

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL008A (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/09/16 <sup>T</sup>		08/01/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	8.6		8.4		9.5	
ORP	mV	--	143		49		261	
pH	SU	6.5-9.7	9.2		9.1		8.9	
Specific Conductance	mmhos/cm	--	54		58		59	
Temperature <sup>3</sup>	°C	--	13		15		16	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1392.30		1393.39		1393.28	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	<1.0		<1.0		<1.0	
Barium	ug/L	1,000	<5.0		<5.0		<5.0	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	9.3		10		10	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	--	3.1		3.3		3.0	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	22		28		22	
Chloride	mg/L	--	<1.0		<1.0		<1.0	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.93		0.74		0.58	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.93		0.74		0.58	
Phosphorus, Total	mg/L	--	0.0435		0.0476		0.0433	e
Sulfate	mg/L	250	<1.0		<1.0		<1.0	
<b>Major Cations</b>								
Calcium	mg/L	--	7.3		8.0		8.0	
Magnesium	mg/L	--	1.1		1.3		1.2	
Potassium	mg/L	--	0.53		0.71		0.68	
Sodium	mg/L	--	2.0		3.0		2.2	
<b>General</b>								
Hardness	mg/L	--	23				25	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL008D (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/09/16 <sup>T</sup>		08/01/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	6.5		7.0		7.0	
ORP	mV	--	127		59		171	
pH	SU	6.5-9.7	8.7		8.6		8.3	
Specific Conductance	mmhos/cm	--	88		89		91	
Temperature <sup>3</sup>	°C	--	9		10		10	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1353.95		1353.84		1354.33	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	3.3		3.4		3.5	
Barium	ug/L	1,000	6.6		6.5		6.9	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	1.6		1.4		1.6	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	37		38		39	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	2.2		2.2		2.3	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	46		48		43	
Chloride	mg/L	--	<1.0		<1.0		1.1	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.11		0.10		0.093	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.11		0.10		0.093	
Phosphorus, Total	mg/L	--	0.0203		0.0221		0.0229	e
Sulfate	mg/L	250	4.2		4.2		4.1	
<b>Major Cations</b>								
Calcium	mg/L	--	14		13		14	
Magnesium	mg/L	--	2.9		3.0		3.0	
Potassium	mg/L	--	0.76		0.78		0.79	
Sodium	mg/L	--	1.2		1.3		1.2	
<b>General</b>								
Hardness	mg/L	--	47				47	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL025D (Background)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/02/16 <sup>T</sup>		05/09/16 <sup>T</sup>		08/02/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	5.6		6.1		6.3	
ORP	mV	--	13		62		33	
pH	SU	6.5-9.7	8.7		8.5		9.0	
Specific Conductance	mmhos/cm	--	89		86		95	
Temperature <sup>3</sup>	°C	--	7.0		7.3		7.5	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1411.74		1411.53		1412.34	
<b>Metals</b>								
Aluminum	ug/L	150	52		100		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	2.6		2.8		3.1	
Barium	ug/L	1,000	5.4		5.8		5.8	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	48		70	a	56	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	29		30		28	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	3.8		4.2		4.0	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	59		43		42	
Chloride	mg/L	--	<1.0		<1.0		1.2	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	0.040		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.16		0.17		0.16	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.16		0.21		0.16	
Phosphorus, Total	mg/L	--	0.0170		0.0201		<0.0100	e
Sulfate	mg/L	250	4.7		4.6		4.9	
<b>Major Cations</b>								
Calcium	mg/L	--	11		11		12	
Magnesium	mg/L	--	2.4		2.6		2.7	
Potassium	mg/L	--	0.60		0.64		0.65	
Sodium	mg/L	--	4.1		4.2		3.8	
<b>General</b>								
Hardness	mg/L	--	37				41	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL026A (Background)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/02/16 <sup>T</sup>		05/09/16 <sup>T</sup>		08/02/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	14		i		11	
ORP	mV	--	101		i		84	
pH	SU	6.5-9.7	6.3		i		7.0	
Specific Conductance	mmhos/cm	--	165		i		153	
Temperature <sup>3</sup>	°C	--	5.9		i		11	
Turbidity	NTU	--	<1		i		<1	
Water Elevation	ft MSL	--	1415.70		NM		1416.40	
<b>Metals</b>								
Aluminum	ug/L	150	<50		i		<50	
Antimony	ug/L	5.0	<1.0		i		<1.0	
Arsenic	ug/L	6.0	<1.0		i		<1.0	
Barium	ug/L	1,000	11		i		11	
Beryllium	ug/L	3.0	<1.0		i		<1.0	
Boron	ug/L	285	<20		i	e	<20	
Cadmium	ug/L	3.0	<0.20		i		<0.20	
Chromium	ug/L	52	1.0		i		1.1	
Cobalt	ug/L	23	<15		i		<15	
Copper	ug/L	10	<1.0		i		<1.0	
Iron	ug/L	--	90		i		280	
Lead	ug/L	3.0	<1.0		i		<1.0	
Lithium	ug/L	88	<8.0		i		<8.0	
Manganese	ug/L	50	<5.0		i		<5.0	
Mercury	ng/L	--	<0.500		i		0.576	
Molybdenum	ug/L	22	<5.0		i		<5.0	
Nickel	ug/L	57	<2.0		i		<2.0	
Selenium	ug/L	5.0	<1.0		i		<1.0	e
Silver	ug/L	0.40	<0.20		i		<0.20	
Strontium	ug/L	2,300	48		i		39	
Thallium	ug/L	1.0	<1.0		i		<1.0	
Uranium	ug/L	--	<1.0		i		<1.0	
Vanadium	ug/L	3.1	<1.0		i		<1.0	
Zinc	ug/L	1,200	<10		i		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	93		i		83	
Chloride	mg/L	--	1.3		i		1.4	
Fluoride	mg/L	1.0	<0.10		i		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	i		<0.020	e
Nitrogen, Nitrate	mg/L	10	1.3		i		1.2	e
Nitrogen, Nitrite	mg/L	--	<0.050		i		<0.050	
Nitrogen, Total Inorganic	mg/L	10	1.3		i		1.2	
Phosphorus, Total	mg/L	--	0.0131		i		<0.0100	e
Sulfate	mg/L	250	2.0		i		1.8	
<b>Major Cations</b>								
Calcium	mg/L	--	29		i		26	
Magnesium	mg/L	--	4.4		i		3.9	
Potassium	mg/L	--	1.3		i		1.3	
Sodium	mg/L	--	1.5		i		1.5	
<b>General</b>								
Hardness	mg/L	--	91		ns		81	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL026D (Background)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/02/16 <sup>T</sup>		05/09/16 <sup>T</sup>		08/02/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	12		12		12	
ORP	mV	--	21		65		56	
pH	SU	6.5-9.7	8.9		8.4		8.9	
Specific Conductance	mmhos/cm	--	60		60		65	
Temperature <sup>3</sup>	°C	--	7.0		7.4		8.0	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1408.61		1408.33		1409.04	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	<1.0		<1.0		<1.0	
Barium	ug/L	1,000	<5.0		<5.0		<5.0	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	11		12		10	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	<1.0		<1.0		<1.0	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	31		30		31	
Chloride	mg/L	--	<1.0		<1.0		<1.0	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	0.020	s	<0.020	e
Nitrogen, Nitrate	mg/L	10	0.10		0.10		0.094	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.10		0.12		0.094	
Phosphorus, Total	mg/L	--	0.0205		0.0216		0.0207	e
Sulfate	mg/L	250	1.6		1.8		2.0	
<b>Major Cations</b>								
Calcium	mg/L	--	9.9		9.6		10	
Magnesium	mg/L	--	1.4		1.5		1.5	
Potassium	mg/L	--	<0.50		0.50		<0.50	
Sodium	mg/L	--	0.65		0.73		0.66	
<b>General</b>								
Hardness	mg/L	--	30				31	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL029A (Background)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/02/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/03/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	11		i		11	
ORP	mV	--	62		i		9	
pH	SU	6.5-9.7	7.6		i		8.9	
Specific Conductance	mmhos/cm	--	453		i		248	
Temperature <sup>3</sup>	°C	--	6.3		i		11	
Turbidity	NTU	--	2		i		<1	
Water Elevation	ft MSL	--	1413.35		1413.01		1413.27	
<b>Metals</b>								
Aluminum	ug/L	150	570		i		<50	
Antimony	ug/L	5.0	<1.0		i		<1.0	
Arsenic	ug/L	6.0	<1.0		i		<1.0	
Barium	ug/L	1,000	41		i		34	
Beryllium	ug/L	3.0	<1.0		i		<1.0	
Boron	ug/L	285	<20		i	e	<20	
Cadmium	ug/L	3.0	<0.20		i		<0.20	
Chromium	ug/L	52	2.0		i		<1.0	
Cobalt	ug/L	23	<15		i		<15	
Copper	ug/L	10	21		i		<1.0	
Iron	ug/L	--	370		i		38	
Lead	ug/L	3.0	<1.0		i		<1.0	
Lithium	ug/L	88	<8.0		i		<8.0	
Manganese	ug/L	50	8.7		i		<5.0	
Mercury	ng/L	--	1.60		i		1.17	
Molybdenum	ug/L	22	<5.0		i		<5.0	
Nickel	ug/L	57	<2.0		i		<2.0	
Selenium	ug/L	5.0	<1.0		i		<1.0	e
Silver	ug/L	0.40	<0.20		i		<0.20	
Strontium	ug/L	2,300	48		i		54	
Thallium	ug/L	1.0	<1.0		i		<1.0	
Uranium	ug/L	--	<1.0		i		<1.0	
Vanadium	ug/L	3.1	1.8		i		<1.0	
Zinc	ug/L	1,200	<10		i		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	42		i		39	
Chloride	mg/L	--	82		i		68	
Fluoride	mg/L	1.0	<0.10		i		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	i		0.020	e
Nitrogen, Nitrate	mg/L	10	1.8		i		2.3	e
Nitrogen, Nitrite	mg/L	--	<0.050		i		<0.050	
Nitrogen, Total Inorganic	mg/L	10	NM		i		2.3	
Phosphorus, Total	mg/L	--	0.0772		i		0.0272	e
Sulfate	mg/L	250	3.6		i		3.3	
<b>Major Cations</b>								
Calcium	mg/L	--	10		i		15	
Magnesium	mg/L	--	1.9		i		2.5	
Potassium	mg/L	--	1.4		i		1.4	
Sodium	mg/L	--	40		i		23	
<b>General</b>								
Hardness	mg/L	--	33		ns		48	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL029D (Background)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/02/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/03/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	8.1		8.1		8.2	
ORP	mV	--	185		237		292	
pH	SU	6.5-9.7	6.7		6.6		6.6	
Specific Conductance	mmhos/cm	--	1862		2027		1986	
Temperature <sup>3</sup>	°C	--	6.9		7.3		8.4	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1405.96		1405.47		1406.15	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<200		<88	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	<1.0		<1.0		<1.0	
Barium	ug/L	1,000	120		130		120	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	1.35		1.73		1.67	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	5.2		6.3		4.7	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	160		170		150	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	1.2		<1.0		<1.0	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	68		71		72	
Chloride	mg/L	--	630		630		600	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.89		1.0		1.0	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.89		1.0		1.0	
Phosphorus, Total	mg/L	--	0.0109		0.0128		0.0106	e
Sulfate	mg/L	250	7.8		8.1		8.4	
<b>Major Cations</b>								
Calcium	mg/L	--	61		69		65	
Magnesium	mg/L	--	30		35		31	
Potassium	mg/L	--	3.6		4.1		3.9	
Sodium	mg/L	--	310		330		320	
<b>General</b>								
Hardness	mg/L	--	276				290	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL050A (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/02/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	9.8		11		10	
ORP	mV	--	32		62		302	
pH	SU	6.5-9.7	8.9		8.7		8.5	
Specific Conductance	mmhos/cm	--	88		94		102	
Temperature <sup>3</sup>	°C	--	10		10		10	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1363.36		1363.39		1363.94	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		290	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	<1.0		1.1		1.2	
Barium	ug/L	1,000	<5.0		5.3		7.4	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	81	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		1.2	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	220		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	22		25		34	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	1.2		1.3		1.5	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	36		37		34	
Chloride	mg/L	--	5.2		6.8		8.8	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.27		0.33		0.33	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.27		0.33		0.33	
Phosphorus, Total	mg/L	--	0.0166		0.0208		<0.0100	e
Sulfate	mg/L	250	2.3		2.5		2.6	
<b>Major Cations</b>								
Calcium	mg/L	--	13		13		15	
Magnesium	mg/L	--	2.6		2.8		2.7	
Potassium	mg/L	--	0.77		0.73		0.80	
Sodium	mg/L	--	0.99		1.1		1.3	
<b>General</b>								
Hardness	mg/L	--	43				49	

Footnote explanations and notes are included at the end of this table.



**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL051A (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/02/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	11		12		11	
ORP	mV	--	94		45		53	
pH	SU	6.5-9.7	8.3		8.8		8.8	
Specific Conductance	mmhos/cm	--	72		72		79	
Temperature <sup>3</sup>	°C	--	6.2		9.6		15	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1365.14		1365.13		1365.79	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	1.5		1.4		1.4	
Barium	ug/L	1,000	<5.0		<5.0		<5.0	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	30		<20		35	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		5.25	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	15		16		16	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	--	3.8		3.9		4.1	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	34		34		31	
Chloride	mg/L	--	1.5		1.6		1.8	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		0.023	e
Nitrogen, Nitrate	mg/L	10	1.2		1.2		1.2	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	1.2		1.2		1.3	
Phosphorus, Total	mg/L	--	0.0225		0.0217		<0.0100	e
Sulfate	mg/L	250	2.2		1.5		1.5	
<b>Major Cations</b>								
Calcium	mg/L	--	11		12		12	
Magnesium	mg/L	--	2.0		2.4		2.2	
Potassium	mg/L	--	0.55		0.61		0.61	
Sodium	mg/L	--	1.1		1.2		1.2	
<b>General</b>								
Hardness	mg/L	--	36				39	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL051D (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/03/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	1.9		1.9		3.7	
ORP	mV	--	-20		23		-7	
pH	SU	6.5-9.7	8.5		8.6		9.1	
Specific Conductance	mmhos/cm	--	111		111		115	
Temperature <sup>3</sup>	°C	--	7.5		7.9		8.5	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1365.11		1365.05		1365.62	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	4.7		4.5		4.1	
Barium	ug/L	1,000	15		17		14	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	22		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	1.2		1.3		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	90		95		79	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	1.4		1.5		1.4	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	57		58		54	
Chloride	mg/L	--	<1.0		<1.0		1.1	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.090		0.14		0.19	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.090		0.14		0.19	
Phosphorus, Total	mg/L	--	0.0180		0.0166		0.0175	e
Sulfate	mg/L	250	4.7		4.3		4.4	
<b>Major Cations</b>								
Calcium	mg/L	--	16		17		16	
Magnesium	mg/L	--	3.6		3.7		3.2	
Potassium	mg/L	--	1.1		1.2		1.1	
Sodium	mg/L	--	3.0		3.1		2.8	
<b>General</b>								
Hardness	mg/L	--	55				53	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL052A (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/02/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	3.2		3.3		3.2	
ORP	mV	--	25		42		15	
pH	SU	6.5-9.7	8.5		8.5		8.9	
Specific Conductance	mmhos/cm	--	111		111		120	
Temperature <sup>3</sup>	°C	--	6.6		8.8		11	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1352.43		1352.28		1353.09	
<b>Metals</b>								
Aluminum	ug/L	150	140		130		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	1.2		1.0		1.4	
Barium	ug/L	1,000	6.5		6.9		6.0	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	1.2		1.1		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	2.6		2.6		1.2	s
Iron	ug/L	--	300		230	a	98	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	48		51		48	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	1.4		1.5		1.2	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	55		59		65	
Chloride	mg/L	--	1.1		1.0		1.1	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.16		0.13		0.15	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.16		0.13		0.15	
Phosphorus, Total	mg/L	--	0.0259		0.0155		<0.0100	e
Sulfate	mg/L	250	5.8		5.5		5.5	
<b>Major Cations</b>								
Calcium	mg/L	--	17		18		17	
Magnesium	mg/L	--	4.0		4.4		4.0	
Potassium	mg/L	--	1.1		1.1		1.1	
Sodium	mg/L	--	1.5		1.8		1.6	
<b>General</b>								
Hardness	mg/L	--	59				59	

Footnote explanations and notes are included at the end of this table.

Table 1, 4th Qtr, Nov 2015: QAL052A (Compliance)

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL053A (Background)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/02/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	2.8		3.1		2.9	
ORP	mV	--	69		93		318	
pH	SU	6.5-9.7	8.6		8.5		8.0	
Specific Conductance	mmhos/cm	--	105		113		110	
Temperature <sup>3</sup>	°C	--	7.4		8.0		8.1	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1385.66		1385.68		1386.05	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	6.7		7.4		6.8	
Barium	ug/L	1,000	7.9		8.5		8.2	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	28		<20	e	25	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	76		81		77	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	1.4		1.5		1.4	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	56		60		58	
Chloride	mg/L	--	<1.0		<1.0		1.1	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	<0.050		<0.050		<0.050	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	<0.050		<0.050		<0.050	
Phosphorus, Total	mg/L	--	0.0260		0.0255		0.0302	e
Sulfate	mg/L	250	5.8		5.1		5.4	
<b>Major Cations</b>								
Calcium	mg/L	--	15		16		16	
Magnesium	mg/L	--	3.9		4.1		4.1	
Potassium	mg/L	--	1.1		1.2		1.2	
Sodium	mg/L	--	1.8		1.9		2.0	
<b>General</b>								
Hardness	mg/L	--	53				57	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL055A (Background)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/09/16 <sup>T</sup>		08/02/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	9.8		9.0		8.2	
ORP	mV	--	77		63		215	
pH	SU	6.5-9.7	8.7		8.6		8.4	
Specific Conductance	mmhos/cm	--	223		294		324	
Temperature <sup>3</sup>	°C	--	9		9		10	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1364.63		1364.33		1365.17	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	<1.0		<1.0		<1.0	
Barium	ug/L	1,000	12		16		17	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		1.2		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	1.5		1.1		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	63		87		85	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	<1.0		<1.0		<1.0	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	40		54		43	
Chloride	mg/L	--	44		66		70	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.62		0.76		0.53	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.62		0.76		0.53	
Phosphorus, Total	mg/L	--	0.0116		0.0131		<0.0100	e
Sulfate	mg/L	250	4.1		4.8		4.9	
<b>Major Cations</b>								
Calcium	mg/L	--	29		38		42	
Magnesium	mg/L	--	6.6		9.0		9.7	
Potassium	mg/L	--	1.0		1.2		1.3	
Sodium	mg/L	--	2.3		5.3		4.8	
<b>General</b>								
Hardness	mg/L	--	100				145	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL056A (Background)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/01/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	10		11		10	
ORP	mV	--	155		52		336	
pH	SU	6.5-9.7	8.9		9.0		8.7	
Specific Conductance	mmhos/cm	--	61		56		59	
Temperature <sup>3</sup>	°C	--	10		11		12	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1393.39		1394.28		1394.45	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	<1.0		<1.0		<1.0	
Barium	ug/L	1,000	<5.0		<5.0		<5.0	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	10		9.5		9.1	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	<1.0		<1.0		<1.0	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	30		30		24	
Chloride	mg/L	--	<1.0		<1.0		<1.0	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.60		0.62		0.75	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.60		0.62		0.75	
Phosphorus, Total	mg/L	--	0.0271		0.0262		0.0305	e
Sulfate	mg/L	250	<1.0		<1.0		<1.0	
<b>Major Cations</b>								
Calcium	mg/L	--	9.3		8.7		8.4	
Magnesium	mg/L	--	1.4		1.3		1.3	
Potassium	mg/L	--	0.66		0.54		0.72	
Sodium	mg/L	--	1.7		1.8		1.9	
<b>General</b>								
Hardness	mg/L	--	29				26	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL057A (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/10/16 <sup>T</sup>		08/01/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	11		11		10	
ORP	mV	--	110		143		231	
pH	SU	6.5-9.7	9.1		9.1		8.5	
Specific Conductance	mmhos/cm	--	59		62		59	
Temperature <sup>3</sup>	°C	--	10		10		11	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1362.39		1362.20		1362.70	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	<1.0		<1.0		<1.0	
Barium	ug/L	1,000	<5.0		<5.0		<5.0	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	<20		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	11		11		10	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	1.2		1.3		1.3	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	25		29		27	
Chloride	mg/L	--	1.3		<1.0		<1.0	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.38		0.41		0.60	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.38		0.41		0.60	
Phosphorus, Total	mg/L	--	0.0214		0.0215		0.0239	e
Sulfate	mg/L	250	<1.0		<1.0		<1.0	
<b>Major Cations</b>								
Calcium	mg/L	--	8.6		9.6		8.1	
Magnesium	mg/L	--	1.5		1.7		1.5	
Potassium	mg/L	--	0.58		0.63		0.53	
Sodium	mg/L	--	1.7		1.7		1.5	
<b>General</b>								
Hardness	mg/L	--	28				26	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL057D (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q3 2016	
			02/01/16 <sup>T</sup>		05/10/16 <sup>T</sup>		05/09/16 <sup>T</sup>	
<b>Field</b>								
D.O. <sup>1</sup>	ppm	--	7.3		8.6		7.1	
ORP	mV	--	113		54		160	
pH	SU	6.5-9.7	8.7		8.7		8.4	
Specific Conductance	mmhos/cm	--	85		83		93	
Temperature <sup>3</sup>	°C	--	9		10		10	
Turbidity	NTU	--	<1		<1		<1	
Water Elevation	ft MSL	--	1362.45		1362.30		1362.79	
<b>Metals</b>								
Aluminum	ug/L	150	<50		<50		<50	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	3.8		5.0		4.6	
Barium	ug/L	1,000	<5.0		<5.0		<5.0	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0	
Boron	ug/L	285	<20		<20	e	<20	
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20	
Chromium	ug/L	52	1.3		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		<15	
Copper	ug/L	10	<1.0		<1.0		<1.0	
Iron	ug/L	--	37		<20		<20	
Lead	ug/L	3.0	<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0		<5.0		<5.0	
Mercury	ng/L	--	<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		<0.20	
Strontium	ug/L	2,300	37		40		42	
Thallium	ug/L	1.0	<1.0		<1.0		<1.0	
Uranium	ug/L	--	<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	1.1		1.2		1.1	
Zinc	ug/L	1,200	<10		<10		<10	e
<b>Major Anions</b>								
Alkalinity, Bicarbonate	mg/L	--	44		42		35	
Chloride	mg/L	--	1.1		<1.0		1.2	
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		<0.020	e
Nitrogen, Nitrate	mg/L	10	0.13		0.16		0.12	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.13		0.16		0.12	
Phosphorus, Total	mg/L	--	0.0260		0.0272		0.0271	e
Sulfate	mg/L	250	3.7		3.0		4.0	
<b>Major Cations</b>								
Calcium	mg/L	--	13		14		14	
Magnesium	mg/L	--	2.6		2.8		2.9	
Potassium	mg/L	--	1.0		1.0		1.1	
Sodium	mg/L	--	1.1		1.1		1.2	
<b>General</b>								
Hardness	mg/L	--	43				47	

Footnote explanations and notes are included at the end of this table.



**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL075A (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016	Q2 2016	Q2 2016 Resample	Q3 2016	
			02/02/16 <sup>T</sup>	05/09/16 <sup>T</sup>	6/14/16 <sup>T</sup>	08/02/16 <sup>T</sup>	
<b>Field</b>							
D.O. <sup>1</sup>	ppm	--	9.5	9.7	10	11	
ORP	mV	--	92	140	268	425	
pH	SU	6.5-9.7	8.7	8.7	8.6	8.0	
Specific Conductance	mmhos/cm	--	85	88	86	85	
Temperature <sup>3</sup>	°C	--	7.1	7.8	7.9	8.3	
Turbidity	NTU	--	<1	<1	<1	<1	
Water Elevation	ft MSL	--	1347.70	1347.52	1347.8	1348.05	
<b>Metals</b>							
Aluminum	ug/L	150	<50	<50	--	<50	
Antimony	ug/L	5.0	<1.0	<1.0	--	<1.0	
Arsenic	ug/L	6.0	<1.0	<1.0	--	<1.0	
Barium	ug/L	1,000	5.9	7.0	--	5.7	
Beryllium	ug/L	3.0	<1.0	<1.0	--	<1.0	
Boron	ug/L	285	<20	<20	e	<20	
Cadmium	ug/L	3.0	<0.20	<0.20	--	<0.20	
Chromium	ug/L	52	<1.0	1.4	--	<1.0	
Cobalt	ug/L	23	<15	<15	--	<15	
Copper	ug/L	10	<1.0	<1.0	--	3.9	
Iron	ug/L	--	<20	<20	--	<20	
Lead	ug/L	3.0	<1.0	<1.0	--	<1.0	
Lithium	ug/L	88	<8.0	<8.0	--	<8.0	
Manganese	ug/L	50	<5.0	<5.0	--	<5.0	
Mercury	ng/L	--	<0.500	<0.500	--	<0.500	
Molybdenum	ug/L	22	<5.0	<5.0	--	<5.0	
Nickel	ug/L	57	<2.0	9.4	--	<2.0	
Selenium	ug/L	5.0	<1.0	<1.0	--	<1.0	e
Silver	ug/L	0.40	<0.20	<0.20	--	<0.20	
Strontium	ug/L	2,300	18	24	--	18	
Thallium	ug/L	1.0	<1.0	<1.0	--	<1.0	
Uranium	ug/L	--	<1.0	<1.0	--	<1.0	
Vanadium	ug/L	3.1	2.8	3.7	2.8	2.8	
Zinc	ug/L	1,200	<10	<10	--	12	e
<b>Major Anions</b>							
Alkalinity, Bicarbonate	mg/L	--	40	43	--	35	
Chloride	mg/L	--	2.2	2.0	--	1.8	
Fluoride	mg/L	1.0	<0.10	<0.10	--	<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	<0.020	--	<0.020	e
Nitrogen, Nitrate	mg/L	10	0.93	0.72	--	0.82	e
Nitrogen, Nitrite	mg/L	--	<0.050	<0.050	--	<0.050	
Nitrogen, Total Inorganic	mg/L	10	0.93	0.72	--	0.82	
Phosphorus, Total	mg/L	--	0.0241	0.0249	--	0.0252	e
Sulfate	mg/L	250	2.6	2.3	--	1.9	
<b>Major Cations</b>							
Calcium	mg/L	--	12	12	--	13	
Magnesium	mg/L	--	2.6	2.7	--	2.6	
Potassium	mg/L	--	0.65	0.54	--	0.61	
Sodium	mg/L	--	1.2	1.2	--	1.1	
<b>General</b>							
Hardness	mg/L	--	41	--	--	43	

Footnote explanations and notes are included at the end of this table.

**Q3 2016**  
**Groundwater Discharge Permit**  
**QAL075D (Compliance)**  
**Eagle Mine**

Parameter	Unit	MDL	Q1 2016		Q2 2016		Q2 2016 Resample		Q3 2016	
			02/02/16 <sup>D</sup>		05/09/16 <sup>T</sup>		6/14/16 <sup>D</sup>		08/02/16 <sup>T</sup>	
Field										
D.O. <sup>1</sup>	ppm	--	0.6		1.0		0.9		0.9	
ORP	mV	--	-34		65		241		274	
pH	SU	6.5-9.7	8.4		8.4		8.3		8.1	
Specific Conductance	mmhos/cm	--	112		119		116		116	
Temperature <sup>3</sup>	°C	--	7.1		8		9.0		8.9	
Turbidity	NTU	--	9		2		4.0		<1	
Water Elevation	ft MSL	--	1349.17		1349.03		1349.3		1349.57	
Metals										
Aluminum	ug/L	150	<50		<50		--		<50	
Antimony	ug/L	5.0	<1.0		<1.0		--		<1.0	
Arsenic	ug/L	6.0	1.5		1.7		--		2.0	
Barium	ug/L	1,000	5.2		5.7		--		5.2	
Beryllium	ug/L	3.0	<1.0		<1.0		--		<1.0	
Boron	ug/L	285	<20		<20	e	--		<20	
Cadmium	ug/L	3.0	<0.20		<0.20		--		<0.20	
Chromium	ug/L	52	<1.0		86		<1.0		<1.0	
Cobalt	ug/L	23	<15		<15		--		<15	
Copper	ug/L	10	<1.0		2.9		--		<1.0	
Iron	ug/L	--	<20		630	a	--		<20	
Lead	ug/L	3.0	<1.0		<1.0		--		<1.0	
Lithium	ug/L	88	<8.0		<8.0		--		<8.0	
Manganese	ug/L	50	31		11		--		<5.0	
Mercury	ng/L	--	<0.500		<0.500		--		<0.500	
Molybdenum	ug/L	22	<5.0		12		--		<5.0	
Nickel	ug/L	57	<2.0		54		--		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		--		<1.0	e
Silver	ug/L	0.40	<0.20		<0.20		--		<0.20	
Strontium	ug/L	2,300	49		52		--		50	
Thallium	ug/L	1.0	<1.0		<1.0		--		<1.0	
Uranium	ug/L	--	<1.0		<1.0		--		<1.0	
Vanadium	ug/L	3.1	1.3		1.9		--		1.3	
Zinc	ug/L	1,200	<10		<10		--		<10	e
Major Anions										
Alkalinity, Bicarbonate	mg/L	--	60		59		--		59	
Chloride	mg/L	--	1.0		<1.0		--		<1.0	
Fluoride	mg/L	1.0	<0.10		<0.10		--		<0.10	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020		--		<0.020	e
Nitrogen, Nitrate	mg/L	10	<0.050		0.054		--		<0.050	e
Nitrogen, Nitrite	mg/L	--	<0.050		<0.050		--		<0.050	
Nitrogen, Total Inorganic	mg/L	10	<0.050		0.054		--		<0.050	
Phosphorus, Total	mg/L	--	0.0611		0.0158		--		0.0136	e
Sulfate	mg/L	250	6.5		6.1		--		6.2	
Major Cations										
Calcium	mg/L	--	17		17		--		18	
Magnesium	mg/L	--	3.9		4.0		--		4.1	
Potassium	mg/L	--	1.0		1.1		--		0.95	
Sodium	mg/L	--	1.4		1.6		--		1.4	
General										
Hardness	mg/L	--	58				--		62	

Footnote explanations and notes are included at the end of this table.

**Q3 2016  
Groundwater Discharge Permit  
Footnote Explanation  
Eagle Mine**

Footnote	Explanation
1	Many D.O. values are elevated due to well screen configuration and aquifer characteristics.
2	Wells QAL029A and QAL029D were damaged beyond repair during construction of mine facilities. Replacement wells were constructed nearby in the same formation. The pH of the replacement wells is significantly lower than the background pH values collected from the original wells during the background monitoring period.
3	Temperature measurements are affected by low-flow methodology and may be considerably warmer or colder than actual conditions.
	Exceeds maximum daily limit (MDL) stipulated in Permit GW1810162. MDL is only applicable to compliance monitoring locations.
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.
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	Estimated value. Well was not field stabilized prior to sample collection (typically due to insufficient water volume).
i	Insufficient water for collection of field parameters and/or sample.
MDL	Maximum daily limit. Values are stipulated in Permit GW181062 for selected parameters at downgradient (compliance) monitoring locations.
NM	Not measured.
R	Measured value was rejected based on quality control procedures.
s	Potential false positive value. Compound present in blank sample.
T	Sample was not filtered and all values are total concentrations.

Table 1: Footnote Explanation