

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL023B (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/14/18 ^T	Q1 2019 03/07/19 ^T	Q2 2019 05/08/19 ^T	Q3 2019 07/22/19 ^T
Field						
D.O. ¹	ppm	--	0.1	<0.1	<0.1	0.5
ORP	mV	--	-218	-250	-127	-138
pH	SU	7.8-8.8	7.7	8.3	7.4	8.3
Specific Conductance	µS/cm @ 25°C	--	123	127	119	122
Temperature	°C	--	7.7	6.6	6.5	13
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1414.48	1413.78	1414.55	1414.71
Metals						
Aluminum	ug/L	200	<50.0	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.5	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10.0	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	159	41.6	<50.0 e	<50.0	58.3
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20.0	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10.0	--
Nickel	ug/L	100	<25.0	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50.0	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	67	63	58.5	60.3	60.5
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	<0.050	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	2.6	3.8	3.8 e	3.5 e
Major Cations						
Calcium	mg/L	16	13.6	--	14.7 e	--
Magnesium	mg/L	3.7	3.3	--	3.5	--
Potassium	mg/L	2.0	<0.50	--	<0.50	--
Sodium	mg/L	11	6.9	6.6 e	6.8 e	6.3 e
General						
Hardness	mg/L	55	48	--	51	--

Explanations of abbreviations are included on the final page of this table.

QAL023B (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL024A (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/09/18 ^T	Q1 2019 03/20/19 ^T	Q2 2019 05/07/19 ^T	Q3 2019 07/30/19 ^T
Field						
D.O. ¹	ppm	--	12	11	10	11
ORP	mV	--	102	56	251	93
pH	SU	6.1-7.1	6.5	6.4	6.3	6.9
Specific Conductance	µS/cm @ 25°C	--	251	357	481	237
Temperature	°C	--	8.3	9.3	10.0	8.1
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1417.69	1417.61	1418.68	1419.86
Metals						
Aluminum	ug/L	200	<50.0	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	86	31	--	73.4	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	18.7	--
Cobalt	ug/L	40	<10.0	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	105	26.5	83.1 e	230	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20.0	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	0.710	1.67	0.500
Molybdenum	ug/L	40	<10.0	--	<10.0	--
Nickel	ug/L	100	<25.0	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	56.7	--	108	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	24	44.0	41.4	37.9	45.6
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	48.6	79.8 e	116 e	37.7 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	0.92	2.4 e	3.7 e	0.58 e
Sulfate	mg/L	8.0	5.5	6.3	7.0 e	4.9 e
Major Cations						
Calcium	mg/L	48	19.3	--	35 e	--
Magnesium	mg/L	8.1	3.4	--	5.6	--
Potassium	mg/L	3.7	1.9	--	2.8	--
Sodium	mg/L	2.0	23	39.6 e	50.6 e	24.3 e
General						
Hardness	mg/L	153	62	--	110	--

Explanations of abbreviations are included on the final page of this table.

QAL024A (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL025A (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/09/18 ^T	Q1 2019 03/06/19 ^T	Q2 2019 05/06/19 ^T	Q3 2019 07/23/19 ^T
Field						
D.O. ¹	ppm	--	11	11	11	12
ORP	mV	--	112	53	297	79
pH	SU	6.4-7.4	6.7	7.2	6.6	7.2
Specific Conductance	µS/cm @ 25°C	--	49	64	42	67
Temperature	°C	--	8.2	7.0	7.8	7.7
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1417.27	1416.59	1417.14	1419.52
Metals						
Aluminum	ug/L	200	<50.0	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10.0	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	126	<20.0	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20.0	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.50 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10.0	--
Nickel	ug/L	100	<25.0	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50.0	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	25	22.2	27.5	16.9	31.4
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	1.1	0.35	0.37 e	0.37 e	0.18 e
Sulfate	mg/L	8.0	<2.0	2.0	<2.0 e	<2.0 e
Major Cations						
Calcium	mg/L	8.5	6.3	--	5.7 e	--
Magnesium	mg/L	2.0	1.3	--	1.1	--
Potassium	mg/L	2.0	0.72	--	0.76	--
Sodium	mg/L	2.0	0.83	<1.0 e	<1.0 e	<1.0 e
General						
Hardness	mg/L	28	21	--	19	--

Explanations of abbreviations are included on the final page of this table.

QAL025A (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL025B (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/09/18 ^T	Q1 2019 03/06/19 ^T	Q2 2019 05/06/19 ^T	Q3 2019 07/23/19 ^T
Field						
D.O. ¹	ppm	--	11	11	11	11
ORP	mV	--	67	21	267	32
pH	SU	8.5-9.5	8.7	9.1	8.9	9.1
Specific Conductance	µS/cm @ 25°C	--	65	71	65	66
Temperature	°C	--	7.4	7.4	7.2	7.6
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1417.00	1416.47	1417.03	1419.40
Metals						
Aluminum	ug/L	200	<50.0	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20.0	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10.0	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	56	<20.0	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20.0	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10.0	--
Nickel	ug/L	100	<25.0	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50.0	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	1.2	<1.0	1.1	1.1
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	36	<2.0	28.4	26.7	30.5
Alkalinity, Carbonate	mg/L	12	<2.0	2.4	5.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	0.13	0.17 e	0.20 e	0.19 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0 e
Major Cations						
Calcium	mg/L	10	8.9	--	9.4 e	--
Magnesium	mg/L	2.0	1.6	--	1.7	--
Potassium	mg/L	2.0	<0.50	--	<0.50	--
Sodium	mg/L	4.5	1.4	1.5 e	1.6 e	1.2 e
General						
Hardness	mg/L	33	29	--	30	--

Explanations of abbreviations are included on the final page of this table.

QAL025B (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL025D (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/03/18 ^T	Q1 2019 02/12/19 ^T	Q2 2019 05/15/19 ^T	Q3 2019 07/23/19 ^T
Field						
D.O. ¹	ppm	--	5.6	4.5	4.1	4.4
ORP	mV	--	99	147	246	10
pH	SU	8.2-9.2	8.5	9.0	8.7	8.7
Specific Conductance	µS/cm @ 25°C	--	90	100	96	101
Temperature	°C	--	7.2	7.1	7.4	7.4
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1413.09	1412.85	1413.26	1415.15
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.5	2.9	3.0	2.9	2.8
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10.0	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	137	26	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20.0	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	0.720	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	4.1	4.1	4.0	3.9
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	52	44.9	43.8	45.8	45.7
Alkalinity, Carbonate	mg/L	14	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	0.16	0.10 b,e	0.089 e	0.094 e
Sulfate	mg/L	8.0	4.6	5.1	5.4 e	5.3 e
Major Cations						
Calcium	mg/L	12	11.9	--	12.9 e	--
Magnesium	mg/L	2.7	2.7	--	2.9	--
Potassium	mg/L	2.0	0.63	--	0.80	--
Sodium	mg/L	12	3.4	3.4 e	3.8 e	3.2 e
General						
Hardness	mg/L	42	41	--	44	--

Explanations of abbreviations are included on the final page of this table.

QAL025D (Background)

**Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL026A (Background)
Eagle Mine**

Parameter	Unit	Benchmark	Q2 2018 05/03/18 ^T	Q1 2019 02/12/19 ^T	Q2 2019 05/15/19 ^T	Q3 2019 07/23/19 ^T
Field						
D.O. ¹	ppm	--	11	10	10	10
ORP	mV	--	107	183	301	308
pH	SU	6.2-7.2	6.8	6.9	6.4	6.2
Specific Conductance	µS/cm @ 25°C	--	147	138	83	52
Temperature	°C	--	7.1	6.2	7.4	9.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1416.76	1416.43	<<1415.4 BP	1419.28
Metals						
Aluminum	ug/L	236	<50	--	144	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	368	74.4	<50.0 e	126	246
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	0.750	0.610	0.710
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	114	112	69.2	38.4	22.7
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.73	0.96	0.72 b,e	0.63 e	0.65 e
Sulfate	mg/L	8.0	3.7	2.1	<2.0 e	<2.0 e
Major Cations						
Calcium	mg/L	40.0	17.1	--	13.2 e	--
Magnesium	mg/L	5.9	2.6	--	2.1	--
Potassium	mg/L	2.0	1.1	--	1.3	--
Sodium	mg/L	2.4	1.1	1.5 e	1.4 e	<1.0 e
General						
Hardness	mg/L	124	53	--	42	--

Explanations of abbreviations are included on the final page of this table.

QAL026A (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL026D (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/03/18 ^T	Q1 2019 02/12/19 ^T	Q2 2019 05/15/19 ^T	Q3 2019 07/23/19 ^T
Field						
D.O. ¹	ppm	--	12	11	11	10
ORP	mV	--	122	155	249	293
pH	SU	8.4-9.4	8.8	9.2	9.0	8.9
Specific Conductance	µS/cm @ 25°C	--	61	66	63	67
Temperature	°C	--	7.3	7.4	7.2	7.6
Turbidity	NTU	--	<1	<1	<1	2
Water Elevation	ft MSL	--	1409.87	1409.67	1410.01	1411.73
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	31	130	29.9	31.8	29.3
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	3.4
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	0.14	0.15 b,e	0.12 e	0.11 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0 e
Major Cations						
Calcium	mg/L	13	9.9	--	10.6 e	--
Magnesium	mg/L	2.4	1.5	--	1.5	--
Potassium	mg/L	2.0	<0.50	--	0.57	--
Sodium	mg/L	2.0	0.66	<1.0 e	<1.0 e	<1.0 e
General						
Hardness	mg/L	43	31	--	33	--

Explanations of abbreviations are included on the final page of this table.

QAL026D (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL026E (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/08/18 ^T	Q1 2019 03/06/19 ^T	Q2 2019 05/06/19 ^T	Q3 2019 07/23/19 ^T
Field						
D.O. ¹	ppm	--	0.2	<0.1	0.2	0.7
ORP	mV	--	-89	-175	-32	-92
pH	SU	8.1-9.1	8.3	8.7	8.4	8.6
Specific Conductance	µS/cm @ 25°C	--	115	127	118	121
Temperature	°C	--	7.2	7.1	7.2	7.5
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1409.88	1409.29	1409.38	1411.70
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	7.8	7.3	7.8	7.3	7.8
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10.0	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20.0	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20.0	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10.0	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	61.9	--	61.2	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	91	58.1	54.3	53.4	54.2
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	2.2 e	<2.0
Chloride	mg/L	4.0	1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	<0.050	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.6	7.2	7.7	7.6 e	7.7 e
Major Cations						
Calcium	mg/L	17	14.1	--	16.3 e	--
Magnesium	mg/L	4.3	4.0	--	4.1	--
Potassium	mg/L	2.0	2.0	--	1.8	--
Sodium	mg/L	2.0	1.8	1.7 e	1.7 e	1.7 e
General						
Hardness	mg/L	60	52	--	58	--

Explanations of abbreviations are included on the final page of this table.

QAL026E (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL044B (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/14/18 ^T	Q1 2019 03/07/19 ^T	Q2 2019 05/07/19 ^T	Q3 2019 07/22/19 ^T
Field						
D.O. ¹	ppm	--	0.8	0.5	3.5	1.0
ORP	mV	--	-240	-86	-46	-176
pH	SU	8.3-9.3	9.6	9.3	9.1	9.1
Specific Conductance	µS/cm @ 25°C	--	84	79	102	82
Temperature	°C	--	8.0	5.6	7.7	8.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1414.98	1414.09	1414.78	1415.76
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	<50.0 e	79.3	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	0.875 e	0.940	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	64	12.1	32.8	42.1	33.7
Alkalinity, Carbonate	mg/L	8.0	15.8	7.8	4.8 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	<0.050	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	24	6.2	6.8	6.7 e	6.2 e
Major Cations						
Calcium	mg/L	17	11.8	--	16.8 e	--
Magnesium	mg/L	4.0	0.79	--	1.4	--
Potassium	mg/L	2.0	1.2	--	1.7	--
Sodium	mg/L	2.6	2.4	2.8 e	2.7 e	2.9 e
General						
Hardness	mg/L	58	33	--	48	--

Explanations of abbreviations are included on the final page of this table.

QAL044B (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL060A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/07/18 ^T	Q1 2019 03/11/19 ^T	Q2 2019 05/07/19 ^T	Q3 2019 07/29/19 ^T
Field						
D.O. ¹	ppm	--	11	11	11	10
ORP	mV	--	70	35	67	272
pH	SU	8.1-9.1	8.5	8.6	8.3	8.6
Specific Conductance	µS/cm @ 25°C	--	86	95	87	109
Temperature	°C	--	8.6	7.8	8.0	8.1
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1405.41	1404.61	1404.71	1406.97
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	7.2	4.0	4.2	4.1	3.7
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.50 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	1.2	1.1	1.1	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	62	42.9	43.3	46.3	53.3
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	0.30	0.31 e	0.33 e	0.35 e
Sulfate	mg/L	8.0	<2.0	<2.0	2.0 e	2.1 e
Major Cations						
Calcium	mg/L	17	11.8	--	13.4 e	--
Magnesium	mg/L	4.2	2.6	--	2.8	--
Potassium	mg/L	2.0	0.73	--	0.83	--
Sodium	mg/L	2.1	0.65	<1.0 e	<1.0 e	1.2 e
General						
Hardness	mg/L	61	40	--	45	--

Explanations of abbreviations are included on the final page of this table.

QAL060A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL061A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/07/18 ^T	Q1 2019 03/11/19 ^T	Q2 2019 05/07/19 ^T	Q3 2019 07/29/19 ^T
Field						
D.O. ¹	ppm	--	11	11	11	10
ORP	mV	--	63	178	73	219
pH	SU	8.1-9.1	8.3	8.6	8.4	8.6
Specific Conductance	µS/cm @ 25°C	--	116	97	123	118
Temperature	°C	--	8.3	7.5	7.8	8.4
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1406.75	1406.04	1406.14	1408.49
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.50 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	40	119	58.4	62.2	56
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	2.2
Chloride	mg/L	4.0	1.2	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.27	0.36	0.36 e	0.36 e	0.38 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0 e
Major Cations						
Calcium	mg/L	15	18	--	20.4 e	--
Magnesium	mg/L	2.2	3.2	--	3.5	--
Potassium	mg/L	2.0	0.66	--	0.75	--
Sodium	mg/L	2.0	0.75	<1.0 e	<1.0 e	<1.0 e
General						
Hardness	mg/L	37	58	--	65	--

Explanations of abbreviations are included on the final page of this table.

QAL061A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL062A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/07/18 ^T	Q1 2019 03/20/19 ^T	Q2 2019 05/07/19 ^T	Q3 2019 07/30/19 ^T
Field						
D.O. ¹	ppm	--	8.6	8.3	8.0	7.0
ORP	mV	--	53	23	66	193
pH	SU	8.3-9.3	7.6	7.6	7.4	7.5
Specific Conductance	µS/cm @ 25°C	--	562	624	608	630
Temperature	°C	--	8.4	7.6	7.6	9.3
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1408.09	1407.64	1407.50	1409.71
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	29.2	--	47.4	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	<50.0 e	<50.0	64.3
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	0.54
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	78.8	--	118	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	48	186	194	210	214
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	68.3	76.1 e	74.4 e	75.3 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.41	0.89	1.2 e	1.4 e	1.2 e
Sulfate	mg/L	8.0	2.2	3.0	3.2 e	3.3 e
Major Cations						
Calcium	mg/L	12	68.8	--	77 e	--
Magnesium	mg/L	2.2	13.8	--	15.9	--
Potassium	mg/L	2.0	2.3	--	2.8	--
Sodium	mg/L	2.0	22.6	26.6 e	26.7 e	27.7 e
General						
Hardness	mg/L	40	229	--	258	--

Explanations of abbreviations are included on the final page of this table.

QAL062A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL063A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/08/18 ^T	Q1 2019 02/19/19 ^T	Q2 2019 05/06/19 ^T	Q3 2019 07/30/19 ^T
Field						
D.O. ¹	ppm	--	10	10	11	8.8
ORP	mV	--	83	138	158	64
pH	SU	8.1-9.1	7.6	7.6	7.6	7.6
Specific Conductance	µS/cm @ 25°C	--	443	530	645	714
Temperature	°C	--	8.6	8.0	8.1	8.9
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1401.91	1401.30	1401.27	1402.76
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	28.8	--	45.5	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	84.5	--	116	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	42	167	196	214	222
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	50.2	80.9 e	84.3 e	103 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.29	0.78	0.98 e	1.2 e	1.2 e
Sulfate	mg/L	8.0	2.2	2.5	2.6 e	3.2 e
Major Cations						
Calcium	mg/L	12	60.1	--	85.2 e	--
Magnesium	mg/L	2.0	12	--	17	--
Potassium	mg/L	2.0	1.9	--	3.0	--
Sodium	mg/L	2.0	11.3	19.5 e	23.7 e	28.4 e
General						
Hardness	mg/L	40	200	--	281	--

Explanations of abbreviations are included on the final page of this table.

QAL063A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL064D (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/09/18 ^T	Q1 2019 03/07/19 ^T	Q2 2019 05/16/19 ^T	Q3 2019 07/22/19 ^T
Field						
D.O. ¹	ppm	--	0.1	0.1	<0.1	<0.1
ORP	mV	--	-307	-287	-196	-186
pH	SU	8.0-9.0	8.8	8.8	8.3	9.3
Specific Conductance	µS/cm @ 25°C	--	146	101	144	146
Temperature	°C	--	7.3	6.9	7.0	8.1
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1415.53	1415.53	1416.49	1416.42
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10.0	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	26.3	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	102	--	114	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	82	74.4	70.3	75.2	70.9
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.2	1.6	1.9 e	1.9 e	2.4 e
Fluoride	mg/L	0.40	<0.10	--	0.12 e	--
Nitrogen, Nitrate	mg/L	0.20	<0.050	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0 e
Major Cations						
Calcium	mg/L	22	19.2	--	19.9 e	--
Magnesium	mg/L	3.3	4.0	--	4.2	--
Potassium	mg/L	2.0	1.2	--	1.3	--
Sodium	mg/L	6.9	3.7	4.1 e	4.1 e	4.3 e
General						
Hardness	mg/L	51	64	--	67	--

Explanations of abbreviations are included on the final page of this table.

QAL064D (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL065D (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/14/18 ^T	Q1 2019 03/11/19 ^T	Q2 2019 05/08/19 ^T	Q3 2019 07/22/19 ^T
Field						
D.O. ¹	ppm	--	0.3	6.5	0.2	0.4
ORP	mV	--	-170	-138	-98	-118
pH	SU	7.9-8.9	8.6	8.5	8.2	8.6
Specific Conductance	µS/cm @ 25°C	--	146	124	144	151
Temperature	°C	--	7.4	6.7	6.7	12.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1416.02	1415.41	1416.41	1415.94
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.6	3.9	3.7	3.6	3.7
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	40	<50.0 e	75.2	54.6
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	198	--	191	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	86	77.8	74.9	81	78.6
Alkalinity, Carbonate	mg/L	8.7	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	0.13	--	0.13 e	--
Nitrogen, Nitrate	mg/L	0.20	<0.050	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0 e
Major Cations						
Calcium	mg/L	14	12.4	--	14.7 e	--
Magnesium	mg/L	4.8	4.1	--	4.6	--
Potassium	mg/L	3.0	2.5	--	2.8	--
Sodium	mg/L	12	10.6	9.6 e	10.1 e	9.4 e
General						
Hardness	mg/L	53	48	--	56	--

Explanations of abbreviations are included on the final page of this table.

QAL065D (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL066D (UMB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/14/18 ^T	Q1 2019 03/07/19 ^T	Q2 2019 05/08/19 ^T	Q3 2019 07/22/19 ^T
Field						
D.O. ¹	ppm	--	2.2	10	3.4	6
ORP	mV	--	10	106	130	159
pH	SU	8.7-9.7	8.6	8.9	8.5	8.8
Specific Conductance	µS/cm @ 25°C	--	123	134	156	155
Temperature	°C	--	NM	4.8	6.7	8.8
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1415.81	1414.65	1415.50	1416.16
Metals						
Aluminum	ug/L	557	1320	--	794	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	8.9	7.8	9.6	8.3	8.4
Barium	ug/L	80	20.4	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	288	583	498 e	527	328
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	1.55 e	1.11	1.01	0.580
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	1.1	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	367	80	--	61.5	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	1.1	1.1	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	61	59.6	65.2	72.1	67.1
Alkalinity, Carbonate	mg/L	52	3.9	9.0	5.4 e	4.8
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	<0.050	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	11	8.9	8.0	8.0 e	7.7 e
Major Cations						
Calcium	mg/L	58	14.6	--	15 e	--
Magnesium	mg/L	2.9	3.0	--	2.4	--
Potassium	mg/L	2.6	1.2	--	1.2	--
Sodium	mg/L	8.0	9.6	21.3 e	19.1 e	16.8 e
General						
Hardness	mg/L	146	49	--	47	--

Explanations of abbreviations are included on the final page of this table.

QAL066D (UMB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL067A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/07/18 ^T	Q1 2019 03/11/19 ^T	Q2 2019 05/07/19 ^T	Q3 2019 07/30/19 ^T
Field						
D.O. ¹	ppm	--	9.3	10	7.7	7.9
ORP	mV	--	101	211	90	202
pH	SU	5.6-6.6	6.1	6.7	6.3	6.5
Specific Conductance	µS/cm @ 25°C	--	692	200	272	352
Temperature	°C	--	8.8	7.6	8.5	11.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1416.45	1414.66	1414.74	1416.65
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	53.2	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	1.27 e	2.14	1.24	2.22
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	95.1	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	51	66.3	58.6	56	61
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	154	41.8 e	51 e	70.4 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.25	1.6	0.24 e	0.32 e	0.46 e
Sulfate	mg/L	8.4	9.8	2.7	2.7 e	5.2 e
Major Cations						
Calcium	mg/L	8.2	16.2	--	6.5 e	--
Magnesium	mg/L	2.0	7.2	--	3.0	--
Potassium	mg/L	2.0	2.2	--	1.5	--
Sodium	mg/L	2.0	102	43.6 e	45.7 e	46.7 e
General						
Hardness	mg/L	26	70	--	29	--

Explanations of abbreviations are included on the final page of this table.

QAL067A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL068A (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/09/18 ^T	Q1 2019 03/06/19 ^T	Q2 2019 05/16/19 ^T	Q3 2019 07/23/19 ^T
Field						
D.O. ¹	ppm	--	13	12	11	13
ORP	mV	--	166	186	301	104
pH	SU	6.2-7.2	5.8	6.7	6.6	6.7
Specific Conductance	µS/cm @ 25°C	--	34	34	41	37
Temperature	°C	--	7.8	7.5	7.6	8.1
Turbidity	NTU	--	<1	<1	<1	1
Water Elevation	ft MSL	--	1419.38	1421.92	1421.95	1425.37
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	62.8	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.50 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	35	17.2	20.9	18.2	15.8
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	<0.050	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0 e
Major Cations						
Calcium	mg/L	6.7	4.5	--	5.7 e	--
Magnesium	mg/L	2.0	0.80	--	<1.0	--
Potassium	mg/L	2.0	0.81	--	1.0	--
Sodium	mg/L	2.0	0.64	<1.0 e	<1.0 e	<1.0 e
General						
Hardness	mg/L	21	15	--	<3	--

Explanations of abbreviations are included on the final page of this table.

QAL068A (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL068B (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/09/18 ^T	Q1 2019 03/06/19 ^T	Q2 2019 05/16/19 ^T	Q3 2019 07/22/19 ^T
Field						
D.O. ¹	ppm	--	13	11	12	10
ORP	mV	--	95	144	253	258
pH	SU	8.4-9.4	8.8	9.2	9.0	9.0
Specific Conductance	µS/cm @ 25°C	--	59	52	61	63
Temperature	°C	--	7.6	7.1	7.7	8.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1414.36	1413.59	1414.17	1416.42
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	184	<20	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	1.1	<1.0	1.0	1.1
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	30	30.5	22.8	29.5	30.1
Alkalinity, Carbonate	mg/L	9.9	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.20	0.054	0.061 e	0.054 e	0.067 e
Sulfate	mg/L	8.0	2.2	2.3	2.4 e	2.3 e
Major Cations						
Calcium	mg/L	9.4	8.8	--	8.9 e	--
Magnesium	mg/L	2.0	1.7	--	1.8	--
Potassium	mg/L	2.0	0.54	--	0.71	--
Sodium	mg/L	2.0	0.81	<1.0 e	<1.0 e	<1.0 e
General						
Hardness	mg/L	31	29	--	30	--

Explanations of abbreviations are included on the final page of this table.

QAL068B (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL068D (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/09/18 ^T	Q1 2019 03/06/19 ^T	Q2 2019 05/16/19 ^T	Q3 2019 07/22/19 ^T
Field						
D.O. ¹	ppm	--	2.6	6.7	6.4	1.8
ORP	mV	--	-18	130	231	217
pH	SU	8.0-9.0	8.4	8.5	8.5	8.5
Specific Conductance	µS/cm @ 25°C	--	112	98	115	119
Temperature	°C	--	7.3	6.2	7.6	11
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1414.19	1413.62	1414.22	1416.46
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	7.2	4.7	5.7	5.8	6.5
Barium	ug/L	80	<20	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	119	<20	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.12	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	<50.0	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	3.7	3.9	2.9	3.7
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	67	58.1	48.7	57.1	57.3
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	<1.0	<1.0 e	<1.0 e	<1.0 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.21	<0.050	<0.050 e	<0.050 e	<0.050 e
Sulfate	mg/L	10	5.2	5.3	5.3 e	5.3 e
Major Cations						
Calcium	mg/L	16	14.2	--	14.0 e	--
Magnesium	mg/L	3.9	3.8	--	3.8	--
Potassium	mg/L	2.0	1.3	--	1.6	--
Sodium	mg/L	6.1	3.8	4.0 e	4.7 e	4.7 e
General						
Hardness	mg/L	52	51	--	51	--

Explanations of abbreviations are included on the final page of this table.

QAL068D (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL069A (Background)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/07/18 ^T	Q1 2019 03/06/19 ^T	Q2 2019 05/07/19 ^T	Q3 2019 07/30/19 ^T
Field						
D.O. ¹	ppm	--	6.8	7.4	7.5	5.6
ORP	mV	--	103	195	79	59
pH	SU	7.8-8.8	6.8	6.9	6.7	7.1
Specific Conductance	µS/cm @ 25°C	--	589	381	423	671
Temperature	°C	--	9.2	7.4	8.3	8.6
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1383.36	1383.20	1383.83	1386.73
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	20.5	--	<20.0	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	6.7	--	12	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	<5.0	<5.0
Iron	ug/L	80	<20	53.4 e	228	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	1.79 e	3.84	2.22	2.24
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	<50	--	61.6	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10.0	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	138	166	173	158	149
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	92.3	35.9 e	38.3 e	122 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.57	1.0	0.71 e	0.70 e	0.90 e
Sulfate	mg/L	8.0	10.2	9.4	8.0 e	7.7 e
Major Cations						
Calcium	mg/L	35	40.9	--	40.9 e	--
Magnesium	mg/L	18	14.1	--	11.5	--
Potassium	mg/L	2.0	2.1	--	2.0	--
Sodium	mg/L	2.0	67.1	24.7 e	28.2 e	49 e
General						
Hardness	mg/L	162	160	--	149	--

Explanations of abbreviations are included on the final page of this table.

QAL069A (Background)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL071A (TDRSA-CWB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/07/18 ^T	Q1 2019 02/19/19 ^T	Q2 2019 05/06/19 ^T	Q3 2019 07/29/19 ^T
Field						
D.O. ¹	ppm	--	11	10	10	9.1
ORP	mV	--	83	165	270	204
pH	SU	8.1-9.1	7.6	7.7	7.7	7.7
Specific Conductance	µS/cm @ 25°C	--	508	431	602	510
Temperature	°C	--	9.8	8.2	8.6	8.9
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1405.80	1405.18	1405.87	1407.96
Metals						
Aluminum	ug/L	200	<50	--	<50.0	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	30.8	--	38.8	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	<5.0	--	<5.0	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	7.9	11.9	13.6
Iron	ug/L	178	29.7	<50.0 e	<50.0	<50.0
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20	<20.0	<20.0	<20.0
Mercury	ng/L	2.00	<0.50 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	<10.0	--
Nickel	ug/L	100	<25	<25.0	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	<0.20	--
Strontium	ug/L	200	82.7	--	101	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	44	125	123	146	141
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	25.1	18.7 e	22 e	19.2 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.31	28.6	27.5 e	33.6 e	21.8 e
Sulfate	mg/L	8.0	7.6	8.6	9.8 e	11.2 e
Major Cations						
Calcium	mg/L	12	70.3	--	84.9 e	--
Magnesium	mg/L	2.0	11.2	--	12.4	--
Potassium	mg/L	2.0	1.5	--	1.8	--
Sodium	mg/L	2.0	16	12 e	19.9 e	15.1 e
General						
Hardness	mg/L	38	222	--	263	--

Explanations of abbreviations are included on the final page of this table.

QAL071A (TDRSA-CWB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL074A (Septic & WWTP)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2018 05/07/18 ^T	Q1 2019 02/19/19 ^T	Q2 2019 05/06/19 ^T	Q3 2019 07/29/19 ^T
Field						
D.O. ¹	ppm	--	10	9.1	10.0	8.4
ORP	mV	--	100	134	208	143
pH	SU	8.4-9.4	8.4	8.3	8.2	8.2
Specific Conductance	µS/cm @ 25°C	--	314	282	309	348
Temperature	°C	--	13.0	7.0	8.0	9.0
Turbidity	NTU	--	<1	<1	<1	<1
Water Elevation	ft MSL	--	1403.51	1403.22	1404.85	1405.95
Metals						
Aluminum	ug/L	200	<50	--	376	--
Antimony	ug/L	5.5	<5.0	--	<5.0	--
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	--	27	--
Beryllium	ug/L	2.5	<1.0	--	<1.0	--
Boron	ug/L	400	<100	<100	<100	<100
Cadmium	ug/L	2.0	<0.50	--	<0.50	--
Chromium	ug/L	20	14.5	--	384	--
Cobalt	ug/L	40	<10	--	<10.0	--
Copper	ug/L	20	<5.0	<5.0	11.9	<5.0
Iron	ug/L	212	88.7	95.2 e	2080	274
Lead	ug/L	4.0	<1.0	--	<1.0	--
Lithium	ug/L	32	<8.0	--	<8.0	--
Manganese	ug/L	80	<20.0	<20.0	24	<20.0
Mercury	ng/L	2.00	<0.500 e	<0.50	<0.50	<0.50
Molybdenum	ug/L	40	<10	--	27.2	--
Nickel	ug/L	100	<25	<25.0	37.3	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	--	0.97	--
Strontium	ug/L	200	<50	--	57	--
Thallium	ug/L	2.0	<2.0	--	<1.0	--
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0	<10.0	<10.0
Major Anions						
Alkalinity, Bicarbonate	mg/L	39	72.3	76.1	83.4	98.6
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e	<2.0
Chloride	mg/L	4.0	52.7	28.4 e	44.8 e	48.1 e
Fluoride	mg/L	0.40	<0.10	--	<0.10 e	--
Nitrogen, Nitrate	mg/L	0.43	0.98	0.92 e	0.93 e	0.84 e
Sulfate	mg/L	8.0	7.3	4.8	7.6 e	8.5 e
Major Cations						
Calcium	mg/L	31	33.7	--	38.1 e	--
Magnesium	mg/L	5.9	6.6	--	7.3	--
Potassium	mg/L	2.0	1.3	--	1.7	--
Sodium	mg/L	3.5	15.7	21.0 e	22.3 e	26.1 e
General						
Hardness	mg/L	103	111	--	125	--

Explanations of abbreviations are included on the final page of this table.

QAL074A (Septic & WWTP)

Table 1
Groundwater Quality Data
Mine Permit Monitoring
Explanation of Abbreviations and Data Qualifiers
Eagle Project

Abbreviation or Data Qualifier	Explanation
1	Many D.O. values are elevated due to well screen configuration and aquifer characteristics and the low-flow sampling method. Super-saturated DO values are rejected (see R data qualifier) as not being representative of true conditions.
a	Estimated value. Duplicate precision for this parameter exceeded quality control limit.
b	Estimated value. Sample received after EPA established hold time expired.
BP	Below pump. Maximum water elevation is shown.
CWB	Contact Water Basin
D	Sample for metal and major cation parameters was filtered and values are dissolved concentrations.
e	Estimated value. The laboratory statement of data qualifications indicates that a quality control limit for this parameter was exceeded.
f	Value should be considered an estimate because field stabilization was not achieved of at least one parameter.
i	Insufficient water for collection of field parameters and/or sample.
J	Estimated value. Reported concentration is between the method detection limit and reporting limit.
NM	Not measured.
p	Pending. Some parameters/locations require additional baseline data to calculate a benchmark.
Q	Quarter.
R	Measured value was rejected based on quality control procedures.
RL	Laboratory reporting limit.
s	Potential false positive value. Compound present in blank sample.
t	Trending. Benchmarks are not proposed for baseline datasets that appear to be trending (using samples collected through Q4 2012) because the data do not represent a random distribution about the baseline mean. Trend analysis is recommended in place of benchmark screening for parameters that appear to be trending.
T	Sample was not filtered and all values are total concentrations.
TDRSA	Temporary Development Rock Storage Area
UMB	Underground Mine Boundary
	Value is equal to or above site-specific benchmark at a compliance monitoring location. An exceedance occurs if there are 2 consecutive sampling events with a value equal to or greater than the benchmark. Color also indicates compliance monitoring location when applied to column headers.
	Value is equal to or above site-specific benchmark at a background monitoring location. Color also indicates background monitoring location when applied to column headers.

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL070A (NCWIB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2017 05/09/17 ^T	Q2 2018 05/08/18 ^T	Q2 2019 05/07/19 ^T
Field					
D.O. ¹	ppm	--	10	13	11
ORP	mV	--	182	74	185
pH	SU	8.3-9.3	8.2	8.4	8.3
Specific Conductance	µS/cm @ 25°C	--	524	499	479
Temperature	°C	--	8.2	9.5	9.0
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1371.21	1372.25	1371.85
Metals					
Aluminum	ug/L	200	<50	<50.0	<50.0
Antimony	ug/L	5.5	<5.0	<5.0	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	28	26.6	27.3
Beryllium	ug/L	2.5	<1.0	<1.0	<1.0
Boron	ug/L	400	<100 e	<100	<100
Cadmium	ug/L	2.0	<0.50	<0.50	<0.50
Chromium	ug/L	20	<5.0	<5.0	<5.0
Cobalt	ug/L	40	<10	<10.0	<10.0
Copper	ug/L	20	<5.0 e	<5.0	<5.0
Iron	ug/L	80	<20	<20.0	<50.0
Lead	ug/L	4.0	<1.0	<1.0	<1.0
Lithium	ug/L	32	<8.0	<8.0	<8.0
Manganese	ug/L	80	<20	<20.0	<20.0
Mercury	ng/L	2.00	<0.500	<0.50 e	0.620
Molybdenum	ug/L	40	<10	<10.0	<10.0
Nickel	ug/L	100	<25	<25.0	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	<0.20	<0.20
Strontium	ug/L	200	74	74	72.9
Thallium	ug/L	2.0	<2.0	<2.0	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10.0	<10.0
Major Anions					
Alkalinity, Bicarbonate	mg/L	42	56	63	75.1
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e
Chloride	mg/L	4.0	120 e	110	107 e
Fluoride	mg/L	0.40	<0.10	<0.10	<0.10 e
Nitrogen, Nitrate	mg/L	0.22	1.2 e	1.3	1.4 e
Sulfate	mg/L	8.0	6.7	7.9	10.3 e
Major Cations					
Calcium	mg/L	11	47	37.8	38.6 e
Magnesium	mg/L	3.0	9.9	7.1	7.0
Potassium	mg/L	2.0	2.0 e	1.8	1.9
Sodium	mg/L	2.0	40 e	46.8	48.4 e
General					
Hardness	mg/L	40	158	124	125

Explanations of abbreviations are included on the final page of this table.

QAL070A (NCWIB)

Table 1
Mine Permit Groundwater Quality Monitoring Data
QAL073A (NCWIB)
Eagle Mine

Parameter	Unit	Benchmark	Q2 2017 05/09/17 ^T	Q2 2018 05/08/18 ^T	Q2 2019 05/07/19 ^T
Field					
D.O. ¹	ppm	--	10	12	11
ORP	mV	--	210	132	220
pH	SU	6.1-7.1	6.5	6.6	6.8
Specific Conductance	µS/cm @ 25°C	--	217	189	178
Temperature	°C	--	8.1	8.6	9.0
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	1381.91	1383.41	1383.74
Metals					
Aluminum	ug/L	200	<50	<50	<50.0
Antimony	ug/L	5.5	<5.0	<5.0	<5.0
Arsenic	ug/L	6.0	<2.0	<2.0	<2.0
Barium	ug/L	80	<20	<20	<20.0
Beryllium	ug/L	2.5	<1.0	<1.0	<1.0
Boron	ug/L	400	<100 e	<100	<100
Cadmium	ug/L	2.0	<0.50	<0.50	<0.50
Chromium	ug/L	20	<5.0	<5.0	<5.0
Cobalt	ug/L	40	<10	<10	<10.0
Copper	ug/L	20	<5.0 e	<5.0	<5.0
Iron	ug/L	132	<20	41.2	95.3
Lead	ug/L	4.0	<1.0	<1.0	<1.0
Lithium	ug/L	32	<8.0	<8.0	<8.0
Manganese	ug/L	80	<20	<20	<20.0
Mercury	ng/L	2.00	<0.500	0.515 e	0.820
Molybdenum	ug/L	40	<10	<10	<10.0
Nickel	ug/L	100	<25	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0	<1.0
Silver	ug/L	0.80	<0.20	<0.20	<0.20
Strontium	ug/L	200	90	99.2	92.7
Thallium	ug/L	2.0	<2.0	<2.0	<1.0
Vanadium	ug/L	4.0	<1.0	<1.0	<1.0
Zinc	ug/L	40	<10 e	<10	<10.0
Major Anions					
Alkalinity, Bicarbonate	mg/L	44	100	88.2	78.6
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0	<2.0 e
Chloride	mg/L	20	3.6 e	2.1	3.4 e
Fluoride	mg/L	0.40	<0.10	<0.10	<0.10 e
Nitrogen, Nitrate	mg/L	0.60	1.5 e	1.2	1.1 e
Sulfate	mg/L	8.0	9.2	9.0	7.5 e
Major Cations					
Calcium	mg/L	9.2	32	26.1	27.7 e
Magnesium	mg/L	2.5	7.1	5.6	5.2
Potassium	mg/L	2.0	1.4 e	1.3	1.3
Sodium	mg/L	2.0	3.0 e	2.5	2.4 e
General					
Hardness	mg/L	33	109	88	91

Explanations of abbreviations are included on the final page of this table.

QAL073A (NCWIB)