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

Parameter	Unit	Benchmark	Q4 2017 11/07/17[T]		Q1 2018 02/15/18[T]	
Field						
D.O.[1]	ppm	--	**1.8**		**0.1**	
ORP	mV	--	**6**		**-398**	
pH	SU	7.8-8.8	**7.2**		**8.2**	
Specific Conductance	µS/cm @ 25°C	--	**124**		**117**	
Temperature	°C	--	**7.3**		**6.5**	
Turbidity	NTU	--	<1		<1	
Water Elevation	ft MSL	--	**1415.64**		**1415.47**	
Metals						
Aluminum	ug/L	200	--		--	
Antimony	ug/L	5.5	--		--	
Arsenic	ug/L	6.5	<2.0		<2.0	
Barium	ug/L	80	--		--	
Beryllium	ug/L	2.5	--		--	
Boron	ug/L	400	<100	e	<100	
Cadmium	ug/L	2.0	--		--	
Chromium	ug/L	20	--		--	
Cobalt	ug/L	40	--		--	
Copper	ug/L	20	<5.0		<5.0	
Iron	ug/L	159	**48.9**	s	**50.5**	e
Lead	ug/L	4.0	--		--	
Lithium	ug/L	32	--		--	
Manganese	ug/L	80	<20	e	<20.0	e
Mercury	ng/L	2.00	<0.500		<0.500	
Molybdenum	ug/L	40	--		--	
Nickel	ug/L	100	<25		<25.0	
Selenium	ug/L	4.0	<1.0		<1.0	
Silver	ug/L	0.80	--		--	
Strontium	ug/L	200	**--**		**--**	
Thallium	ug/L	2.0	**--**		**--**	
Vanadium	ug/L	4.0	<1.0		<1.0	
Zinc	ug/L	40	<10		<10.0	
Major Anions						
Alkalinity, Bicarbonate	mg/L	67	**65.3**		**63.3**	
Alkalinity, Carbonate	mg/L	8.0	<2.0		<2.0	
Chloride	mg/L	4.0	<1.0		<1.0	
Fluoride	mg/L	0.40	--		--	
Nitrogen, Nitrate	mg/L	0.20	<0.050	e	<0.050	a,e
Sulfate	mg/L	8.0	**4.6**	e	**3.7**	
Major Cations						
Calcium	mg/L	16	--		--	
Magnesium	mg/L	3.7	--		--	
Potassium	mg/L	2.0	--		--	
Sodium	mg/L	11	**6.8**		**7.7**	e
General						
Hardness	mg/L	55	--		--	

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

Parameter	Unit	Benchmark	Q4 2017 11/06/17[T]	Q1 2018 02/14/18[T]
Field				
D.O.[1]	ppm	--	**10**	**11**
ORP	mV	--	**30**	**58**
pH	SU	6.1-7.1	**6.3**	**6.5**
Specific Conductance	µS/cm @ 25°C	--	**225**	**232**
Temperature	°C	--	**8.0**	**8.3**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1417.73**	**1418.02**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	86	**--**	**--**
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	**--**	**--**
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	105	**42.1** s	**21.5** e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	24	**42.2**	**58.6**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	**37.8**	**44.1**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.74** e	**0.80** a,e
Sulfate	mg/L	8.0	**4.7** e	**6.1**
Major Cations				
Calcium	mg/L	48	--	--
Magnesium	mg/L	8.1	--	--
Potassium	mg/L	3.7	--	--
Sodium	mg/L	2.0	**23.9**	**19.6** e
General				
Hardness	mg/L	153	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]		Q1 2018 02/13/18[T]	
Field						
D.O.[1]	ppm	--	**11**		**11**	
ORP	mV	--	**21**		**79**	
pH	SU	6.4-7.4	**6.7**		**7.1**	
Specific Conductance	µS/cm @ 25°C	--	**55**		**50**	
Temperature	°C	--	**7.5**		**6.9**	
Turbidity	NTU	--	<1		<1	
Water Elevation	ft MSL	--	**1416.50**		**1417.37**	
Metals						
Aluminum	ug/L	200	--		--	
Antimony	ug/L	5.5	--		--	
Arsenic	ug/L	6.0	<2.0		<2.0	
Barium	ug/L	80	--		--	
Beryllium	ug/L	2.5	--		--	
Boron	ug/L	400	<100	e	<100	
Cadmium	ug/L	2.0	--		--	
Chromium	ug/L	20	--		--	
Cobalt	ug/L	40	--		--	
Copper	ug/L	20	<5.0		<5.0	
Iron	ug/L	126	**20**	s	<20.0	e
Lead	ug/L	4.0	--		--	
Lithium	ug/L	32	--		--	
Manganese	ug/L	80	<20	e	<20.0	e
Mercury	ng/L	2.00	<0.500		<0.500	
Molybdenum	ug/L	40	--		--	
Nickel	ug/L	100	<25		<25.0	
Selenium	ug/L	4.0	<1.0		<1.0	
Silver	ug/L	0.80	--		--	
Strontium	ug/L	200	--		--	
Thallium	ug/L	2.0	--		--	
Vanadium	ug/L	4.0	<1.0		<1.0	
Zinc	ug/L	40	<10		<10.0	
Major Anions						
Alkalinity, Bicarbonate	mg/L	25	**25.1**		**22.8**	
Alkalinity, Carbonate	mg/L	8.0	<2.0		<2.0	
Chloride	mg/L	4.0	<1.0		<1.0	
Fluoride	mg/L	0.40	--		--	
Nitrogen, Nitrate	mg/L	1.1	**0.34**	e	**0.38**	a,e
Sulfate	mg/L	8.0	**2.1**	e	**2.0**	
Major Cations						
Calcium	mg/L	8.5	--		--	
Magnesium	mg/L	2.0	--		--	
Potassium	mg/L	2.0	--		--	
Sodium	mg/L	2.0	**0.92**		**0.84**	e
General						
Hardness	mg/L	28	**--**		**--**	

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]		Q1 2018 02/13/18[T]	
Field						
D.O.[1]	ppm	--	**11**		**11**	
ORP	mV	--	**-20**		**31**	
pH	SU	8.5-9.5	**8.7**		**9.1**	
Specific Conductance	µS/cm @ 25°C	--	**67**		**63**	
Temperature	°C	--	**7.2**		**6.9**	
Turbidity	NTU	--	<1		<1	
Water Elevation	ft MSL	--	**1416.37**		**1417.26**	
Metals						
Aluminum	ug/L	200	--		--	
Antimony	ug/L	5.5	--		--	
Arsenic	ug/L	6.0	<2.0		<2.0	
Barium	ug/L	80	--		--	
Beryllium	ug/L	2.5	--		--	
Boron	ug/L	400	<100	e	<100	
Cadmium	ug/L	2.0	--		--	
Chromium	ug/L	20	--		--	
Cobalt	ug/L	40	--		--	
Copper	ug/L	20	<5.0		<5.0	
Iron	ug/L	56	**26**	s	**41.2**	e
Lead	ug/L	4.0	--		--	
Lithium	ug/L	32	--		--	
Manganese	ug/L	80	<20	e	<20.0	e
Mercury	ng/L	2.00	<0.500		<0.500	
Molybdenum	ug/L	40	--		--	
Nickel	ug/L	100	<25		<25.0	
Selenium	ug/L	4.0	<1.0		<1.0	
Silver	ug/L	0.80	--		--	
Strontium	ug/L	200	--		--	
Thallium	ug/L	2.0	--		--	
Vanadium	ug/L	4.0	**1.2**		**1.2**	
Zinc	ug/L	40	<10		<10.0	
Major Anions						
Alkalinity, Bicarbonate	mg/L	36	**25.1**		**24.2**	
Alkalinity, Carbonate	mg/L	12	**5.0**		**4.8**	
Chloride	mg/L	4.0	<1.0		<1.0	
Fluoride	mg/L	0.40	--		--	
Nitrogen, Nitrate	mg/L	0.20	**0.11**	e	**0.13**	a,e
Sulfate	mg/L	8.0	**2.0**	e	<2.0	
Major Cations						
Calcium	mg/L	10	--		--	
Magnesium	mg/L	2.0	--		--	
Potassium	mg/L	2.0	--		--	
Sodium	mg/L	4.5	**1.7**		**1.6**	e
General						
Hardness	mg/L	33	--		--	

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

Parameter	Unit	Benchmark	Q4 2017 11/14/17[T]		Q1 2018 02/06/18[T]	
Field						
D.O.[1]	ppm	--	**5.0**		**5.6**	
ORP	mV	--	**-23**		**24**	
pH	SU	8.2-9.2	**8.4**		**8.7**	
Specific Conductance	µS/cm @ 25°C	--	**98**		**98**	
Temperature	°C	--	**7.1**		**7.3**	
Turbidity	NTU	--	<1		<1	
Water Elevation	ft MSL	--	**1412.57**		**1412.76**	
Metals						
Aluminum	ug/L	200	--		--	
Antimony	ug/L	5.5	--		--	
Arsenic	ug/L	6.5	**2.9**		**2.7**	
Barium	ug/L	80	--		--	
Beryllium	ug/L	2.5	--		--	
Boron	ug/L	400	<100	e	<100	
Cadmium	ug/L	2.0	--		--	
Chromium	ug/L	20	--		--	
Cobalt	ug/L	40	--		--	
Copper	ug/L	20	<5.0		<5.0	
Iron	ug/L	137	**27.3**	s	<20.0	e
Lead	ug/L	4.0	--		--	
Lithium	ug/L	32	--		--	
Manganese	ug/L	80	<20	e	<20.0	e
Mercury	ng/L	2.00	<0.500		<0.500	
Molybdenum	ug/L	40	--		--	
Nickel	ug/L	100	<25		<25.0	
Selenium	ug/L	4.0	<1.0		<1.0	
Silver	ug/L	0.80	--		--	
Strontium	ug/L	200	--		--	
Thallium	ug/L	2.0	--		--	
Vanadium	ug/L	4.0	**4.1**		**3.6**	
Zinc	ug/L	40	<10		<10.0	
Major Anions						
Alkalinity, Bicarbonate	mg/L	52	**44.2**		**37.7**	
Alkalinity, Carbonate	mg/L	14	<2.0		**4.0**	
Chloride	mg/L	4.0	<1.0		**1.1**	
Fluoride	mg/L	0.40	--		--	
Nitrogen, Nitrate	mg/L	0.20	**0.14**	e	**0.13**	a,e
Sulfate	mg/L	8.0	**5.6**	e	**7.0**	
Major Cations						
Calcium	mg/L	12	**--**		**--**	
Magnesium	mg/L	2.7	**--**		**--**	
Potassium	mg/L	2.0	**--**		**--**	
Sodium	mg/L	12	**3.6**		**3.3**	e
General						
Hardness	mg/L	42	**--**		**--**	

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

Parameter	Unit	Benchmark	Q4 2017 11/14/17[T]	Q1 2018 02/06/18[T]
Field				
D.O.[1]	ppm	--	**12**	**11**
ORP	mV	--	**113**	**167**
pH	SU	6.2-7.2	**6.9**	**4.8**
Specific Conductance	µS/cm @ 25°C	--	**163**	**118**
Temperature	°C	--	**7.2**	**5.3**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1416.43**	**1417.00**
Metals				
Aluminum	ug/L	236	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	368	**66**	**232** e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	**0.843**	**1.03**
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	114	**72.4**	**58.1**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	**1.1**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.73	**0.89** e	**0.99** a,e
Sulfate	mg/L	8.0	**2.1** e	**2.3**
Major Cations				
Calcium	mg/L	40.0	--	--
Magnesium	mg/L	5.9	--	--
Potassium	mg/L	2.0	--	--
Sodium	mg/L	2.4	**1.4**	**0.99** e
General				
Hardness	mg/L	124	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/14/17[T]	Q1 2018 02/06/18[T]
Field				
D.O.[1]	ppm	--	**13**	**11**
ORP	mV	--	**80**	**46**
pH	SU	8.4-9.4	**8.2**	**8.7**
Specific Conductance	µS/cm @ 25°C	--	**68**	**65**
Temperature	°C	--	**7.3**	**7.0**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1409.38**	**1409.60**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	<20	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	31	**29.5**	**26.3**
Alkalinity, Carbonate	mg/L	8.0	**4.0**	**4.0**
Chloride	mg/L	4.0	<1.0	**1.1**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.095** e	**0.12** a,e
Sulfate	mg/L	8.0	<2.0 e	**2.1**
Major Cations				
Calcium	mg/L	13	**--**	**--**
Magnesium	mg/L	2.4	**--**	**--**
Potassium	mg/L	2.0	--	--
Sodium	mg/L	2.0	**0.71**	**0.59** e
General				
Hardness	mg/L	43	**--**	**--**

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]	Q1 2018 02/13/18[T]
Field				
D.O.[1]	ppm	--	**0.1**	<0.1
ORP	mV	--	**-178**	**-138**
pH	SU	8.1-9.1	**8.6**	**8.9**
Specific Conductance	µS/cm @ 25°C	--	**123**	**116**
Temperature	°C	--	**7.1**	**6.8**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1409.07**	**1409.54**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	7.8	**6.7**	**7.2**
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	<20	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	**--**	**--**
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	91	**54.3**	**54.8**
Alkalinity, Carbonate	mg/L	8.0	**4.0**	<2.0
Chloride	mg/L	4.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 a,e
Sulfate	mg/L	8.6	**7.8** e	**7.6**
Major Cations				
Calcium	mg/L	17	**--**	**--**
Magnesium	mg/L	4.3	**--**	**--**
Potassium	mg/L	2.0	**--**	**--**
Sodium	mg/L	2.0	**2.0**	**1.8** e
General				
Hardness	mg/L	60	**--**	**--**

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]		Q1 2018 02/14/18[T]	
Field						
D.O.[1]	ppm	--	**1.8**		**0.1**	
ORP	mV	--	**-53**		**-563**	
pH	SU	8.3-9.3	**9.9**		**10.9**	
Specific Conductance	µS/cm @ 25°C	--	**86**		**79**	
Temperature	°C	--	**7.7**		**7.8**	
Turbidity	NTU	--	<1		<1	
Water Elevation	ft MSL	--	**1414.79**		**1414.94**	
Metals						
Aluminum	ug/L	200	--		--	
Antimony	ug/L	5.5	--		--	
Arsenic	ug/L	6.0	**2.1**		**2.2**	
Barium	ug/L	80	--		--	
Beryllium	ug/L	2.5	--		--	
Boron	ug/L	400	<100	e	<100	
Cadmium	ug/L	2.0	--		--	
Chromium	ug/L	20	--		--	
Cobalt	ug/L	40	--		--	
Copper	ug/L	20	<5.0		<5.0	
Iron	ug/L	80	<20		**47.2**	e
Lead	ug/L	4.0	--		--	
Lithium	ug/L	32	--		--	
Manganese	ug/L	80	<20	e	<20.0	e
Mercury	ng/L	2.00	<0.500		<0.500	
Molybdenum	ug/L	40	--		--	
Nickel	ug/L	100	<25		<25.0	
Selenium	ug/L	4.0	<1.0		<1.0	
Silver	ug/L	0.80	--		--	
Strontium	ug/L	200	**--**		**--**	
Thallium	ug/L	2.0	--		--	
Vanadium	ug/L	4.0	<1.0		<1.0	
Zinc	ug/L	40	<10		<10.0	
Major Anions						
Alkalinity, Bicarbonate	mg/L	64	**5.5**		**5.6**	s
Alkalinity, Carbonate	mg/L	8.0	**20.1**		**22.2**	
Chloride	mg/L	4.0	<1.0		**1.2**	
Fluoride	mg/L	0.40	--		--	
Nitrogen, Nitrate	mg/L	0.20	<0.050	e	<0.050	a,e
Sulfate	mg/L	24	**8.7**	e	**7.6**	
Major Cations						
Calcium	mg/L	17	**--**		**--**	
Magnesium	mg/L	4.0	**--**		**--**	
Potassium	mg/L	2.0	**--**		**--**	
Sodium	mg/L	2.6	**2.2**		**2.3**	e
General						
Hardness	mg/L	58	**--**		**--**	

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

Parameter	Unit	Benchmark	Q4 2017 11/7/17[T]	Q1 2018 02/12/18[T]
Field				
D.O.[1]	ppm	--	**12**	**11**
ORP	mV	--	**30**	**31**
pH	SU	8.1-9.1	**8.9**	**8.8**
Specific Conductance	µS/cm @ 25°C	--	**81**	**80**
Temperature	°C	--	**7.7**	**7.6**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1404.67**	**1404.83**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	7.2	**4.4**	**4.4**
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	<20	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	**1.1**	**1.2**
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	62	**39.5**	**29.6**
Alkalinity, Carbonate	mg/L	8.0	<2.0	**8.1**
Chloride	mg/L	4.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.20	**0.23** e	**0.26** a,e
Sulfate	mg/L	8.0	**3.4** e	<2.0
Major Cations				
Calcium	mg/L	17	**--**	**--**
Magnesium	mg/L	4.2	**--**	**--**
Potassium	mg/L	2.0	**--**	**--**
Sodium	mg/L	2.1	**0.80**	**0.74** e
General				
Hardness	mg/L	61	**--**	**--**

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

Parameter	Unit	Benchmark	Q4 2017 11/7/17[T]	Q1 2018 02/12/18[T]
Field				
D.O.[1]	ppm	--	**10**	**11**
ORP	mV	--	**-54**	**45**
pH	SU	8.1-9.1	**8.4**	**8.9**
Specific Conductance	µS/cm @ 25°C	--	**114**	**108**
Temperature	°C	--	**7.3**	**7.6**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1406.07**	**1406.26**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	<20	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	40	**58.3**	**54.5**
Alkalinity, Carbonate	mg/L	8.0	<2.0	**2.0**
Chloride	mg/L	4.0	**1.0**	**1.2**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.27	**0.32** e	**0.33** a,e
Sulfate	mg/L	8.0	<2.0 e	<2.0
Major Cations				
Calcium	mg/L	15	--	--
Magnesium	mg/L	2.2	--	--
Potassium	mg/L	2.0	--	--
Sodium	mg/L	2.0	**0.85**	**0.82** e
General				
Hardness	mg/L	37	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/7/17[T]	Q1 2018 02/12/18[T]
Field				
D.O.[1]	ppm	--	**8.7**	**8.6**
ORP	mV	--	**-45**	**39**
pH	SU	8.3-9.3	**7.6**	**8.0**
Specific Conductance	µS/cm @ 25°C	--	**478**	**477**
Temperature	°C	--	**7.5**	**7.9**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1407.37**	**1407.59**
Metals				
Aluminum	ug/L	200	**--**	**--**
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	**--**	**--**
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	**22.3** s	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	**--**	**--**
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	48	**158**	**170**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	**55.6**	**59.1**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.41	**0.72** e	**0.83** a,e
Sulfate	mg/L	8.0	**2.3** e	**2.3**
Major Cations				
Calcium	mg/L	12	--	--
Magnesium	mg/L	2.2	--	--
Potassium	mg/L	2.0	--	--
Sodium	mg/L	2.0	**18.6**	**21.8** e
General				
Hardness	mg/L	40	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]	Q1 2018 02/12/18[T]
Field				
D.O.[1]	ppm	--	**8.9**	**8.1**
ORP	mV	--	**-35**	**77**
pH	SU	8.1-9.1	**7.7**	**7.8**
Specific Conductance	µS/cm @ 25°C	--	**427**	**486**
Temperature	°C	--	**8.0**	**7.8**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1401.50**	**1401.26**
Metals				
Aluminum	ug/L	200	**--**	**--**
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	**20.4** s	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	**--**	**--**
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	42	**167**	**165**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	**38.3**	**43.0**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.29	**0.59** e	**0.70** a,e
Sulfate	mg/L	8.0	**2.5** e	**2.3**
Major Cations				
Calcium	mg/L	12	--	--
Magnesium	mg/L	2.0	--	--
Potassium	mg/L	2.0	--	--
Sodium	mg/L	2.0	**8.2**	**9.5** e
General				
Hardness	mg/L	40	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]		Q1 2018 02/14/18[T]	
Field						
D.O.[1]	ppm	--	**0.1**		**0.1**	
ORP	mV	--	**-427**		**-520**	
pH	SU	8.0-9.0	**9.2**		**9.5**	
Specific Conductance	µS/cm @ 25°C	--	**149**		**141**	
Temperature	°C	--	**6.9**		**6.9**	
Turbidity	NTU	--	<1		<1	
Water Elevation	ft MSL	--	**1416.36**		**1415.94**	
Metals						
Aluminum	ug/L	200	**--**		**--**	
Antimony	ug/L	5.5	--		--	
Arsenic	ug/L	6.0	<2.0		<2.0	
Barium	ug/L	80	--		--	
Beryllium	ug/L	2.5	--		--	
Boron	ug/L	400	<100	e	<100	
Cadmium	ug/L	2.0	--		--	
Chromium	ug/L	20	--		--	
Cobalt	ug/L	40	--		--	
Copper	ug/L	20	<5.0		<5.0	
Iron	ug/L	80	**39**	s	**25.7**	e
Lead	ug/L	4.0	--		--	
Lithium	ug/L	32	--		--	
Manganese	ug/L	80	<20	e	<20.0	e
Mercury	ng/L	2.00	<0.500		<0.500	
Molybdenum	ug/L	40	--		--	
Nickel	ug/L	100	<25		<25.0	
Selenium	ug/L	4.0	<1.0		<1.0	
Silver	ug/L	0.80	--		--	
Strontium	ug/L	200	**--**		**--**	
Thallium	ug/L	2.0	--		--	
Vanadium	ug/L	4.0	<1.0		<1.0	
Zinc	ug/L	40	<10		<10.0	
Major Anions						
Alkalinity, Bicarbonate	mg/L	82	**77.4**		**77.8**	
Alkalinity, Carbonate	mg/L	8.0	<2.0		<2.0	
Chloride	mg/L	4.2	**2.4**		**2.2**	
Fluoride	mg/L	0.40	--		--	
Nitrogen, Nitrate	mg/L	0.20	<0.050	e	<0.050	a,e
Sulfate	mg/L	8.0	<2.0	e	<2.0	
Major Cations						
Calcium	mg/L	22	--		--	
Magnesium	mg/L	3.3	--		--	
Potassium	mg/L	2.0	--		--	
Sodium	mg/L	6.9	**4.1**		**3.8**	e
General						
Hardness	mg/L	51	--		--	

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

Parameter	Unit	Benchmark	Q4 2017 11/7/17[T]	Q1 2018 02/15/18[T]
Field				
D.O.[1]	ppm	--	**0.1**	**<0.1**
ORP	mV	--	**-160**	**-353**
pH	SU	7.9-8.9	**8.5**	**9.0**
Specific Conductance	µS/cm @ 25°C	--	**152**	**145**
Temperature	°C	--	**6.9**	**6.0**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1416.53**	**1416.19**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.6	**3.2**	**3.2**
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	**70.6**	**48.4** e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	**--**	**--**
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	86	**85.9**	**82.4**
Alkalinity, Carbonate	mg/L	8.7	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	**1.1**
Fluoride	mg/L	0.40	**--**	**--**
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 a,e
Sulfate	mg/L	8.0	<2.0 e	<2.0
Major Cations				
Calcium	mg/L	14	--	--
Magnesium	mg/L	4.8	--	--
Potassium	mg/L	3.0	--	--
Sodium	mg/L	12	**9.5**	**10.7** e
General				
Hardness	mg/L	53	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[D]		Q1 2018 02/14/18[D]	
Field						
D.O.[1]	ppm	--	**6.6**		**2.6**	
ORP	mV	--	**23**		**22**	
pH	SU	8.7-9.7	**9.0**		**8.7**	
Specific Conductance	µS/cm @ 25°C	--	**141**		**156**	
Temperature	°C	--	**6.3**		**6.1**	
Turbidity	NTU	--	**119**		**47**	
Water Elevation	ft MSL	--	**1415.65**		**1415.90**	
Metals						
Aluminum	ug/L	557	--		--	
Antimony	ug/L	5.5	--		--	
Arsenic	ug/L	8.9	**9.4**		**7.9**	
Barium	ug/L	80	--		--	
Beryllium	ug/L	2.5	--		--	
Boron	ug/L	400	<100	e	<100	
Cadmium	ug/L	2.0	--		--	
Chromium	ug/L	20	--		--	
Cobalt	ug/L	40	--		--	
Copper	ug/L	20	<5.0		<5.0	
Iron	ug/L	288	<20		<20.0	e
Lead	ug/L	4.0	--		--	
Lithium	ug/L	32	--		--	
Manganese	ug/L	80	<20	e	<20.0	e
Mercury	ng/L	2.00	**0.601**		**0.343**	
Molybdenum	ug/L	40	--		--	
Nickel	ug/L	100	<25		<25.0	
Selenium	ug/L	4.0	<1.0		<1.0	
Silver	ug/L	0.80	--		--	
Strontium	ug/L	367	**--**		**--**	
Thallium	ug/L	2.0	--		--	
Vanadium	ug/L	4.0	**1.4**		**1.2**	
Zinc	ug/L	40	<10		<10.0	
Major Anions						
Alkalinity, Bicarbonate	mg/L	61	**60.3**		**56.1**	
Alkalinity, Carbonate	mg/L	52	**6.0**		**8.1**	
Chloride	mg/L	4.0	**1.3**		**1.2**	
Fluoride	mg/L	0.40	--		--	
Nitrogen, Nitrate	mg/L	0.20	<0.050	e	<0.050	a,e
Sulfate	mg/L	11	**14.3**	e	**9.8**	
Major Cations						
Calcium	mg/L	58	--		--	
Magnesium	mg/L	2.9	--		--	
Potassium	mg/L	2.6	--		--	
Sodium	mg/L	8.0	**14.8**		**14.3**	e
General						
Hardness	mg/L	146	--		--	

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

Parameter	Unit	Benchmark	Q4 2017 11/7/17[T]	Q1 2018 02/12/18[T]
Field				
D.O.[1]	ppm	--	**8.6**	**8.6**
ORP	mV	--	**9**	**81**
pH	SU	5.6-6.6	**6.2**	**6.3**
Specific Conductance	µS/cm @ 25°C	--	**945**	**770**
Temperature	°C	--	**8.0**	**7.6**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1414.40**	**1414.99**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	**--**	**--**
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	**2290**	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	**1.79**	**1.23**
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	**1.6**
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	**--**	**--**
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	51	**57.3**	**60.6**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	**240**	**199**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.25	**2.0** e	**2.1** a,e
Sulfate	mg/L	8.4	**17.7** e	**15.2**
Major Cations				
Calcium	mg/L	8.2	--	--
Magnesium	mg/L	2.0	--	--
Potassium	mg/L	2.0	--	--
Sodium	mg/L	2.0	**157**	**132** e
General				
Hardness	mg/L	26	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]	Q1 2018 02/13/18[T]
Field				
D.O.[1]	ppm	--	**13**	**11**
ORP	mV	--	**128**	**151**
pH	SU	6.2-7.2	**6.9**	**7.1**
Specific Conductance	µS/cm @ 25°C	--	**33**	**36**
Temperature	°C	--	**7.4**	**7.4**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1422.02**	**1422.85**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	80	<20	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	35	**15.6**	**14.6**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	<0.050 a,e
Sulfate	mg/L	8.0	<2.0 e	<2.0
Major Cations				
Calcium	mg/L	6.7	**--**	**--**
Magnesium	mg/L	2.0	**--**	**--**
Potassium	mg/L	2.0	**--**	**--**
Sodium	mg/L	2.0	**0.69**	**0.71** e
General				
Hardness	mg/L	21	**--**	**--**

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]	Q1 2018 02/13/18[T]
Field				
D.O.[1]	ppm	--	**12**	**11**
ORP	mV	--	**56**	**103**
pH	SU	8.4-9.4	**9.1**	**8.5**
Specific Conductance	µS/cm @ 25°C	--	**63**	**67**
Temperature	°C	--	**7.1**	**7.1**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1413.44**	**1412.64**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	184	<20	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	**1.0**	**1.1**
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	30	**30.9**	**28.6**
Alkalinity, Carbonate	mg/L	9.9	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.20	<0.050 e	**0.052** a,e
Sulfate	mg/L	8.0	**2.3** e	**2.5**
Major Cations				
Calcium	mg/L	9.4	--	--
Magnesium	mg/L	2.0	--	--
Potassium	mg/L	2.0	--	--
Sodium	mg/L	2.0	**0.91**	**0.81** e
General				
Hardness	mg/L	31	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]	Q1 2018 02/13/18[T]
Field				
D.O.[1]	ppm	--	**2.3**	**1.9**
ORP	mV	--	**24**	**40**
pH	SU	8.0-9.0	**8.2**	**8.8**
Specific Conductance	µS/cm @ 25°C	--	**123**	**131**
Temperature	°C	--	**7.4**	**5.3**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1413.49**	**1413.90**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	7.2	**4.8**	**5.0**
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	119	<20	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.12	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	**2.0**	**2.4**
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	67	**68.3**	**56.3**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	<1.0	<1.0
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.21	<0.050 e	<0.050 a,e
Sulfate	mg/L	10	**5.5** e	**5.5**
Major Cations				
Calcium	mg/L	16	--	--
Magnesium	mg/L	3.9	--	--
Potassium	mg/L	2.0	--	--
Sodium	mg/L	6.1	**4.7**	**4.2** e
General				
Hardness	mg/L	52	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/6/17[T]		Q1 2018 02/14/18[T]	
Field						
D.O.[1]	ppm	--	**5.6**		**5.0**	
ORP	mV	--	**-20**		**105**	
pH	SU	7.8-8.8	**6.8**		**6.7**	
Specific Conductance	µS/cm @ 25°C	--	**1181**		**728**	
Temperature	°C	--	**8.2**		**8.1**	
Turbidity	NTU	--	<1		<1	
Water Elevation	ft MSL	--	**1383.07**		**1383.26**	
Metals						
Aluminum	ug/L	200	--		--	
Antimony	ug/L	5.5	--		--	
Arsenic	ug/L	6.0	<2.0		<2.0	
Barium	ug/L	80	--		--	
Beryllium	ug/L	2.5	--		--	
Boron	ug/L	400	<100	e	<100	
Cadmium	ug/L	2.0	--		--	
Chromium	ug/L	20	--		--	
Cobalt	ug/L	40	--		--	
Copper	ug/L	20	<5.0		<5.0	
Iron	ug/L	80	**42.2**	s	**37.0**	e
Lead	ug/L	4.0	--		--	
Lithium	ug/L	32	--		--	
Manganese	ug/L	80	<20	e	<20.0	e
Mercury	ng/L	2.00	**7.65**		**2.25**	
Molybdenum	ug/L	40	--		--	
Nickel	ug/L	100	<25		<25.0	
Selenium	ug/L	4.0	<1.0		<1.0	
Silver	ug/L	0.80	--		--	
Strontium	ug/L	200	--		--	
Thallium	ug/L	2.0	--		--	
Vanadium	ug/L	4.0	<1.0		<1.0	
Zinc	ug/L	40	<10		<10.0	
Major Anions						
Alkalinity, Bicarbonate	mg/L	138	**147**		**156**	
Alkalinity, Carbonate	mg/L	8.0	<2.0		<2.0	
Chloride	mg/L	4.0	**277**		**111**	
Fluoride	mg/L	0.40	--		--	
Nitrogen, Nitrate	mg/L	0.57	**0.76**	e	**0.87**	a,e
Sulfate	mg/L	8.0	**10.8**	e	**9.8**	
Major Cations						
Calcium	mg/L	35	--		--	
Magnesium	mg/L	18	--		--	
Potassium	mg/L	2.0	--		--	
Sodium	mg/L	2.0	**99.3**		**70.2**	e
General						
Hardness	mg/L	162	**--**		**--**	

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

Parameter	Unit	Benchmark	Q4 2017 11/7/17[T]	Q1 2018 02/12/18[T]
Field				
D.O.[1]	ppm	--	**11**	**9.5**
ORP	mV	--	**41**	**102**
pH	SU	8.1-9.1	**8.0**	**7.8**
Specific Conductance	µS/cm @ 25°C	--	**583**	**550**
Temperature	°C	--	**8.0**	**8.0**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1406.30**	**1405.66**
Metals				
Aluminum	ug/L	200	--	--
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	**--**	**--**
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	178	<20	<20.0 e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	<0.500	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	<25.0
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	**--**	**--**
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	44	**147**	**140**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	**23.2**	**17.2**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.31	**31.3** e	**27.4** a,e
Sulfate	mg/L	8.0	**8.6** e	**6.6**
Major Cations				
Calcium	mg/L	12	--	--
Magnesium	mg/L	2.0	--	--
Potassium	mg/L	2.0	--	--
Sodium	mg/L	2.0	**17.3**	**14.0** e
General				
Hardness	mg/L	38	--	--

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

Parameter	Unit	Benchmark	Q4 2017 11/7/17[T]	Q1 2018 02/12/18[T]
Field				
D.O.[1]	ppm	--	**13**	**8.8**
ORP	mV	--	**35**	**55**
pH	SU	8.4-9.4	**8.6**	**8.7**
Specific Conductance	µS/cm @ 25°C	--	**272**	**304**
Temperature	°C	--	**4.4**	**6.4**
Turbidity	NTU	--	<1	<1
Water Elevation	ft MSL	--	**1405.41**	**1404.94**
Metals				
Aluminum	ug/L	200	**--**	**--**
Antimony	ug/L	5.5	--	--
Arsenic	ug/L	6.0	<2.0	<2.0
Barium	ug/L	80	--	--
Beryllium	ug/L	2.5	--	--
Boron	ug/L	400	<100 e	<100
Cadmium	ug/L	2.0	--	--
Chromium	ug/L	20	--	--
Cobalt	ug/L	40	--	--
Copper	ug/L	20	<5.0	<5.0
Iron	ug/L	212	**57.1** s	**304** e
Lead	ug/L	4.0	--	--
Lithium	ug/L	32	--	--
Manganese	ug/L	80	<20 e	<20.0 e
Mercury	ng/L	2.00	**1.14**	<0.500
Molybdenum	ug/L	40	--	--
Nickel	ug/L	100	<25	**33.9**
Selenium	ug/L	4.0	<1.0	<1.0
Silver	ug/L	0.80	--	--
Strontium	ug/L	200	--	--
Thallium	ug/L	2.0	--	--
Vanadium	ug/L	4.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10.0
Major Anions				
Alkalinity, Bicarbonate	mg/L	39	**69.3**	**66.7**
Alkalinity, Carbonate	mg/L	8.0	<2.0	<2.0
Chloride	mg/L	4.0	**43.3**	**45.3**
Fluoride	mg/L	0.40	--	--
Nitrogen, Nitrate	mg/L	0.43	**0.96** e	**1.0** a,e
Sulfate	mg/L	8.0	**7.8** e	**7.3**
Major Cations				
Calcium	mg/L	31	**--**	**--**
Magnesium	mg/L	5.9	**--**	**--**
Potassium	mg/L	2.0	**--**	**--**
Sodium	mg/L	3.5	**13.5**	**14.8**
General				
Hardness	mg/L	103	**--**	**--**

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.
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 2015 05/13/15[T]	Q2 2016 05/17/16[T]	Q2 2017 05/09/17[T]
Field					
D.O.[1]	ppm	--	**11**	**10**	**10**
ORP	mV	--	**167**	**55**	**182**
pH	SU	8.3-9.3	**8.6**	**8.5**	**8.2**
Specific Conductance	µS/cm @ 25°C	--	**188**	**440**	**524**
Temperature	°C	--	**9.0**	**9.0**	**8.2**
Turbidity	NTU	--	<1	<1	<1
Water Elevation	ft MSL	--	**1370.25**	**1369.67**	**1371.21**
Metals					
Aluminum	ug/L	200	<50	<50	<50
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	**24**	**28**
Beryllium	ug/L	2.5	<1.0	<1.0	<1.0
Boron	ug/L	400	<100	<100	<100 e
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
Copper	ug/L	20	<5.0	<5.0	<5.0 e
Iron	ug/L	80	<20	**75**	<20
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
Mercury	ng/L	2.00	**0.680** e,s	**0.535**	<0.500
Molybdenum	ug/L	40	<10	<10	<10
Nickel	ug/L	100	<25	<25	<25
Selenium	ug/L	4.0	<1.0	<1.0 e	<1.0
Silver	ug/L	0.80	<0.20	<0.20	<0.20
Strontium	ug/L	200	**59**	**77**	**74**
Thallium	ug/L	2.0	<2.0	<2.0	<2.0
Vanadium	ug/L	4.0	<2.0	<1.0	<1.0
Zinc	ug/L	40	<10	<10	<10 e
Major Anions					
Alkalinity, Bicarbonate	mg/L	42	**40**	**45**	**56**
Alkalinity, Carbonate	mg/L	8.0	<2.0 e	<2.0	<2.0
Chloride	mg/L	4.0	**58**	**120**	**120** e
Fluoride	mg/L	0.40	<0.10	<0.10	<0.10
Nitrogen, Nitrate	mg/L	0.22	**0.98** e	**1.0**	**1.2** e
Sulfate	mg/L	8.0	**3.5**	**4.3**	**6.7**
Major Cations					
Calcium	mg/L	11	**31**	**51** e	**47**
Magnesium	mg/L	3.0	**6.4**	**9.7**	**9.9**
Potassium	mg/L	2.0	**1.2**	**1.8**	**2.0** e
Sodium	mg/L	2.0	**5.5**	**19**	**40** e
General					
Hardness	mg/L	40	**104**	**167**	**158**

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

Parameter	Unit	Benchmark	Q2 2015 05/13/15[T]		Q2 2016 05/17/16[T]		Q2 2017 05/09/17[T]	
Field								
D.O.[1]	ppm	--	**11**		**11**		**10**	
ORP	mV	--	**167**		**102**		**210**	
pH	SU	6.1-7.1	**6.8**		**6.7**		**6.5**	
Specific Conductance	µS/cm @ 25°C	--	**160**		**207**		**217**	
Temperature	°C	--	**10**		**10**		**8.1**	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	**1382.45**		**1381.68**		**1381.91**	
Metals								
Aluminum	ug/L	200	**110**		<50		<50	
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	
Beryllium	ug/L	2.5	<1.0		<1.0		<1.0	
Boron	ug/L	400	<100		<100		<100	e
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	
Copper	ug/L	20	<5.0		<5.0		<5.0	e
Iron	ug/L	132	**130**		**74**		<20	
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	
Mercury	ng/L	2.00	**0.942**	e	**0.632**		<0.500	
Molybdenum	ug/L	40	<10		<10		<10	
Nickel	ug/L	100	<25		<25		<25	
Selenium	ug/L	4.0	<1.0		<1.0	e	<1.0	
Silver	ug/L	0.80	<0.20		<0.20		<0.20	
Strontium	ug/L	200	**94**		**98**		**90**	
Thallium	ug/L	2.0	<2.0		<2.0		<2.0	
Vanadium	ug/L	4.0	<2.0		<1.0		<1.0	
Zinc	ug/L	40	<10		<10		<10	e
Major Anions								
Alkalinity, Bicarbonate	mg/L	44	**97**		**100**		**100**	
Alkalinity, Carbonate	mg/L	8.0	<2.0	e	<2.0		<2.0	
Chloride	mg/L	20	**8.4**		**5.6**		**3.6**	e
Fluoride	mg/L	0.40	<0.10		<0.10		<0.10	
Nitrogen, Nitrate	mg/L	0.60	**2.0**	e	**1.6**		**1.5**	e
Sulfate	mg/L	8.0	**7.9**		**9.4**		**9.2**	
Major Cations								
Calcium	mg/L	9.2	**32**		**34**	e	**32**	
Magnesium	mg/L	2.5	**7.0**		**7.5**		**7.1**	
Potassium	mg/L	2.0	**1.3**		**1.3**		**1.4**	e
Sodium	mg/L	2.0	**1.8**		**2.8**		**3.0**	e
General								
Hardness	mg/L	33	**109**		**116**		**109**	