

2016
Mine Permit Water Quality Monitoring Data
Contact Water Basins
Eagle Mine

		Q1 2016	Q2 2016	Q3 2016	Q4 2016
Parameter	Unit	2/22/2016	6/2/2016	8/24/2016	
Field					
pH	SU	11.2	7.4	7.4	
Specific Conductivity	µS/cm	2870	1923	1747	
Metals					
Aluminum, Total	mg/L	—	—	860	—
Antimony, Total	µg/L	—	—	1.8	—
Arsenic, Total	µg/L	1.3	1.1	1.6	
Barium, Total	µg/L	—	—	29	—
Beryllium, Total	µg/L	—	—	<1.0	—
Boron, Total	µg/L	530	490	510	
Cadmium, Total	µg/L	—	—	<0.20	—
Chromium, Total	µg/L	—	—	8.3	—
Cobalt, Total	µg/L	—	—	3.4	—
Copper, Total	µg/L	17	42	55	
Iron, Total	µg/L	100	730	1700	
Lead, Total	µg/L	—	—	1.1	—
Lithium, Total	µg/L	—	—	15	—
Manganese, Total	µg/L	6	27	43	
Mercury, Total	µg/L	0.0009	0.0021	0.0024	
Molybdenum, Total	µg/L	—	—	27	—
Nickel, Total	µg/L	37	76	100	
Selenium, Total	µg/L	8.9	7.5	4.8	
Silver, Total	µg/L	—	—	<0.20	—
Strontium, Total	µg/L	—	—	610	—
Thallium, Total	µg/L	—	—	<1.0	—
Vanadium, Total	µg/L	—	—	5.0	—
Zinc, Total	µg/L	<10	<10	14	
Major Anions					
Alkalinity, Bicarbonate	mg/L	64	33	42	
Alkalinity, Carbonate	mg/L	<2.0	<2.0	<2.0	
Chloride	mg/L	370	170	100	
Fluoride	µg/L	—	—	130	—
Nitrogen, Nitrate	mg/L	68	38	37	
Sulfate	mg/L	530	570	490	
Major Cations					
Calcium, Total	mg/L	—	—	84	—
Magnesium, Total	mg/L	—	—	15	—
Potassium, Total	µg/L	—	—	40000	—
Sodium, Total	mg/L	430	260	230	

— Analyte not included in the quarterly parameter list.

2016
Mine Permit Water Quality Monitoring Data
TDRSA Contact Water Sump
Eagle Mine

		Q1 2016	Q2 2016	Q3 2016	Q4 2016
Parameter	Unit	2/22/2016	6/2/2016	8/24/2016	
Field					
pH	SU	6.9	6.3	6.5	
Specific Conductivity	µS/cm	6025	3107	2932	
Metals					
Aluminum, Total	mg/L	—	—	<500	—
Antimony, Total	µg/L	—	—	<1.0	—
Arsenic, Total	µg/L	<1.0	<1.0	<1.0	
Barium, Total	µg/L	—	—	62	—
Beryllium, Total	µg/L	—	—	<1.0	—
Boron, Total	µg/L	1200	900	1300	
Cadmium, Total	µg/L	—	—	<0.20	—
Chromium, Total	µg/L	—	—	1.5	—
Cobalt, Total	µg/L	—	—	5.6	—
Copper, Total	µg/L	<1.0	1.0	<1.0	
Iron, Total	µg/L	37	25	41	
Lead, Total	µg/L	—	—	<1.0	—
Lithium, Total	µg/L	—	—	<8.0	—
Manganese, Total	µg/L	760	390	210	
Mercury, Total	µg/L	0.0098	0.0063	0.0031	
Molybdenum, Total	µg/L	—	—	23	—
Nickel, Total	µg/L	200	140	810	
Selenium, Total	µg/L	9.1	6.5	8.6	
Silver, Total	µg/L	—	—	<0.20	—
Strontium, Total	µg/L	—	—	2300	—
Thallium, Total	µg/L	—	—	<1.0	—
Vanadium, Total	µg/L	—	—	<4.0	—
Zinc, Total	µg/L	<10	<10	<10	
Major Anions					
Alkalinity, Bicarbonate	mg/L	27	20	37	
Alkalinity, Carbonate	mg/L	<2.0	<2.0	<2.0	
Chloride	mg/L	110	45	28	
Fluoride	µg/L	—	—	<100	—
Nitrogen, Ammonia	mg/L	51	13	0.79	
Nitrogen, Nitrate	mg/L	440	190	150	
Nitrogen, Nitrite	mg/L	9.7	2.7	0.14	
Sulfate	mg/L	1700	1100	1100	
Major Cations					
Calcium, Total	mg/L	—	—	290	—
Magnesium, Total	mg/L	170	110	110	
Potassium, Total	µg/L	—	—	46000	—
Sodium, Total	mg/L	460	250	190	

— Analyte not included in the quarterly parameter list.

2016
Mine Permit Water Quality Monitoring Data
TDRSA Leak Detection Sump
Eagle Mine

		Q1 2016	Q2 2016	Q3 2016	Q4 2016
Parameter	Unit	2/22/2016	6/2/2016	8/24/2016	
Field					
pH	SU	7.4	7.1	7.4	
Specific Conductivity	µS/cm	2976	3133	2693	
Major Anions					
Chloride	mg/L	14	14	13	
Nitrogen, Ammonia	mg/L	0.19	0.09	0.07	
Nitrogen, Nitrate	mg/L	26.0	29.0	28.0	
Nitrogen, Nitrite	mg/L	0.15	<0.05	0.36	
Sulfate	mg/L	1000	980	840	
Major Cations					
Magnesium, Total	mg/L	15	16	16	
Sodium, Total	mg/L	610	610	590	

2016
Mine Permit Water Quality Monitoring Data
Underground Influent
Eagle Mine

		Q1 2016	Q2 2016	Q3 2016	Q4 2016
Parameter	Unit	2/22/2016	6/2/2016	8/24/2016	
Field					
pH	SU	7.3	8.1	7.2	
Specific Conductivity	µS/cm	1470	2445	1420	
Metals					
Aluminum, Total	mg/L	—	—	1700	—
Antimony, Total	µg/L	—	—	4.3	—
Arsenic, Total	µg/L	7.6	17	2.8	
Barium, Total	µg/L	—	—	36	—
Beryllium, Total	µg/L	—	—	<1.0	—
Boron, Total	µg/L	560	660	570	
Cadmium, Total	µg/L	—	—	<0.20	—
Chromium, Total	µg/L	—	—	25	—
Cobalt, Total	µg/L	—	—	9.9	—
Copper, Total	µg/L	8700	22000	300	
Iron, Total	µg/L	36000	120000	3200	
Lead, Total	µg/L	—	—	4.0	—
Lithium, Total	µg/L	—	—	21	—
Manganese, Total	µg/L	390	1400	43	
Mercury, Total	µg/L	0.148	0.006	0.0168	
Molybdenum, Total	µg/L	—	—	35	—
Nickel, Total	µg/L	7200	23000	350	
Selenium, Total	µg/L	13	25	4.9	
Silver, Total	µg/L	—	—	<0.20	—
Strontium, Total	µg/L	—	—	650	—
Thallium, Total	µg/L	—	—	<1.0	—
Vanadium, Total	µg/L	—	—	7.5	—
Zinc, Total	µg/L	180	520	30	
Major Anions					
Alkalinity, Bicarbonate	mg/L	<2	<2	<2	
Alkalinity, Carbonate	mg/L	150	69	41	
Chloride	mg/L	250	540	67	
Fluoride	µg/L	—	—	270	—
Nitrogen, Nitrate	mg/L	25	30	38	
Nitrogen, Nitrite	mg/L	—	—	—	—
Sulfate	mg/L	250	430	370	
Major Cations					
Calcium, Total	mg/L	—	—	100	—
Magnesium, Total	mg/L	—	—	8.6	—
Potassium, Total	µg/L	—	—	39000	—
Sodium, Total	mg/L	—	—	120	—

— Analyte not included in the quarterly parameter list.