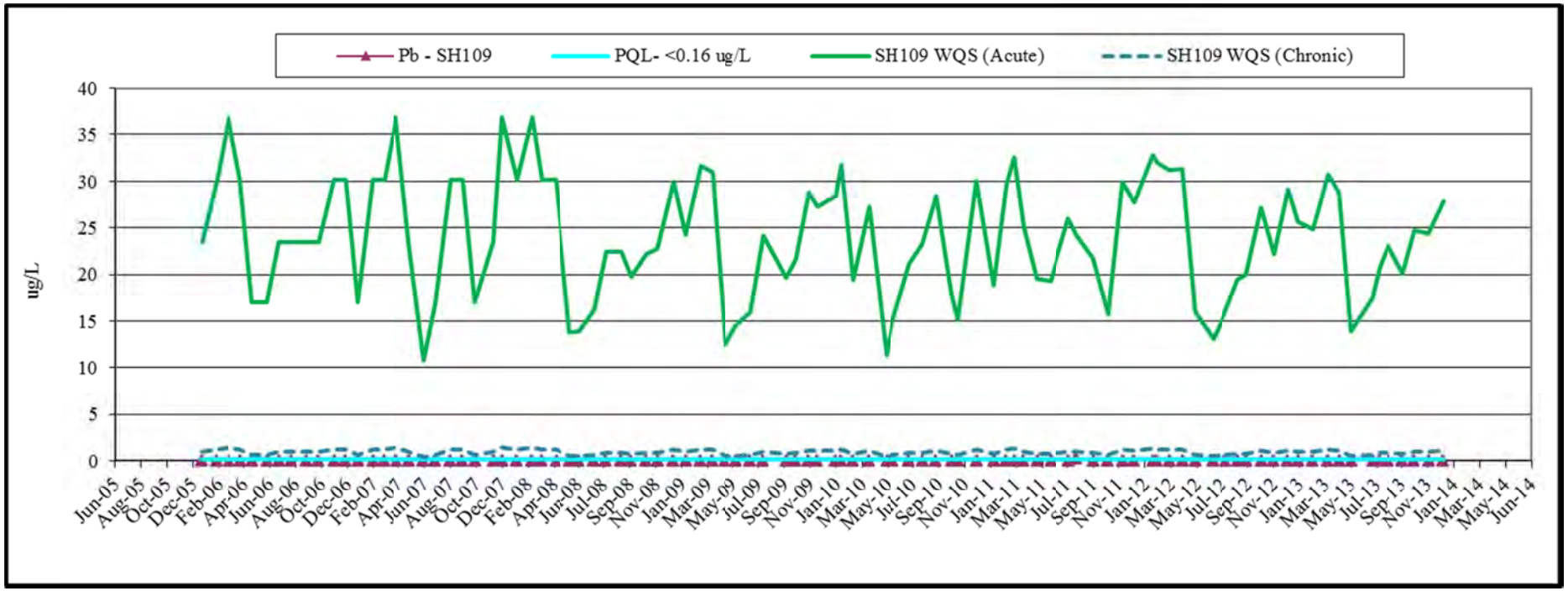


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

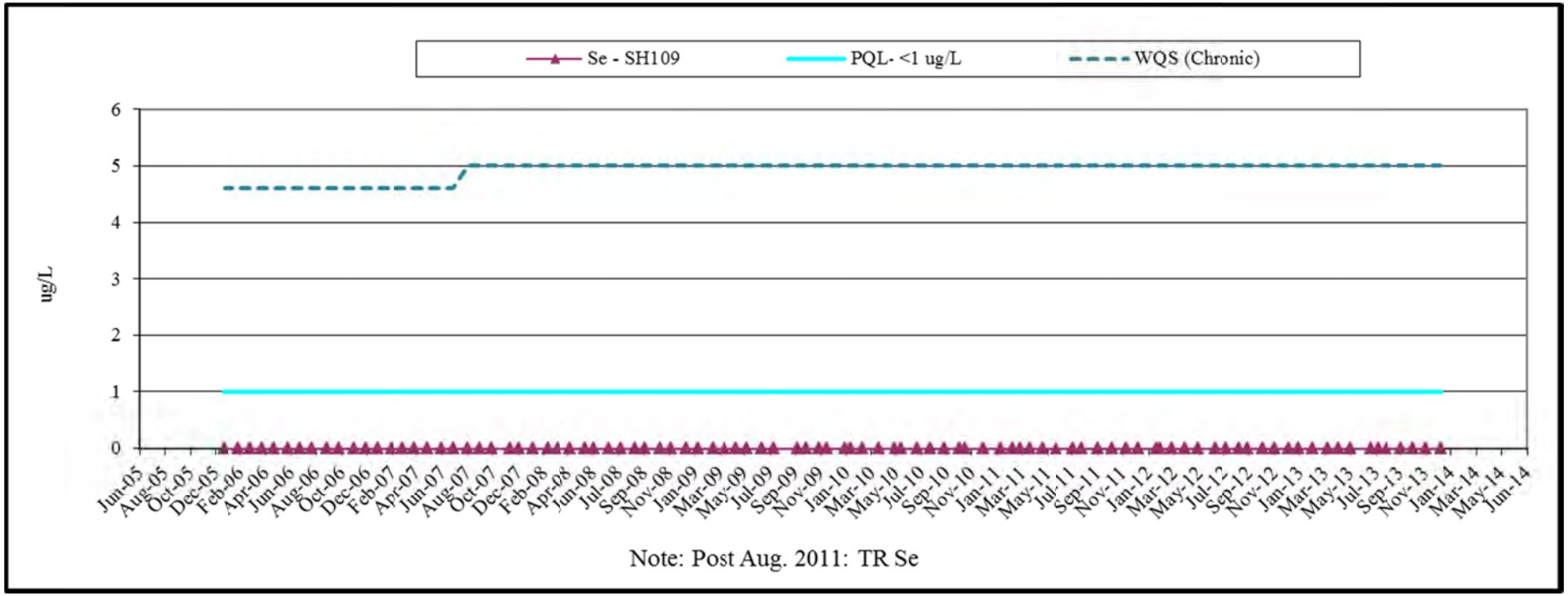


Figure 14c: Sherman Creek (SH109) Monitoring Results 2006-2013, Trace Chemistry

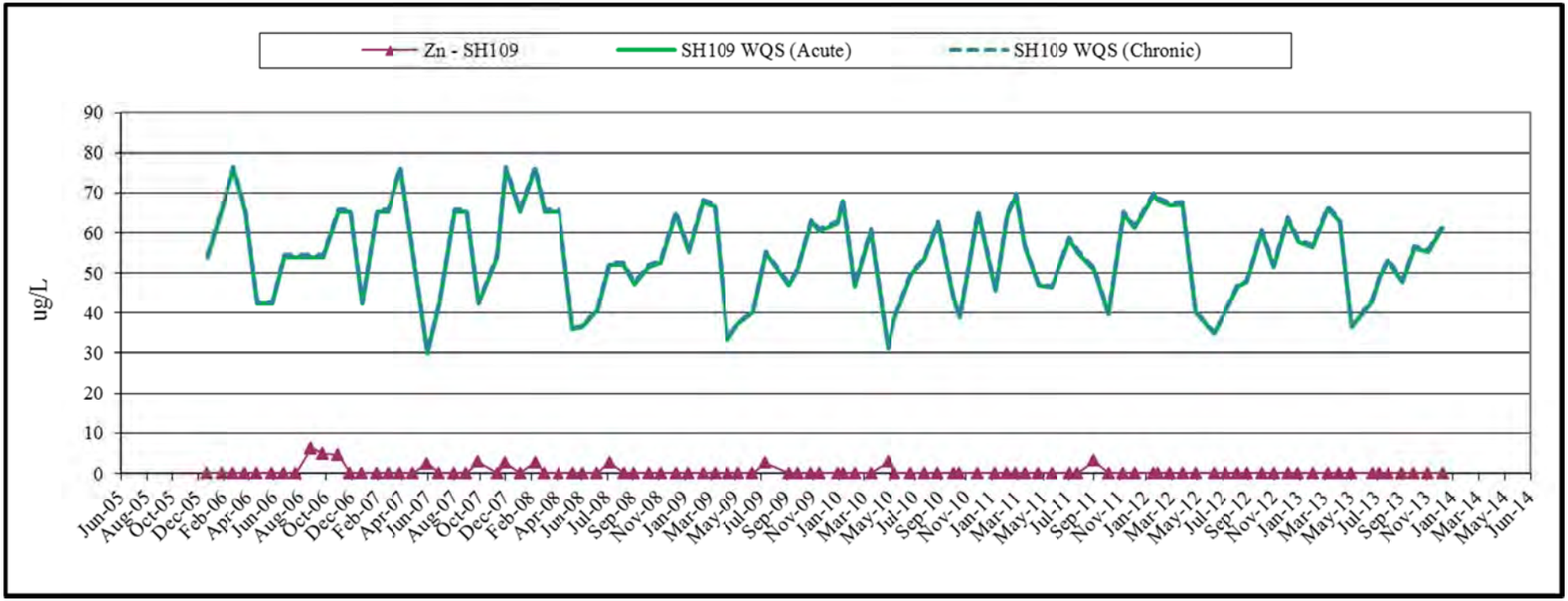


Figure 15a: Sherman Creek (SH113) Monitoring Results 2007-2013, Field Parameters

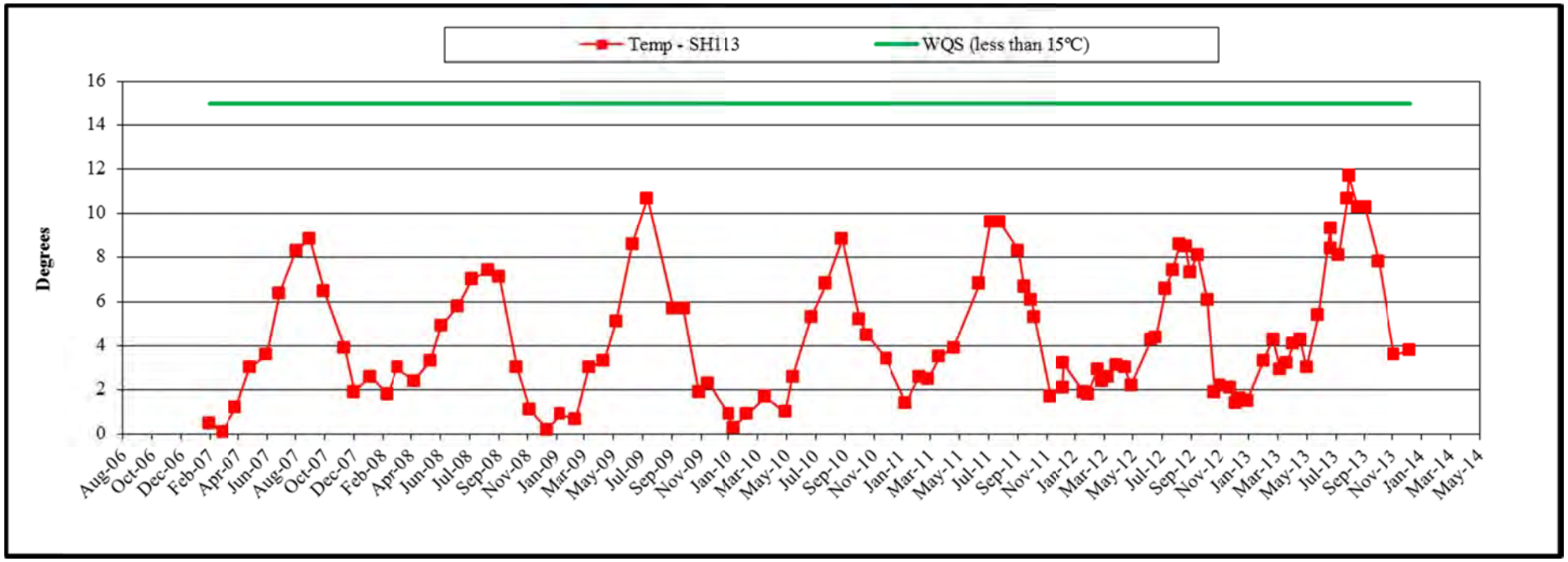


Figure 15a: Sherman Creek (SH113) Monitoring Results 2007-2013, Field Parameters

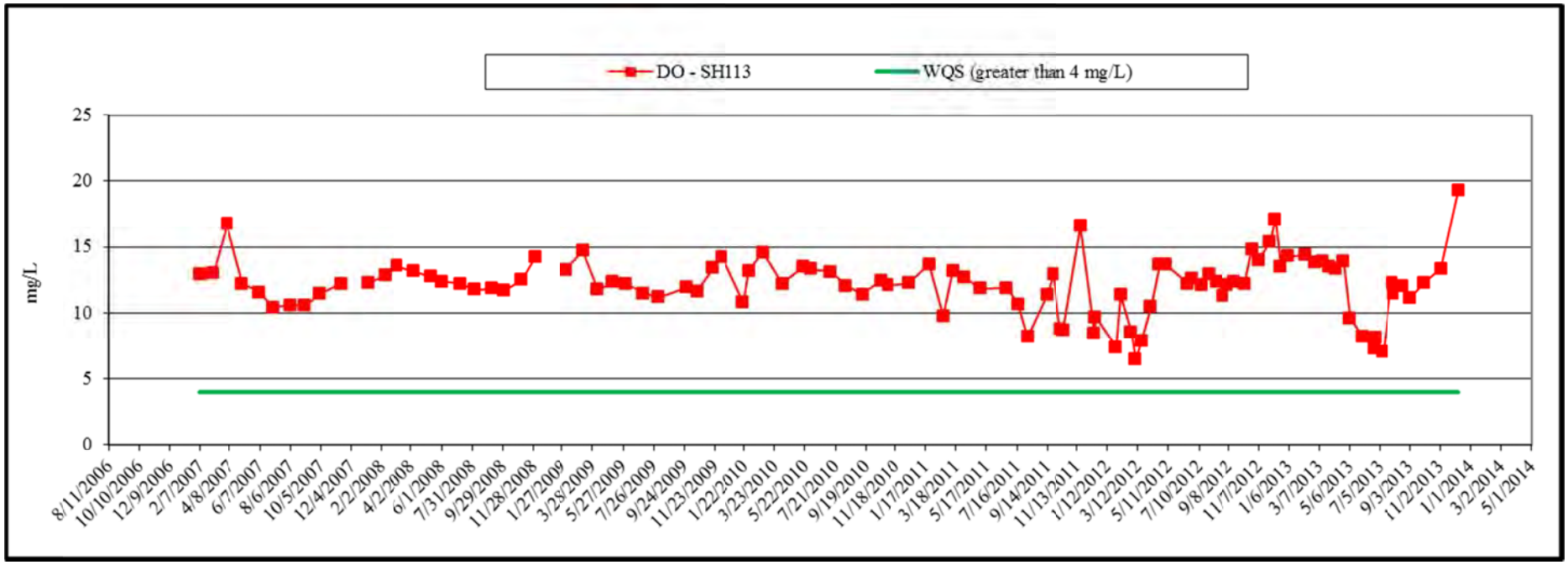


Figure 15a: Sherman Creek (SH113) Monitoring Results 2007-2013, Field Parameters

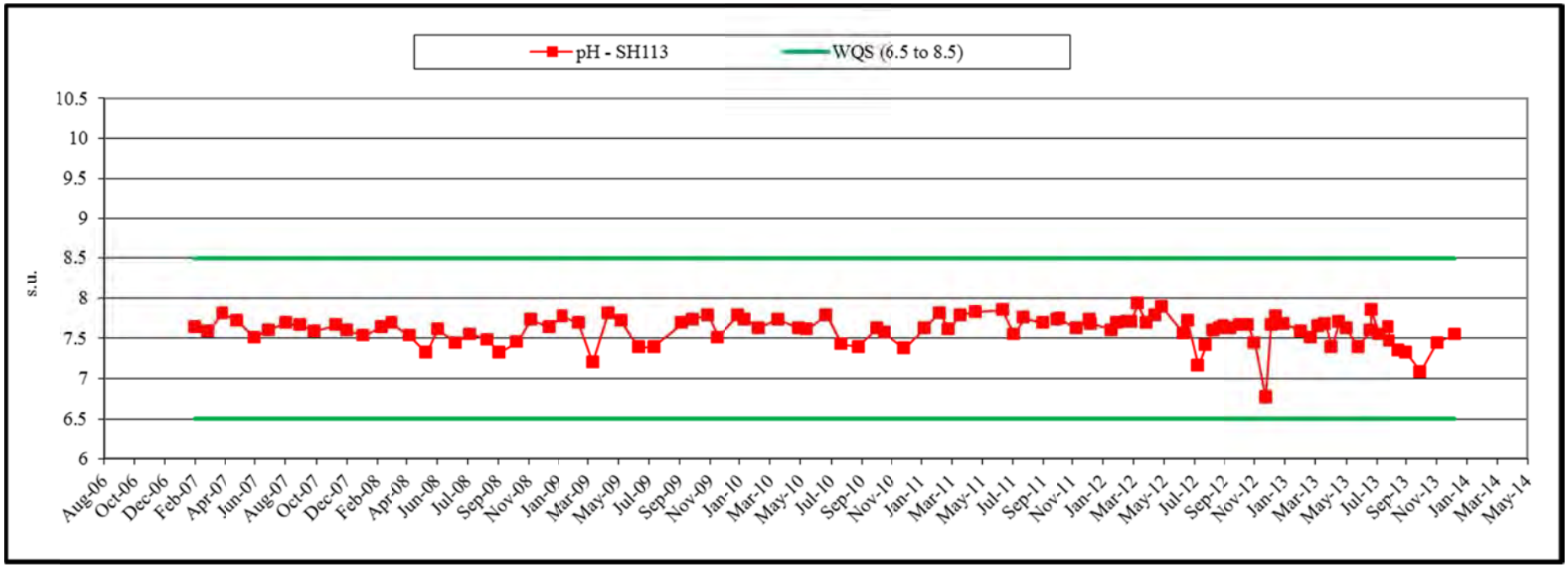


Figure 15a: Sherman Creek (SH113) Monitoring Results 2007-2013, Field Parameters

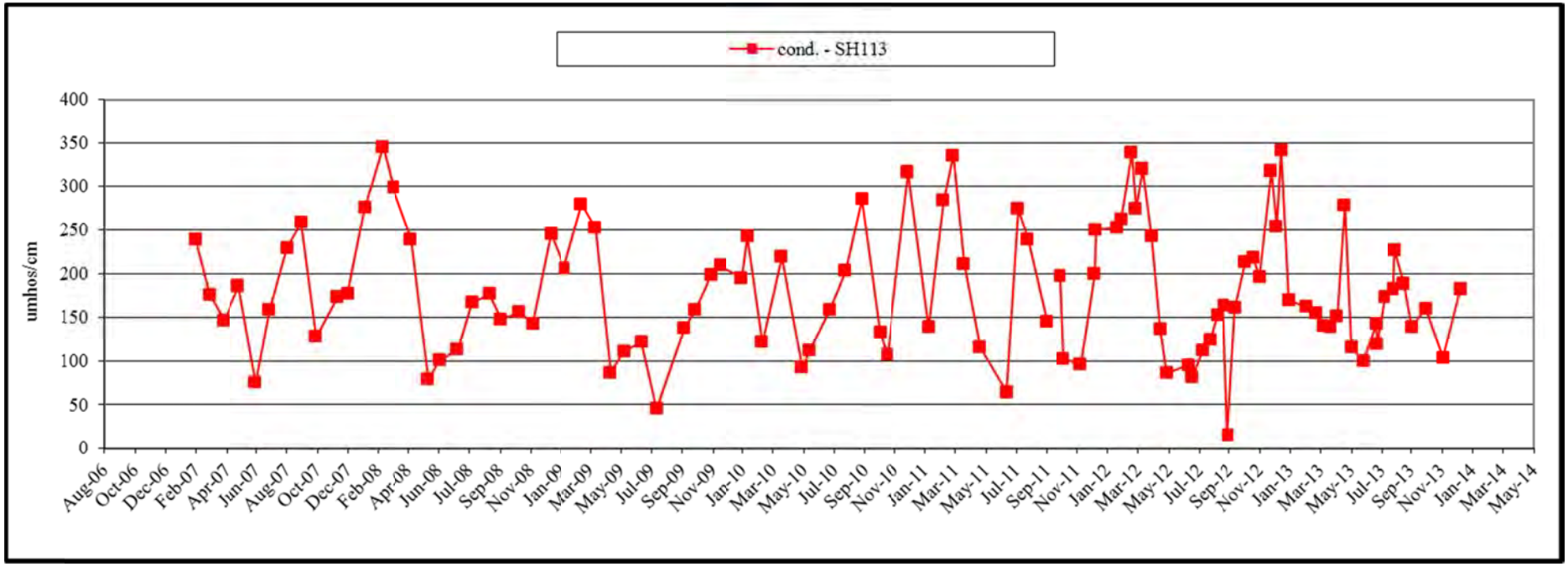


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

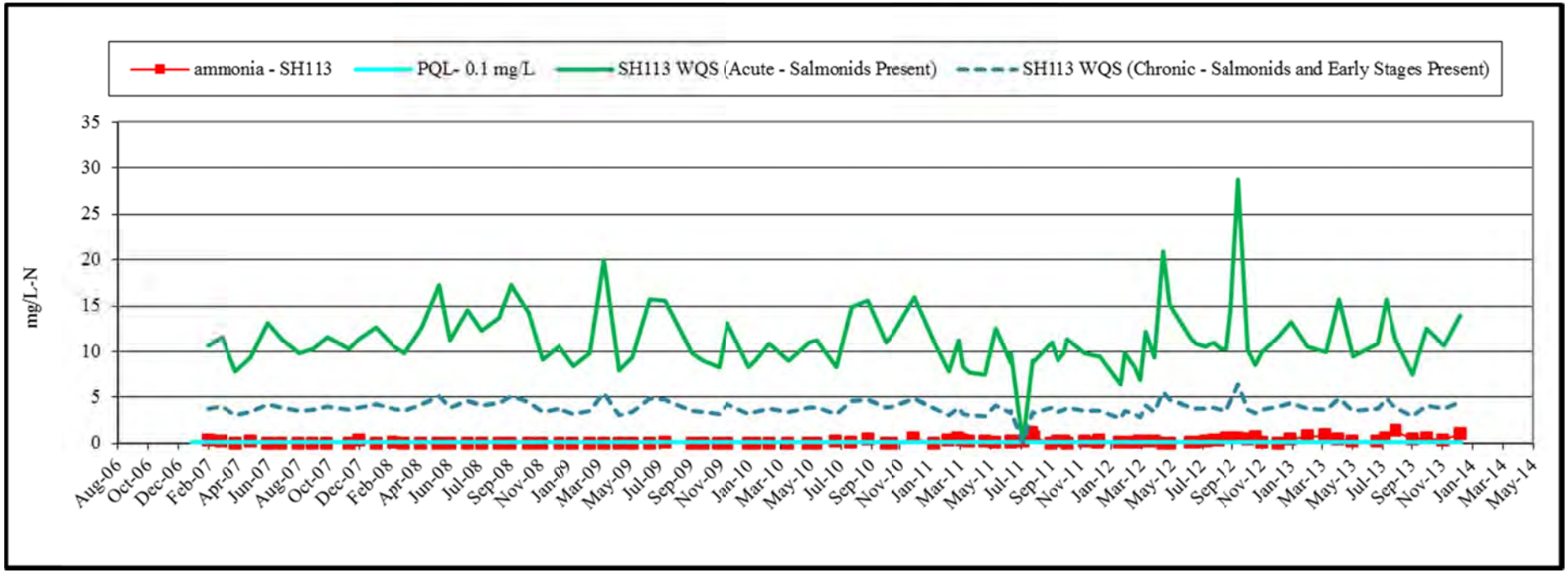


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

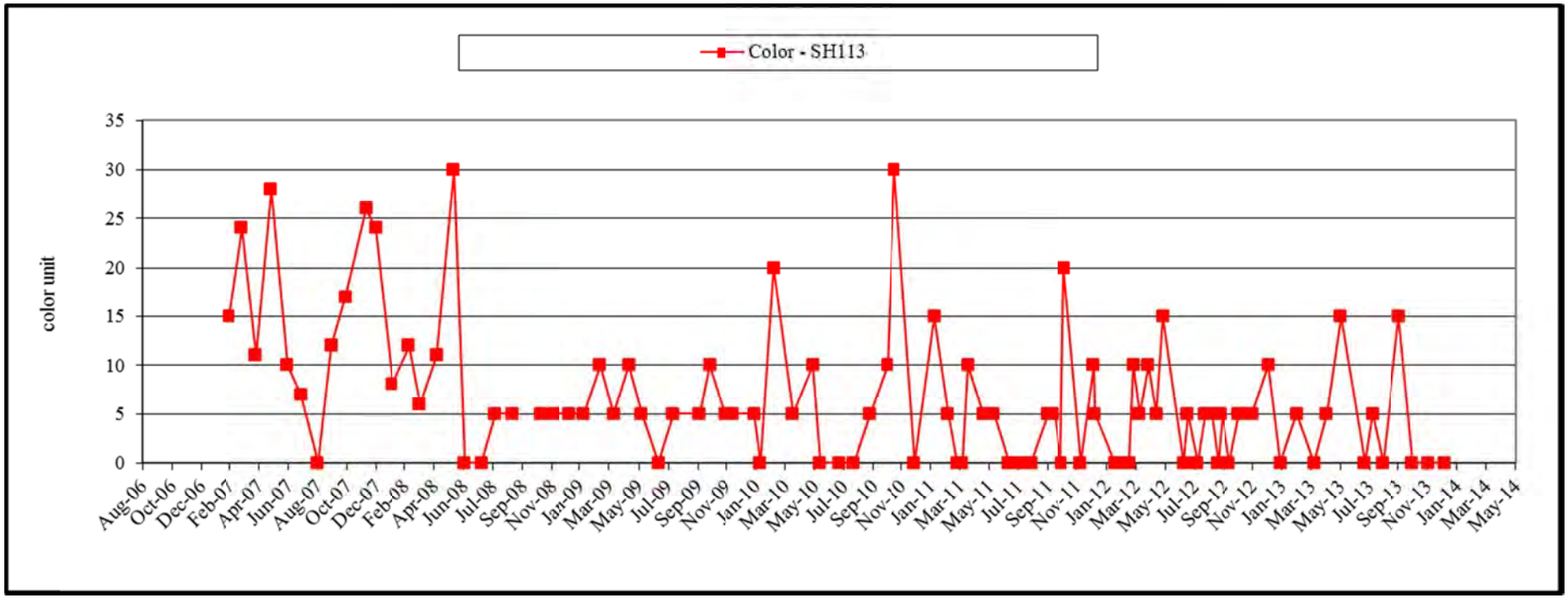


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

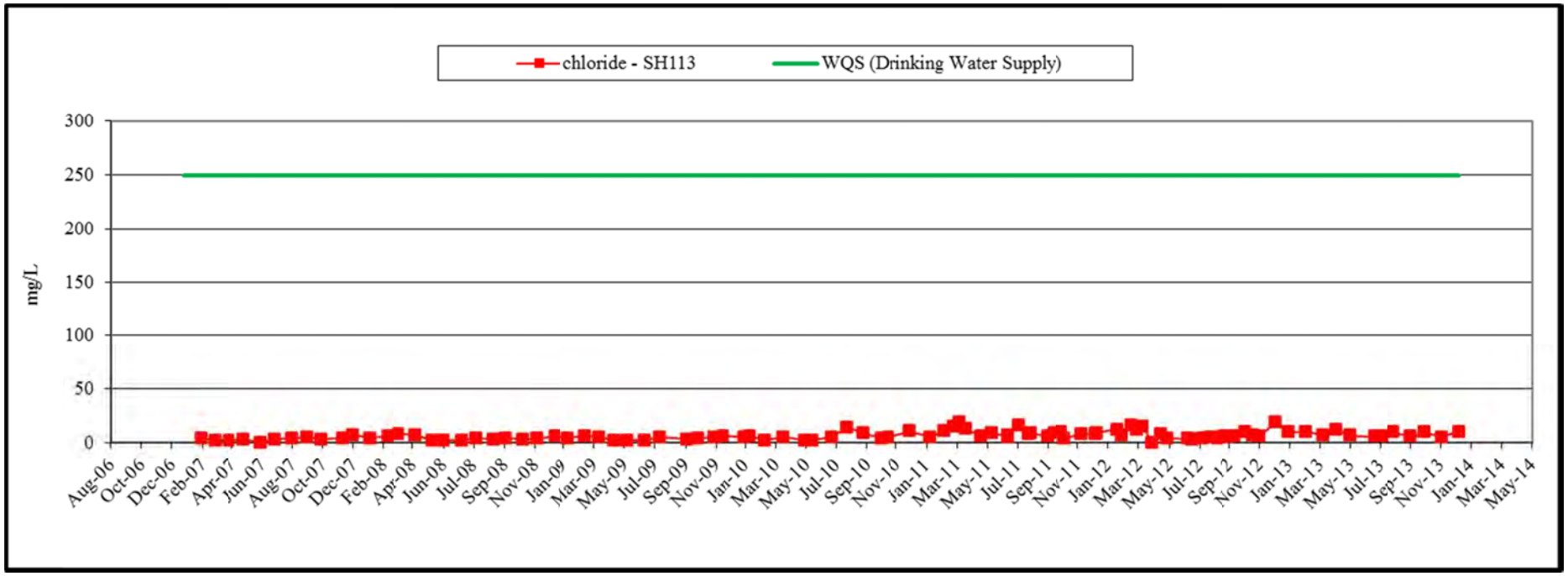


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

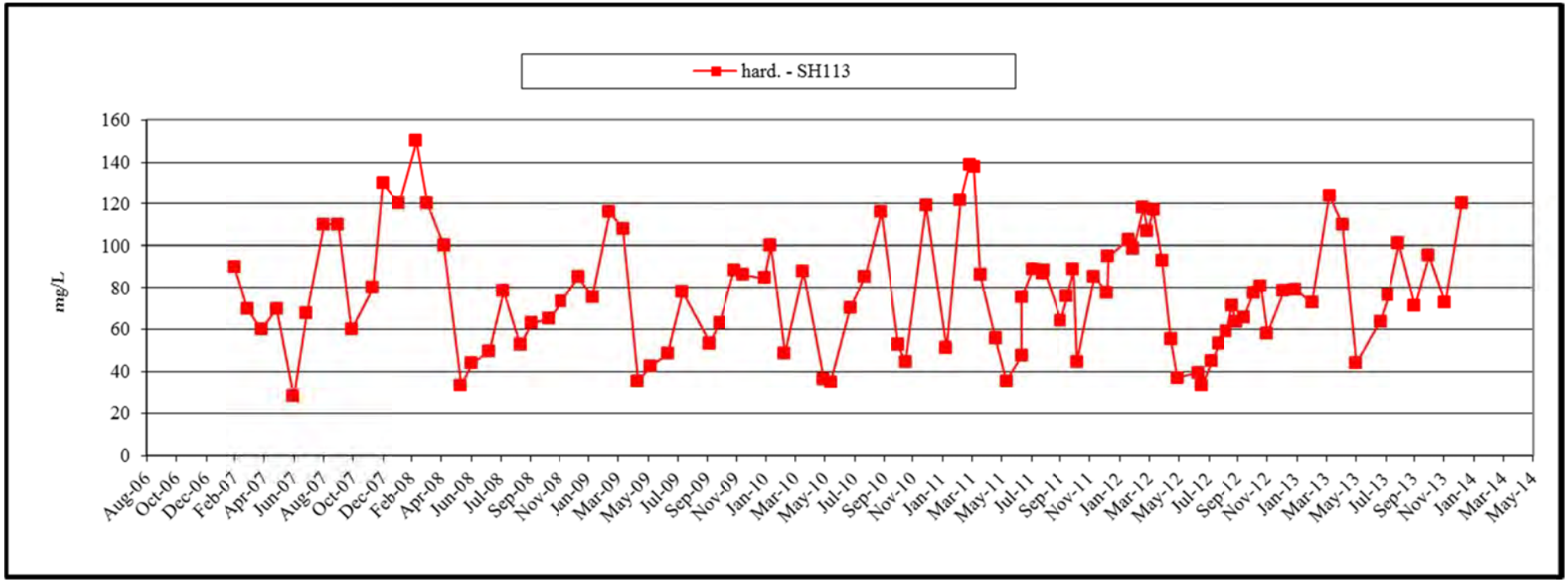


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

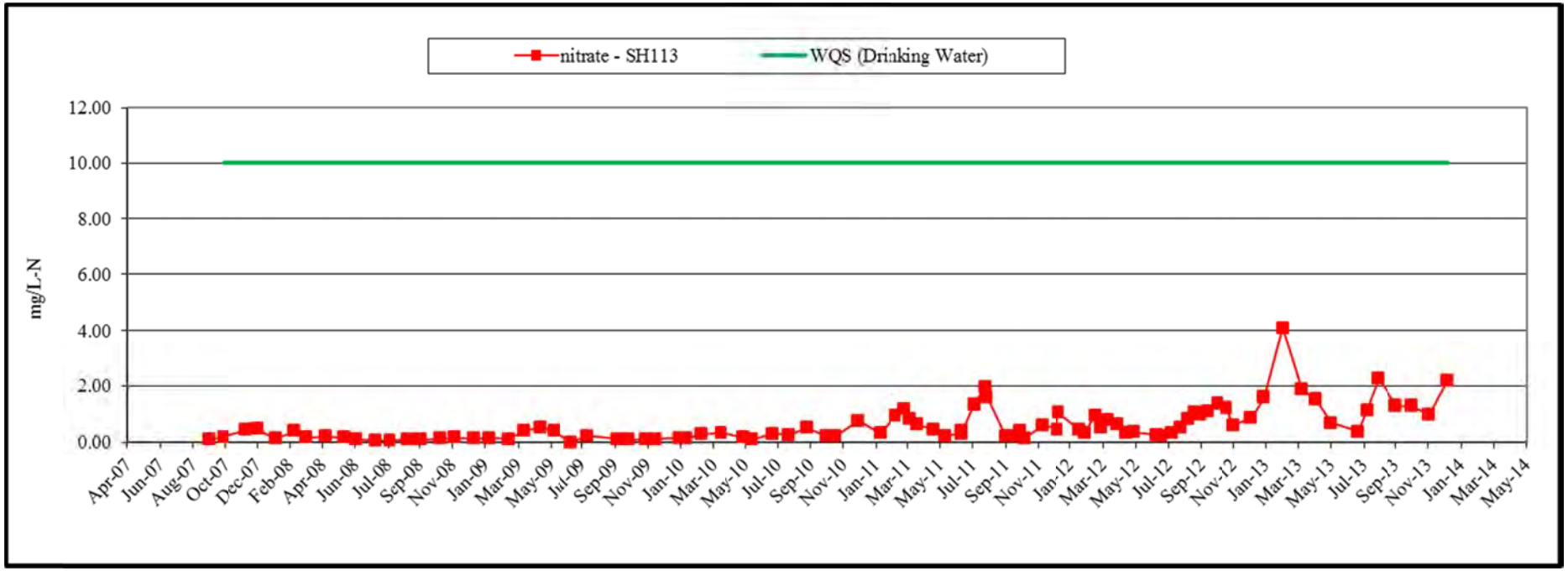


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

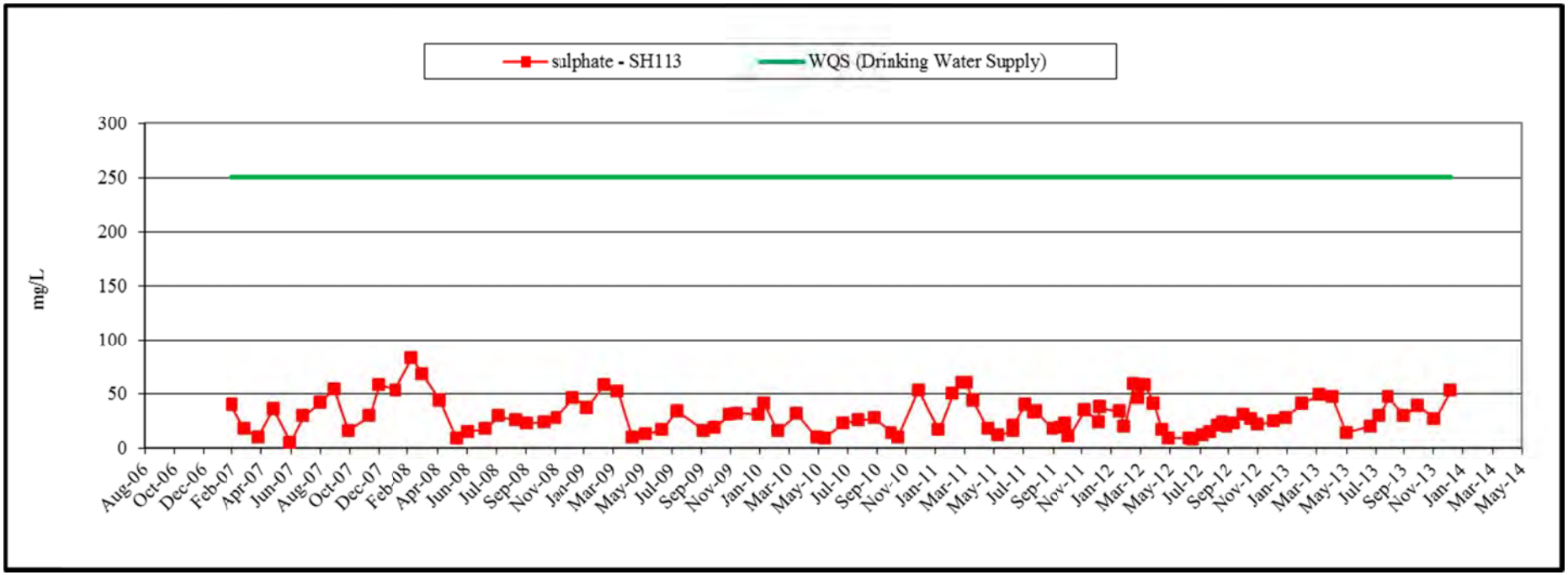


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

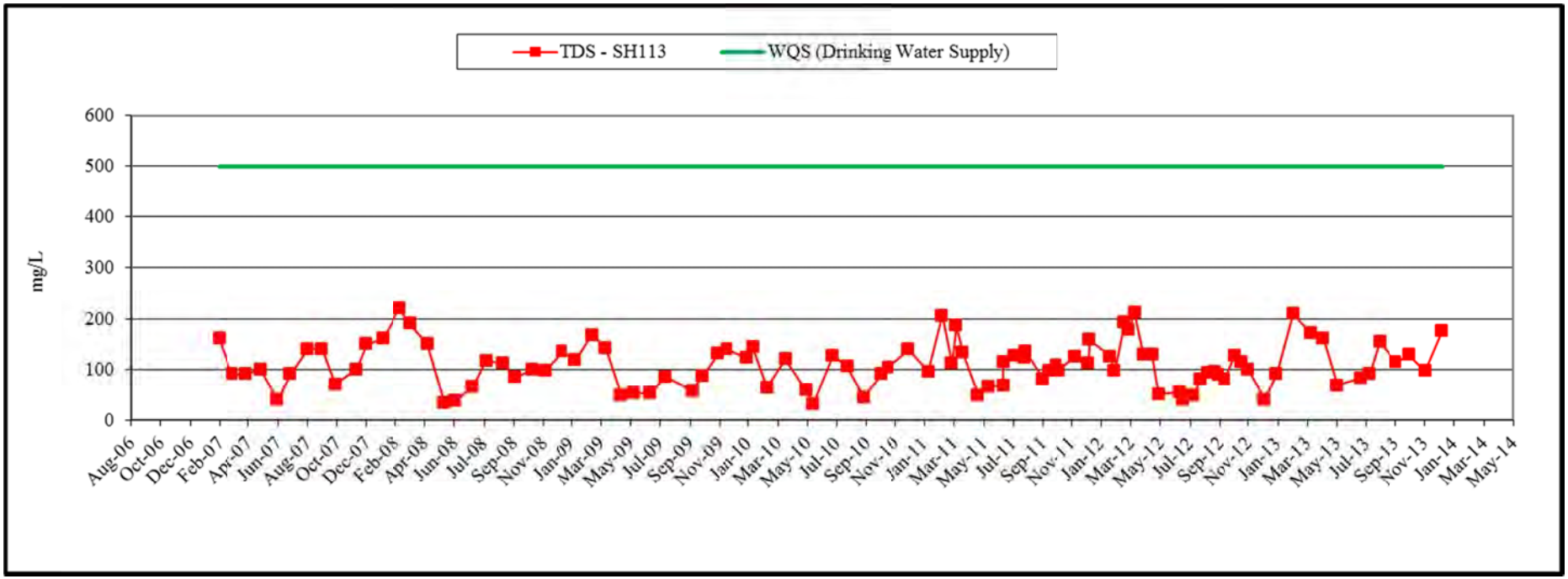


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

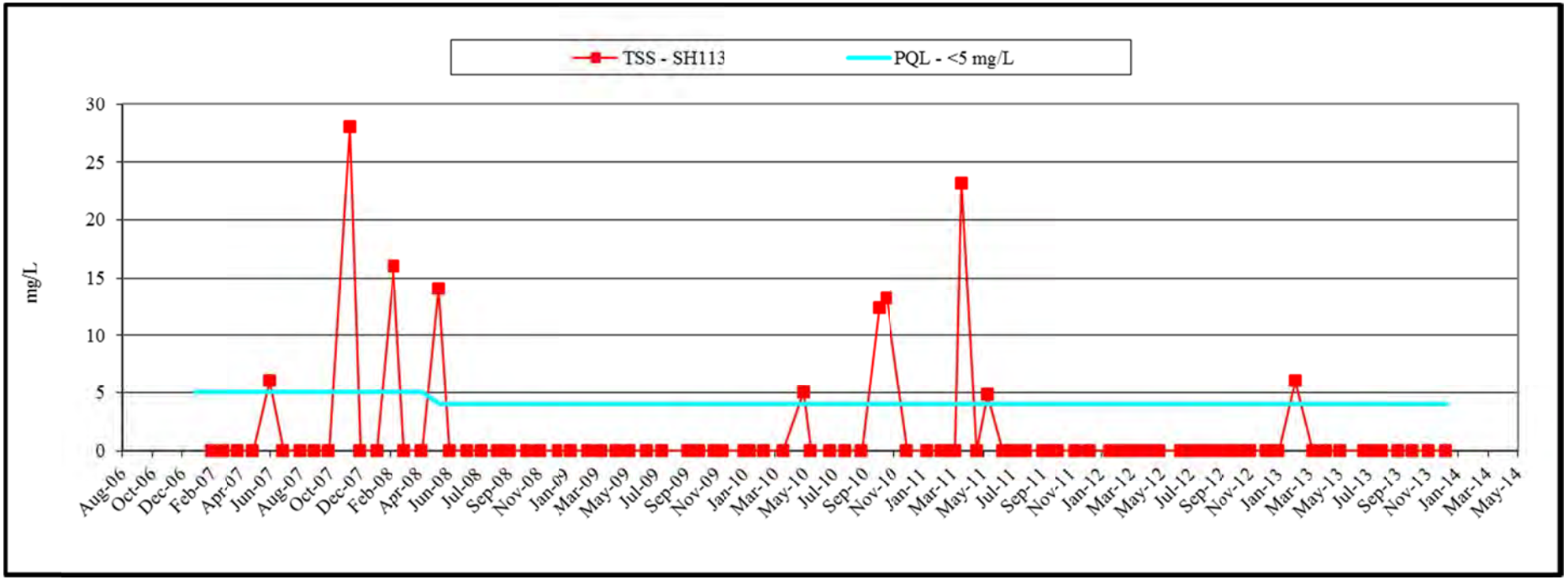


Figure 15b: Sherman Creek (SH113) Monitoring Results 2007-2013, Major Chemistry

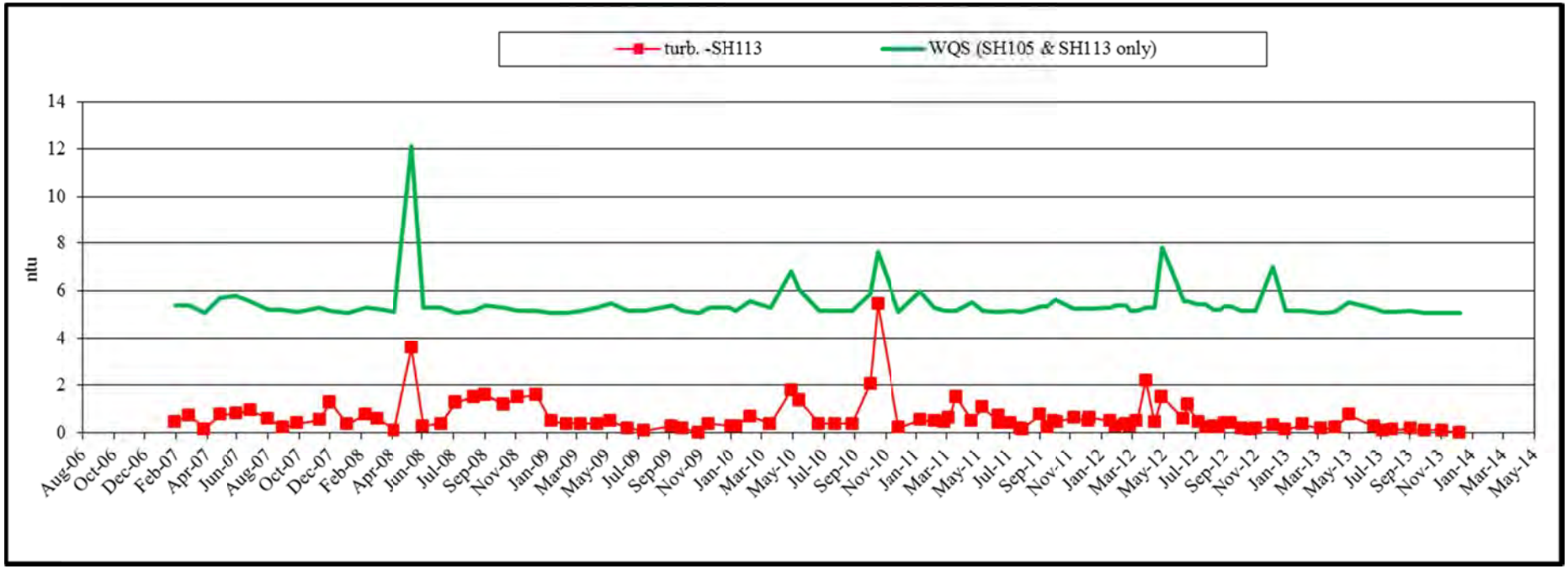


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

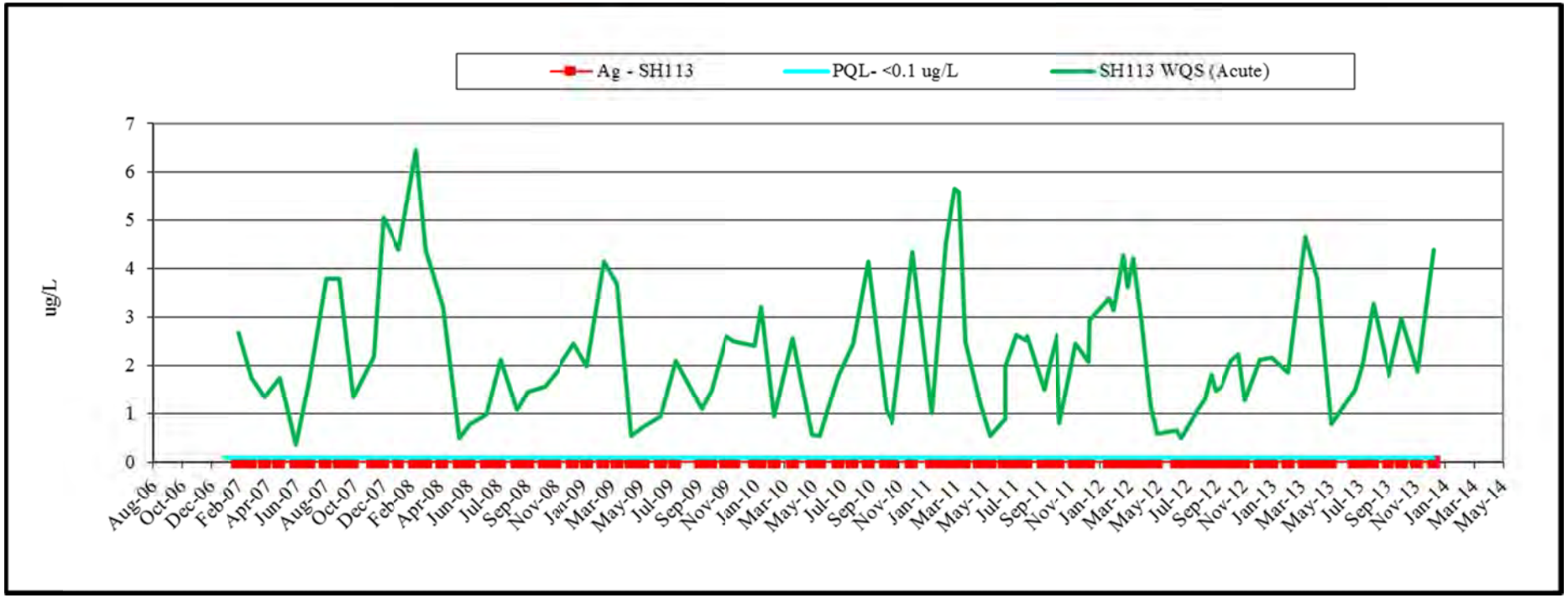


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

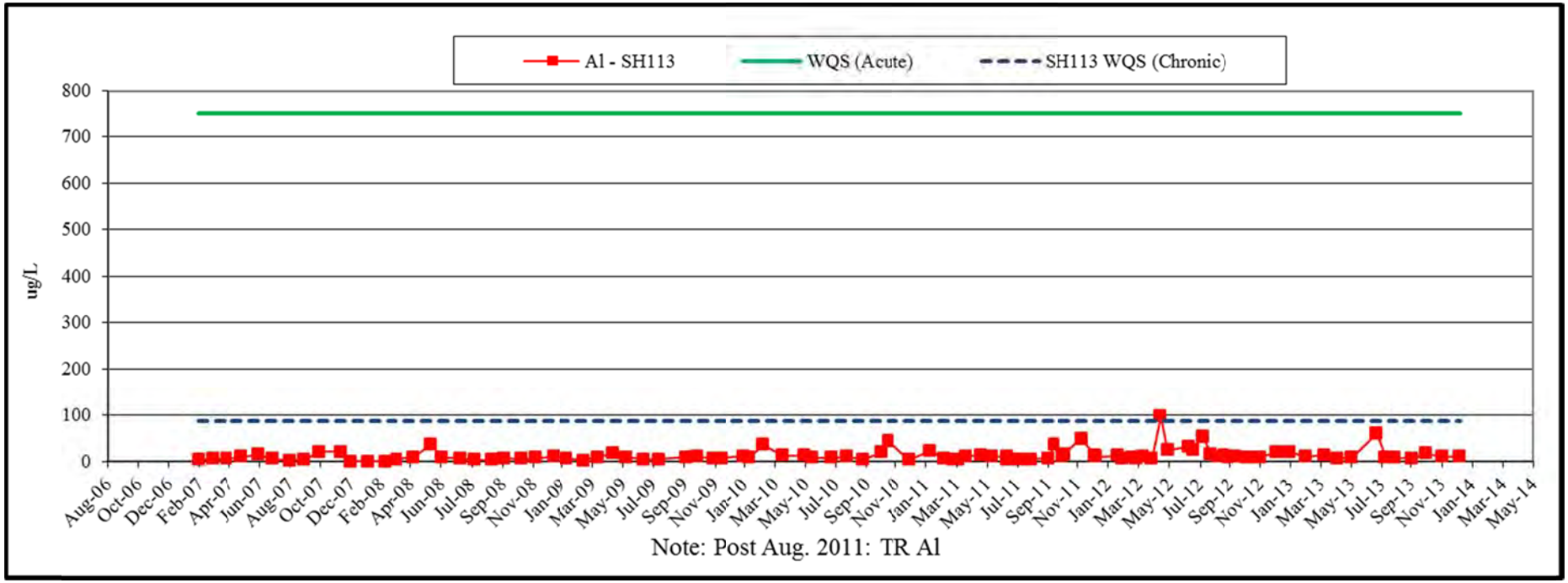


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

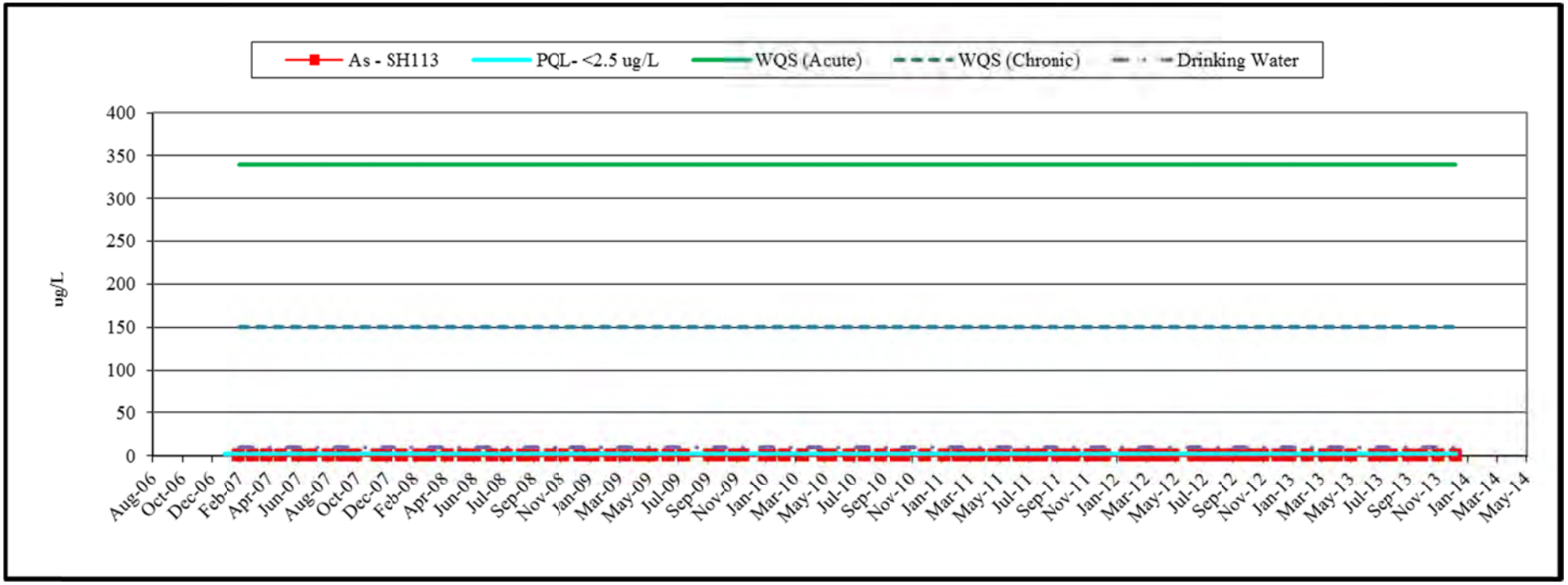


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

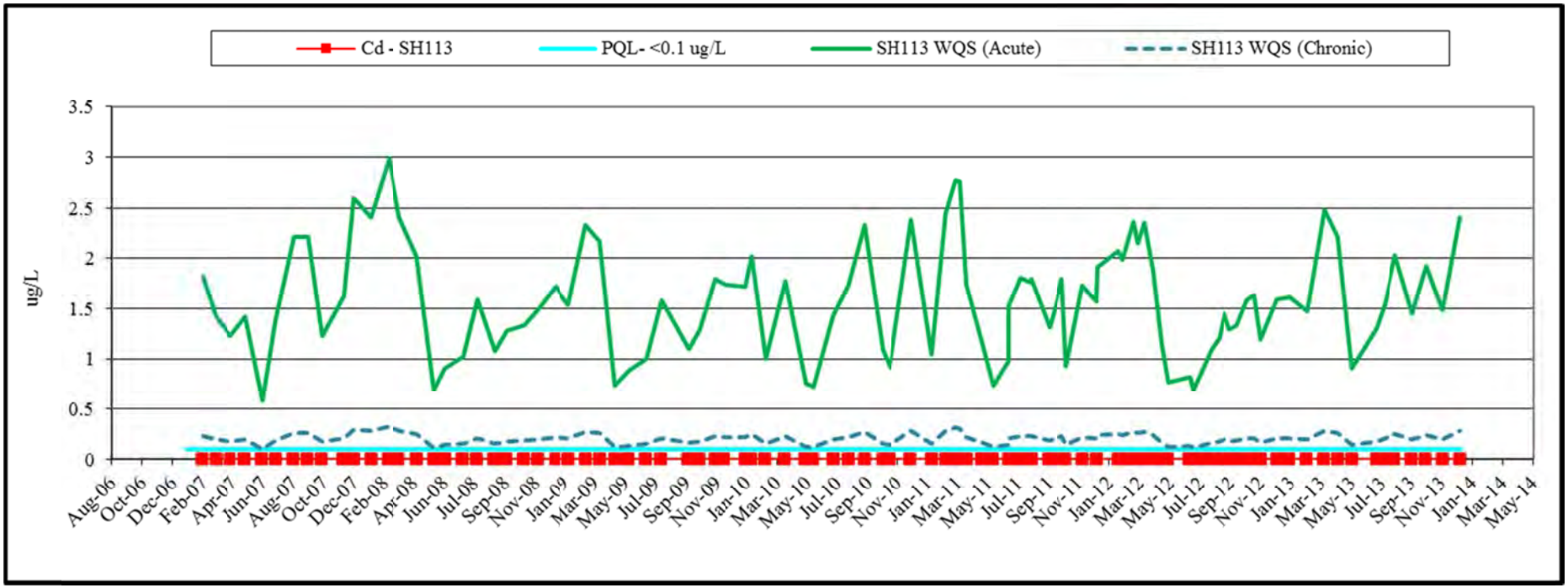


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

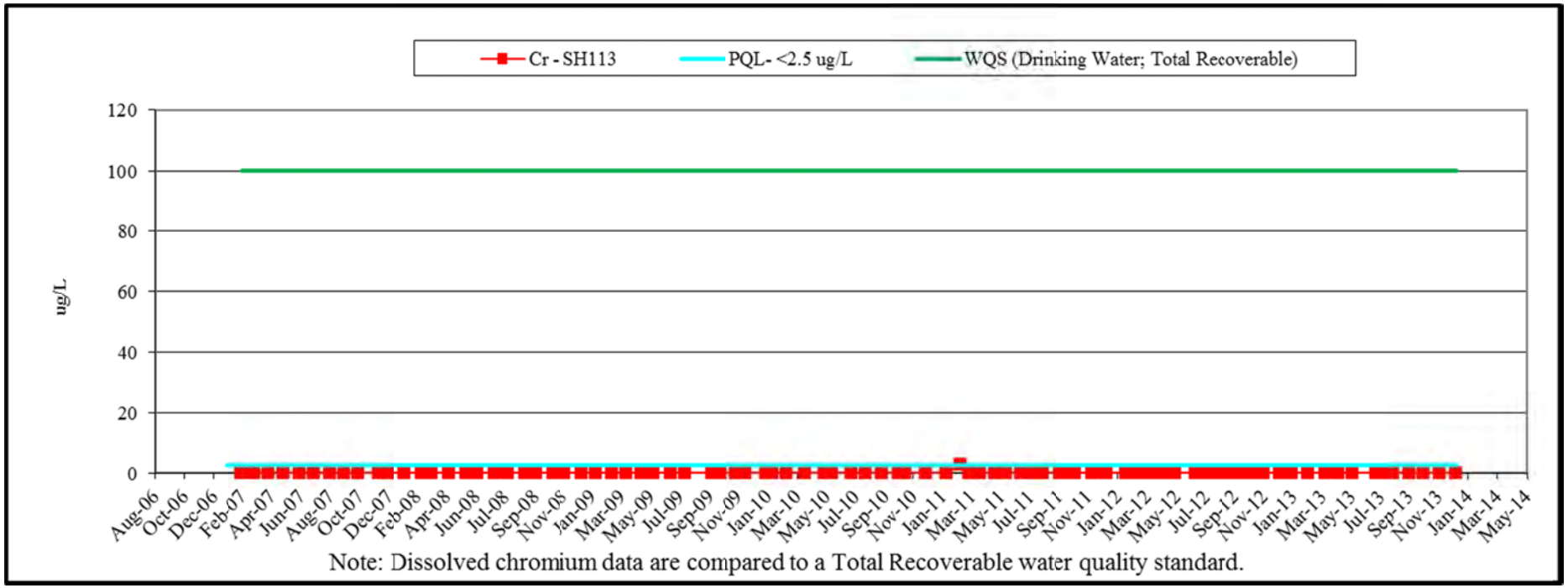


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

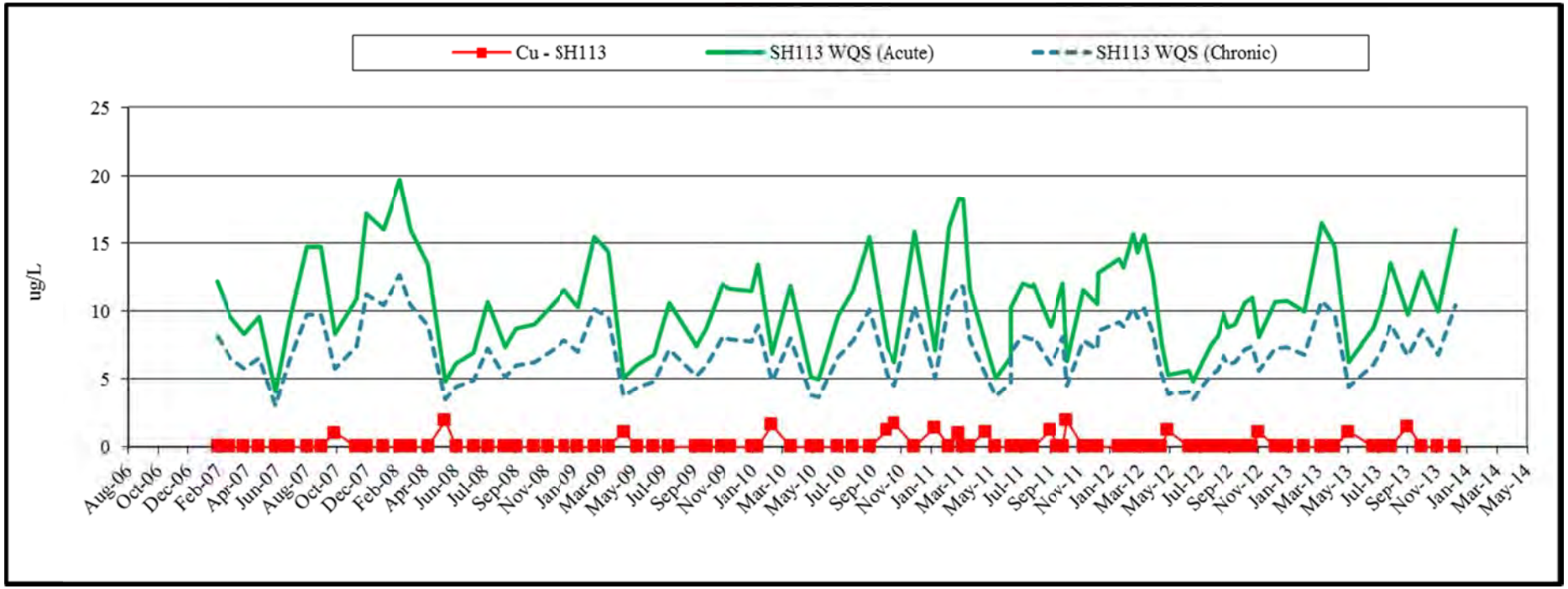


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

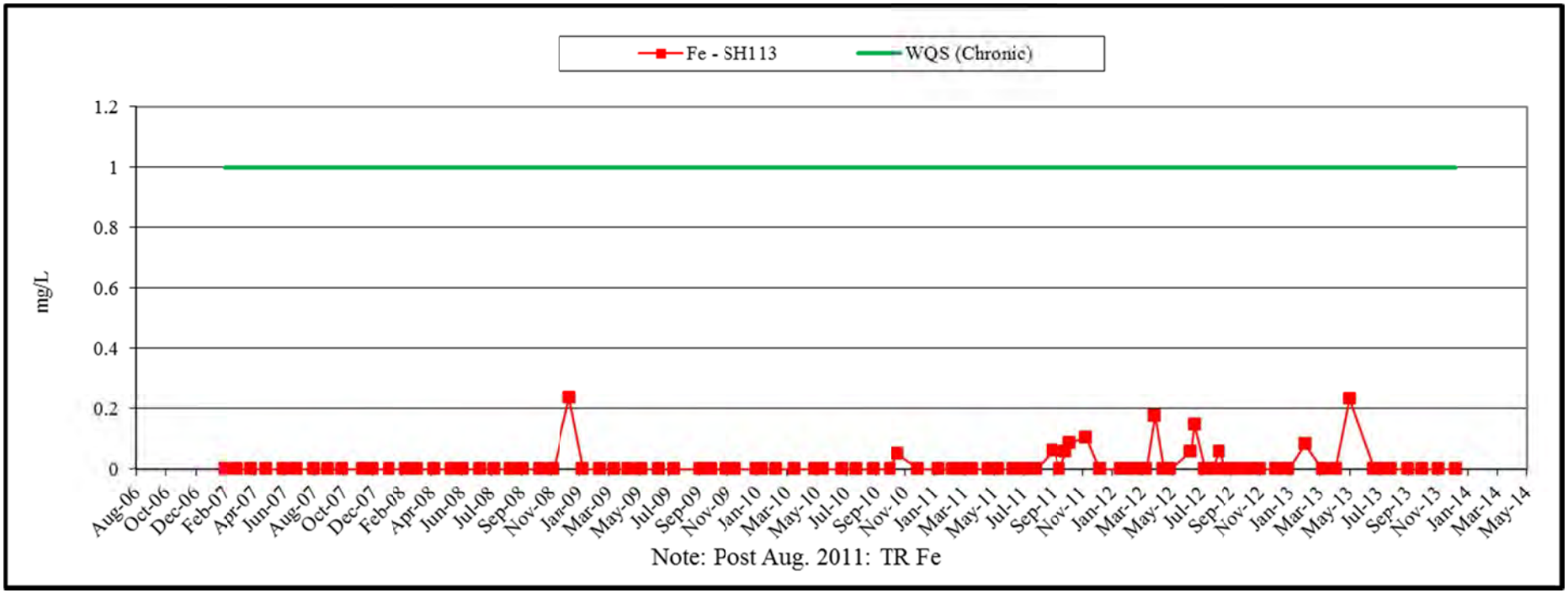


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

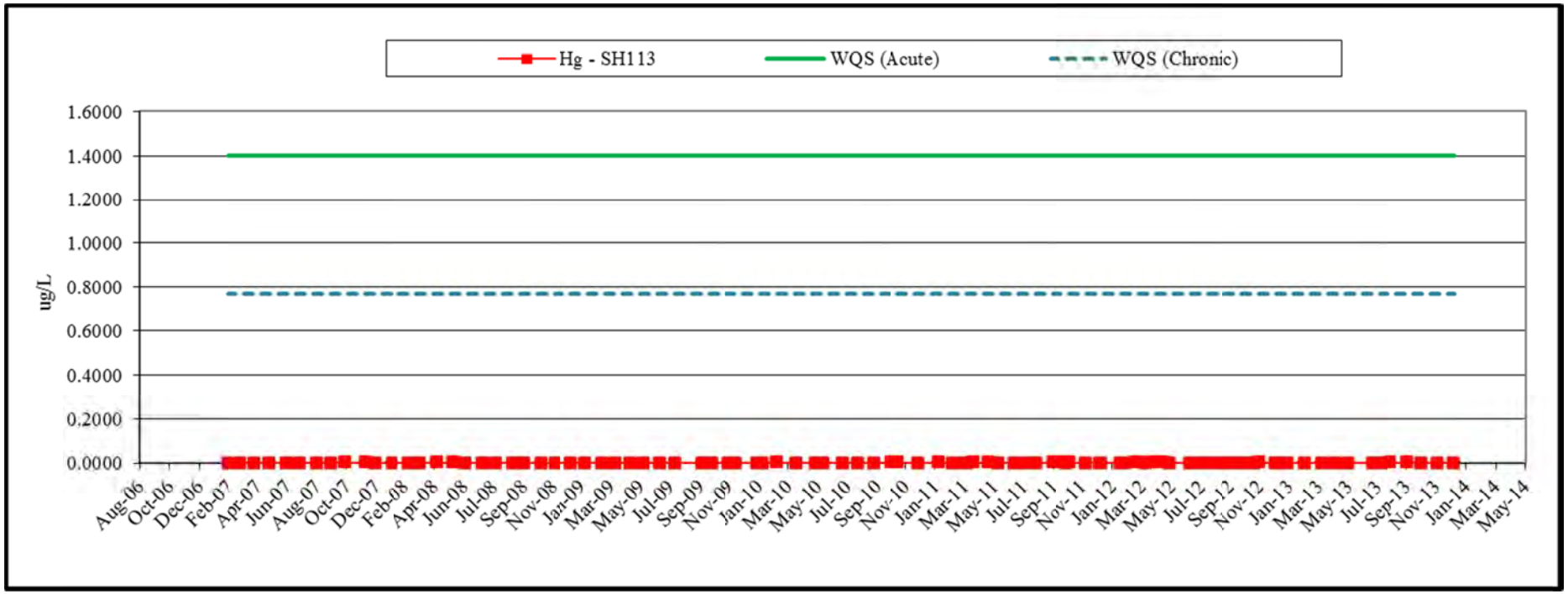


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

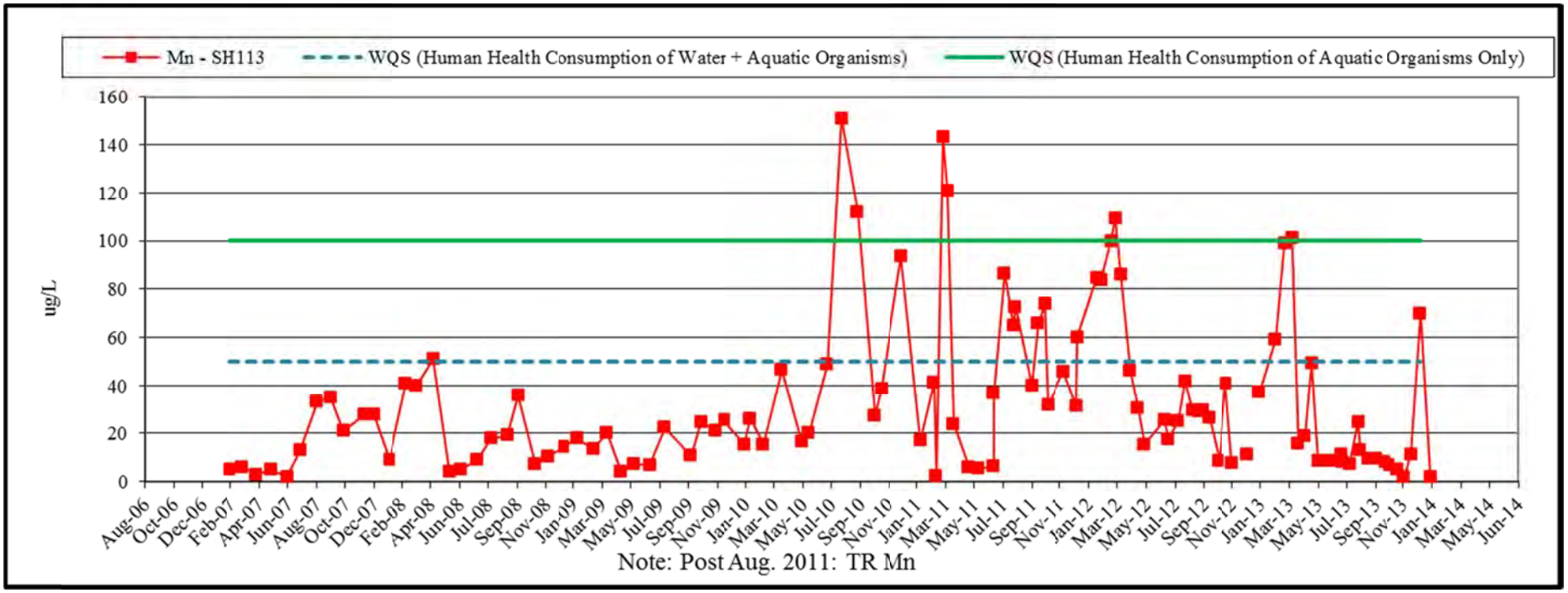


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

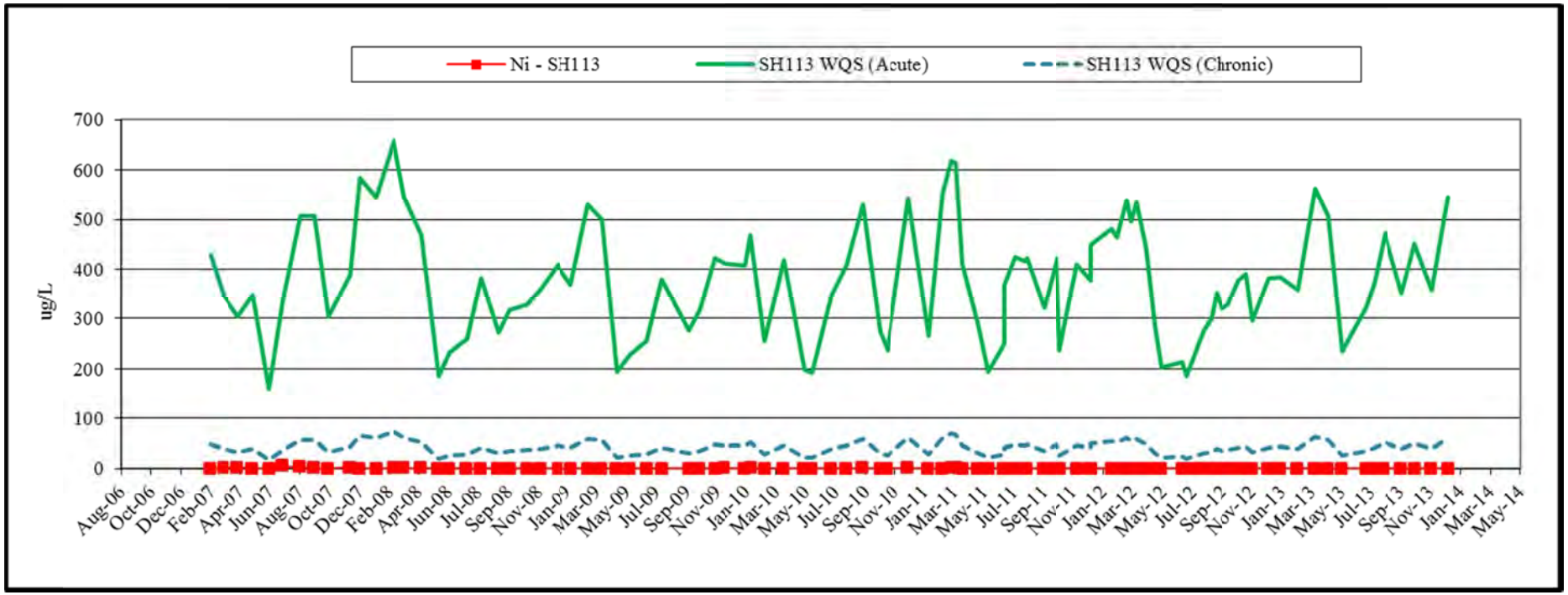


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

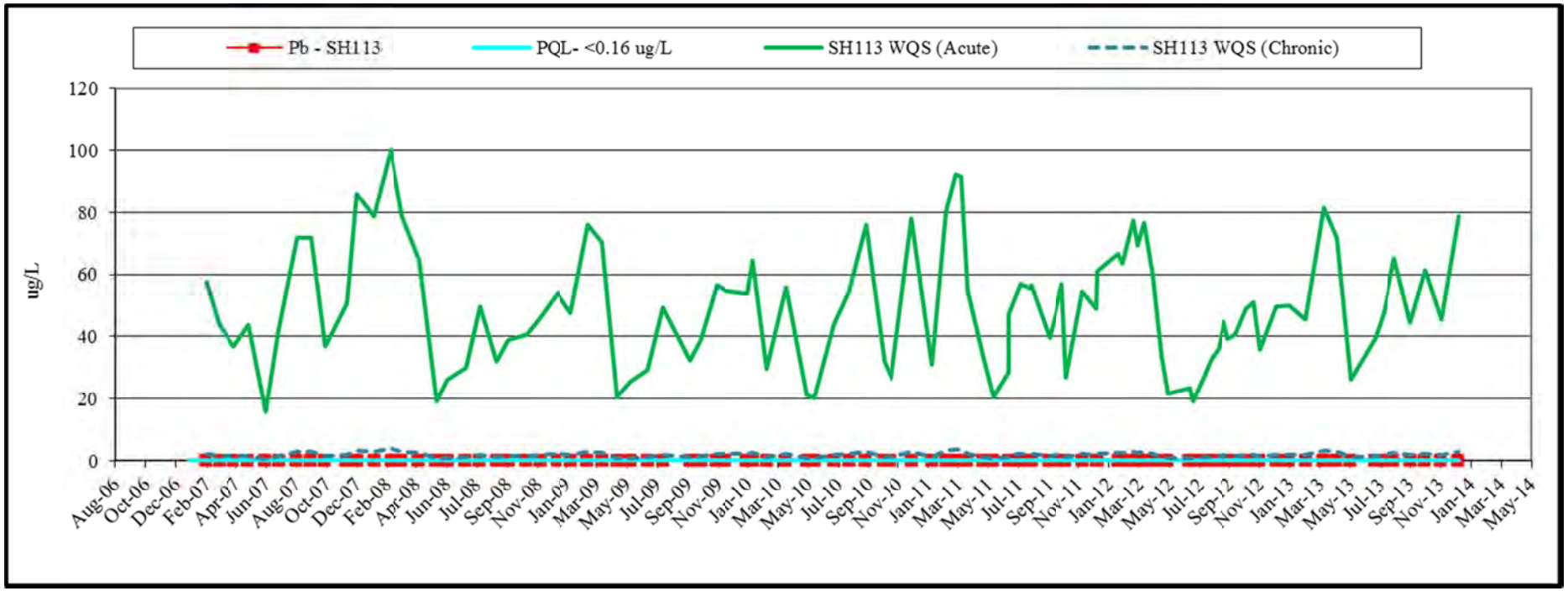


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

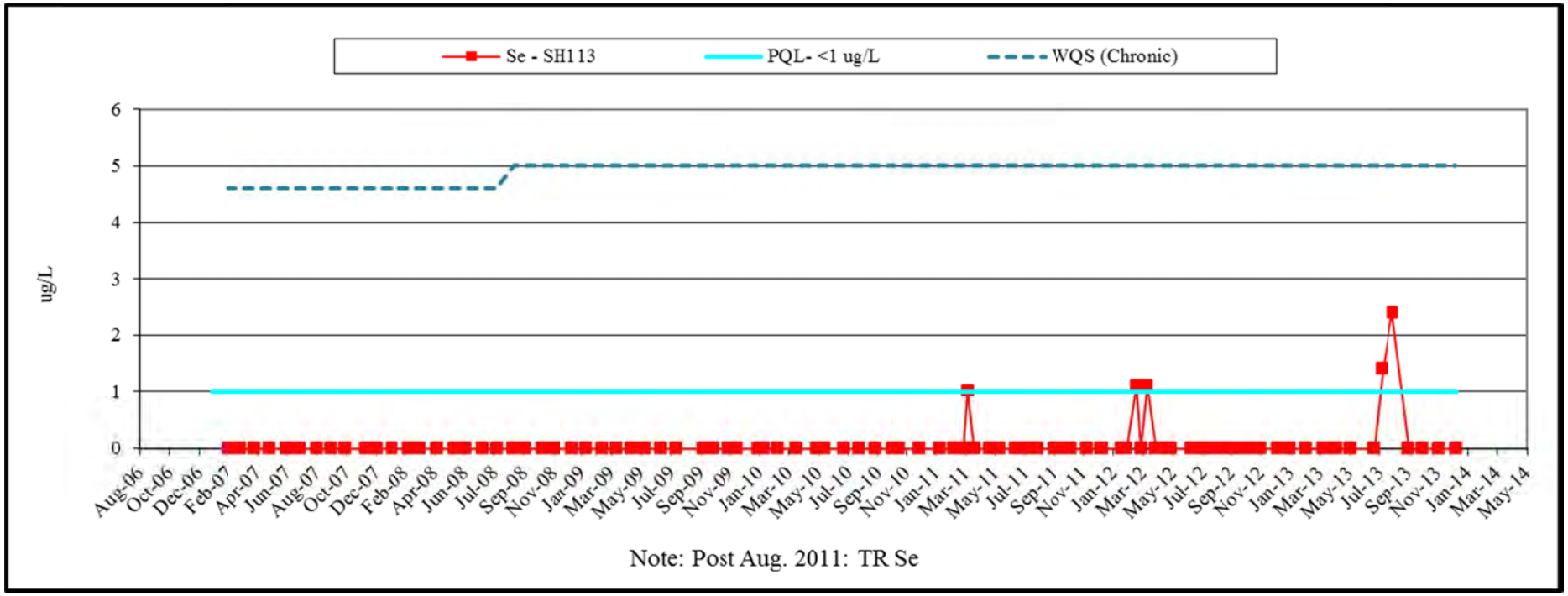


Figure 15c: Sherman Creek (SH113) Monitoring Results 2007-2013, Trace Chemistry

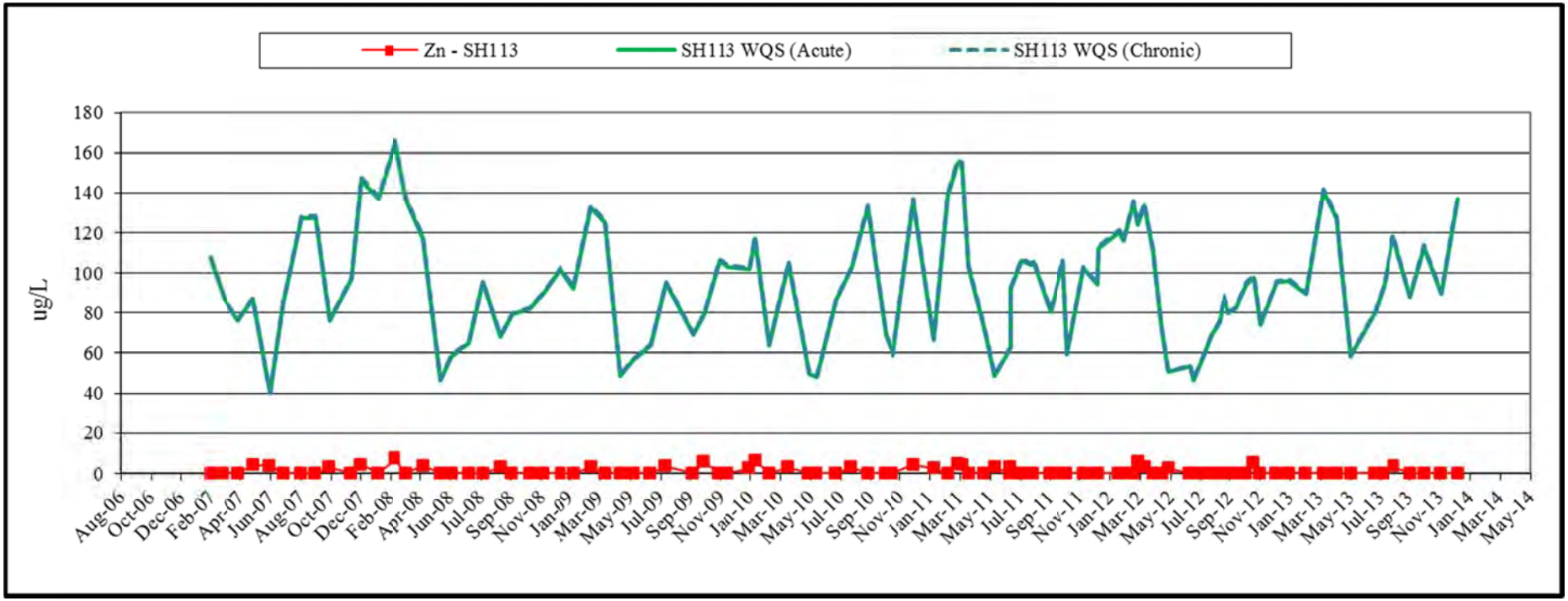


Figure 16a: Ophir Creek (SH103) Monitoring Results 2006-2013, Field Parameters

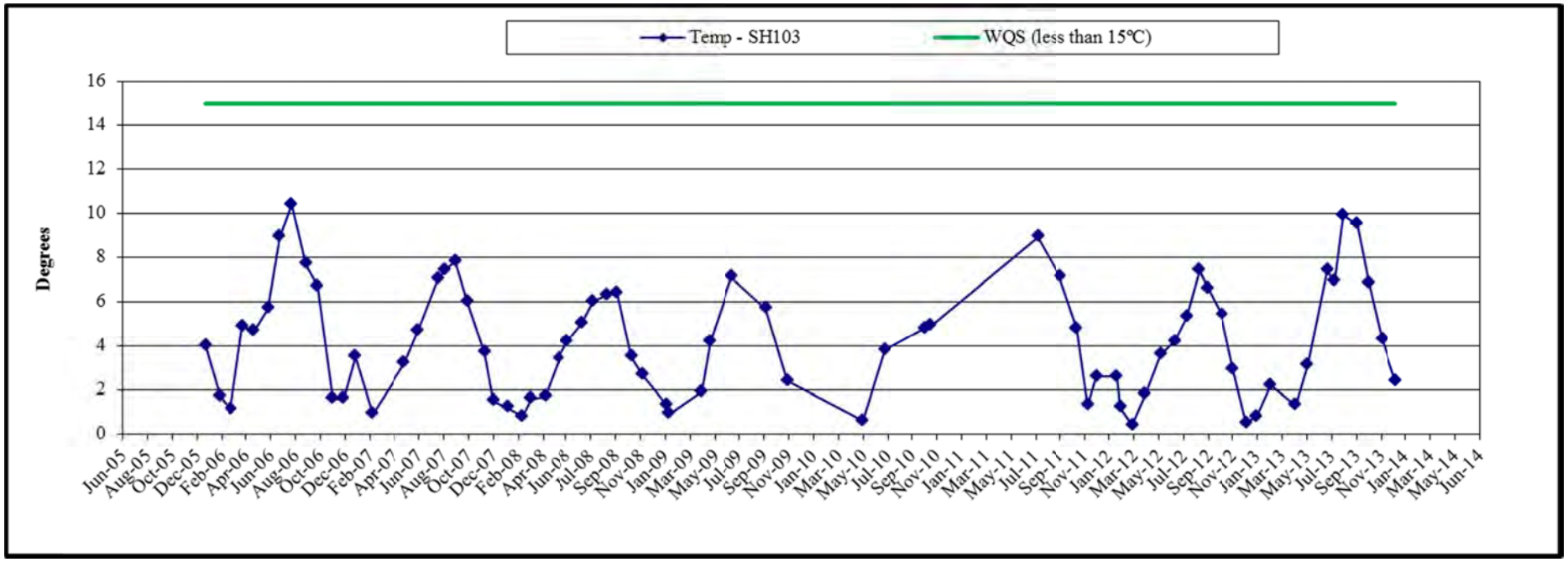


Figure 16a: Ophir Creek (SH103) Monitoring Results 2006-2013, Field Parameters

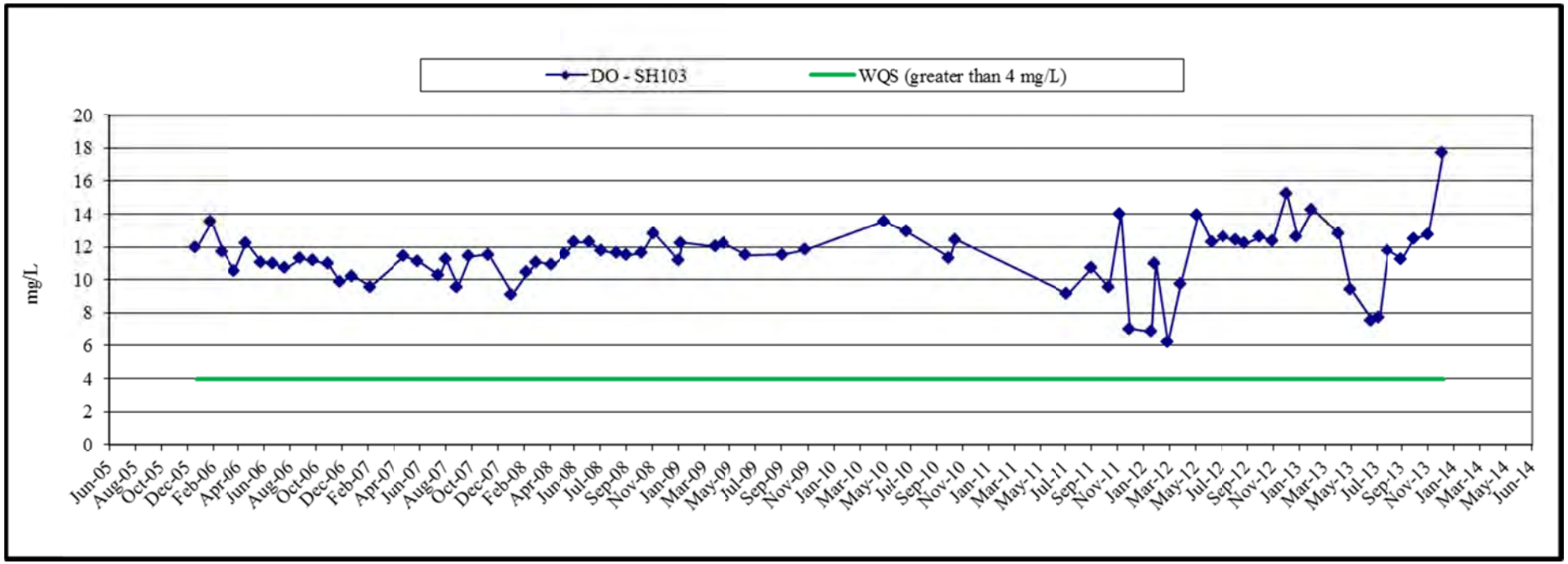


Figure 16a: Ophir Creek (SH103) Monitoring Results 2006-2013, Field Parameters

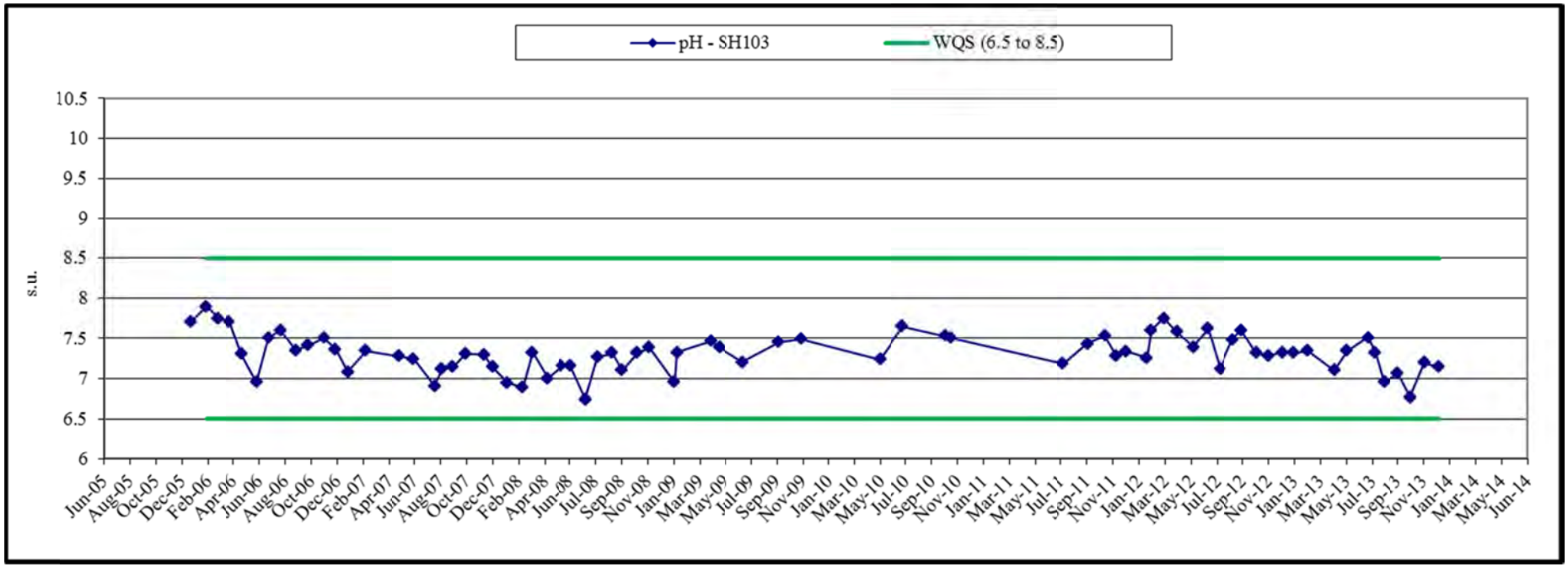


Figure 16a: Ophir Creek (SH103) Monitoring Results 2006-2013, Field Parameters

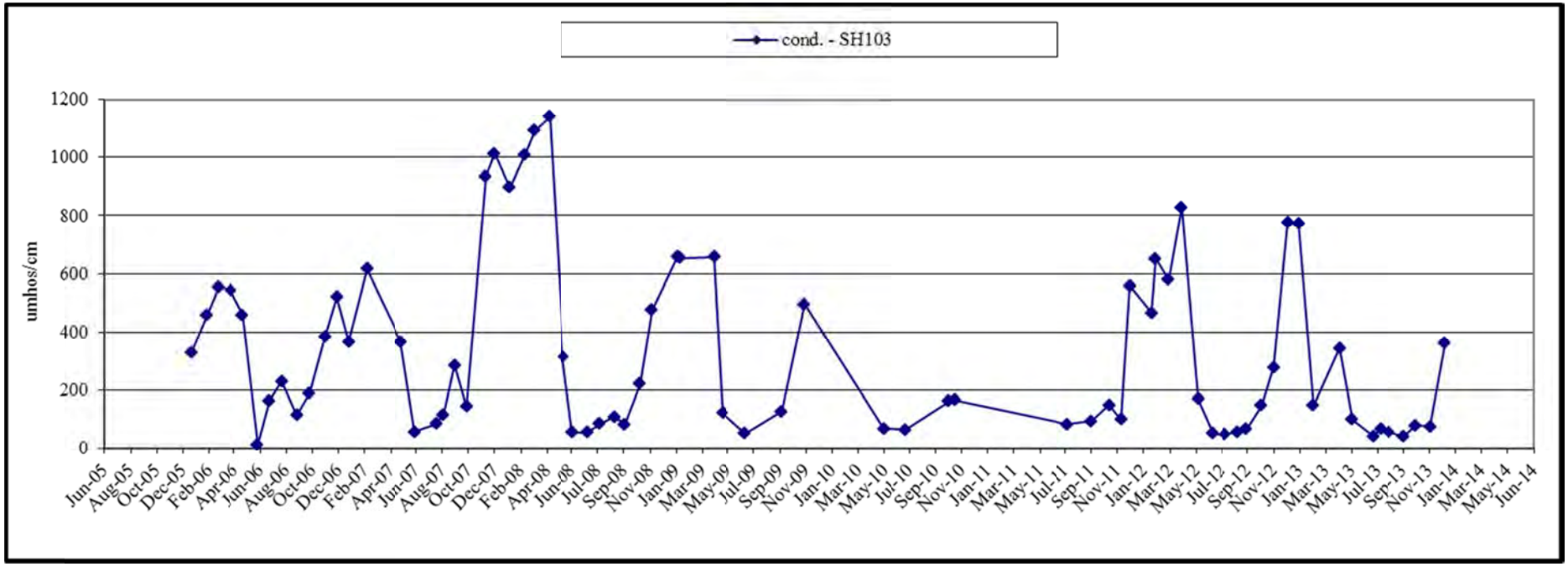


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

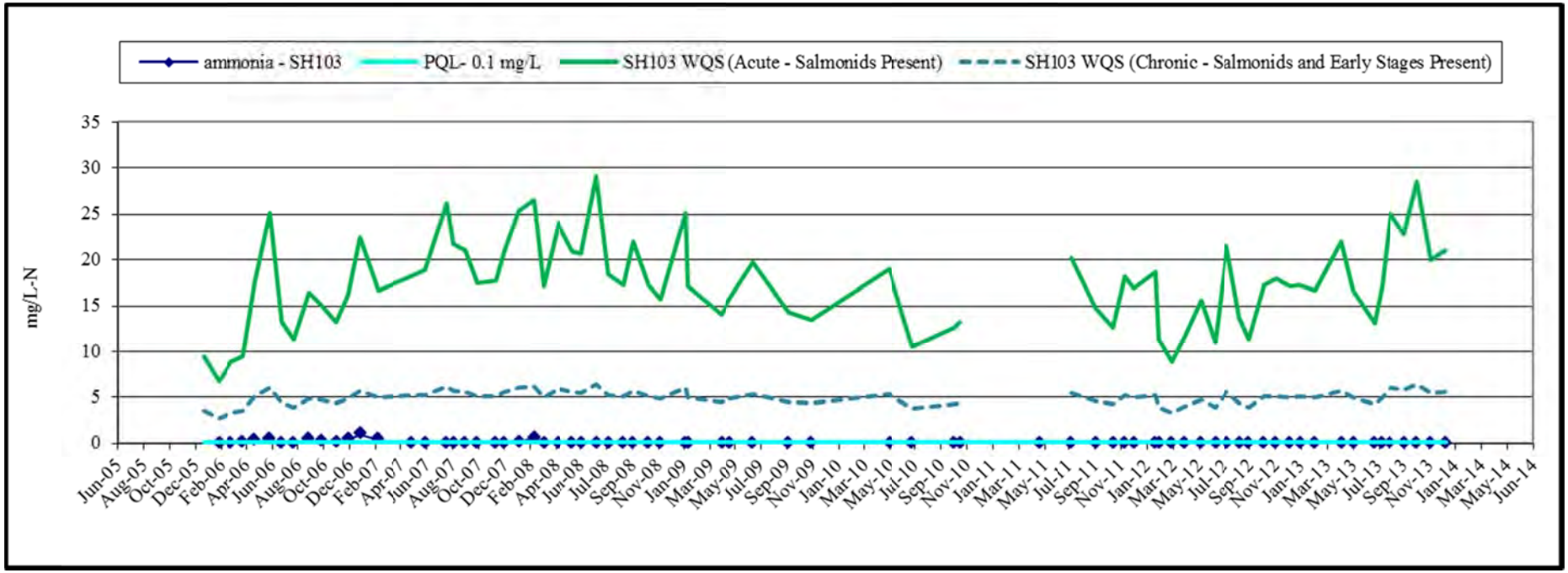


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

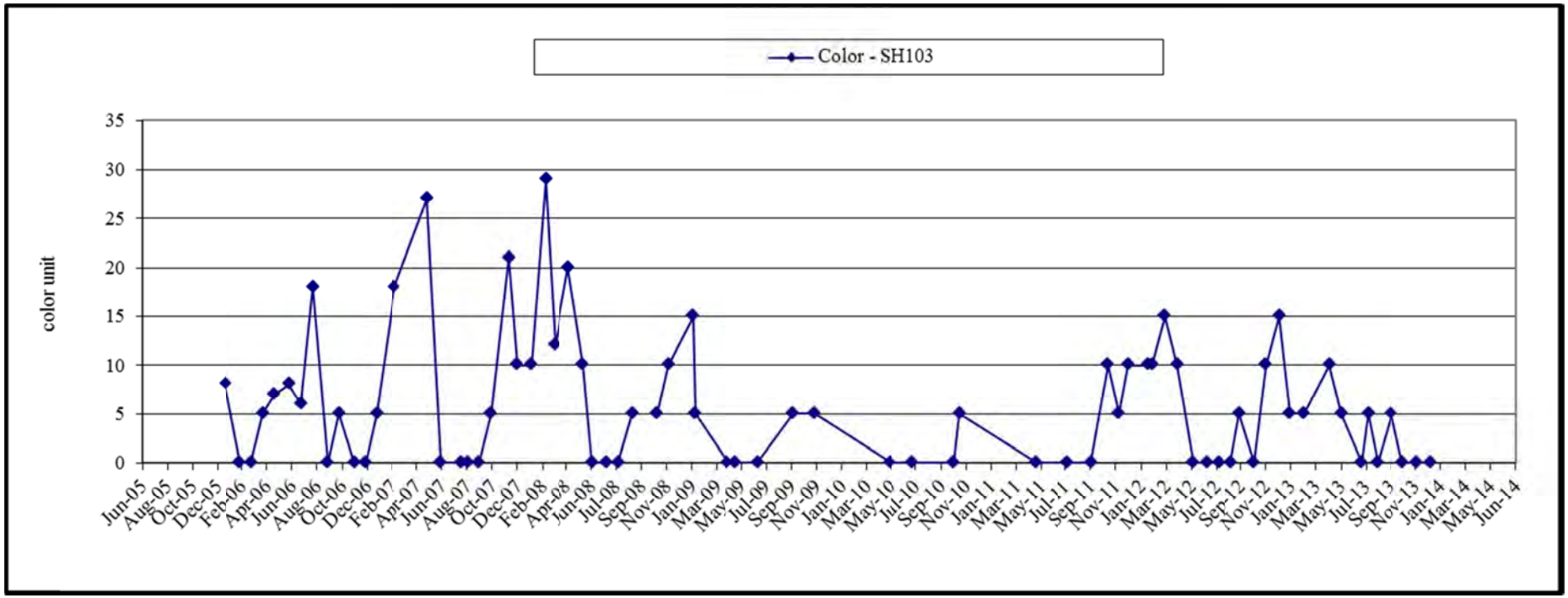


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

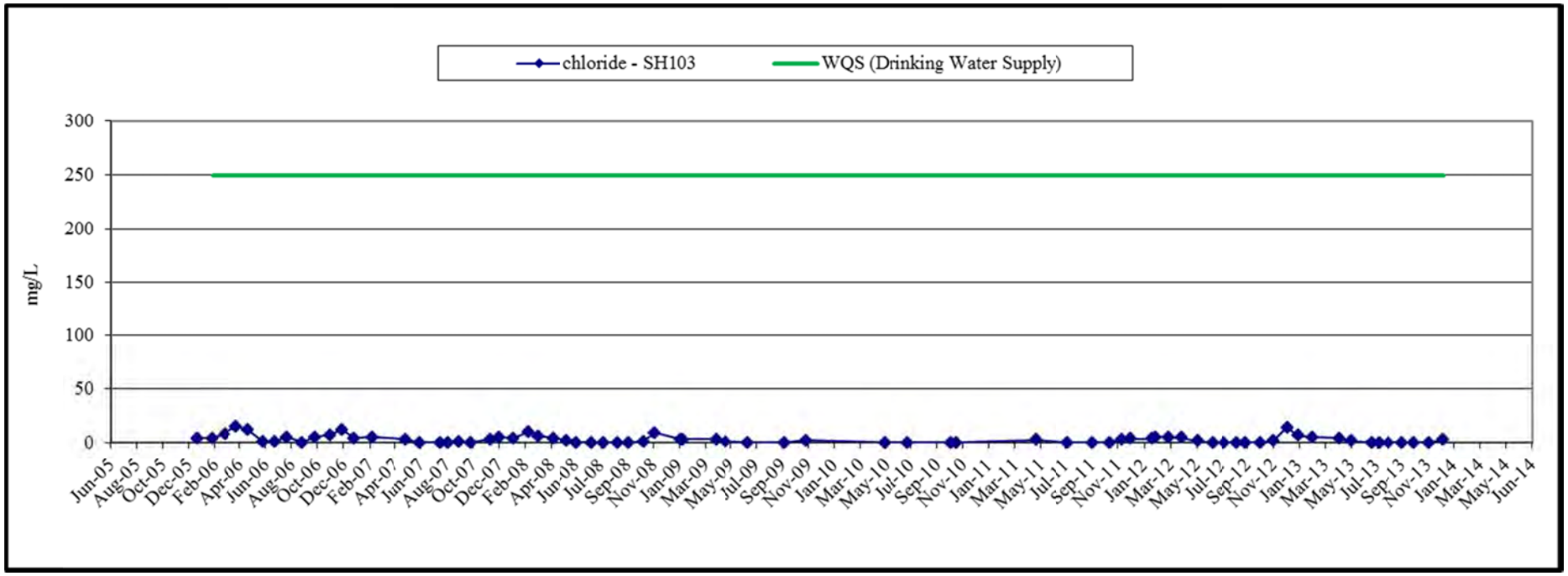


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

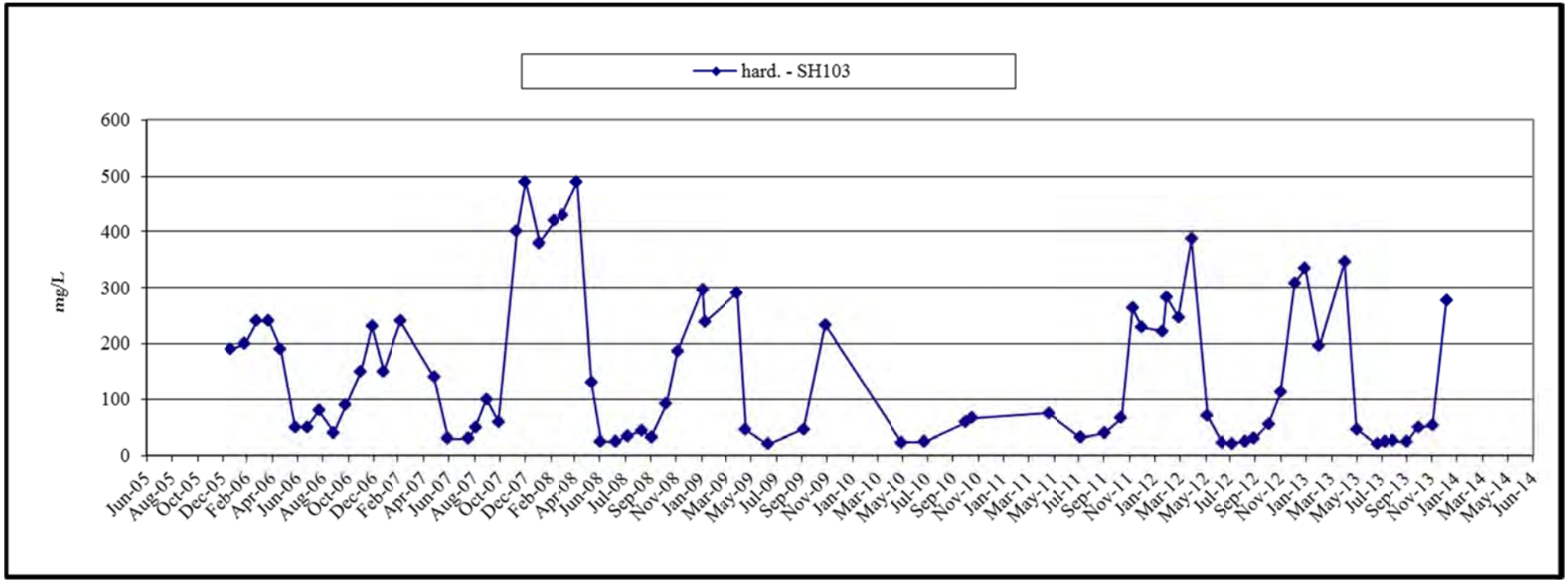


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

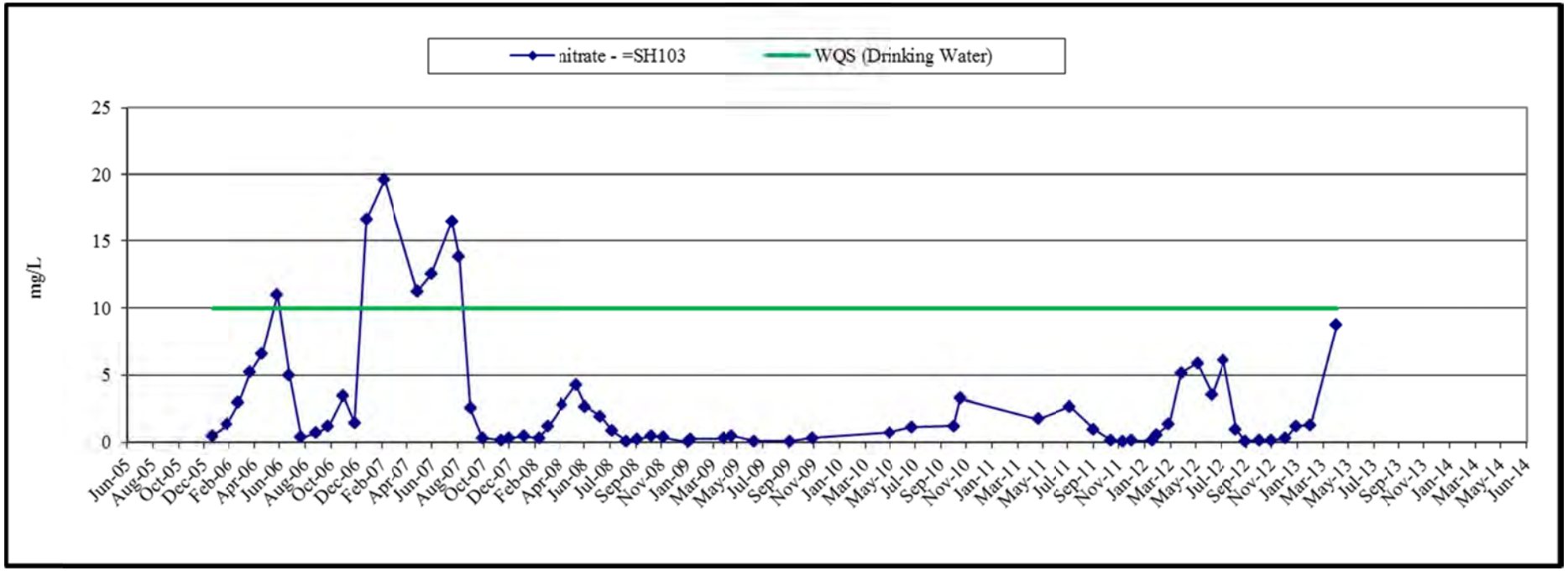


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

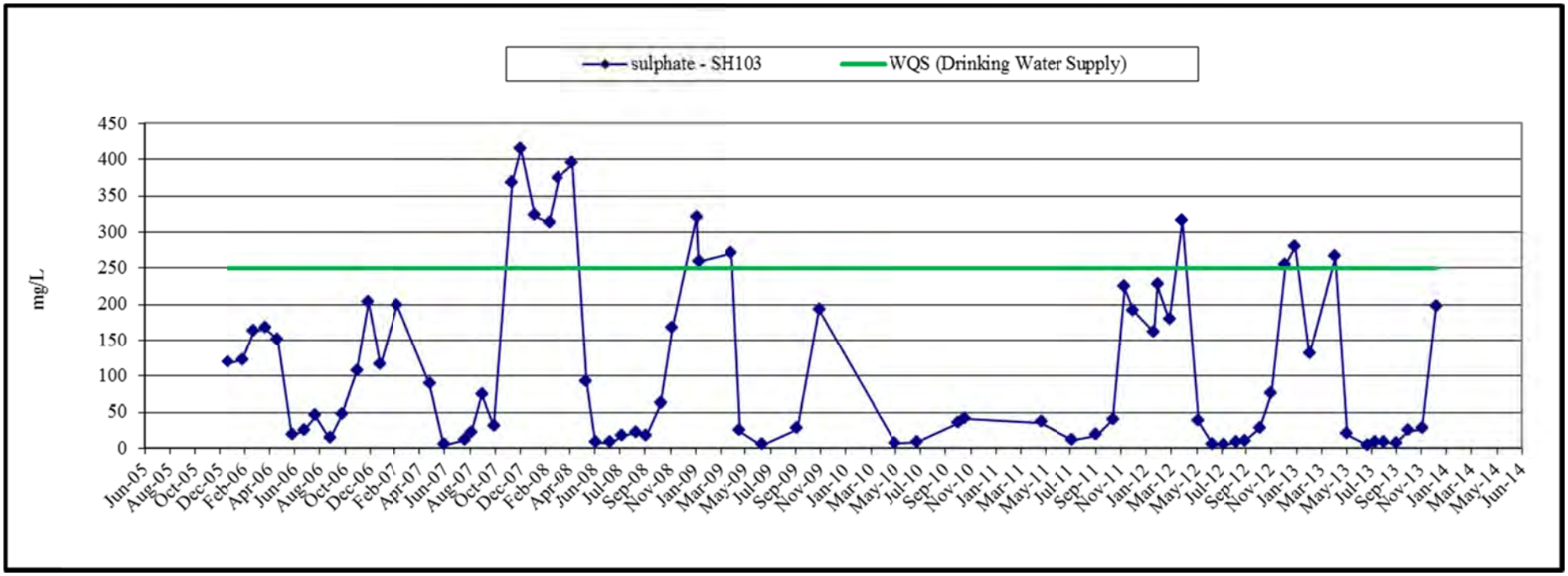


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

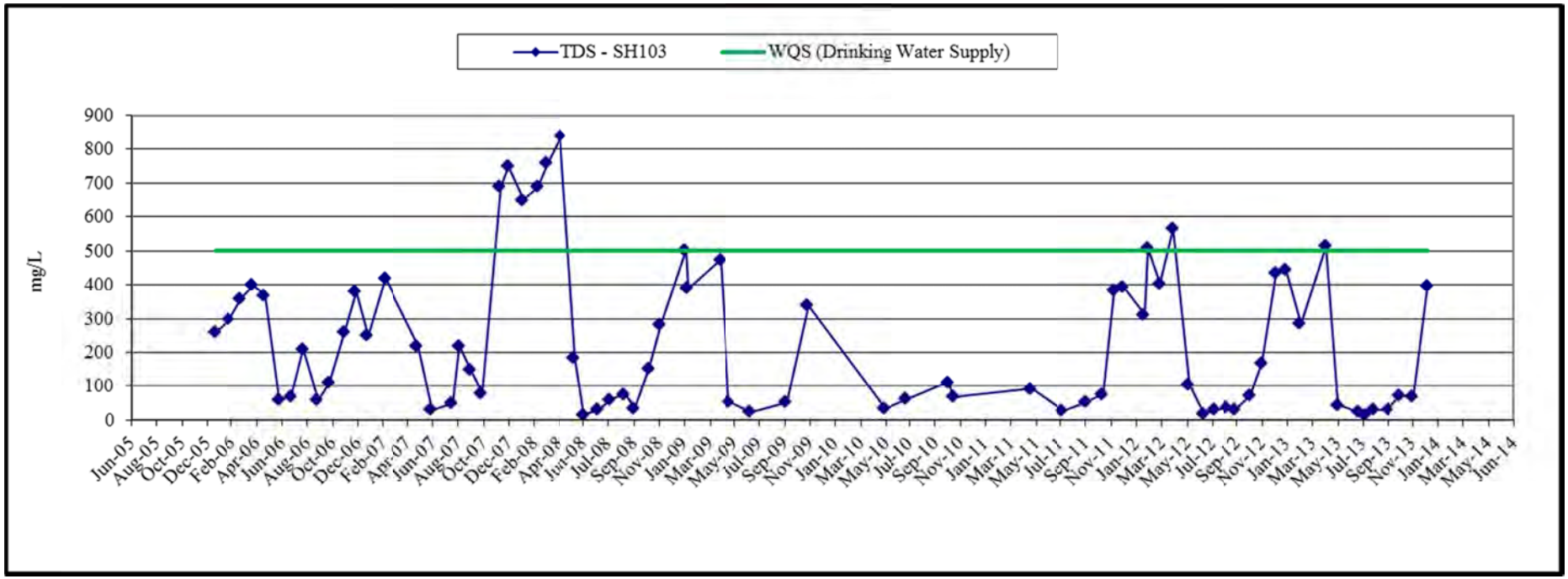


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

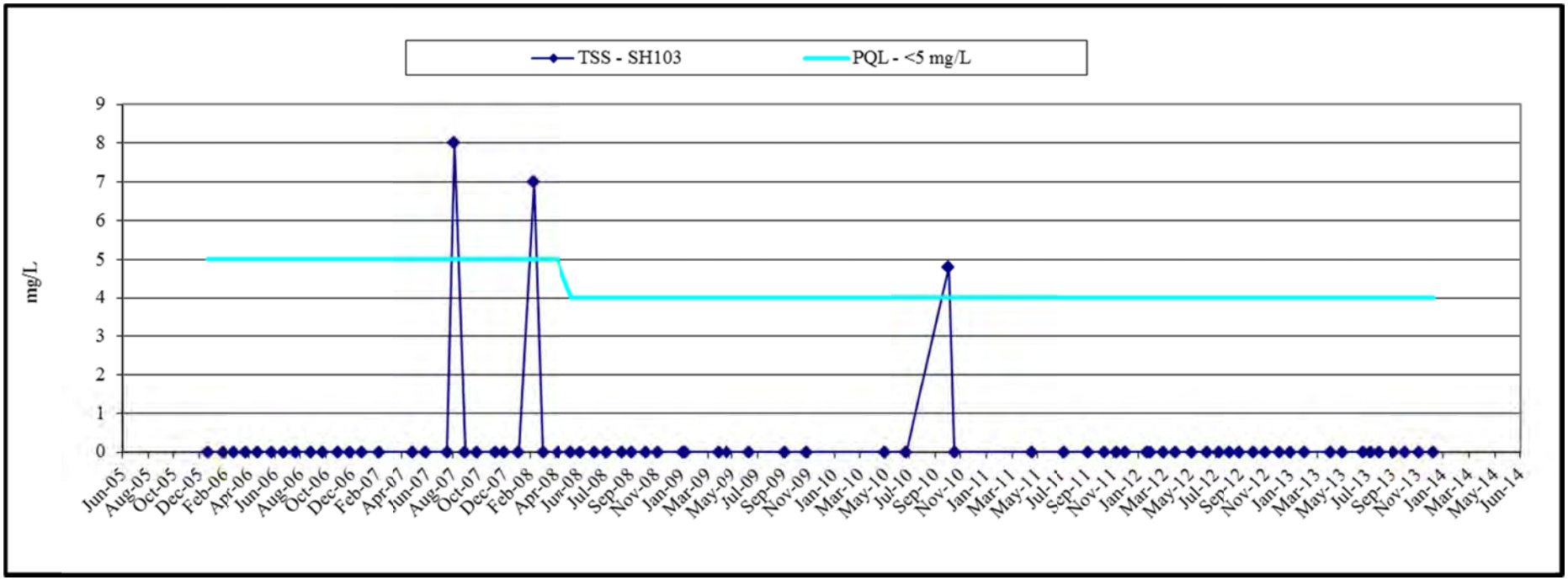


Figure 16b: Ophir Creek (SH103) Monitoring Results 2006-2013, Major Chemistry

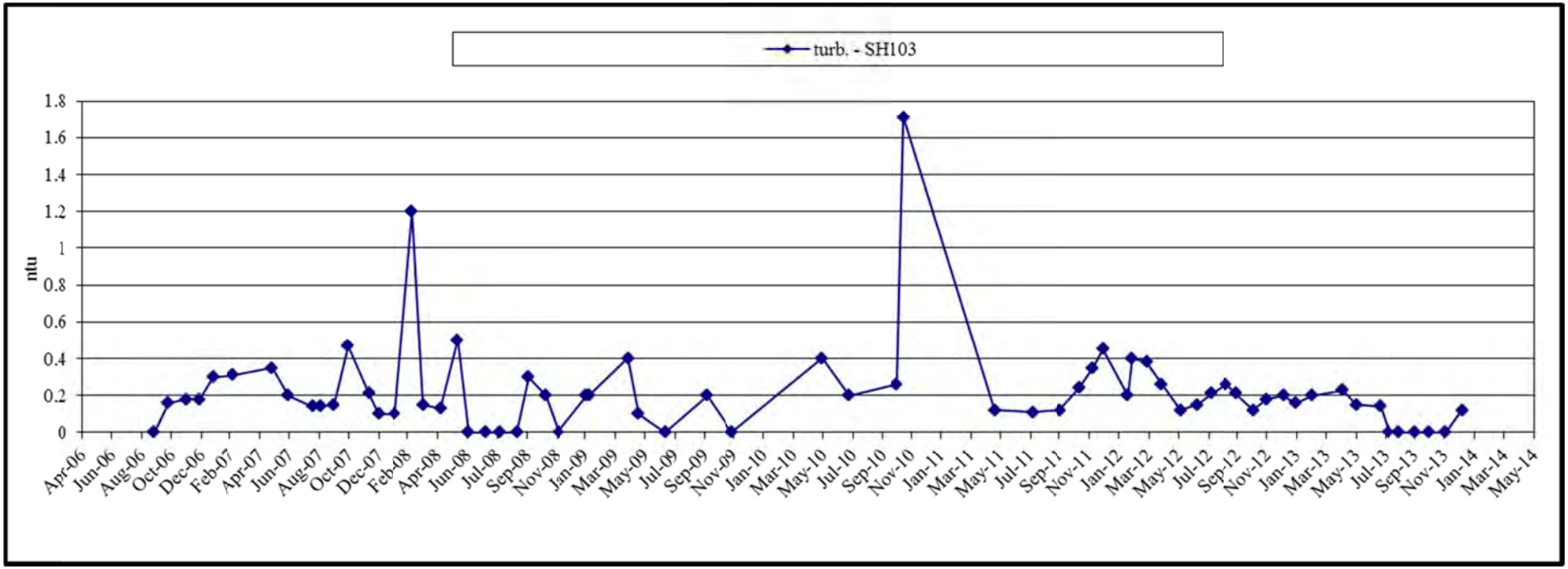


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

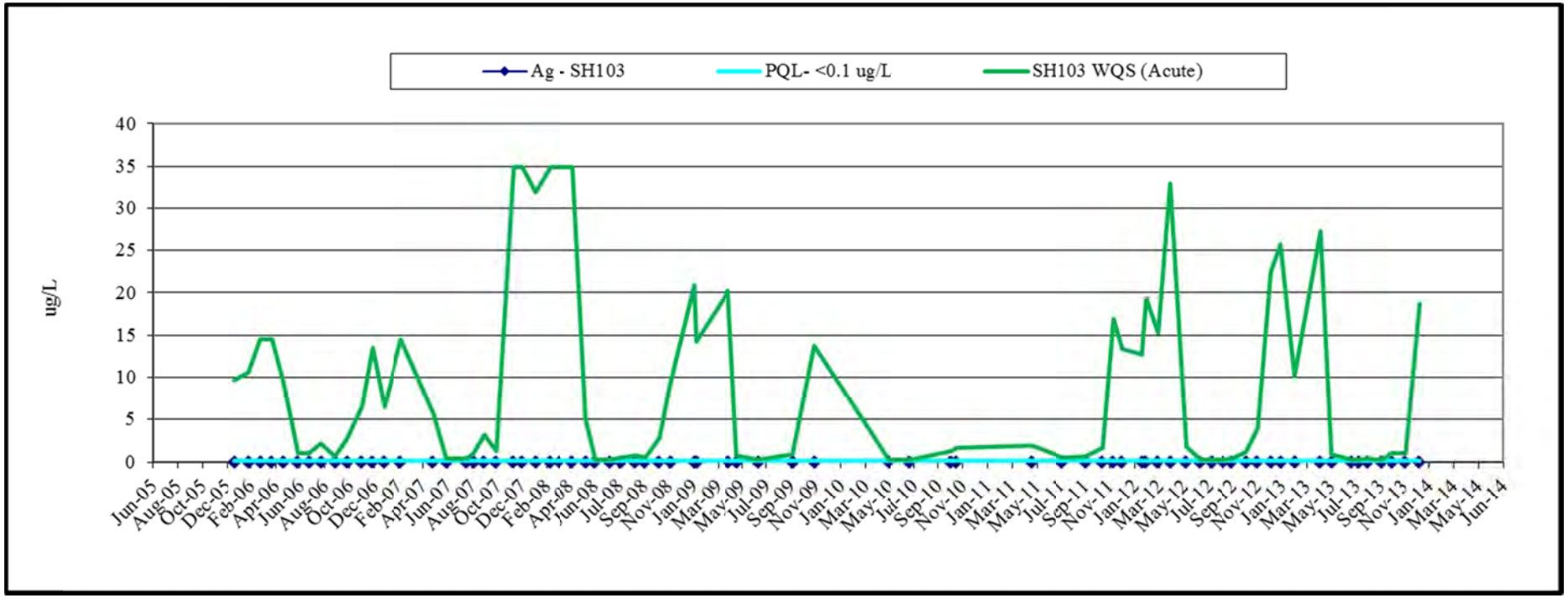


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

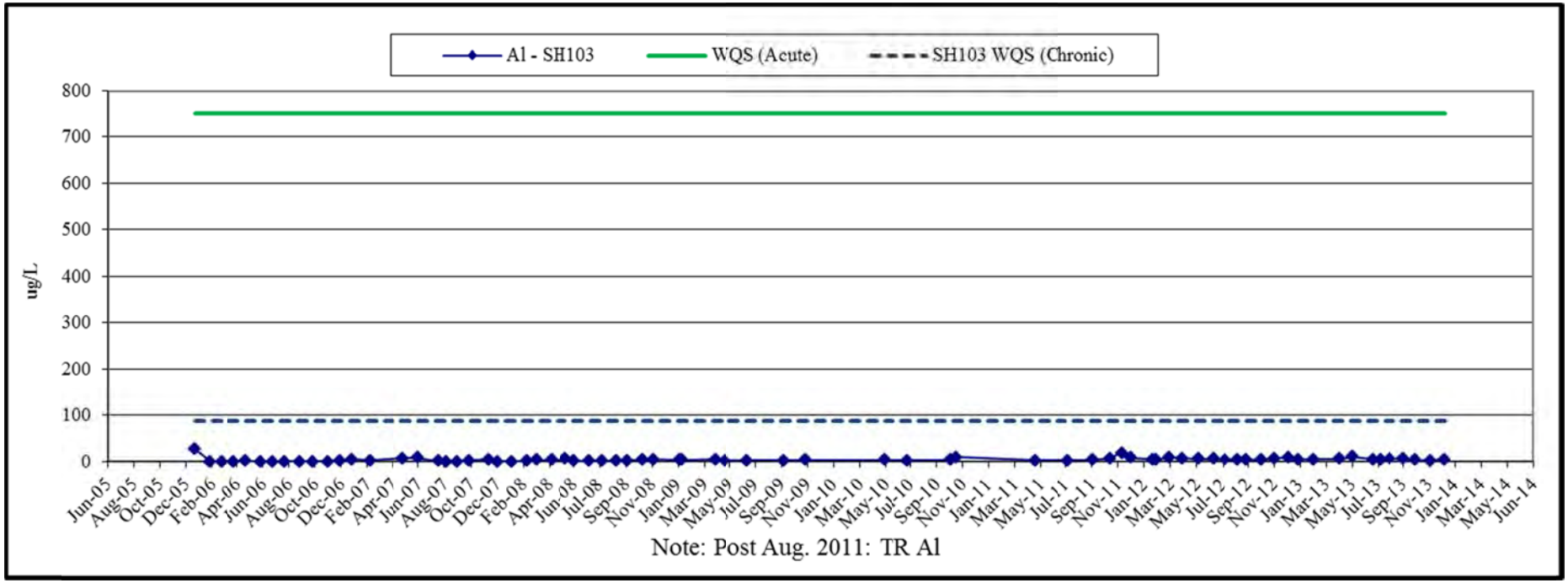


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

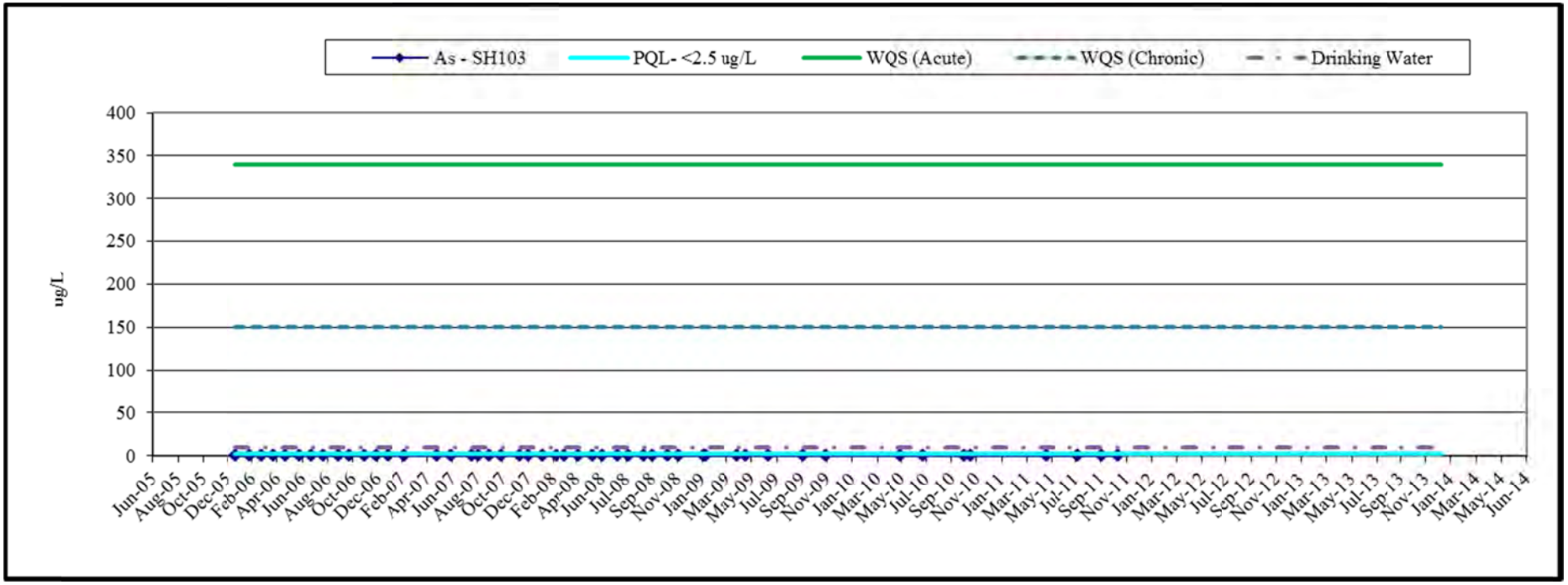


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

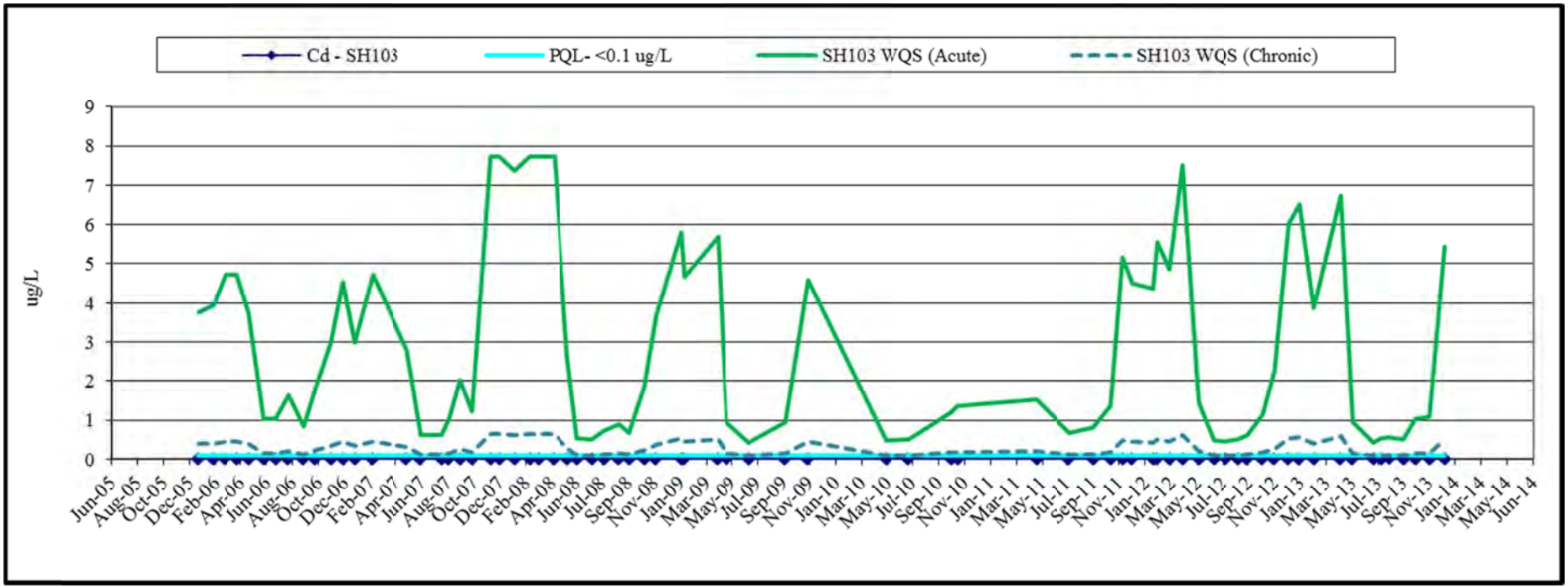


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

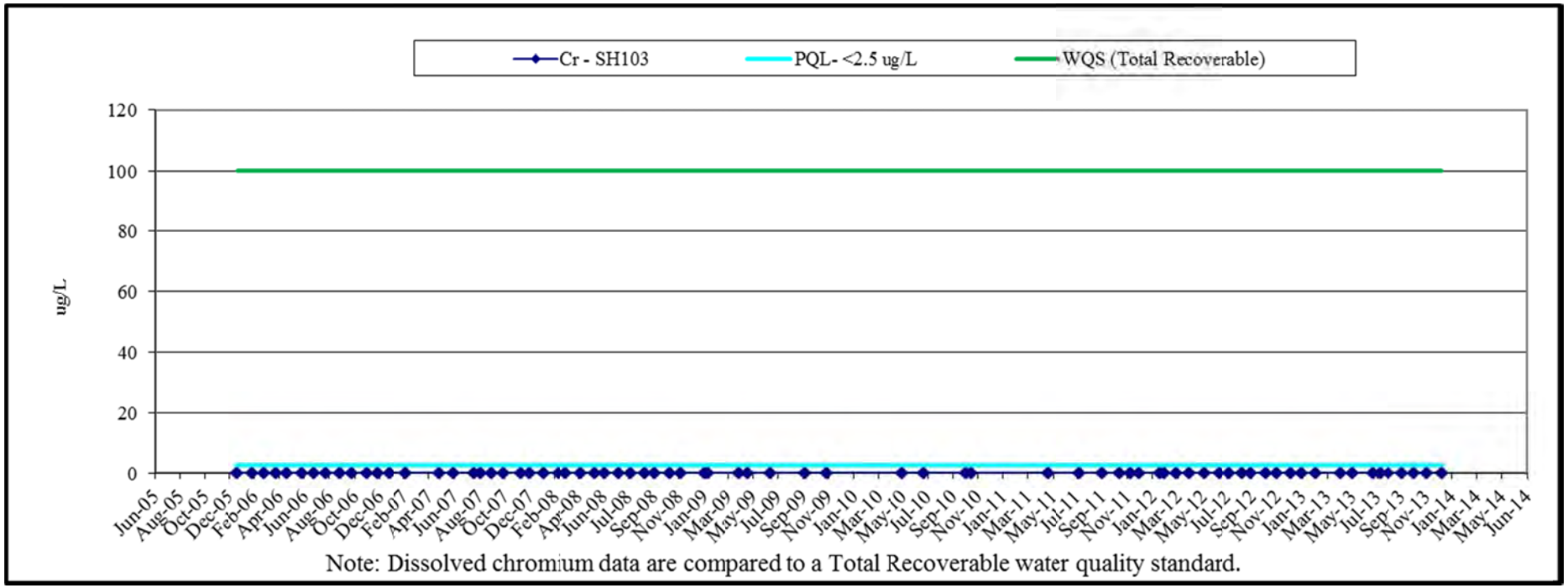


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

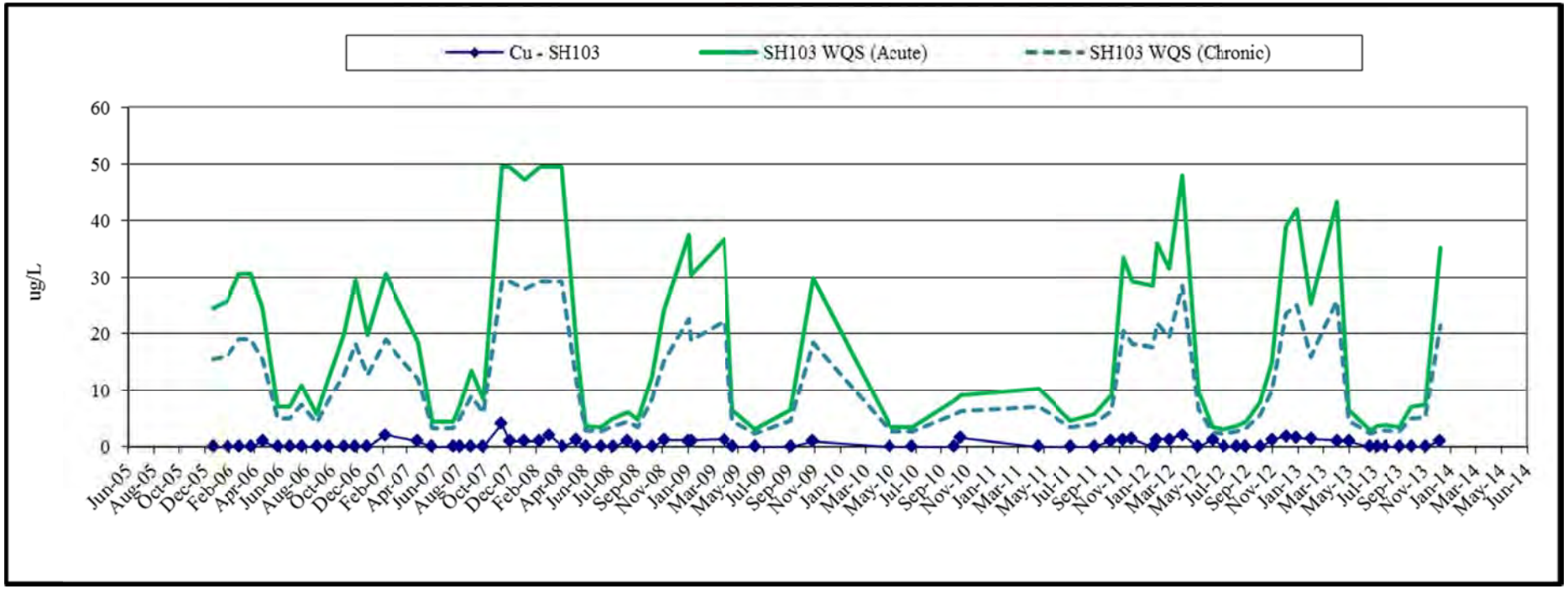


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

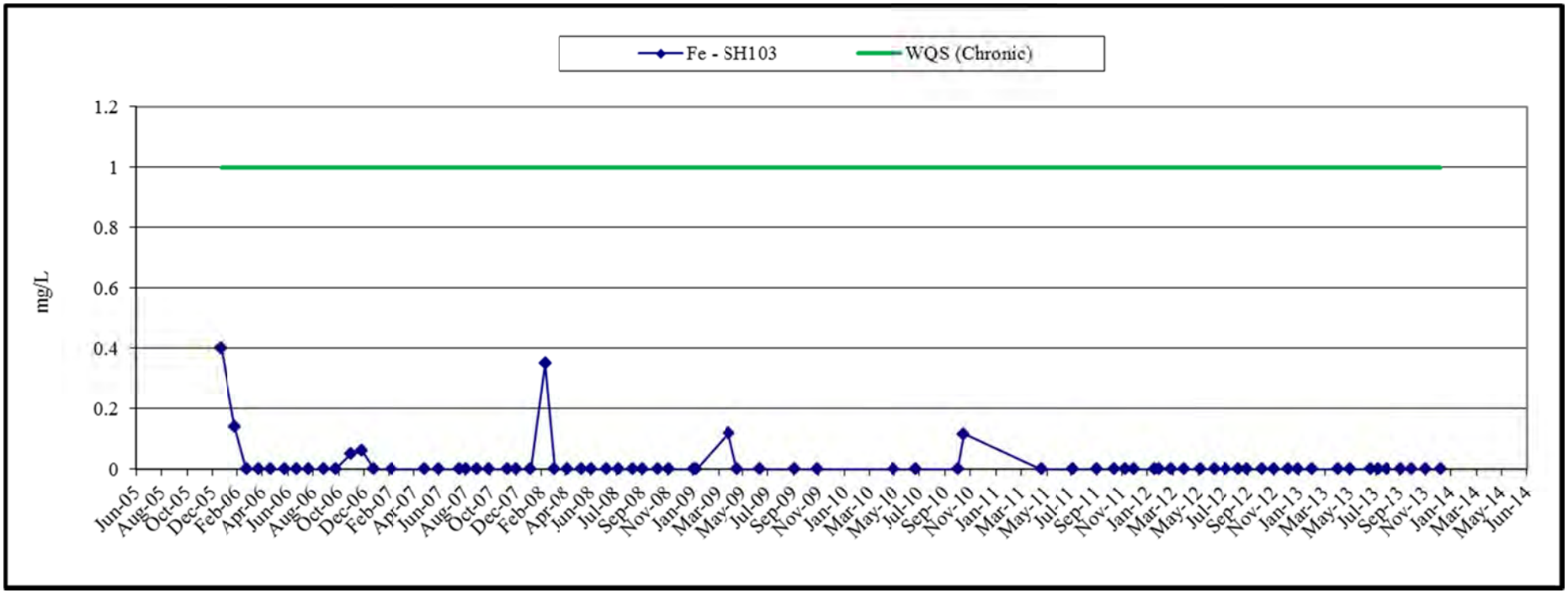


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

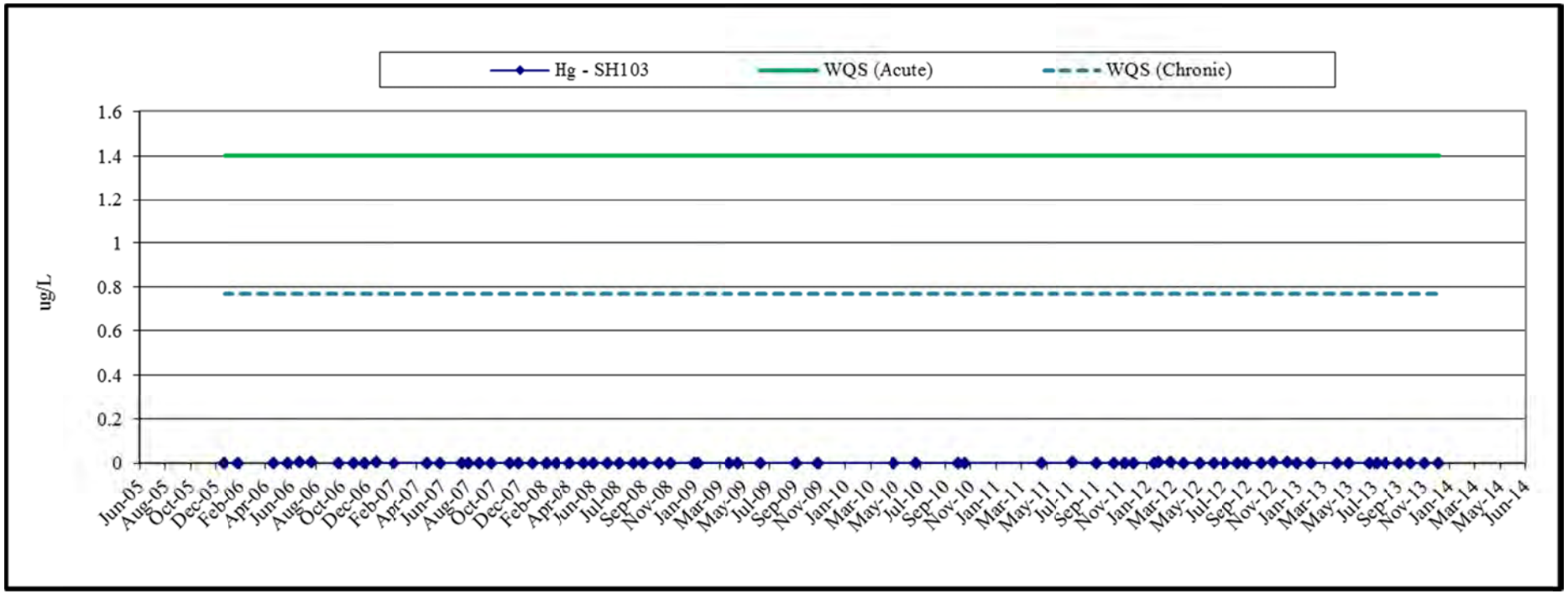


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

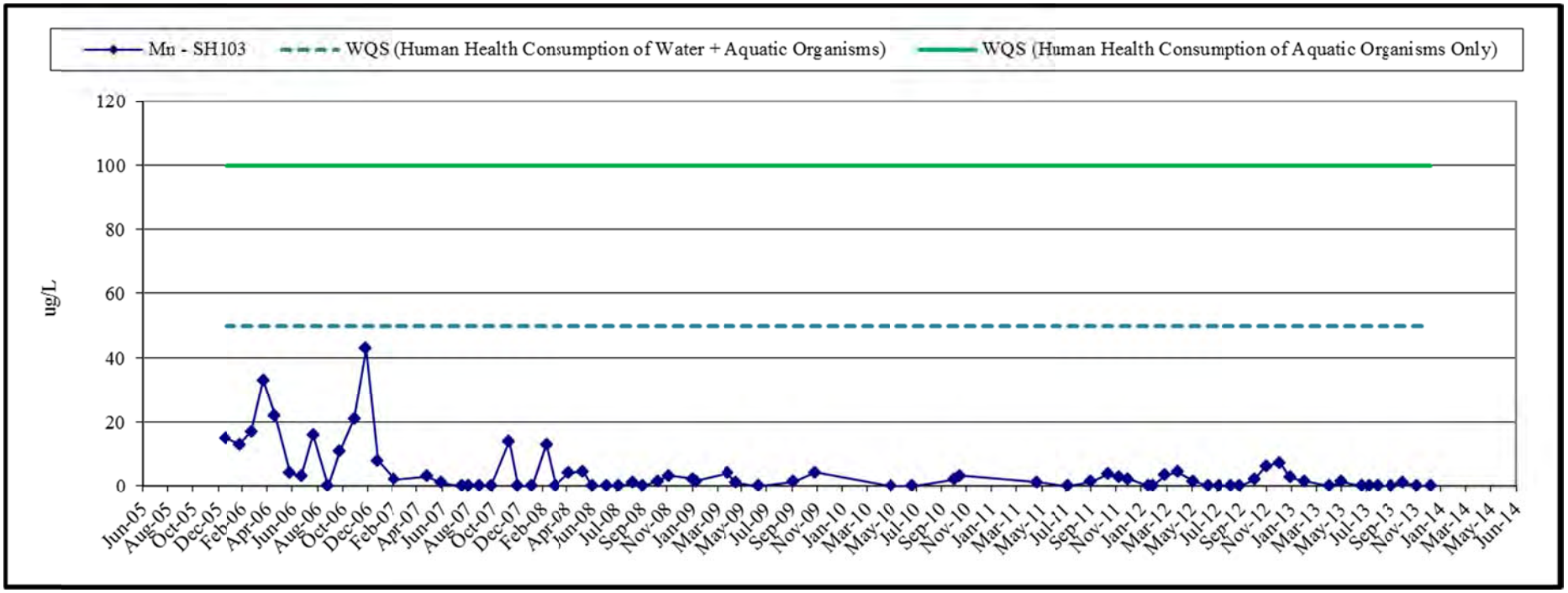


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

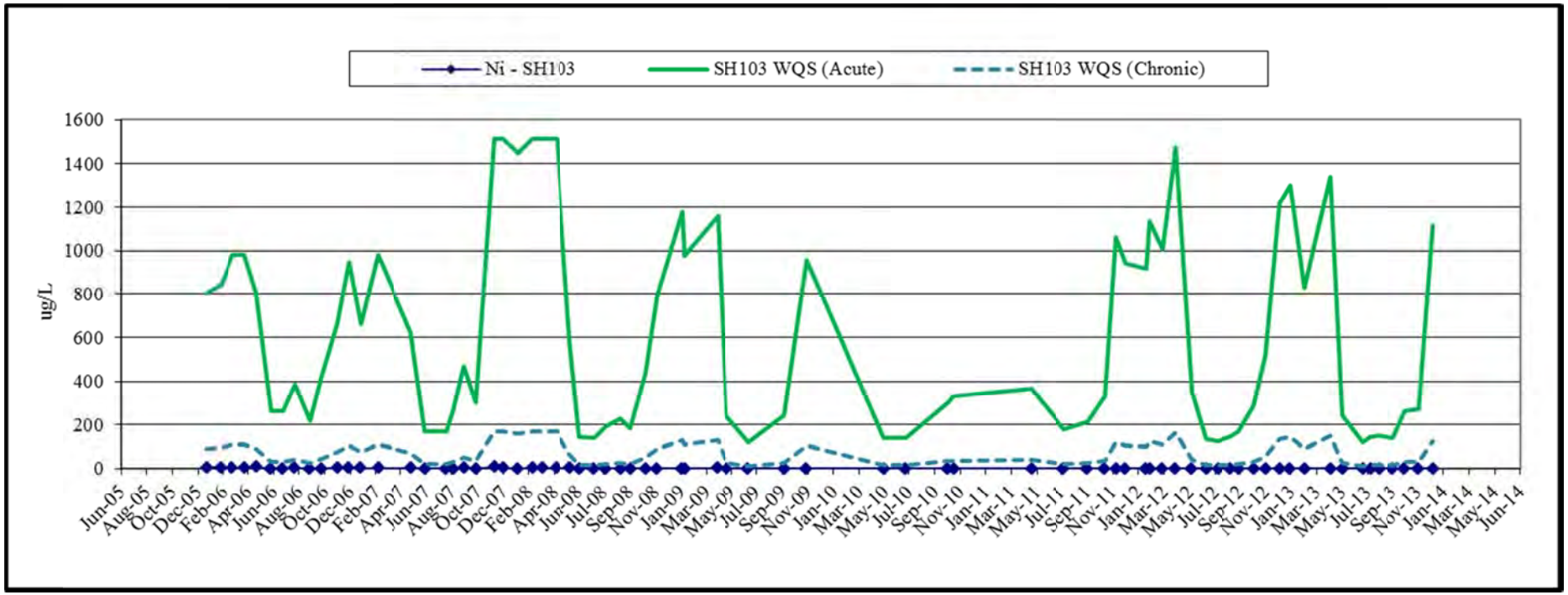


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

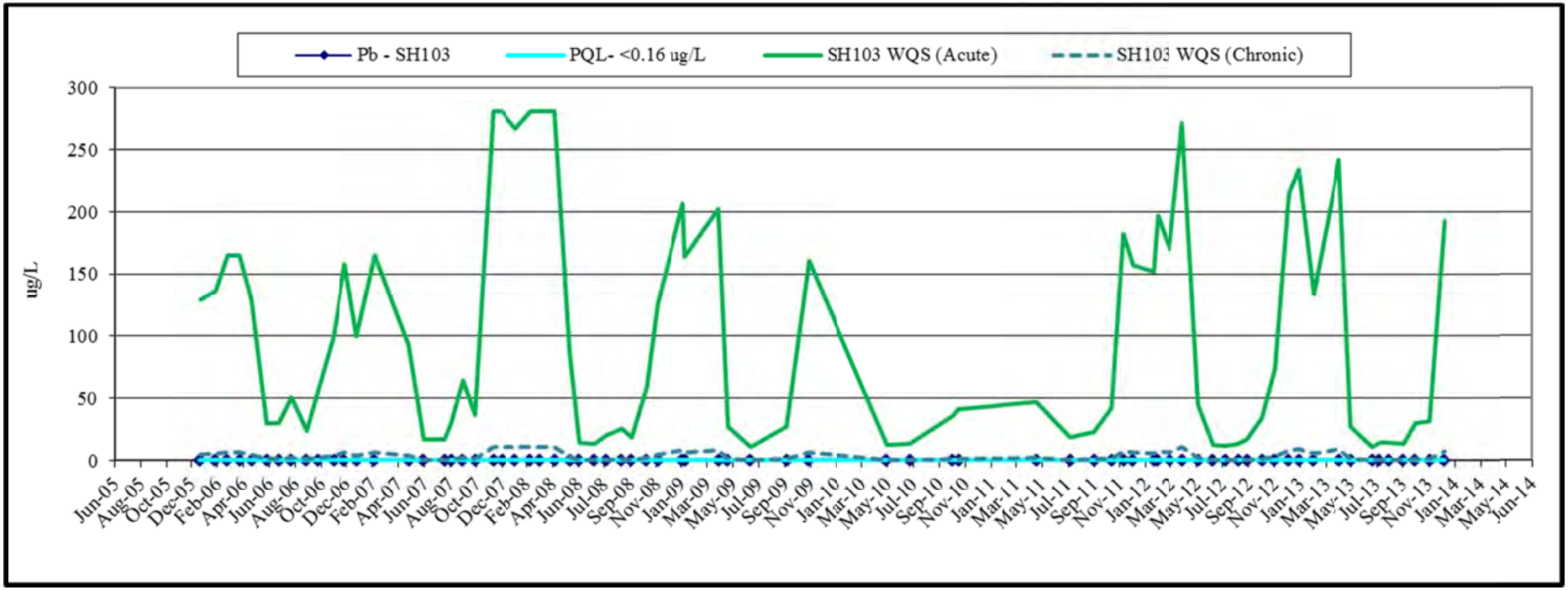


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

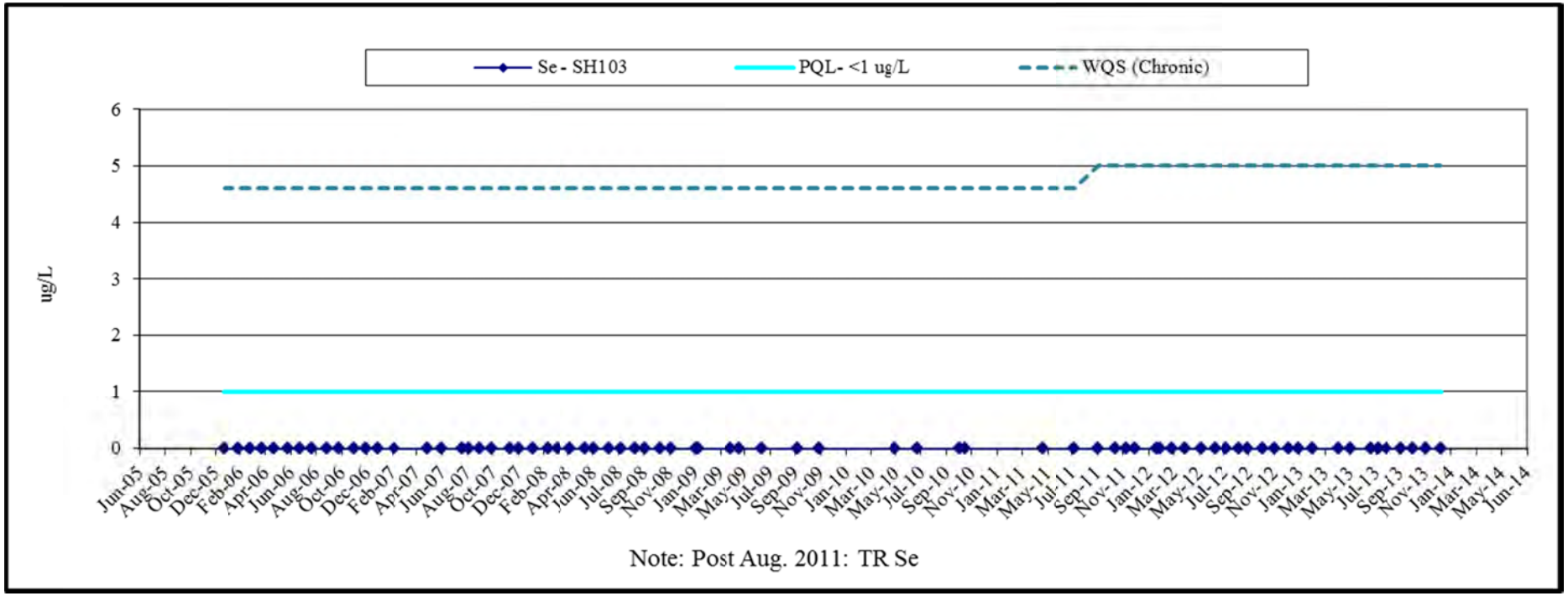


Figure 16c: Ophir Creek (SH103) Monitoring Results 2006-2013, Trace Chemistry

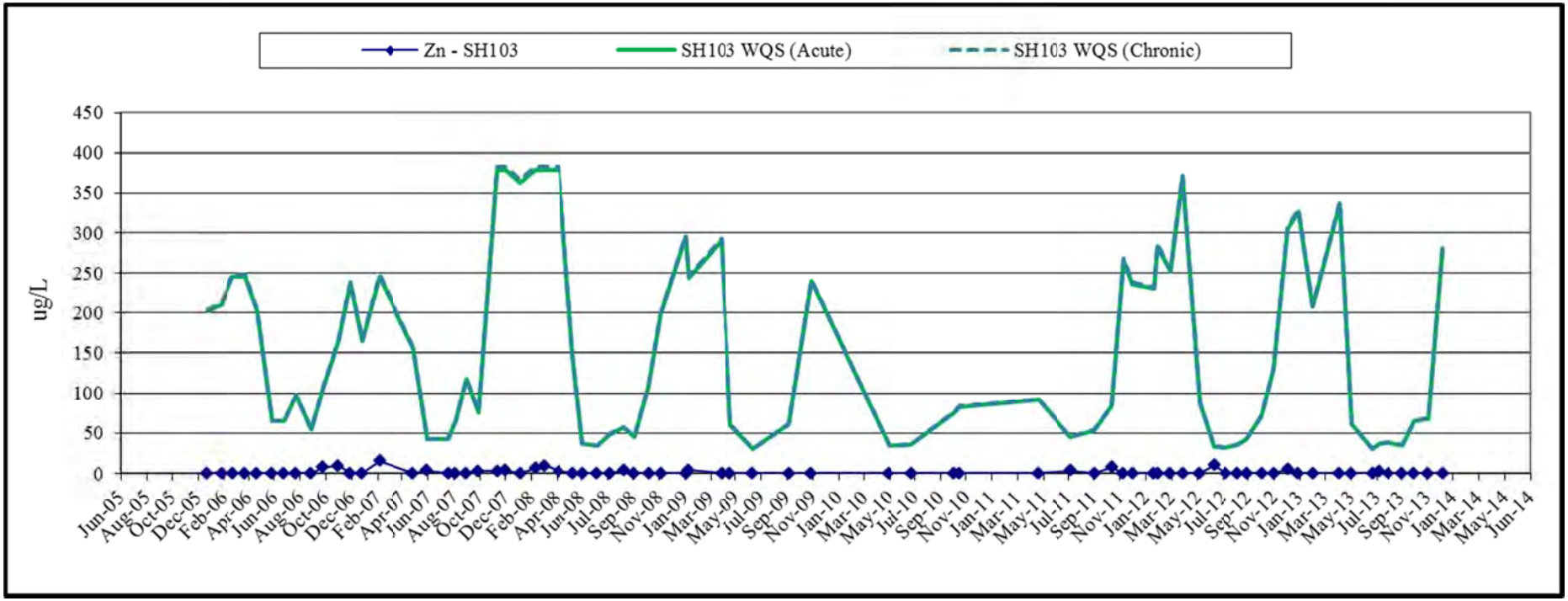


Figure 17a: Ophir Creek (SH111) Monitoring Results 2006-2013, Field Parameters

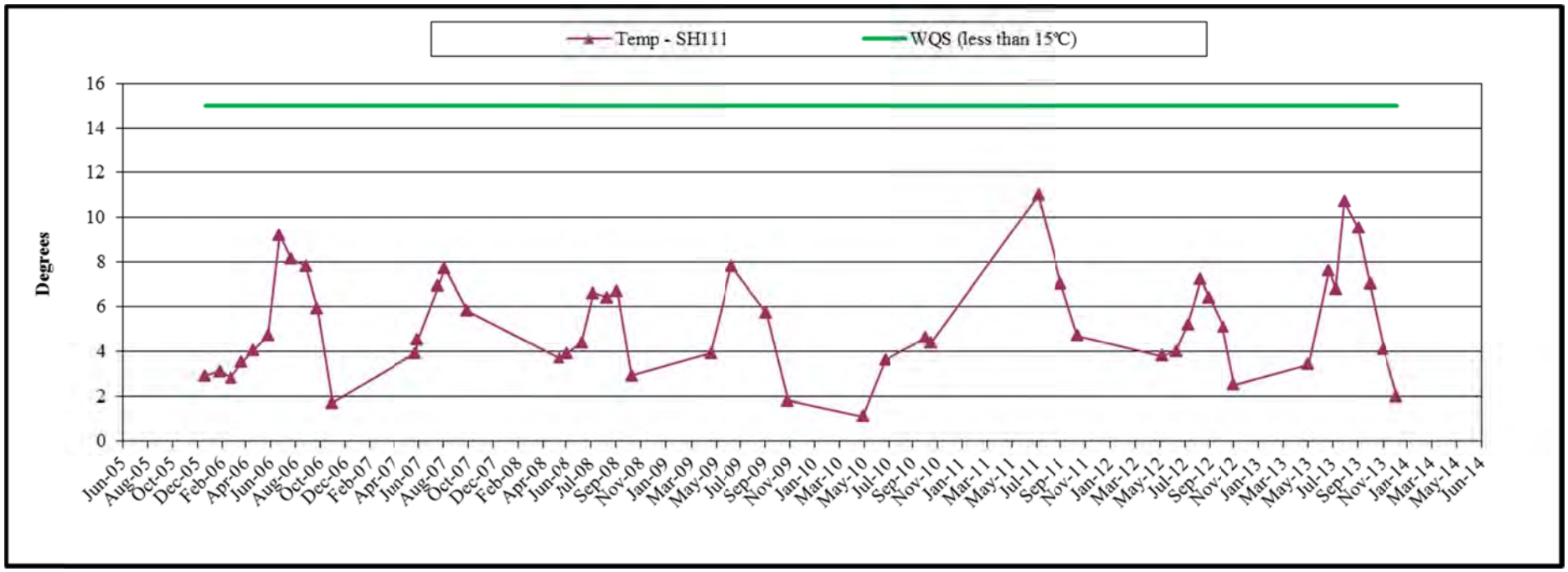


Figure 17a: Ophir Creek (SH111) Monitoring Results 2006-2013, Field Parameters

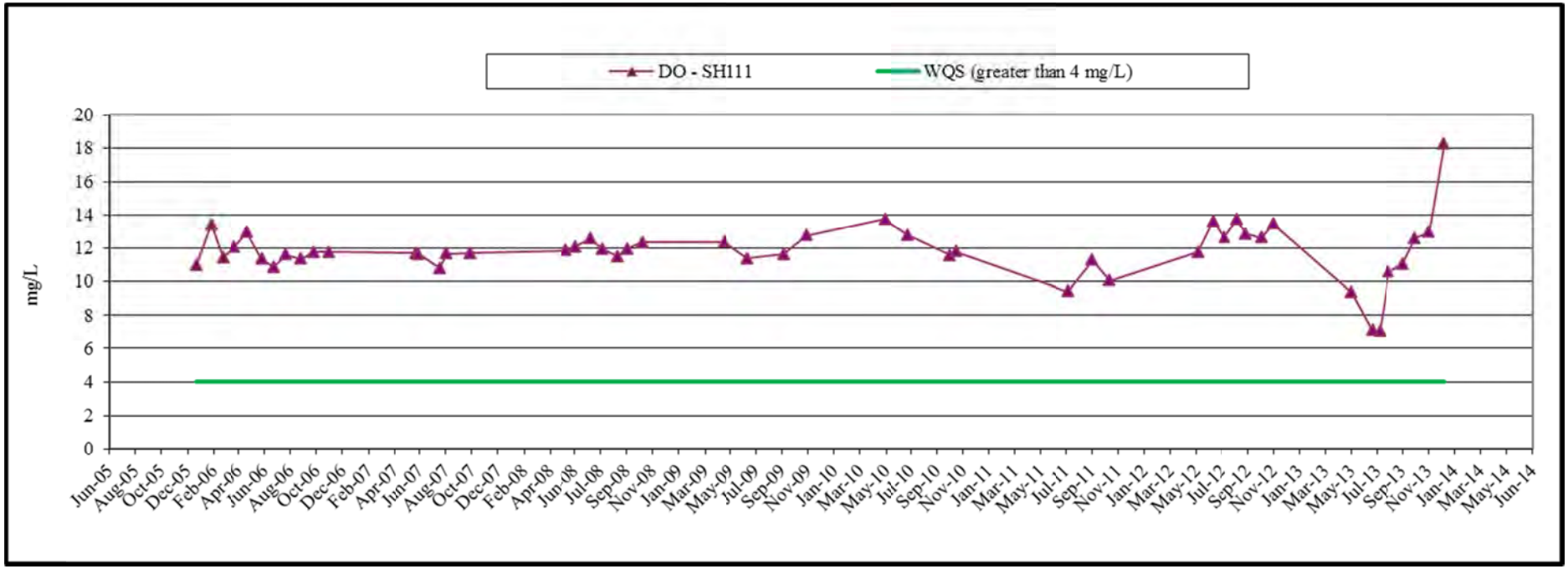


Figure 17a: Ophir Creek (SH111) Monitoring Results 2006-2013, Field Parameters

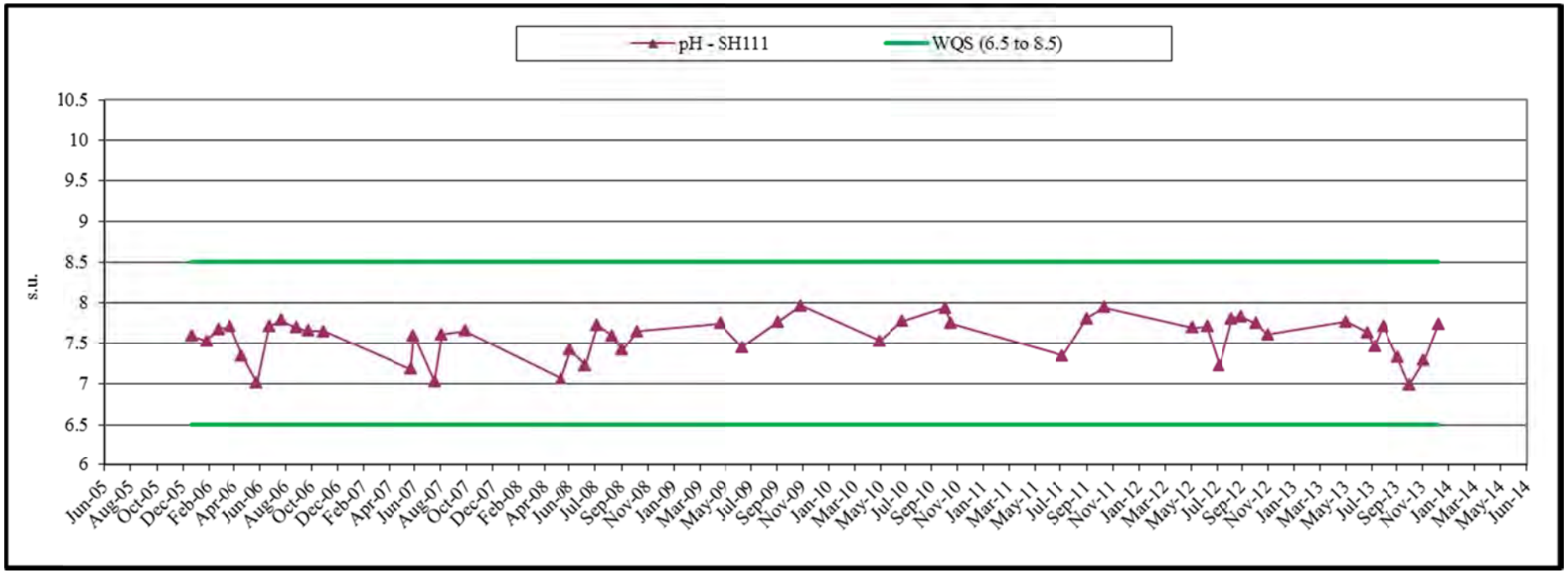


Figure 17a: Ophir Creek (SH111) Monitoring Results 2006-2013, Field Parameters

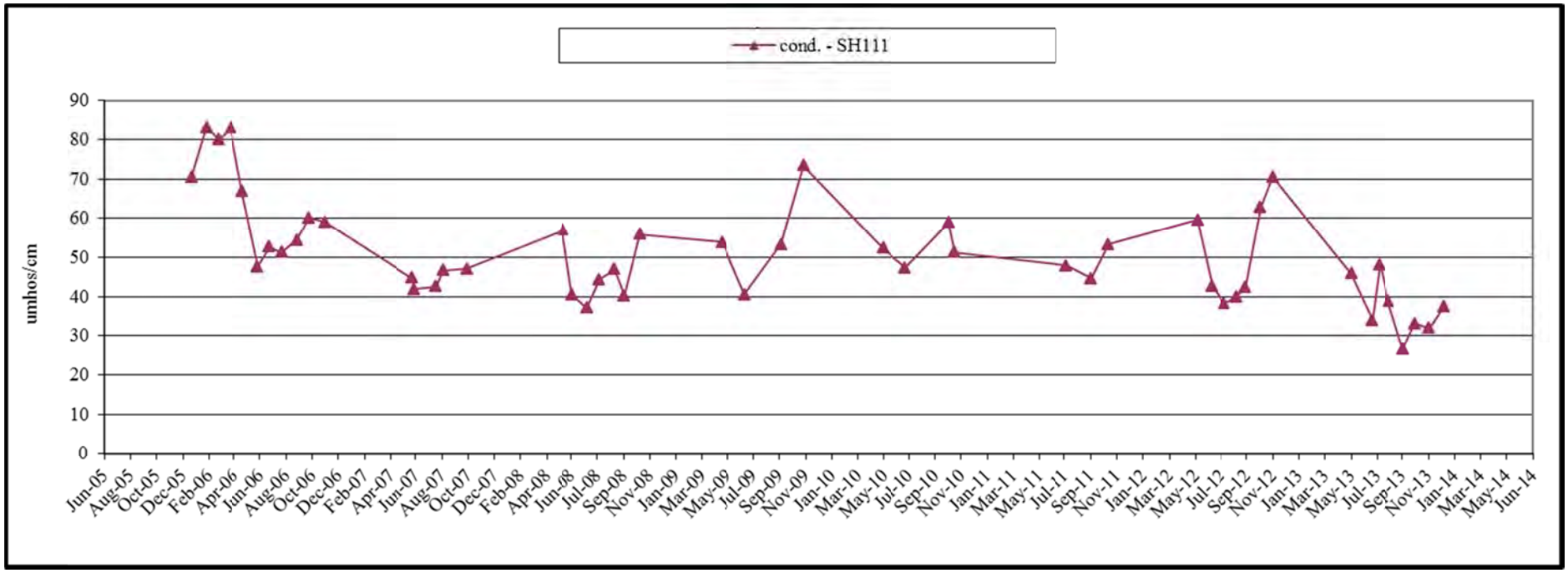


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

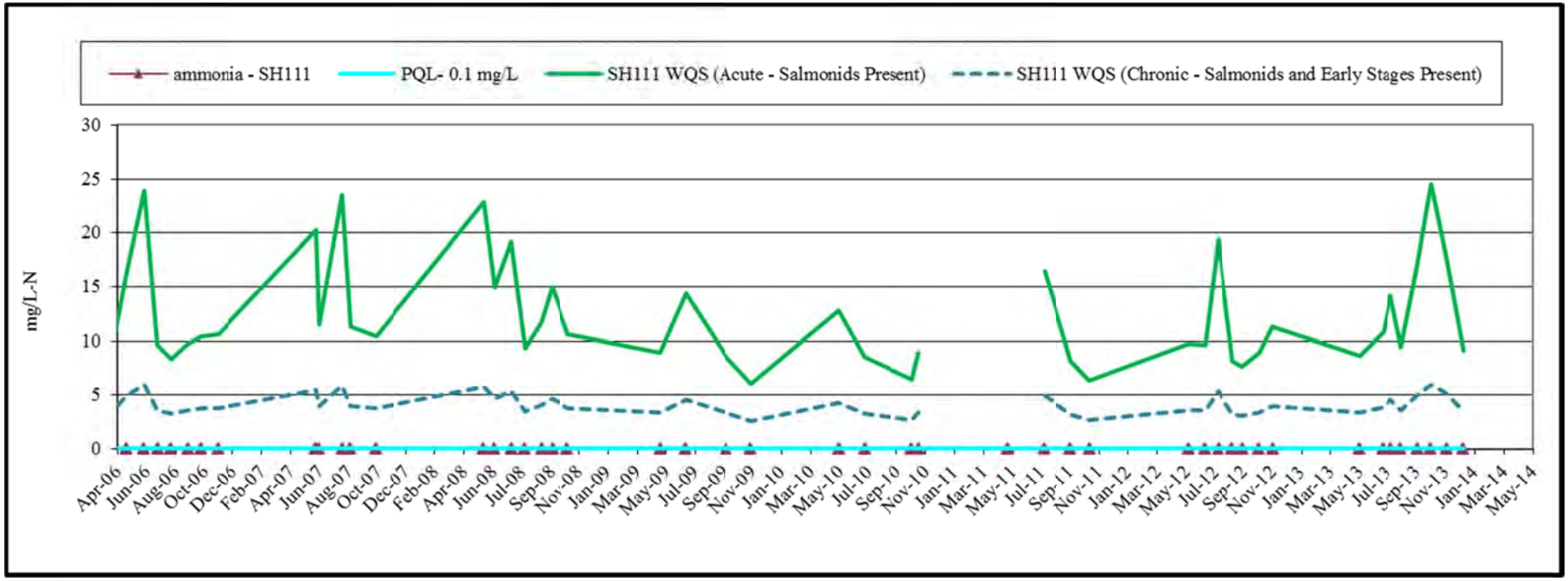


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

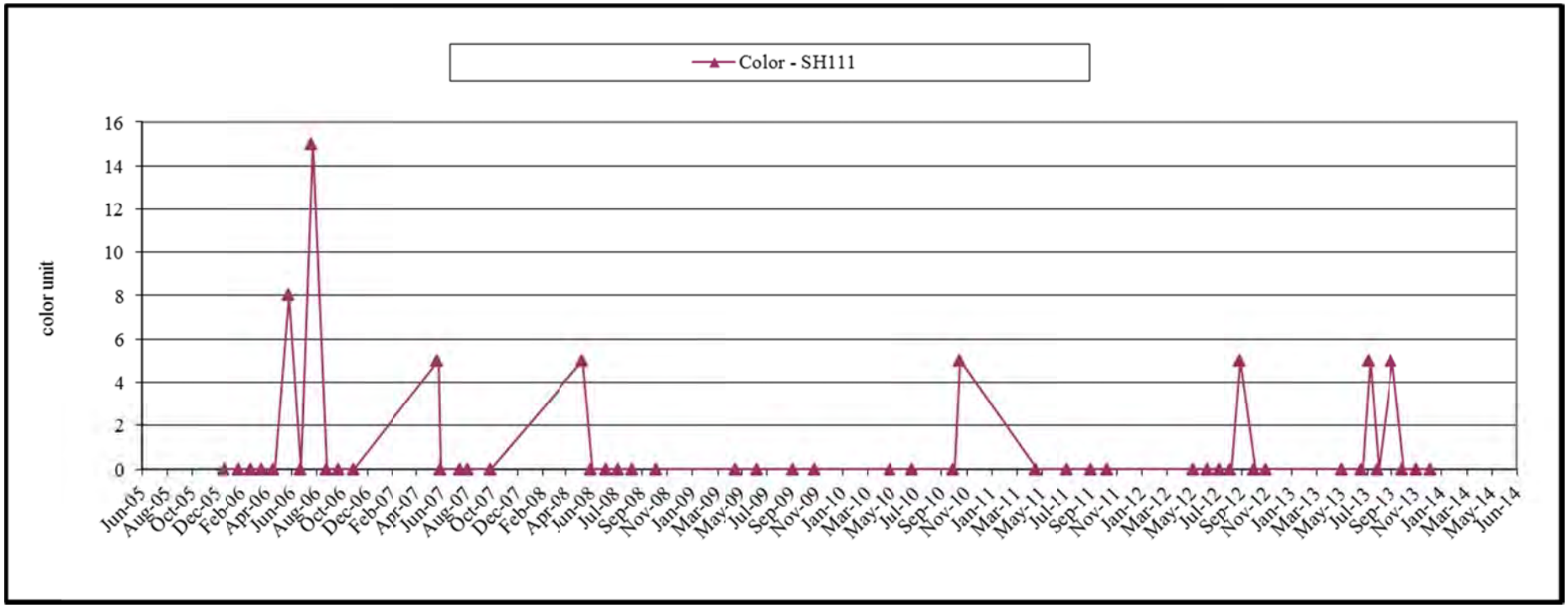


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

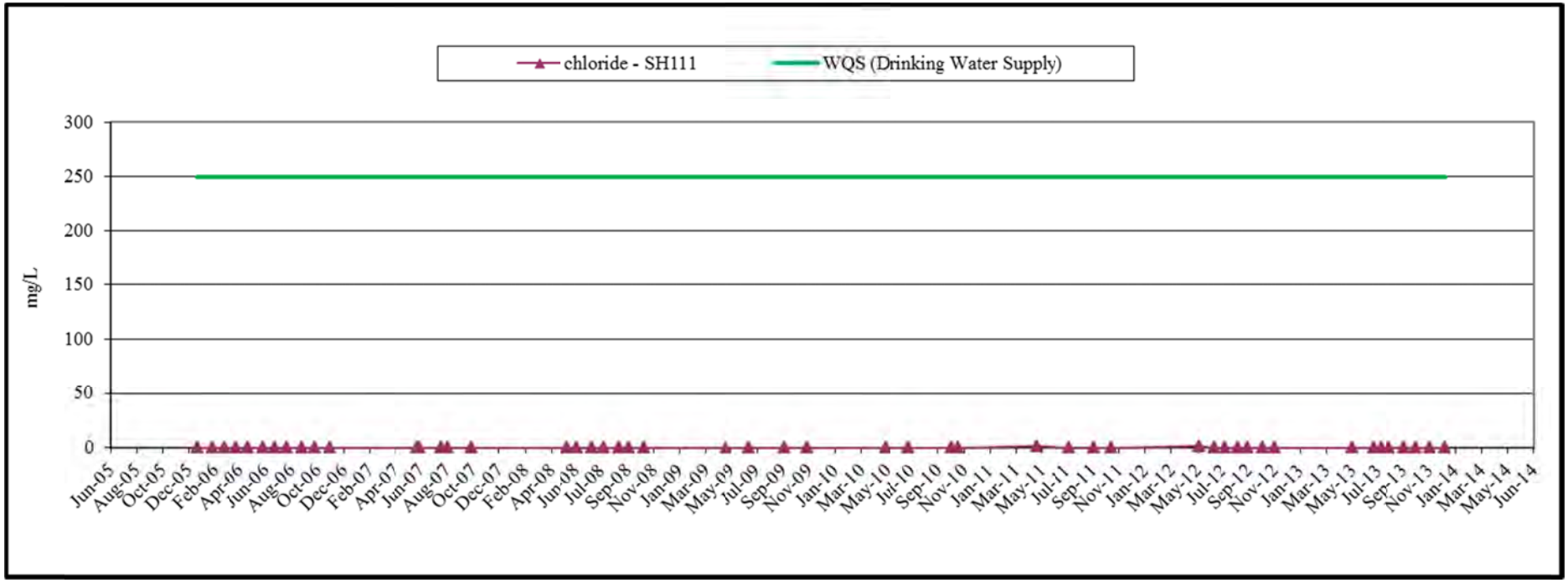


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

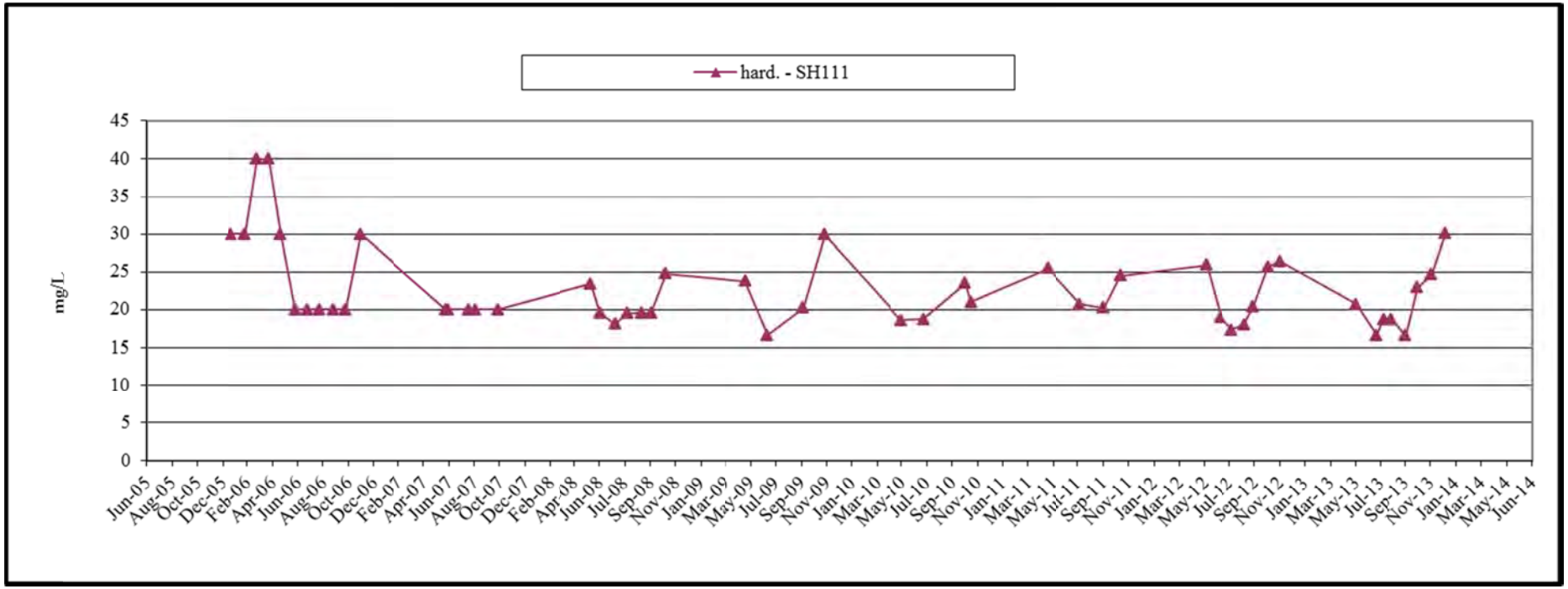


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

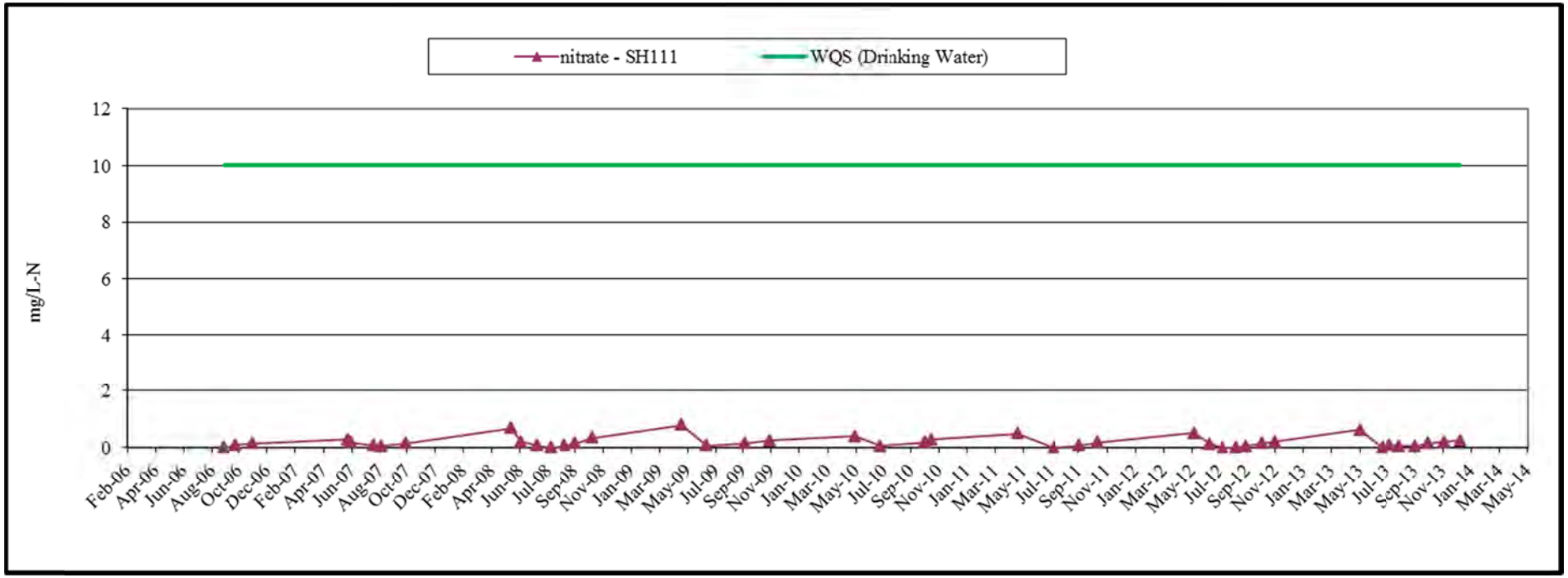


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

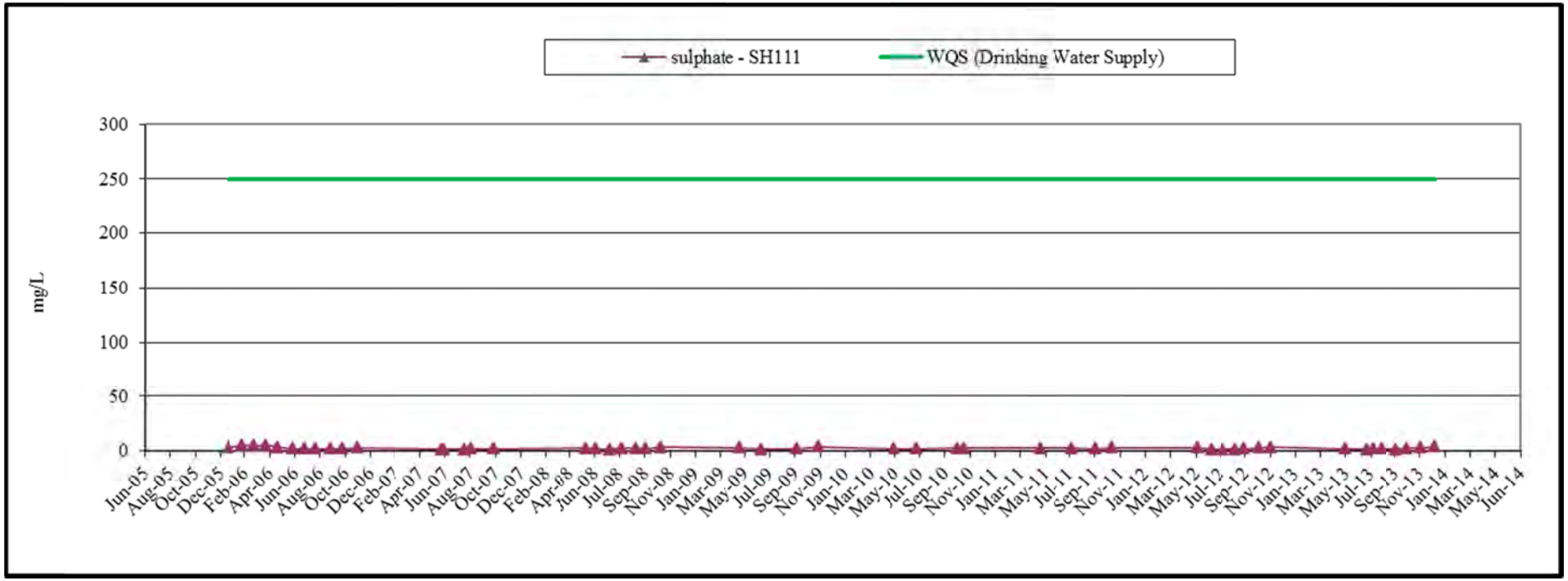


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

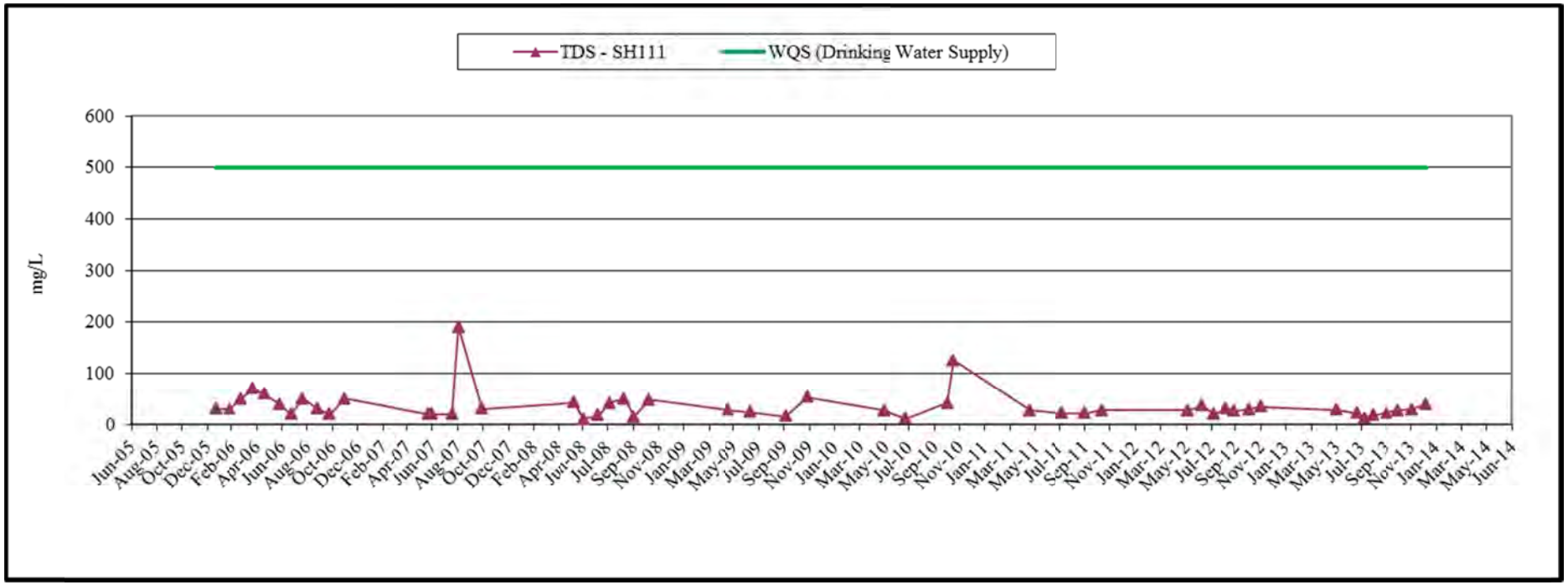


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

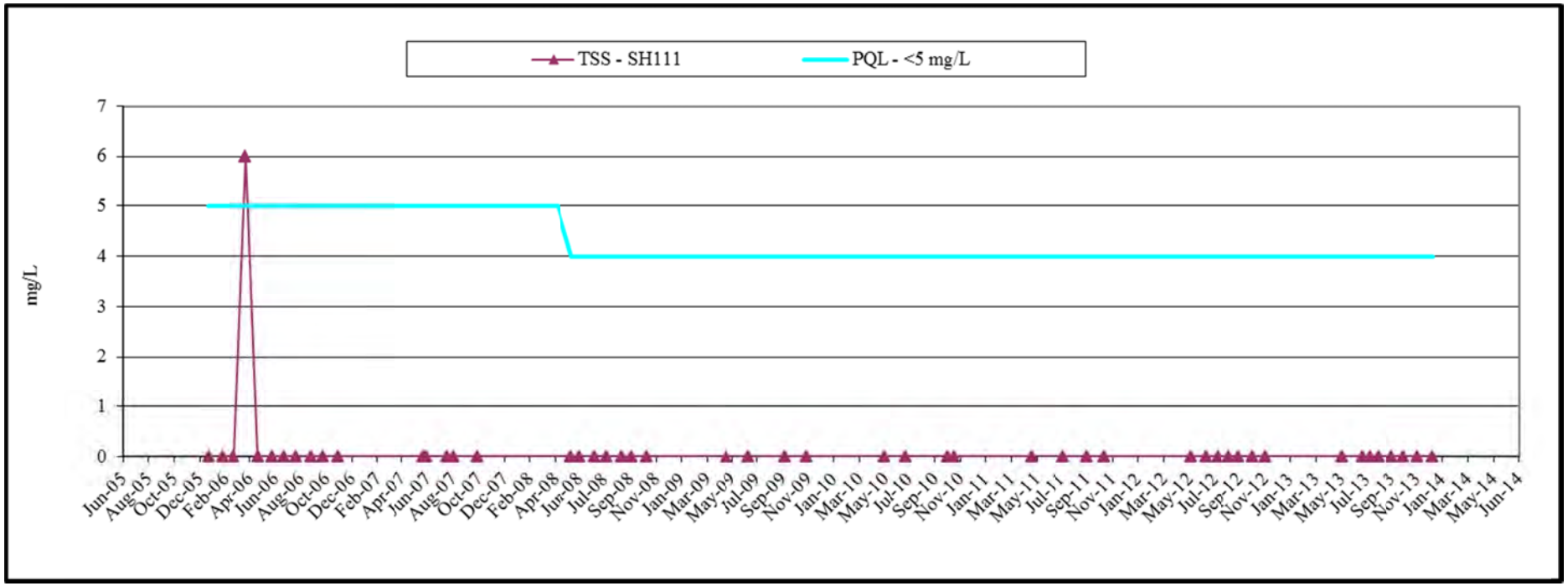


Figure 17b: Ophir Creek (SH111) Monitoring Results 2006-2013, Major Chemistry

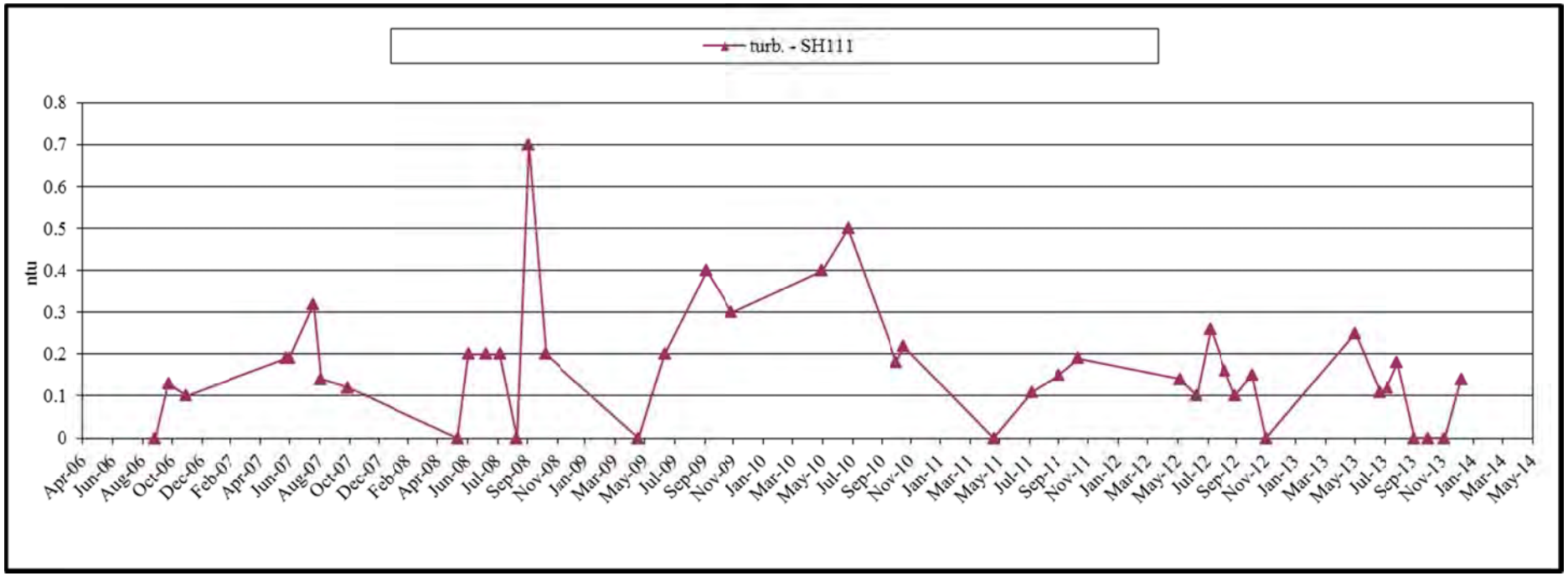


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

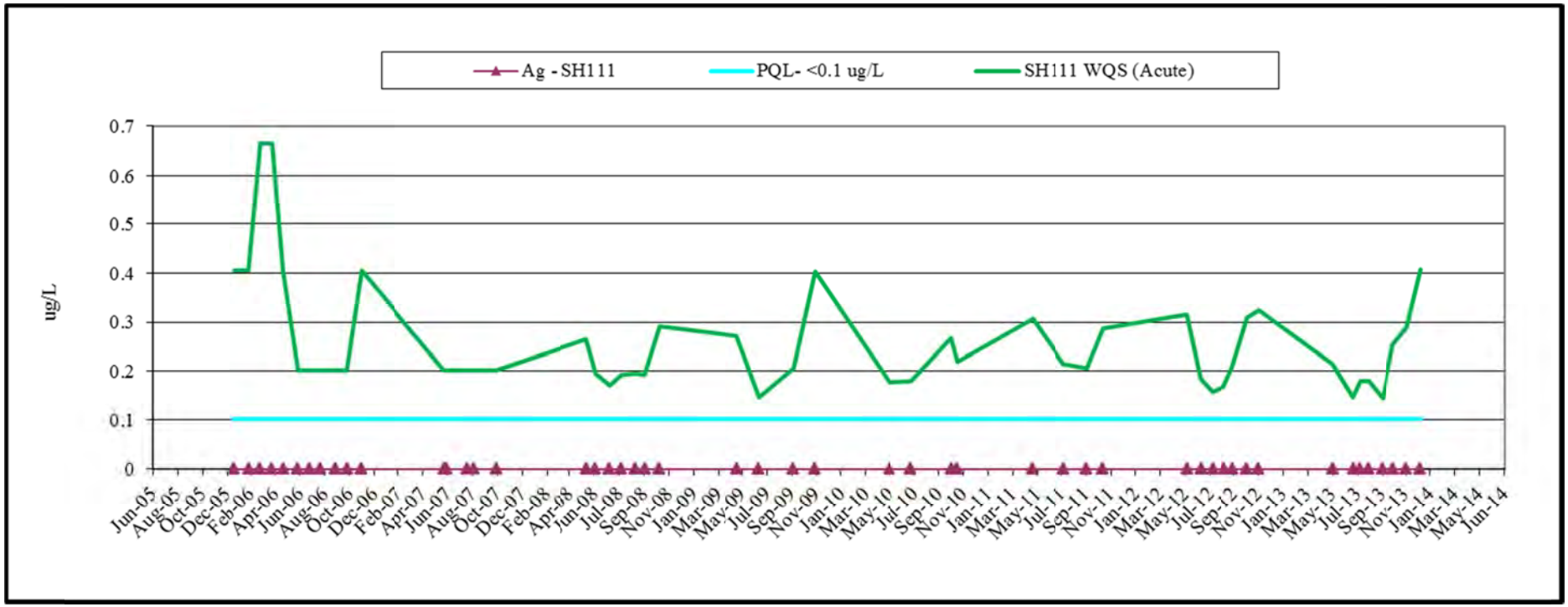


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

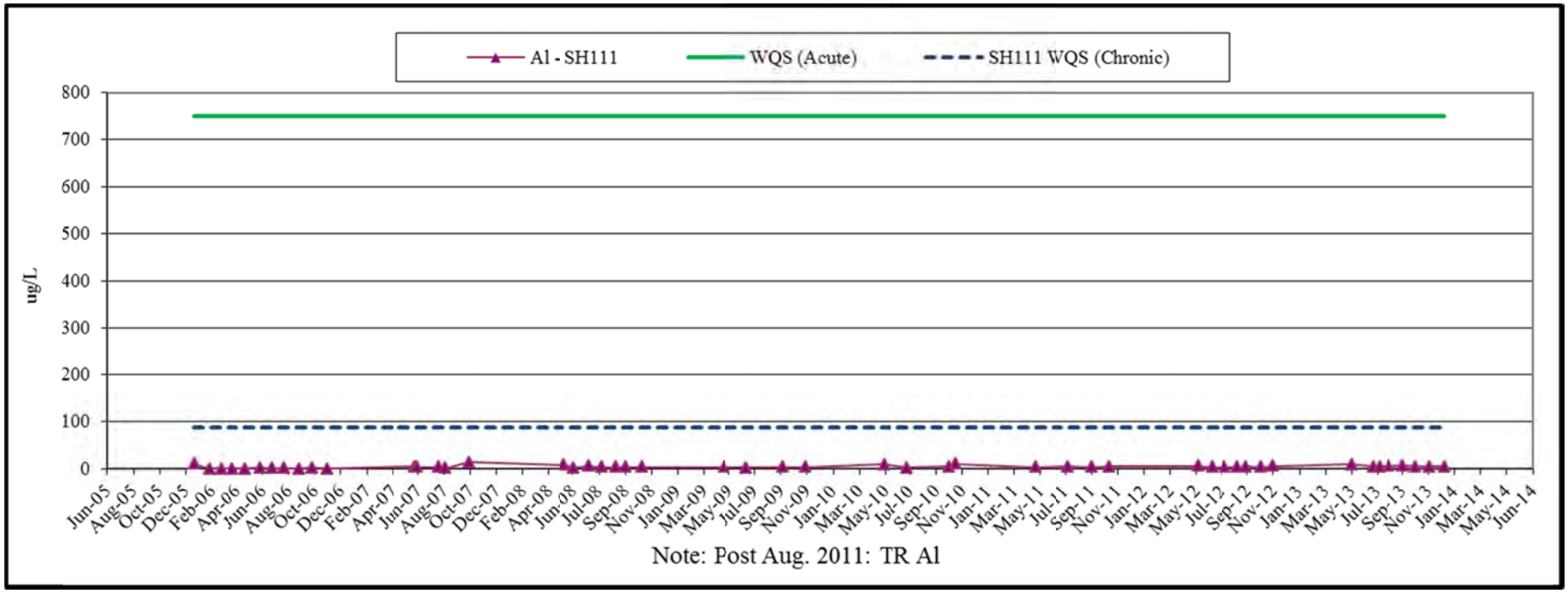


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

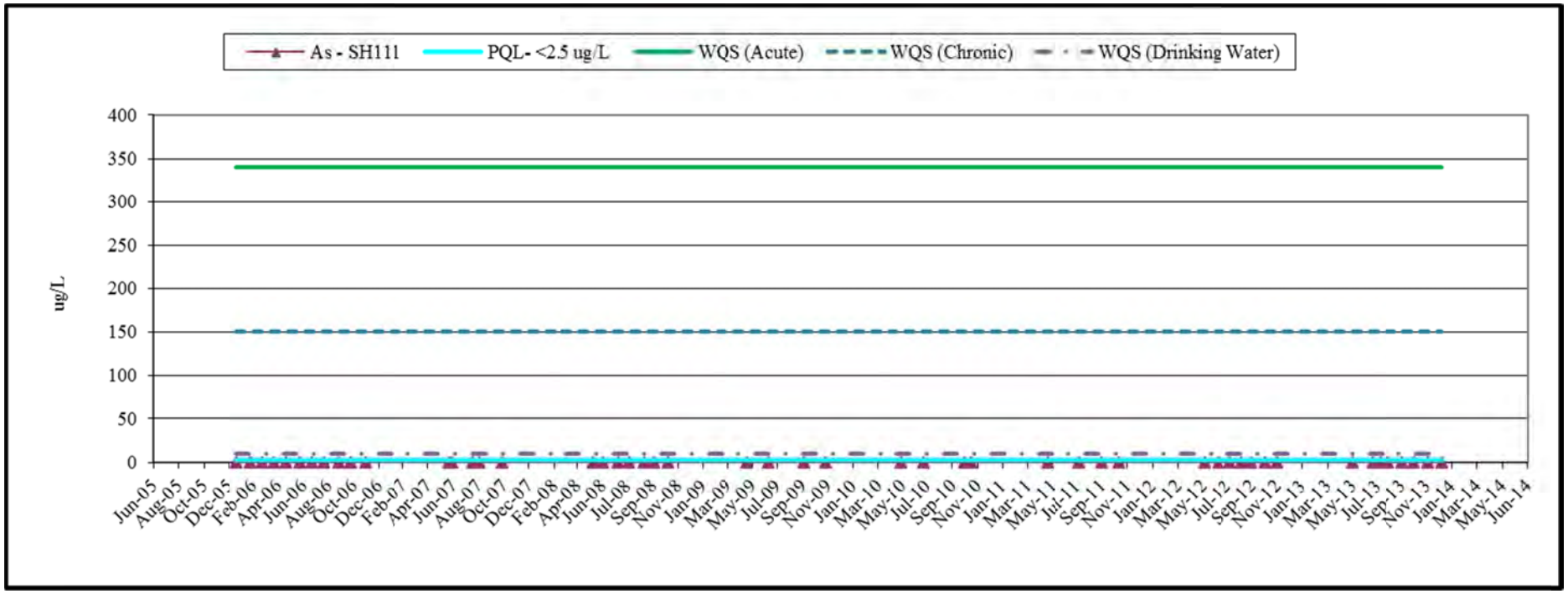


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

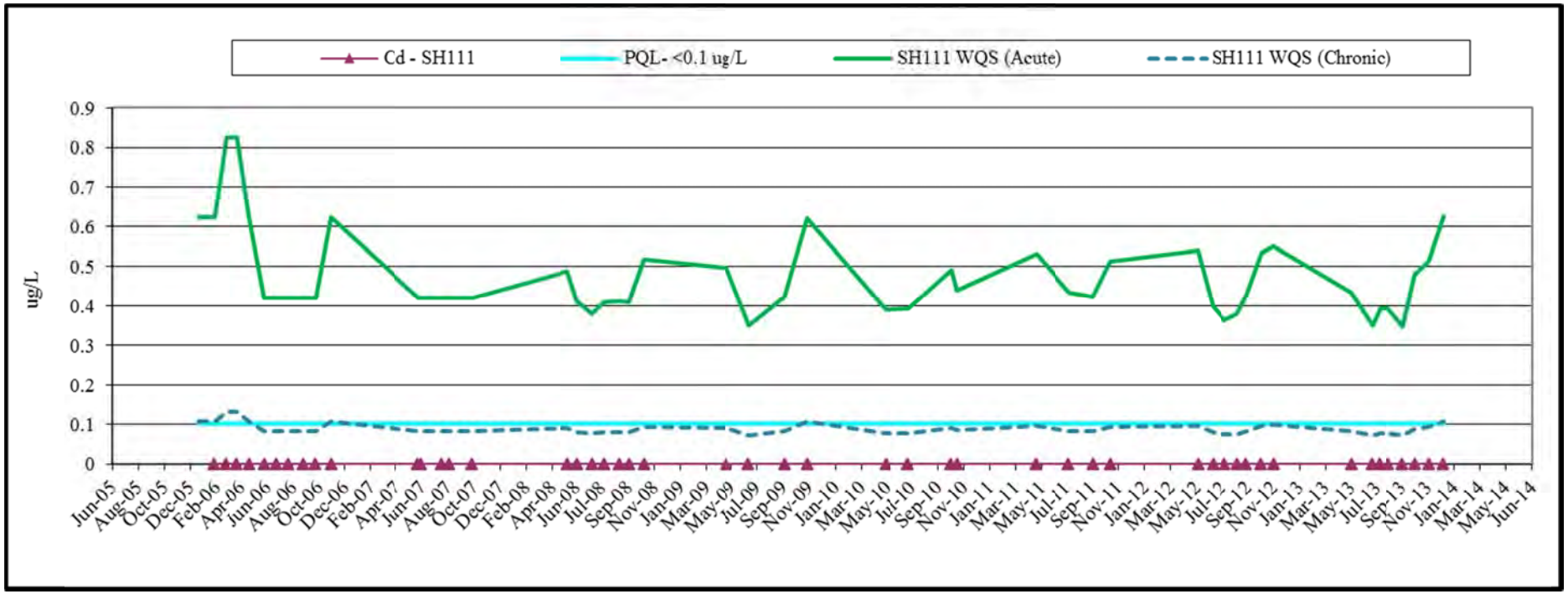
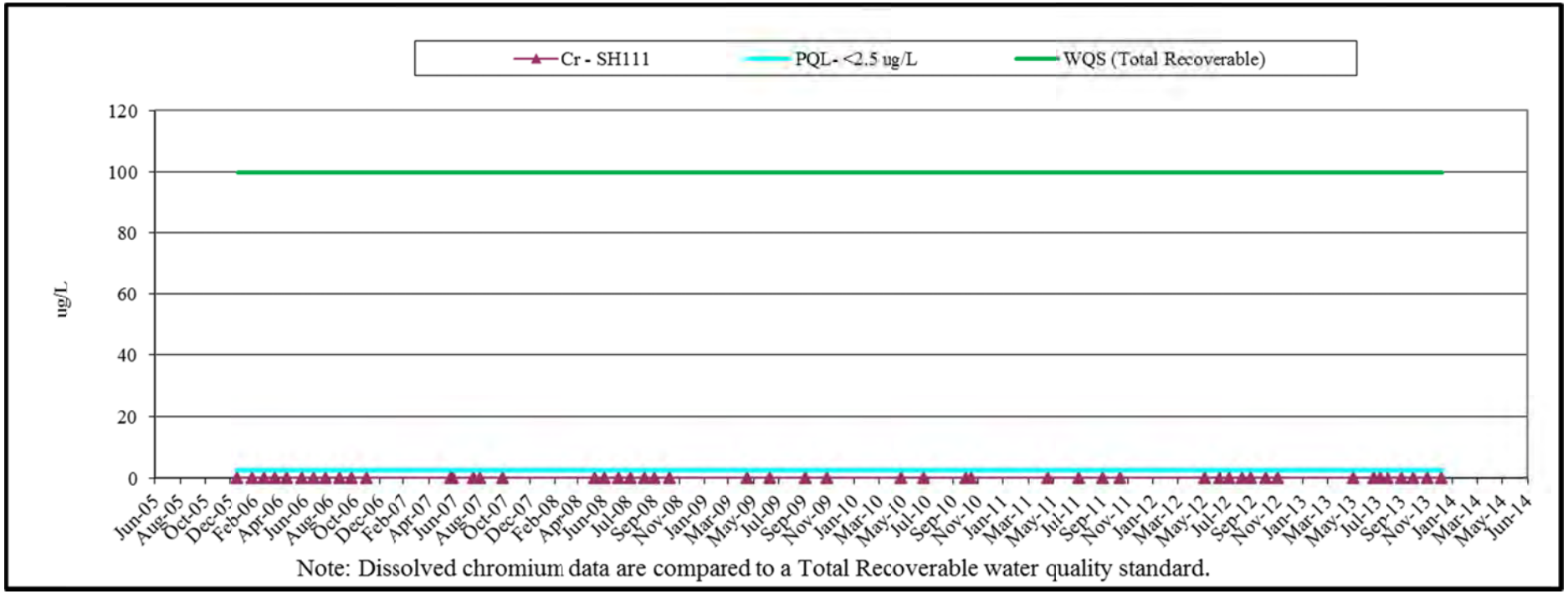


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry



Note: Dissolved chromium data are compared to a Total Recoverable water quality standard.

Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

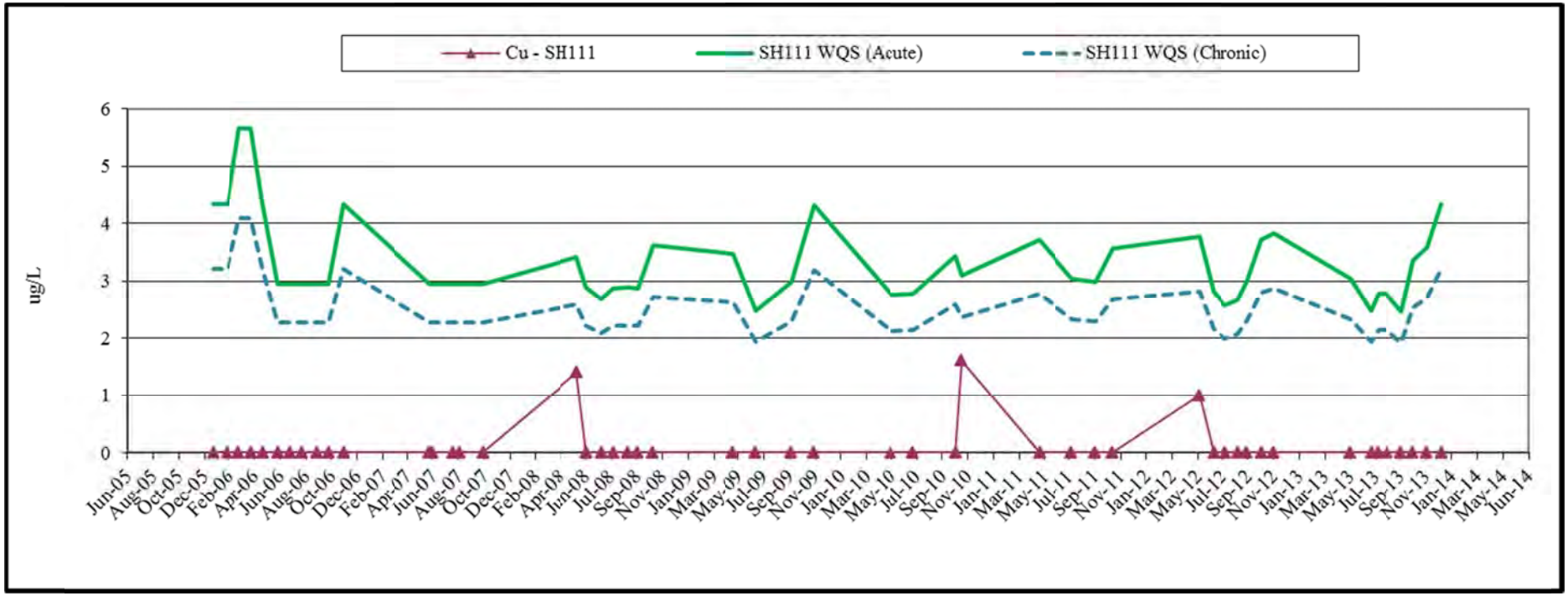


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

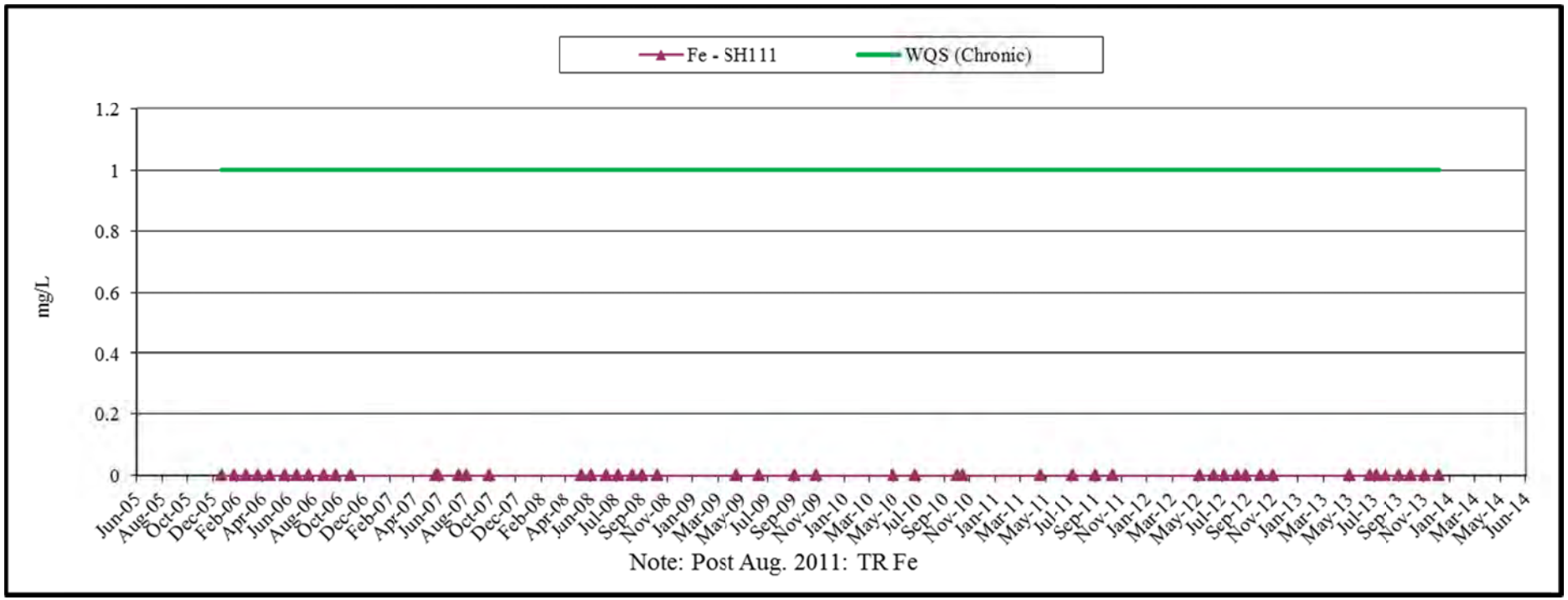


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

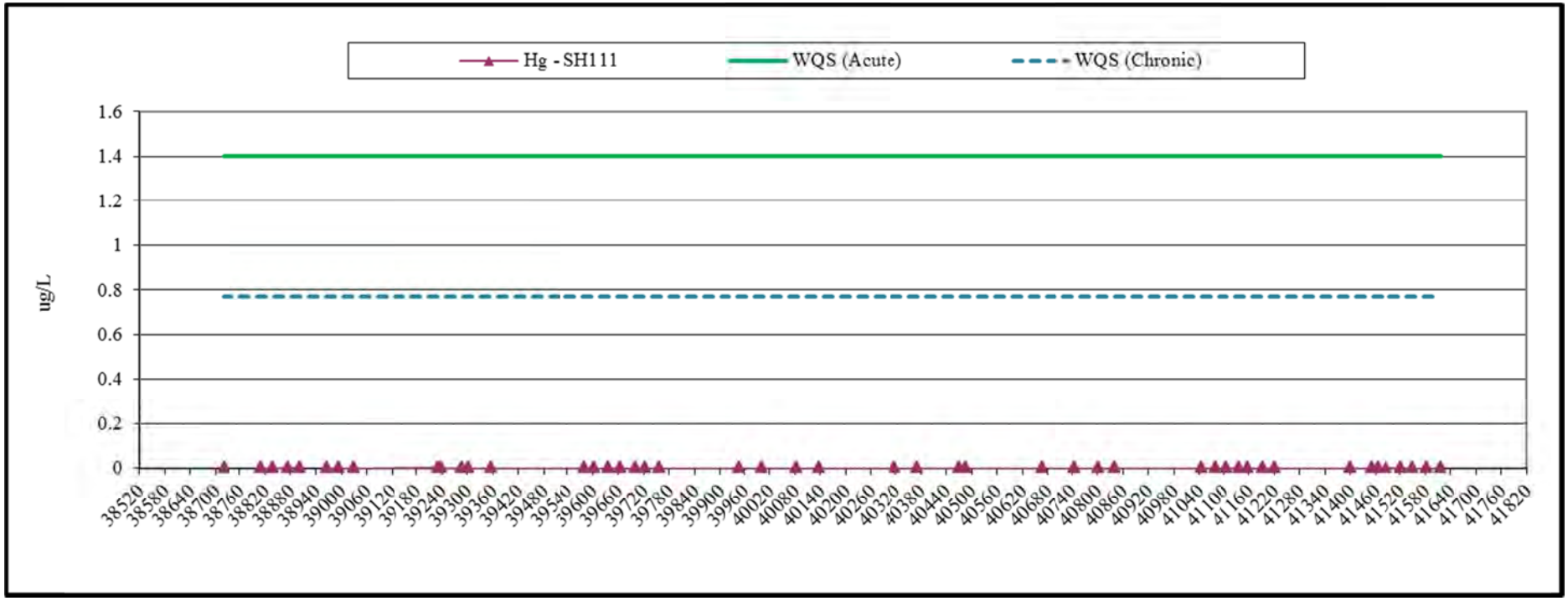


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

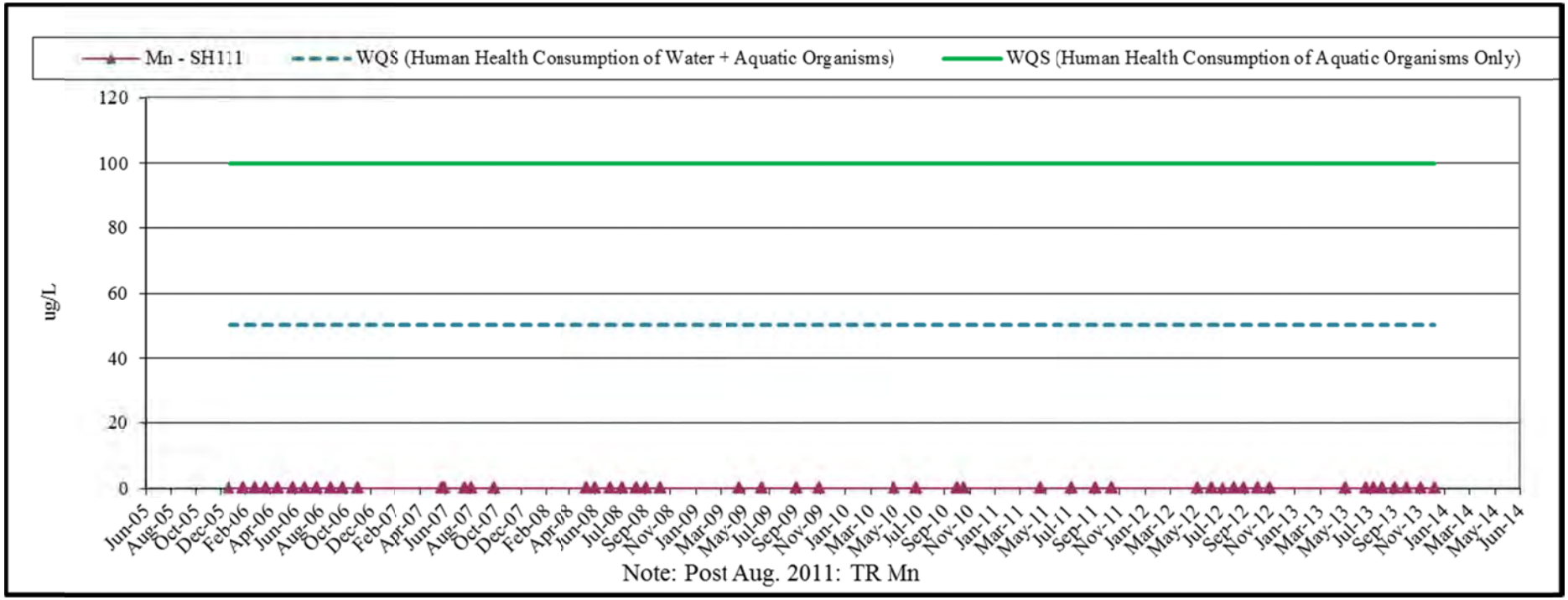


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

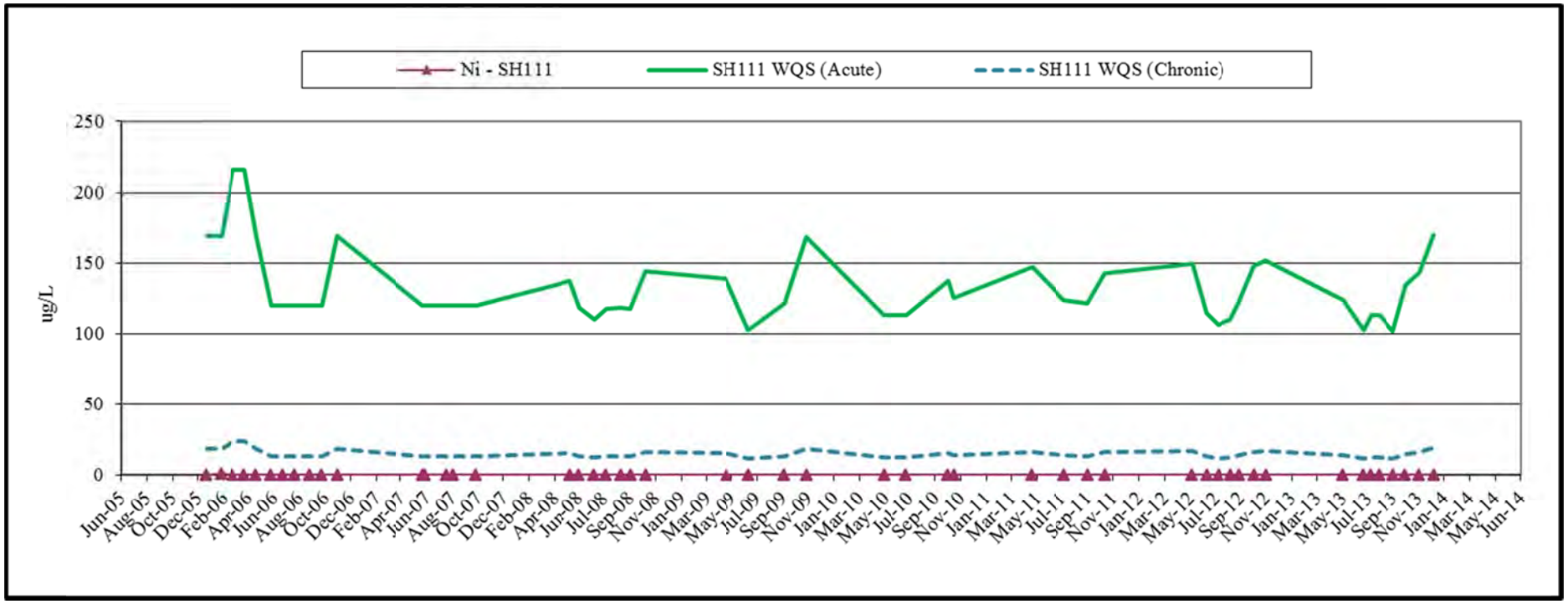


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

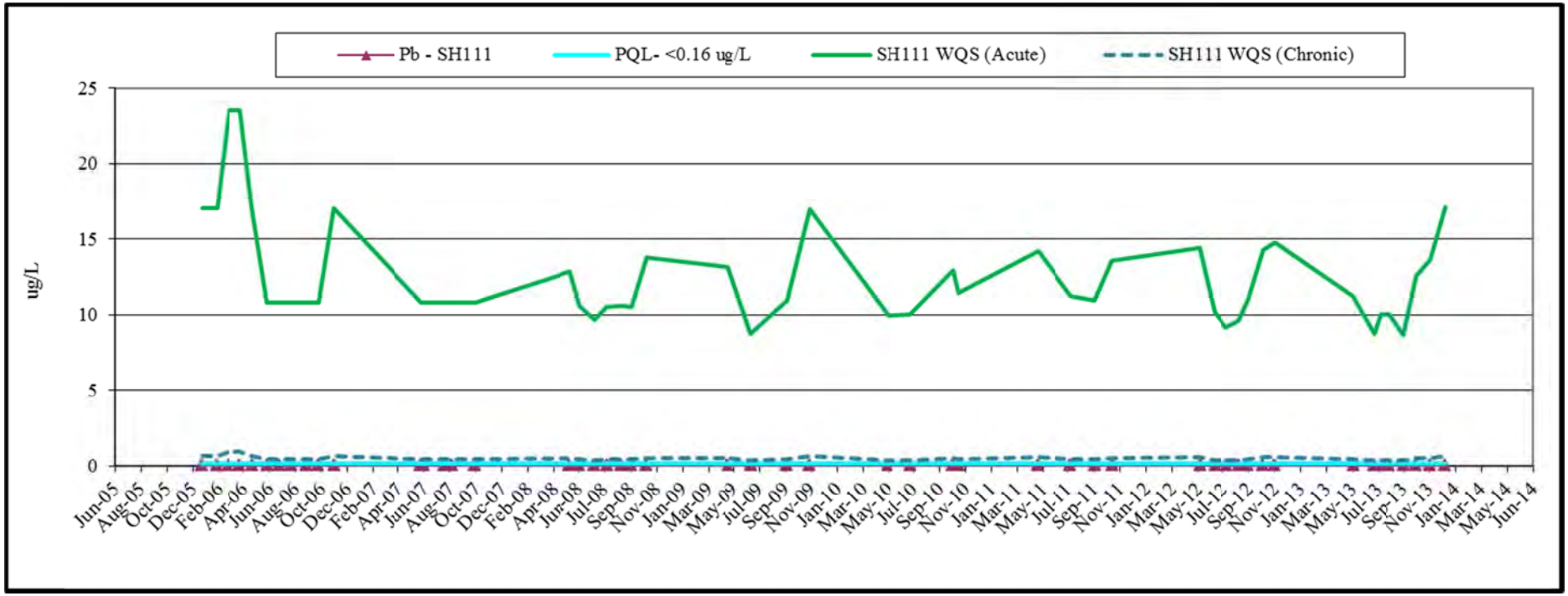


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

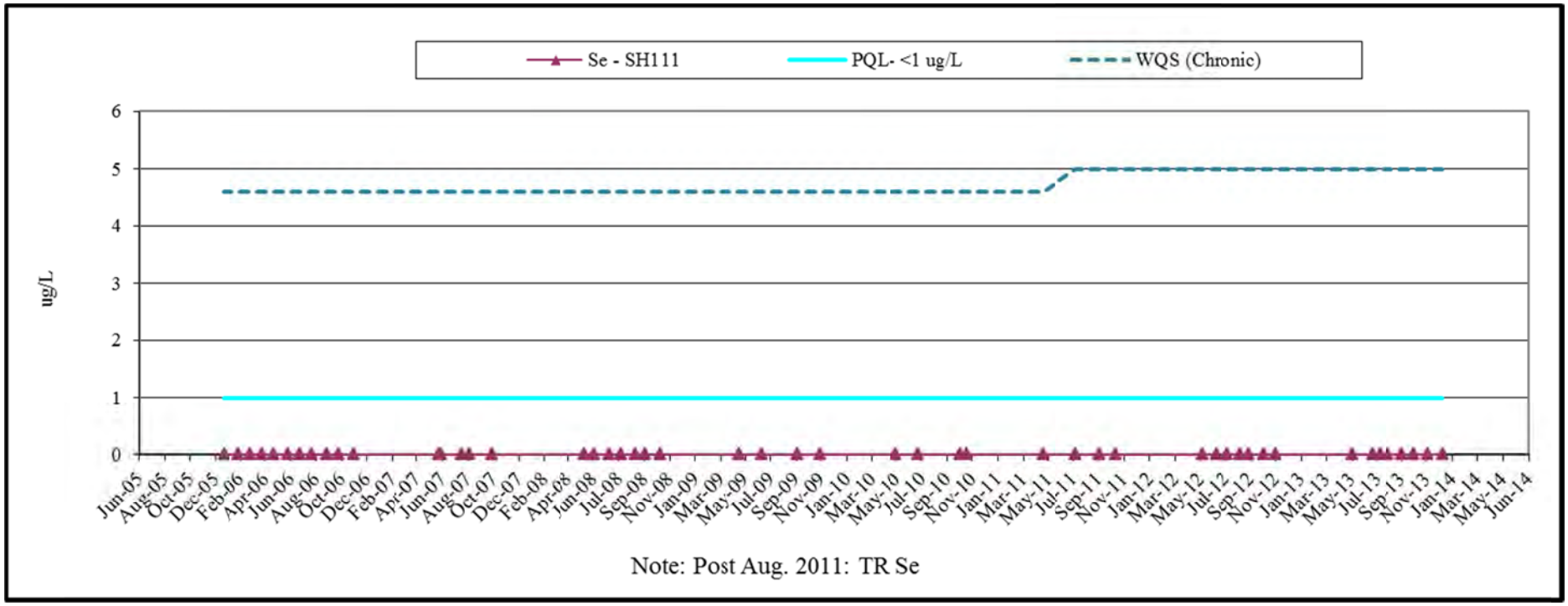


Figure 17c: Ophir Creek (SH111) Monitoring Results 2006-2013, Trace Chemistry

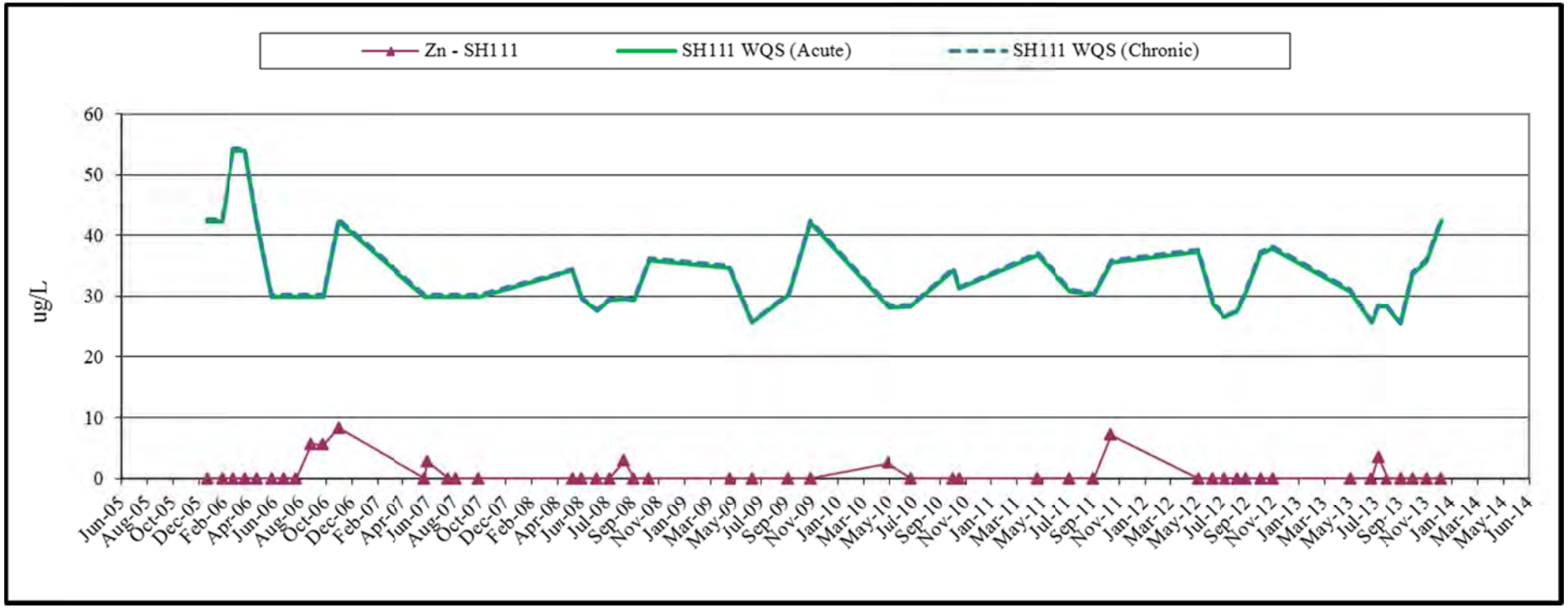


Figure 18a: Outfall 001 Effluent Monitoring Results 2006-2013, Field Parameters

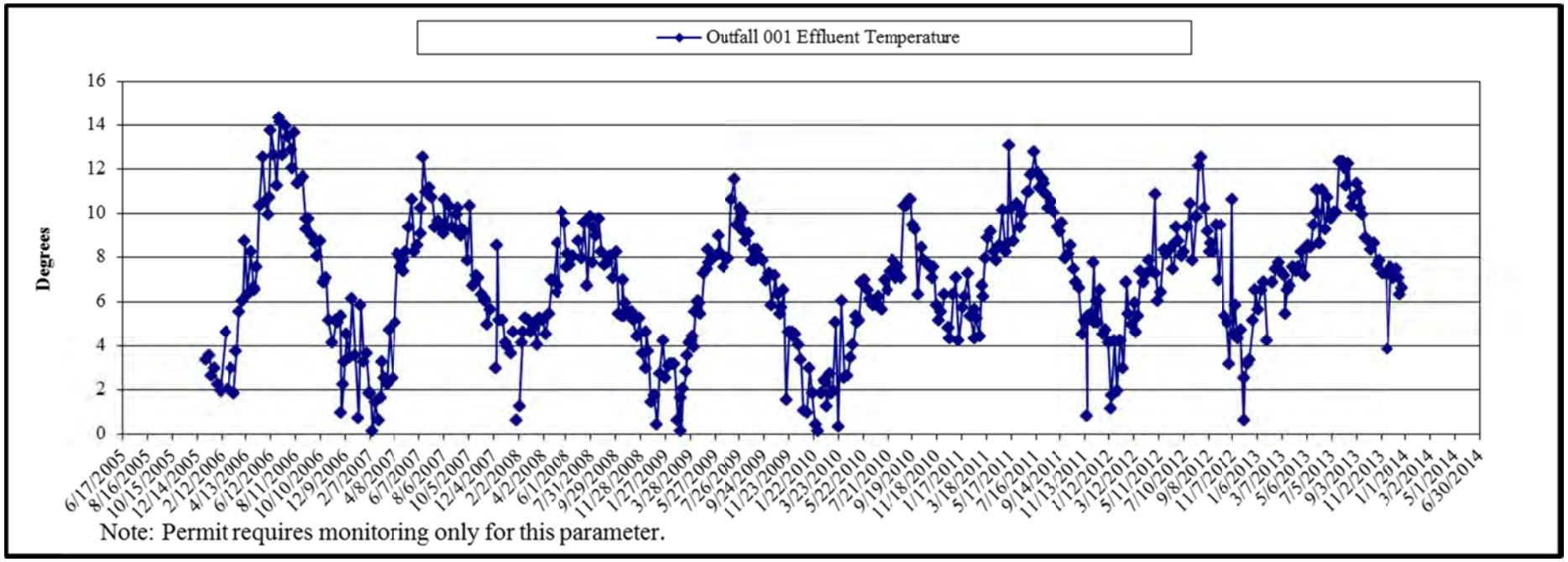
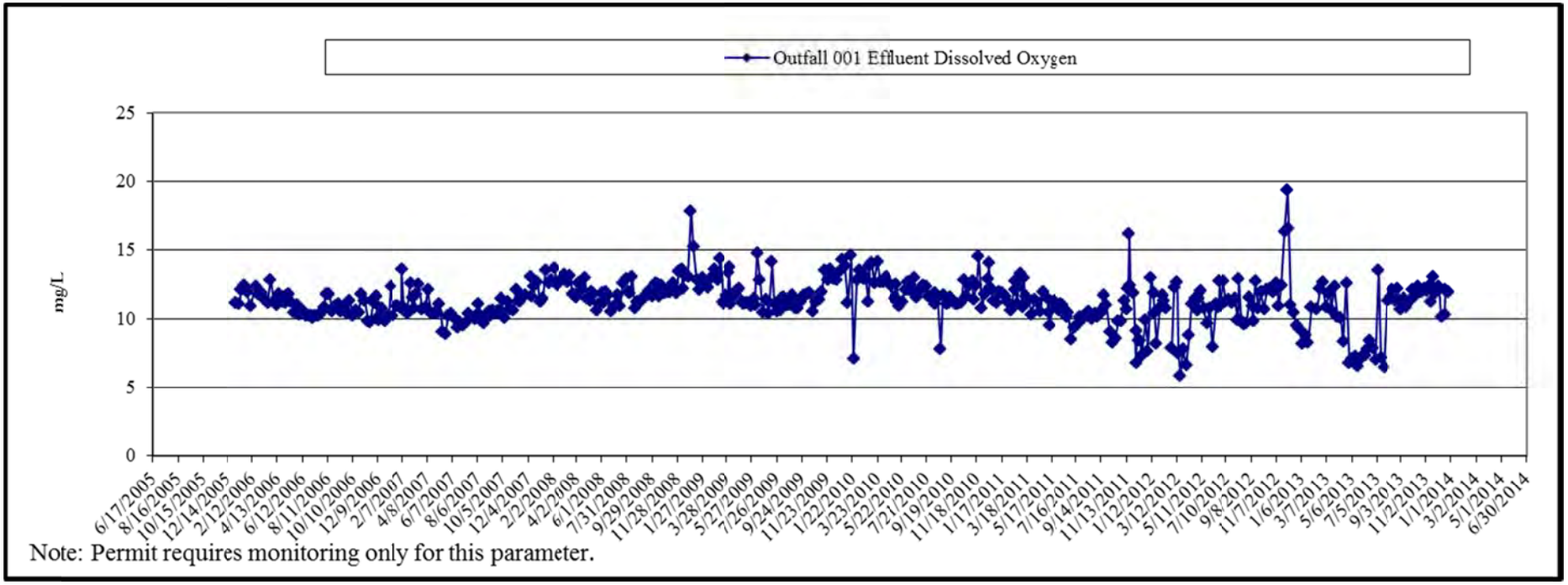


Figure 18a: Outfall 001 Effluent Monitoring Results 2006-2013, Field Parameters



Note: Permit requires monitoring only for this parameter.

Figure 18a: Outfall 001 Effluent Monitoring Results 2006-2013, Field Parameters

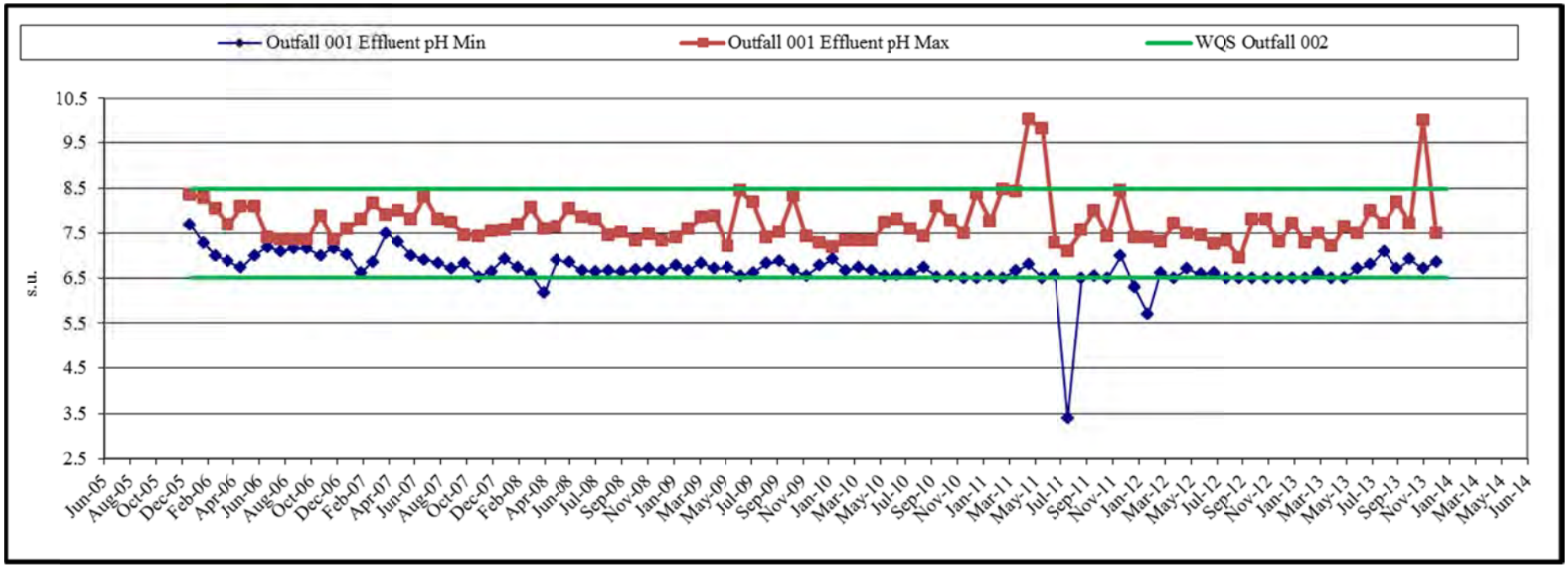
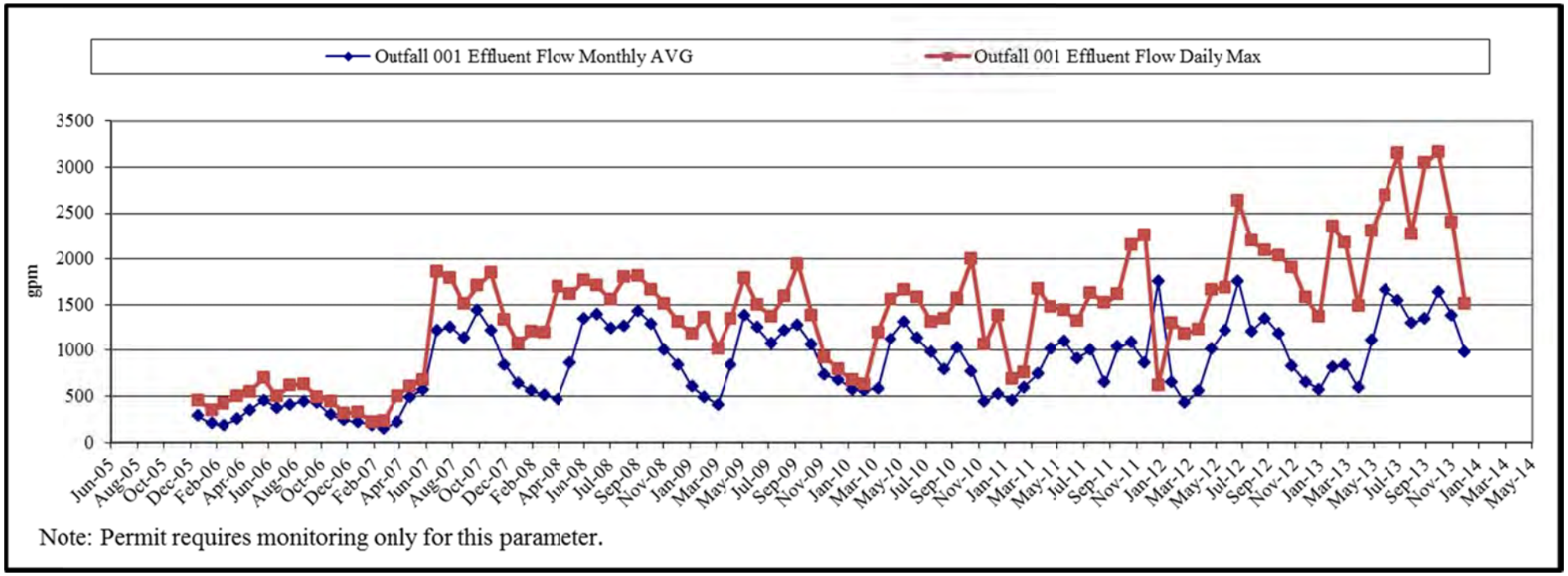


Figure 18a: Outfall 001 Effluent Monitoring Results 2006-2013, Field Parameters



Note: Permit requires monitoring only for this parameter.

Figure 18b: Outfall 001 Effluent Monitoring Results 2006-2013, Major Chemistry

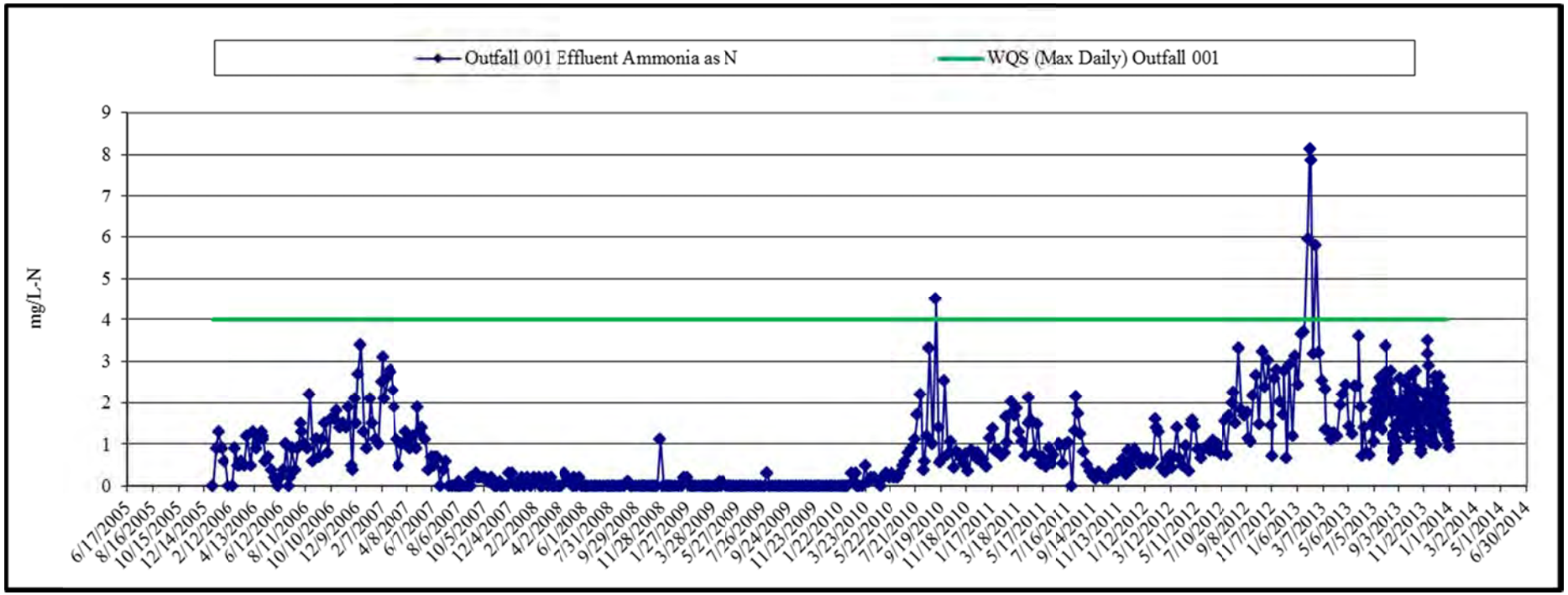


Figure 18b: Outfall 001 Effluent Monitoring Results 2006-2013, Major Chemistry

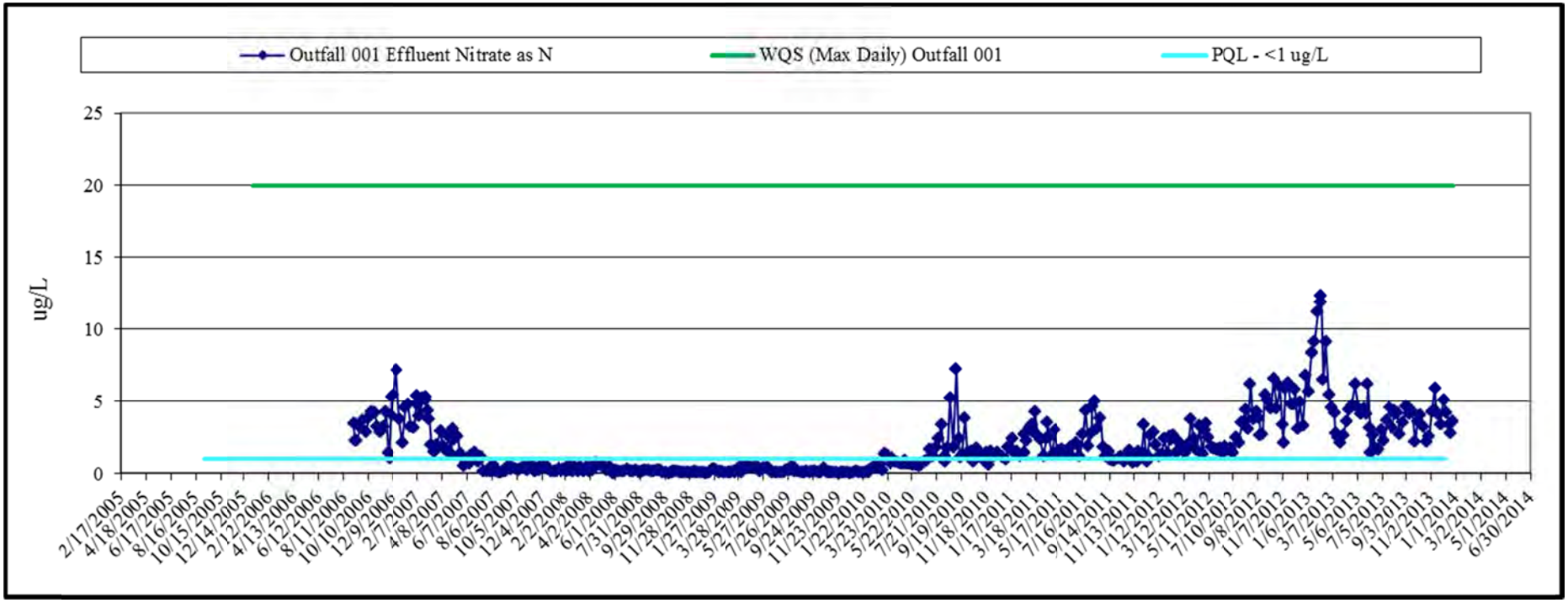


Figure 18b: Outfall 001 Effluent Monitoring Results 2006-2013, Major Chemistry

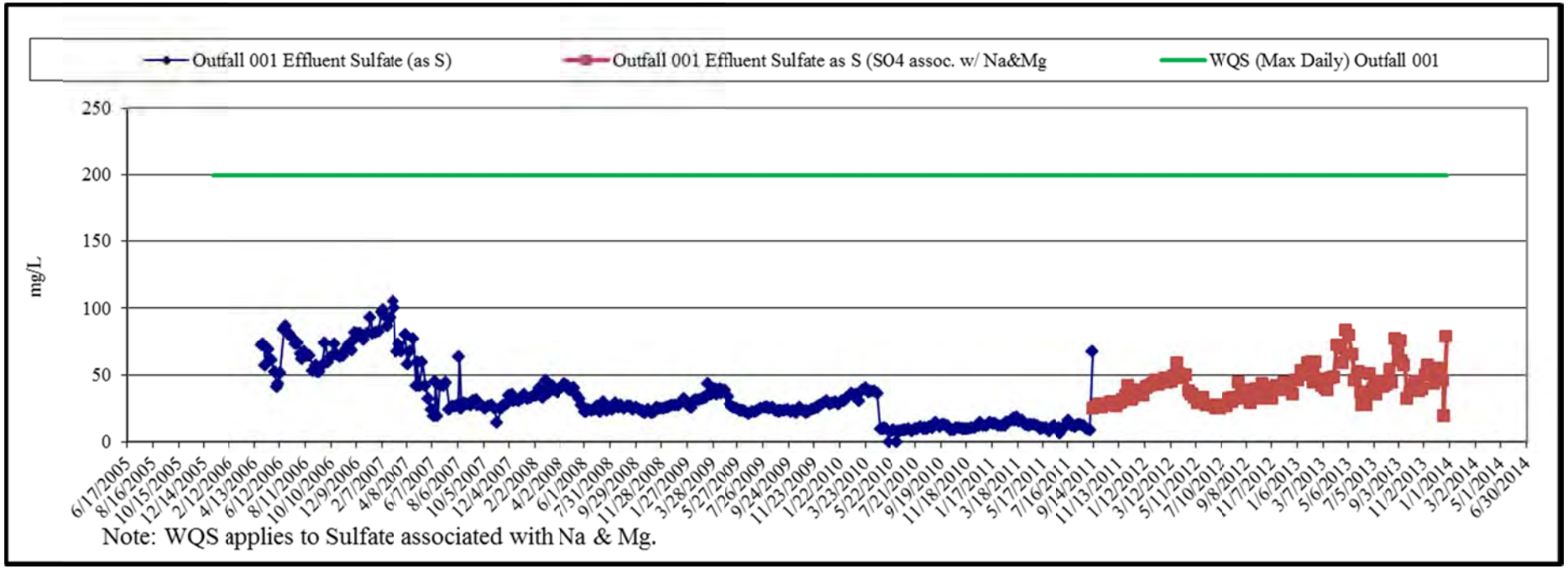


Figure 18b: Outfall 001 Effluent Monitoring Results 2006-2013, Major Chemistry

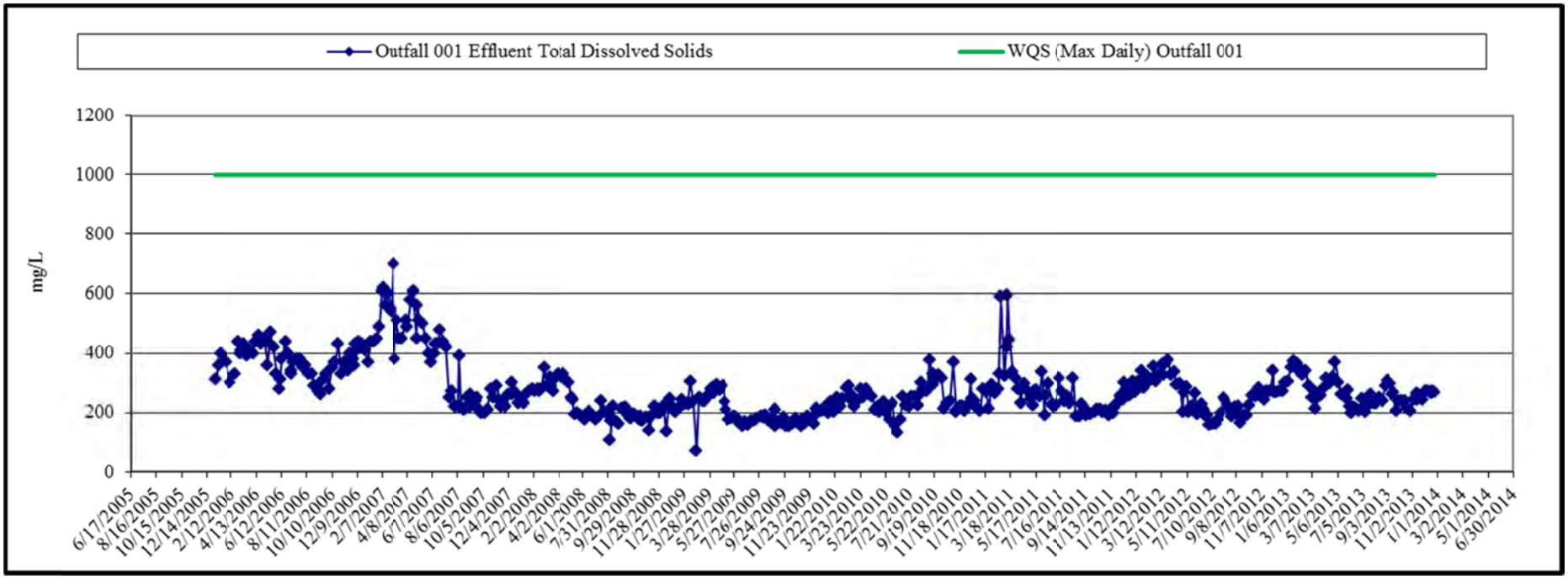


Figure 18b: Outfall 001 Effluent Monitoring Results 2006-2013, Major Chemistry

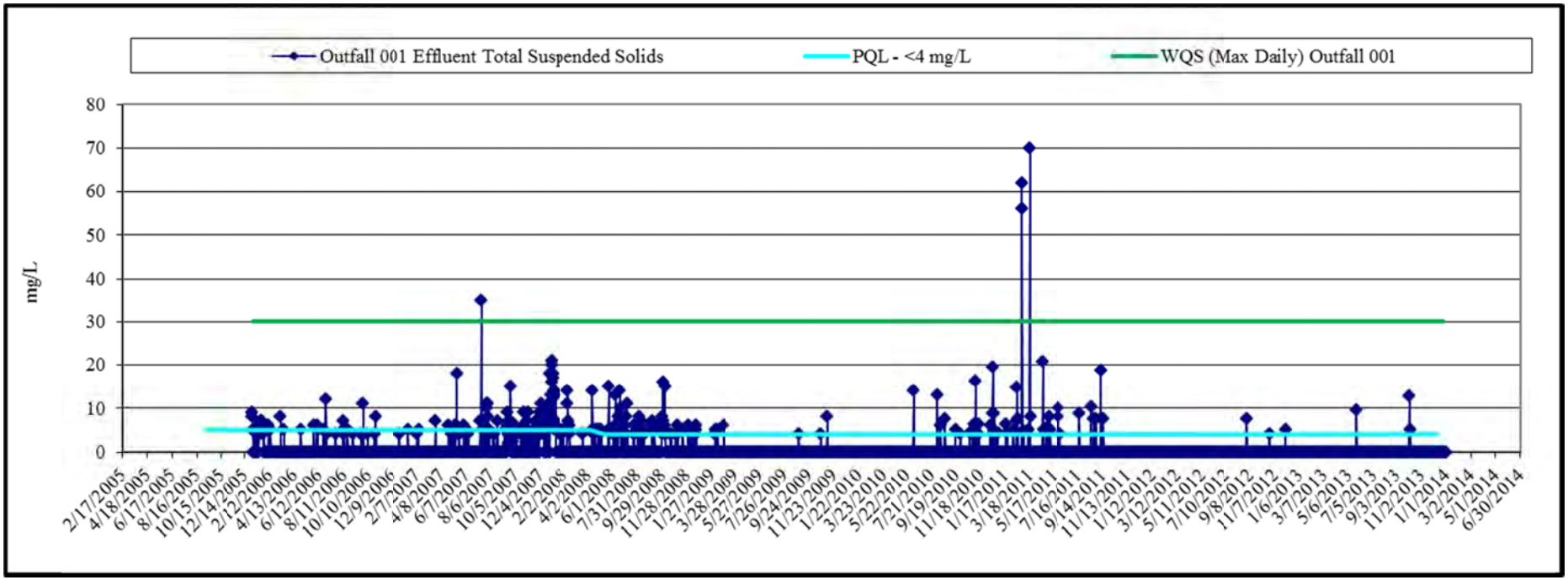


Figure 18b: Outfall 001 Effluent Monitoring Results 2006-2013, Major Chemistry

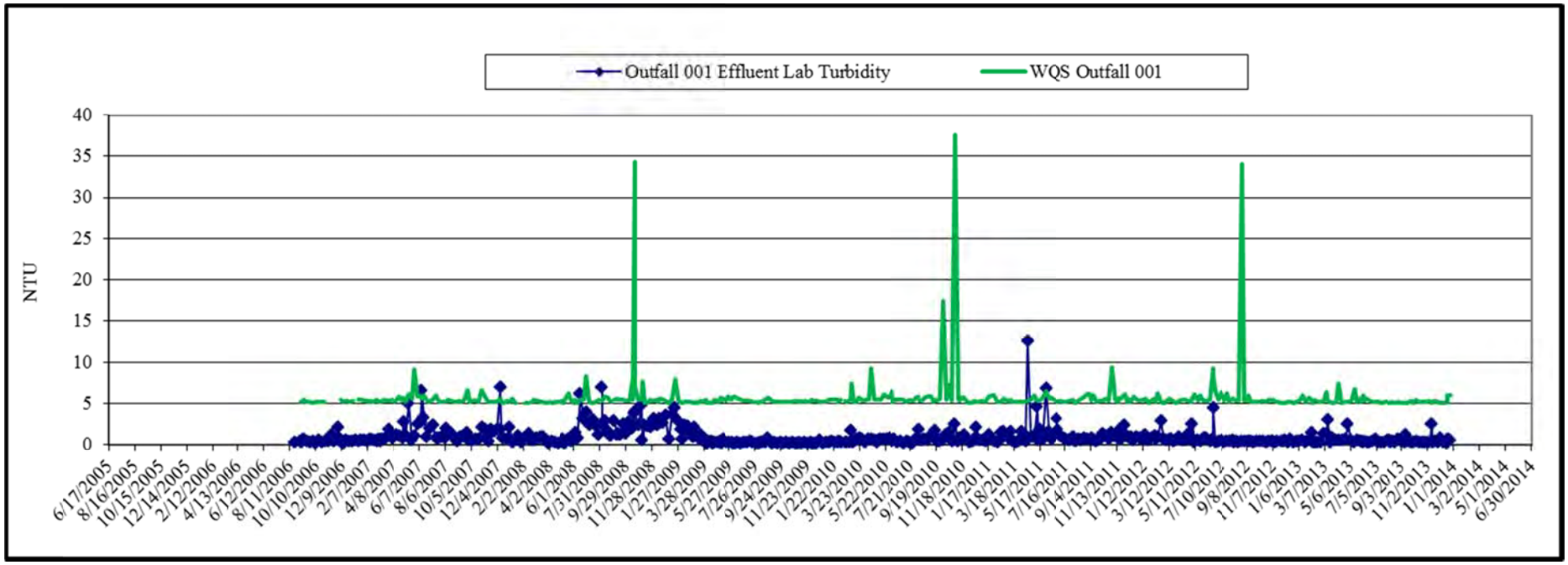
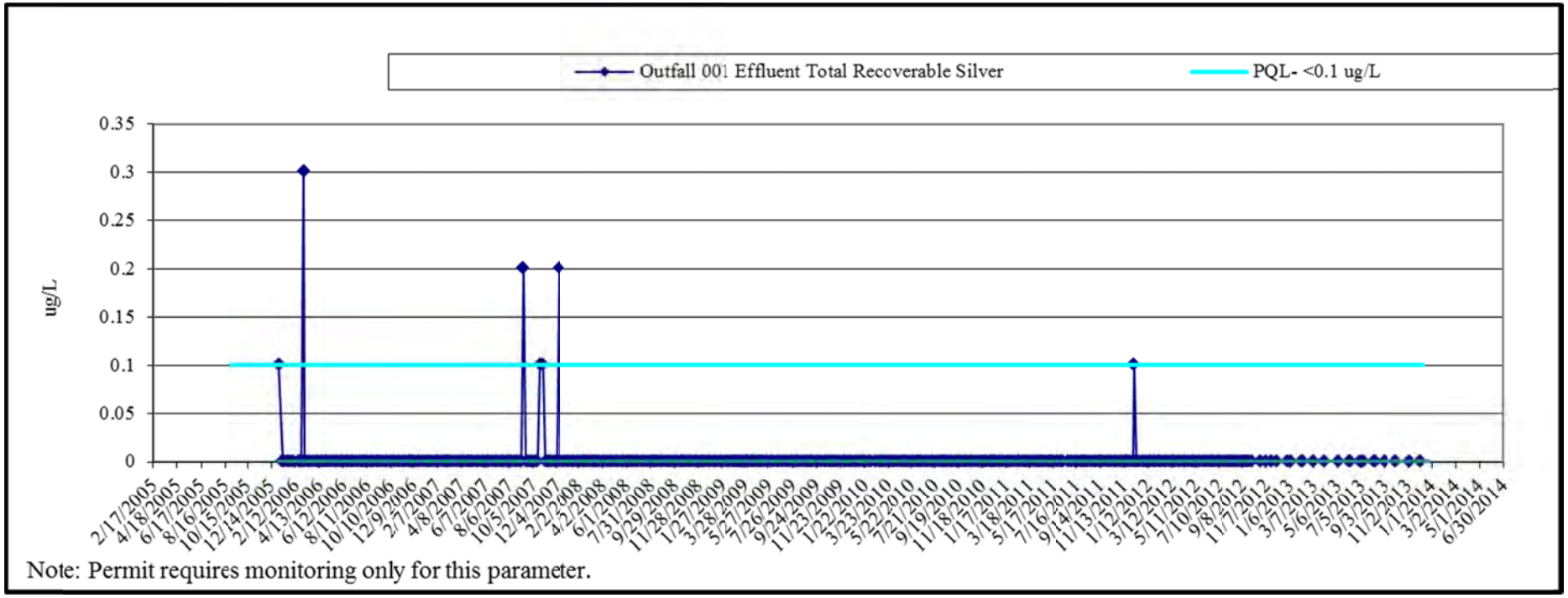


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry



Note: Permit requires monitoring only for this parameter.

Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trance Chemistry

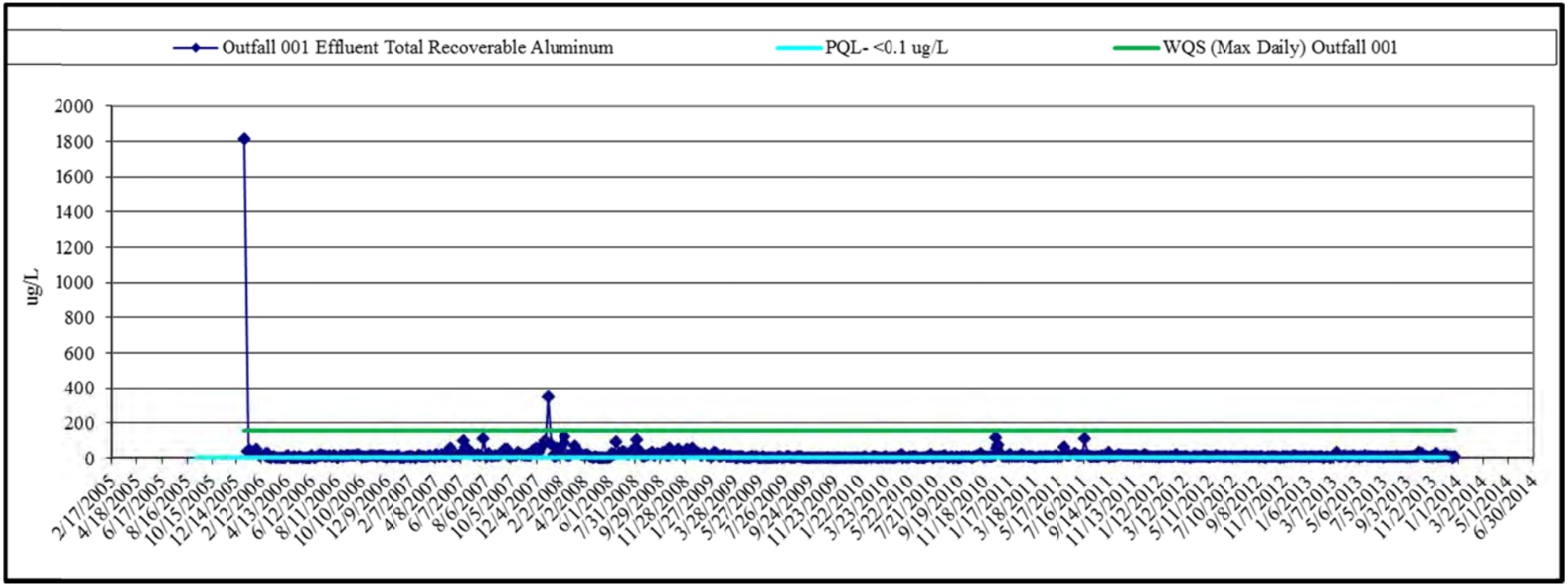
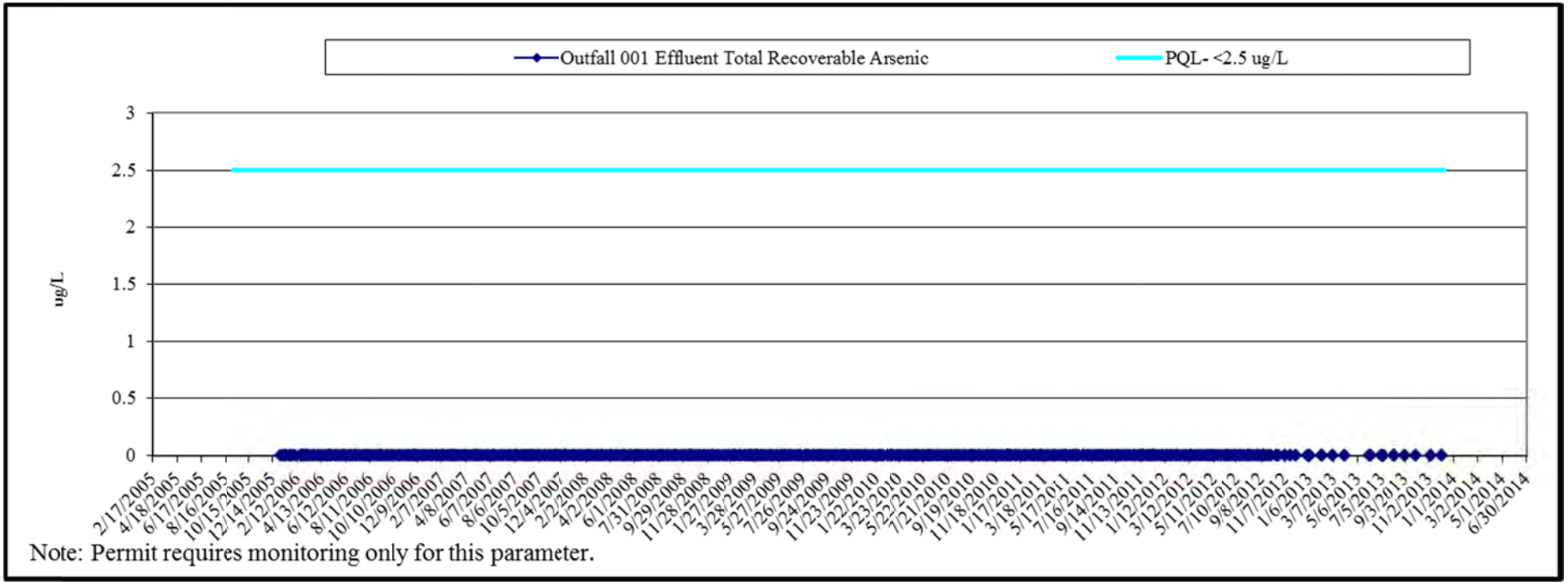


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry



Note: Permit requires monitoring only for this parameter.

Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry

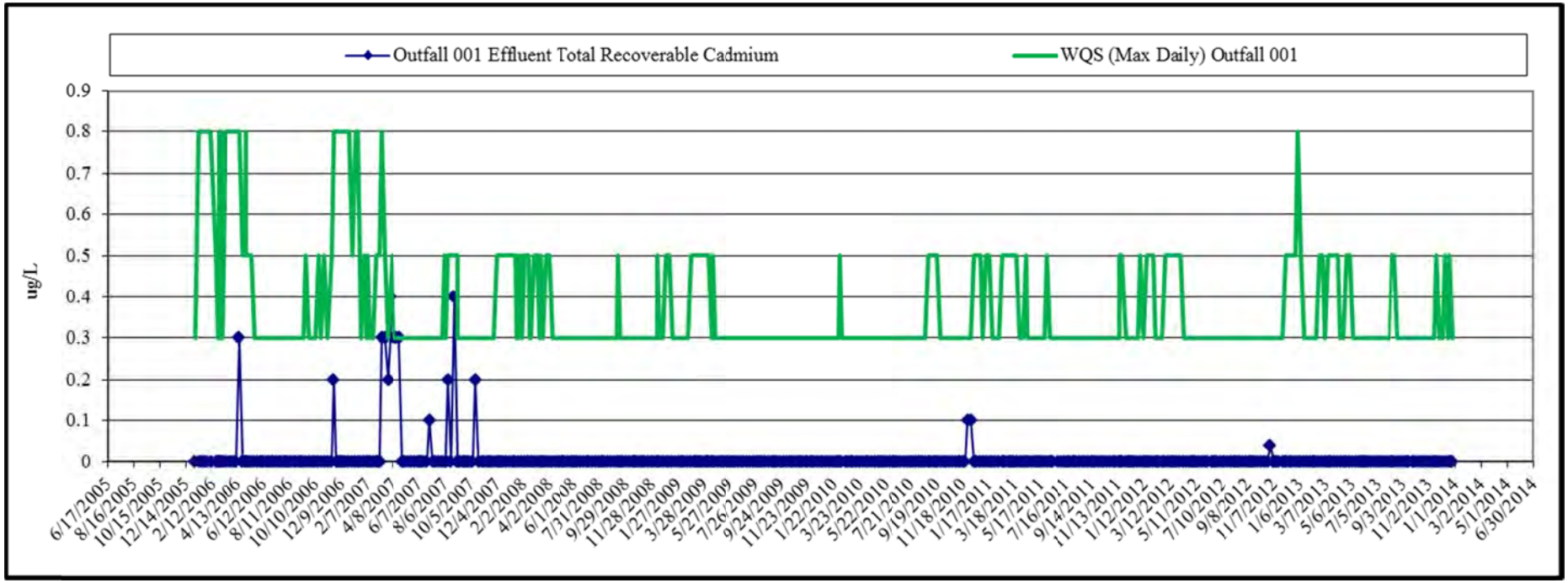
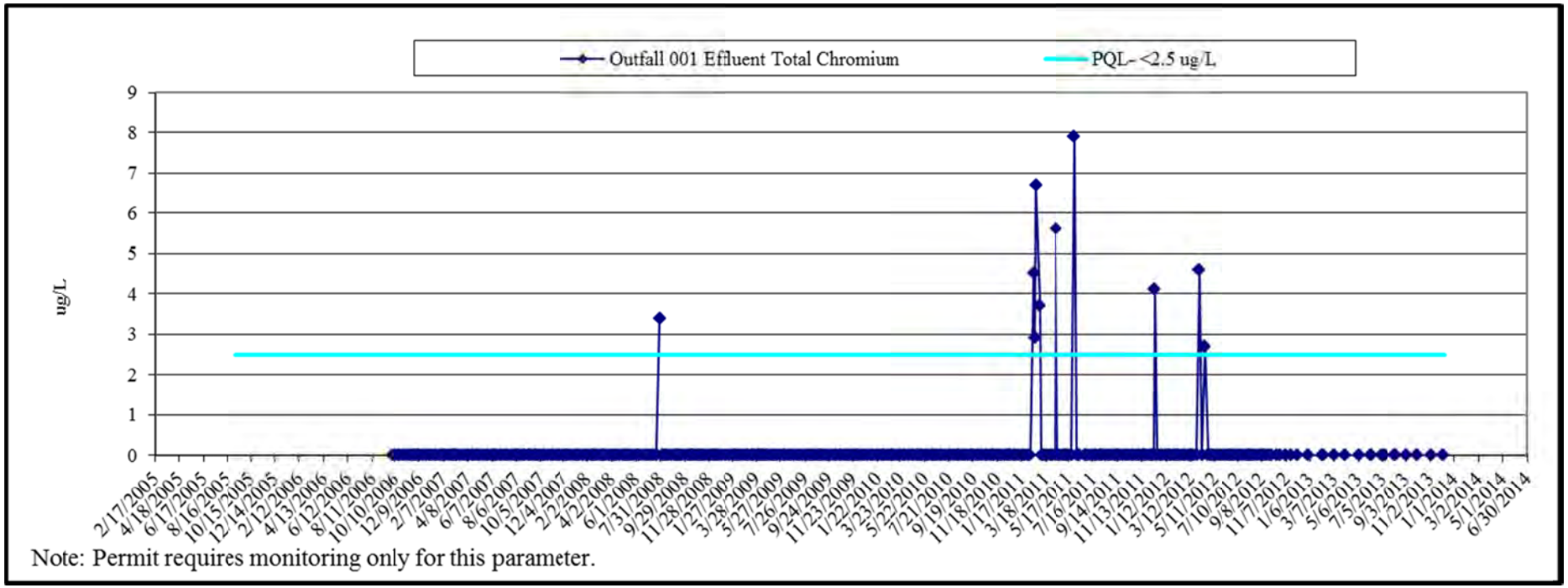


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry



Note: Permit requires monitoring only for this parameter.

Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry

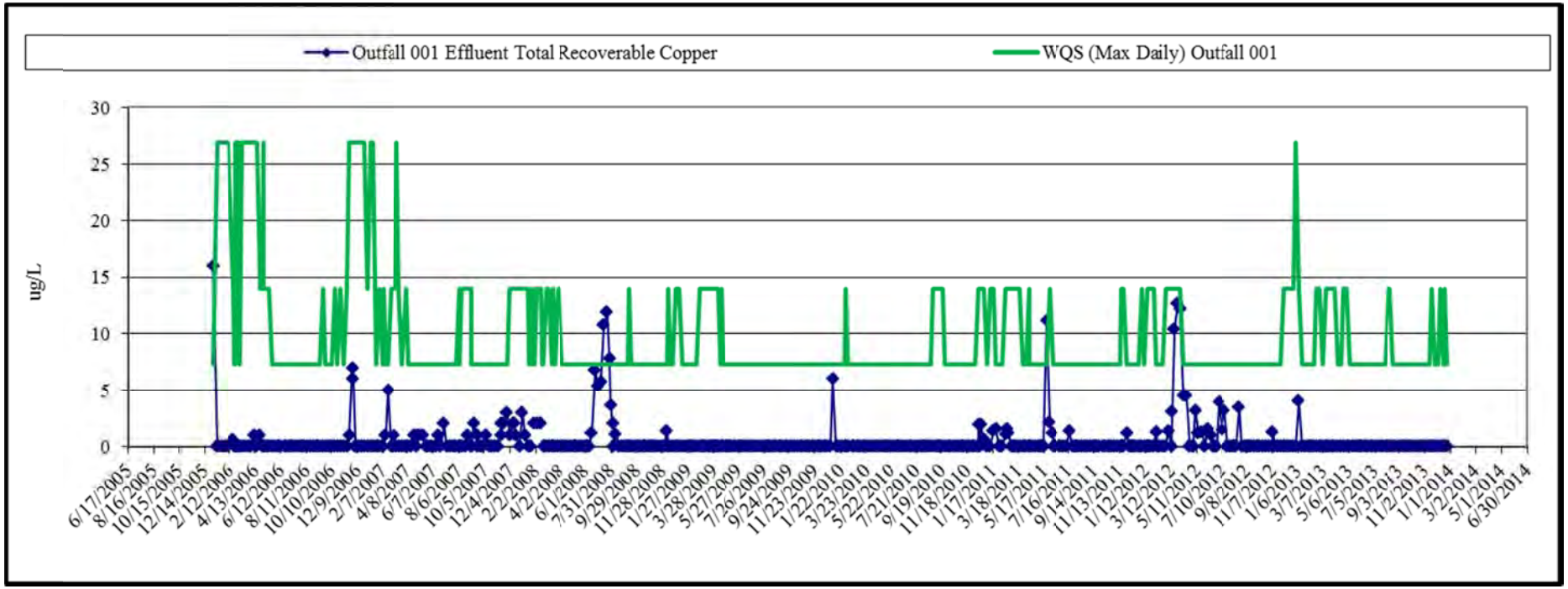


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry

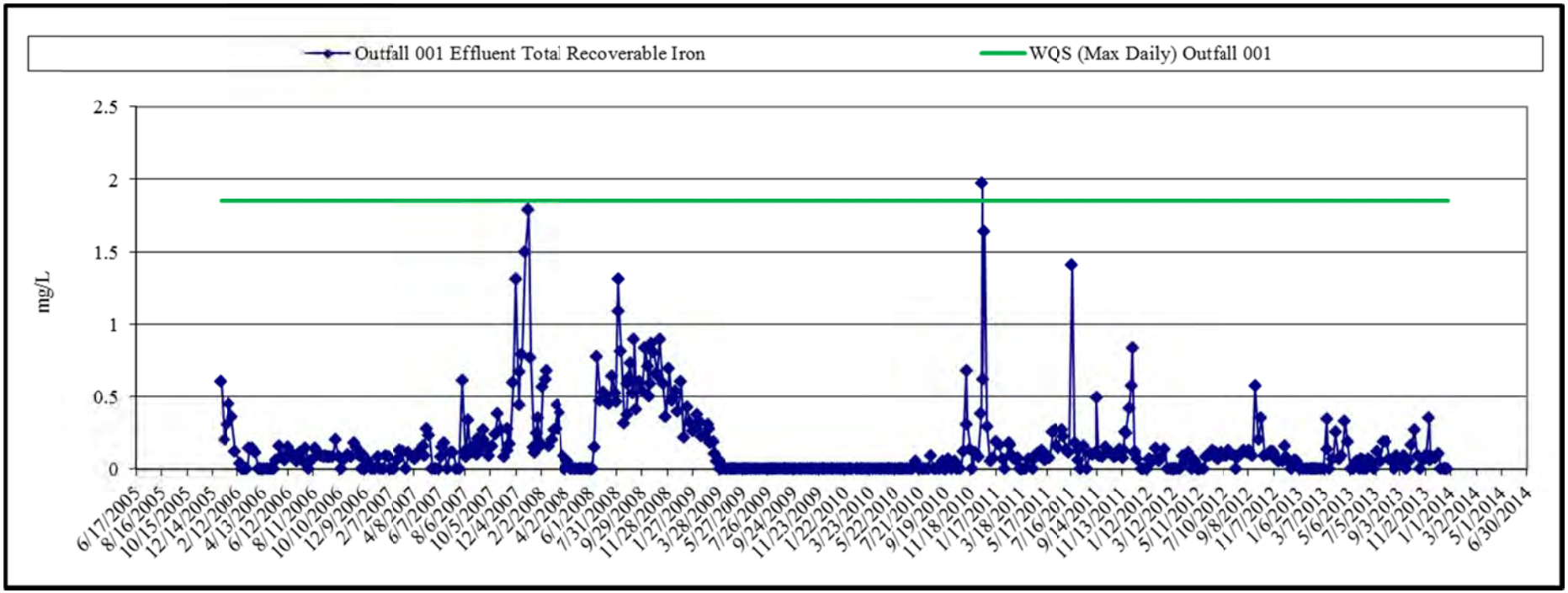


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry

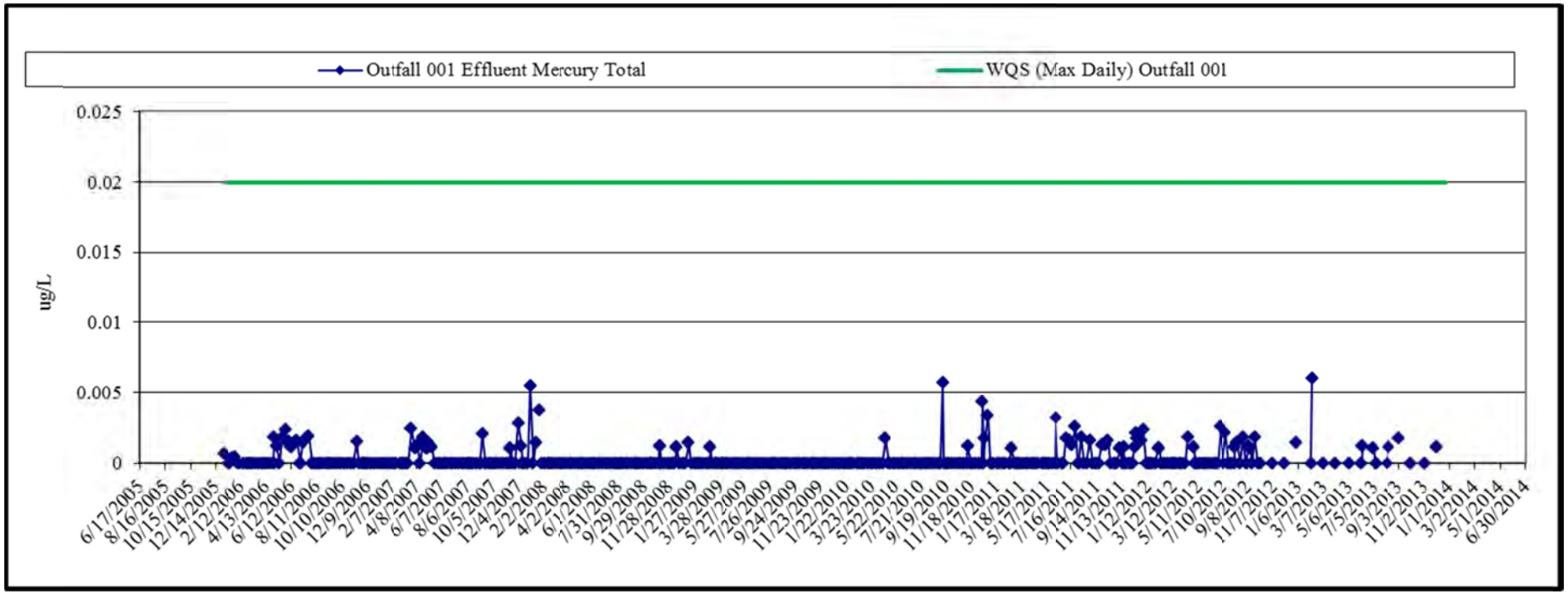


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry

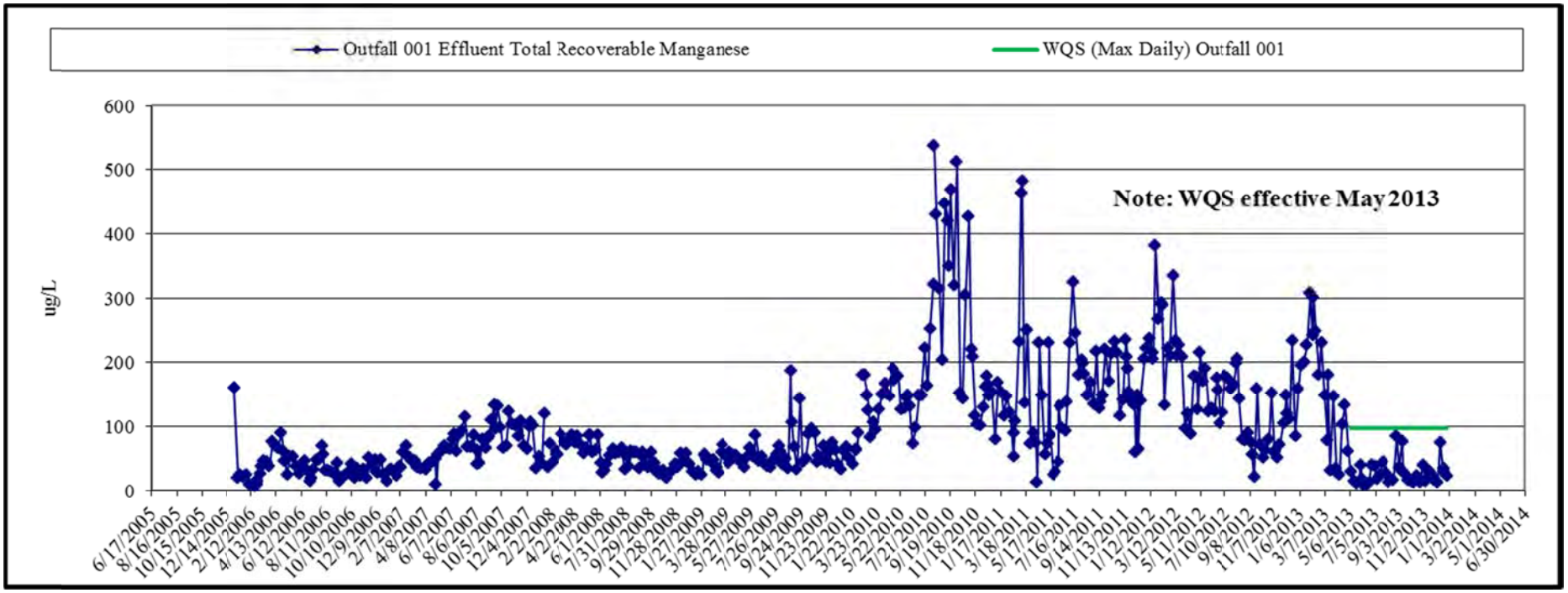


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry

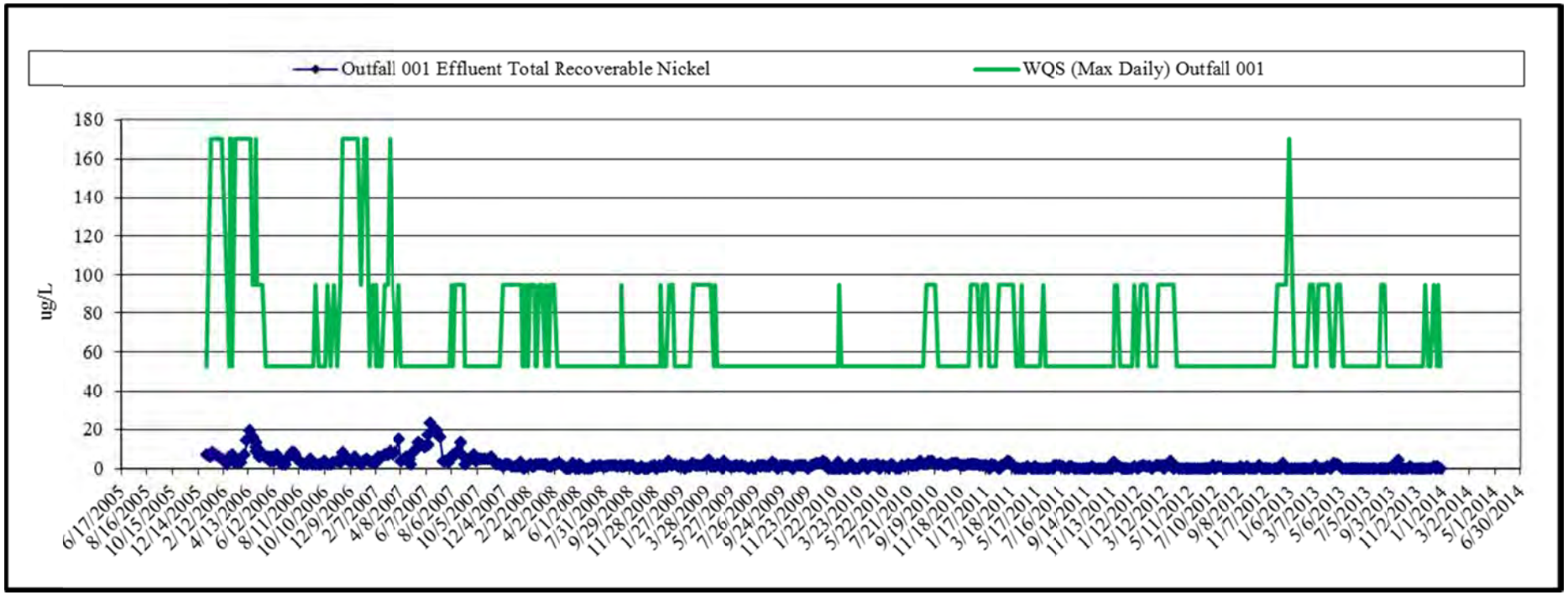


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry

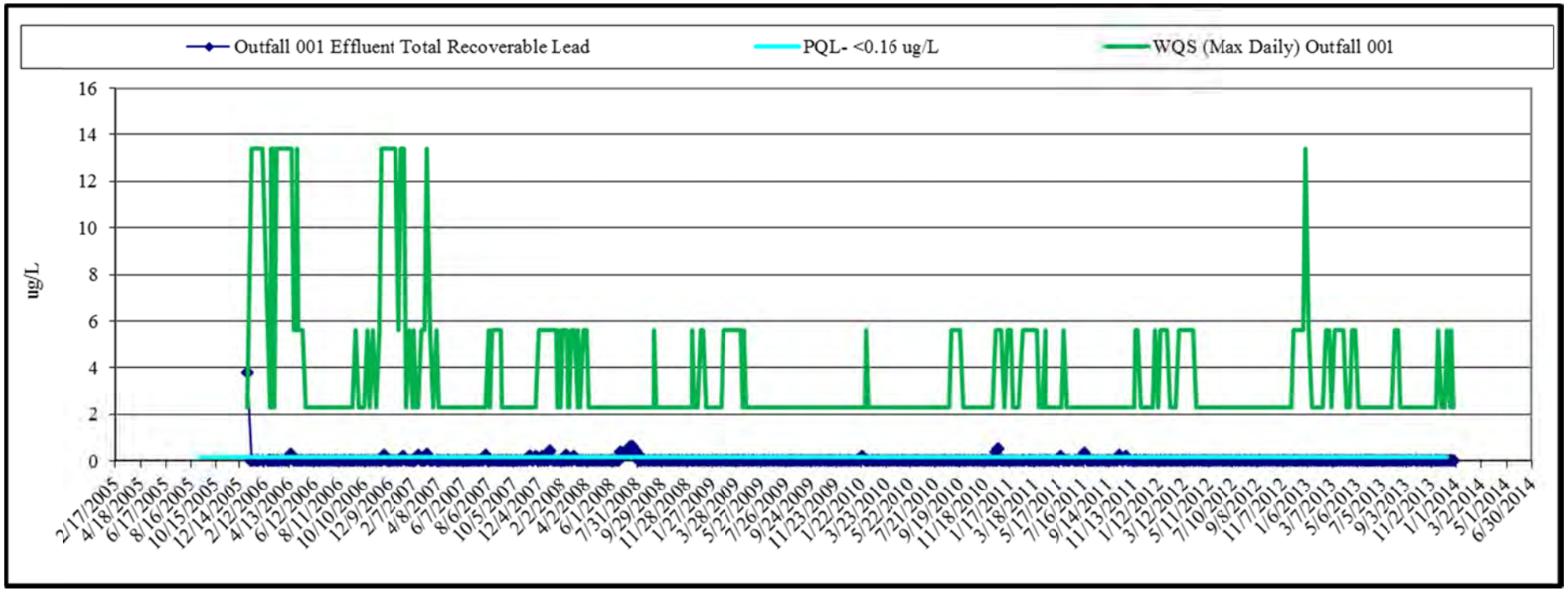
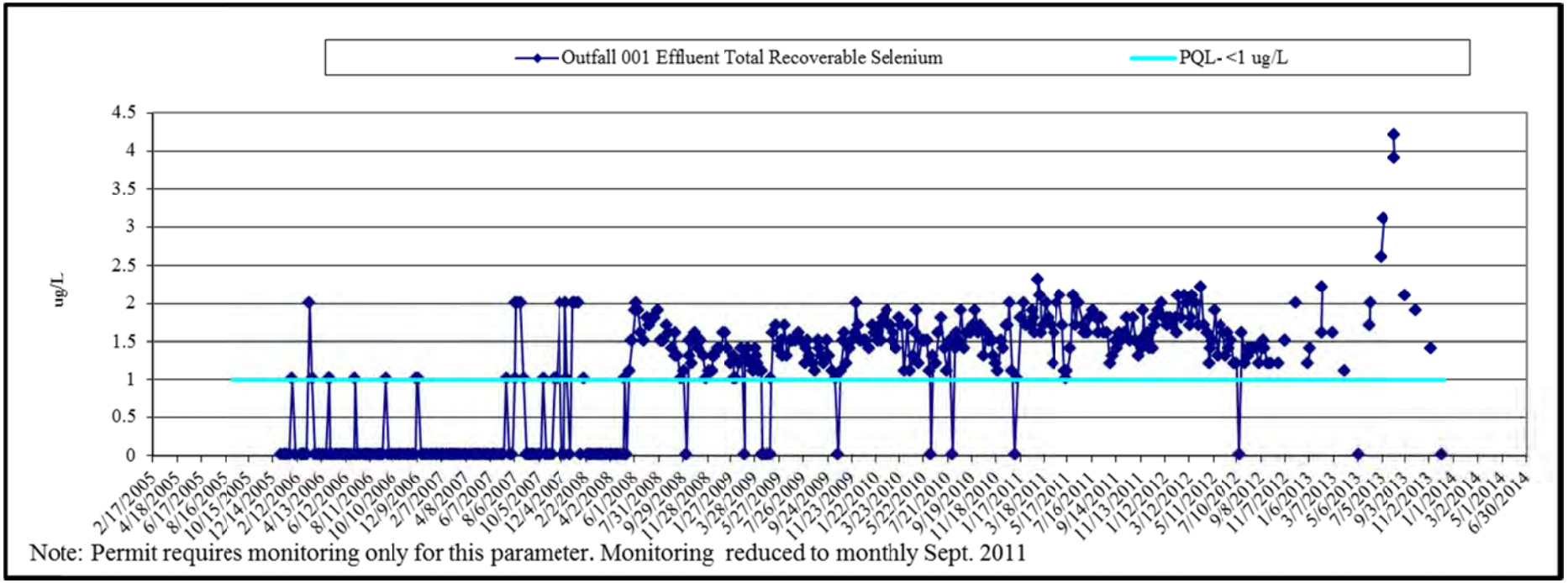


Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry



Note: Permit requires monitoring only for this parameter. Monitoring reduced to monthly Sept. 2011

Figure 18c: Outfall 001 Effluent Monitoring Results 2006-2013, Trace Chemistry

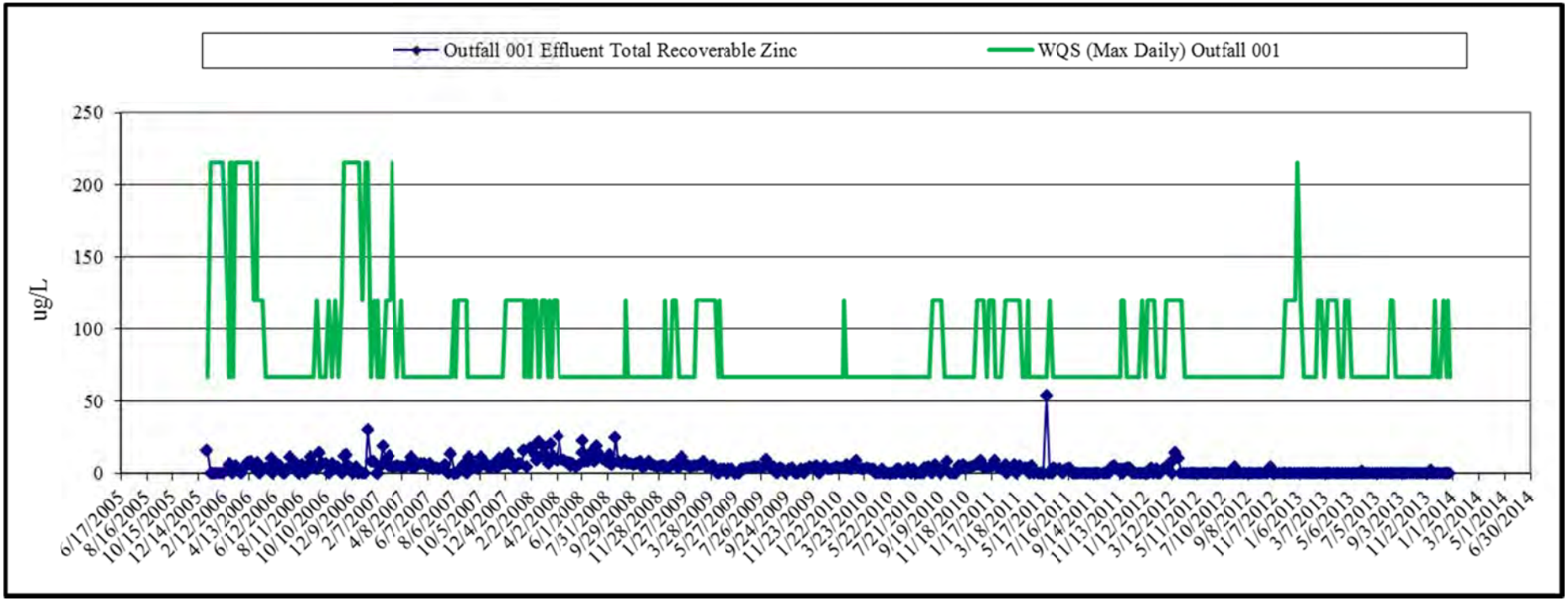


Figure 19a: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Field Parameters

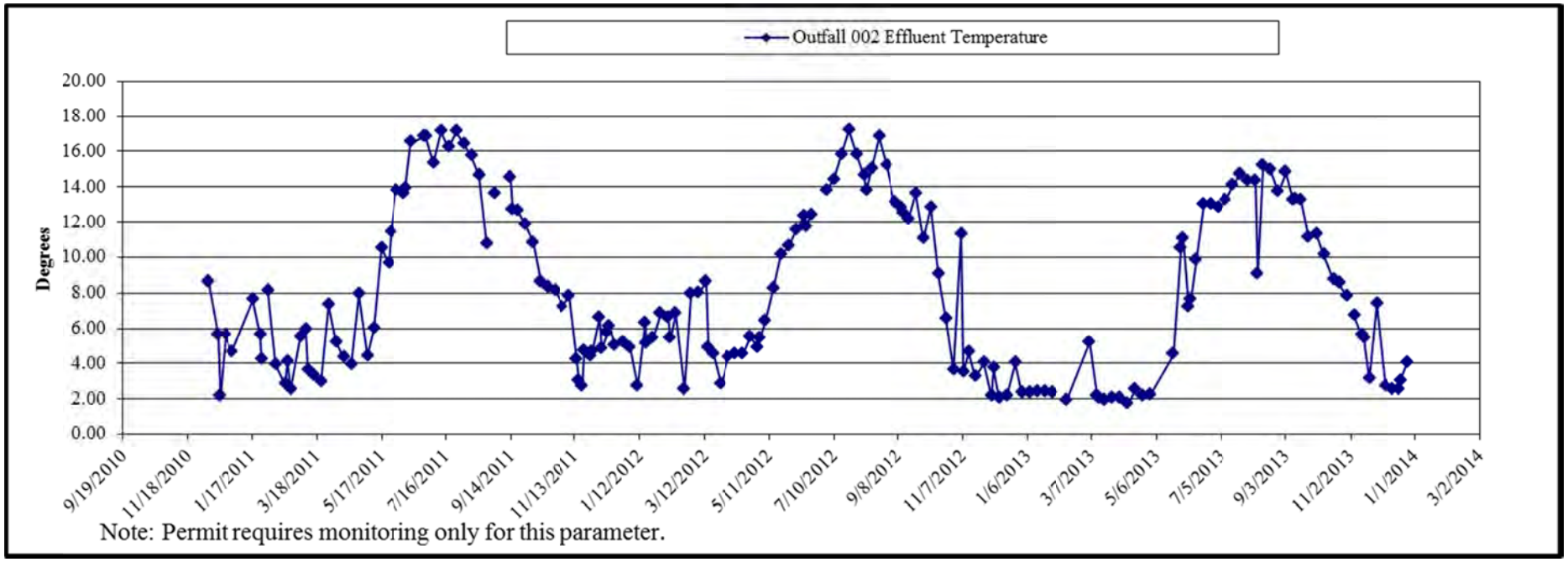


Figure 19a: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Field Parameters

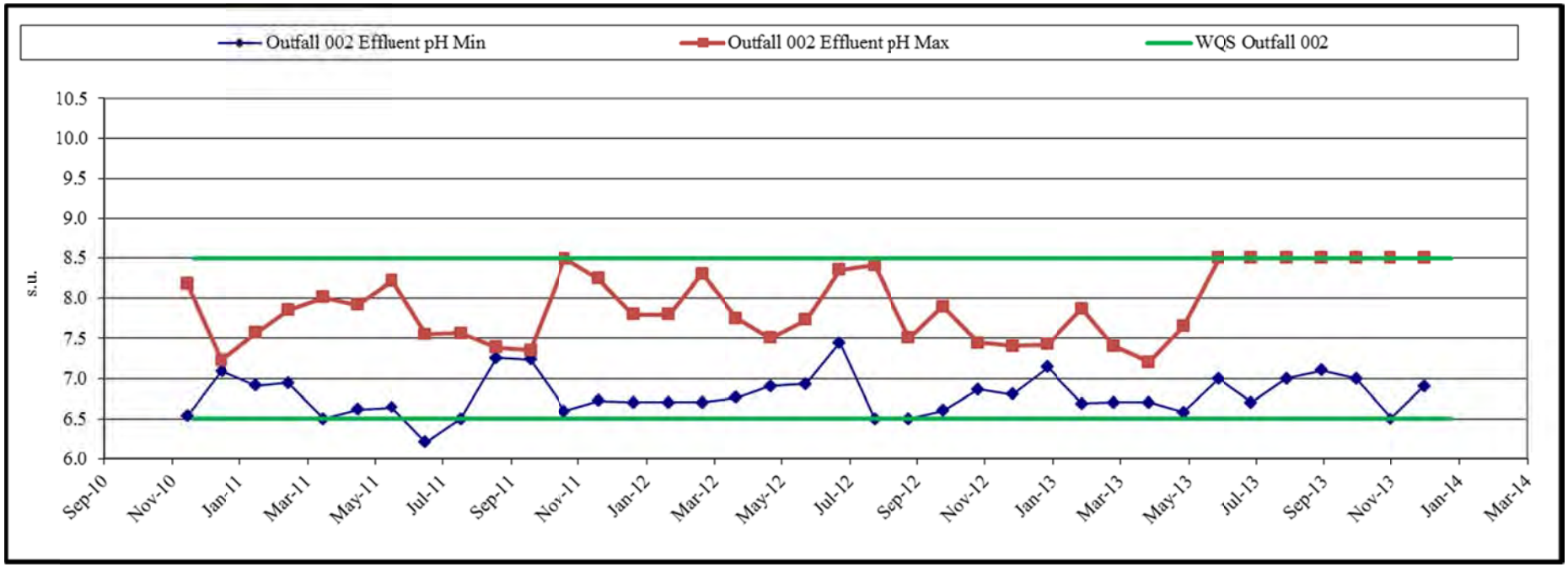


Figure 19a: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Field Parameters

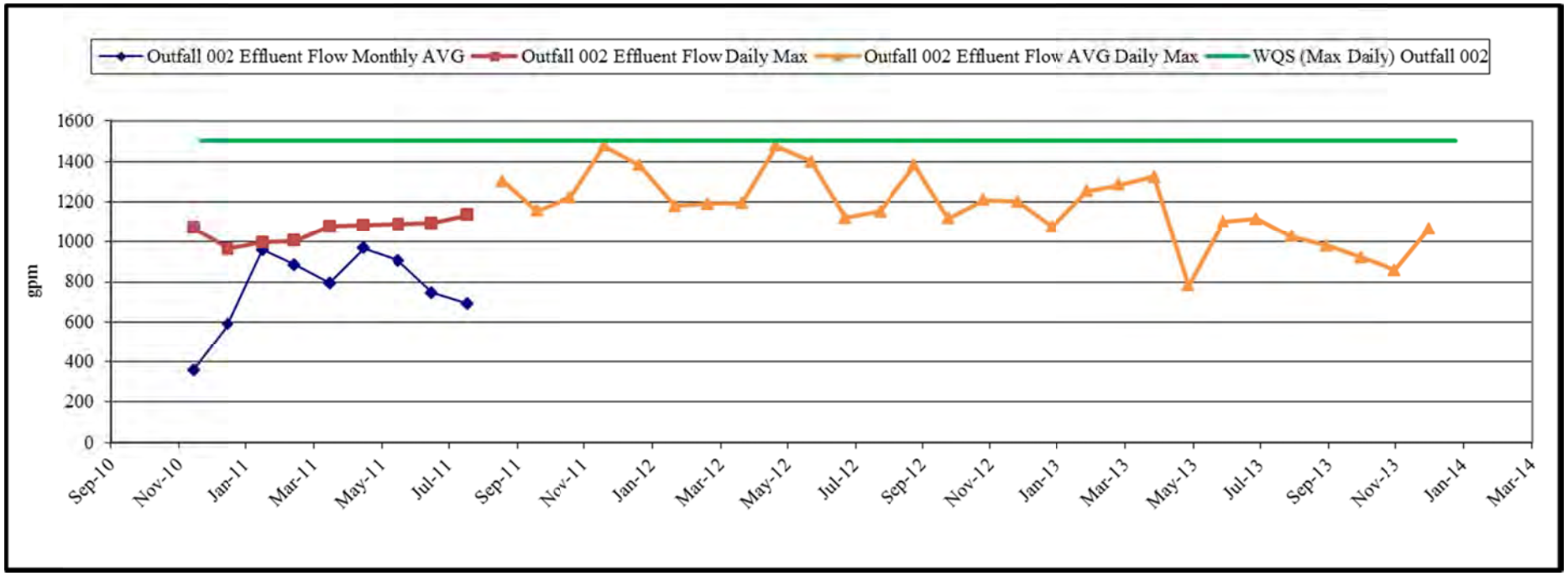


Figure 19b: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Major Chemistry

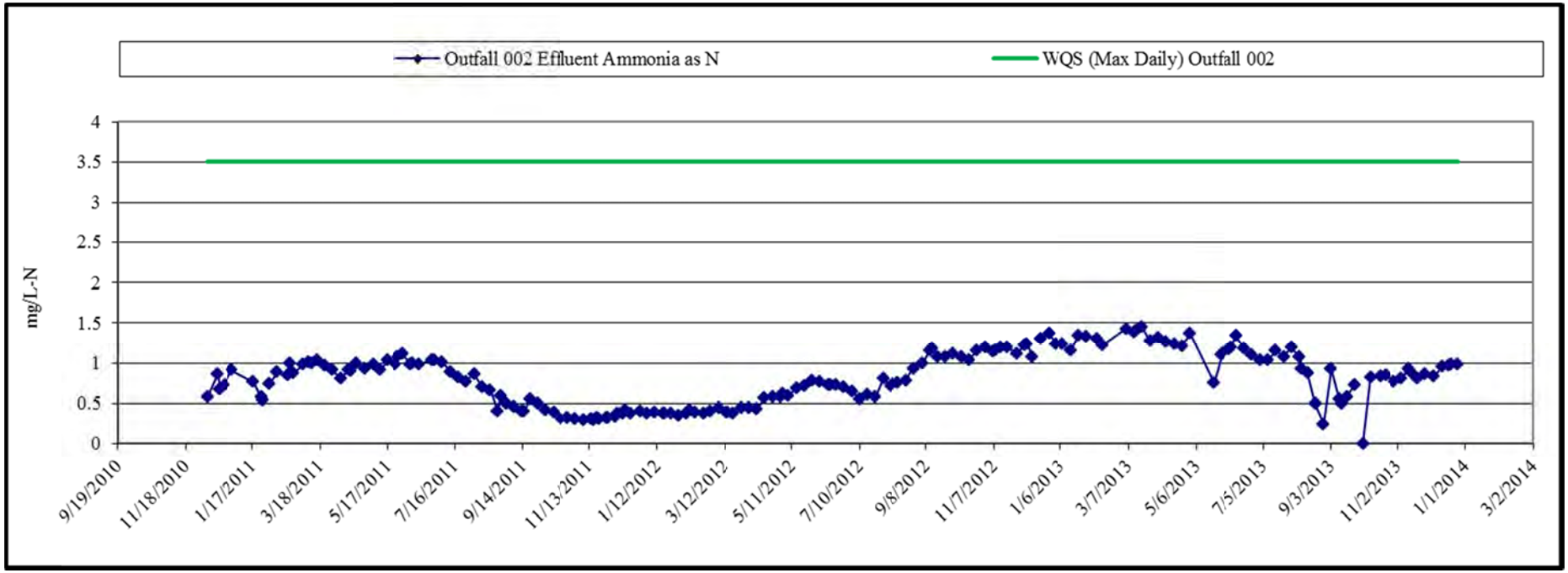
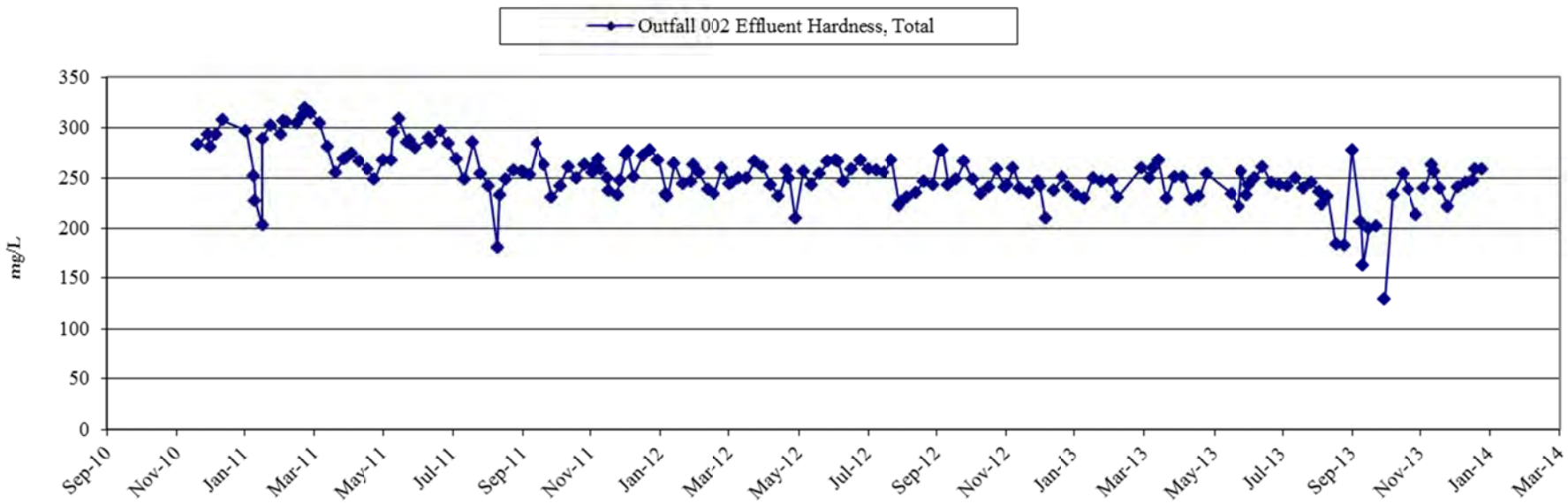


Figure 19b: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Major Chemistry



Note: Permit requires monitoring only for this parameter.

Figure 19b: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Major Chemistry

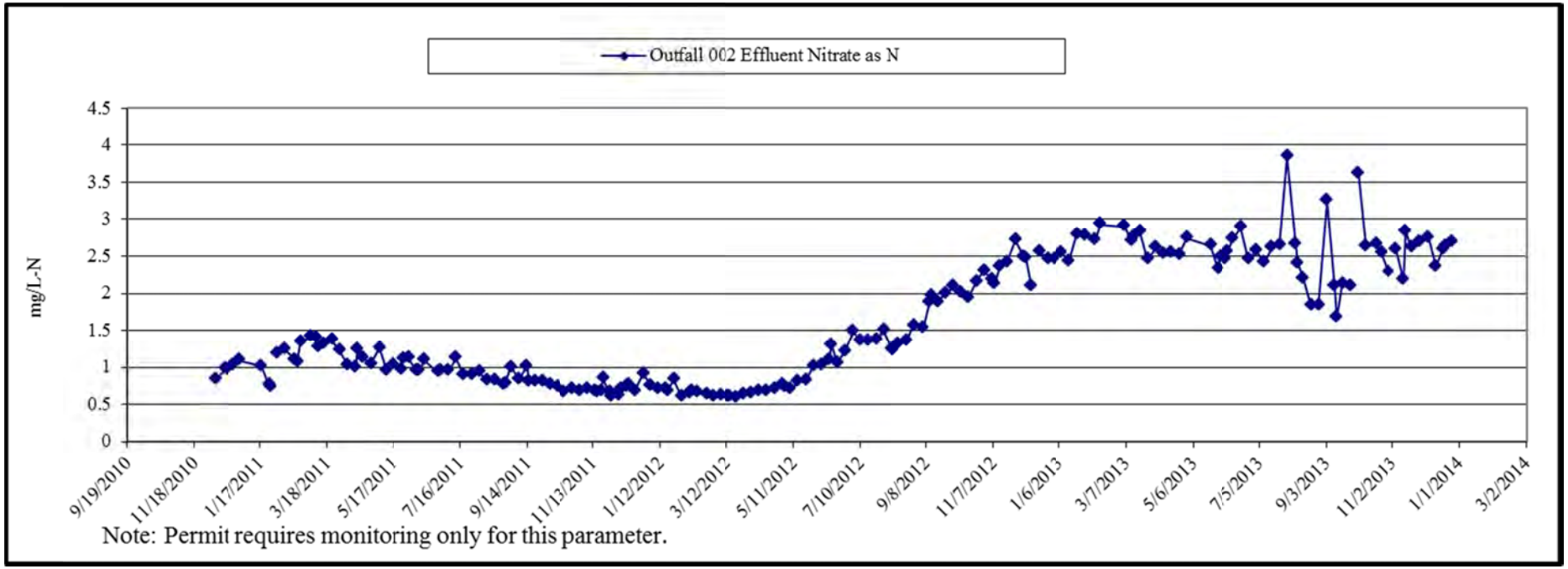


Figure 19b: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Major Chemistry

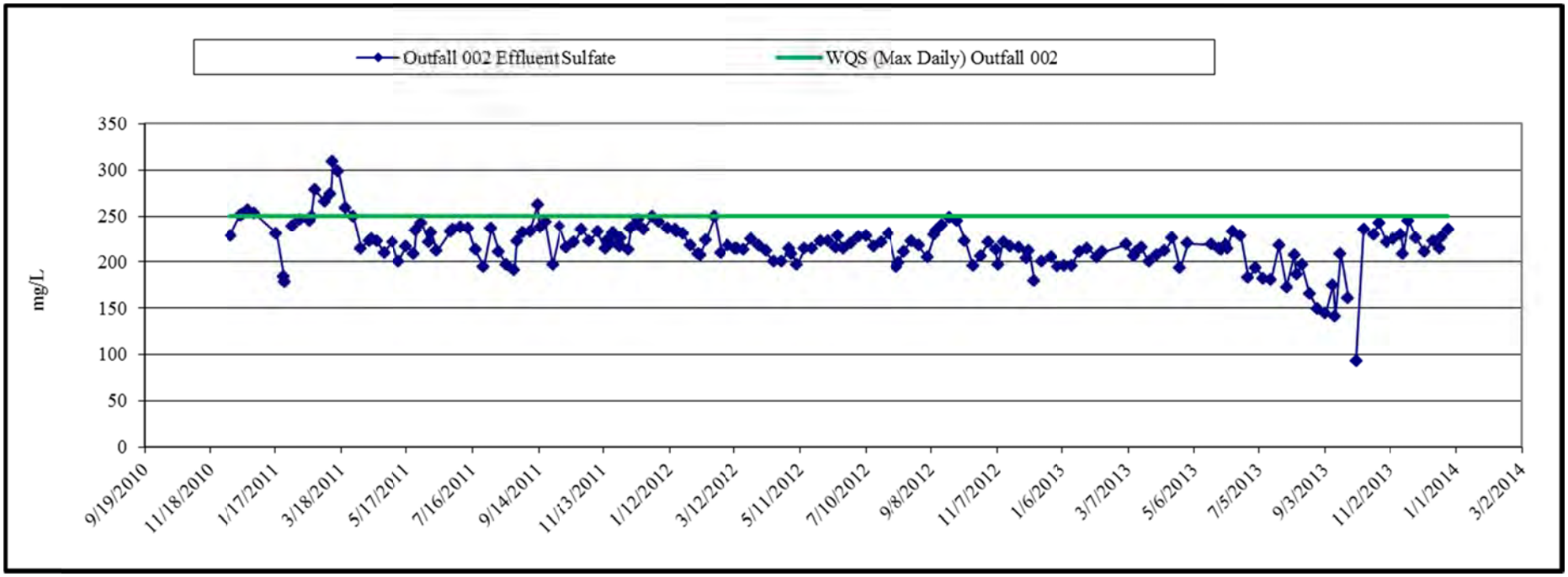


Figure 19b: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Major Chemistry

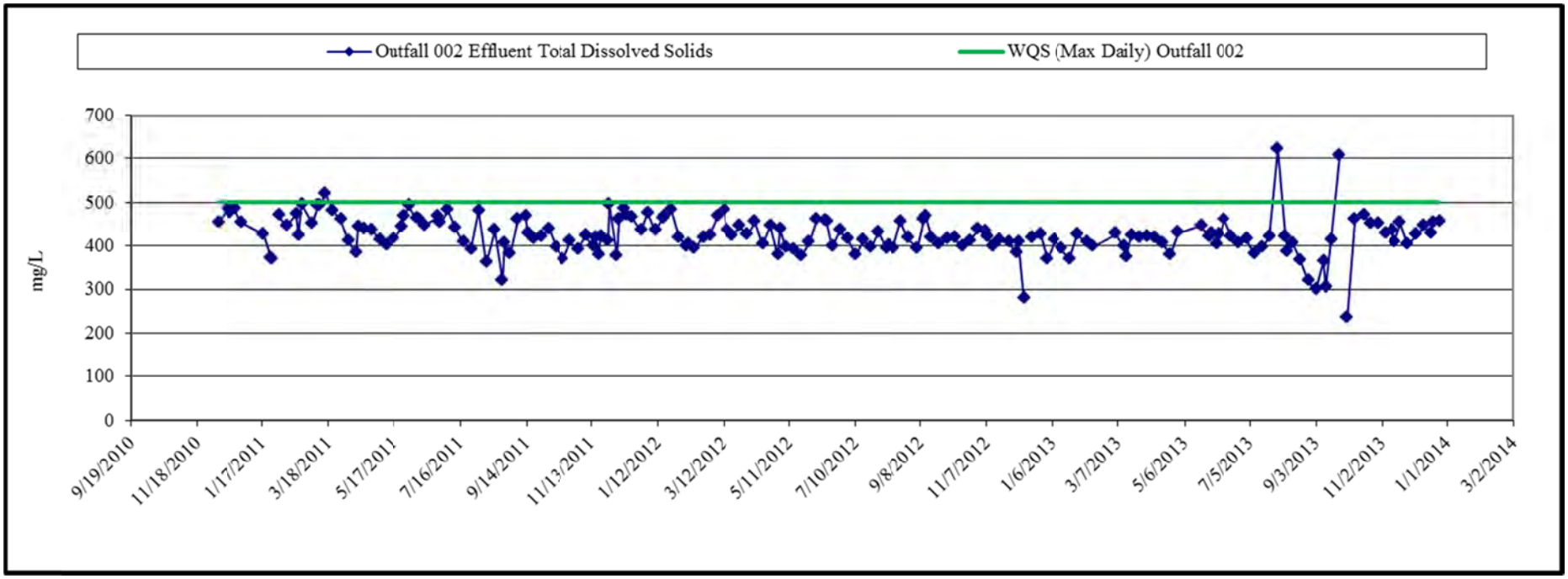


Figure 19b: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Major Chemistry

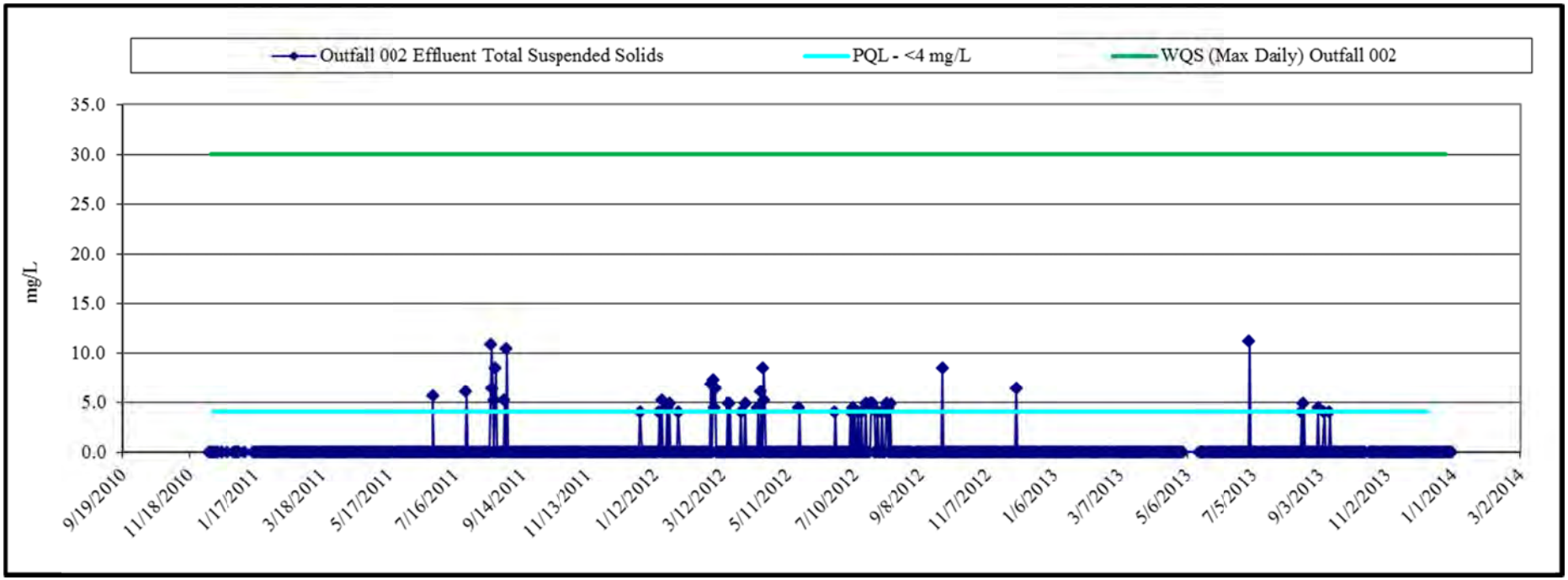


Figure 19b: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Major Chemistry

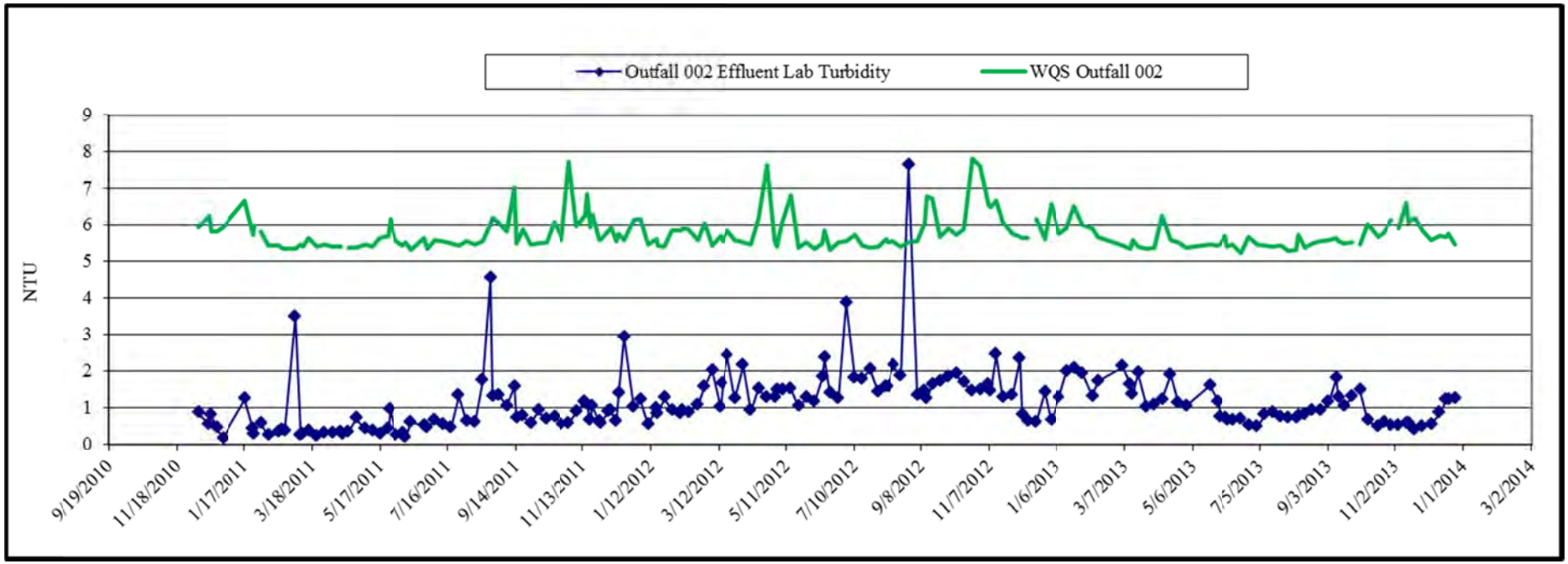


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

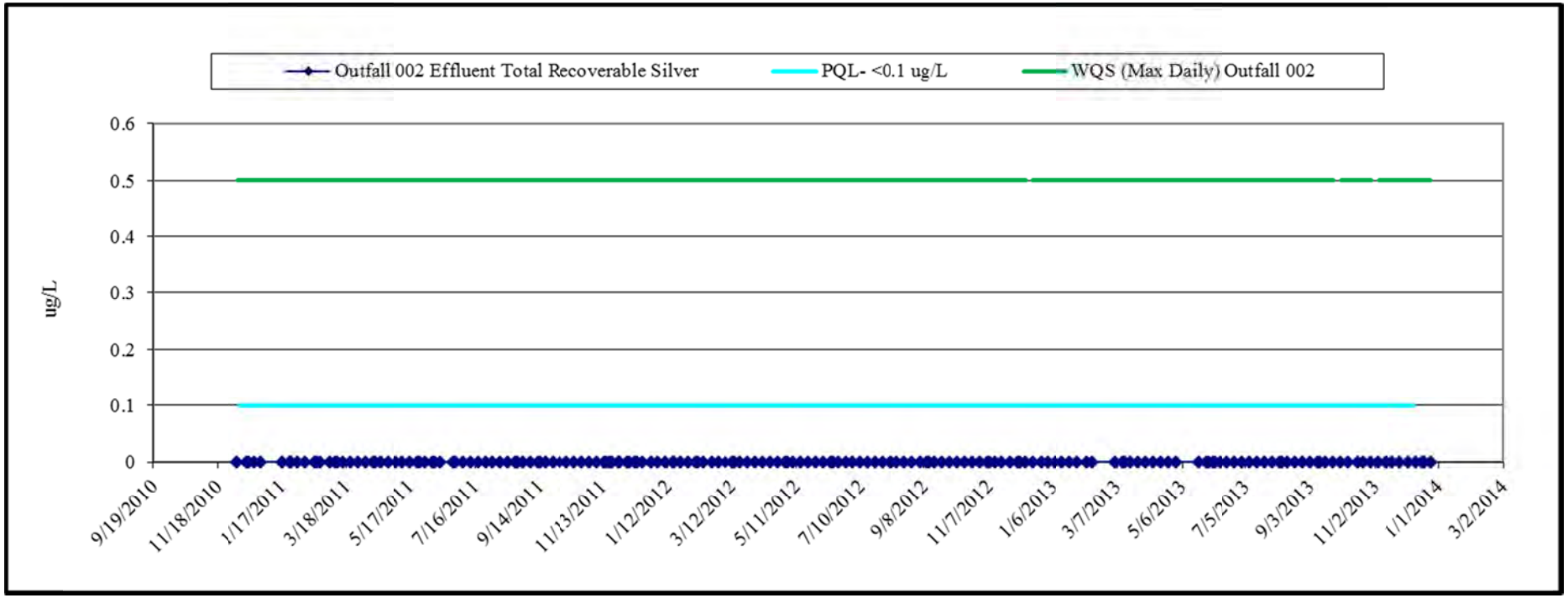


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

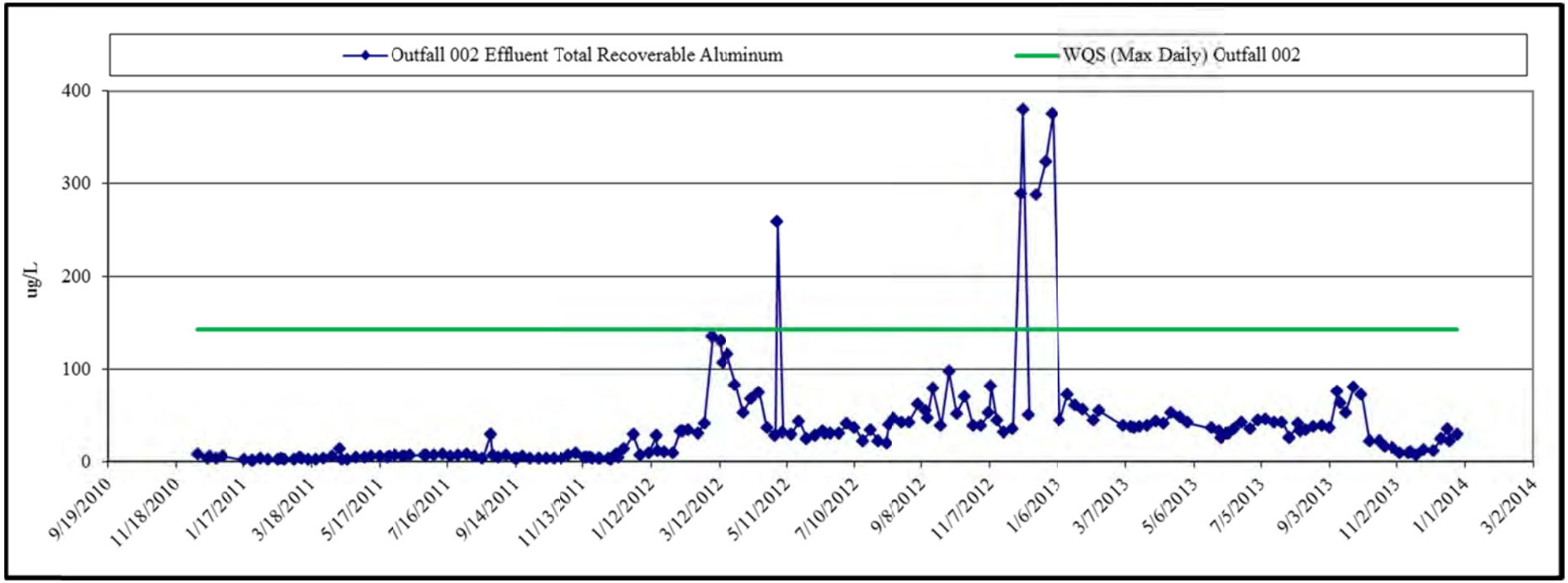
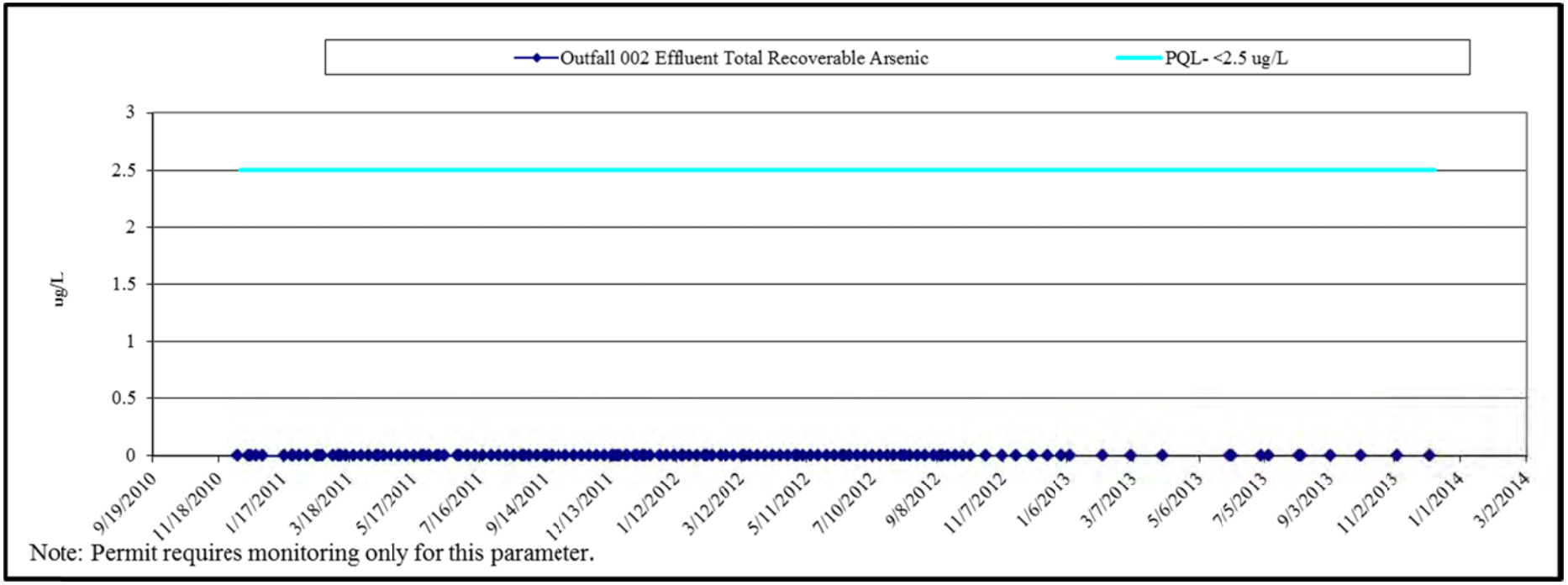


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry



Note: Permit requires monitoring only for this parameter.

Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

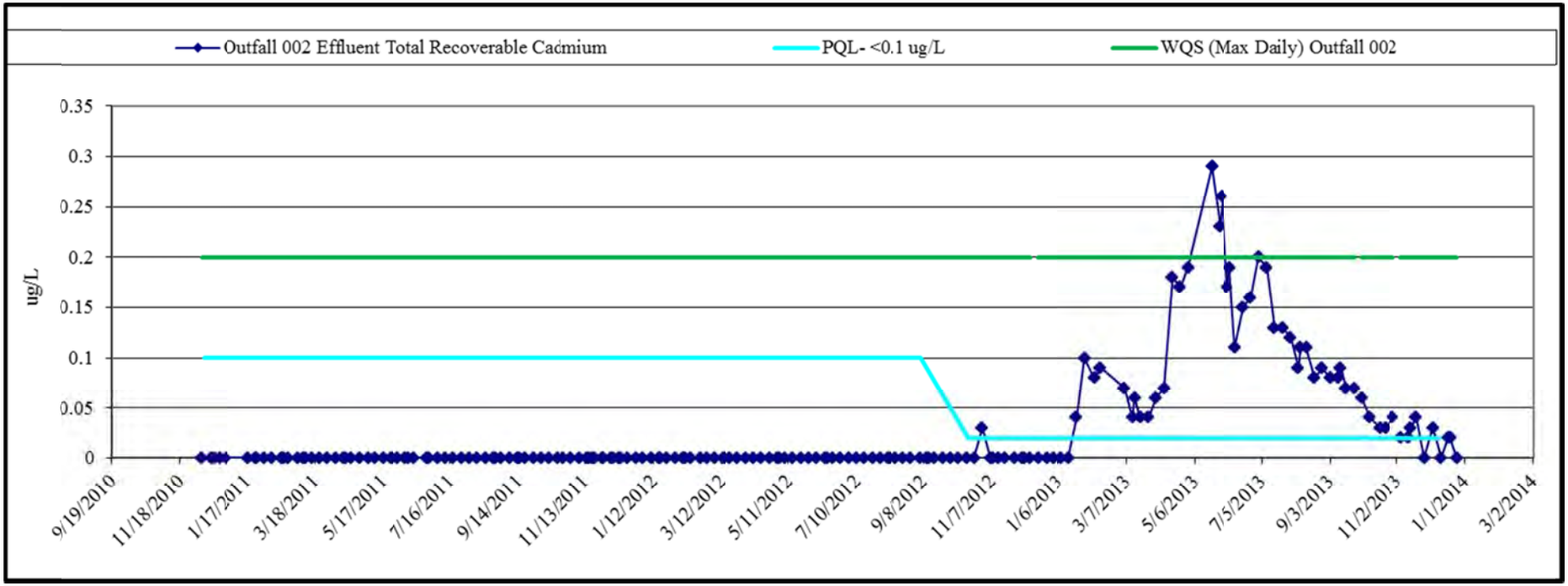
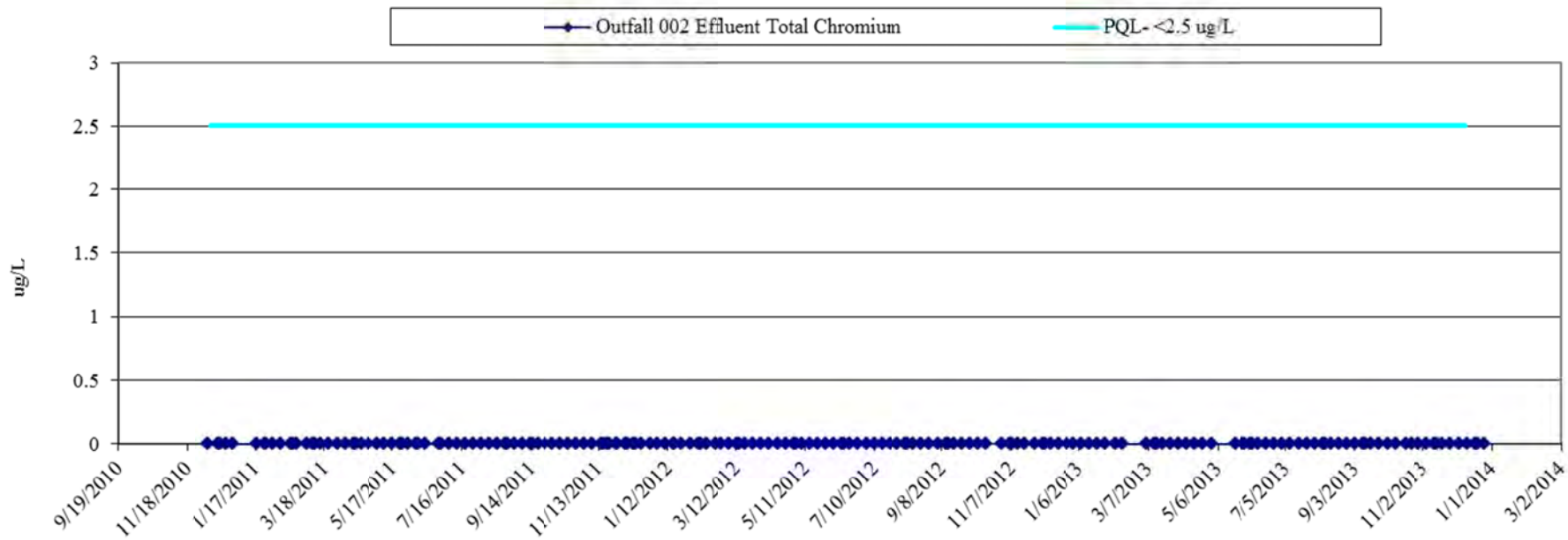


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry



Note: Permit requires monitoring only for this parameter. Chromium VI analysis only required when Total Cr in the spring exceeds 11 ug/L.

Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

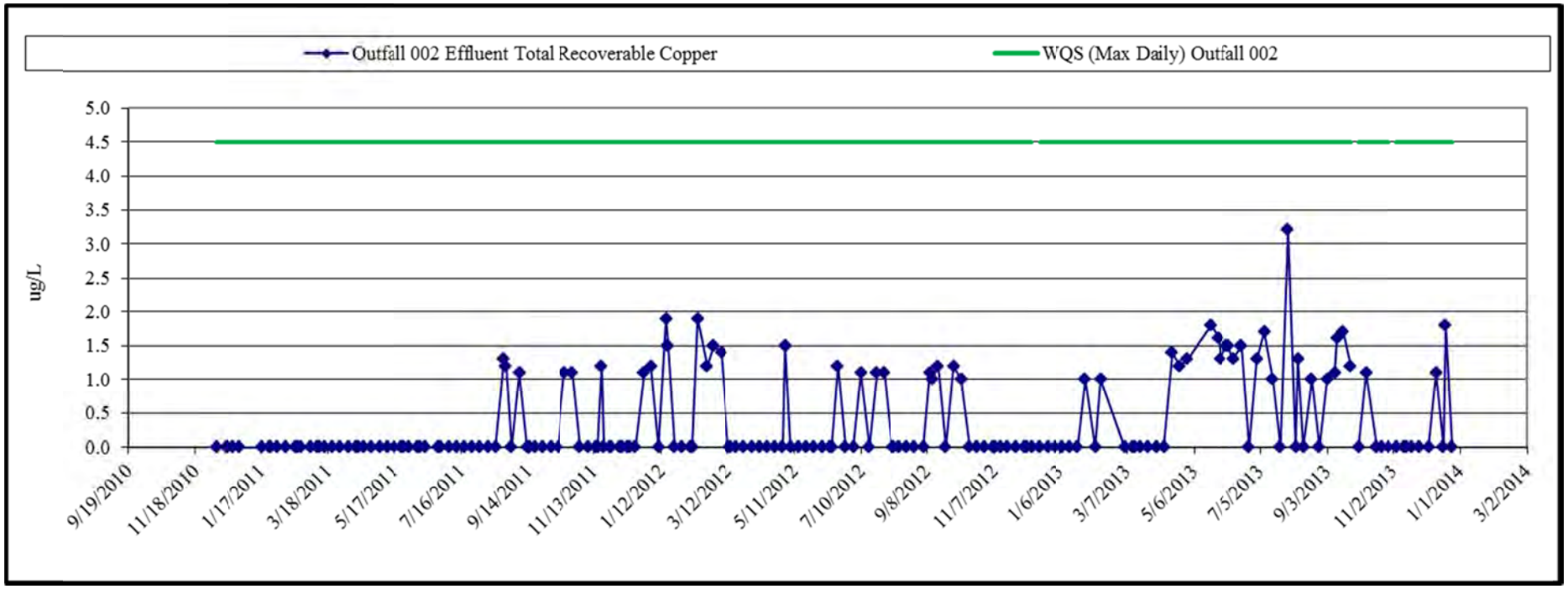


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

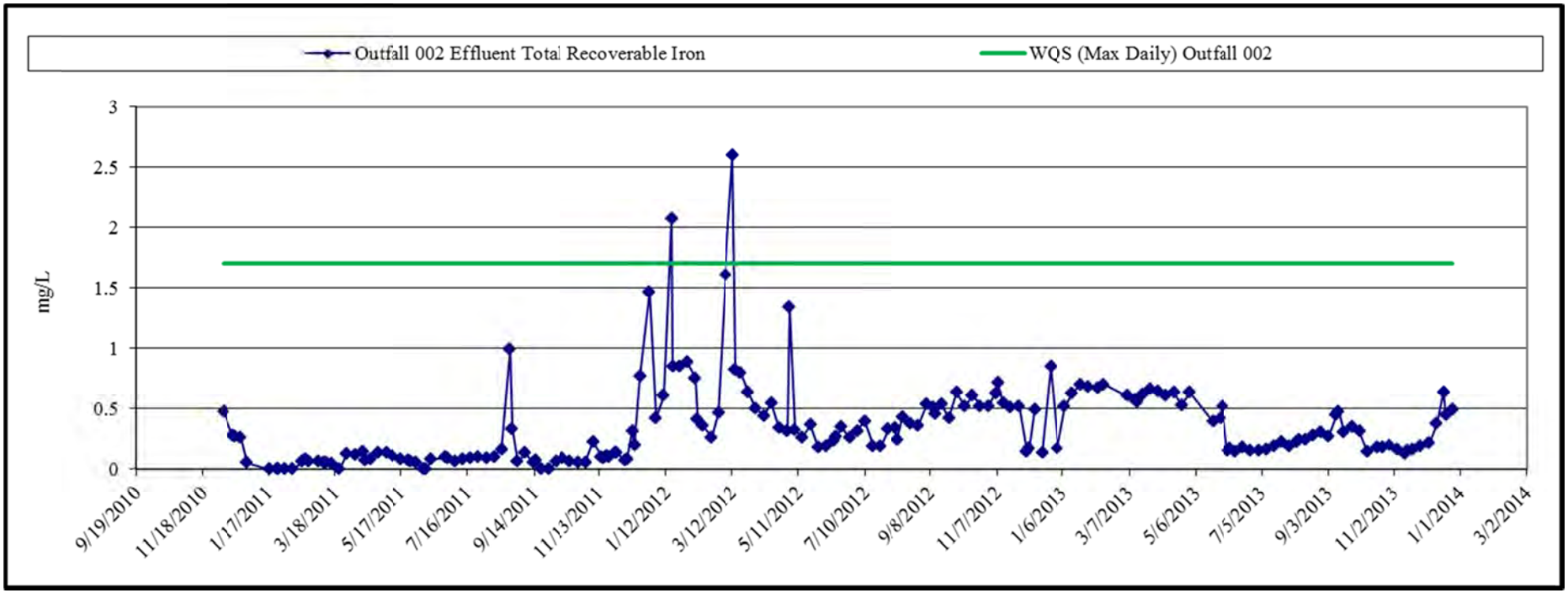


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

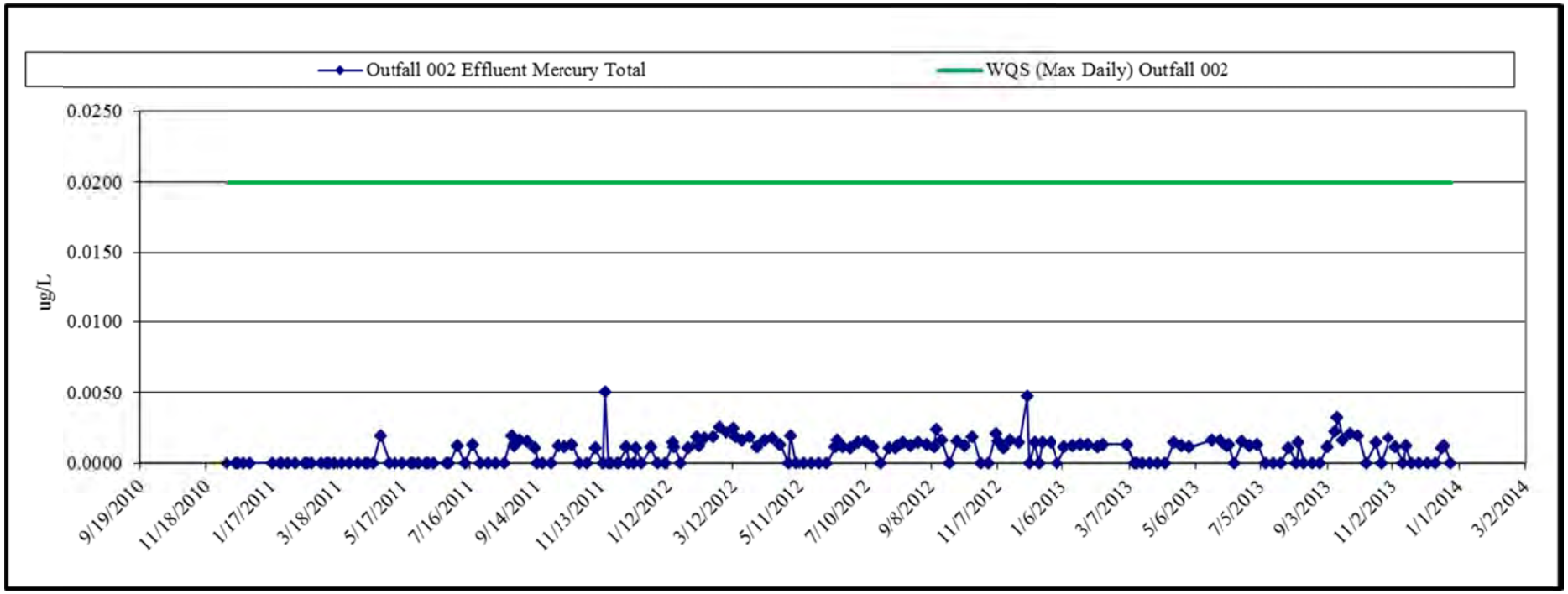


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

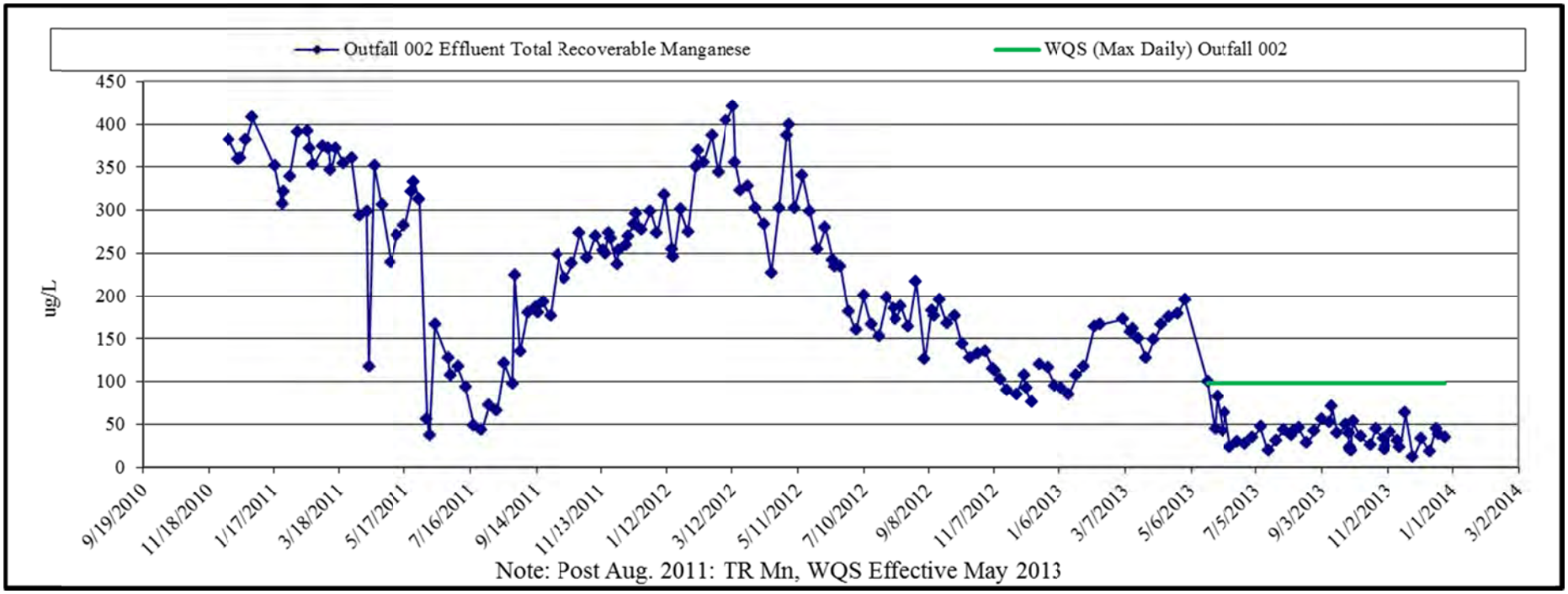


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

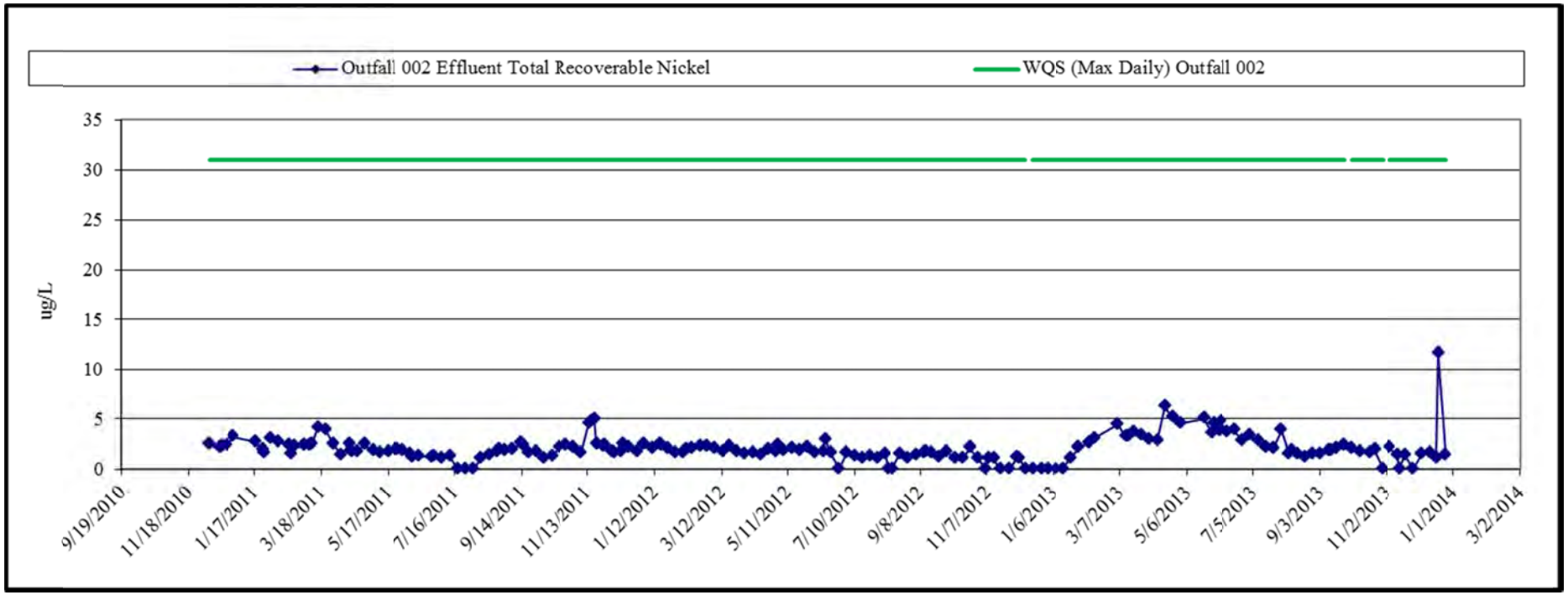


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

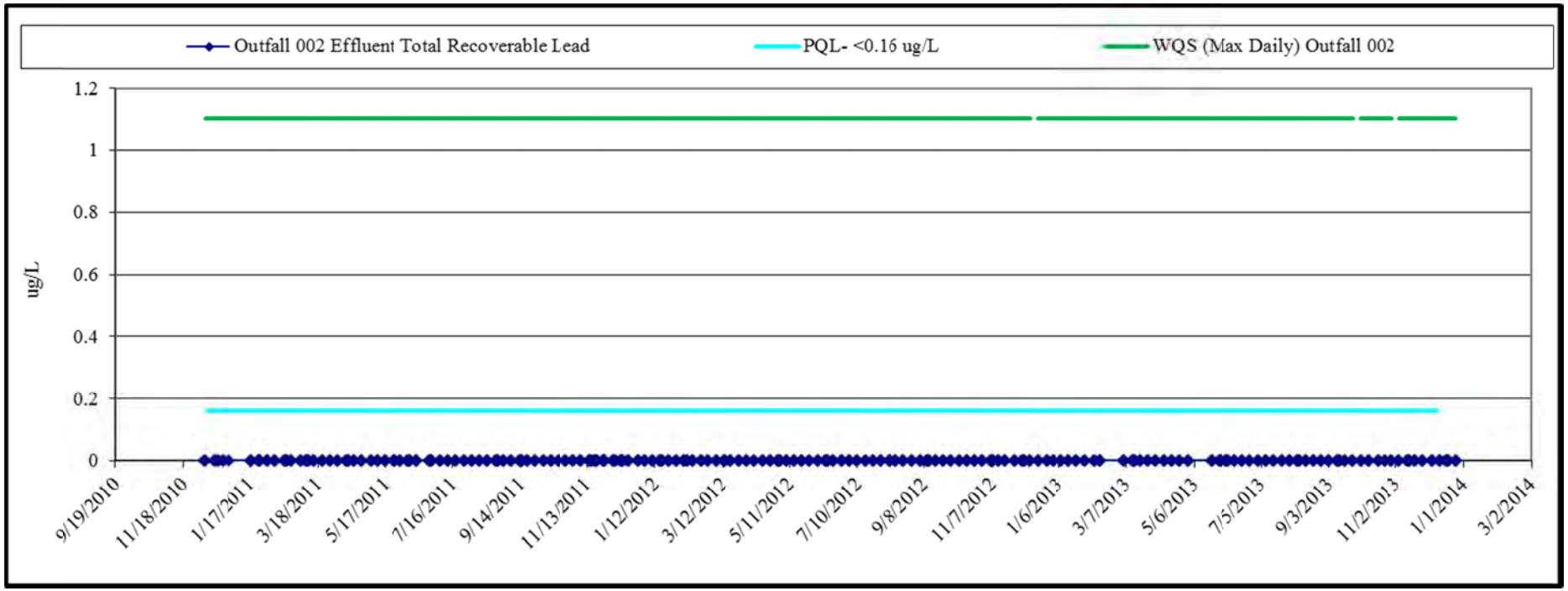


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry

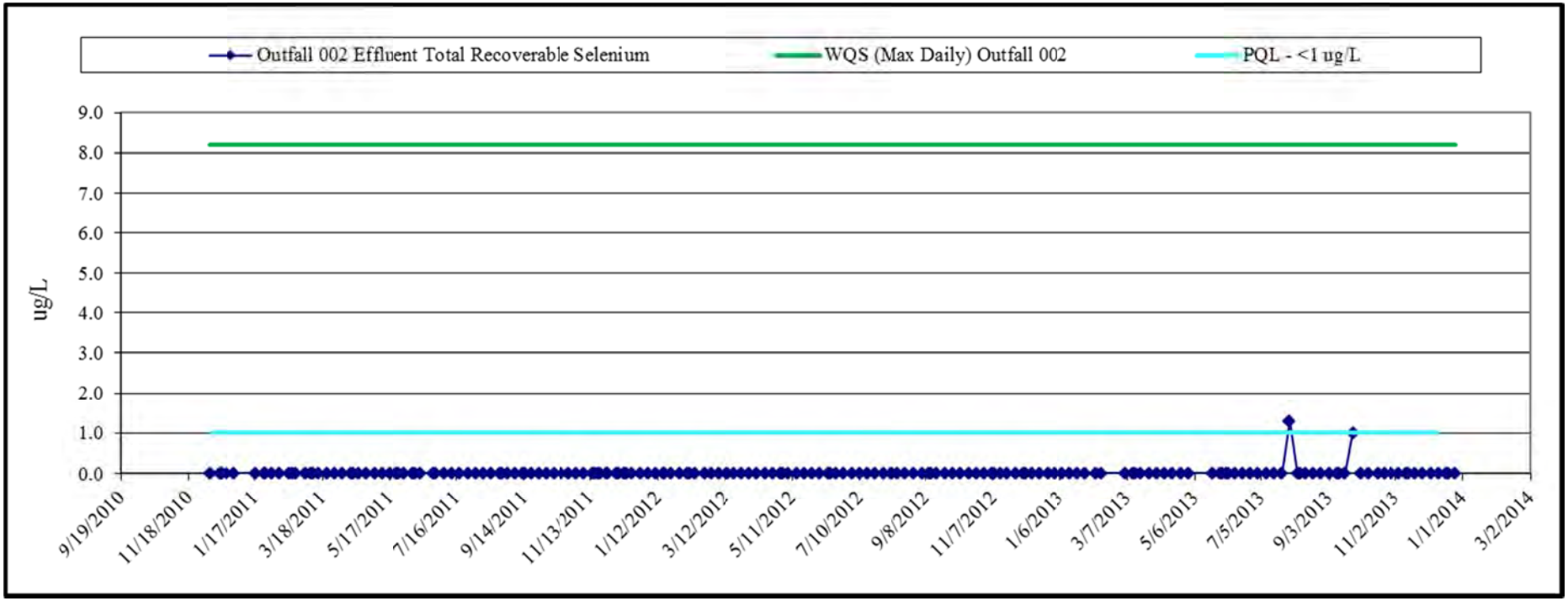
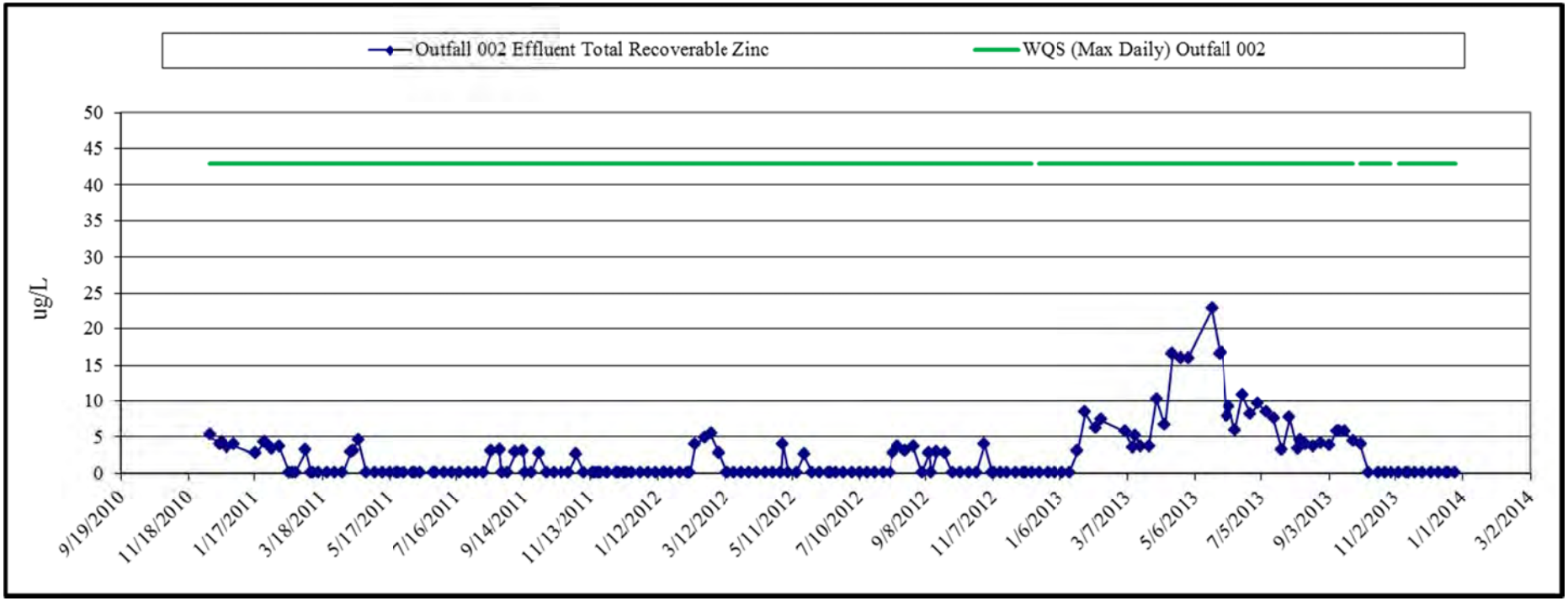


Figure 19c: Outfall 002 Effluent Monitoring Results Dec. 2010-2013, Trace Chemistry



Appendix A

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH105				
	Sample No.	1/3/2013	1/3/2013				
	Collect Date/Time	CAK-069-20130103	CAK-SH105-20130103	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.16	0.14	0.16	0.02	12.5	
Color	Color Unit	10	5	10	5	50.0	Yes
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.12	0.1	0.12	0.02	16.7	
Nitrate as N	mg/L	1.19	1.19	1.19	0	0.0	
Hardness, Total	mg/L	64.6	65.3	64.6	0.7	1.1	
Chloride	mg/L	10.9	11	10.9	0.1	0.9	
Sulfate	mg/L	22.4	22.1	22.4	0.3	1.3	
Total Dissolved Solids	mg/L	51	76	51	25	49.0	Yes
Total Recoverable Aluminum	ug/L	18.7	17.9	18.7	0.8	4.3	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	9.3	9	9.3	0.3	3.2	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	15.7	16.1	15.7	0.4	2.5	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	8.8	8.8	8.8	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0012	0.001	0.0012	0.0002	16.7	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS4				
	Sample No.	1/9/2013	1/9/2013				
	Collect Date/Time	CAK-069-20130109	CAK-JS4-20130109	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.19	0.46	0.325	0.27	83.1	Yes
Color	Color Unit	10	10	10	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.338	0.339	0.3385	0.001	0.3	
Hardness, Total	mg/L	55.7	54.4	55.05	1.3	2.4	
Chloride	mg/L	1.4	1.4	1.4	0	0.0	
Sulfate	mg/L	10.4	10.4	10.4	0	0.0	
Total Dissolved Solids	mg/L	72	83	77.5	11	14.2	
Total Recoverable Aluminum	ug/L	12.8	12.1	12.45	0.7	5.6	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	3.3	3.4	3.35	0.1	3.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	10.2	10	10.1	0.2	2.0	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.056	0.05	0.053	0.006	11.3	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	3.1	3	3.05	0.1	3.3	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0011	0.001	0.00105	0.0001	9.5	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SLSP-SL5				
	Sample No.	1/16/2013	1/16/2013				
	Collect Date/Time	CAK-069-20130116	CAK-SMP-5-20130116	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	1.17	1.12	1.145	0.05	4.4	
Color	Color Unit	60	70	65	10	15.4	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.62	0.61	0.615	0.01	1.6	
Nitrate as N	mg/L	1.35	1.33	1.34	0.02	1.5	
Hardness, Total	mg/L	137	134	135.5	3	2.2	
Chloride	mg/L	7.5	7.5	7.5	0	0.0	
Sulfate	mg/L	105	103	104	2	1.9	
Total Dissolved Solids	mg/L	208	198	203	10	4.9	
Total Recoverable Aluminum	ug/L	93.5	95.1	94.3	1.6	1.7	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1.2	1.3	1.25	0.1	8.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	68.5	67.9	68.2	0.6	0.9	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	3.7	3.9	3.8	0.2	5.3	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	59.7	61.5	60.6	1.8	3.0	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1.1	1.1	1.1	0	0.0	
Dissolved Iron	mg/L	0.306	0.31	0.308	0.004	1.3	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	66.9	65.6	66.25	1.3	2.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	4.1	4.3	4.2	0.2	4.8	
Mercury Dissolved	ug/L	0.0015	0.0017	0.0016	0.0002	12.5	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH109				
	Sample No.	2/6/2013	2/6/2013				
	Collect Date/Time	CAK-069-20130206	CAK-SH109-20130206	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.14	0.19	0.165	0.05	30.3	Yes
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.264	0.261	0.2625	0.003	1.1	
Hardness, Total	mg/L	42.8	42.1	42.45	0.7	1.6	
Chloride	mg/L	2.6	2.6	2.6	0	0.0	
Sulfate	mg/L	8.51	8.37	8.44	0.14	1.7	
Total Dissolved Solids	mg/L	72	90	81	18	22.2	Yes
Total Recoverable Aluminum	ug/L	7.3	9.3	8.3	2	24.1	Yes
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1	1	1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	8.5	7.2	7.85	1.3	16.6	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	MLA				
	Sample No.	2/13/2013	2/13/2013				
	Collect Date/Time	CAK-069-20130213	CAK-MLA-20130213	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.46	0.45	0.455	0.01	2.2	
Color	Color Unit	70	70	70	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.05	0.05	0.05	0	0.0	
Hardness, Total	mg/L	32.3	32.7	32.5	0.4	1.2	
Chloride	mg/L	2.6	2.6	2.6	0	0.0	
Sulfate	mg/L	1.73	1.81	1.77	0.08	4.5	
Total Dissolved Solids	mg/L	42	48	45	6	13.3	
Total Recoverable Aluminum	ug/L	80.5	80.4	80.45	0.1	0.1	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	19.2	19.4	19.3	0.2	1.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	76.9	76.8	76.85	0.1	0.1	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.166	0.165	0.1655	0.001	0.6	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	18.3	18.2	18.25	0.1	0.5	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0019	0.0021	0.002	0.0002	10.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS4				
	Sample No.	2/20/2013	2/20/2013				
	Collect Date/Time	CAK-069-20130220	CAK-JS4-20130220	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.3	0.33	0.315	0.03	9.5	
Color	Color Unit	15	15	15	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.692	0.689	0.6905	0.003	0.4	
Hardness, Total	mg/L	48.1	48.3	48.2	0.2	0.4	
Chloride	mg/L	1.5	1.5	1.5	0	0.0	
Sulfate	mg/L	9.09	9.06	9.075	0.03	0.3	
Total Dissolved Solids	mg/L	59	64	61.5	5	8.1	
Total Recoverable Aluminum	ug/L	24.1	23	23.55	1.1	4.7	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	5.3	5.3	5.3	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	19.5	19.3	19.4	0.2	1.0	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	4.5	4.4	4.45	0.1	2.2	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0013	0.001	0.00115	0.0003	26.1	Yes

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS2				
	Sample No.	3/13/2013	3/13/2013				
	Collect Date/Time	CAK-069-20130313	CAK-JS2-20130313	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.1	0.1	0.1	0	0.0	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.291	0.291	0.291	0	0.0	
Hardness, Total	mg/L	19.1	19.3	19.2	0.2	1.0	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	2.04	2.01	2.025	0.03	1.5	
Total Dissolved Solids	mg/L	20	24	22	4	18.2	
Total Recoverable Aluminum	ug/L	2.2	2.6	2.4	0.4	16.7	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1	1	1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	3.7	3.3	3.5	0.4	11.4	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SLC				
	Sample No.	3/20/2013	3/20/2013				
	Collect Date/Time	CAK-069-20130320	CAK-SLC-20130320	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.37	0.48	0.425	0.11	25.9	Yes
Color	Color Unit	15	15	15	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.5	0.52	0.51	0.02	3.9	
Nitrate as N	mg/L	1.08	1.07	1.075	0.01	0.9	
Hardness, Total	mg/L	139	142	140.5	3	2.1	
Chloride	mg/L	8.7	8.6	8.65	0.1	1.2	
Sulfate	mg/L	83.5	83.2	83.35	0.3	0.4	
Total Dissolved Solids	mg/L	207	213	210	6	2.9	
Total Recoverable Aluminum	ug/L	23.3	21.1	22.2	2.2	9.9	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	31.7	31.9	31.8	0.2	0.6	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.7	2.5	2.6	0.2	7.7	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	18.1	21	19.55	2.9	14.8	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.167	0.173	0.17	0.006	3.5	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	29.6	29.2	29.4	0.4	1.4	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.9	2.5	2.7	0.4	14.8	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS4				
	Sample No.	4/3/2013	4/3/2013				
	Collect Date/Time	CAK-069-20130403	CAK-JS4-20130403	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	2.55	2.02	2.285	0.53	23.2	Yes
Color	Color Unit	15	15	15	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.76	0.762	0.761	0.002	0.3	
Hardness, Total	mg/L	60.3	60.8	60.55	0.5	0.8	
Chloride	mg/L	1.9	1.9	1.9	0	0.0	
Sulfate	mg/L	15	15	15	0	0.0	
Total Dissolved Solids	mg/L	82	80	81	2	2.5	
Total Recoverable Aluminum	ug/L	67.2	65.5	66.35	1.7	2.6	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	11.4	11.3	11.35	0.1	0.9	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	18.2	17.7	17.95	0.5	2.8	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	7.4	7.4	7.4	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.0013	0.00115	0.0003	26.1	Yes

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH103				
	Sample No.	4/8/2013	4/8/2013				
	Collect Date/Time	CAK-069-20130408	CAK-SH103-20130408	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.4	0.23	0.315	0.17	54.0	Yes
Color	Color Unit	10	10	10	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	6.08	6.07	6.075	0.01	0.2	
Hardness, Total	mg/L	344	346	345	2	0.6	
Chloride	mg/L	3.9	3.9	3.9	0	0.0	
Sulfate	mg/L	268	265	266.5	3	1.1	
Total Dissolved Solids	mg/L	498	514	506	16	3.2	
Total Recoverable Aluminum	ug/L	6.3	6.1	6.2	0.2	3.2	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1.2	1.2	1.2	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1	1	1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	7.7	7.6	7.65	0.1	1.3	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1.1	1.1	1.1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SLSP-SL5				
	Sample No.	4/17/2013	4/17/2013				
	Collect Date/Time	CAK-069-20130417	CAK-SMP-5-20130417	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.51	0.56	0.535	0.05	9.3	
Color	Color Unit	70	80	75	10	13.3	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.101	0.094	0.0975	0.007	7.2	
Hardness, Total	mg/L	42.5	43.3	42.9	0.8	1.9	
Chloride	mg/L	2.1	2.1	2.1	0	0.0	
Sulfate	mg/L	9.77	9.17	9.47	0.6	6.3	
Total Dissolved Solids	mg/L	67	72	69.5	5	7.2	
Total Recoverable Aluminum	ug/L	125	129	127	4	3.1	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1.8	1.8	1.8	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	31.5	31.2	31.35	0.3	1.0	
Total Recoverable Nickel	ug/L	1.4	1.4	1.4	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	8.7	8.7	8.7	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	102	101	101.5	1	1.0	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1.7	1.6	1.65	0.1	6.1	
Dissolved Iron	mg/L	0.219	0.22	0.2195	0.001	0.5	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	31.3	32	31.65	0.7	2.2	
Dissolved Nickel	ug/L	1.4	1.4	1.4	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	9.1	8.6	8.85	0.5	5.6	
Mercury Dissolved	ug/L	0.0022	0.0018	0.002	0.0004	20.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH111				
	Sample No.	5/6/2013	5/6/2013				
	Collect Date/Time	CAK-069-20130506	CAK-SH111-20130506	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.14	0.25	0.195	0.11	56.4	Yes
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.619	0.615	0.617	0.004	0.6	
Hardness, Total	mg/L	20.6	20.7	20.65	0.1	0.5	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	1.83	1.83	1.83	0	0.0	
Total Dissolved Solids	mg/L	29	28	28.5	1	3.5	
Total Recoverable Aluminum	ug/L	10.6	8.6	9.6	2	20.8	Yes
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1.1	1	1.05	0.1	9.5	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1	1	1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	5.2	5.4	5.3	0.2	3.8	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	MLA				
	Sample No.	5/8/2013	5/8/2013				
	Collect Date/Time	CAK-069-20130508	CAK-MLA-20130508	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.5	0.5	0.5	0	0.0	
Color	Color Unit	70	70	70	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.05	0.05	0.05	0	0.0	
Hardness, Total	mg/L	30.6	30.8	30.7	0.2	0.7	
Chloride	mg/L	1.4	1.4	1.4	0	0.0	
Sulfate	mg/L	1.7	1.68	1.69	0.02	1.2	
Total Dissolved Solids	mg/L	49	47	48	2	4.2	
Total Recoverable Aluminum	ug/L	81.5	83.9	82.7	2.4	2.9	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	17.6	16.7	17.15	0.9	5.2	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	75.7	72.8	74.25	2.9	3.9	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.14	0.136	0.138	0.004	2.9	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	15.8	15.8	15.8	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0015	0.0021	0.0018	0.0006	33.3	Yes

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS4				
	Sample No.	5/13/2013	5/13/2013				
	Collect Date/Time	CAK-069-20130513	CAK-JS4-20130513	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	6.63	6.55	6.59	0.08	1.2	
Color	Color Unit	15	5	10	10	100.0	Yes
Total Suspended Solids	mg/L	21.2	18	19.6	3.2	16.3	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.392	0.39	0.391	0.002	0.5	
Hardness, Total	mg/L	23.6	22.9	23.25	0.7	3.0	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	4.49	4.52	4.505	0.03	0.7	
Total Dissolved Solids	mg/L	40	38	39	2	5.1	
Total Recoverable Aluminum	ug/L	323	334	328.5	11	3.3	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	3.7	4	3.85	0.3	7.8	
Total Recoverable Lead	ug/L	0.33	0.39	0.36	0.06	16.7	
Total Recoverable Manganese	ug/L	42.6	42.8	42.7	0.2	0.5	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	3.4	3.3	3.35	0.1	3.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	30.8	32.6	31.7	1.8	5.7	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	4.8	4.7	4.75	0.1	2.1	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.0011	0.00105	0.0001	9.5	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS5				
	Sample No.	6/10/2013	6/10/2013				
	Collect Date/Time	CAK-069-20130610	CAK-JS5-20130610	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.17	0.17	0.17	0	0.0	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.13	0.13	0.13	0	0.0	
Nitrate as N	mg/L	0.174	0.173	0.1735	0.001	0.6	
Hardness, Total	mg/L	17.8	17.7	17.75	0.1	0.6	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	2.29	2.3	2.295	0.01	0.4	
Total Dissolved Solids	mg/L	24	25	24.5	1	4.1	
Total Recoverable Aluminum	ug/L	14.3	15	14.65	0.7	4.8	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1.6	1.6	1.6	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	6.2	6.6	6.4	0.4	6.2	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SLC				
	Sample No.	6/12/2013	6/12/2013				
	Collect Date/Time	CAK-069-20130612	CAK-SLC-20130612	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.31	0.31	0.31	0	0.0	
Color	Color Unit	25	20	22.5	5	22.2	Yes
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.16	0.17	0.165	0.01	6.1	
Nitrate as N	mg/L	0.45	0.461	0.4555	0.011	2.4	
Hardness, Total	mg/L	73.7	74.4	74.05	0.7	0.9	
Chloride	mg/L	3.9	3.9	3.9	0	0.0	
Sulfate	mg/L	40	40.2	40.1	0.2	0.5	
Total Dissolved Solids	mg/L	129	127	128	2	1.6	
Total Recoverable Aluminum	ug/L	41.9	45.1	43.5	3.2	7.4	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	10.4	11	10.7	0.6	5.6	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	33.3	32.1	32.7	1.2	3.7	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	3.4	3.4	3.4	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0014	0.0011	0.00125	0.0003	24.0	Yes

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH105				
	Sample No.	6/24/2013	6/24/2013				
	Collect Date/Time	CAK-069-20130624	CAK-SH105-20130624	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.27	0.18	0.225	0.09	40.0	Yes
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.197	0.199	0.198	0.002	1.0	
Hardness, Total	mg/L	33.5	34	33.75	0.5	1.5	
Chloride	mg/L	1.9	1.9	1.9	0	0.0	
Sulfate	mg/L	8.74	8.71	8.725	0.03	0.3	
Total Dissolved Solids	mg/L	44	33	38.5	11	28.6	Yes
Total Recoverable Aluminum	ug/L	9.3	9.4	9.35	0.1	1.1	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	2.7	2.6	2.65	0.1	3.8	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	6.4	6	6.2	0.4	6.5	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	2	2	2	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	MLA				
	Sample No.	7/10/2013	7/10/2013				
	Collect Date/Time	CAK-069-20130710	CAK-MLA-20130710	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.33	0.36	0.345	0.03	8.7	
Color	Color Unit	40	40	40	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.05	0.05	0.05	0	0.0	
Hardness, Total	mg/L	58.5	57.7	58.1	0.8	1.4	
Chloride	mg/L	1.4	1.4	1.4	0	0.0	
Sulfate	mg/L	1.87	1.88	1.875	0.01	0.5	
Total Dissolved Solids	mg/L	79	78	78.5	1	1.3	
Total Recoverable Aluminum	ug/L	44.1	43.6	43.85	0.5	1.1	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	21.1	20.8	20.95	0.3	1.4	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	39.7	39.4	39.55	0.3	0.8	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.099	0.099	0.099	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	17.2	18.1	17.65	0.9	5.1	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	3.6	3.05	1.1	36.1	Yes
Mercury Dissolved	ug/L	0.0013	0.0014	0.00135	0.0001	7.4	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH105				
	Sample No.	7/11/2013	7/11/2013				
	Collect Date/Time	CAK-069-20130711	CAK-SH105-20130711	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.18	0.17	0.175	0.01	5.7	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.15	0.15	0.15	0	0.0	
Nitrate as N	mg/L	0.593	0.597	0.595	0.004	0.7	
Hardness, Total	mg/L	43.4	43.5	43.45	0.1	0.2	
Chloride	mg/L	2.6	2.6	2.6	0	0.0	
Sulfate	mg/L	13.5	13.1	13.3	0.4	3.0	
Total Dissolved Solids	mg/L	55	38	46.5	17	36.6	Yes
Total Recoverable Aluminum	ug/L	9	9.1	9.05	0.1	1.1	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1.8	1.7	1.75	0.1	5.7	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	7.3	7.5	7.4	0.2	2.7	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1.2	1.2	1.2	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS2				
	Sample No.	7/17/2013	7/17/2013				
	Collect Date/Time	CAK-069-20130717	CAK-JS2-20130717	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.1	0.11	0.105	0.01	9.5	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.05	0.077	0.0635	0.027	42.5	Yes
Hardness, Total	mg/L	11	12	11.5	1	8.7	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	0.55	1.1	0.825	0.55	66.7	Yes
Total Dissolved Solids	mg/L	15	14	14.5	1	6.9	
Total Recoverable Aluminum	ug/L	5.4	6.7	6.05	1.3	21.5	Yes
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1	1	1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	2.7	4.3	3.5	1.6	45.7	Yes
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0011	0.001	0.00105	0.0001	9.5	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH109				
	Sample No.	8/1/2013	8/1/2013				
	Collect Date/Time	CAK-069-20130801	CAK-SH109-20130801	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.13	0.15	0.14	0.02	14.3	
Color	Color Unit	5	10	7.5	5	66.7	Yes
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.079	0.0895	0.021	23.5	Yes
Nitrate as N	mg/L	0.063	0.065	0.064	0.002	3.1	
Hardness, Total	mg/L	39.2	39.4	39.3	0.2	0.5	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	6.63	6.64	6.635	0.01	0.2	
Total Dissolved Solids	mg/L	50	43	46.5	7	15.1	
Total Recoverable Aluminum	ug/L	8.9	8.1	8.5	0.8	9.4	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1	1	1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	6.9	6.8	6.85	0.1	1.5	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1.1	1	1.05	0.1	9.5	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SLSP-SL5				
	Sample No.	8/7/2013	8/7/2013				
	Collect Date/Time	CAK-069-20130807	CAK-SMP-5-20130807	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.69	0.62	0.655	0.07	10.7	
Color	Color Unit	20	25	22.5	5	22.2	Yes
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.93	0.94	0.935	0.01	1.1	
Nitrate as N	mg/L	2.41	2.41	2.41	0	0.0	
Hardness, Total	mg/L	215	215	215	0	0.0	
Chloride	mg/L	9.7	9.7	9.7	0	0.0	
Sulfate	mg/L	184	184	184	0	0.0	
Total Dissolved Solids	mg/L	382	377	379.5	5	1.3	
Total Recoverable Aluminum	ug/L	35.3	36.2	35.75	0.9	2.5	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	40.4	41.2	40.8	0.8	2.0	
Total Recoverable Nickel	ug/L	1.5	1.5	1.5	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.9	3	2.95	0.1	3.4	
Total Chromium	ug/L	2.5	2.9	2.7	0.4	14.8	
Dissolved Aluminum	ug/L	31.1	30.5	30.8	0.6	1.9	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.069	0.0595	0.019	31.9	Yes
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	38.6	38	38.3	0.6	1.6	
Dissolved Nickel	ug/L	1.4	1.4	1.4	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	3.5	3	1	33.3	Yes
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS4				
	Sample No.	8/12/2013	8/12/2013				
	Collect Date/Time	CAK-069-20130812	CAK-JS4-20130812	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.18	0.16	0.17	0.02	11.8	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.163	0.163	0.163	0	0.0	
Hardness, Total	mg/L	24.1	23.7	23.9	0.4	1.7	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	3.73	3.74	3.735	0.01	0.3	
Total Dissolved Solids	mg/L	28	20	24	8	33.3	Yes
Total Recoverable Aluminum	ug/L	8.1	9.3	8.7	1.2	13.8	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	2.2	2.3	2.25	0.1	4.4	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	6.9	6.2	6.55	0.7	10.7	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1.7	1.6	1.65	0.1	6.1	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH113				
	Sample No.	9/4/2013	9/4/2013				
	Collect Date/Time	CAK-069-20130904	CAK-SH113-20130904	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.17	0.19	0.18	0.02	11.1	
Color	Color Unit	15	15	15	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.49	0.5	0.495	0.01	2.0	
Nitrate as N	mg/L	1.31	1.31	1.31	0	0.0	
Hardness, Total	mg/L	17	71.2	44.1	54.2	122.9	Yes
Chloride	mg/L	5.5	5.5	5.5	0	0.0	
Sulfate	mg/L	29.8	30.3	30.05	0.5	1.7	
Total Dissolved Solids	mg/L	134	114	124	20	16.1	
Total Recoverable Aluminum	ug/L	16.8	18.3	17.55	1.5	8.5	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Total Recoverable Copper	ug/L	1.6	1.6	1.6	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	9.2	9.3	9.25	0.1	1.1	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	12.9	13.1	13	0.2	1.5	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1.5	1.5	1.5	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	8.4	8.4	8.4	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0015	0.0011	0.0013	0.0004	30.8	Yes

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SLSP-SL5				
	Sample No.	9/9/2013	9/9/2013				
	Collect Date/Time	CAK-069-20130909	CAK-SMP-5-20130909	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.93	1.05	0.99	0.12	12.1	
Color	Color Unit	100	100	100	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.15	0.16	0.155	0.01	6.5	
Nitrate as N	mg/L	0.593	0.587	0.59	0.006	1.0	
Hardness, Total	mg/L	87.7	89.4	88.55	1.7	1.9	
Chloride	mg/L	3.6	3.6	3.6	0	0.0	
Sulfate	mg/L	50.6	50.2	50.4	0.4	0.8	
Total Dissolved Solids	mg/L	151	120	135.5	31	22.9	Yes
Total Recoverable Aluminum	ug/L	113	114	113.5	1	0.9	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	41.2	40.9	41.05	0.3	0.7	
Total Recoverable Nickel	ug/L	1.3	1.2	1.25	0.1	8.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	8.5	8.7	8.6	0.2	2.3	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	94.1	94.6	94.35	0.5	0.5	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.237	0.225	0.231	0.012	5.2	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	32.8	32.3	32.55	0.5	1.5	
Dissolved Nickel	ug/L	1.2	1.1	1.15	0.1	8.7	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	8.2	8.2	8.2	0	0.0	
Mercury Dissolved	ug/L	0.0024	0.002	0.0022	0.0004	18.2	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS4				
	Sample No.	9/18/2013	9/18/2013				
	Collect Date/Time	CAK-069-20130918	CAK-JS4-20130918	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	1.06	1.05	1.055	0.01	0.9	
Color	Color Unit	25	25	25	0	0.0	
Total Suspended Solids	mg/L	4	4.8	4.4	0.8	18.2	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.417	0.416	0.4165	0.001	0.2	
Hardness, Total	mg/L	24.5	24.6	24.55	0.1	0.4	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	7.81	7.67	7.74	0.14	1.8	
Total Dissolved Solids	mg/L	45	43	44	2	4.5	
Total Recoverable Aluminum	ug/L	93.6	99.9	96.75	6.3	6.5	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	2.3	2.3	2.3	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	14.5	14.3	14.4	0.2	1.4	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	39.3	39.5	39.4	0.2	0.5	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1.6	1.6	1.6	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	5.3	5.5	5.4	0.2	3.7	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0026	0.0021	0.00235	0.0005	21.3	Yes

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH111				
	Sample No.	10/2/2013	10/2/2013				
	Collect Date/Time	CAK-069-20131002	CAK-SH111-20131002	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.1	0.1	0.1	0	0.0	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	1.18	0.146	0.663	1.034	156.0	Yes
Hardness, Total	mg/L	50.5	22.9	36.7	27.6	75.2	Yes
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	23.7	2.51	13.105	21.19	161.7	Yes
Total Dissolved Solids	mg/L	69	27	48	42	87.5	Yes
Total Recoverable Aluminum	ug/L	3.6	5	4.3	1.4	32.6	Yes
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1.2	1	1.1	0.2	18.2	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	4.8	4.1	4.45	0.7	15.7	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1.1	1	1.05	0.1	9.5	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS5				
	Sample No.	10/7/2013	10/7/2013				
	Collect Date/Time	CAK069-20131007	CAK-JS5-20131007	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.11	0.11	0.11	0	0.0	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.694	0.694	0.694	0	0.0	
Hardness, Total	mg/L	30.4	30.4	30.4	0	0.0	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	6.78	6.76	6.77	0.02	0.3	
Total Dissolved Solids	mg/L	31	41.5	36.25	10.5	29.0	Yes
Total Recoverable Aluminum	ug/L	12	11.6	11.8	0.4	3.4	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	3.1	3.1	3.1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	8	7.7	7.85	0.3	3.8	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	2.3	2.4	2.35	0.1	4.3	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	MLA				
	Sample No.	10/9/2013	10/9/2013				
	Collect Date/Time	CAK-069-20131009	CAK-MLA-20131009	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.42	0.45	0.435	0.03	6.9	
Color	Color Unit	80	90	85	10	11.8	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.05	0.05	0.05	0	0.0	
Hardness, Total	mg/L	47.3	47.9	47.6	0.6	1.3	
Chloride	mg/L	2	2	2	0	0.0	
Sulfate	mg/L	1.96	1.97	1.965	0.01	0.5	
Total Dissolved Solids	mg/L	67	67	67	0	0.0	
Total Recoverable Aluminum	ug/L	90.1	88.8	89.45	1.3	1.5	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	16.7	17	16.85	0.3	1.8	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	96.9	84.2	90.55	12.7	14.0	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.189	0.169	0.179	0.02	11.2	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	14.4	13.6	14	0.8	5.7	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0021	0.0024	0.00225	0.0003	13.3	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH109				
	Sample No.	11/4/2013	11/4/2013				
	Collect Date/Time	CAK-069-20131104	CAK-SH109-20131104	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.1	0.11	0.105	0.01	9.5	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.141	0.131	0.136	0.01	7.4	
Hardness, Total	mg/L	41.5	41.3	41.4	0.2	0.5	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	6.84	6.92	6.88	0.08	1.2	
Total Dissolved Solids	mg/L	53	56	54.5	3	5.5	
Total Recoverable Aluminum	ug/L	9.2	9.7	9.45	0.5	5.3	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1.1	1.1	1.1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	7.3	7	7.15	0.3	4.2	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.02	0.02	0.02	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	MLA				
	Sample No.	11/7/2013	11/7/2013				
	Collect Date/Time	CAK-069-20131107	CAK-MLA-20131107	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.82	0.93	0.875	0.11	12.6	
Color	Color Unit	110	100	105	10	9.5	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.05	0.05	0.05	0	0.0	
Hardness, Total	mg/L	43.4	42.6	43	0.8	1.9	
Chloride	mg/L	1.6	1.5	1.55	0.1	6.5	
Sulfate	mg/L	1.8	1.77	1.785	0.03	1.7	
Total Dissolved Solids	mg/L	70	48	59	22	37.3	Yes
Total Recoverable Aluminum	ug/L	92.6	88.2	90.4	4.4	4.9	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	61.1	62.2	61.65	1.1	1.8	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	83.8	86.8	85.3	3	3.5	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.207	0.22	0.2135	0.013	6.1	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	57.6	55.9	56.75	1.7	3.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.0024	0.0026	0.0025	0.0002	8.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS2				
	Sample No.	11/13/2013	11/13/2013				
	Collect Date/Time	CAK-069-20131113	CAK-JS2-20131113	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.12	0.1	0.11	0.02	18.2	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.2	0.195	0.1975	0.005	2.5	
Hardness, Total	mg/L	15.1	15.6	15.35	0.5	3.3	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	1.36	1.33	1.345	0.03	2.2	
Total Dissolved Solids	mg/L	17	26	21.5	9	41.9	Yes
Total Recoverable Aluminum	ug/L	4.4	4.5	4.45	0.1	2.2	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	1.1	1.1	1.1	0	0.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	2	2.5	2.25	0.5	22.2	Yes
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	1	1	1	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SLSP-SL5				
	Sample No.	12/5/2013	12/5/2013				
	Collect Date/Time	CAK-069-20131205	CAK-SMP-5-20131205	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.5	0.56	0.53	0.06	11.3	
Color	Color Unit	60	70	65	10	15.4	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.05	0.05	0.05	0	0.0	
Hardness, Total	mg/L	48.3	48.1	48.2	0.2	0.4	
Chloride	mg/L	1.4	1.4	1.4	0	0.0	
Sulfate	mg/L	2.53	2.59	2.56	0.06	2.3	
Total Dissolved Solids	mg/L	68	72	70	4	5.7	
Total Recoverable Aluminum	ug/L	80.4	78.5	79.45	1.9	2.4	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	35.5	35.7	35.6	0.2	0.6	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	74	72	73	2	2.7	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.175	0.177	0.176	0.002	1.1	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	34	33.3	33.65	0.7	2.1	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	3.2	2.5	2.85	0.7	24.6	Yes
Mercury Dissolved	ug/L	0.0016	0.0022	0.0019	0.0006	31.6	Yes

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	SH105				
	Sample No.	12/8/2013	12/8/2013				
	Collect Date/Time	CAK-069-20131208	CAK-SH105-20131208	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.13	0.11	0.12	0.02	16.7	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.33	0.33	0.33	0	0.0	
Nitrate as N	mg/L	1.88	1.89	1.885	0.01	0.5	
Hardness, Total	mg/L	83.1	82.1	82.6	1	1.2	
Chloride	mg/L	6.1	6.1	6.1	0	0.0	
Sulfate	mg/L	32.8	33.4	33.1	0.6	1.8	
Total Dissolved Solids	mg/L	103	117	110	14	12.7	
Total Recoverable Aluminum	ug/L	12.2	12.7	12.45	0.5	4.0	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	19.6	19.4	19.5	0.2	1.0	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	1	19.9	10.45	18.9	180.9	Yes
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	18.6	19.1	18.85	0.5	2.7	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

		Duplicate	Sample				
	Stn.Code	Blind Duplicate RW Station	JS5				
	Sample No.	12/9/2013	12/9/2013				
	Collect Date/Time	CAK-069-20131209	CAK-JS5-20131209	Mean	Difference	% Difference	>20% ?
Turbidity Lab	NTU	0.1	0.1	0.1	0	0.0	
Color	Color Unit	5	5	5	0	0.0	
Total Suspended Solids	mg/L	4	4	4	0	0.0	
Ammonia as N	mg/L	0.1	0.1	0.1	0	0.0	
Nitrate as N	mg/L	0.564	0.561	0.5625	0.003	0.5	
Hardness, Total	mg/L	41.5	42.9	42.2	1.4	3.3	
Chloride	mg/L	1	1	1	0	0.0	
Sulfate	mg/L	7.92	7.9	7.91	0.02	0.3	
Total Dissolved Solids	mg/L	50	56	53	6	11.3	
Total Recoverable Aluminum	ug/L	7.1	7.5	7.3	0.4	5.5	
Total Recoverable Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Total Recoverable Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Copper	ug/L	1	1	1	0	0.0	
Total Recoverable Lead	ug/L	0.16	0.16	0.16	0	0.0	
Total Recoverable Manganese	ug/L	2.6	2.7	2.65	0.1	3.8	
Total Recoverable Nickel	ug/L	1	1	1	0	0.0	
Total Recoverable Selenium	ug/L	1	1	1	0	0.0	
Total Recoverable Silver	ug/L	0.1	0.1	0.1	0	0.0	
Total Recoverable Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Total Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Aluminum	ug/L	7.7	6.8	7.25	0.9	12.4	
Dissolved Arsenic	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Cadmium	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Chromium	ug/L	2.5	2.5	2.5	0	0.0	
Dissolved Copper	ug/L	1	1	1	0	0.0	
Dissolved Iron	mg/L	0.05	0.05	0.05	0	0.0	
Dissolved Lead	ug/L	0.16	0.16	0.16	0	0.0	
Dissolved Manganese	ug/L	2.2	2.2	2.2	0	0.0	
Dissolved Nickel	ug/L	1	1	1	0	0.0	
Dissolved Selenium	ug/L	1	1	1	0	0.0	
Dissolved Silver	ug/L	0.1	0.1	0.1	0	0.0	
Dissolved Zinc	ug/L	2.5	2.5	2.5	0	0.0	
Mercury Dissolved	ug/L	0.001	0.001	0.001	0	0.0	

Appendix B

Pit 3 ARD Visual Inspection Checklist

Date: 7-9-13 Time: 15:30

Inspector's Name (Printed/Signed): Zach Bicknell

Highwall

	Yes/No	Comments
Vegetation Changes?	no	
Soil/Rock Staining?	no	
Orange Water Colorization?	no	
Water Samples Collected?	no	

	Yes/No	pH result
pH measurement taken?	no	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes?	No	
Soil/Rock Staining?	no	
Orange Water Colorization?	no	
Water Samples Collected?	no	

	Yes/No	pH result
pH measurement taken?	no	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes?	No	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	

	Yes/No	pH result
pH measurement taken?	No	

Toe of Road

	Yes/No	Comments
Vegetation Changes?	no	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	

	Yes/No	pH result
pH measurement taken?	NO	

Large South Stormwater Pond

	Yes/No	Comments
Vegetation Changes?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	

	Yes/No	pH result
pH measurement taken?	NO	

West Stormwater Ponds Adjacent to Road

	Yes/No	Comments
Vegetation Changes?	NO	
Soil/Rock Staining?	no	
Orange Water Colorization?	no	
Water Samples Collected?	NO	

	Yes/No	pH result
pH measurement taken?	no	

Pit 3 ARD Visual Inspection Checklist

Date: 7·17·13 Time: 16:30

Inspector's Name(Print/Sign): Zach Bicknell

Highwall

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	No	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	
	Yes/No	**pH result**
pH measurement taken?	No	

Road

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	
	Yes/No	**pH result**
pH measurement taken?	NO	

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	NO	
Water Samples Collected?	No	
	Yes/No	**pH result**
pH measurement taken?	No	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	
	Yes/No	**pH result**
pH measurement taken?	No	

Pit 3 ARD Visual Inspection Checklist

Date: 7.24.13 Time: 16:00

Inspector's Name(Print/Sign): Zach Bicknell

Highwall

	Yes/No	Comments
Vegetation Changes ?	N	small path to drill pads
Soil/Rock Staining?	N	
Orange Water Colorization?	No	
Water Samples Collected?	N	
	Yes/No	pH result
pH measurement taken?	N	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	
	Yes/No	pH result
pH measurement taken?	No	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	
	Yes/No	pH result
pH measurement taken?	No	

Road

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	
	Yes/No	pH result
pH measurement taken?	No	

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	
	Yes/No	pH result
pH measurement taken?	No	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	No	
Soil/Rock Staining?	No	
Orange Water Colorization?	No	
Water Samples Collected?	No	
	Yes/No	pH result
pH measurement taken?	No	

Pit 3 ARD Visual Inspection Checklist

Date: 8/14/13 Time: 17 PM

Inspector's Name(Print/Sign): D. STE STROW

Highwall

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Road

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?		
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 ARD Visual Inspection Checklist

Date: 9/4/2013 Time: 16:00

Inspector's Name(Print/Sign): KRISTI ASPLUND / RYAN BAILEY

Highwall

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	pH result
pH measurement taken?	NO	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	pH result
pH measurement taken?	NO	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	pH result
pH measurement taken?	NO	

Road

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	pH result
pH measurement taken?	NO	

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	pH result
pH measurement taken?	NO	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	pH result
pH measurement taken?	NO	

Pit 3 ARD Visual Inspection Checklist

Date: 9/11/13 Time: 1200

Inspector's Name(Print/Sign): PETE STROW

Highwall

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Road

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 ARD Visual Inspection Checklist

Date: 9/19/13 Time: 14:20

Inspector's Name(Print/Sign): PETERSTROM

Highwall

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

Road

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?		

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 ARD Visual Inspection Checklist

Date: 10/3/13 Time: 1040

Inspector's Name(Print/Sign): P. STROW

Highwall

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?		
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?		
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?		
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Road

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?		
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?		
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?		
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 ARD Visual Inspection Checklist

Date: 10/18/13 Time: 13:00

Inspector's Name(Print/Sign): P. STRAW

Highwall

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Road

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	NO	
Soil/Rock Staining?	↓	
Orange Water Colorization?		
Water Samples Collected?		
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 ARD Visual Inspection Checklist

Date: 11/4/13 Time: 11:30

Inspector's Name(Print/Sign): Patrick Strow

Highwall

	Yes/No	Comments
Vegetation Changes ?	NO	SNOW
Soil/Rock Staining?	NO	
Orange Water Colorization?	NO	
Water Samples Collected?	NO	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Lower Parking Area

	Yes/No	Comments
Vegetation Changes ?	NO	SNOW
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

Pit 3 Upper Laydown

	Yes/No	Comments
Vegetation Changes ?	NO	SNOW
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

Road

	Yes/No	Comments
Vegetation Changes ?	NO	SNOW
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

South Stormwater Pond

	Yes/No	Comments
Vegetation Changes ?	NO	SNOW
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

West Stormwater Ponds

	Yes/No	Comments
Vegetation Changes ?	NO	SNOW
Soil/Rock Staining?	↓	
Orange Water Colorization?	↓	
Water Samples Collected?	↓	
	Yes/No	**pH result**
pH measurement taken?	NO	

Appendix C

REPORT

RESULTS FROM FIELD-SCALE TEST CELLS FOR GRAPHITIC PHYLLITE THROUGH NOVEMBER 2013

Kensington Gold Mine

Submitted To: Coeur Alaska Inc.
3031 Clinton Drive, Suite 202
Juneau, AK 99801

Submitted By: Golder Associates Inc.
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052 USA

Distribution: 2 copies – Coeur Alaska Inc.

February 11, 2014

Project No. 073-93714.004

Golder Associates

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Appendix A Leachate Results

1.0 INTRODUCTION

Report Coeur Alaska Inc. (Coeur Alaska) operates the Kensington underground gold mine located just north of Juneau, Alaska. Coeur Alaska requested that Golder Associates Inc. (Golder) assess the environmental stability of the graphitic phyllite material via four field-scale test cells.

Laboratory-scale geochemical tests have been conducted on the graphitic phyllite material, including acid base accounting (ABA), short-term (static) leach testing, and long-term (kinetic) humidity cell tests (HCT). The results of the ABA and HCTs indicate that the material has the potential to generate acid in the long term, although the HCTs were unexpectedly slow to develop acidic conditions. The Alaska Department of Natural Resources (ADNR) recommended that field-scale geochemical tests be conducted on graphitic phyllite with both the grain size and sulfur content representative of the material to be exposed near the tailings treatment facility (TTF). These field tests will be used to assess the graphitic phyllite's environmental stability under actual site conditions, in terms of both its acid generation and metal leaching potential.

This document presents a summary of the geochemical properties of the charge material, the construction details of the four field cells, field cell operation protocols to monitor leachate water quality generated from the cells, and a brief evaluation of the leachate results collected to date through November 2013.

2.0 SUMMARY OF CELL CONSTRUCTION, CELL OPERATION, AND GEOCHEMICAL CHARACTERIZATION

This section is a summary of the construction, operation, and geochemical characterization program. Detailed information is provided in the Golder (2013) report "Design and Construction of Field Scale Weathering Test Cells for Graphitic Phyllite Material, Kensington Gold Mine".

2.1 Cell Construction

The field set up involved the construction of four field cells containing graphitic phyllite with different sulfur contents. The four field cells were assembled on July 29, 2013 and consisted of clean 55-gallon plastic barrels. One hole was drilled at the lowest point on the side of each barrel to allow a valve to be installed through which the leachate is collected. Woven geotextile and sand were used to prevent fine grained material from entering the leachate.

The graphitic phyllite was collected by Coeur Alaska personnel, who obtained four samples with different sulfur contents that span the range of observed sulfur values at the site as determined from sulfur assays. Each barrel contains 440 pounds of material.

2.2 Cell Operation

2.2.1 Cell Leaching Method

All cells are operated under ambient conditions (i.e. no artificial irrigation). The following steps are taken to properly document the leaching process:

- Cells are visited once a month, until freezing conditions occur, to collect the water that has drained from each cell
- If sufficient volume is present to allow for chemical analysis of the full suite of parameters, samples are collected. At a minimum, a field measurement of pH and conductivity is taken from the leachate of each cell
- Laboratory-supplied sample bottles are labelled with the cell name and date of sample collection
- Water samples are collected for pH, conductivity, alkalinity, dissolved metals and major ions

For all monitoring events, Coeur Alaska personnel records key visual observations such as conditions of the charge material (colour, stains, etc.) and state of the equipment (fissures or leaks). Any deficiencies in the equipment are reported and fixed as soon as possible.

2.2.2 Leachate Analysis

Samples are submitted by Coeur Alaska personnel to ALS Environmental in Kelso, Washington, for analysis of the following parameters:

- General Parameters – temperature, pH, conductivity, TDS, alkalinity, acidity and hardness
- Major Anions – Ca, Mg, Na, K, Cl, F, P and SO_4
- Total and Dissolved Major Cations and Metals – ICP scan, including Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V and Zn

To accommodate all analytical requirements, each leachate sample is split into multiple aliquots for analysis of the non-metals, total metals and dissolved metals. The dissolved metal samples are filtered with a 0.45-micrometer (μm) filter and both metals samples are preserved with nitric acid.

2.3 Geochemical Characterization

The solids characterization for the charge material included the following:

- Mineralogical composition by X-ray diffraction (XRD) with Rietveld refinement
- Elemental composition by inductively coupled plasma mass spectrometry (ICP-MS) and X-ray fluorescence (XRF)
- Acid base accounting (ABA)
- Net acid generation (NAG) and NAG leachate analysis

The ABA and NAG results for each of the four samples are presented in Table 2-1.

Table 2-1: ABA and NAG Results

Sample	Target Total Sulfur	Actual Total Sulfur	Sulfide Sulfur	Sulfate Sulfur	NAG pH	NAG at pH 4.5	NP	AP	NNP	NPR	Classification
	%				-	kgH_2SO_4/t	$tCaCO_3/1000t$			Ratio	-
1	< 0.5	0.010	<0.010	0.010	9.9	< 0.10	24	<0.30	24	77	Non-acid Forming
2	1	1.4	0.79	0.51	2.34	21.1	19	25	-6	0.76	Potentially Acid Forming
3	2	2.2	1.5	0.68	2.09	38.8	24	46	-22	0.51	Potentially Acid Forming
4	3	3.1	2.3	0.74	8.4	< 0.10	80	72	8	1.1	Non-acid Forming

Sample 1 is designated "non-acid forming", while Samples 2 and 3 are classified "potentially acid forming" based on their ABA and NAG characteristics and the decision matrix used by Coeur Alaska. Sample 4 is classified as "non-acid forming". However, mineralogical testing completed on graphitic phyllite samples collected previously shows that only part of the bulk neutralisation potential (NP) is present in the form of calcite, which is a fast-reacting mineral and represents the "effective" portion of the NP, with some

additional buffering capacity also being provided by slower-reacting aluminosilicate minerals. It is, therefore, considered likely that the bulk NP value for Sample 4 may be overestimated because the effective NP may be significantly smaller.

The mineralogical analysis indicates that the four samples consist primarily of quartz, plagioclase feldspar, mica/illite and chlorite. Samples 1 to 3 contain less than 3 wt% calcite, while Sample 4 contains 9 wt%. Sulfide minerals were not detected in Sample 1, but were present as pyrite in Samples 2 and 3 at < 3 wt%, and in Sample 4 at 4 wt%. The chemical compositions of the samples are consistent with the mineralogical results.

3.0 RESULTS OF MONITORING PROGRAM

This section summarizes and discusses the leachate results to date for the field cells. Results are presented in Appendix A in tabular and graphical (dissolved parameters only) format, and compared to Alaska Water Quality Standards (AWQS) (dissolved parameters only).

Since July 2013, three leachate samples have been collected on the following dates:

- 9/19/2013
- 10/14/2013
- 11/30/2013

The field cell leachate results can be summarized as follows for the first three leach cycles:

- Barrel 1 reports leachates with a neutral to alkaline pH of 7.9 and is the only field cell to do so. Leachates from barrels 2, 3 and 4 all have pH values less than 4.5.
- Alkalinity values are below the method detection limit (<MDL) of 5 mg/L as CaCO3 in leachates from barrels 2, 3 and 4, while values in leachates from barrel 1 have remained approximately constant between 42 and 46 mg/L as $CaCO_3$.
- Calcium concentrations are slightly decreasing for all barrels; however concentrations are almost an order of magnitude higher in barrels 2, 3 and 4 compared to barrel 1.
- Sulfate concentrations slightly decrease for all barrels, with concentrations ranging from 7.9 to 2.3 mg/L in leachates from barrel 1, and from 1,030 to 292 mg/L in barrels 2, 3, and 4.
- TDS concentrations decrease slightly in barrel 1 from 61 to 38 mg/L, while they decrease significantly after cycle 1 to cycle 2 in the remaining barrels. Cycle 2 and cycle 3 concentrations are similar to one another in all barrels.
- An initial "first flush" consisting of higher concentrations in cycle 1 is observed for most parameters, following which concentrations slightly decrease in cycle 2 and generally remain stable in cycle 3.

In summary, leachates from barrel 1 exhibit lower concentrations compared to those in leachates from barrels 2, 3 and 4, while concentrations in barrels 2, 3 and 4 are very similar to one another. The observed compositions and concentration trends are consistent with first flush behavior and sulfide oxidation, resulting in acidic conditions in barrels 2, 3 and 4.

The results further show that leachates from barrel 1 exhibit no concentrations above any AWQS after three leach cycles, while leachates from barrels 2, 3 and 4 show exceedances for several parameters, including pH, sulfate, TDS (barrel 4 only after three leach cycles), Al, Cd, Cu, Fe, Mn, Ni, Se and Zn. The detection limit for Hg is higher than its AWQS.

4.0 RECOMMENDATIONS

Golder recommends continuing the barrel tests at this time to evaluate long-term weathering behavior and evolution of leachate quality.

5.0 CLOSURE

We trust this report meets your current needs. If you have any questions regarding this report, please contact the undersigned.

GOLDER ASSOCIATES LTD.

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Principal, Geochemist

RV/cw

6.0 REFERENCES

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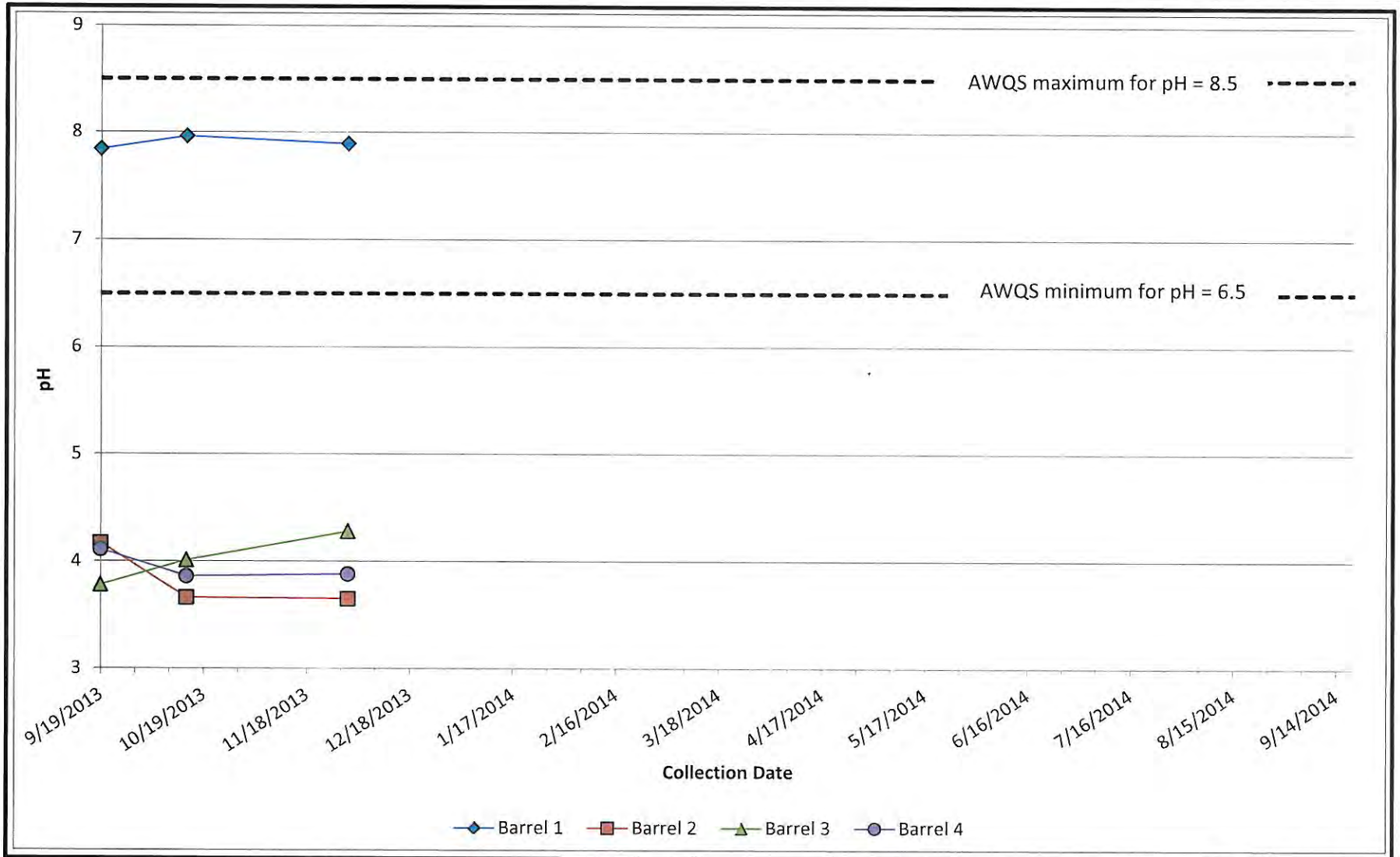
APPENDIX A
LEACHATE RESULTS

Appendix A - Total Dissolved Metals
Field Barrel Leachate Results
Kensington Gold Mine
Coeur Alaska Inc

Parameter	Units	Alaska Water Quality Standards	Barrel 1			Barrel 2			Barrel 3			Barrel 4		
			Cycle			Cycle			Cycle			Cycle		
			1	2	3	1	2	3	1	2	3	1	2	3
			Sample Date			Sample Date			Sample Date			Sample Date		
			9/19/2013	10/14/2013	11/30/2013	9/19/2013	10/14/2013	11/30/2013	9/19/2013	10/14/2013	11/30/2013	9/19/2013	10/14/2013	11/30/2013
pH	-	**6.5-8.0**	7.8	8.0	7.9	**4.2**	**3.7**	**3.7**	**3.8**	**4.0**	**4.3**	**4.1**	**3.9**	**3.9**
Acidity	mg/L	-	<2.0	2.6	<2.0	228	98	94	227	94	75	354	109	103
Conductivity	uMHOS/cm	-	101	95	91	1130	669	704	1220	689	623	1400	693	812
Alkalinity	mg/L as $CaCO_3$	-	42	44	46	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloride	mg/L	-	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Fluoride	mg/L	-	<0.10	<0.10	<0.10	<0.20	0.32	0.22	<0.20	0.31	<0.20	0.51	0.32	0.30
Nitrate as N	mg/L	**10**	<0.050	<0.050	0.059	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ammonia as N	mg/L	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	**250**	7.9	4.8	2.4	**657**	**349**	**311**	**728**	**327**	**292**	**1030**	**340**	**393**
Total Dissolved Solids	mg/L	**500**	61	57	38	**967**	432	467	**1060**	**513**	453	**1310**	477	**609**
Hardness	mg/L	-	40	39	35	390	193	202	384	215	188	408	196	253
Ag	mg/L	**0.0046**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Ag	mg/L	**0.0046**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Al	mg/L	**0.087**	<0.01	<0.01	0.034	**5.6**	**3.2**	**3.8**	**3.8**	**1.7**	**1.2**	**4.0**	**1.7**	**2.0**
As	mg/L	**0.050**	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0033	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
B	mg/L	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Ba	mg/L	-	0.038	0.027	0.012	0.036	0.031	0.025	0.032	0.027	0.026	0.033	0.027	0.024
Be	mg/L	-	<0.00002	<0.00002	<0.00002	0.0038	0.0021	0.0018	0.0038	0.0019	0.0013	0.0053	0.0022	0.0017
Ca	mg/L	-	14	13	13	130	69	82	133	80	73	143	73	97
Cd	mg/L	**0.00028**	**0.0086**	<0.00002	0.000030	**0.74**	**0.32**	**0.38**	**1.0**	**0.49**	**0.52**	**1.3**	**0.57**	**0.66**
Co	mg/L	-	0.0040	0.000060	0.000070	0.65	0.23	0.26	0.58	0.22	0.21	0.57	0.18	0.21
Cr	mg/L	**0.10**	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Cu	mg/L	**0.0099**	0.0044	<0.001	<0.001	**1.6**	**0.82**	**0.89**	**2.4**	**1.1**	**1.1**	**3.1**	**1.3**	**1.3**
Fe	mg/L	**1.0**	<0.05	<0.05	<0.05	**47**	**1.7**	**8.0**	**16**	0.50	**2.7**	**55**	**1.4**	**2.7**
Hg	mg/L	**0.000050**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
K	mg/L	-	1.3	1.0	<1	3.9	1.6	1.4	3.9	1.7	1.4	4.6	1.2	1.2
Li	mg/L	-	<0.02	<0.02	<0.02	0.036	<0.02	<0.02	0.032	<0.02	<0.02	0.030	<0.02	<0.02
Mg	mg/L	-	1.8	1.3	<1	13	4.4	3.8	12	4.2	2.8	13	2.9	2.4
Mn	mg/L	**0.050**	**0.077**	0.0058	0.0066	**6.1**	**2.6**	**2.8**	**6.9**	**2.9**	**2.9**	**6.9**	**2.7**	**3.5**
Mo	mg/L	-	0.0012	0.00087	0.00060	<0.00005	0.000060	<0.00005	<0.00005	0.00010	<0.00005	<0.00005	0.00010	<0.00005
Na	mg/L	-	1.5	1.5	<1	5.2	1.8	1.7	5.2	2.0	1.5	5.6	1.6	1.6
Ni	mg/L	**0.055**	**0.056**	<0.001	<0.001	**3.7**	**1.6**	**1.5**	**5.5**	**2.5**	**2.2**	**7.3**	**2.7**	**2.8**
P	mg/L	-	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Pb	mg/L	**0.0035**	<0.00016	<0.00016	<0.00016	0.00055	0.00060	0.0011	0.00066	0.00038	0.00025	0.00045	0.00025	0.00031
Sb	mg/L	-	0.00050	0.00044	0.00039	<0.0001	<0.00005	<0.00005	<0.0001	<0.00005	<0.00005	<0.0001	<0.00005	<0.00005
Se	mg/L	**0.0050**	0.0022	<0.001	<0.001	**0.14**	**0.067**	**0.11**	**0.16**	**0.083**	**0.10**	**0.20**	**0.088**	**0.14**
Si	mg/L	-	2.5	2.1	0.86	6.4	4.2	1.8	6.4	4.1	1.9	7.5	3.7	1.7
Sn	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Sr	mg/L	-	0.11	0.10	0.11	0.69	0.34	0.39	0.69	0.38	0.33	0.85	0.39	0.48
Th	mg/L	-	<0.00002	0.000020	<0.00002	0.000050	0.000080	0.00019	0.00020	0.00012	0.00021	0.000040	0.000040	0.00017
Ti	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
U	mg/L	-	0.0015	0.00040	0.00022	0.049	0.023	0.021	0.079	0.029	0.017	0.19	0.059	0.038
V	mg/L	-	<0.0002	0.0013	0.00050	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Zn	mg/L	**0.13**	**0.77**	0.014	0.013	**62**	**28**	**34**	**95**	**44**	**45**	**119**	**48**	**61**
Zr	mg/L	-	<0.0002	0.00010	<0.0002	<0.0002	0.00020	<0.0002	<0.0002	<0.0001	<0.0002	<0.0002	<0.0001	<0.0002

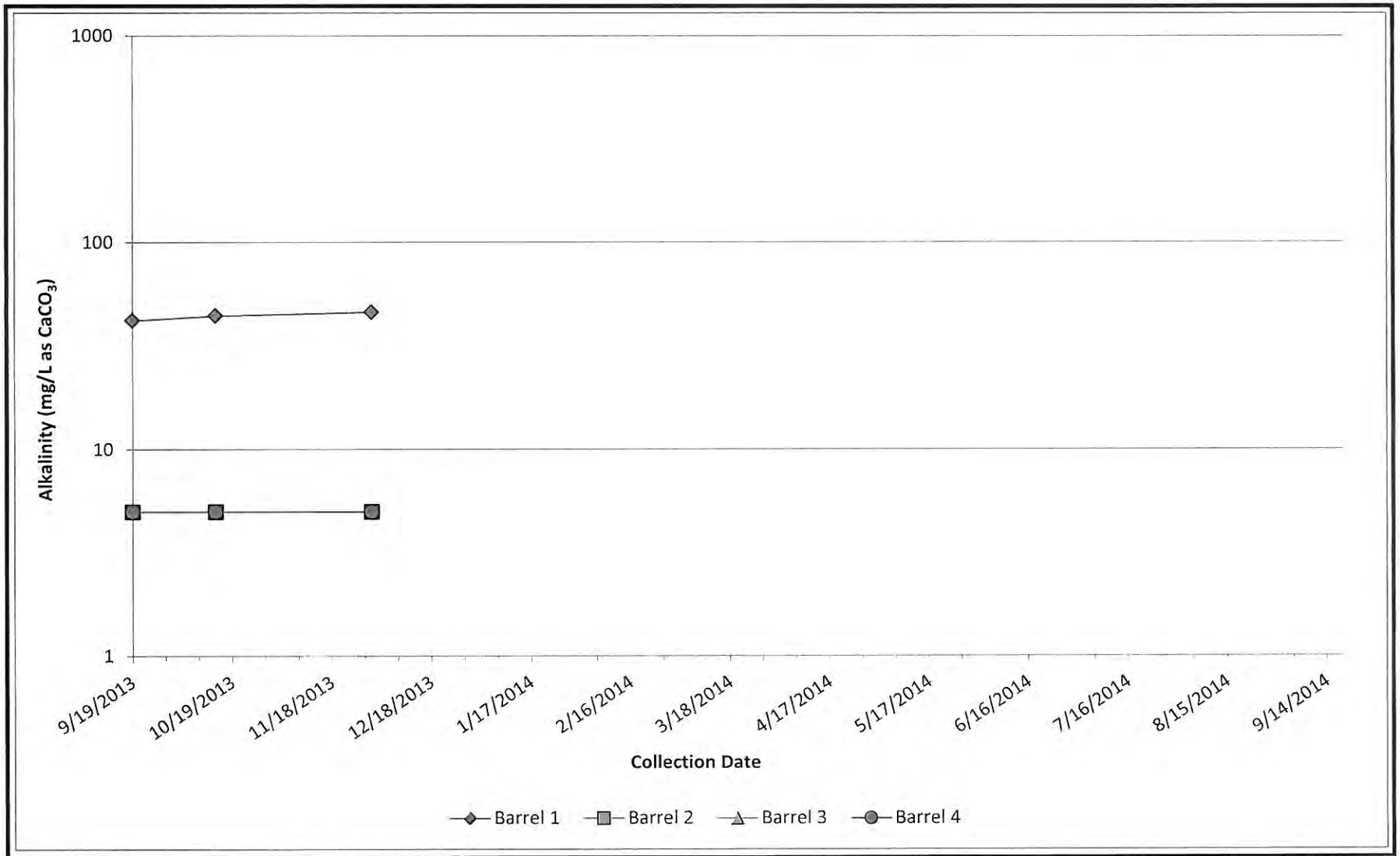
Appendix A - Total Recoverable Metals
Field Barrel Leachate Results
Kensington Gold Mine
Coeur Alaska Inc

Parameter	Units	Barrel 1			Barrel 2			Barrel 3			Barrel 4		
		Cycle			Cycle			Cycle			Cycle		
		1	2	3	1	2	3	1	2	3	1	2	3
		Sample Date			Sample Date			Sample Date			Sample Date		
		9/19/2013	10/14/2013	11/30/2013	9/19/2013	10/14/2013	11/30/2013	9/19/2013	10/14/2013	11/30/2013	9/19/2013	10/14/2013	11/30/2013
pH	pH	7.8	8.0	7.9	4.2	3.7	3.7	3.8	4.0	4.3	4.1	3.9	3.9
Acidity	mg/L	<2.0	2.6	<2.0	228	98	94	227	94	75	354	109	103
Conductivuty	uMHOS/cm	101	95	91	1130	669	704	1220	689	623	1400	693	812
Alkalinity	mg/L as $CaCO_3$	42	44	46	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloride	mg/L	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.20	0.32	0.22	<0.20	0.31	<0.20	0.51	0.32	0.30
Nitrate as N	mg/L	<0.050	<0.050	0.059	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ammonia as N	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	7.9	4.8	2.4	657	349	311	728	327	292	1030	340	393
Total Dissolved Solids	mg/L	61	57	38	967	432	467	1060	513	453	1310	477	609
Hardness	mg/L	40	39	35	390	193	202	384	215	188	408	196	253
Ag	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Al	mg/L	0.082	0.044	0.061	5.7	3.3	3.7	3.8	1.6	1.3	3.9	1.8	2.1
As	mg/L	<0.0025	<0.0025	0.0026	<0.0025	<0.0025	<0.0025	0.0034	<0.0025	<0.0025	<0.0025	0.0025	<0.0025
B	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Ba	mg/L	0.040	0.029	0.014	0.035	0.031	0.030	0.031	0.027	0.031	0.033	0.026	0.027
Be	mg/L	<0.00002	<0.00002	<0.00002	0.0037	0.0021	0.0019	0.0038	0.0019	0.0013	0.0052	0.0022	0.0017
Ca	mg/L	13	13	13	134	70	75	133	79	71	142	74	97
Cd	mg/L	<0.00002	<0.00002	0.000020	0.74	0.32	0.37	1.0	0.48	0.52	1.3	0.56	0.64
Co	mg/L	0.00030	0.00015	0.00025	0.65	0.23	0.26	0.58	0.21	0.21	0.57	0.17	0.21
Cr	mg/L	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Cu	mg/L	0.0014	<0.001	0.0017	1.6	0.84	0.91	2.4	1.1	1.0	3.1	1.3	1.3
Fe	mg/L	0.066	<0.05	0.053	48	4.3	8.4	26	0.51	3.4	56	3.8	3.5
Hg	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
K	mg/L	1.3	1.1	<1	3.9	1.7	1.4	4.0	1.7	1.3	4.6	1.3	1.2
Li	mg/L	<0.02	<0.02	<0.02	0.037	<0.02	<0.02	0.032	<0.02	<0.02	0.031	<0.02	<0.02
Mg	mg/L	1.7	1.3	<1	13	4.4	3.5	12	4.1	2.7	13	2.9	2.4
Mn	mg/L	0.026	0.0086	0.011	6.2	2.6	2.9	6.8	2.9	2.9	6.8	2.8	3.2
Mo	mg/L	0.0011	0.00089	0.00071	<0.00005	0.000060	<0.00005	<0.00005	0.00010	<0.00005	<0.00005	0.00010	<0.00005
Na	mg/L	1.4	1.5	<1	5.3	1.9	1.7	5.3	1.9	1.5	5.6	1.6	1.7
Ni	mg/L	<0.001	<0.001	<0.001	3.7	1.6	1.5	5.5	2.4	2.2	7.2	2.7	2.8
P	mg/L	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Pb	mg/L	0.00037	0.00020	0.00038	0.00067	0.00062	0.0011	0.00065	0.00038	0.00030	0.00044	0.00025	0.00034
Sb	mg/L	0.00060	0.00042	0.00042	<0.0001	<0.00005	0.000060	<0.0001	<0.00005	0.000070	<0.0001	<0.00005	0.000070
Se	mg/L	0.0010	<0.001	<0.001	0.13	0.066	0.10	0.17	0.081	0.10	0.20	0.089	0.14
Si	mg/L	2.6	2.2	1.1	6.4	4.3	2.3	6.5	4.0	2.2	7.5	3.6	2.3
Sn	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Sr	mg/L	0.100	0.10	0.12	0.71	0.35	0.36	0.70	0.38	0.33	0.84	0.39	0.49
Th	mg/L	<0.00002	<0.00002	<0.00002	0.000050	0.000070	0.00019	0.00020	0.00011	0.00021	0.000040	0.000040	0.00020
Ti	mg/L	0.0021	<0.002	<0.002	0.0021	<0.002	<0.002	<0.002	<0.002	0.0025	<0.002	<0.002	<0.002
U	mg/L	0.00040	0.00041	0.00025	0.051	0.023	0.021	0.079	0.028	0.017	0.19	0.059	0.038
V	mg/L	0.0016	0.0015	0.00080	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Zn	mg/L	0.040	0.016	0.0096	62	29	33	97	43	45	117	48	61
Zr	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	0.00010	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

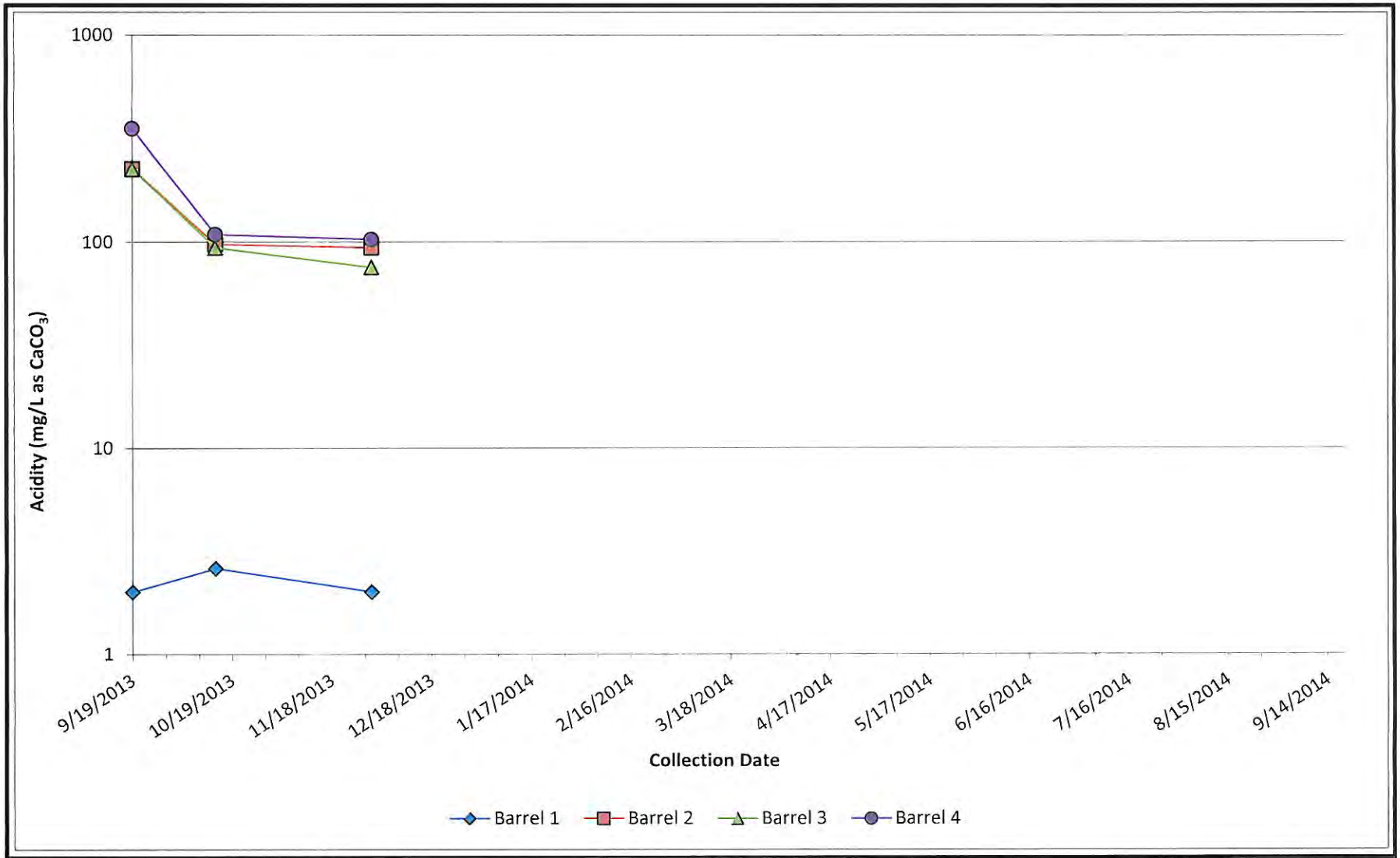


Golder Associates

Title	Field Barrel Leaching Tests - pH	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	1
Date	February, 2014		

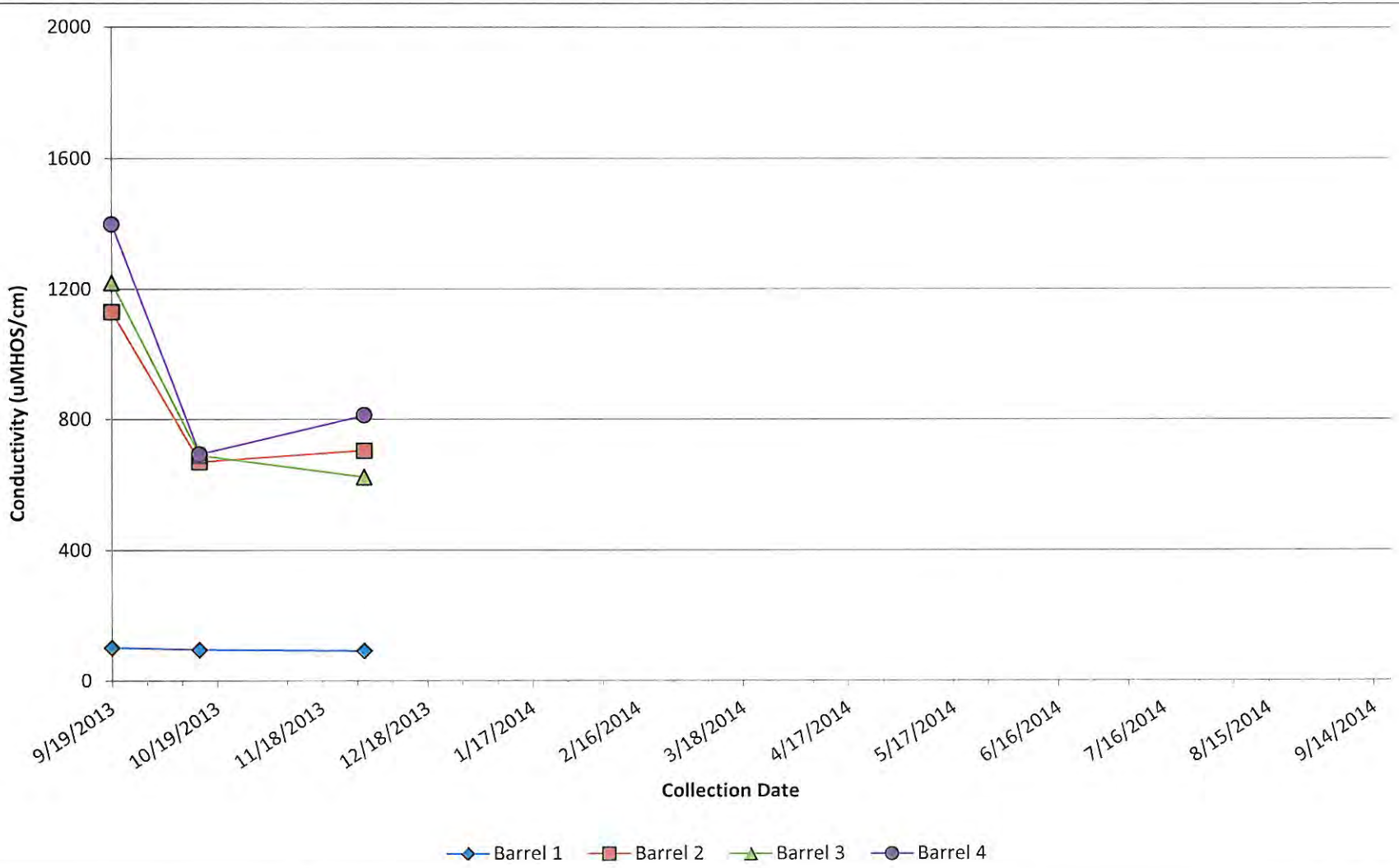


Golder Associates	Title: Field Barrel Leaching Tests - Alkalinity	Drawn	NW
		Checked	AJS
	Project Name: Kensington	Project No.: 073-93714.003	Reviewed	RV
	Client Name: Coeur Alaska	Date: February, 2014	FIGURE	2



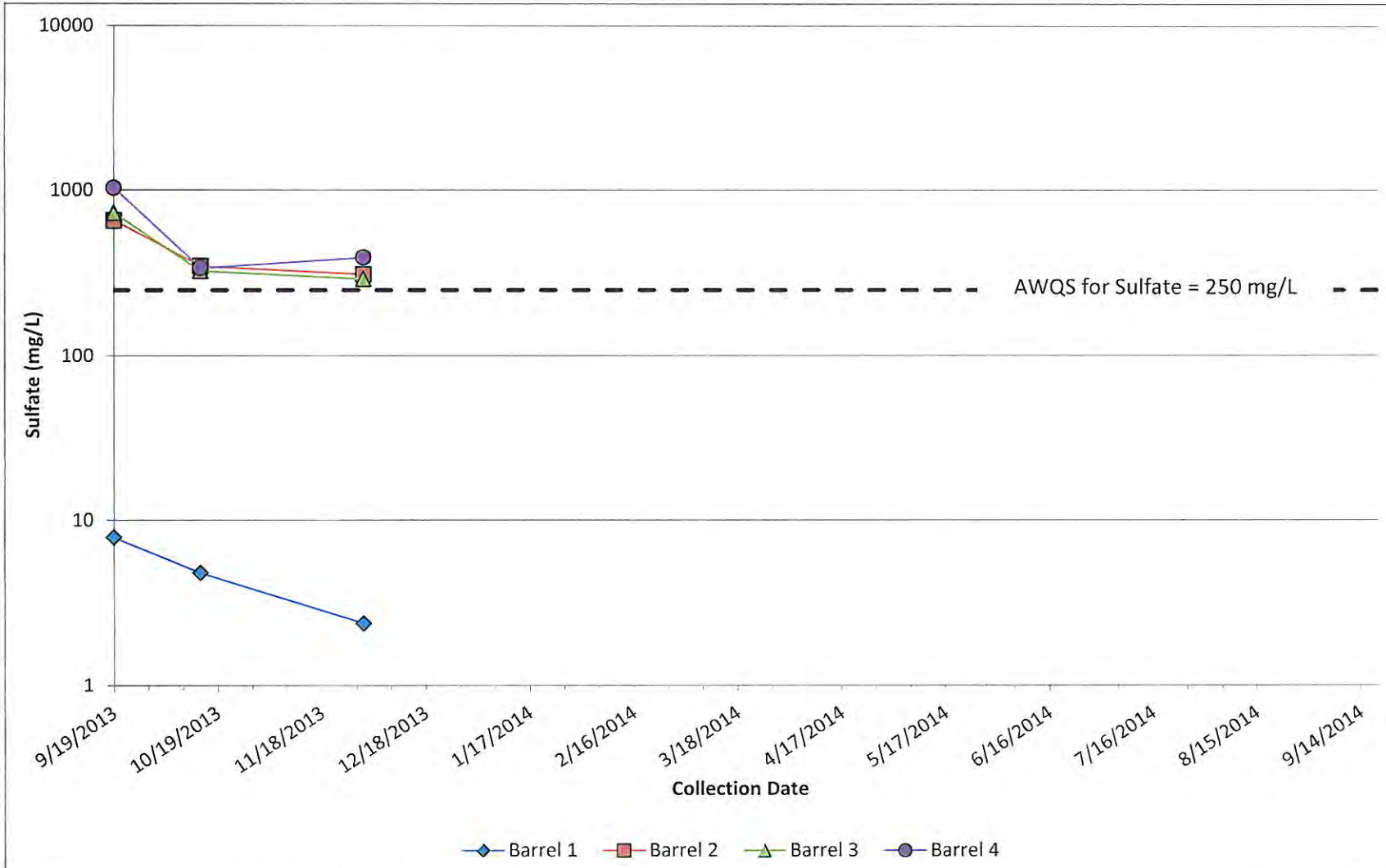
Golder Associates

Title	Field Barrel Leaching Tests - Acidity	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	3
Date	February, 2014		

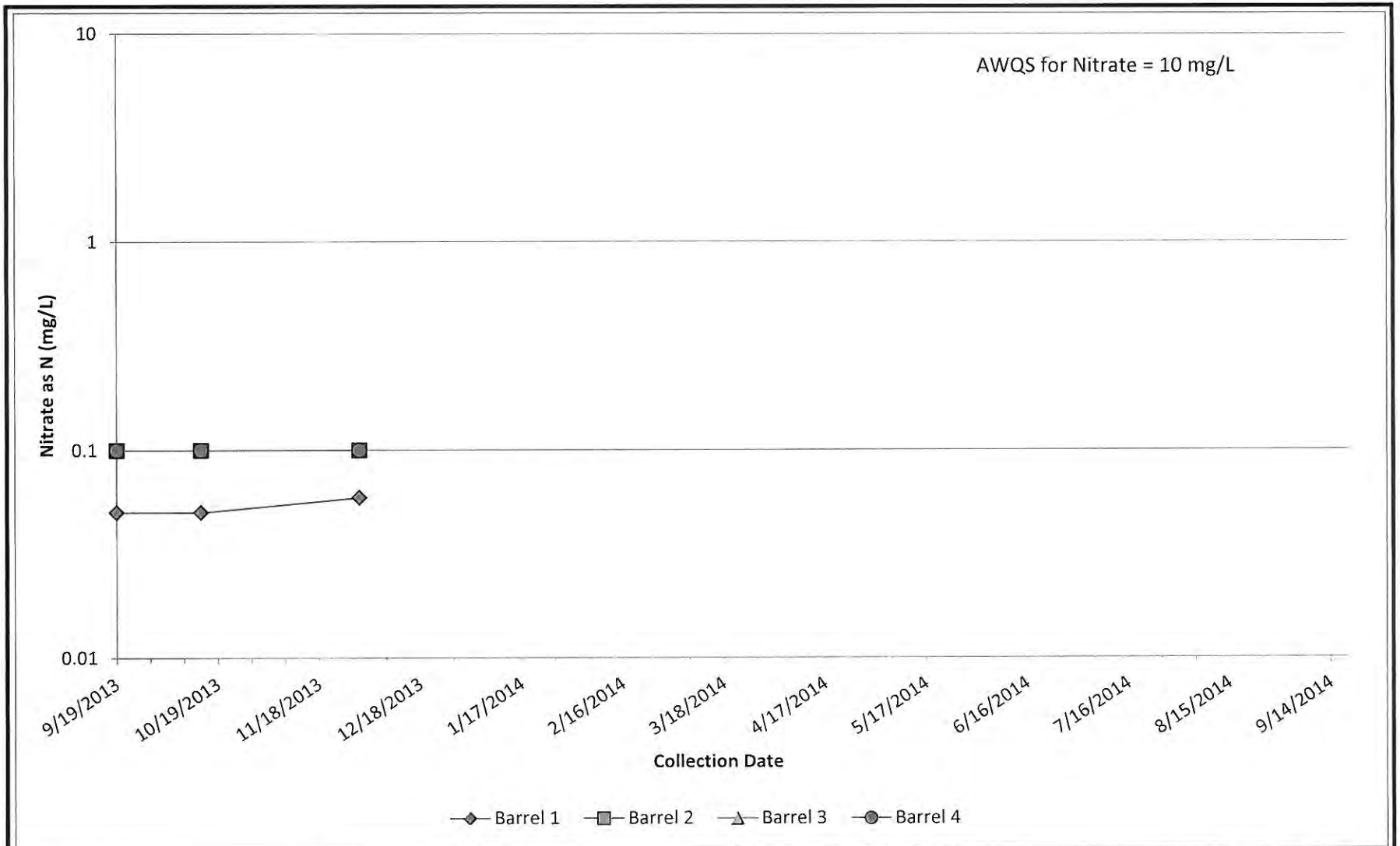


Golder Associates

Title	Field Barrel Leaching Tests - Conductivity	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	4
Date	February, 2014		

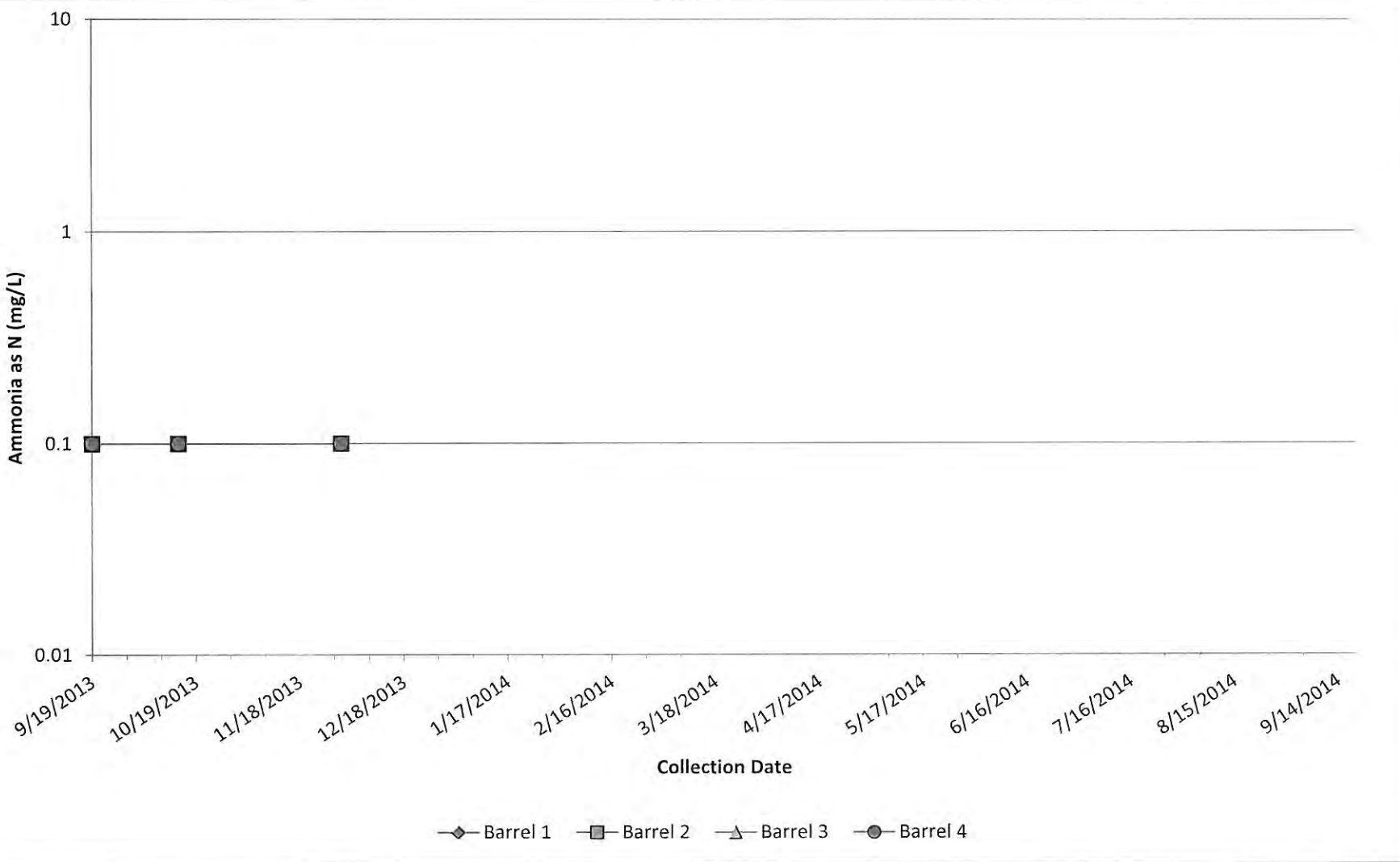


Golder Associates	Title: Field Barrel Leaching Tests - Sulfate		Drawn: NW
			Checked: AJS
	Project Name: Kensington	Project No.: 073-93714.003	Reviewed: RV
	Client Name: Coeur Alaska	Date: February, 2014	FIGURE 5



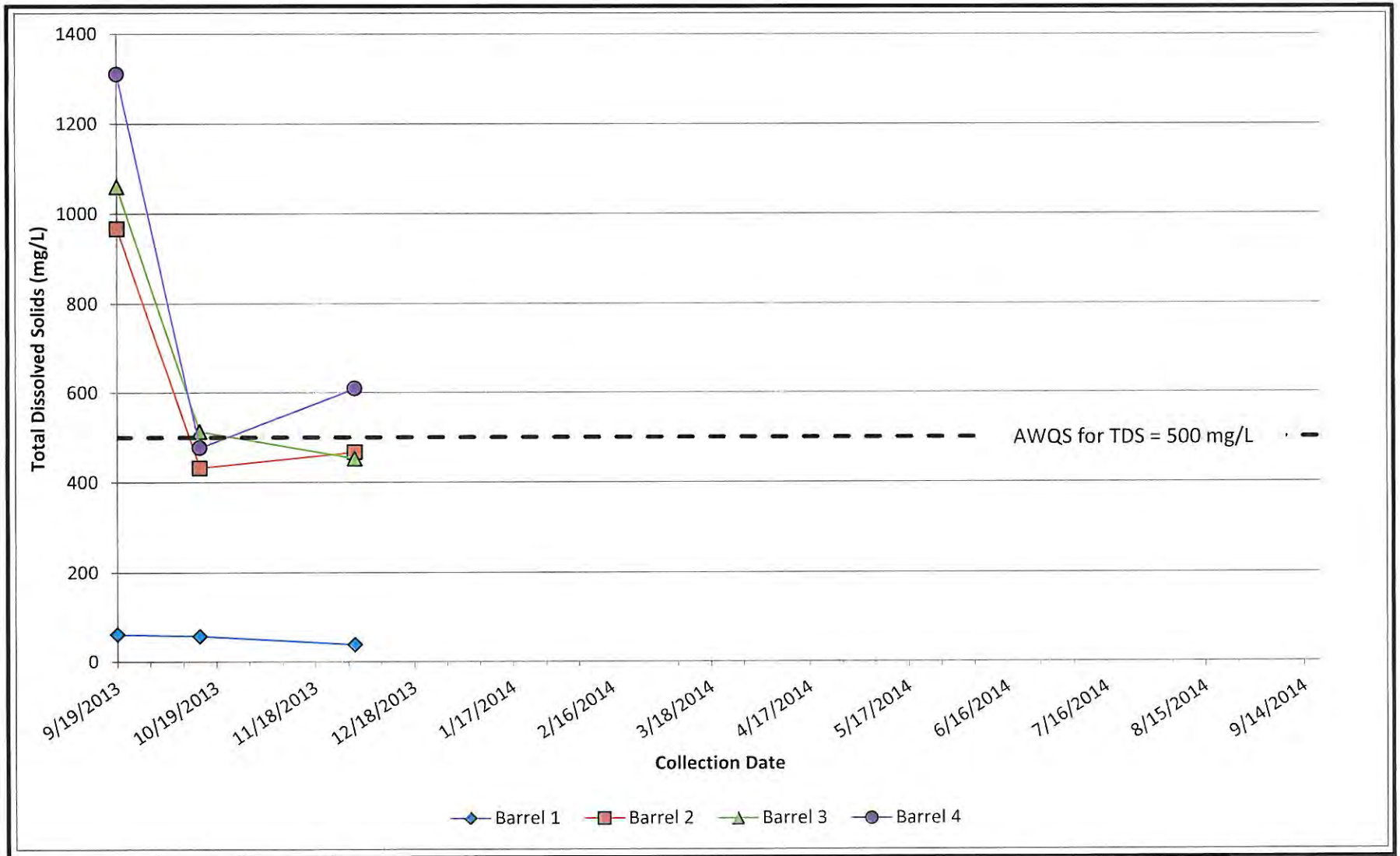
Golder Associates

Title	Field Barrel Leaching Tests - Nitrate	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No	073-93714.003	FIGURE	6
Client Name	Coeur Alaska		
Date	February, 2014		



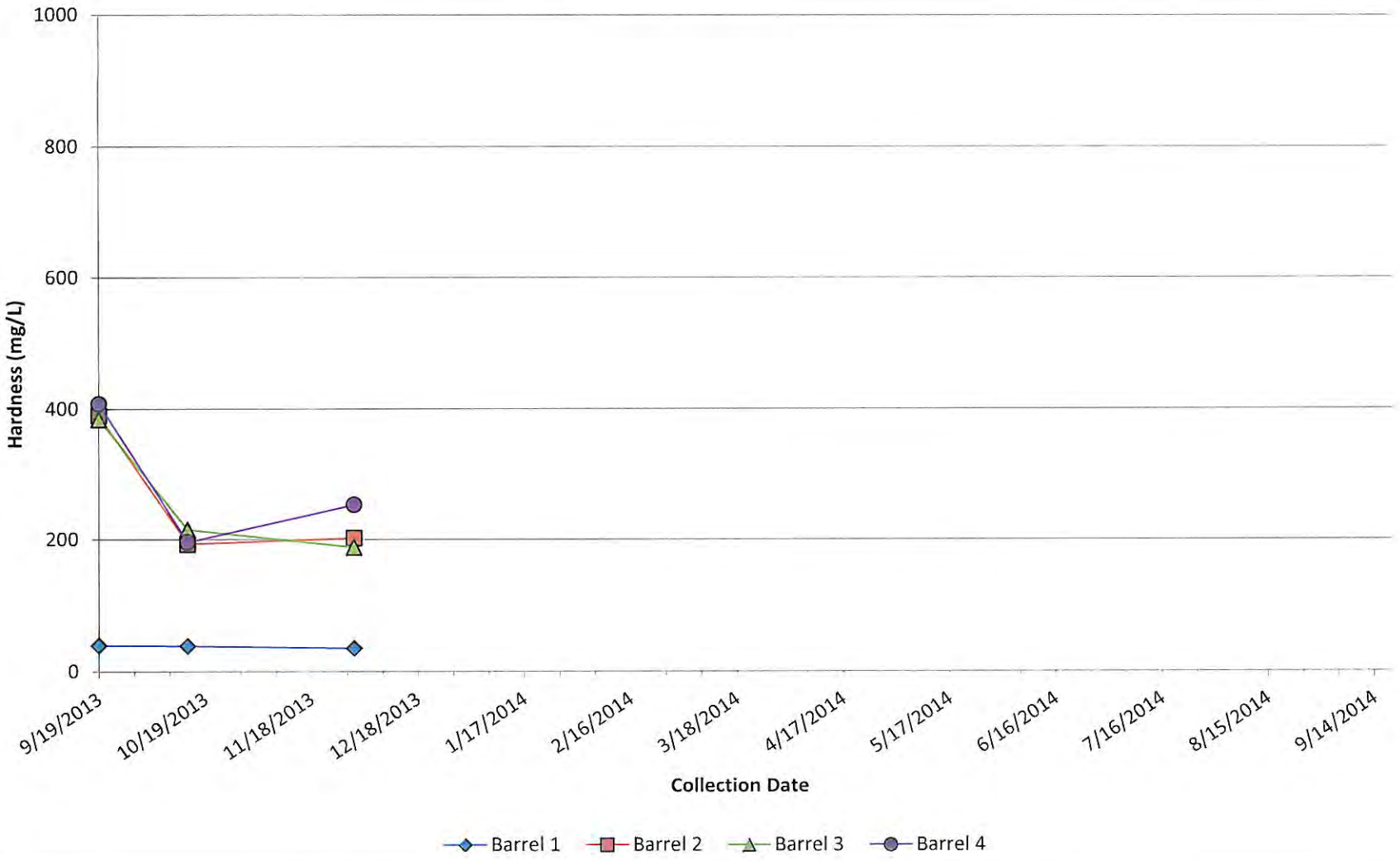
Golder Associates

Title	Field Barrel Leaching Tests - Ammonia	Drawn	NW
		Checked	AJS
Project Name	Kensington	Project No. 073-93714.003	Reviewed RV
Client Name	Coeur Alaska	Date February, 2014	FIGURE 7



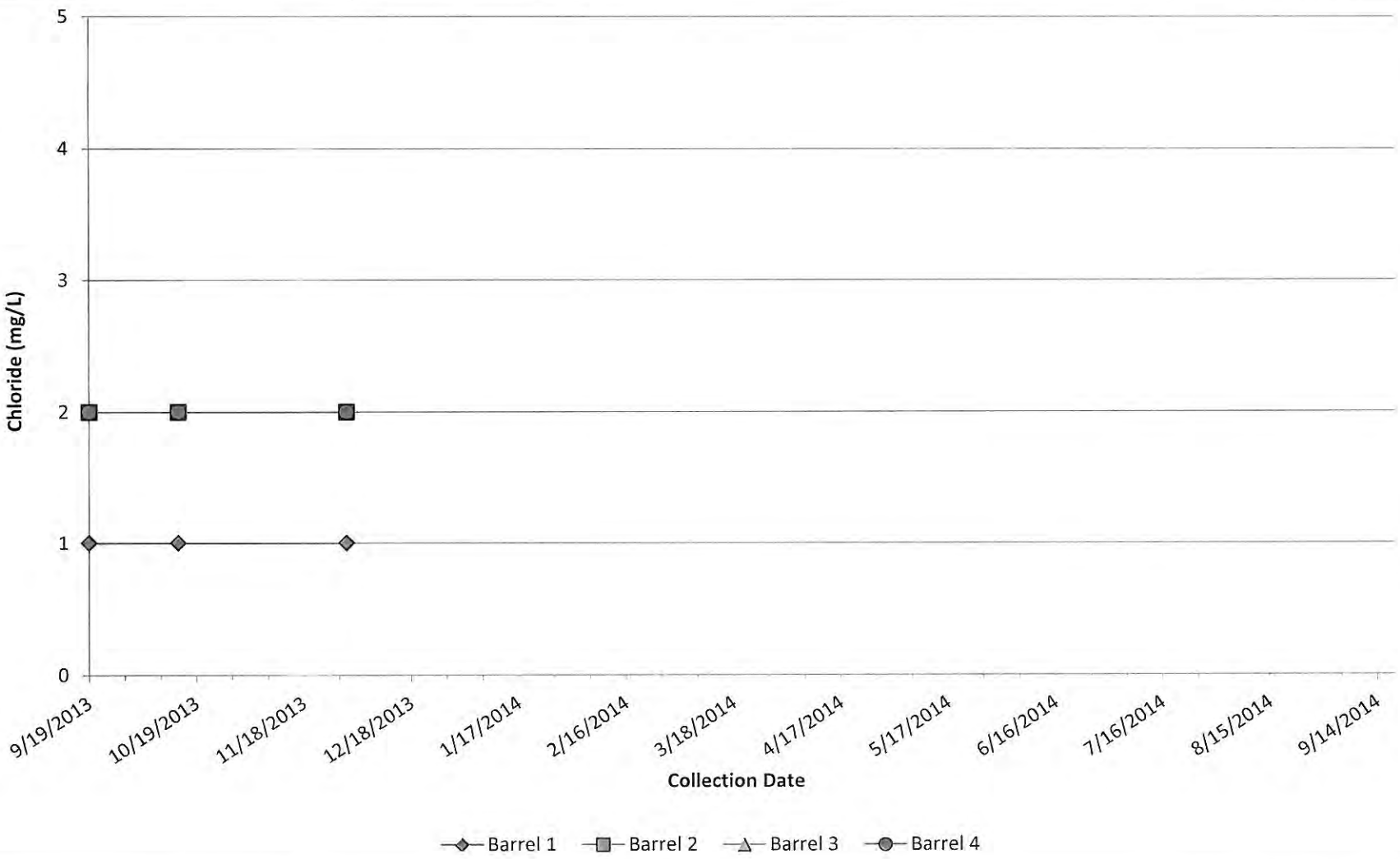
Golder Associates

Title	Field Barrel Leaching Tests - Total Dissolved Solids	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	8
Client Name	Coeur Alaska		
Date	February, 2014		



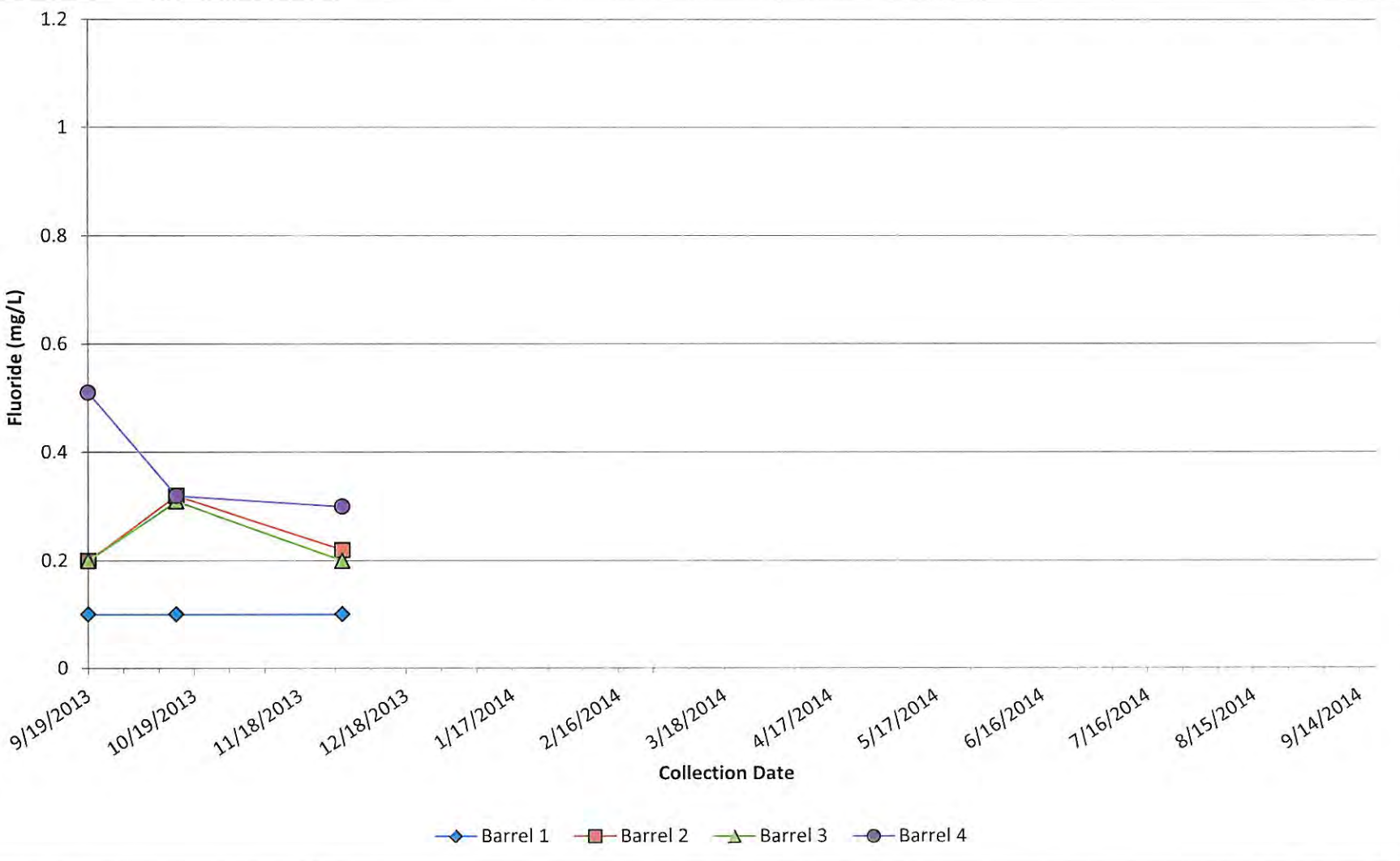
Golder Associates

Title	Field Barrel Leaching Tests - Hardness	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	9
Client Name	Coeur Alaska		
Date	February, 2014		

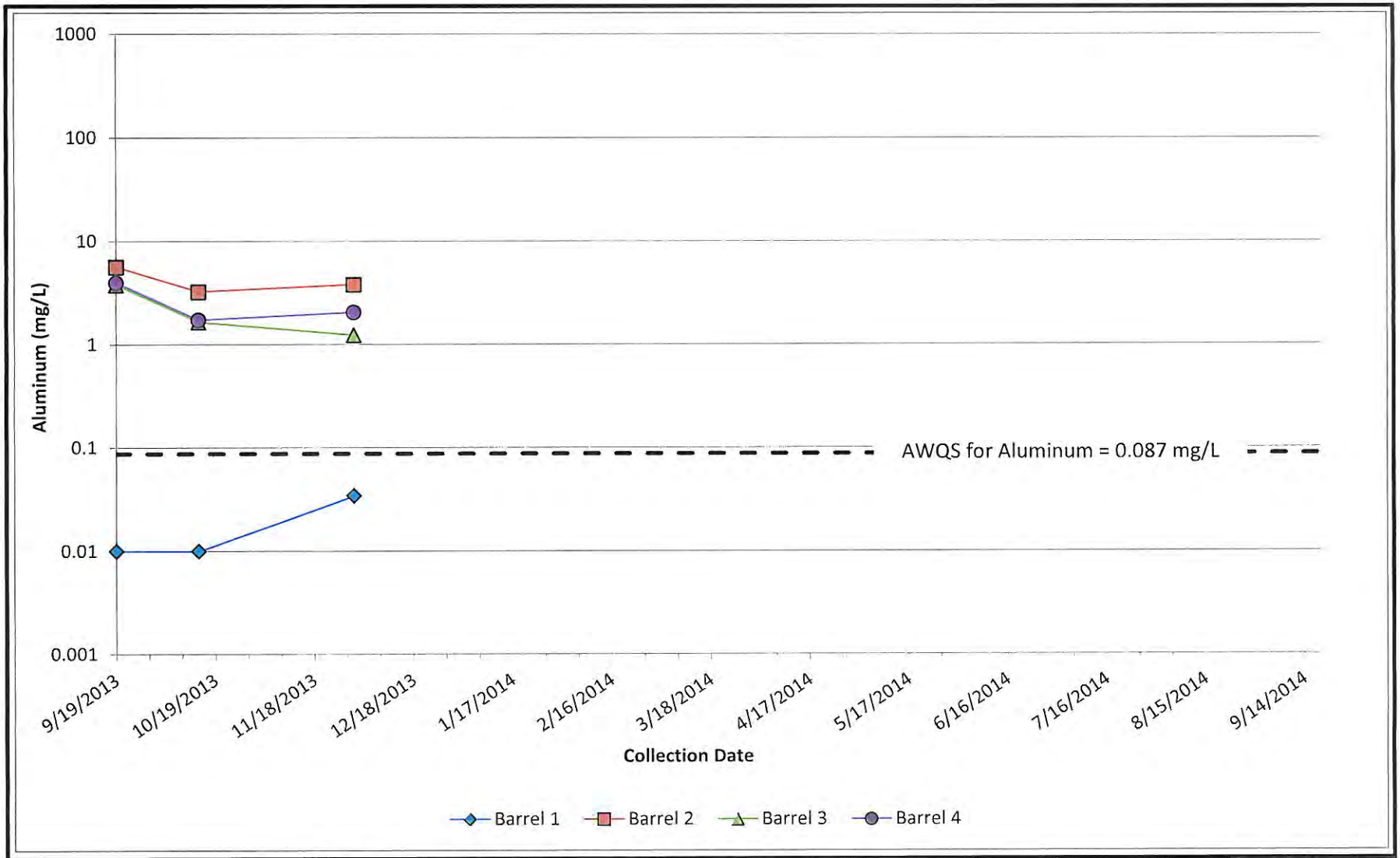


Golder Associates

Title	Field Barrel Leaching Tests - Chloride	Drawn	NW
		Checked	AJS
Project Name	Kensington	Project No. 073-93714.003	Reviewed RV
Client Name	Coeur Alaska	Date February, 2014	FIGURE 10

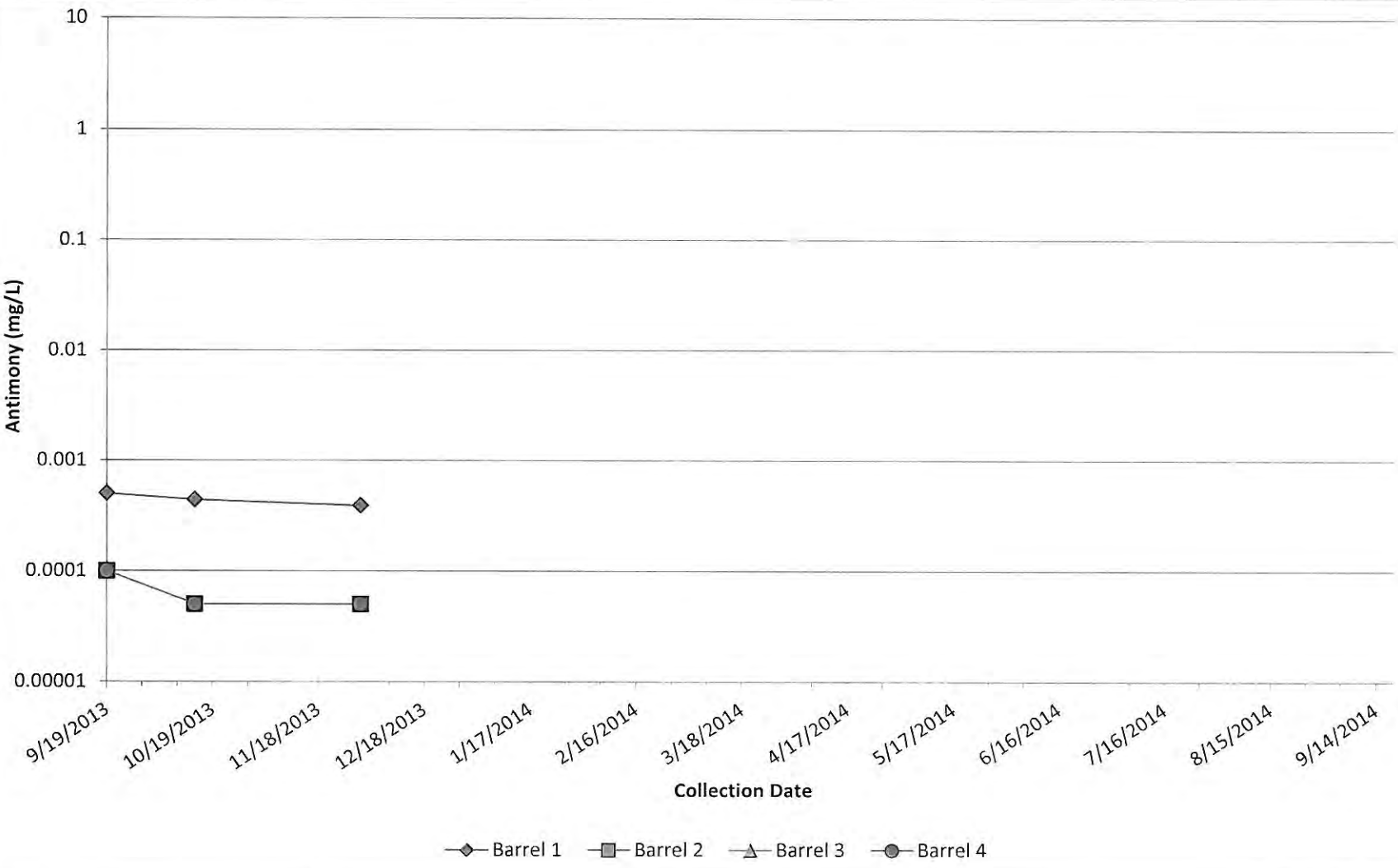


Golder Associates	Title: Field Barrel Leaching Tests - Fluoride	Drawn	NW
		Checked	AJS
	Project Name: Kensington	Project No.: 073-93714.003	Reviewed: RV
	Client Name: Coeur Alaska	Date: February, 2014	FIGURE 11



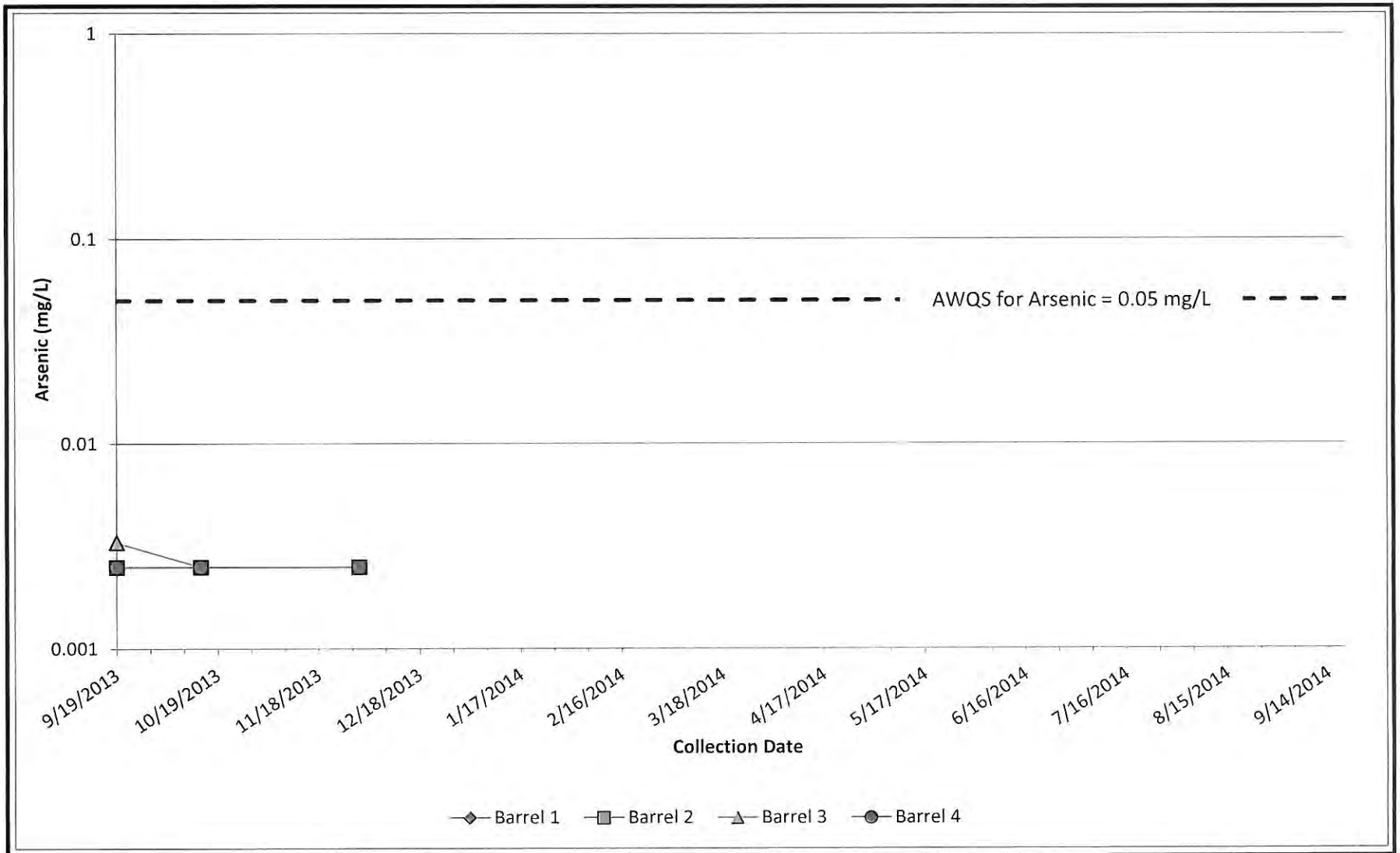
Golder Associates

Title	Field Barrel Leaching Tests - Aluminum	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	12
Client Name	Coeur Alaska		
Date	February, 2014		

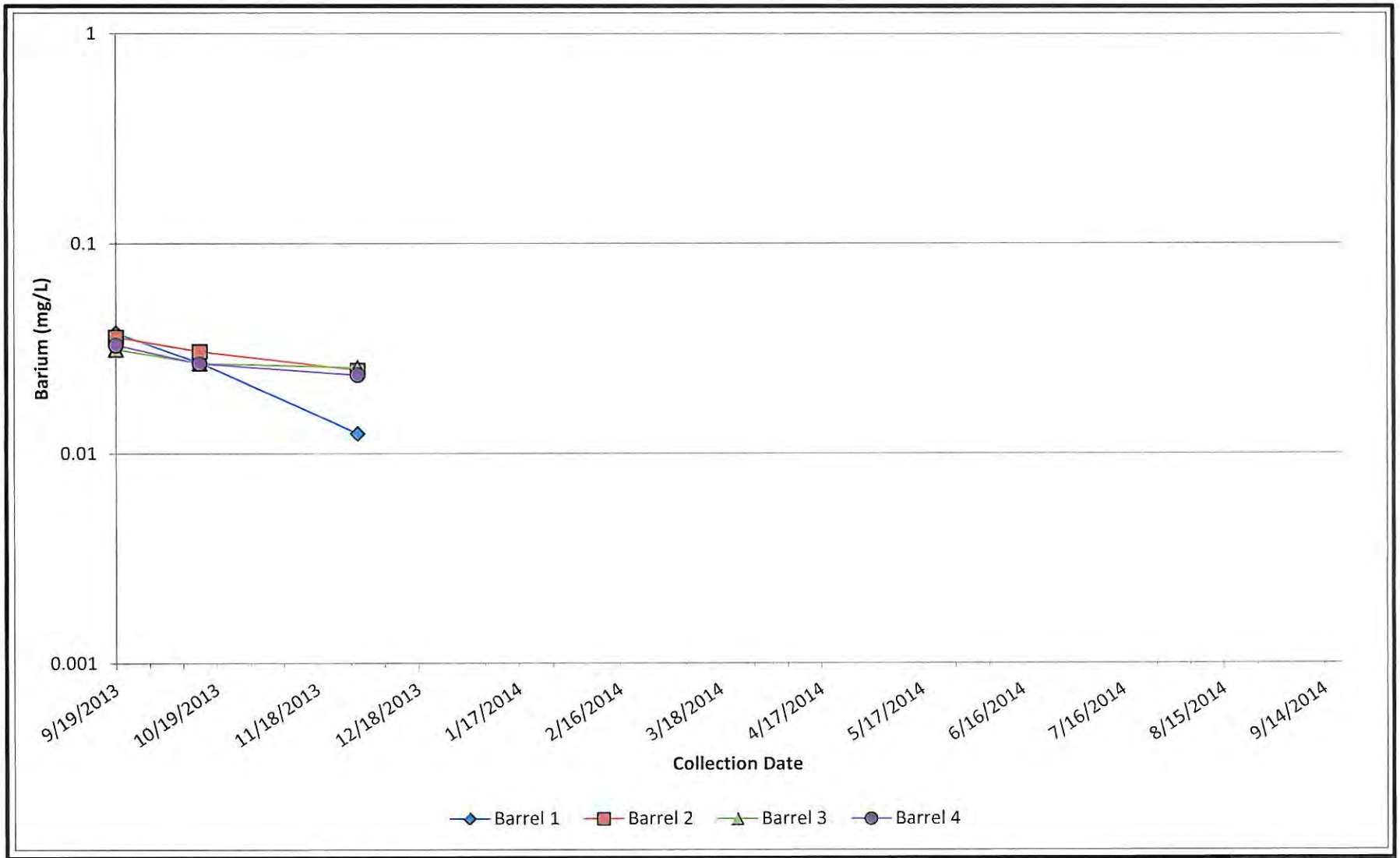


Golder Associates

Title	Field Barrel Leaching Tests - Antimony	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	13
Date	February, 2014		

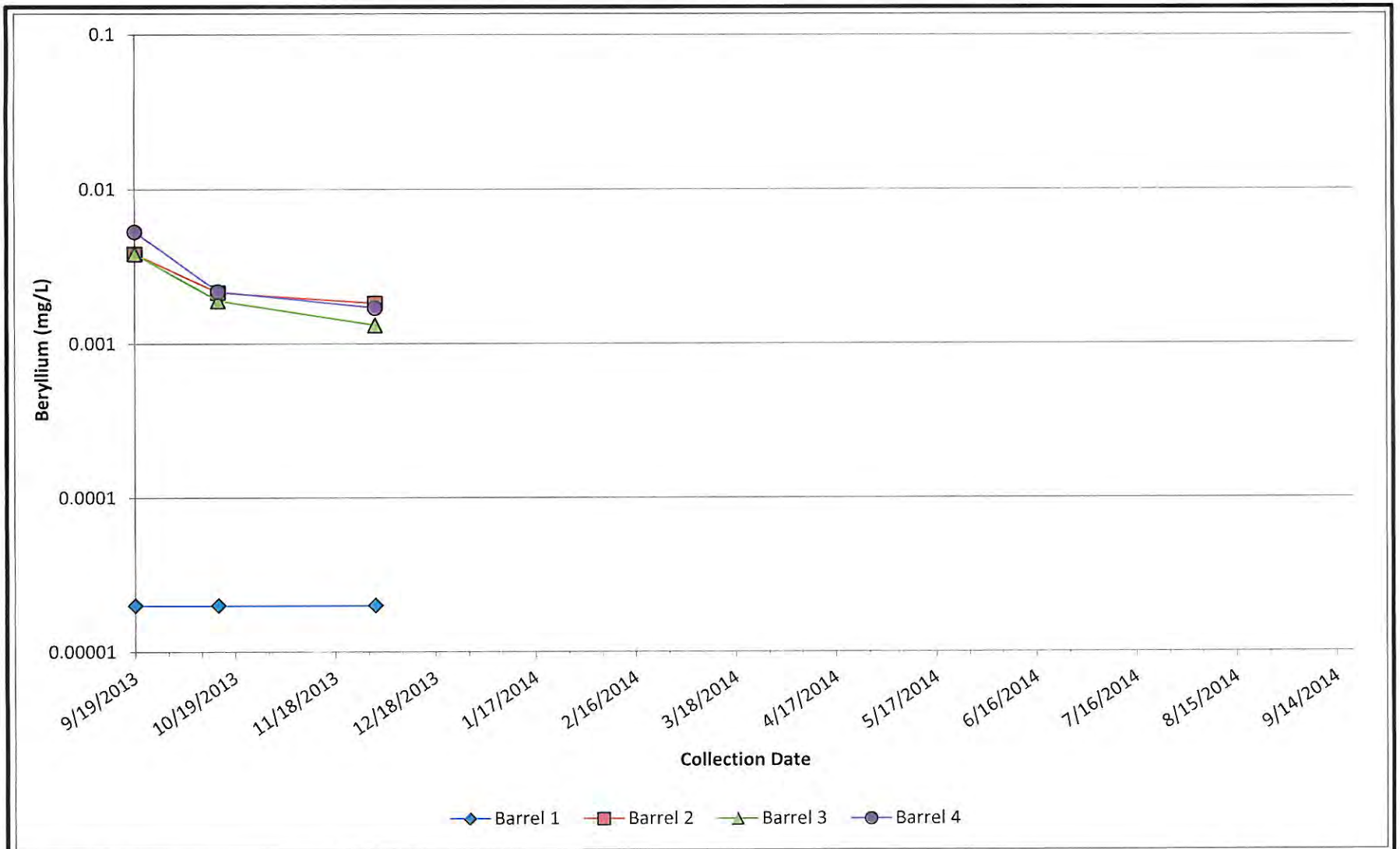


Golder Associates	Title: Field Barrel Leaching Tests - Arsenic		Drawn: NW
			Checked: AJS
	Project Name: Kensington	Project No.: 073-93714.003	Reviewed: RV
	Client Name: Coeur Alaska	Date: February, 2014	FIGURE 14



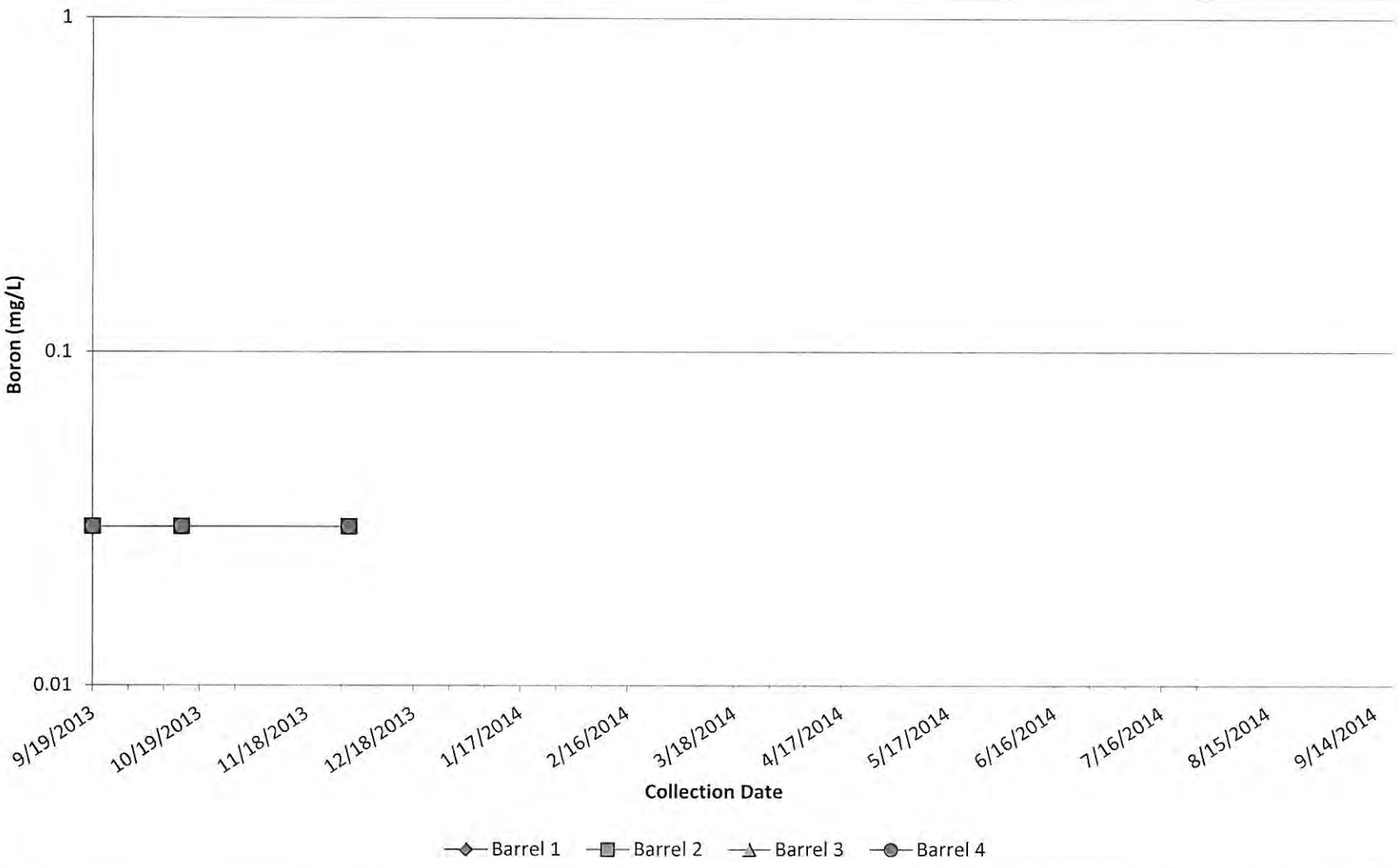
Golder Associates

Title	Field Barrel Leaching Tests - Barium	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	15
Date	February, 2014		

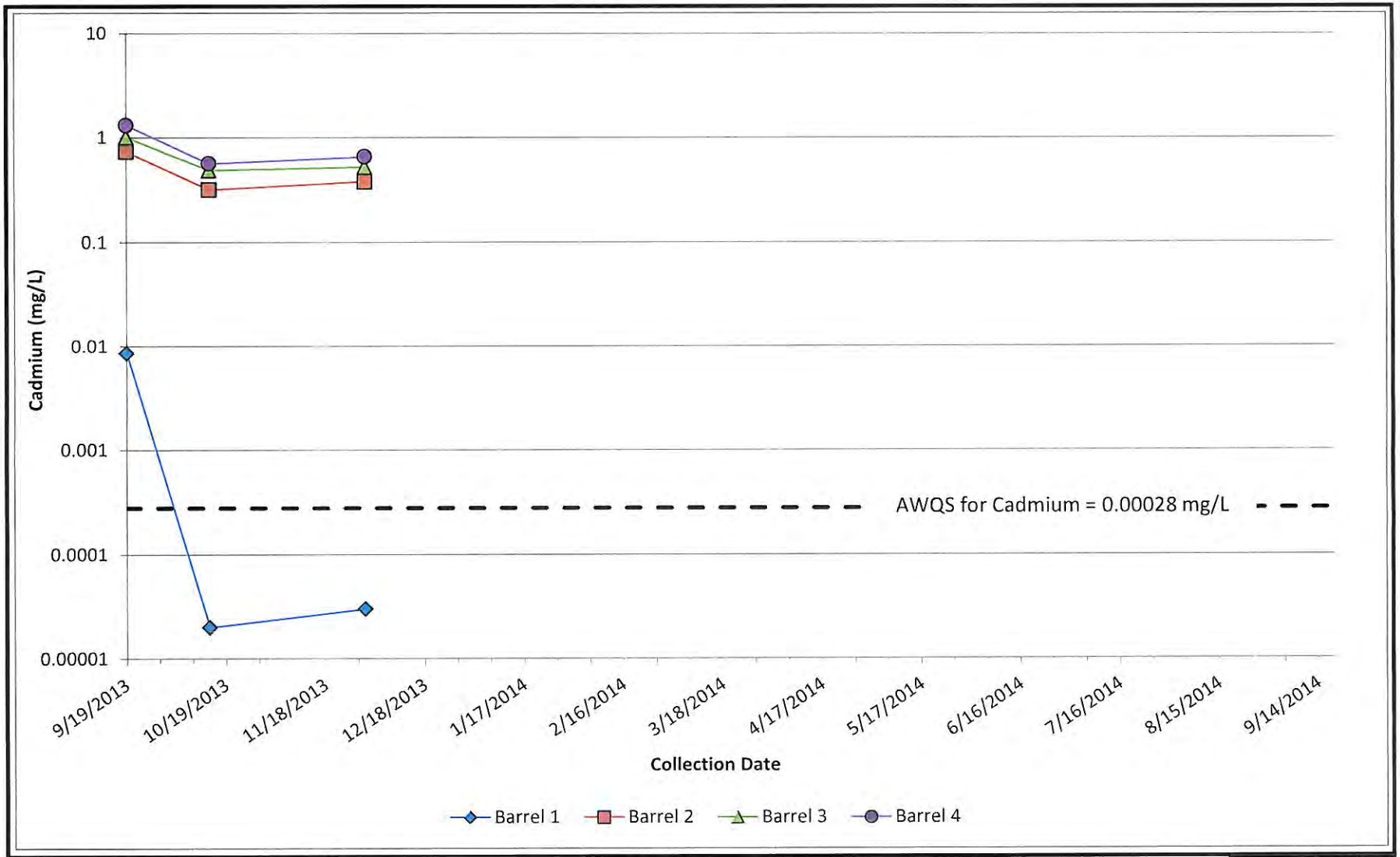


Golder Associates

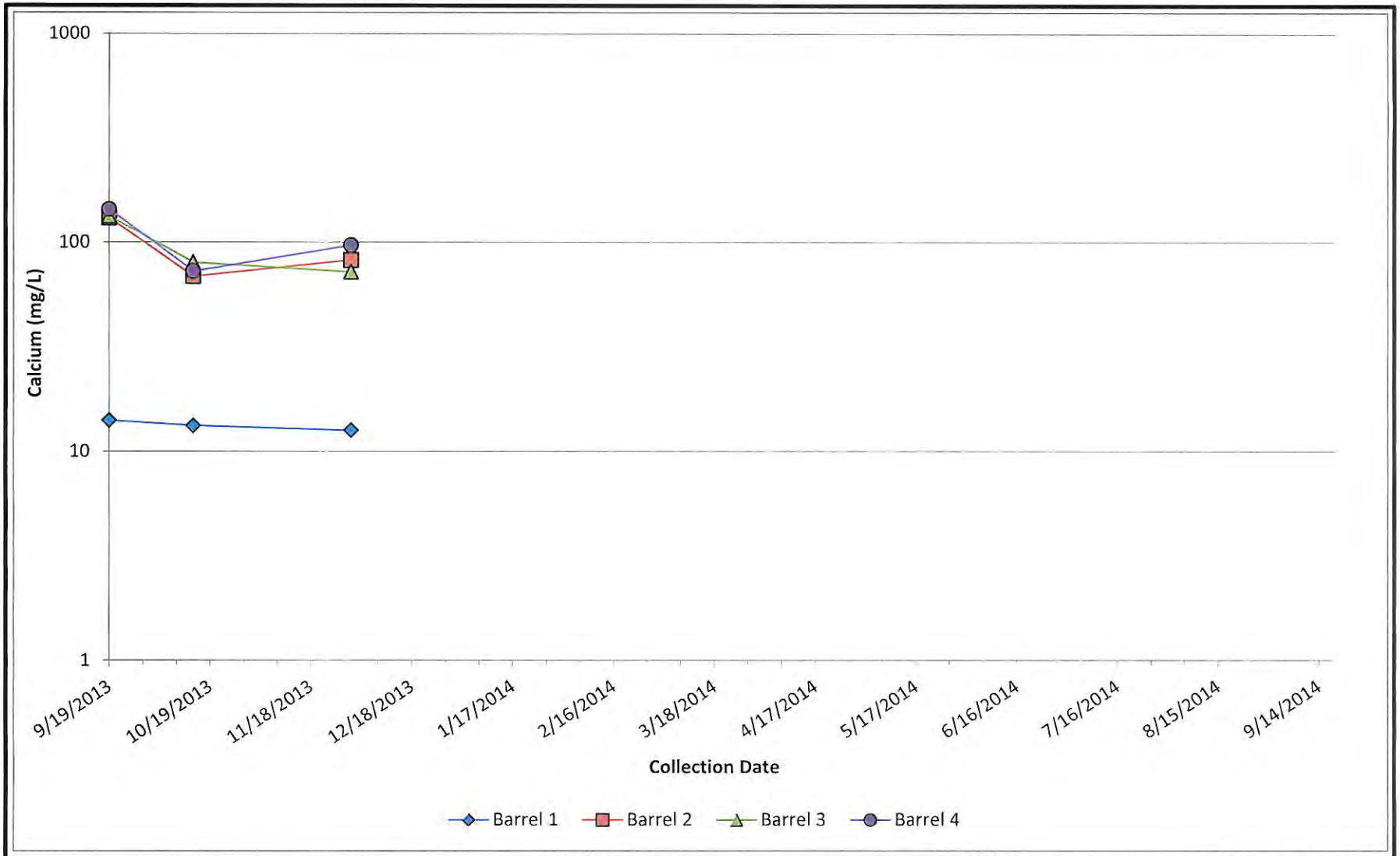
Title	Field Barrel Leaching Tests - Beryllium	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	16
Client Name	Coeur Alaska		
Date	February, 2014		



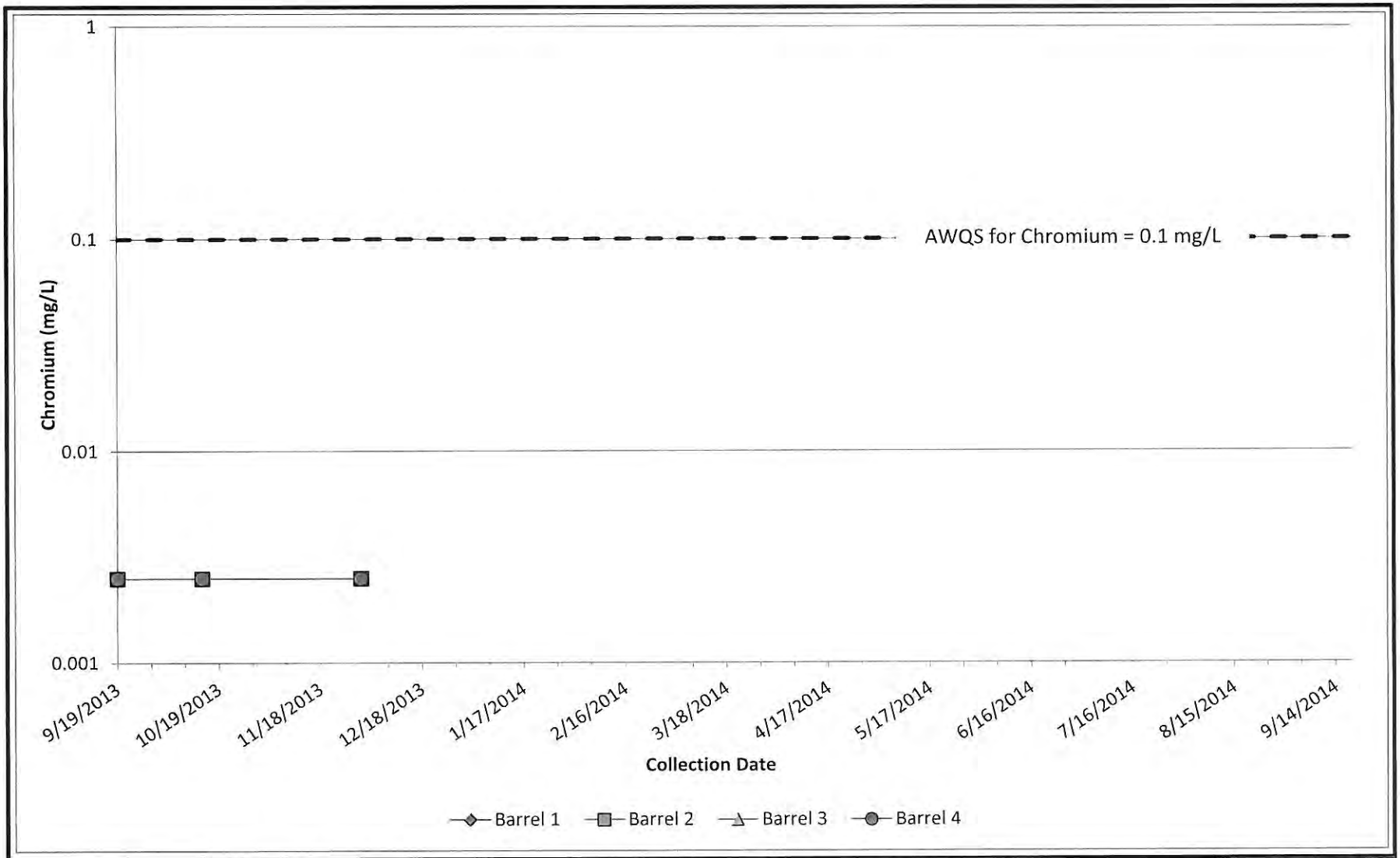
Golder Associates	Title: Field Barrel Leaching Tests - Boron	Drawn	NW
		Checked	AJS
	Project Name: Kensington	Project No.: 073-93714.003	Reviewed	RV
	Client Name: Coeur Alaska	Date: February, 2014	FIGURE	17



Golder Associates	Title: Field Barrel Leaching Tests - Cadmium	Drawn	NW
		Checked	AJS
	Project Name: Kensington	Reviewed	RV
	Project No.: 073-93714.003	FIGURE	18
	Client Name: Coeur Alaska		
	Date: February, 2014		

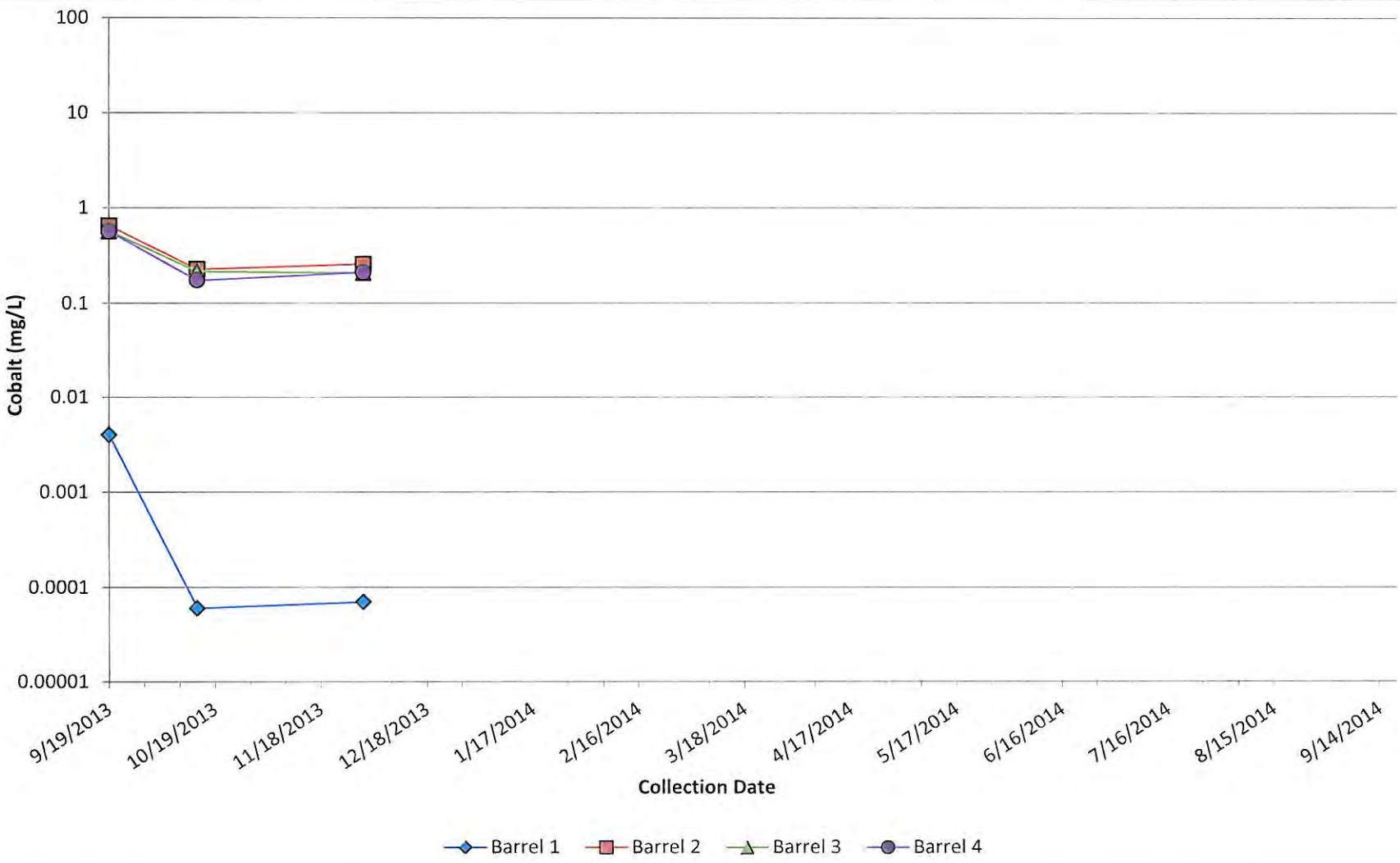


Golder Associates	Title: Field Barrel Leaching Tests - Calcium	Drawn	NW
		Checked	AJS
	Project Name: Kensington	Reviewed	RV
	Project No.: 073-93714.003	FIGURE	19
	Client Name: Coeur Alaska		
	Date: February, 2014		



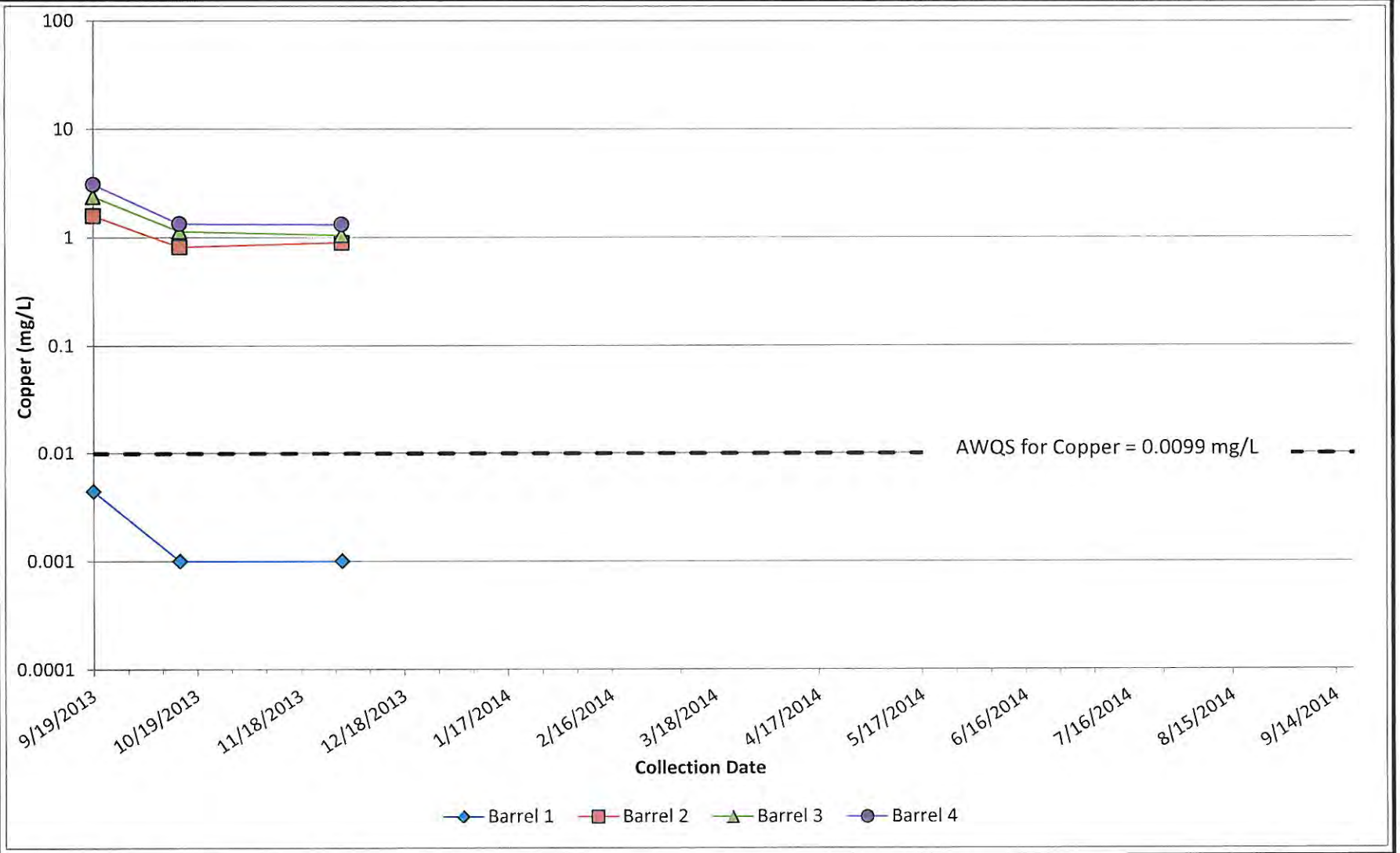
Golder Associates

Title	Field Barrel Leaching Tests - Chromium	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	20
Client Name	Coeur Alaska		
Date	February, 2014		

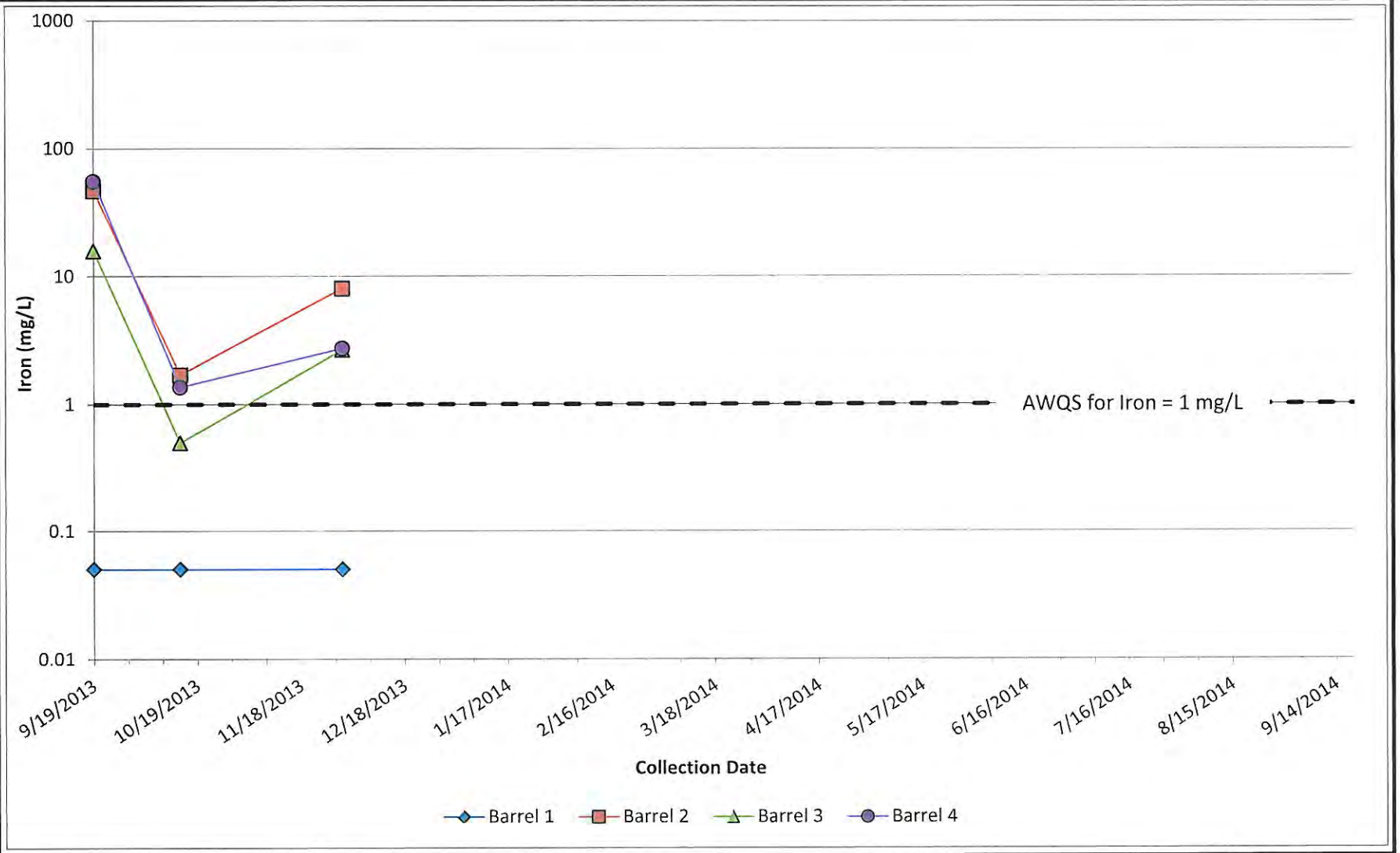


Golder Associates

Title	Field Barrel Leaching Tests - Cobalt	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	21
Client Name	Coeur Alaska		
Date	February, 2014		

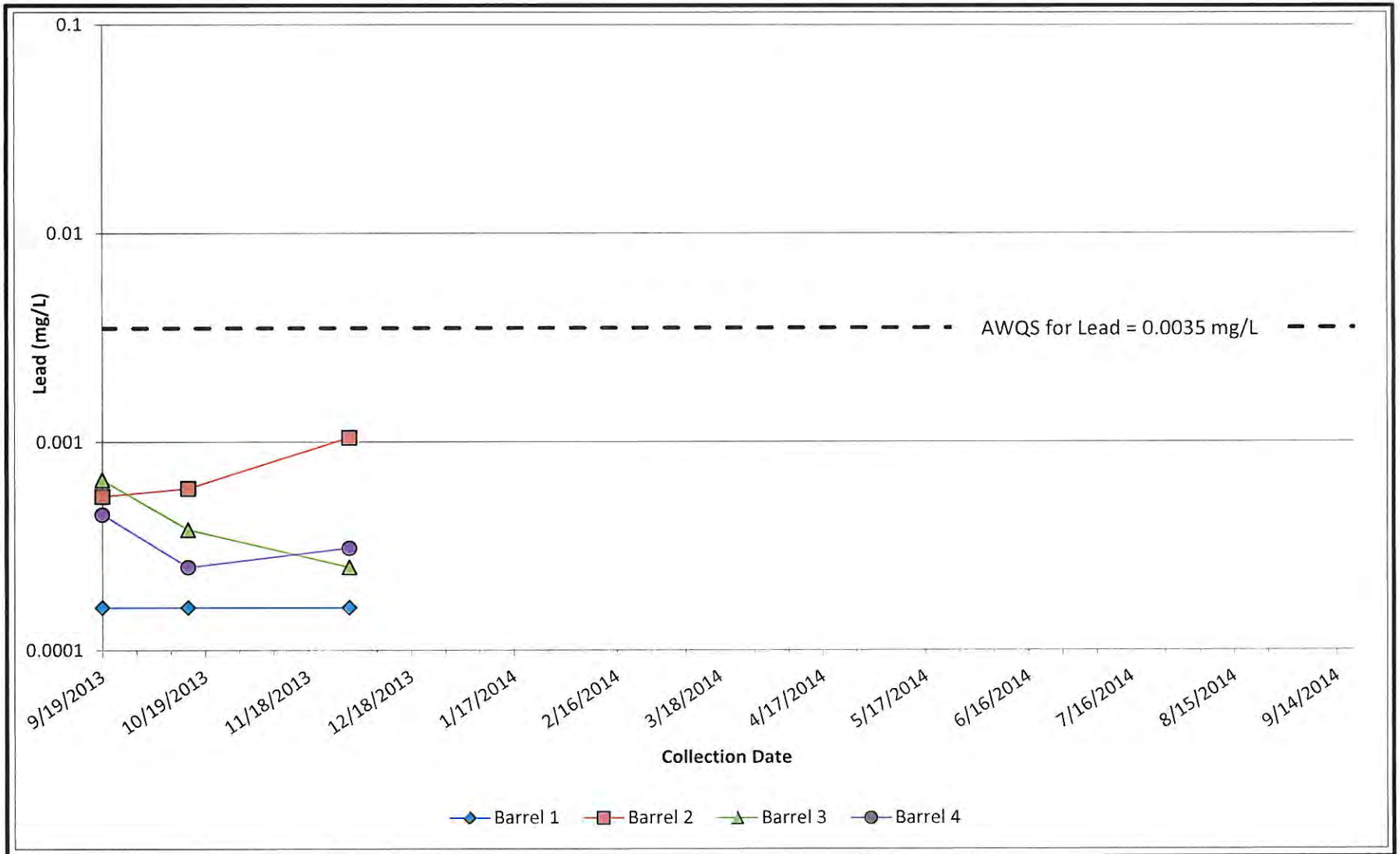


Golder Associates	Title: Field Barrel Leaching Tests - Copper		Drawn: NW
			Checked: AJS
	Project Name: Kensington	Project No.: 073-93714.003	Reviewed: RV
	Client Name: Coeur Alaska	Date: February, 2014	FIGURE 22



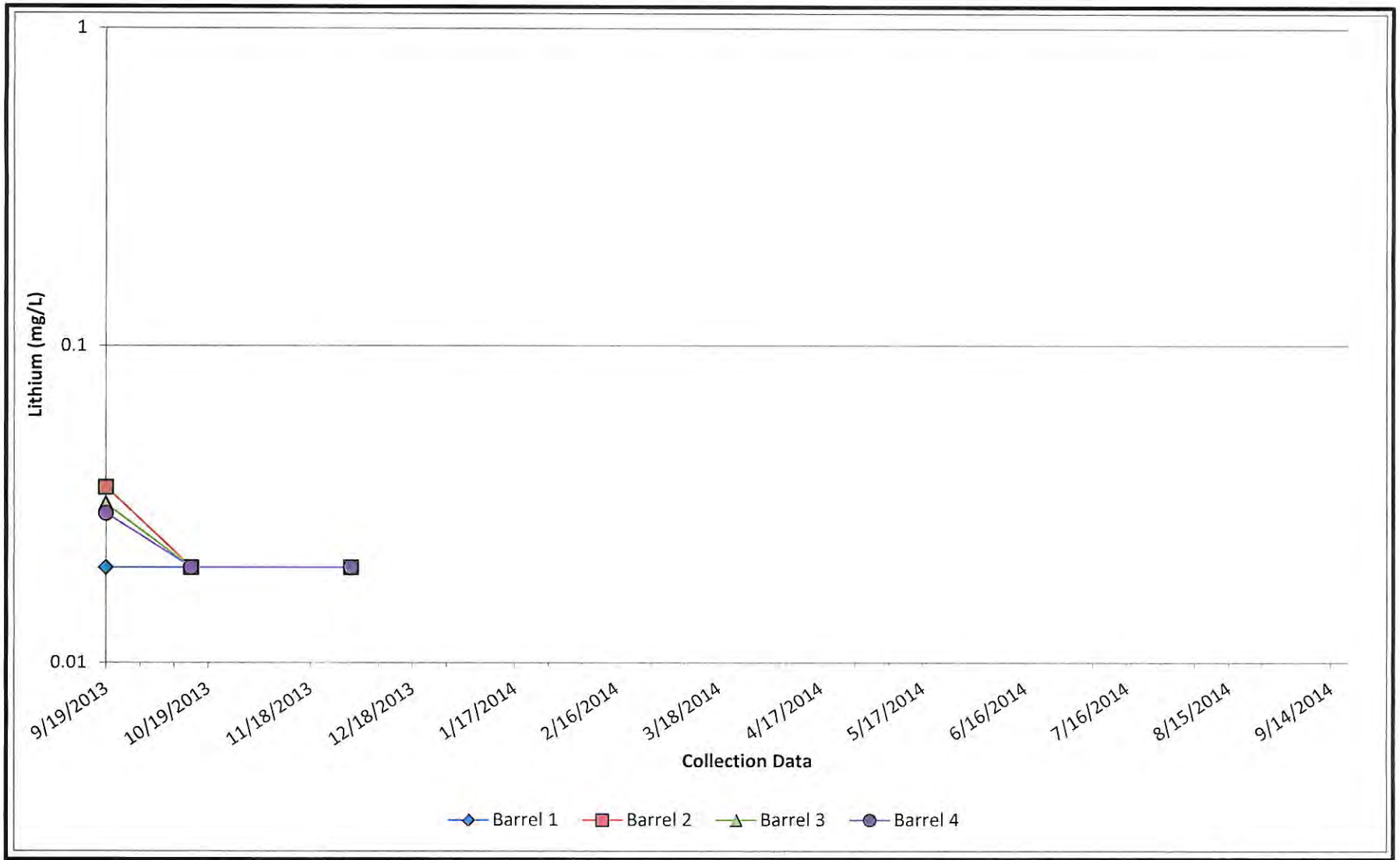
Golder Associates

Title	Field Barrel Leaching Tests - Iron	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	23
Date	February, 2014		



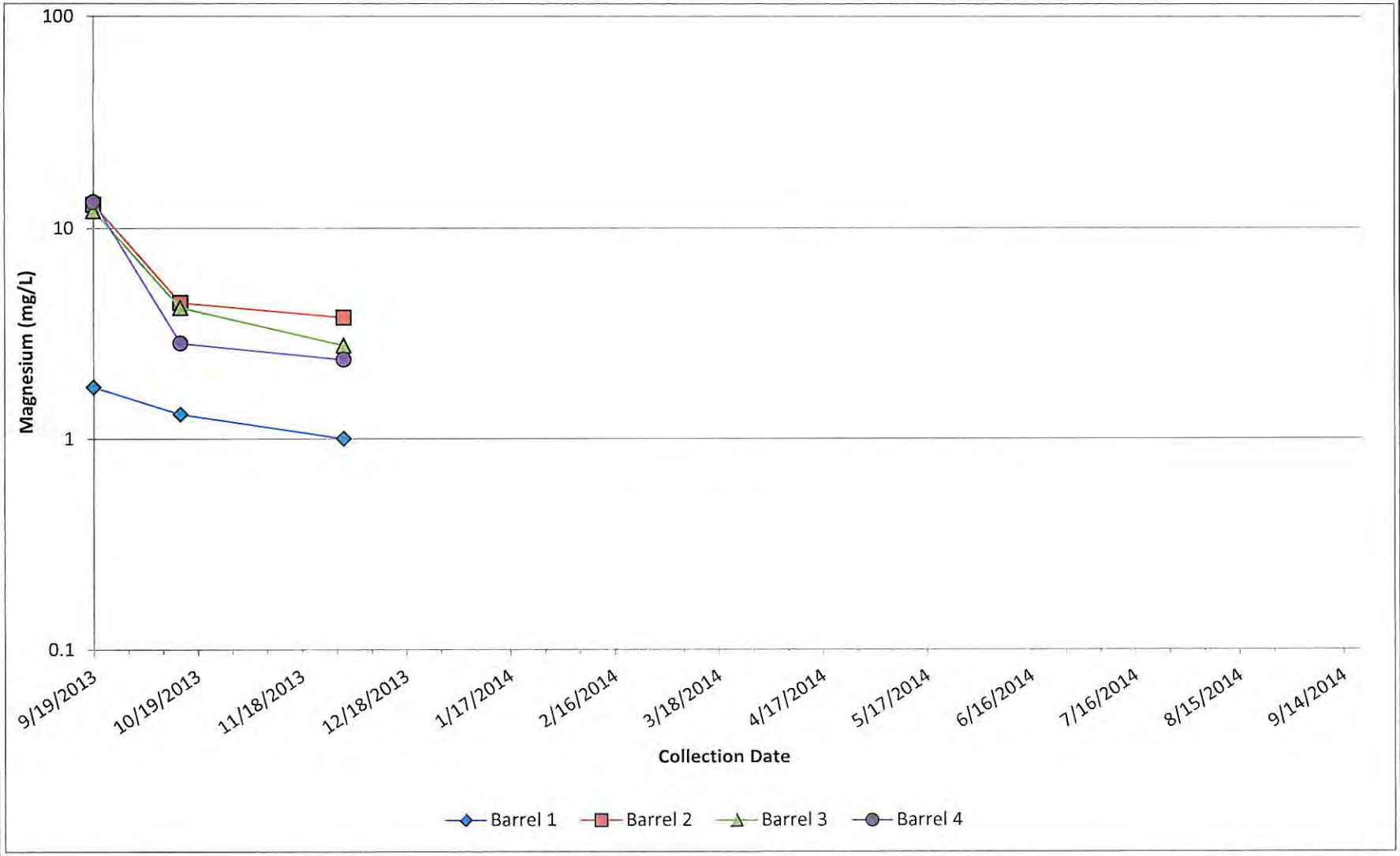
Golder Associates

Title	Field Barrel Leaching Tests - Lead	Drawn	NW
		Checked	AJS
Project Name	Kensington	Project No. 073-93714.003	Reviewed RV
Client Name	Coeur Alaska	Date February, 2014	FIGURE 24



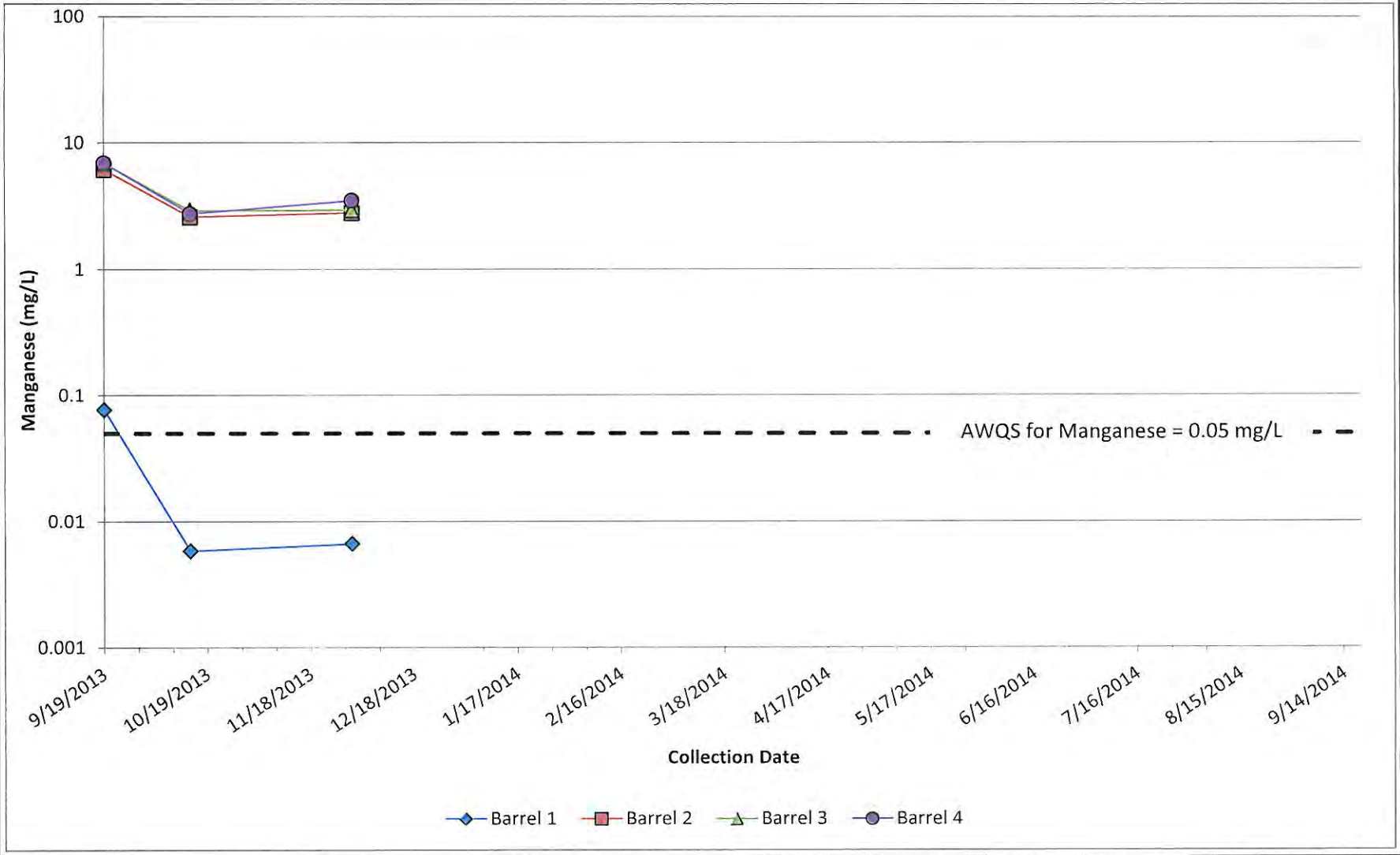
Golder Associates

Title	Field Barrel Leaching Tests - Lithium	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	25
Date	February, 2014		



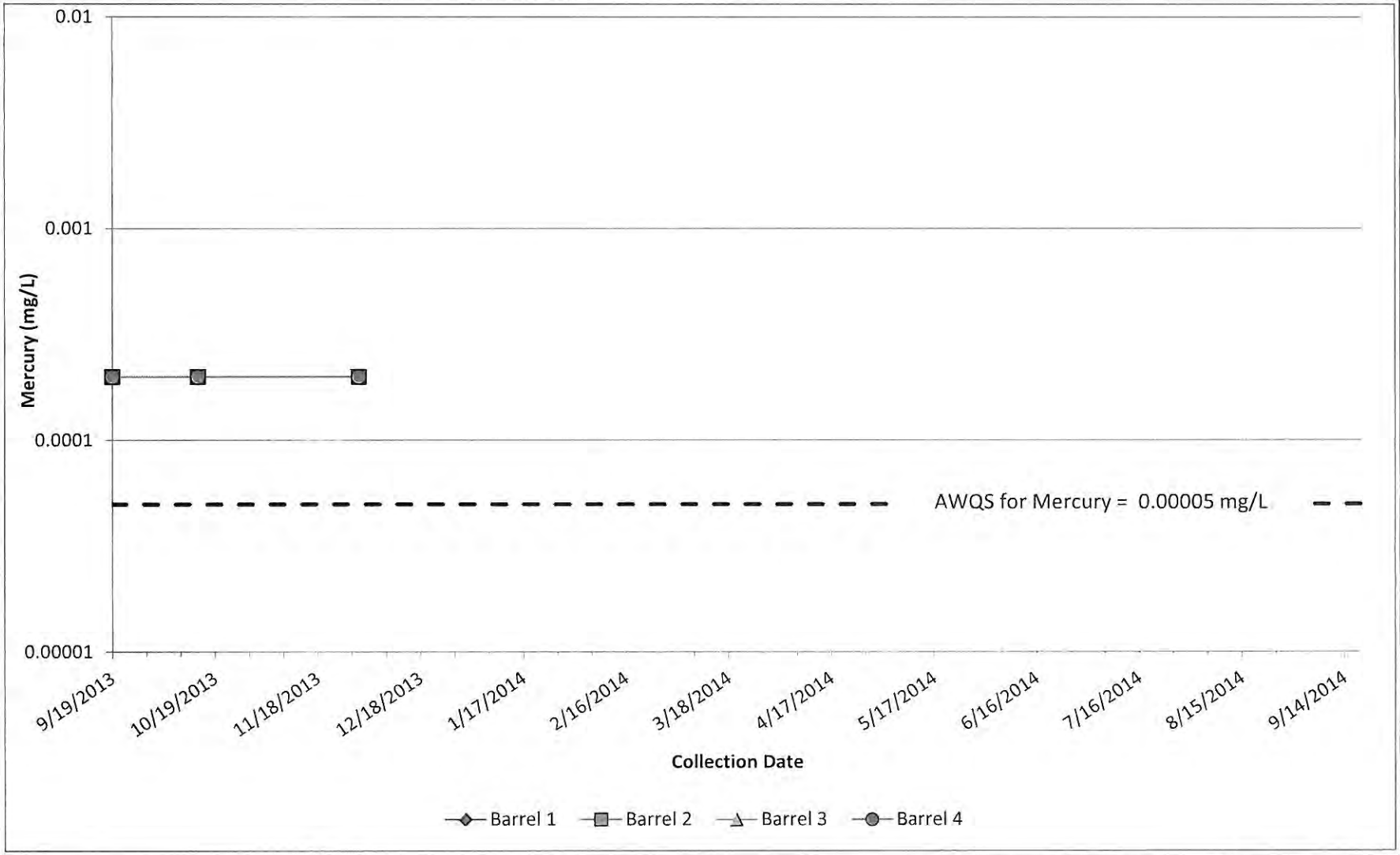
Golder Associates

Title	Field Barrel Leaching Tests - Magnesium	Drawn	NW
		Checked	AJS
Project Name	Kensington	Project No. 073-93714.003	Reviewed RV
Client Name	Coeur Alaska	Date February, 2014	FIGURE 26



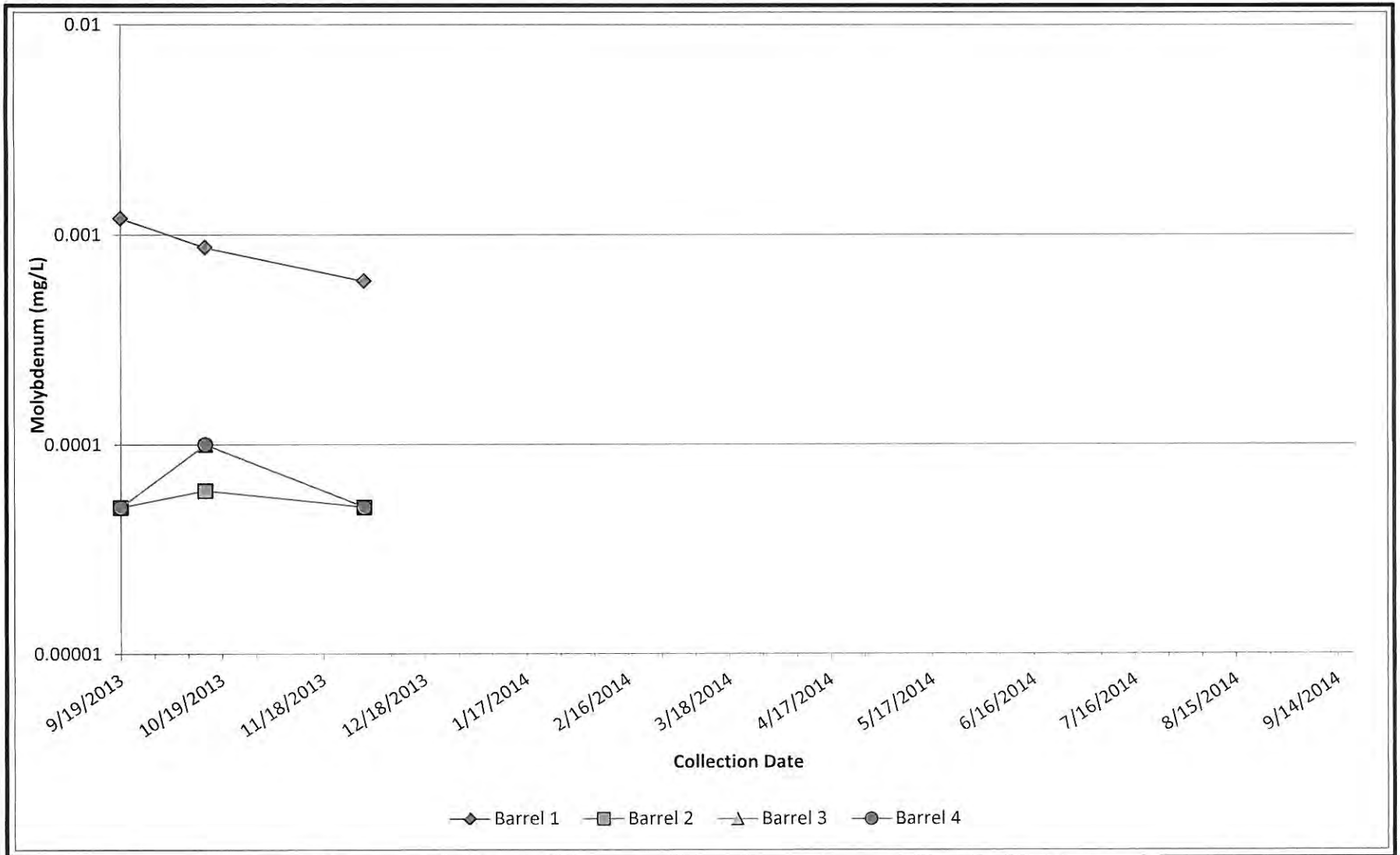
Golder Associates

Title	Field Barrel Leaching Tests - Manganese	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	27
Client Name	Coeur Alaska		
Date	February, 2014		



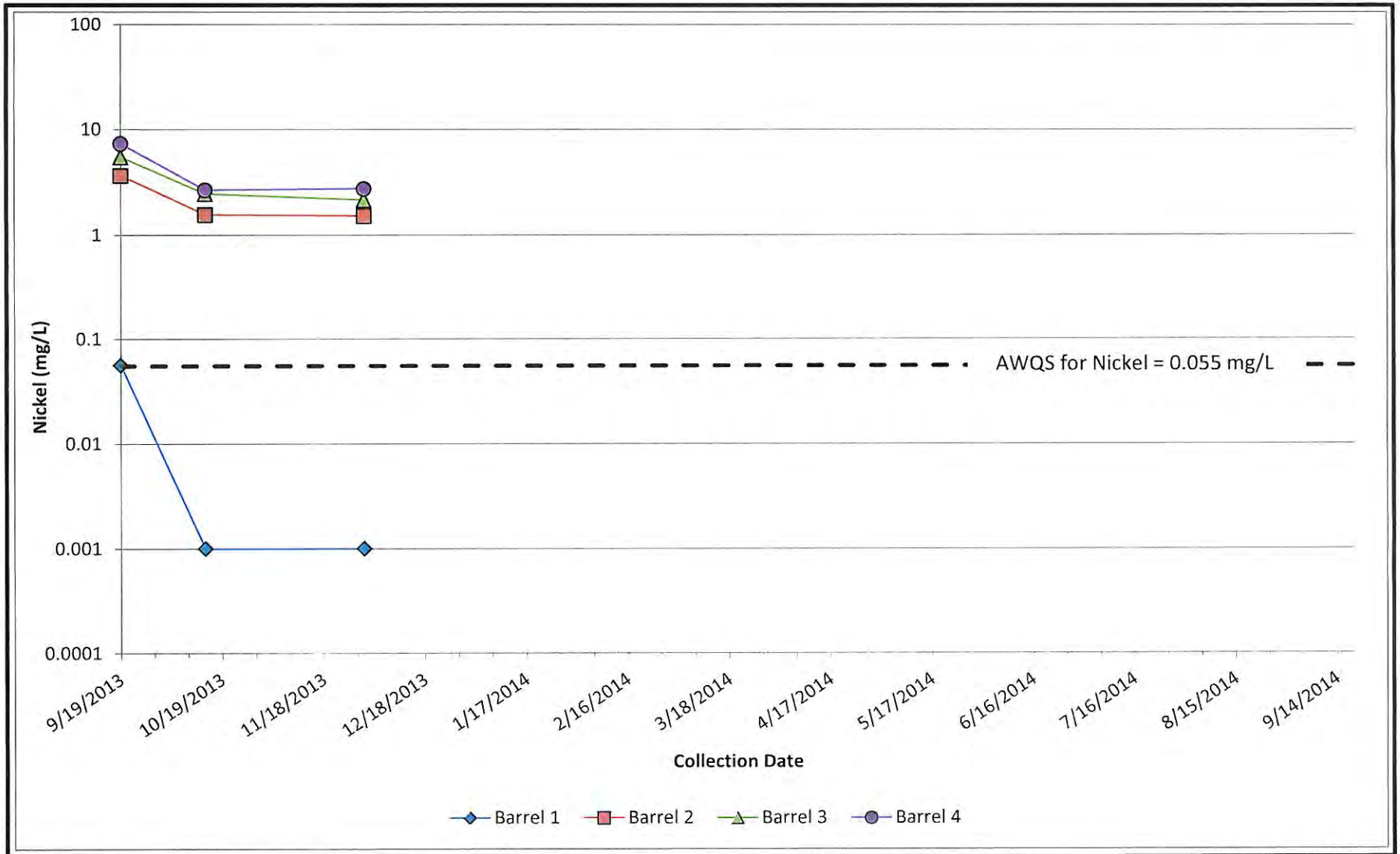
Golder Associates

Title	Field Barrel Leaching Tests - Mercury	Drawn	NW
		Checked	AJS
Project Name	Kensington	Project No	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	Date	February, 2014	FIGURE	28



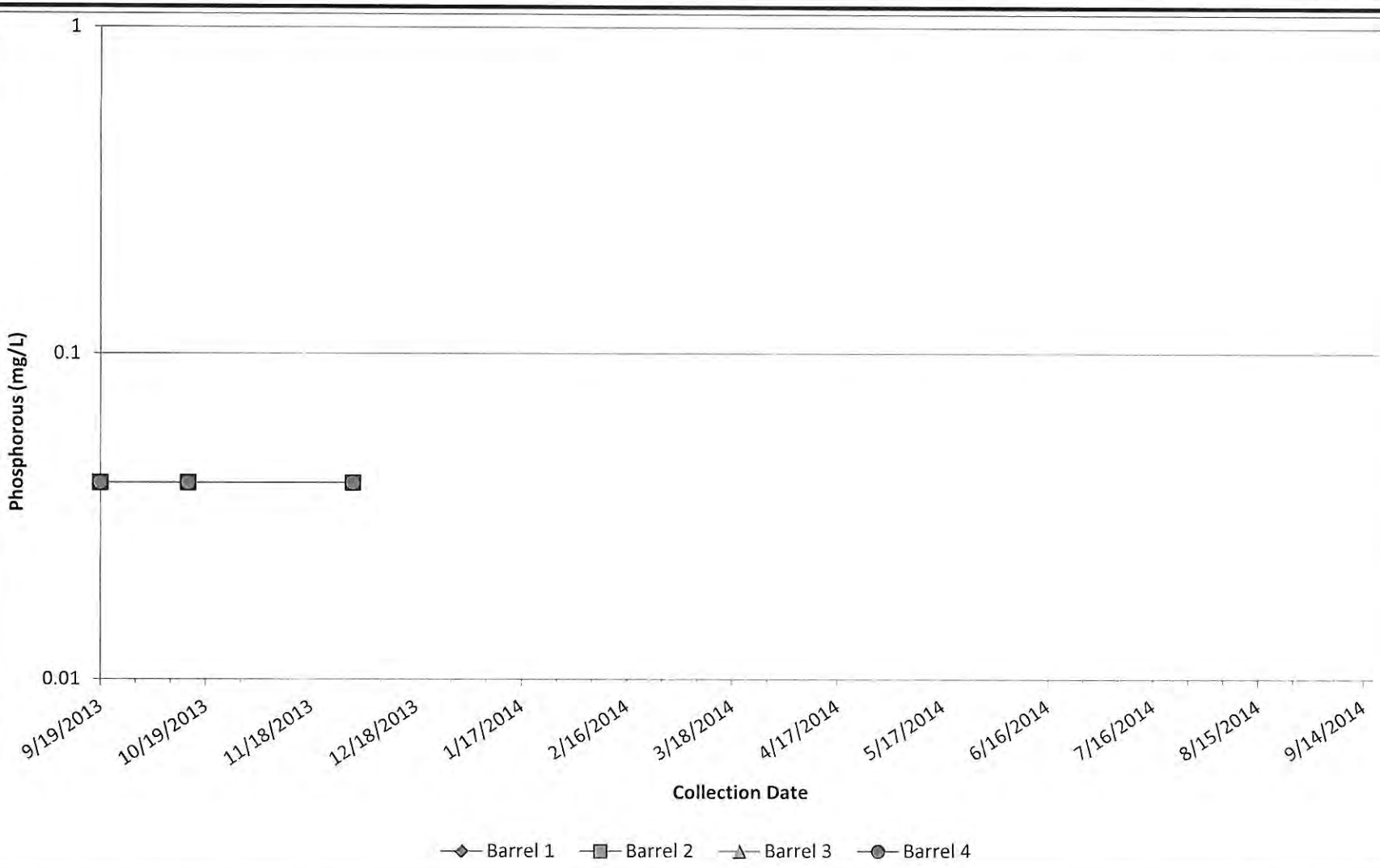
Golder Associates

Title	Field Barrel Leaching Tests - Molybdenum	Drawn	NW
		Checked	AJS
Project Name	Kensington	Project No	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	Date	February, 2014	FIGURE	29



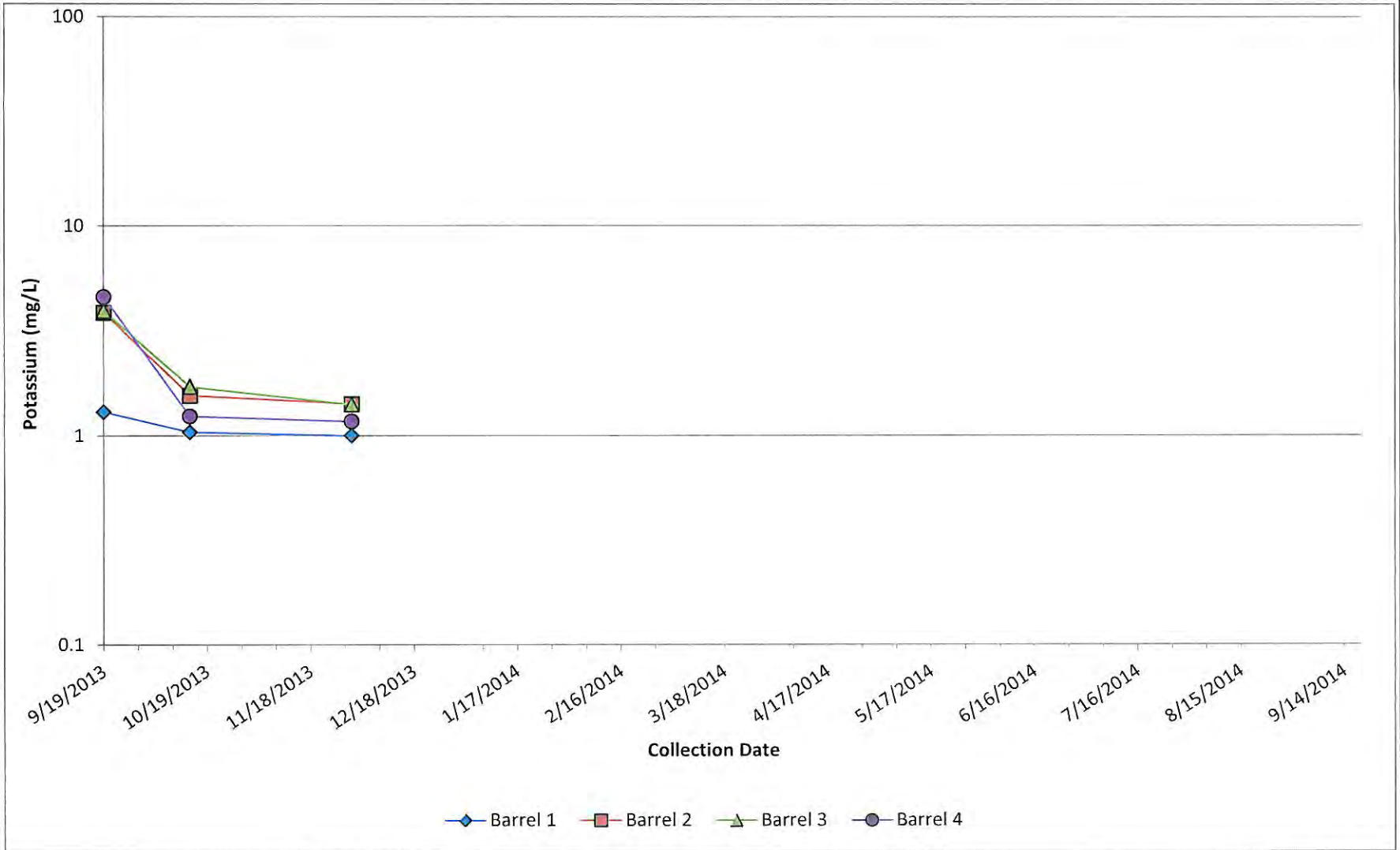
Golder Associates

Title	Field Barrel Leaching Tests - Nickel	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	30
Client Name	Coeur Alaska		
Date	February, 2014		



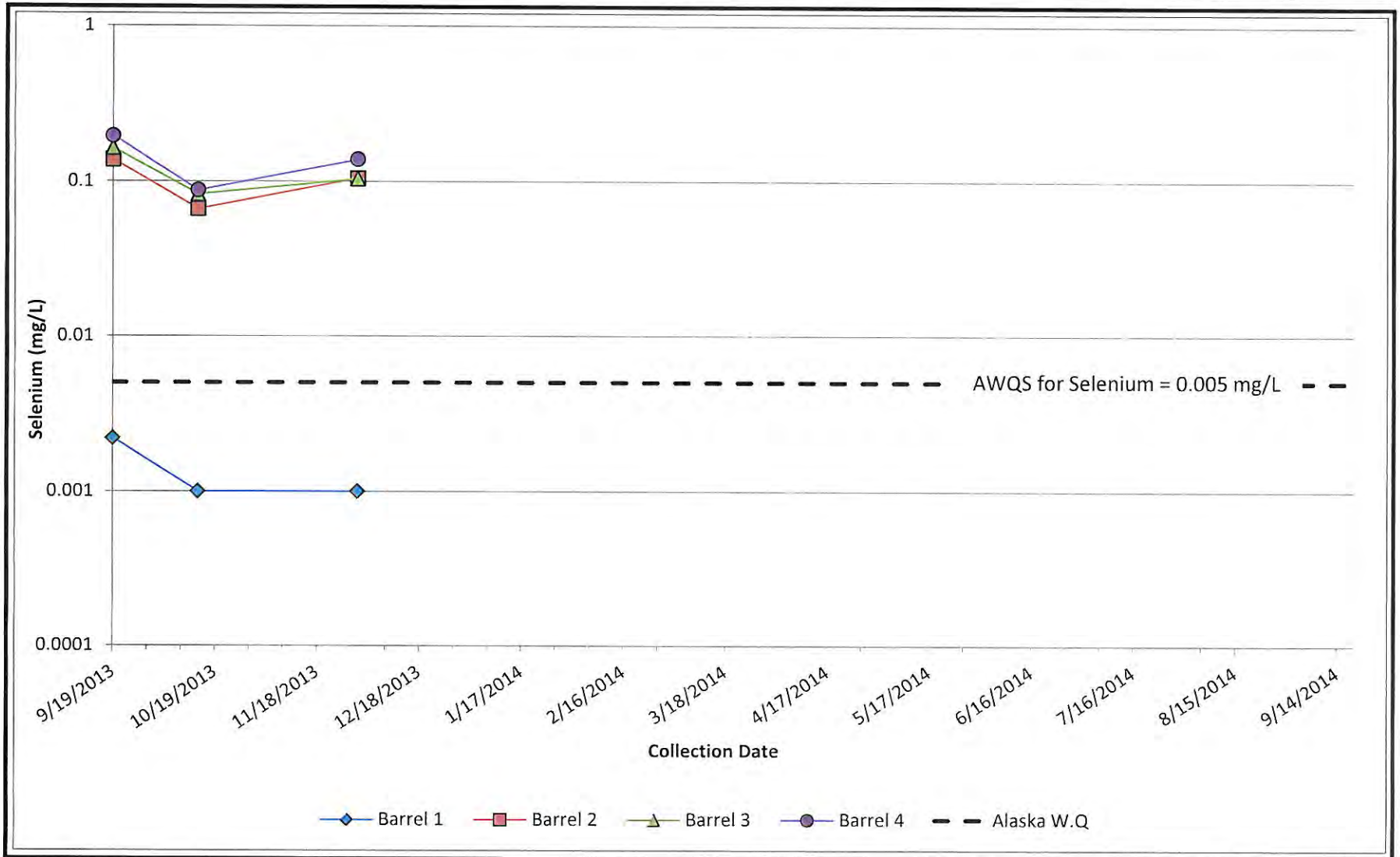
Golder Associates

Title	Field Barrel Leaching Tests - Phosphorus	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	31
Date	February, 2014		



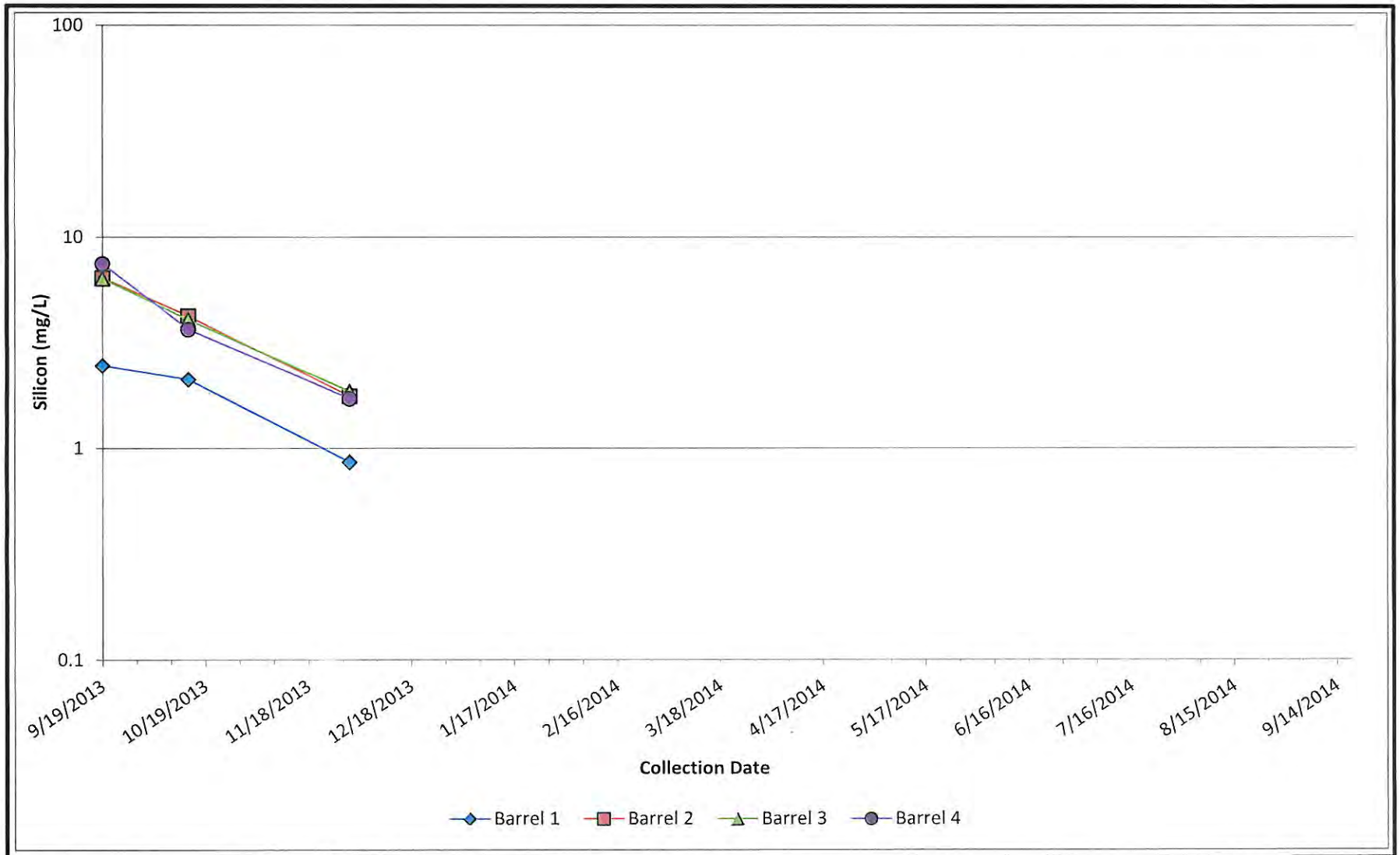
Golder Associates

Title	Field Barrel Leaching Tests - Potassium	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003	FIGURE	32
Client Name	Coeur Alaska		
Date	February, 2014		



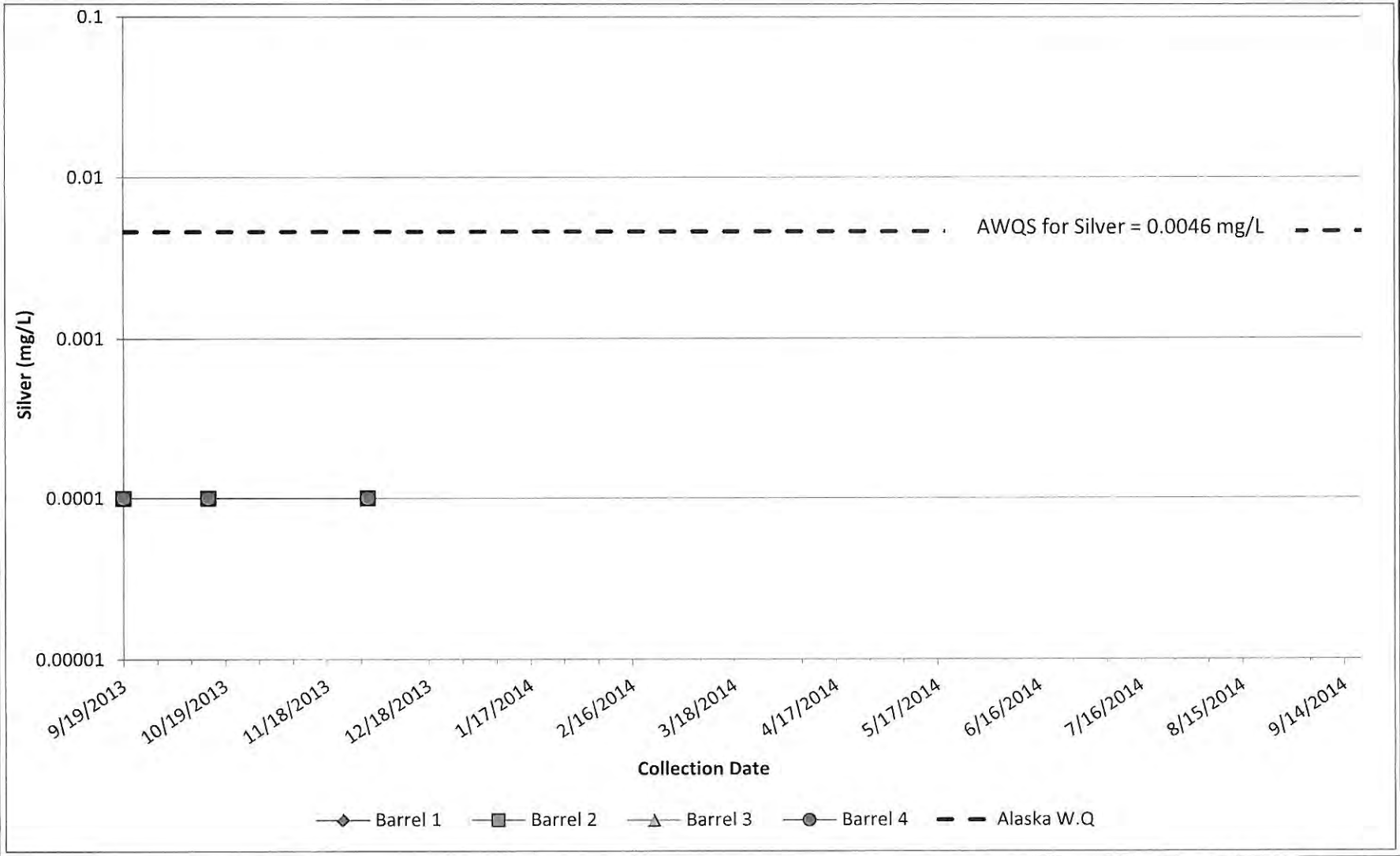
Golder Associates

Title	Field Barrel Leaching Tests - Selenium	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	33
Date	February, 2014		



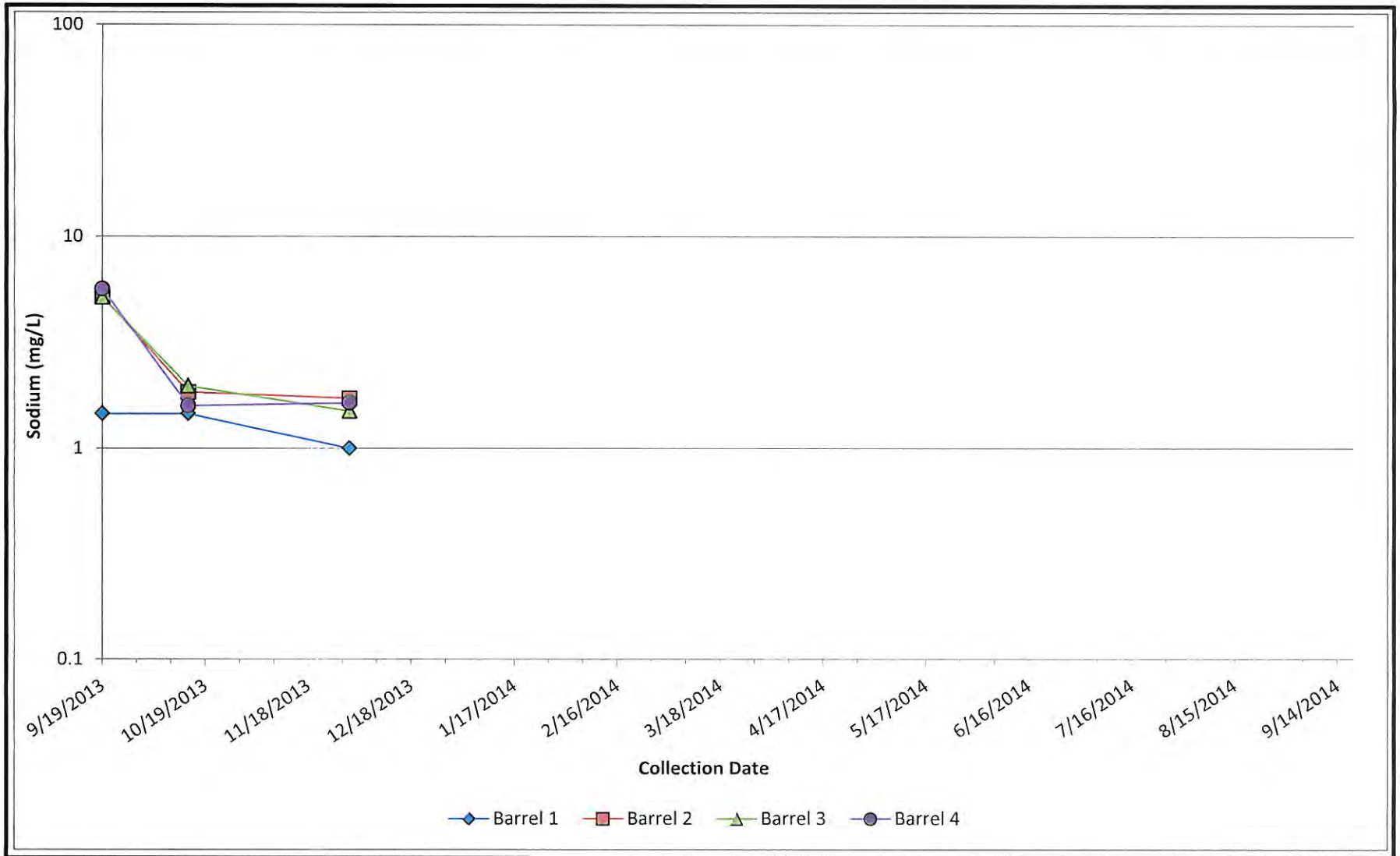
Golder Associates

Title	Field Barrel Leaching Tests - Silicon	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	34
Date	February, 2014		



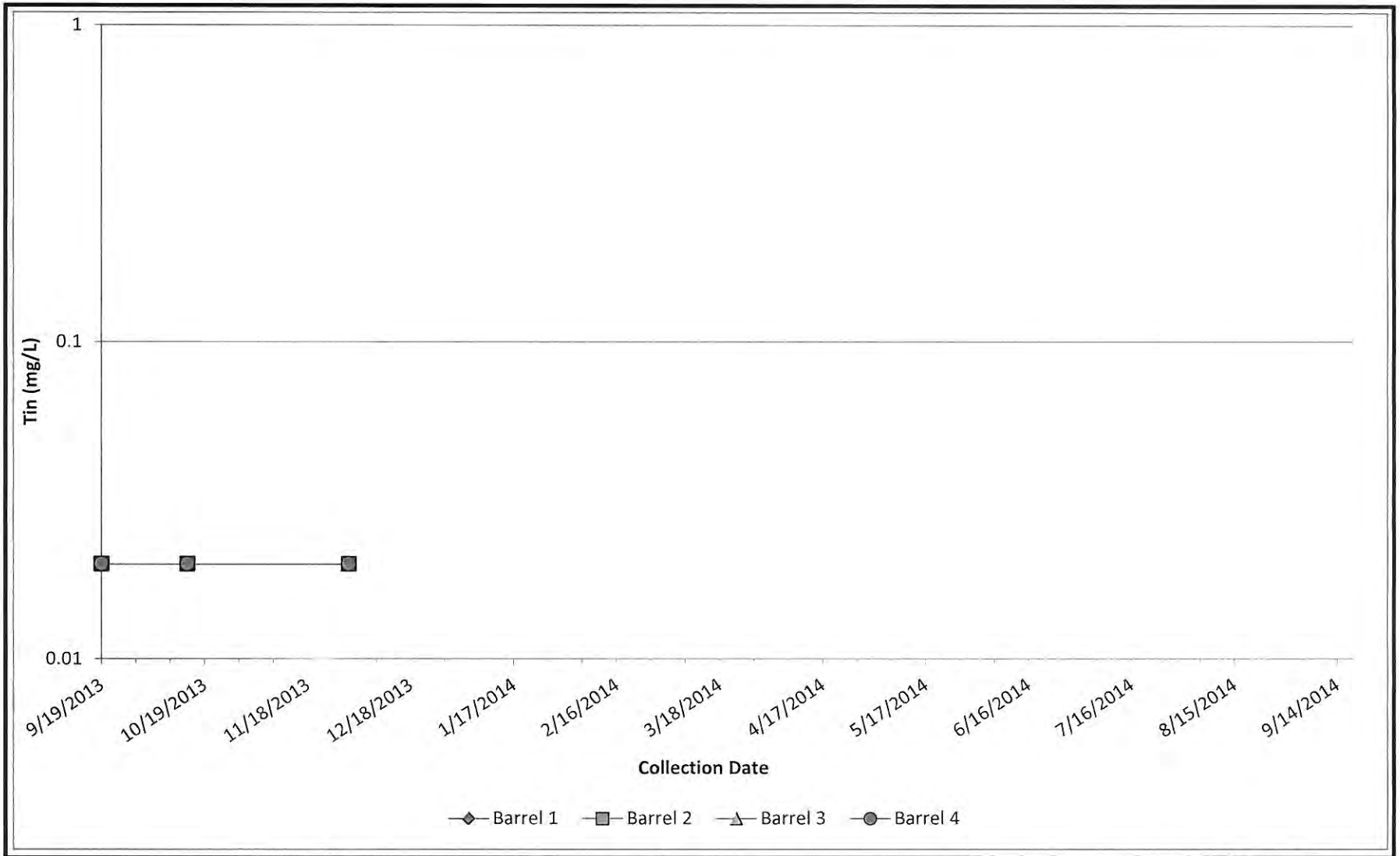
Golder Associates

Title	Field Barrel Leaching Tests - Silver	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	35
Project No.	073-93714.003		
Date	February, 2014		



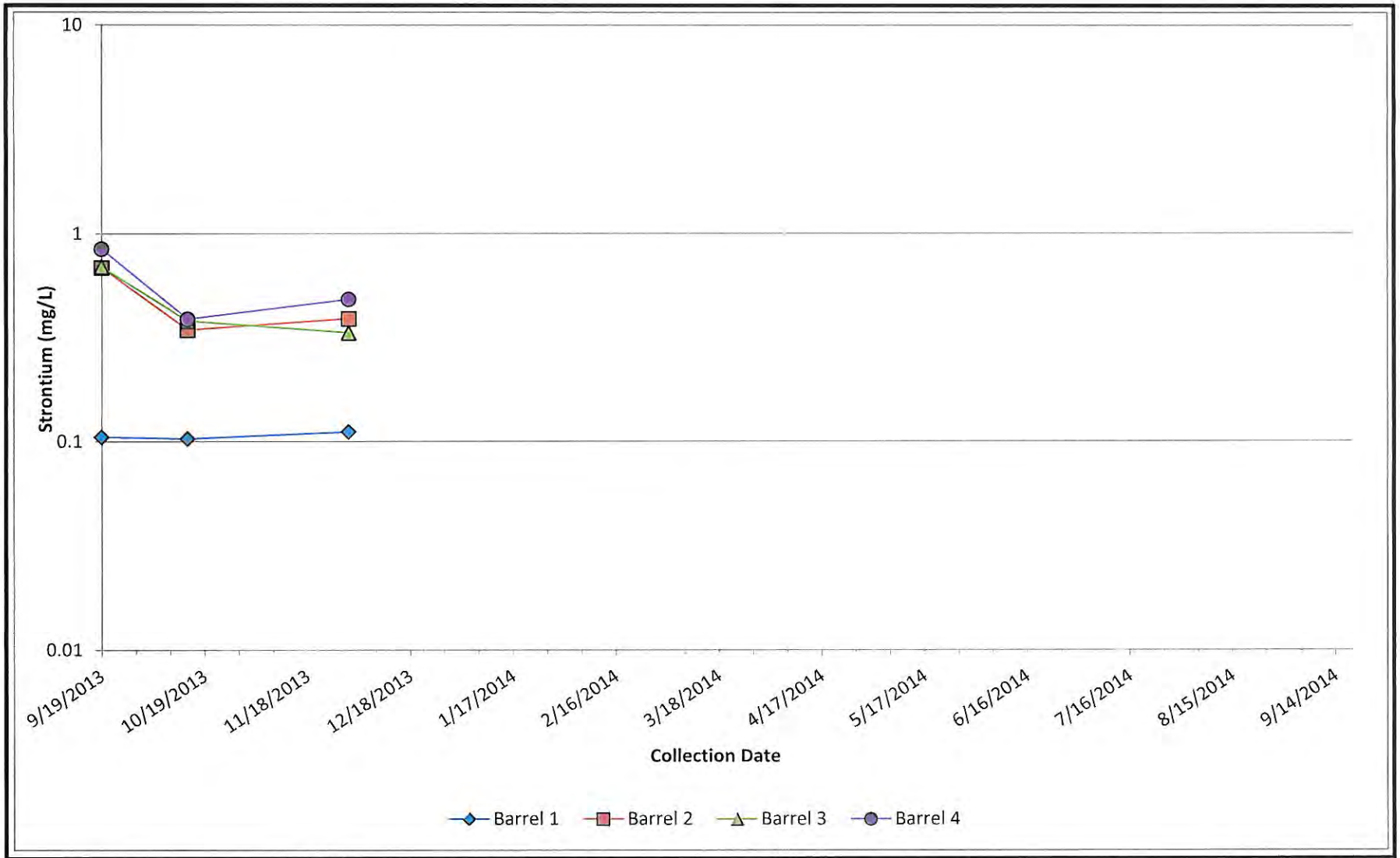
Golder Associates

Title	Field Barrel Leaching Tests - Sodium	Drawn	NW
		Checked	AJS
Project Name	Kensington	Project No. 073-93714.003	Reviewed RV
Client Name	Coeur Alaska	Date February, 2014	FIGURE 36



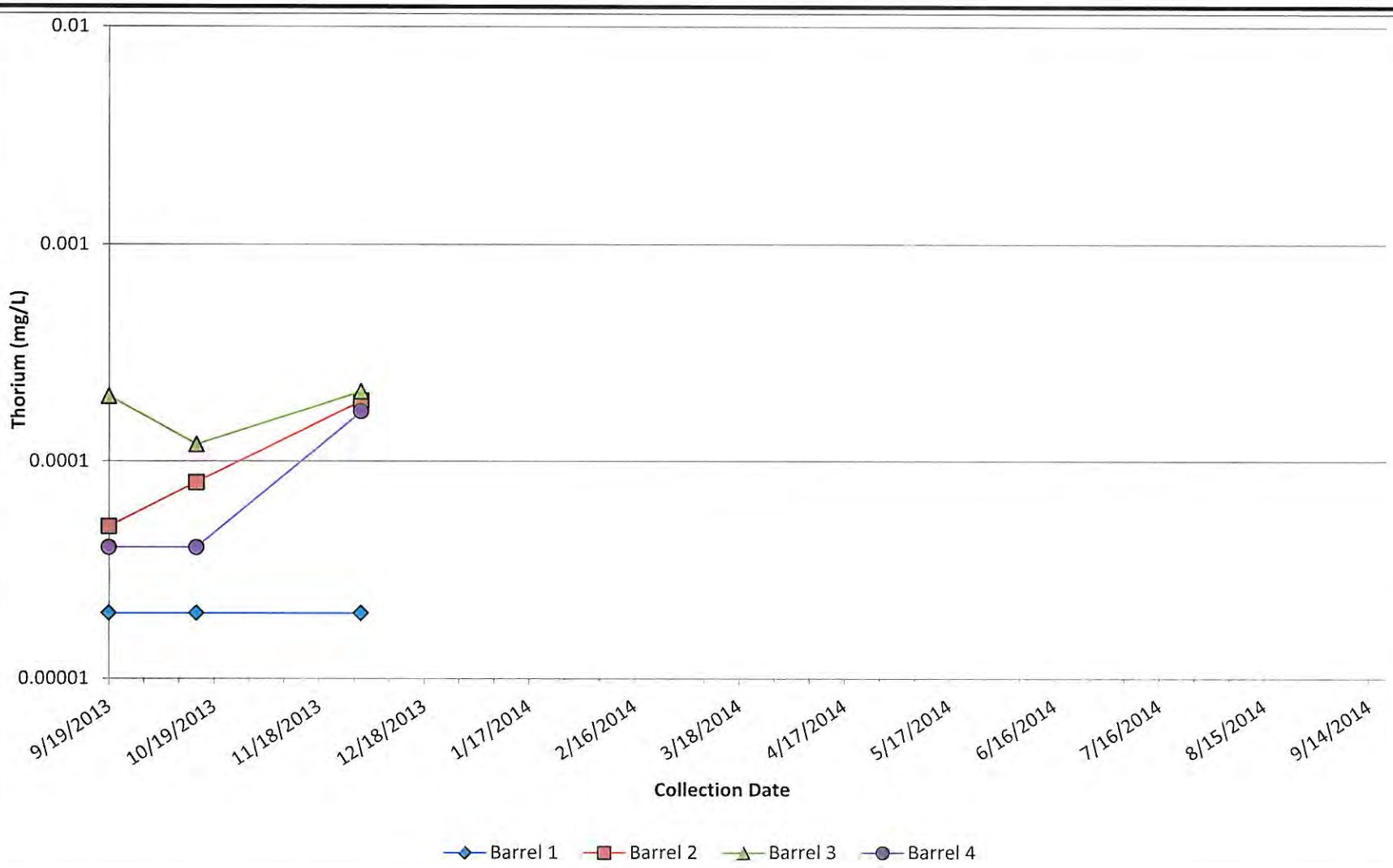
Golder Associates

Title	Field Barrel Leaching Tests - Tin	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	37
Date	February, 2014		

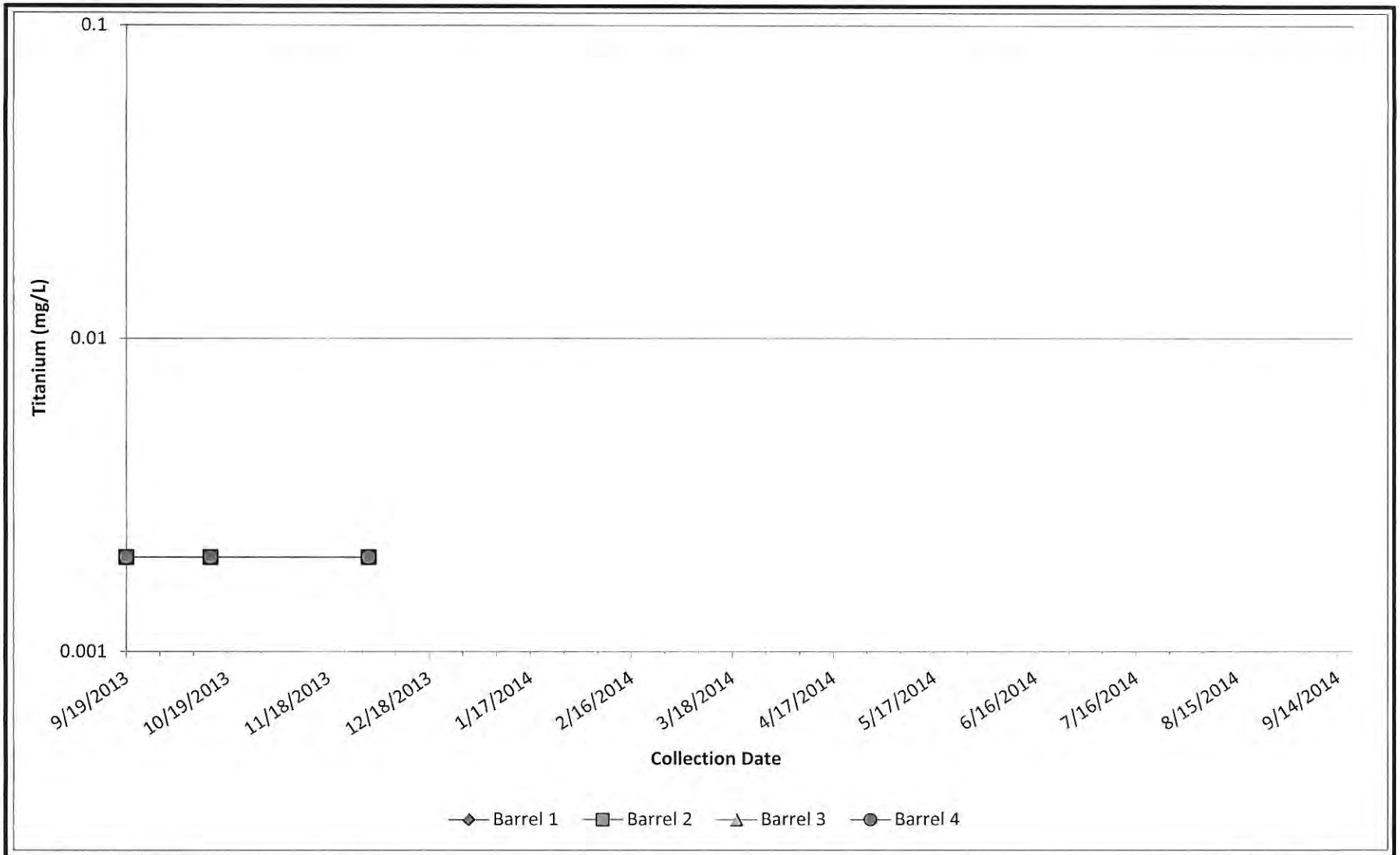


Golder Associates

Title	Field Barrel Leaching Tests - Strontium	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	38
Date	February, 2014		

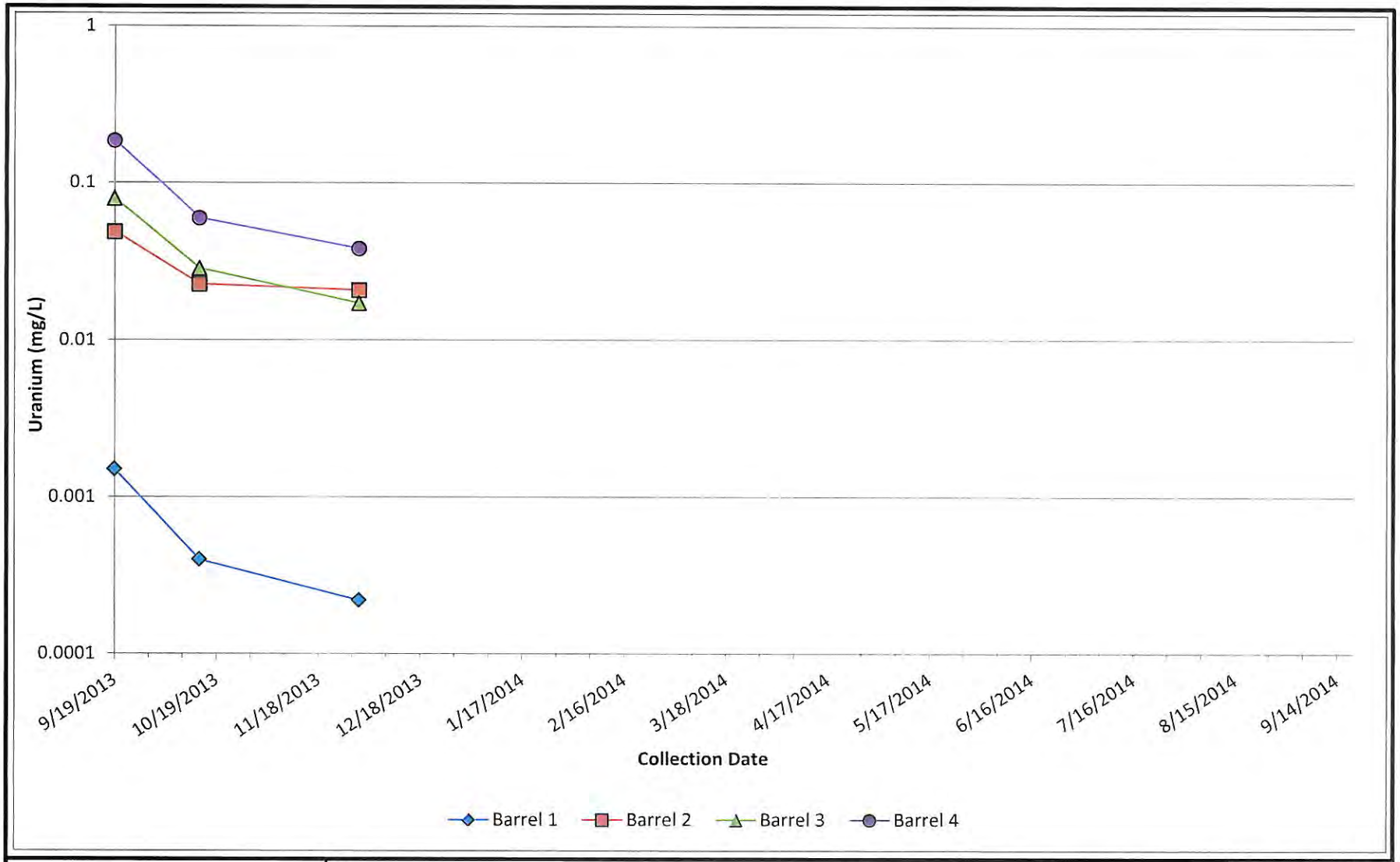


Golder Associates	Title: Field Barrel Leaching Tests - Thorium	Drawn	NW
		Checked	AJS
	Project Name: Kensington / Project No.: 073-93714.003	Reviewed	RV
	Client Name: Coeur Alaska / Date: February, 2014	FIGURE	39



Golder Associates

Title	Field Barrel Leaching Tests - Titanium	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	40
Date	February, 2014		



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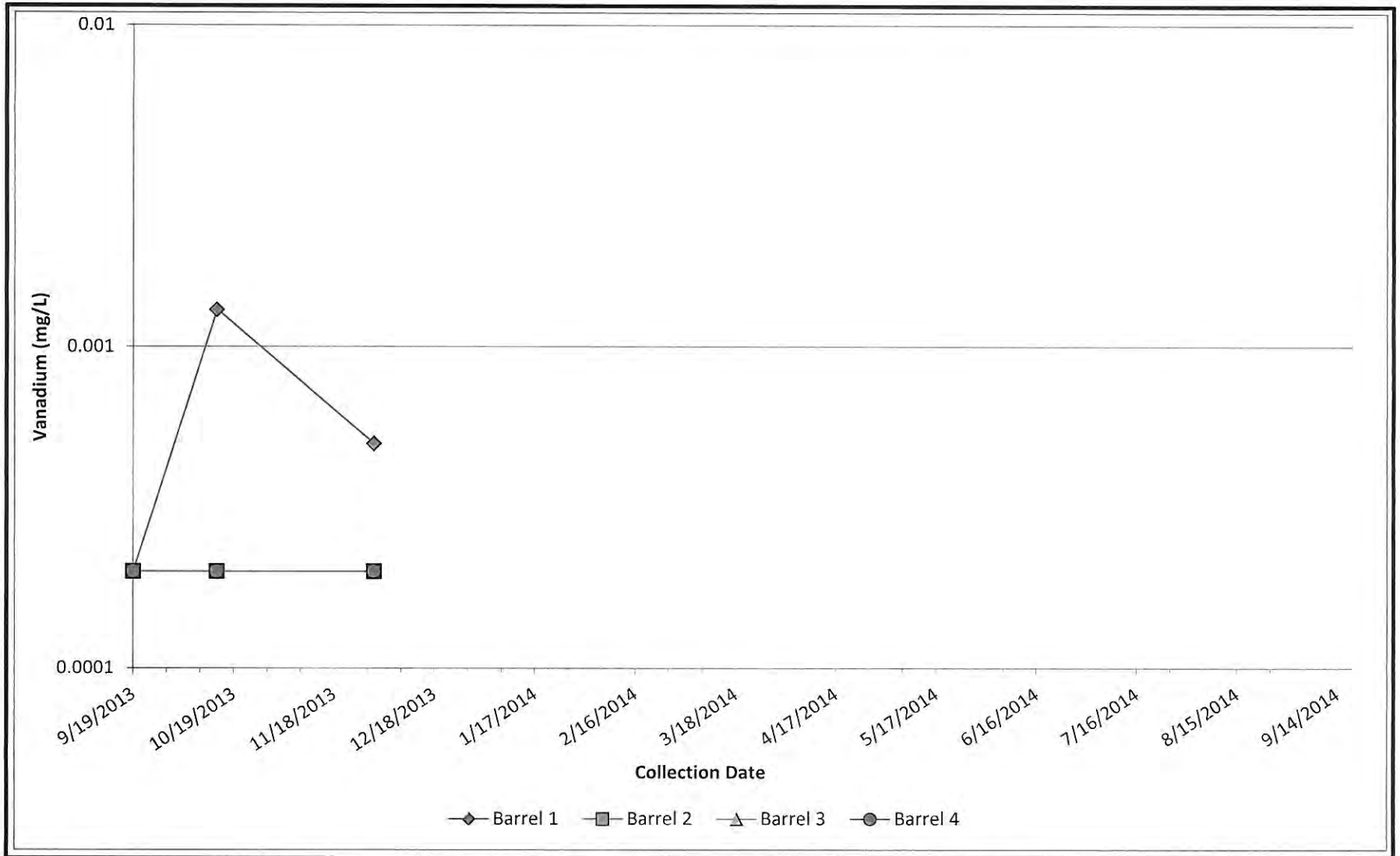
Title	Field Barrel Leaching Tests - Uranium	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No.	073-93714.003		
Client Name	Coeur Alaska	FIGURE	41
Date	February, 2014		



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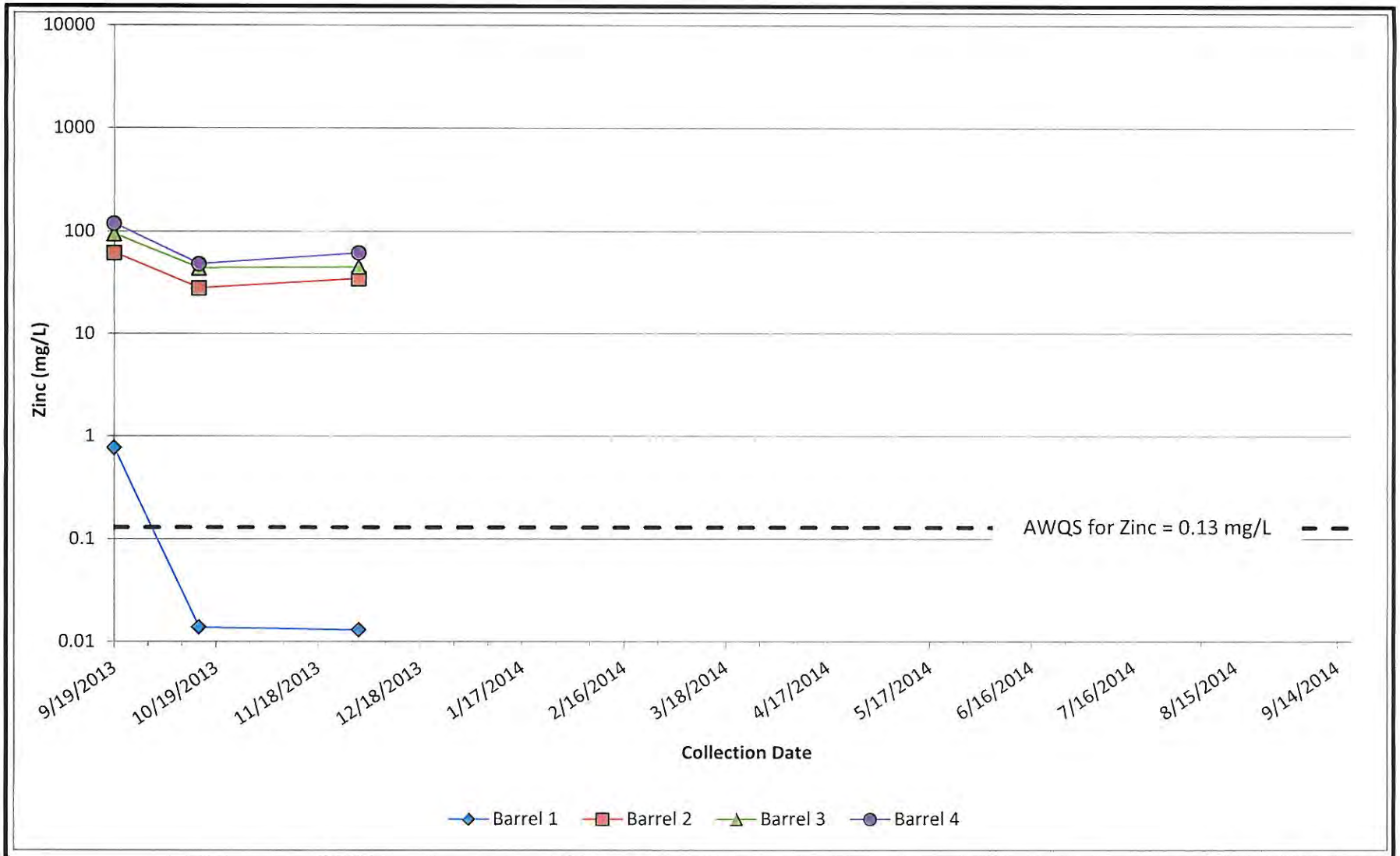
Title	Field Barrel Leaching Tests - Vanadium	Drawn	NW
		Checked	AJS
Project Name	Kensington	Reviewed	RV
Project No	073-93714.003		
Client Name	Coeur Alaska	FIGURE	40
Date	February, 2014		



Golder Associates

Title	Field Barrel Leaching Tests - Zinc	Drawn	NW
Project Name	Kensington	Checked	AJS
Project No.	073-93714.003	Reviewed	RV
Client Name	Coeur Alaska	FIGURE	41
Date	February, 2014		

Established in 1960, Golder Associates is a global, employee-owned organization that helps clients find sustainable solutions to the challenges of finite resources, energy and water supply and management, waste management, urbanization, and climate change. We provide a wide range of independent consulting, design, and construction services in our specialist areas of earth, environment, and energy. By building strong relationships and meeting the needs of clients, our people have created one of the most trusted professional services organizations in the world.

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