

## **APPENDIX I**

### **Baseline Surface Water Quality**

Table 1 Water Quality Summary Statistics, SW-1

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			46	46	0.5	13.3	1.5	0.8	1.0	1.6	1.8
Flow	Cubic Ft Sec			55	55	8.8	613	72.2	19.8	40.3	103	92.6
pH - Field	s.u.			65	65	5.3	8.7	7.9	7.8	8.1	8.3	0.7
Field Specific Conductivity	umhos/cm			66	66	176	363	284	239	304	321	54.2
Water Temperature	Deg C			66	66	-1.0	15.5	5.0	0.1	4.1	9.1	4.9
Dissolved Oxygen	mg/L	6.5		66	66	3.9	15.0	11.1	10.1	10.8	12.3	1.9
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			70	70	104	227	165	147	175	186	28.6
Total Suspended Solids	mg/L			64	26	<4	50.0	10.3	4.0	9.5	10.3	9.1
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			70	70	87.0	200	150	130	160	170	32.4
Bicarbonate as HCO3	mg/L			7	7	110	220	167	125	190	200	46.1
Carbonate as CO3	mg/L			7	5	<1	11.0	6.1	2.5	8.0	9.0	4.1
Chloride	mg/L			70	69	<1	5.0	1.5	1.0	1.0	2.0	0.7
Fluoride	mg/L		4	70	20	<0.1	0.2	0.1	0.1	0.1	0.1	0.01
Sulfate	mg/L			70	70	2.0	18.0	5.2	4.0	5.0	6.3	2.2
Hardness as CaCO3	mg/L			69	68	<7	199	146	114	162	173	37.1
Calcium (DIS)	mg/L			70	70	22.0	55.0	41.3	34.3	45.5	48.0	9.1
Magnesium (DIS)	mg/L			70	70	6.0	15.0	10.9	9.0	12.0	13.0	2.5
Potassium (DIS)	mg/L			70	65	<1	3.0	1.1	1.0	1.0	1.0	0.5
Sodium (DIS)	mg/L			70	70	1.0	3.0	2.2	2.0	2.0	2.0	0.4
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		70	31	<0.01	0.2	0.03	0.01	0.01	0.03	0.04
Kjeldahl Nitrogen as N	mg/L			12	5	<0.5	4.5	1.5	0.5	0.5	2.5	1.4
Total Persulfate Nitrogen	mg/L			43	36	<0.003	1.1	0.2	0.08	0.1	0.2	0.2
Phosphorus (TOT)	mg/L			53	49	<0.003	0.09	0.02	0.01	0.01	0.02	0.02
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		70	33	<0.009	0.3	0.06	0.009	0.01	0.06	0.09
Aluminum (TRC)	mg/L			8	8	0.06	2.1	0.6	0.10	0.1	0.9	0.9
Antimony (DIS)	mg/L		0.0056	4	0	<0.003	0.003	0.003	0.003	0.003	0.003	0
Antimony (TRC)	mg/L			70	0	<0.0005	0.005	0.0009	0.0005	0.0005	0.0005	0.0009
Arsenic (DIS)	mg/L	0.15	0.01	4	0	<0.003	0.003	0.003	0.003	0.003	0.003	0
Arsenic (TRC)	mg/L			70	11	<0.001	0.003	0.001	0.001	0.001	0.001	0.0006
Barium (DIS)	mg/L	1		4	4	0.08	0.1	0.1	0.09	0.09	0.1	0.01
Barium (TRC)	mg/L			70	70	0.08	0.1	0.1	0.1	0.1	0.1	0.010
Beryllium (DIS)	mg/L		0.004	4	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Beryllium (TRC)	mg/L			70	0	<0.0008	0.001	0.0008	0.0008	0.0008	0.0008	0.00006
Cadmium (DIS)	mg/L	0.00025	0.005	4	0	<0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0
Cadmium (TRC)	mg/L			70	5	<0.00003	0.0002	0.00004	0.00003	0.00003	0.00003	0.00003
Chromium (DIS)	mg/L	0.1		4	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Chromium (TRC)	mg/L			70	3	<0.001	0.01	0.009	0.01	0.010	0.010	0.003
Cobalt (DIS)	mg/L			4	0	<0.01	0.01	0.01	0.01	0.010	0.010	0
Cobalt (TRC)	mg/L			70	0	<0.005	0.01	0.01	0.01	0.010	0.010	0.001
Copper (DIS)	mg/L	0.00285	1.3	4	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Copper (TRC)	mg/L			70	10	<0.001	0.008	0.002	0.002	0.002	0.002	0.0008
Iron (DIS)	mg/L			4	1	<0.03	0.04	0.03	0.03	0.03	0.03	0.005
Iron (TRC)	mg/L	1		70	70	0.1	1.9	0.4	0.2	0.2	0.6	0.4
Lead (DIS)	mg/L	0.000545	0.015	4	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Lead (TRC)	mg/L			70	21	<0.0003	0.002	0.0004	0.0003	0.0003	0.0003	0.0002
Manganese (DIS)	mg/L			4	4	0.006	0.009	0.007	0.006	0.007	0.008	0.002
Manganese (TRC)	mg/L			70	70	0.009	0.08	0.02	0.01	0.02	0.02	0.01
Mercury (DIS)	mg/L	0.00091	0.00005	4	0	<0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0
Mercury (TRC)	mg/L			70	17	<0.00005	0.00002	0.000007	0.000005	0.000005	0.000006	0.000004
Molybdenum (DIS)	mg/L			4	0	<0.005	0.005	0.005	0.005	0.005	0.005	0
Molybdenum (TRC)	mg/L			70	0	<0.001	0.005	0.002	0.002	0.002	0.002	0.001
Nickel (DIS)	mg/L	0.0161	0.1	4	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Nickel (TRC)	mg/L			70	15	<0.001	0.01	0.002	0.001	0.001	0.002	0.003
Selenium (DIS)	mg/L	0.005	0.05	4	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Selenium (TRC)	mg/L			70	0	<0.0002	0.001	0.0003	0.0002	0.0002	0.0002	0.0003
Silver (DIS)	mg/L	0.1		4	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Silver (TRC)	mg/L			70	0	<0.0002	0.0005	0.0003	0.0002	0.0002	0.0002	0.0001
Strontium (DIS)	mg/L		4	4	3	<0.1	0.1	0.1	0.1	0.1	0.1	0
Strontium (TRC)	mg/L			70	65	<0.0779	0.1	0.1	0.1	0.1	0.1	0.02
Thallium (DIS)	mg/L	0.00024		4	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0
Thallium (TRC)	mg/L			70	0	<0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0
Uranium (DIS)	mg/L		0.03	4	3	<0.0003	0.0004	0.0003	0.0003	0.0003	0.0003	0.00005
Uranium (TRC)	mg/L			70	9	<0.0003	0.008	0.006	0.008	0.008	0.008	0.003
Zinc (DIS)	mg/L	0.037	7.4	4	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Zinc (TRC)	mg/L			70	27	<0.002	0.01	0.004	0.002	0.002	0.005	0.003

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 2 Water Quality Summary Statistics, SW-2

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			38	38	0.2	1.7	0.8	0.5	0.8	1.2	0.4
Flow	Cubic Ft Sec			42	42	4.0	250	52.1	13.8	29.9	93.4	52.5
pH - Field	s.u.			64	64	6.5	8.7	7.9	7.7	8.1	8.3	0.5
Field Specific Conductivity	umhos/cm			66	66	156	388	279	236	295	322	55.0
Water Temperature	Deg C			66	66	-1.0	15.8	4.9	0.003	3.3	9.9	5.1
Dissolved Oxygen	mg/L	6.5		66	66	6.35	16.2	11.1	9.94	10.8	12.1	1.8
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			72	72	112	225	168	160	175	186	26.7
Total Suspended Solids	mg/L			67	19	<4	105	10.6	4.0	10.0	10.0	13.6
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			72	72	80.0	200	155	140	160	173	28.7
Bicarbonate as HCO3	mg/L			9	9	98.0	220	178	140	200	210	43.1
Carbonate as CO3	mg/L			9	8	<1	11.0	7.2	6.0	7.0	11.0	3.4
Chloride	mg/L			72	71	<1	5.0	1.4	1.0	1.0	2.0	0.7
Fluoride	mg/L		4	72	1	<0.1	0.4	0.1	0.1	0.1	0.1	0.04
Sulfate	mg/L			72	72	2.0	9.0	4.9	4.0	4.8	6.0	1.5
Hardness as CaCO3	mg/L			71	70	<7	202	151	131	159	173	34.7
Calcium (DIS)	mg/L			72	72	21.0	58.0	43.5	37.8	46.0	49.3	8.4
Magnesium (DIS)	mg/L			72	72	5.0	15.0	11.0	9.8	12.0	12.0	2.2
Potassium (DIS)	mg/L			72	67	<1	2.0	1.0	1.0	1.0	1.0	0.1
Sodium (DIS)	mg/L			72	72	1.0	3.0	2.0	2.0	2.0	2.0	0.3
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		72	34	<0.01	0.1	0.03	0.01	0.01	0.05	0.04
Kjeldahl Nitrogen as N	mg/L			14	5	<0.5	3.6	1.4	0.5	0.5	2.4	1.3
Total Persulfate Nitrogen	mg/L			41	35	<0.003	1.4	0.2	0.06	0.09	0.2	0.3
Phosphorus (TOT)	mg/L			54	46	<0.003	0.2	0.02	0.01	0.01	0.02	0.03
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		72	32	<0.009	0.4	0.04	0.009	0.01	0.05	0.07
Aluminum (TRC)	mg/L			8	8	0.0500	2.7	0.5	0.07	0.1	0.4	0.9
Antimony (DIS)	mg/L		0.0056	6	0	<0.003	0.003	0.003	0.003	0.003	0.003	0.0
Antimony (TRC)	mg/L			72	0	<0.0005	0.005	0.0008	0.0005	0.0005	0.0005	0.0009
Arsenic (DIS)	mg/L	0.15	0.01	6	0	<0.003	0.003	0.003	0.003	0.003	0.003	0.0
Arsenic (TRC)	mg/L			72	1	<0.001	0.003	0.001	0.001	0.001	0.001	0.0006
Barium (DIS)	mg/L		1	6	6	0.0770	0.1	0.09	0.08	0.08	0.09	0.01
Barium (TRC)	mg/L			72	72	0.0700	0.1	0.09	0.09	0.09	0.1	0.01
Beryllium (DIS)	mg/L		0.004	6	0	<0.001	0.001	0.001	0.001	0.001	0.001	0.0
Beryllium (TRC)	mg/L			72	0	<0.0008	0.001	0.0008	0.0008	0.0008	0.0008	0.0006
Cadmium (DIS)	mg/L	0.00025	0.005	6	0	<0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0.0
Cadmium (TRC)	mg/L			72	5	<0.00003	0.00008	0.00004	0.00003	0.00003	0.00003	0.00002
Chromium (DIS)	mg/L		0.1	6	0	<0.001	0.001	0.001	0.001	0.001	0.001	0.0
Chromium (TRC)	mg/L			72	1	<0.001	0.01	0.008	0.01	0.01	0.01	0.003
Cobalt (DIS)	mg/L			6	0	<0.01	0.01	0.01	0.01	0.01	0.01	0.0
Cobalt (TRC)	mg/L			72	0	<0.005	0.01	0.010	0.01	0.01	0.01	0.001
Copper (DIS)	mg/L	0.00285	1.3	6	0	<0.001	0.001	0.001	0.001	0.001	0.001	0.0
Copper (TRC)	mg/L			72	6	<0.001	0.004	0.002	0.002	0.002	0.002	0.0004
Iron (DIS)	mg/L			6	3	<0.03	0.04	0.03	0.03	0.03	0.04	0.005
Iron (TRC)	mg/L			72	72	0.0900	2.5	0.3	0.1	0.2	0.3	0.4
Lead (DIS)	mg/L	0.000545	0.015	6	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0
Lead (TRC)	mg/L			72	16	<0.0003	0.002	0.0004	0.0003	0.0003	0.0004	0.0002
Manganese (DIS)	mg/L			6	4	<0.005	0.01	0.008	0.005	0.007	0.008	0.003
Manganese (TRC)	mg/L			72	72	0.00600	0.1	0.01	0.008	0.01	0.01	0.01
Mercury (DIS)	mg/L	0.00091	0.00005	6	0	<0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0
Mercury (TRC)	mg/L			72	11	<0.000005	0.00006	0.000007	0.000005	0.000005	0.000005	0.000006
Molybdenum (DIS)	mg/L			6	0	<0.005	0.005	0.005	0.005	0.005	0.005	0.0
Molybdenum (TRC)	mg/L			72	0	<0.001	0.005	0.002	0.002	0.002	0.002	0.001
Nickel (DIS)	mg/L	0.0161	0.1	6	0	<0.01	0.01	0.01	0.01	0.01	0.01	0.0
Nickel (TRC)	mg/L			72	13	<0.001	0.01	0.002	0.001	0.001	0.001	0.003
Selenium (DIS)	mg/L	0.005	0.05	6	0	<0.001	0.001	0.001	0.001	0.001	0.001	0.0
Selenium (TRC)	mg/L			72	0	<0.0002	0.001	0.0003	0.0002	0.0002	0.0002	0.0003
Silver (DIS)	mg/L		0.1	6	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0
Silver (TRC)	mg/L			72	0	<0.0002	0.0005	0.0002	0.0002	0.0002	0.0002	0.0001
Strontium (DIS)	mg/L		4	6	4	<0.1	0.1	0.1	0.1	0.1	0.1	0.0
Strontium (TRC)	mg/L			72	69	<0.0818	0.2	0.1	0.1	0.1	0.1	0.02
Thallium (DIS)	mg/L		0.00024	6	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0.0
Thallium (TRC)	mg/L			72	0	<0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0
Uranium (DIS)	mg/L		0.03	6	3	<0.0003	0.0004	0.0003	0.0003	0.0003	0.0003	0.00004
Uranium (TRC)	mg/L			72	8	<0.0003	0.008	0.006	0.008	0.008	0.008	0.003
Zinc (DIS)	mg/L	0.037	7.4	6	0	<0.01	0.01	0.01	0.01	0.01	0.01	0.0
Zinc (TRC)	mg/L			72	22	<0.002	0.01	0.004	0.002	0.002	0.005	0.003

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 3 Water Quality Summary Statistics, SW-3

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			15	15	0.1	1.0	0.5	0.4	0.5	0.6	0.2
Flow	Cubic Ft Sec			21	21	0.03	4.9	0.4	0.08	0.1	0.3	1.0
pH - Field	s.u.			25	25	7.9	8.7	8.3	8.2	8.3	8.4	0.2
Field Specific Conductivity	umhos/cm			25	25	269	408	373	363	383	393	35.7
Water Temperature	Deg C			24	24	0.01	14.5	7.8	2.2	9.4	12.1	5.0
Dissolved Oxygen	mg/L	6.5		25	25	6.0	13.4	10.2	9.4	10.0	11.0	1.7
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			28	28	152	235	214	209	215	224	16.3
Total Suspended Solids	mg/L			25	10	<4	14	7.9	5.0	10.0	10.0	3.1
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			28	28	150	210	197	190	200	200	12.5
Bicarbonate as HCO3	mg/L			7	7	180	240	224	225	230	235	20.7
Carbonate as CO3	mg/L			7	7	2.0	9.0	7.0	6.5	8.0	8.5	2.4
Chloride	mg/L			28	26	<1	2.0	1.4	1.0	1.0	2.0	0.5
Fluoride	mg/L		4	28	28	0.1	0.2	0.2	0.2	0.2	0.2	0.03
Sulfate	mg/L			28	28	5.0	24.0	15.3	12.0	15.0	18.3	5.0
Hardness as CaCO3	mg/L			27	27	139	225	206	201	213	219	19.5
Calcium (DIS)	mg/L			28	28	31.0	50.0	45.6	45.0	46.0	48.0	4.14
Magnesium (DIS)	mg/L			28	28	15.0	25.0	22.3	21.0	23.0	24.0	2.25
Potassium (DIS)	mg/L			28	25	<1	2.0	1.0	1.0	1.0	1.0	0.2
Sodium (DIS)	mg/L			28	28	2.00	2.0	2.0	2.0	2.0	2.0	0
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		28	25	<0.01	0.1	0.05	0.04	0.05	0.06	0.03
Kjeldahl Nitrogen as N	mg/L			4	1	<0.5	2.2	0.9	0.5	0.5	0.9	0.9
Total Persulfate Nitrogen	mg/L			12	11	<0.04	0.2	0.1	0.1	0.1	0.2	0.06
Phosphorus (TOT)	mg/L			16	15	<0.004	0.04	0.01	0.01	0.01	0.02	0.007
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		28	3	<0.009	0.07	0.02	0.009	0.009	0.01	0.01
Aluminum (TRC)	mg/L			6	5	<0.03	0.7	0.3	0.1	0.2	0.6	0.3
Antimony (DIS)	mg/L		0.0056	5	0	<0.003	0.003	0.003	0.003	0.003	0.003	0
Antimony (TRC)	mg/L			28	0	<0.0005	0.005	0.001	0.0005	0.0005	0.003	0.001
Arsenic (DIS)	mg/L	0.15	0.01	5	0	<0.003	0.003	0.003	0.003	0.003	0.003	0
Arsenic (TRC)	mg/L			28	0	<0.001	0.003	0.001	0.001	0.001	0.001	0.0008
Barium (DIS)	mg/L		1	5	5	0.1	0.1	0.1	0.1	0.1	0.1	0.01
Barium (TRC)	mg/L			28	28	0.1	0.2	0.1	0.1	0.2	0.2	0.01
Beryllium (DIS)	mg/L		0.004	5	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Beryllium (TRC)	mg/L			28	0	<0.0008	0.001	0.0008	0.0008	0.0008	0.0008	0.00008
Cadmium (DIS)	mg/L	0.00025	0.005	5	0	<0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0
Cadmium (TRC)	mg/L			28	0	<0.00003	0.00008	0.00004	0.00003	0.00003	0.00003	0.00002
Chromium (DIS)	mg/L		0.1	5	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Chromium (TRC)	mg/L			28	0	<0.001	0.01	0.008	0.004	0.01	0.01	0.004
Cobalt (DIS)	mg/L			5	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Cobalt (TRC)	mg/L			28	0	<0.005	0.01	0.01	0.01	0.01	0.01	0.0009
Copper (DIS)	mg/L	0.00285	1.3	5	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Copper (TRC)	mg/L			28	5	<0.001	0.003	0.002	0.002	0.002	0.002	0.0004
Iron (DIS)	mg/L			5	0	<0.03	0.03	0.03	0.03	0.03	0.03	0
Iron (TRC)	mg/L	1		28	28	0.0400	1.1	0.2	0.09	0.2	0.2	0.2
Lead (DIS)	mg/L	0.000545	0.015	5	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Lead (TRC)	mg/L			28	16	<0.0003	0.003	0.0007	0.0003	0.0004	0.0006	0.0007
Manganese (DIS)	mg/L			5	0	<0.005	0.005	0.005	0.005	0.005	0.005	0
Manganese (TRC)	mg/L			28	11	<0.005	0.2	0.01	0.005	0.005	0.007	0.04
Mercury (DIS)	mg/L	0.00091	0.00005	5	1	<0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0
Mercury (TRC)	mg/L			28	2	<0.000005	0.00001	0.000006	0.000005	0.000005	0.000005	0.000002
Molybdenum (DIS)	mg/L			5	0	<0.005	0.005	0.005	0.005	0.005	0.005	0
Molybdenum (TRC)	mg/L			28	0	<0.001	0.005	0.003	0.002	0.002	0.003	0.001
Nickel (DIS)	mg/L	0.0161	0.1	5	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Nickel (TRC)	mg/L			28	0	<0.001	0.01	0.003	0.001	0.001	0.001	0.004
Selenium (DIS)	mg/L	0.005	0.05	5	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Selenium (TRC)	mg/L			28	5	<0.0002	0.001	0.0004	0.0002	0.0002	0.0006	0.0003
Silver (DIS)	mg/L		0.1	5	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Silver (TRC)	mg/L			28	0	<0.0002	0.0005	0.0003	0.0002	0.0002	0.0005	0.0001
Strontium (DIS)	mg/L		4	5	0	<0.1	0.1	0.1	0.1	0.1	0.1	0
Strontium (TRC)	mg/L			28	25	<0.0838	0.1	0.1	0.1	0.1	0.1	0.00914
Thallium (DIS)	mg/L		0.00024	5	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0
Thallium (TRC)	mg/L			28	3	<0.0002	0.0004	0.0002	0.0002	0.0002	0.0002	0.00004
Uranium (DIS)	mg/L		0.03	5	5	0.00050	0.0006	0.0005	0.0005	0.0005	0.0006	0.00005
Uranium (TRC)	mg/L			28	9	<0.0005	0.008	0.006	0.00070	0.008	0.008	0.004
Zinc (DIS)	mg/L	0.037	7.4	5	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Zinc (TRC)	mg/L			28	15	<0.002	0.03	0.006	0.002	0.003	0.009	0.006

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 4 Water Quality Summary Statistics, SW-4

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			4	4	0.3	2.0	1.5	1.4	1.9	2.0	0.8
Flow	Cubic Ft Sec			23	23	0.004	2.0	0.2	0.01	0.03	0.2	0.4
pH - Field	s.u.			26	26	7.5	8.7	8.0	7.9	8.0	8.2	0.3
Field Specific Conductivity	umhos/cm			26	26	237	390	351	343	359	374	33.5
Water Temperature	Deg C			26	26	0.08	15.0	7.4	1.5	9.0	12.5	5.3
Dissolved Oxygen	mg/L	6.5		26	26	5.4	13.7	9.6	8.5	9.6	10.7	1.9
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L											
Total Suspended Solids	mg/L											
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L											
Bicarbonate as HCO3	mg/L											
Carbonate as CO3	mg/L											
Chloride	mg/L											
Fluoride	mg/L		4									
Sulfate	mg/L											
Hardness as CaCO3	mg/L											
Calcium (DIS)	mg/L											
Magnesium (DIS)	mg/L											
Potassium (DIS)	mg/L											
Sodium (DIS)	mg/L											
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10										
Kjeldahl Nitrogen as N	mg/L											
Total Persulfate Nitrogen	mg/L											
Phosphorus (TOT)	mg/L											
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087										
Aluminum (TRC)	mg/L											
Antimony (DIS)	mg/L		0.0056									
Antimony (TRC)	mg/L											
Arsenic (DIS)	mg/L	0.15	0.01									
Arsenic (TRC)	mg/L											
Barium (DIS)	mg/L		1									
Barium (TRC)	mg/L											
Beryllium (DIS)	mg/L		0.004									
Beryllium (TRC)	mg/L											
Cadmium (DIS)	mg/L	0.00025	0.005									
Cadmium (TRC)	mg/L											
Chromium (DIS)	mg/L		0.1									
Chromium (TRC)	mg/L											
Cobalt (DIS)	mg/L											
Cobalt (TRC)	mg/L											
Copper (DIS)	mg/L	0.00285	1.3									
Copper (TRC)	mg/L											
Iron (DIS)	mg/L											
Iron (TRC)	mg/L	1										
Lead (DIS)	mg/L	0.000545	0.015									
Lead (TRC)	mg/L											
Manganese (DIS)	mg/L											
Manganese (TRC)	mg/L											
Mercury (DIS)	mg/L	0.00091	0.00005									
Mercury (TRC)	mg/L											
Molybdenum (DIS)	mg/L											
Molybdenum (TRC)	mg/L											
Nickel (DIS)	mg/L	0.0161	0.1									
Nickel (TRC)	mg/L											
Selenium (DIS)	mg/L	0.005	0.05									
Selenium (TRC)	mg/L											
Silver (DIS)	mg/L		0.1									
Silver (TRC)	mg/L											
Strontium (DIS)	mg/L		4									
Strontium (TRC)	mg/L											
Thallium (DIS)	mg/L		0.00024									
Thallium (TRC)	mg/L											
Uranium (DIS)	mg/L		0.03									
Uranium (TRC)	mg/L											
Zinc (DIS)	mg/L	0.037	7.4									
Zinc (TRC)	mg/L											

Reporting Period: May 2011 to December 2017

°C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 5 Water Quality Summary Statistics, SW-5

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			1	1	0.9	0.9	0.9	0.9	0.9	0.9	NA
Flow	Cubic Ft Sec			5	5	0.4	4.7	1.4	0.5	0.7	0.8	1.9
pH - Field	s.u.			5	5	7.3	8.2	7.6	7.5	7.5	7.6	0.3
Field Specific Conductivity	umhos/cm			5	5	49.0	60.0	52.8	50.0	50.0	55.0	4.7
Water Temperature	Deg C			5	5	0.29	12.1	6.0	2.9	6.9	7.8	4.6
Dissolved Oxygen	mg/L	6.5		5	5	8.5	14.0	10.6	9.4	9.7	11.4	2.2
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			5	5	66.0	123	90.2	74.0	86.0	102	22.8
Total Suspended Solids	mg/L			4	2	<10	107	38.0	10.0	17.5	45.5	46.5
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			5	5	24.0	27.0	25.8	25.0	26.0	27.0	1.3
Bicarbonate as HCO3	mg/L			2	2	32.0	33.0	32.5	32.3	32.5	32.8	0.7
Carbonate as CO3	mg/L			2	0	<1	1.0	1.0	1.0	1.0	1.0	0.0
Chloride	mg/L			5	0	<1	1.0	1.0	1.0	1.0	1.0	0.0
Fluoride	mg/L		4	5	0	<0.1	0.1	0.1	0.1	0.1	0.1	0.0
Sulfate	mg/L			5	3	<1	2.0	1.3	1.0	1.0	1.5	0.4
Hardness as CaCO3	mg/L			5	5	19.0	26.0	24.6	26.0	26.0	26.0	3.1
Calcium (DIS)	mg/L			5	5	6.0	7.0	6.8	7.0	7.0	7.0	0.4
Magnesium (DIS)	mg/L			5	5	1.0	2.0	1.8	2.0	2.0	2.0	0.4
Potassium (DIS)	mg/L			5	5	1.0	2.0	1.6	1.0	2.0	2.0	0.5
Sodium (DIS)	mg/L			5	5	1.0	1.0	1.0	1.0	1.0	1.0	0
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		5	4	<0.01	0.2	0.06	0.01	0.04	0.06	0.08
Kjeldahl Nitrogen as N	mg/L			1	1	0.7	0.7	0.7	0.7	0.7	0.7	NA
Total Persulfate Nitrogen	mg/L			1	1	1.20	1.2	1.2	1.2	1.2	1.2	NA
Phosphorus (TOT)	mg/L			2	2	0.04	0.2	0.1	0.1	0.1	0.1	0.1
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		5	5	0.2	3.1	1.3	0.4	0.7	2.1	1.2
Aluminum (TRC)	mg/L			2	2	0.7	1.0	0.8	0.8	0.8	0.8	0.2
Antimony (DIS)	mg/L		0.0056	1	0	<0.003	0.003	0.003	0.003	0.003	0.003	NA
Antimony (TRC)	mg/L			5	0	<0.0005	0.003	0.002	0.001	0.001	0.003	0.001
Arsenic (DIS)	mg/L	0.15	0.01	1	0	<0.003	0.003	0.003	0.003	0.003	0.003	NA
Arsenic (TRC)	mg/L			5	3	0.001	0.004	0.003	0.002	0.003	0.003	0.001
Barium (DIS)	mg/L		1	1	1	0.2	0.2	0.2	0.2	0.2	0.2	NA
Barium (TRC)	mg/L			5	5	0.2	0.3	0.2	0.2	0.2	0.2	0.08
Beryllium (DIS)	mg/L		0.004	1	0	<0.001	0.001	0.001	0.001	0.001	0.001	NA
Beryllium (TRC)	mg/L			5	0	<0.0008	0.001	0.0009	0.0008	0.0008	0.001	0.0001
Cadmium (DIS)	mg/L	0.00025	0.005	1	0	<0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	NA
Cadmium (TRC)	mg/L			5	1	<0.00003	0.0002	0.00008	0.00003	0.00008	0.00008	0.00007
Chromium (DIS)	mg/L		0.1	1	0	<0.001	0.001	0.001	0.001	0.001	0.001	NA
Chromium (TRC)	mg/L			5	1	<0.001	0.01	0.006	0.001	0.01	0.01	0.005
Cobalt (DIS)	mg/L			1	0	<0.01	0.01	0.01	0.01	0.01	0.01	NA
Cobalt (TRC)	mg/L			5	0	0.01	0.01	0.01	0.01	0.01	0.01	0.0
Copper (DIS)	mg/L	0.00285	1.3	1	1	0.002	0.002	0.002	0.002	0.002	0.002	NA
Copper (TRC)	mg/L			5	5	0.003	0.009	0.004	0.003	0.003	0.004	0.003
Iron (DIS)	mg/L			1	1	0.2	0.2	0.2	0.2	0.2	0.2	NA
Iron (TRC)	mg/L	1		5	5	0.5	6.0	2.1	0.7	1.4	1.9	2.257
Lead (DIS)	mg/L	0.000545	0.015	1	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	NA
Lead (TRC)	mg/L			5	3	<0.0005	0.005	0.001	0.0005	0.0005	0.0007	0.002
Manganese (DIS)	mg/L			1	1	0.019	0.02	0.02	0.02	0.02	0.02	NA
Manganese (TRC)	mg/L			5	5	0.011	0.2	0.05	0.01	0.01	0.037	0.066
Mercury (DIS)	mg/L	0.00091	0.00005	1	1	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	NA
Mercury (TRC)	mg/L			5	4	<0.0000062	0.00002	0.00001	0.00001	0.00001	0.00001	0.00001
Molybdenum (DIS)	mg/L			1	0	<0.005	0.005	0.005	0.005	0.005	0.005	NA
Molybdenum (TRC)	mg/L			5	0	<0.002	0.005	0.003	0.002	0.002	0.005	0.002
Nickel (DIS)	mg/L	0.0161	0.1	1	0	<0.01	0.01	0.01	0.01	0.01	0.01	NA
Nickel (TRC)	mg/L			5	3	<0.003	0.01	0.007	0.004	0.008	0.01	0.003
Selenium (DIS)	mg/L	0.005	0.05	1	0	<0.001	0.001	0.001	0.001	0.001	0.001	NA
Selenium (TRC)	mg/L			5	2	<0.0002	0.001	0.0006	0.0002	0.0004	0.001	0.0004
Silver (DIS)	mg/L		0.1	1	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	NA
Silver (TRC)	mg/L			5	0	<0.0002	0.0005	0.0003	0.0002	0.0002	0.0005	0.0002
Strontium (DIS)	mg/L		4	1	0	<0.1	0.1	0.1	0.1	0.1	0.1	NA
Strontium (TRC)	mg/L			5	3	<0.028	0.1	0.06	0.03	0.03	0.1	0.04
Thallium (DIS)	mg/L		0.00024	1	0	<0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	NA
Thallium (TRC)	mg/L			5	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0.0
Uranium (DIS)	mg/L		0.03	1	0	<0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	NA
Uranium (TRC)	mg/L			5	0	<0.0003	0.008	0.003	0.0003	0.0003	0.008	0.004
Zinc (DIS)	mg/L	0.037	7.4	1	0	<0.01	0.01	0.01	0.01	0.01	0.01	NA
Zinc (TRC)	mg/L			5	4	<0.007	0.03	0.01	0.01	0.01	0.02	0.010

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 6 Water Quality Summary Statistics, SW-6

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			1	1	0.9	0.9	0.9	0.9	0.9	0.9	NA
Flow	Cubic Ft Sec			23	23	0.04	4.1	0.4	0.1	0.2	0.2	0.8
pH - Field	s.u.			27	27	6.7	8.7	8.0	8.0	8.1	8.2	0.4
Field Specific Conductivity	umhos/cm			27	27	249	433	387	371	393	411	36.1
Water Temperature	Deg C			27	27	-0.03	18.3	7.7	1.5	6.8	13.1	6.1
Dissolved Oxygen	mg/L	6.5		27	27	5.8	14.2	9.7	8.5	9.9	11.0	1.9
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			28	28	162	254	222	216	221	233	18.4
Total Suspended Solids	mg/L			23	16	<4	107	20.0	10.0	10.0	19.0	26.7
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			28	28	140	240	213	208	220	223	19.6
Bicarbonate as HCO3	mg/L			7	7	220	260	246	245	250	250	12.7
Carbonate as CO3	mg/L			7	7	4.0	13.0	9.1	7.0	9.0	12.0	3.3
Chloride	mg/L			28	8	<1	2.0	1.0	1.0	1.0	1.0	0.189
Fluoride	mg/L		4	28	26	<0.1	0.2	0.16	0.1	0.2	0.2	0.05
Sulfate	mg/L			28	28	6.0	34.0	11.5	8.8	9.5	13.0	5.4
Hardness as CaCO3	mg/L			28	28	119	239	212	211	216	227	24.3
Calcium (DIS)	mg/L			28	28	28.0	54.0	49.3	49.0	50.0	52.3	5.3
Magnesium (DIS)	mg/L			28	28	12.0	26.0	21.6	21.0	22.0	23.0	2.8
Potassium (DIS)	mg/L			28	14	<1	3.0	1.1	1.0	1.0	1.0	0.448
Sodium (DIS)	mg/L			28	28	2.0	3.0	2.9	3.0	3.0	3.0	0.315
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		28	25	<0.01	0.1	0.05	0.02	0.05	0.07	0.03
Kjeldahl Nitrogen as N	mg/L			5	1	<0.5	3.4	1.1	0.5	0.5	0.5	1.3
Total Persulfate Nitrogen	mg/L			11	11	0.1	0.4	0.2	0.1	0.2	0.2	0.09
Phosphorus (TOT)	mg/L			16	16	0.01	0.04	0.02	0.02	0.02	0.03	0.01
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		28	1	<0.009	0.03	0.01	0.009	0.009	0.02	0.009
Aluminum (TRC)	mg/L			7	7	0.03	0.2	0.1	0.1	0.1	0.2	0.05
Antimony (DIS)	mg/L		0.0056	5	0	<0.003	0.003	0.003	0.003	0.003	0.003	0
Antimony (TRC)	mg/L			28	0	<0.0005	0.005	0.001	0.0005	0.0005	0.003	0.001
Arsenic (DIS)	mg/L	0.15	0.01	5	0	<0.003	0.003	0.003	0.003	0.003	0.003	0
Arsenic (TRC)	mg/L			28	0	<0.001	0.003	0.002	0.001	0.001	0.002	0.001
Barium (DIS)	mg/L		1	5	5	0.107	0.1	0.1	0.1	0.1	0.1	0.007
Barium (TRC)	mg/L			28	28	0.091	0.2	0.1	0.1	0.1	0.1	0.028
Beryllium (DIS)	mg/L		0.004	5	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Beryllium (TRC)	mg/L			28	0	<0.0008	0.001	0.0009	0.0008	0.0008	0.0009	0.00009
Cadmium (DIS)	mg/L	0.00025	0.005	5	0	<0.00008	0.00008	0.0001	0.00008	0.00008	0.00008	0
Cadmium (TRC)	mg/L			28	2	<0.00003	0.00008	0.00004	0.00003	0.00003	0.00006	0.00002
Chromium (DIS)	mg/L		0.1	5	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Chromium (TRC)	mg/L			28	0	<0.001	0.01	0.007	0.001	0.01	0.01	0.004
Cobalt (DIS)	mg/L			5	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Cobalt (TRC)	mg/L			28	0	<0.005	0.01	0.010	0.01	0.01	0.01	0.001
Copper (DIS)	mg/L	0.00285	1.3	5	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Copper (TRC)	mg/L			28	1	<0.001	0.002	0.002	0.002	0.002	0.002	0.0004
Iron (DIS)	mg/L			5	3	<0.03	0.05	0.04	0.03	0.04	0.04	0.008
Iron (TRC)	mg/L	1		28	28	0.05	1.9	0.4	0.2	0.4	0.5	0.4
Lead (DIS)	mg/L	0.000545	0.015	5	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Lead (TRC)	mg/L			28	10	<0.0003	0.002	0.0005	0.0003	0.0004	0.0005	0.0004
Manganese (DIS)	mg/L			5	5	0.005	0.01	0.008	0.005	0.007	0.01	0.003
Manganese (TRC)	mg/L			28	26	<0.005	0.07	0.02	0.01	0.02	0.02	0.01
Mercury (DIS)	mg/L	0.00091	0.00005	5	0	<0.00001	0.00001	0.0000	0.00001	0.00001	0.00001	0
Mercury (TRC)	mg/L			28	4	<0.000005	0.00002	0.00001	0.000005	0.000005	0.00001	0.000004
Molybdenum (DIS)	mg/L			5	0	<0.005	0.005	0.005	0.005	0.005	0.005	0
Molybdenum (TRC)	mg/L			28	0	<0.001	0.005	0.003	0.002	0.002	0.005	0.001
Nickel (DIS)	mg/L	0.0161	0.1	5	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Nickel (TRC)	mg/L			28	2	<0.001	0.01	0.003	0.001	0.001	0.004	0.004
Selenium (DIS)	mg/L	0.005	0.05	5	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Selenium (TRC)	mg/L			28	7	<0.0002	0.001	0.0005	0.0002	0.0002	0.001	0.0004
Silver (DIS)	mg/L		0.1	5	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Silver (TRC)	mg/L			28	0	<0.0002	0.0005	0.0003	0.0002	0.0002	0.0005	0.0001
Strontium (DIS)	mg/L		4	5	5	0.1	0.2	0.2	0.2	0.2	0.2	0.04
Strontium (TRC)	mg/L			28	28	0.1	0.3	0.2	0.2	0.2	0.2	0.04
Thallium (DIS)	mg/L		0.00024	5	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0
Thallium (TRC)	mg/L			28	0	<0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0
Uranium (DIS)	mg/L		0.03	5	5	0.0006	0.0007	0.0006	0.0006	0.0006	0.0007	0.00005
Uranium (TRC)	mg/L			28	10	<0.0005	0.008	0.0054	0.0007	0.008	0.008	0.004
Zinc (DIS)	mg/L	0.037	7.4	5	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Zinc (TRC)	mg/L			28	12	<0.002	0.03	0.006	0.002	0.003	0.01	0.006

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 7 Water Quality Summary Statistics, SW-8

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			17	17	0.2	2.1	0.6	0.3	0.4	0.6	0.5
Flow	Cubic Ft Sec			20	20	0.09	9.1	1.4	0.2	0.5	1.1	2.2
pH - Field	s.u.			23	23	6.9	8.7	7.9	7.8	8	8.2	0.4
Field Specific Conductivity	umhos/cm			23	23	164	445	377	338	408	431	80.4
Water Temperature	Deg C			23	23	-0.2	16.1	6.5	0.04	6.9	11.0	5.8
Dissolved Oxygen	mg/L	6.5		23	23	5.6	13.5	10.3	9.4	10.1	11.1	1.8
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L											
Total Suspended Solids	mg/L											
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L											
Bicarbonate as HCO3	mg/L											
Carbonate as CO3	mg/L											
Chloride	mg/L											
Fluoride	mg/L		4									
Sulfate	mg/L											
Hardness as CaCO3	mg/L											
Calcium (DIS)	mg/L											
Magnesium (DIS)	mg/L											
Potassium (DIS)	mg/L											
Sodium (DIS)	mg/L											
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10										
Kjeldahl Nitrogen as N	mg/L											
Total Persulfate Nitrogen	mg/L											
Phosphorus (TOT)	mg/L											
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087										
Aluminum (TRC)	mg/L											
Antimony (DIS)	mg/L		0.0056									
Antimony (TRC)	mg/L											
Arsenic (DIS)	mg/L	0.15	0.01									
Arsenic (TRC)	mg/L											
Barium (DIS)	mg/L		1									
Barium (TRC)	mg/L											
Beryllium (DIS)	mg/L		0.004									
Beryllium (TRC)	mg/L											
Cadmium (DIS)	mg/L	0.00025	0.005									
Cadmium (TRC)	mg/L											
Chromium (DIS)	mg/L		0.1									
Chromium (TRC)	mg/L											
Cobalt (DIS)	mg/L											
Cobalt (TRC)	mg/L											
Copper (DIS)	mg/L	0.00285	1.3									
Copper (TRC)	mg/L											
Iron (DIS)	mg/L											
Iron (TRC)	mg/L	1										
Lead (DIS)	mg/L	0.000545	0.015									
Lead (TRC)	mg/L											
Manganese (DIS)	mg/L											
Manganese (TRC)	mg/L											
Mercury (DIS)	mg/L	0.00091	0.00005									
Mercury (TRC)	mg/L											
Molybdenum (DIS)	mg/L											
Molybdenum (TRC)	mg/L											
Nickel (DIS)	mg/L	0.0161	0.1									
Nickel (TRC)	mg/L											
Selenium (DIS)	mg/L	0.005	0.05									
Selenium (TRC)	mg/L											
Silver (DIS)	mg/L		0.1									
Silver (TRC)	mg/L											
Strontium (DIS)	mg/L		4									
Strontium (TRC)	mg/L											
Thallium (DIS)	mg/L		0.00024									
Thallium (TRC)	mg/L											
Uranium (DIS)	mg/L		0.03									
Uranium (TRC)	mg/L											
Zinc (DIS)	mg/L	0.037	7.4									
Zinc (TRC)	mg/L											

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.



Table 8 Water Quality Summary Statistics, SW-9

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			8	8	1.3	2.1	1.9	2.0	2.0	2.0	0.3
Flow	Cubic Ft Sec			25	25	0.3	12.7	1.4	0.4	0.7	1.7	2.5
pH - Field	s.u.			26	26	7.7	8.5	8.2	8.1	8.2	8.3	0.2
Field Specific Conductivity	umhos/cm			26	26	335	474	418	409	424	435	28.5
Water Temperature	Deg C			26	26	0.5	14.9	6.0	1.8	5.2	10.1	4.7
Dissolved Oxygen	mg/L	6.5		26	26	5.7	14.9	10.5	10.1	10.5	11.4	1.8
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L											
Total Suspended Solids	mg/L											
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L											
Bicarbonate as HCO3	mg/L											
Carbonate as CO3	mg/L											
Chloride	mg/L											
Fluoride	mg/L		4									
Sulfate	mg/L											
Hardness as CaCO3	mg/L											
Calcium (DIS)	mg/L											
Magnesium (DIS)	mg/L											
Potassium (DIS)	mg/L											
Sodium (DIS)	mg/L											
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10										
Kjeldahl Nitrogen as N	mg/L											
Total Persulfate Nitrogen	mg/L											
Phosphorus (TOT)	mg/L											
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087										
Aluminum (TRC)	mg/L											
Antimony (DIS)	mg/L		0.0056									
Antimony (TRC)	mg/L											
Arsenic (DIS)	mg/L	0.15	0.01									
Arsenic (TRC)	mg/L											
Barium (DIS)	mg/L		1									
Barium (TRC)	mg/L											
Beryllium (DIS)	mg/L		0.004									
Beryllium (TRC)	mg/L											
Cadmium (DIS)	mg/L	0.00025	0.005									
Cadmium (TRC)	mg/L											
Chromium (DIS)	mg/L		0.1									
Chromium (TRC)	mg/L											
Cobalt (DIS)	mg/L											
Cobalt (TRC)	mg/L											
Copper (DIS)	mg/L	0.00285	1.3									
Copper (TRC)	mg/L											
Iron (DIS)	mg/L											
Iron (TRC)	mg/L	1										
Lead (DIS)	mg/L	0.000545	0.015									
Lead (TRC)	mg/L											
Manganese (DIS)	mg/L											
Manganese (TRC)	mg/L											
Mercury (DIS)	mg/L	0.00091	0.00005									
Mercury (TRC)	mg/L											
Molybdenum (DIS)	mg/L											
Molybdenum (TRC)	mg/L											
Nickel (DIS)	mg/L	0.0161	0.1									
Nickel (TRC)	mg/L											
Selenium (DIS)	mg/L	0.005	0.05									
Selenium (TRC)	mg/L											
Silver (DIS)	mg/L		0.1									
Silver (TRC)	mg/L											
Strontium (DIS)	mg/L		4									
Strontium (TRC)	mg/L											
Thallium (DIS)	mg/L		0.00024									
Thallium (TRC)	mg/L											
Uranium (DIS)	mg/L		0.03									
Uranium (TRC)	mg/L											
Zinc (DIS)	mg/L	0.037	7.4									
Zinc (TRC)	mg/L											

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCTL = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 9 Water Quality Summary Statistics, SW-10

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			16	16	0.7	1.2	0.9	0.8	0.9	1.0	0.2
Flow	Cubic Ft Sec			20	20	0.2	15.2	1.45	0.3	0.5	1.4	3.3
pH - Field	s.u.			22	22	7.8	8.8	8.3	8.2	8.3	8.5	0.2
Field Specific Conductivity	umhos/cm			22	22	353	438	413	410	417	425	20.1
Water Temperature	Deg C			21	21	0.02	18.6	8.5	4.7	6.4	13.9	6.5
Dissolved Oxygen	mg/L	6.5		22	22	6.6	13.0	10.4	9.9	10.7	11.1	1.6
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			2	2	236	249	243	239	243	246	9.2
Total Suspended Solids	mg/L			2	2	6.0	38.0	22.0	14.0	22.0	30.0	22.6
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			2	2	210	220	215	213	215	218	7.1
Bicarbonate as HCO3	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate as CO3	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/L			2	0	<1	1	1.0	1	1	1	0
Fluoride	mg/L	4		2	2	0.2	0.2	0.2	0.2	0.2	0.2	0
Sulfate	mg/L			2	2	15.0	19.0	17.0	16.0	17.0	18.0	2.8
Hardness as CaCO3	mg/L			2	2	220	220	220	220	220	220	0
Calcium (DIS)	mg/L			2	2	50.0	52.0	51.0	50.5	51.0	51.5	1.4
Magnesium (DIS)	mg/L			2	2	22.0	23.0	22.5	22.3	22.5	22.8	0.7
Potassium (DIS)	mg/L			2	1	<1	1.0	1.0	1.0	1.0	1.0	0
Sodium (DIS)	mg/L			2	2	2.0	2.0	2.0	2.0	2.0	2.0	0
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		2	2	0.1	0.1	0.1	0.1	0.1	0.1	0.01
Kjeldahl Nitrogen as N	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Total Persulfate Nitrogen	mg/L			2	2	0.2	0.4	0.3	0.3	0.3	0.4	0.1
Phosphorus (TOT)	mg/L			2	2	0.01	0.03	0.02	0.01	0.02	0.02	0.01
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		2	0	<0.009	0.009	0.0090	0.0090	0.009	0.009	0
Aluminum (TRC)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (DIS)	mg/L		0.0056	0	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (TRC)	mg/L			2	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Arsenic (DIS)	mg/L	0.15	0.01	0	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (TRC)	mg/L			2	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Barium (DIS)	mg/L		1	0	NA	NA	NA	NA	NA	NA	NA	NA
Barium (TRC)	mg/L			2	2	0.077	0.09	0.08	0.08	0.08	0.09	0.008
Beryllium (DIS)	mg/L		0.004	0	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (TRC)	mg/L			2	0	<0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0
Cadmium (DIS)	mg/L	0.00025	0.005	0	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (TRC)	mg/L			2	1	<0.00003	0.00004	0.00004	0.00003	0.00004	0.00004	0.000007
Chromium (DIS)	mg/L		0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (TRC)	mg/L			2	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Cobalt (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (TRC)	mg/L			2	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Copper (DIS)	mg/L	0.00285	1.3	0	NA	NA	NA	NA	NA	NA	NA	NA
Copper (TRC)	mg/L			2	0	<0.002	0.002	0.002	0.002	0.002	0.002	0
Iron (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Iron (TRC)	mg/L		1	2	2	0.2	0.8	0.5	0.3	0.5	0.6	0.4
Lead (DIS)	mg/L	0.000545	0.015	0	NA	NA	NA	NA	NA	NA	NA	NA
Lead (TRC)	mg/L			2	1	<0.0003	0.001	0.0007	0.0005	0.0007	0.0009	0.001
Manganese (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (TRC)	mg/L			2	2	0.01	0.02	0.02	0.01	0.02	0.02	0.008
Mercury (DIS)	mg/L	0.00091	0.00005	0	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (TRC)	mg/L			2	0	<0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0
Molybdenum (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum (TRC)	mg/L			2	0	<0.002	0.002	0.0020	0.002	0.002	0.002	0
Nickel (DIS)	mg/L	0.0161	0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (TRC)	mg/L			2	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Selenium (DIS)	mg/L	0.005	0.05	0	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (TRC)	mg/L			2	0	<0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0
Silver (DIS)	mg/L		0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Silver (TRC)	mg/L			2	0	<0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0
Strontium (DIS)	mg/L		4	0	NA	NA	NA	NA	NA	NA	NA	NA
Strontium (TRC)	mg/L			2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.01
Thallium (DIS)	mg/L		0.00024	0	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (TRC)	mg/L			2	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0
Uranium (DIS)	mg/L		0.03	0	NA	NA	NA	NA	NA	NA	NA	NA
Uranium (TRC)	mg/L			2	0	<0.008	0.008	0.008	0.008	0.008	0.008	0
Zinc (DIS)	mg/L	0.037	7.4	0	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (TRC)	mg/L			2	2	0.003	0.008	0.006	0.004	0.006	0.007	0.004

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 10 Water Quality Summary Statistics, SW-11

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			19	19	0.2	0.9	0.5	0.4	0.5	0.6	0.2
Flow	Cubic Ft Sec			20	20	0.2	21.4	2.3	0.4	1.0	2.6	4.6
pH - Field	s.u.			27	27	7.5	8.7	8.2	8.1	8.2	8.4	0.3
Field Specific Conductivity	umhos/cm			27	27	312	497	402	384	404	425	44.2
Water Temperature	Deg C			27	27	-0.02	16.3	6.0	0.1	6.2	10.5	5.7
Dissolved Oxygen	mg/L	6.5		27	27	7.0	15.4	11.1	9.8	11.6	12.0	2.0
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			27	27	166	282	229	215	231	240	25.8
Total Suspended Solids	mg/L			23	9	<4	68.0	13.7	4.0	10.0	11.5	15.2
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			27	27	160	250	204	195	210	220	21.2
Bicarbonate as HCO3	mg/L			6	6	210	260	238	225	245	250	19.4
Carbonate as CO3	mg/L			6	6	4.0	12.0	8.8	7.3	9.0	11.5	3.1
Chloride	mg/L			27	21	<1	2.0	1.3	1.0	1.0	1.6	0.4
Fluoride	mg/L		4	27	27	0.1	0.2	0.2	0.2	0.2	0.2	0.03
Sulfate	mg/L			27	27	9.0	46.0	20.1	14.0	18.0	23.5	8.0
Hardness as CaCO3	mg/L			27	27	156	267	217	194	225	236	28.7
Calcium (DIS)	mg/L			27	27	36.0	60.0	49.7	45.5	51.0	53.5	6.1
Magnesium (DIS)	mg/L			27	27	16.0	29.0	22.6	20.0	24.0	24.5	3.4
Potassium (DIS)	mg/L			27	26	<1	2.0	1.1	1.0	1.0	1.0	0.3
Sodium (DIS)	mg/L			27	27	2.0	3.0	2.6	2.0	3.0	3.0	0.5
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		27	24	<0.01	0.19	0.07	0.03	0.05	0.1	0.06
Kjeldahl Nitrogen as N	mg/L			4	1	<0.5	3.4	1.2	0.5	0.5	1.2	1.5
Total Persulfate Nitrogen	mg/L			12	12	0.09	0.5	0.2	0.1	0.2	0.3	0.1
Phosphorus (TOT)	mg/L			16	16	0.003	0.06	0.03	0.02	0.02	0.03	0.02
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		27	6	<0.009	1.4	0.09	0.009	0.009	0.03	0.3
Aluminum (TRC)	mg/L			6	6	0.08	0.3	0.2	0.1	0.2	0.3	0.1
Antimony (DIS)	mg/L		0.0056	4	0	<0.003	0.003	0.003	0.003	0.003	0.003	0
Antimony (TRC)	mg/L			26	0	<0.0005	0.005	0.001	0.0005	0.0005	0.002	0.001
Arsenic (DIS)	mg/L	0.15	0.01	4	0	<0.003	0.003	0.003	0.003	0.003	0.003	0
Arsenic (TRC)	mg/L			26	2	<0.001	0.003	0.001	0.001	0.001	0.001	0.001
Barium (DIS)	mg/L		1	4	4	0.092	0.1	0.1	0.10	0.1	0.1	0.009
Barium (TRC)	mg/L			26	26	0.09	0.1	0.1	0.10	0.1	0.1	0.01
Beryllium (DIS)	mg/L		0.004	4	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Beryllium (TRC)	mg/L			26	0	<0.0008	0.001	0.0008	0.0008	0.0008	0.0008	0.00009
Cadmium (DIS)	mg/L	0.00025	0.005	4	0	<0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0
Cadmium (TRC)	mg/L			26	3	<0.00003	0.00008	0.0000	0.00003	0.00003	0.000055	0.00002
Chromium (DIS)	mg/L		0.1	4	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Chromium (TRC)	mg/L			26	0	<0.001	0.01	0.007	0.002	0.01	0.01	0.004
Cobalt (DIS)	mg/L			4	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Cobalt (TRC)	mg/L			26	0	<0.005	0.01	0.01	0.01	0.01	0.01	0.001
Copper (DIS)	mg/L	0.00285	1.3	4	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Copper (TRC)	mg/L			26	5	<0.001	0.003	0.0018	0.002	0.002	0.002	0.0005
Iron (DIS)	mg/L			4	3	<0.03	0.06	0.04	0.04	0.04	0.05	0.01
Iron (TRC)	mg/L	1		26	26	0.04	2.1	0.4	0.1	0.2	0.4	0.5
Lead (DIS)	mg/L	0.000545	0.015	4	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Lead (TRC)	mg/L			26	8	<0.0003	0.0031	0.0006	0.0003	0.0003	0.0005	0.001
Manganese (DIS)	mg/L			4	1	<0.005	0.007	0.006	0.005	0.005	0.006	0.001
Manganese (TRC)	mg/L			26	16	<0.005	0.08	0.01	0.005	0.007	0.02	0.02
Mercury (DIS)	mg/L	0.00091	0.00005	4	0	<0.00001	0.00001	0.0000	0.00001	0.00001	0.00001	0
Mercury (TRC)	mg/L			26	4	<0.000005	0.00002	0.0000	0.000005	0.000005	0.00001	0.000003
Molybdenum (DIS)	mg/L			4	0	<0.005	0.005	0.005	0.005	0.005	0.005	0
Molybdenum (TRC)	mg/L			26	0	<0.001	0.005	0.003	0.002	0.002	0.004	0.001
Nickel (DIS)	mg/L	0.0161	0.1	4	0	<0.01	0.01	0.0100	0.01	0.01	0.01	0
Nickel (TRC)	mg/L			26	3	<0.001	0.01	0.003	0.001	0.001	0.002	0.004
Selenium (DIS)	mg/L	0.005	0.05	4	0	<0.001	0.001	0.0010	0.001	0.001	0.001	0
Selenium (TRC)	mg/L			26	4	<0.0002	0.001	0.0004	0.0002	0.0002	0.0009	0.0004
Silver (DIS)	mg/L		0.1	4	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Silver (TRC)	mg/L			26	0	<0.0002	0.0005	0.0003	0.0002	0.0002	0.0005	0.0001
Strontium (DIS)	mg/L		4	4	4	0.1	0.2	0.2	0.2	0.2	0.2	0.050
Strontium (TRC)	mg/L			26	26	0.1	0.2	0.2	0.2	0.2	0.2	0.025
Thallium (DIS)	mg/L		0.00024	4	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0
Thallium (TRC)	mg/L			26	0	<0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0
Uranium (DIS)	mg/L		0.03	4	4	0.0007	0.0009	0.0008	0.0007	0.0008	0.0008	0.0001
Uranium (TRC)	mg/L			26	9	<0.0007	0.008	0.0055	0.0009	0.008	0.008	0.003
Zinc (DIS)	mg/L	0.037	7.4	4	0	<0.01	0.01	0.0100	0.01	0.01	0.01	0
Zinc (TRC)	mg/L			26	14	<0.002	0.016	0.006	0.002	0.004	0.01	0.004

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 11 Water Quality Summary Statistics, SW-12

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			0	NA	NA	NA	NA	NA	NA	NA	NA
Flow	Cubic Ft Sec			2	2	8.8	24.2	16.5	12.7	16.5	20.4	10.9
pH - Field	s.u.			2	2	7.8	7.8	7.8	7.8	7.8	7.8	0.04
Field Specific Conductivity	umhos/cm			2	2	75.0	97.0	86.0	80.5	86.0	91.5	15.6
Water Temperature	Deg C			2	2	10.8	14.1	12.5	11.6	12.5	13.3	2.3
Dissolved Oxygen	mg/L	6.5		2	2	8.7	9.2	9.0	8.8	9.0	9.1	0.4
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L											
Total Suspended Solids	mg/L											
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L											
Bicarbonate as HCO3	mg/L											
Carbonate as CO3	mg/L											
Chloride	mg/L											
Fluoride	mg/L		4									
Sulfate	mg/L											
Hardness as CaCO3	mg/L											
Calcium (DIS)	mg/L											
Magnesium (DIS)	mg/L											
Potassium (DIS)	mg/L											
Sodium (DIS)	mg/L											
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10										
Kjeldahl Nitrogen as N	mg/L											
Total Persulfate Nitrogen	mg/L											
Phosphorus (TOT)	mg/L											
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087										
Aluminum (TRC)	mg/L											
Antimony (DIS)	mg/L		0.0056									
Antimony (TRC)	mg/L											
Arsenic (DIS)	mg/L	0.15	0.01									
Arsenic (TRC)	mg/L											
Barium (DIS)	mg/L		1									
Barium (TRC)	mg/L											
Beryllium (DIS)	mg/L		0.004									
Beryllium (TRC)	mg/L											
Cadmium (DIS)	mg/L	0.00025	0.005									
Cadmium (TRC)	mg/L											
Chromium (DIS)	mg/L		0.1									
Chromium (TRC)	mg/L											
Cobalt (DIS)	mg/L											
Cobalt (TRC)	mg/L											
Copper (DIS)	mg/L	0.00285	1.3									
Copper (TRC)	mg/L											
Iron (DIS)	mg/L											
Iron (TRC)	mg/L	1										
Lead (DIS)	mg/L	0.000545	0.015									
Lead (TRC)	mg/L											
Manganese (DIS)	mg/L											
Manganese (TRC)	mg/L											
Mercury (DIS)	mg/L	0.00091	0.00005									
Mercury (TRC)	mg/L											
Molybdenum (DIS)	mg/L											
Molybdenum (TRC)	mg/L											
Nickel (DIS)	mg/L	0.0161	0.1									
Nickel (TRC)	mg/L											
Selenium (DIS)	mg/L	0.005	0.05									
Selenium (TRC)	mg/L											
Silver (DIS)	mg/L		0.1									
Silver (TRC)	mg/L											
Strontium (DIS)	mg/L		4									
Strontium (TRC)	mg/L											
Thallium (DIS)	mg/L		0.00024									
Thallium (TRC)	mg/L											
Uranium (DIS)	mg/L		0.03									
Uranium (TRC)	mg/L											
Zinc (DIS)	mg/L	0.037	7.4									
Zinc (TRC)	mg/L											

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 12 Water Quality Summary Statistics, SW-13

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			0	NA	NA	NA	NA	NA	NA	NA	NA
Flow	Cubic Ft Sec			2	2	33.1	77.7	55.4	44.2	55.4	66.5	31.6
pH - Field	s.u.			2	2	7.7	8.7	8.2	8.0	8.2	8.4	0.7
Field Specific Conductivity	umhos/cm			2	2	216	251	234	225	234	242	24.7
Water Temperature	Deg C			2	2	16.5	17.5	17.0	16.8	17.0	17.3	0.7
Dissolved Oxygen	mg/L	6.5		2	2	8.6	8.9	8.8	8.7	8.8	8.8	0.2
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L											
Total Suspended Solids	mg/L											
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L											
Bicarbonate as HCO3	mg/L											
Carbonate as CO3	mg/L											
Chloride	mg/L											
Fluoride	mg/L		4									
Sulfate	mg/L											
Hardness as CaCO3	mg/L											
Calcium (DIS)	mg/L											
Magnesium (DIS)	mg/L											
Potassium (DIS)	mg/L											
Sodium (DIS)	mg/L											
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10										
Kjeldahl Nitrogen as N	mg/L											
Total Persulfate Nitrogen	mg/L											
Phosphorus (TOT)	mg/L											
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087										
Aluminum (TRC)	mg/L											
Antimony (DIS)	mg/L		0.0056									
Antimony (TRC)	mg/L											
Arsenic (DIS)	mg/L	0.15	0.01									
Arsenic (TRC)	mg/L											
Barium (DIS)	mg/L		1									
Barium (TRC)	mg/L											
Beryllium (DIS)	mg/L		0.004									
Beryllium (TRC)	mg/L											
Cadmium (DIS)	mg/L	0.00025	0.005									
Cadmium (TRC)	mg/L											
Chromium (DIS)	mg/L		0.1									
Chromium (TRC)	mg/L											
Cobalt (DIS)	mg/L											
Cobalt (TRC)	mg/L											
Copper (DIS)	mg/L	0.00285	1.3									
Copper (TRC)	mg/L											
Iron (DIS)	mg/L											
Iron (TRC)	mg/L	1										
Lead (DIS)	mg/L	0.000545	0.015									
Lead (TRC)	mg/L											
Manganese (DIS)	mg/L											
Manganese (TRC)	mg/L											
Mercury (DIS)	mg/L	0.00091	0.00005									
Mercury (TRC)	mg/L											
Molybdenum (DIS)	mg/L											
Molybdenum (TRC)	mg/L											
Nickel (DIS)	mg/L	0.0161	0.1									
Nickel (TRC)	mg/L											
Selenium (DIS)	mg/L	0.005	0.05									
Selenium (TRC)	mg/L											
Silver (DIS)	mg/L		0.1									
Silver (TRC)	mg/L											
Strontium (DIS)	mg/L		4									
Strontium (TRC)	mg/L											
Thallium (DIS)	mg/L		0.00024									
Thallium (TRC)	mg/L											
Uranium (DIS)	mg/L		0.03									
Uranium (TRC)	mg/L											
Zinc (DIS)	mg/L	0.037	7.4									
Zinc (TRC)	mg/L											

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCTL = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 13 Water Quality Summary Statistics, SW-14

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			16	16	0.3	0.9	0.5	0.4	0.4	0.5	0.1
Flow	Cubic Ft Sec			19	19	0.3	11.8	2.7	0.7	1.5	3.0	3.2
pH - Field	s.u.			19	19	6.1	8.4	7.9	7.7	8.1	8.2	0.5
Field Specific Conductivity	umhos/cm			20	20	263	439	368	347	376	407	50.5
Water Temperature	Deg C			20	20	-0.9	13.7	6.9	3.1	7.1	11.5	4.6
Dissolved Oxygen	mg/L	6.5		20	20	7.6	15.0	10.9	9.8	10.3	11.8	1.8
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			21	21	175	244	221	214	228	233	18.5
Total Suspended Solids	mg/L			21	3	<4	15.0	5.0	4.0	4.0	4.0	2.8
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			21	21	160	220	203	190	210	220	21.3
Bicarbonate as HCO3	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate as CO3	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/L			21	21	1.0	2.5	1.9	1.8	2.0	2.0	0.3
Fluoride	mg/L		4	21	21	0.1	0.2	0.2	0.2	0.2	0.2	0.04
Sulfate	mg/L			21	21	6.5	19.0	9.2	7.0	8.1	9.3	3.2
Hardness as CaCO3	mg/L			21	21	153	232	209	198	213	225	22.0
Calcium (DIS)	mg/L			21	21	38.0	57.0	52.5	48.0	54.0	57.0	5.5
Magnesium (DIS)	mg/L			21	21	12.0	23.0	18.9	18.0	19.0	20.0	2.4
Potassium (DIS)	mg/L			21	19	<1	2.0	1.0	1.0	1.0	1.0	0.2
Sodium (DIS)	mg/L			21	21	2.0	3.0	2.6	2.0	3.0	3.0	0.5
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		21	20	<0.01	0.3	0.1	0.04	0.09	0.2	0.09
Kjeldahl Nitrogen as N	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Total Persulfate Nitrogen	mg/L			21	20	<0.003	1.3	0.3	0.1	0.2	0.3	0.3
Phosphorus (TOT)	mg/L			21	16	<0.003	0.2	0.02	0.004	0.008	0.01	0.04
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		21	3	<0.009	0.05	0.01	0.009	0.009	0.009	0.009
Aluminum (TRC)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (DIS)	mg/L		0.0056	0	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (TRC)	mg/L			21	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Arsenic (DIS)	mg/L	0.15	0.01	0	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (TRC)	mg/L			21	0	<0.001	0.001	0.001	0.001	0.001	0.001	0
Barium (DIS)	mg/L		1	0	NA	NA	NA	NA	NA	NA	NA	NA
Barium (TRC)	mg/L			21	21	0.08	0.1	0.1	0.1	0.1	0.1	0.01
Beryllium (DIS)	mg/L		0.004	0	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (TRC)	mg/L			21	0	<0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0
Cadmium (DIS)	mg/L	0.00025	0.005	0	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (TRC)	mg/L			21	2	<0.00003	0.00004	0.00003	0.00003	0.00003	0.00003	0.000002
Chromium (DIS)	mg/L		0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (TRC)	mg/L			21	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Cobalt (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (TRC)	mg/L			21	0	<0.01	0.01	0.01	0.01	0.01	0.01	0
Copper (DIS)	mg/L	0.00285	1.3	0	NA	NA	NA	NA	NA	NA	NA	NA
Copper (TRC)	mg/L			21	0	<0.002	0.002	0.002	0.002	0.002	0.002	0
Iron (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Iron (TRC)	mg/L	1		21	20	<0.02	0.4	0.1	0.02	0.05	0.12	0.1
Lead (DIS)	mg/L	0.000545	0.015	0	NA	NA	NA	NA	NA	NA	NA	NA
Lead (TRC)	mg/L			21	1	<0.0003	0.0005	0.0003	0.0003	0.0003	0.0003	0.00004
Manganese (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (TRC)	mg/L			21	2	<0.005	0.007	0.005	0.005	0.005	0.005	0.0005
Mercury (DIS)	mg/L	0.00091	0.00005	0	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (TRC)	mg/L			21	0	<0.000005	0.00001	0.00001	0.00001	0.00001	0.00001	0
Molybdenum (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum (TRC)	mg/L			21	0	<0.002	0.002	0.002	0.002	0.002	0.002	0
Nickel (DIS)	mg/L	0.0161	0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (TRC)	mg/L			21	1	<0.001	0.002	0.001	0.001	0.001	0.001	0.0004
Selenium (DIS)	mg/L	0.005	0.05	0	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (TRC)	mg/L			21	1	<0.0002	0.0004	0.0002	0.0002	0.0002	0.0002	0.00005
Silver (DIS)	mg/L		0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Silver (TRC)	mg/L			21	0	<0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0
Strontium (DIS)	mg/L		4	0	NA	NA	NA	NA	NA	NA	NA	NA
Strontium (TRC)	mg/L			21	21	0.08	0.1	0.1	0.1	0.1	0.1	0.02
Thallium (DIS)	mg/L		0.00024	0	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (TRC)	mg/L			21	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0
Uranium (DIS)	mg/L		0.03	0	NA	NA	NA	NA	NA	NA	NA	NA
Uranium (TRC)	mg/L			21	0	<0.008	0.008	0.008	0.008	0.008	0.008	0
Zinc (DIS)	mg/L	0.037	7.4	0	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (TRC)	mg/L			21	1	<0.002	0.003	0.002	0.002	0.002	0.002	0.0002

Reporting Period: May 2011 to December 2017

\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCTL = percentile, TOT = total

Grey shading indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 chronic aquatic life guideline.

Bold indicates the concentration exceeds the Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017 human health surface water guideline.

Table 14 Water Quality Summary Statistics, USGS-SC1

Parameters	Units	Montana Numeric Water Quality Standards, DEQ-7 Circular, May 2017		No. Samples	No. Detects	Min.	Max.	Mean	25% PCLT	50% PCLT	75% PCLT	SD.
		Aquatic Life Standard, Chronic	Human Health Standard, Surface Water									
<b>Field Parameters</b>												
Staff Gauge	Feet			NA	NA	NA	NA	NA	NA	NA	NA	NA
Flow	Cubic Ft Sec			37	37	9.3	152	45.5	13.8	28.0	67.5	38.4
pH - Field	s.u.			54	54	6.8	8.7	8.0	7.8	8.2	8.3	0.4
Field Specific Conductivity	umhos/cm			55	55	234	408	326	292	340	364	46.2
Water Temperature	Deg C			55	55	-1.0	13.1	4.4	0.2	3.5	9.0	4.3
Dissolved Oxygen	mg/L	6.5		55	55	7.1	16.6	11.2	10.1	10.8	12.2	1.7
<b>Physical Parameters</b>												
Total Dissolved Solids	mg/L			53	53	134	230	190	183	193	204	20.1
Total Suspended Solids	mg/L			53	13	<4	38.0	7.8	4.0	4.0	10.0	6.4
<b>Major Constituents - Commons Ions</b>												
Alkalinity as CaCO3	mg/L			53	53	120	220	177	170	180	190	22.0
Bicarbonate as HCO3	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Carbonate as CO3	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/L			53	53	1.0	5.0	1.7	1.0	1.5	2.0	0.929
Fluoride	mg/L		4	53	1	<0.1	0.1	0.10	0.1	0.1	0.1	0
Sulfate	mg/L			53	53	3.0	8.0	5.6	4.8	5.4	7.0	1.4
Hardness as CaCO3	mg/L			53	52	<7	214	175	167	183	191	31.7
Calcium (DIS)	mg/L			53	53	35.0	61.0	50.6	47.5	52.0	55.0	6.0
Magnesium (DIS)	mg/L			53	53	8.0	15.0	12.6	12.0	13.0	14.0	1.6
Potassium (DIS)	mg/L			53	53	1.0	1.0	1.0	1.0	1.0	1.0	0
Sodium (DIS)	mg/L			53	53	2.0	3.0	2.1	2.0	2.0	2.0	0.2
<b>Nutrients</b>												
Nitrate + Nitrite as N	mg/L	10		53	32	<0.01	0.1	0.04	0.01	0.02	0.08	0.04
Kjeldahl Nitrogen as N	mg/L			11	6	<0.5	5.0	1.9	0.5	2.2	3.0	1.6
Total Persulfate Nitrogen	mg/L			39	29	<0.003	1.1	0.1	0.04	0.07	0.2	0.2
Phosphorus (TOT)	mg/L			49	35	<0.003	0.05	0.01	0.004	0.009	0.01	0.009
<b>Metals - Trace Constituents</b>												
Aluminum (DIS)	mg/L	0.087		53	17	<0.009	0.2	0.02	0.01	0.01	0.02	0.03
Aluminum (TRC)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (DIS)	mg/L		0.0056	0	NA	NA	NA	NA	NA	NA	NA	NA
Antimony (TRC)	mg/L			53	0	<0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0
Arsenic (DIS)	mg/L	0.15	0.01	0	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (TRC)	mg/L			53	1	<0.001	0.001	0.0010	0.001	0.001	0.001	0
Barium (DIS)	mg/L		1	0	NA	NA	NA	NA	NA	NA	NA	NA
Barium (TRC)	mg/L			53	53	0.06	0.09	0.07	0.07	0.07	0.07	0.006
Beryllium (DIS)	mg/L		0.004	0	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium (TRC)	mg/L			53	0	<0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0
Cadmium (DIS)	mg/L	0.00025	0.005	0	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium (TRC)	mg/L			53	2	<0.00003	0.00009	0.00003	0.00003	0.00003	0.00003	0.000008
Chromium (DIS)	mg/L		0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (TRC)	mg/L			53	0	<0.005	0.01	0.01	0.01	0.01	0.01	0.001
Cobalt (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt (TRC)	mg/L			53	0	<0.005	0.01	0.01	0.01	0.01	0.01	0.001
Copper (DIS)	mg/L	0.00285	1.3	0	NA	NA	NA	NA	NA	NA	NA	NA
Copper (TRC)	mg/L			53	2	<0.002	0.003	0.0020	0.002	0.002	0.002	0.0001
Iron (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Iron (TRC)	mg/L	1		53	53	0.07	1.7	0.3	0.1	0.1	0.3	0.3
Lead (DIS)	mg/L	0.000545	0.015	0	NA	NA	NA	NA	NA	NA	NA	NA
Lead (TRC)	mg/L			53	6	<0.0003	0.001	0.0003	0.0003	0.0003	0.0003	0.0001
Manganese (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (TRC)	mg/L			53	53	0.005	0.08	0.01	0.007	0.008	0.01	0.01
Mercury (DIS)	mg/L	0.00091	0.00005	0	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (TRC)	mg/L			53	2	<0.000005	0.00001	0.000005	0.000005	0.000005	0.000005	0.0000007
Molybdenum (DIS)	mg/L			0	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum (TRC)	mg/L			53	0	<0.001	0.002	0.002	0.002	0.002	0.002	0.0003
Nickel (DIS)	mg/L	0.0161	0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Nickel (TRC)	mg/L			53	6	<0.001	0.003	0.001	0.001	0.001	0.001	0.0004
Selenium (DIS)	mg/L	0.005	0.05	0	NA	NA	NA	NA	NA	NA	NA	NA
Selenium (TRC)	mg/L			53	0	<0.0002	0.0004	0.0002	0.0002	0.0002	0.0002	0.00004
Silver (DIS)	mg/L		0.1	0	NA	NA	NA	NA	NA	NA	NA	NA
Silver (TRC)	mg/L			53	1	<0.0002	0.0004	0.0002	0.0002	0.0002	0.0002	0.00003
Strontium (DIS)	mg/L		4	0	NA	NA	NA	NA	NA	NA	NA	NA
Strontium (TRC)	mg/L			53	53	0.1	0.2	0.1	0.1	0.1	0.1	0.009
Thallium (DIS)	mg/L		0.00024	0	NA	NA	NA	NA	NA	NA	NA	NA
Thallium (TRC)	mg/L			53	0	<0.0002	0.00020	0.00020	0.00020	0.00020	0.00020	0
Uranium (DIS)	mg/L		0.03	0	NA	NA	NA	NA	NA	NA	NA	NA
Uranium (TRC)	mg/L			53	4	<0.0003	0.008	0.007	0.008	0.008	0.008	0.002
Zinc (DIS)	mg/L	0.037	7.4	0	NA	NA	NA	NA	NA	NA	NA	NA
Zinc (TRC)	mg/L			53	15	<0.002	0.009	0.003	0.002	0.002	0.003	0.001

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\*C = degrees Celsius, DIS = dissolved concentration, N = nitrogen, SD = standard deviation, TRC = total recoverable concentration, PCLT = percentile, TOT = total

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