

APPENDIX B, Mine Water Quality Sample Results 4th Quarter 2010

Mine Water Quality Sample Results 4th Quarter 2010						
Location	Analyte	Sample Date	Result	Unit	Sample Number	Qualifier Comment
East Sump	Acidity as CaCO3	12-Oct-10	<10	mg/L	10-2550	Undetect (NCA)
East Sump	Acidity as CaCO3	15-Nov-10	<10	mg/L	10-2706	Undetect (NCA)
East Sump	Acidity as CaCO3	16-Dec-10	<10	mg/L	10-2840	Undetect (NCA)
East Sump	Acidity as CaCO3	24-Dec-10	<10	mg/L	10-2868	Undetect (NCA)
East Sump	Aluminum, Dissolved	12-Oct-10	60	µg/L	10-2550	Detected in Method Blank (NCA)
East Sump	Aluminum, Dissolved	15-Nov-10	5	µg/L	10-2706	Detected in Method Blank (NCA)
East Sump	Aluminum, Dissolved	16-Dec-10	4	µg/L	10-2840	Detected in Method Blank (NCA)
East Sump	Aluminum, Dissolved	24-Dec-10	5	µg/L	10-2868	
East Sump	Ammonia-N	12-Oct-10	0.2	mg/L	10-2550	Detected in Method Blank (NCA)
East Sump	Ammonia-N	15-Nov-10	<0.1	mg/L	10-2706	Undetect (NCA)
East Sump	Ammonia-N	16-Dec-10	0.5	mg/L	10-2840	Detected in Method Blank (NCA)
East Sump	Ammonia-N	24-Dec-10	0.3	mg/L	10-2868	Detected in Method Blank (NCA)
East Sump	Cadmium, Dissolved	12-Oct-10	5.7	µg/L	10-2550	
East Sump	Cadmium, Dissolved	15-Nov-10	0.9	µg/L	10-2706	
East Sump	Cadmium, Dissolved	16-Dec-10	35.7	µg/L	10-2840	
East Sump	Cadmium, Dissolved	24-Dec-10	22.2	µg/L	10-2868	
East Sump	Calcium, Dissolved	12-Oct-10	436	mg/L	10-2550	
East Sump	Calcium, Dissolved	15-Nov-10	49.4	mg/L	10-2706	
East Sump	Calcium, Dissolved	16-Dec-10	323	mg/L	10-2840	
East Sump	Calcium, Dissolved	24-Dec-10	277	mg/L	10-2868	
East Sump	Chloride	12-Oct-10	38	mg/L	10-2550	
East Sump	Chloride	15-Nov-10	2	mg/L	10-2706	Detected in Method Blank (NCA)
East Sump	Chloride	16-Dec-10	20	mg/L	10-2840	
East Sump	Chloride	24-Dec-10	19	mg/L	10-2868	
East Sump	Conductivity	12-Oct-10	2341	µMHOS/cm		
East Sump	Conductivity	15-Nov-10	2250	µMHOS/cm		
East Sump	Conductivity	16-Dec-10	1747	µMHOS/cm		
East Sump	Conductivity	24-Dec-10	1302	µMHOS/cm		
East Sump	Copper, Dissolved	12-Oct-10	4	µg/L	10-2550	Detected in Method Blank (NCA)
East Sump	Copper, Dissolved	15-Nov-10	1.2	µg/L	10-2706	Detected in Method Blank (NCA)
East Sump	Copper, Dissolved	16-Dec-10	6	µg/L	10-2840	
East Sump	Copper, Dissolved	24-Dec-10	5.6	µg/L	10-2868	
East Sump	Cyanide, WAD	12-Oct-10	<3	µg/L	10-2550	Undetect (NCA)
East Sump	Cyanide, WAD	15-Nov-10	<3	µg/L	10-2706	Undetect (NCA)
East Sump	Cyanide, WAD	16-Dec-10	3	µg/L	10-2840	time.
East Sump	Cyanide, WAD	24-Dec-10	<3	µg/L	10-2868	Undetect (NCA)
East Sump	Iron, Dissolved	12-Oct-10	50	µg/L	10-2550	Detected in Method Blank (NCA)
East Sump	Iron, Dissolved	15-Nov-10	570	µg/L	10-2706	
East Sump	Iron, Dissolved	16-Dec-10	300	µg/L	10-2840	
East Sump	Iron, Dissolved	24-Dec-10	2970	µg/L	10-2868	
East Sump	Lead, Dissolved	12-Oct-10	0.3	µg/L	10-2550	Detected in Method Blank (NCA)
East Sump	Lead, Dissolved	15-Nov-10	0.3	µg/L	10-2706	Detected in Method Blank (NCA)
East Sump	Lead, Dissolved	16-Dec-10	<0.2	µg/L	10-2840	Undetect (NCA)
East Sump	Lead, Dissolved	24-Dec-10	0.5	µg/L	10-2868	
East Sump	Magnesium, Dissolved	12-Oct-10	505	mg/L	10-2550	
East Sump	Magnesium, Dissolved	15-Nov-10	35.6	mg/L	10-2706	
East Sump	Magnesium, Dissolved	16-Dec-10	328	mg/L	10-2840	
East Sump	Magnesium, Dissolved	24-Dec-10	283	mg/L	10-2868	
East Sump	Manganese, Dissolved	12-Oct-10	2710	µg/L	10-2550	
East Sump	Manganese, Dissolved	15-Nov-10	401	µg/L	10-2706	
East Sump	Manganese, Dissolved	16-Dec-10	25800	µg/L	10-2840	
East Sump	Manganese, Dissolved	24-Dec-10	19400	µg/L	10-2868	
East Sump	pH	12-Oct-10	6.29	units		
East Sump	pH	15-Nov-10	7.44	units		

Mine Water Quality Sample Results 4th Quarter 2010						
Location	Analyte	Sample Date	Result	Unit	Sample Number	Qualifier Comment
East Sump	pH	16-Dec-10	6.61	units		
East Sump	pH	24-Dec-10	6.5	units		
East Sump	Sodium, Dissolved	12-Oct-10	13	mg/L	10-2550	
East Sump	Sodium, Dissolved	15-Nov-10	5.3	mg/L	10-2706	
East Sump	Sodium, Dissolved	16-Dec-10	10.3	mg/L	10-2840	
East Sump	Sodium, Dissolved	24-Dec-10	10.1	mg/L	10-2868	
East Sump	Sulfate	12-Oct-10	2480	mg/L	10-2550	
East Sump	Sulfate	15-Nov-10	180	mg/L	10-2706	
East Sump	Sulfate	16-Dec-10	1600	mg/L	10-2840	
East Sump	Sulfate	24-Dec-10	1770	mg/L	10-2868	
East Sump	Temperature - Water	12-Oct-10	4.32	°C		
East Sump	Temperature - Water	15-Nov-10	4.2	°C		
East Sump	Temperature - Water	16-Dec-10	4.71	°C		
East Sump	Temperature - Water	24-Dec-10	1.86	°C		
East Sump	Total Dissolved Solids	12-Oct-10	3870	mg/L	10-2550	
East Sump	Total Dissolved Solids	15-Nov-10	330	mg/L	10-2706	
East Sump	Total Dissolved Solids	16-Dec-10	2580	mg/L	10-2840	Exceeds validation limits
East Sump	Total Dissolved Solids	24-Dec-10	1130	mg/L	10-2868	Exceeds validation limits
East Sump	Zinc, Dissolved	12-Oct-10	5510	µg/L	10-2550	
East Sump	Zinc, Dissolved	15-Nov-10	682	µg/L	10-2706	
East Sump	Zinc, Dissolved	16-Dec-10	11700	µg/L	10-2840	
East Sump	Zinc, Dissolved	24-Dec-10	9100	µg/L	10-2868	
Mine Water Collection Sump	Acidity as CaCO3	12-Oct-10	2860	mg/L	10-2554	
Mine Water Collection Sump	Acidity as CaCO3	15-Nov-10	40	mg/L	10-2712	
Mine Water Collection Sump	Acidity as CaCO3	16-Dec-10	2840	mg/L	10-2835	
Mine Water Collection Sump	Acidity as CaCO3	25-Dec-10	3250	mg/L	10-2872	
Mine Water Collection Sump	Aluminum, Dissolved	12-Oct-10	12100	µg/L	10-2554	
Mine Water Collection Sump	Aluminum, Dissolved	15-Nov-10	62700	µg/L	10-2712	
Mine Water Collection Sump	Aluminum, Dissolved	16-Dec-10	29000	µg/L	10-2835	
Mine Water Collection Sump	Aluminum, Dissolved	25-Dec-10	41100	µg/L	10-2872	
Mine Water Collection Sump	Ammonia-N	12-Oct-10	2.2	mg/L	10-2554	
Mine Water Collection Sump	Ammonia-N	15-Nov-10	3.6	mg/L	10-2712	
Mine Water Collection Sump	Ammonia-N	16-Dec-10	3	mg/L	10-2835	
Mine Water Collection Sump	Ammonia-N	25-Dec-10	2.8	mg/L	10-2872	
Mine Water Collection Sump	Cadmium, Dissolved	12-Oct-10	11300	µg/L	10-2554	
Mine Water Collection Sump	Cadmium, Dissolved	15-Nov-10	17200	µg/L	10-2712	
Mine Water Collection Sump	Cadmium, Dissolved	16-Dec-10	11300	µg/L	10-2835	
Mine Water Collection Sump	Cadmium, Dissolved	25-Dec-10	12600	µg/L	10-2872	
Mine Water Collection Sump	Calcium, Dissolved	12-Oct-10	354	mg/L	10-2554	
Mine Water Collection Sump	Calcium, Dissolved	15-Nov-10	336	mg/L	10-2712	
Mine Water Collection Sump	Calcium, Dissolved	16-Dec-10	374	mg/L	10-2835	
Mine Water Collection Sump	Calcium, Dissolved	25-Dec-10	365	mg/L	10-2872	
Mine Water Collection Sump	Chloride	12-Oct-10	5	mg/L	10-2554	
Mine Water Collection Sump	Chloride	15-Nov-10	<10	mg/L	10-2712	Undetect (NCA)
Mine Water Collection Sump	Chloride	16-Dec-10	2	mg/L	10-2835	Detected in Method Blank (NCA)
Mine Water Collection Sump	Chloride	25-Dec-10	<10	mg/L	10-2872	Undetect (NCA)
Mine Water Collection Sump	Conductivity	12-Oct-10	2932	µMHOS/cm		
Mine Water Collection Sump	Conductivity	15-Nov-10	3496	µMHOS/cm		
Mine Water Collection Sump	Conductivity	16-Dec-10	3119	µMHOS/cm		
Mine Water Collection Sump	Conductivity	25-Dec-10	2918	µMHOS/cm		
Mine Water Collection Sump	Copper, Dissolved	12-Oct-10	<10	µg/L	10-2554	Undetect (NCA)
Mine Water Collection Sump	Copper, Dissolved	15-Nov-10	120	µg/L	10-2712	
Mine Water Collection Sump	Copper, Dissolved	16-Dec-10	70	µg/L	10-2835	Detected in Method Blank (NCA)
Mine Water Collection Sump	Copper, Dissolved	25-Dec-10	100	µg/L	10-2872	Detected in Method Blank (NCA)

Mine Water Quality Sample Results 4th Quarter 2010						
Location	Analyte	Sample Date	Result	Unit	Sample Number	Qualifier Comment
Mine Water Collection Sump	Iron, Dissolved	12-Oct-10	634000	µg/L	10-2554	
Mine Water Collection Sump	Iron, Dissolved	15-Nov-10	1000000	µg/L	10-2712	
Mine Water Collection Sump	Iron, Dissolved	16-Dec-10	521000	µg/L	10-2835	
Mine Water Collection Sump	Iron, Dissolved	25-Dec-10	679000	µg/L	10-2872	
Mine Water Collection Sump	Lead, Dissolved	12-Oct-10	<800	µg/L	10-2554	Undetect (NCA)
Mine Water Collection Sump	Lead, Dissolved	15-Nov-10	857	µg/L	10-2712	
Mine Water Collection Sump	Lead, Dissolved	16-Dec-10	714.5	µg/L	10-2835	
Mine Water Collection Sump	Lead, Dissolved	25-Dec-10	585.5	µg/L	10-2872	
Mine Water Collection Sump	Magnesium, Dissolved	12-Oct-10	251	mg/L	10-2554	
Mine Water Collection Sump	Magnesium, Dissolved	15-Nov-10	223	mg/L	10-2712	
Mine Water Collection Sump	Magnesium, Dissolved	16-Dec-10	193	mg/L	10-2835	
Mine Water Collection Sump	Magnesium, Dissolved	25-Dec-10	208	mg/L	10-2872	
Mine Water Collection Sump	Manganese, Dissolved	12-Oct-10	25200	µg/L	10-2554	
Mine Water Collection Sump	Manganese, Dissolved	15-Nov-10	32800	µg/L	10-2712	
Mine Water Collection Sump	Manganese, Dissolved	16-Dec-10	28500	µg/L	10-2835	
Mine Water Collection Sump	Manganese, Dissolved	25-Dec-10	29800	µg/L	10-2872	
Mine Water Collection Sump	pH	12-Oct-10	5.57	units		
Mine Water Collection Sump	pH	15-Nov-10	3.77	units		
Mine Water Collection Sump	pH	16-Dec-10	4.16	units		
Mine Water Collection Sump	pH	25-Dec-10	3.58	units		
Mine Water Collection Sump	Sodium, Dissolved	12-Oct-10	14.5	mg/L	10-2554	
Mine Water Collection Sump	Sodium, Dissolved	15-Nov-10	33.4	mg/L	10-2712	
Mine Water Collection Sump	Sodium, Dissolved	16-Dec-10	78	mg/L	10-2835	
Mine Water Collection Sump	Sodium, Dissolved	25-Dec-10	48	mg/L	10-2872	
Mine Water Collection Sump	Sulfate	12-Oct-10	4800	mg/L	10-2554	
Mine Water Collection Sump	Sulfate	15-Nov-10	5800	mg/L	10-2712	
Mine Water Collection Sump	Sulfate	16-Dec-10	4500	mg/L	10-2835	
Mine Water Collection Sump	Sulfate	25-Dec-10	4830	mg/L	10-2872	
Mine Water Collection Sump	Temperature - Water	12-Oct-10	0.61	°C		
Mine Water Collection Sump	Temperature - Water	15-Nov-10	0.05	°C		
Mine Water Collection Sump	Temperature - Water	16-Dec-10	3.06	°C		
Mine Water Collection Sump	Temperature - Water	25-Dec-10	0.42	°C		
Mine Water Collection Sump	Total Dissolved Solids	12-Oct-10	8010	mg/L	10-2554	
Mine Water Collection Sump	Total Dissolved Solids	15-Nov-10	10100	mg/L	10-2712	
Mine Water Collection Sump	Total Dissolved Solids	16-Dec-10	7370	mg/L	10-2835	Exceeds validation limits
Mine Water Collection Sump	Total Dissolved Solids	25-Dec-10	8210	mg/L	10-2872	Exceeds validation limits
Mine Water Collection Sump	Zinc, Dissolved	12-Oct-10	1270000	µg/L	10-2554	
Mine Water Collection Sump	Zinc, Dissolved	15-Nov-10	1740000	µg/L	10-2712	
Mine Water Collection Sump	Zinc, Dissolved	16-Dec-10	1250000	µg/L	10-2835	
Mine Water Collection Sump	Zinc, Dissolved	25-Dec-10	1340000	µg/L	10-2872	
Reclaim Water	Acidity as CaCO3	06-Oct-10	580	mg/L	10-2532	
Reclaim Water	Acidity as CaCO3	08-Nov-10	590	mg/L	10-2702	
Reclaim Water	Acidity as CaCO3	24-Dec-10	570	mg/L	10-2866	
Reclaim Water	Aluminum, Dissolved	06-Oct-10	953	µg/L	10-2532	
Reclaim Water	Aluminum, Dissolved	08-Nov-10	670	µg/L	10-2702	
Reclaim Water	Aluminum, Dissolved	24-Dec-10	728	µg/L	10-2866	
Reclaim Water	Ammonia-N	06-Oct-10	6	mg/L	10-2532	
Reclaim Water	Ammonia-N	08-Nov-10	6.6	mg/L	10-2702	
Reclaim Water	Ammonia-N	24-Dec-10	7	mg/L	10-2866	
Reclaim Water	Cadmium, Dissolved	06-Oct-10	1780	µg/L	10-2532	
Reclaim Water	Cadmium, Dissolved	08-Nov-10	1570	µg/L	10-2702	
Reclaim Water	Cadmium, Dissolved	24-Dec-10	1950	µg/L	10-2866	
Reclaim Water	Calcium, Dissolved	06-Oct-10	645	mg/L	10-2532	
Reclaim Water	Calcium, Dissolved	08-Nov-10	698	mg/L	10-2702	

Mine Water Quality Sample Results 4th Quarter 2010						
Location	Analyte	Sample Date	Result	Unit	Sample Number	Qualifier Comment
Reclaim Water	Calcium, Dissolved	24-Dec-10	629	mg/L	10-2866	
Reclaim Water	Chloride	06-Oct-10	36	mg/L	10-2532	
Reclaim Water	Chloride	08-Nov-10	37	mg/L	10-2702	
Reclaim Water	Chloride	24-Dec-10	40	mg/L	10-2866	
Reclaim Water	Conductivity	06-Oct-10	3340	µMHOS/cm		
Reclaim Water	Conductivity	08-Nov-10	3142	µMHOS/cm		
Reclaim Water	Conductivity	24-Dec-10	3291	µMHOS/cm		
Reclaim Water	Copper, Dissolved	06-Oct-10	<300	µg/L	10-2532	Undetect (NCA)
Reclaim Water	Copper, Dissolved	08-Nov-10	15.6	µg/L	10-2702	
Reclaim Water	Copper, Dissolved	24-Dec-10	16	µg/L	10-2866	
Reclaim Water	Cyanide, WAD	06-Oct-10	108	µg/L	10-2531	
Reclaim Water	Cyanide, WAD	06-Oct-10	112	µg/L	10-2532	
Reclaim Water	Cyanide, WAD	08-Nov-10	390	µg/L	10-2701	
Reclaim Water	Cyanide, WAD	08-Nov-10	391	µg/L	10-2702	Exceeds validation limits
Reclaim Water	Cyanide, WAD	24-Dec-10	375	µg/L	10-2865	
Reclaim Water	Cyanide, WAD	24-Dec-10	367	µg/L	10-2866	
Reclaim Water	Iron, Dissolved	06-Oct-10	1230	µg/L	10-2532	
Reclaim Water	Iron, Dissolved	08-Nov-10	4420	µg/L	10-2702	
Reclaim Water	Iron, Dissolved	24-Dec-10	6500	µg/L	10-2866	
Reclaim Water	Lead, Dissolved	06-Oct-10	2350	µg/L	10-2532	
Reclaim Water	Lead, Dissolved	08-Nov-10	1480	µg/L	10-2702	
Reclaim Water	Lead, Dissolved	24-Dec-10	1300	µg/L	10-2866	
Reclaim Water	Magnesium, Dissolved	06-Oct-10	200	mg/L	10-2532	
Reclaim Water	Magnesium, Dissolved	08-Nov-10	225	mg/L	10-2702	
Reclaim Water	Magnesium, Dissolved	24-Dec-10	205	mg/L	10-2866	
Reclaim Water	Manganese, Dissolved	06-Oct-10	39000	µg/L	10-2532	
Reclaim Water	Manganese, Dissolved	08-Nov-10	33600	µg/L	10-2702	
Reclaim Water	Manganese, Dissolved	24-Dec-10	40600	µg/L	10-2866	
Reclaim Water	pH	06-Oct-10	5.73	units		
Reclaim Water	pH	08-Nov-10	6.24	units		
Reclaim Water	pH	24-Dec-10	5.99	units		
Reclaim Water	Sodium, Dissolved	06-Oct-10	102	mg/L	10-2532	
Reclaim Water	Sodium, Dissolved	08-Nov-10	107	mg/L	10-2702	
Reclaim Water	Sodium, Dissolved	24-Dec-10	122	mg/L	10-2866	
Reclaim Water	Sulfate	06-Oct-10	3260	mg/L	10-2532	
Reclaim Water	Sulfate	08-Nov-10	3090	mg/L	10-2702	
Reclaim Water	Sulfate	24-Dec-10	3330	mg/L	10-2866	
Reclaim Water	Temperature - Water	06-Oct-10	9.6	°C		
Reclaim Water	Temperature - Water	08-Nov-10	3.5	°C		
Reclaim Water	Temperature - Water	24-Dec-10	3.1	°C		
Reclaim Water	Total Dissolved Solids	06-Oct-10	4840	mg/L	10-2532	
Reclaim Water	Total Dissolved Solids	08-Nov-10	5020	mg/L	10-2702	
Reclaim Water	Total Dissolved Solids	24-Dec-10	5040	mg/L	10-2866	Exceeds validation limits
Reclaim Water	Zinc, Dissolved	06-Oct-10	367000	µg/L	10-2532	
Reclaim Water	Zinc, Dissolved	08-Nov-10	331000	µg/L	10-2702	
Reclaim Water	Zinc, Dissolved	24-Dec-10	404000	µg/L	10-2866	
Seepage P. Pumpback	Acidity as CaCO3	12-Oct-10	<10	mg/L	10-2552	Undetect (NCA)
Seepage P. Pumpback	Acidity as CaCO3	15-Nov-10	<10	mg/L	10-2710	Undetect (NCA)
Seepage P. Pumpback	Acidity as CaCO3	16-Dec-10	<10	mg/L	10-2837	Undetect (NCA)
Seepage P. Pumpback	Acidity as CaCO3	25-Dec-10	<10	mg/L	10-2871	Undetect (NCA)
Seepage P. Pumpback	Aluminum, Dissolved	12-Oct-10	100	µg/L	10-2552	Detected in Method Blank (NCA)
Seepage P. Pumpback	Aluminum, Dissolved	15-Nov-10	9	µg/L	10-2710	
Seepage P. Pumpback	Aluminum, Dissolved	16-Dec-10	<2	µg/L	10-2837	Undetect (NCA)
Seepage P. Pumpback	Aluminum, Dissolved	25-Dec-10	<2	µg/L	10-2871	Undetect (NCA)

Mine Water Quality Sample Results 4th Quarter 2010						
Location	Analyte	Sample Date	Result	Unit	Sample Number	Qualifier Comment
Seepage P. Pumpback	Ammonia-N	12-Oct-10	1.7	mg/L	10-2552	
Seepage P. Pumpback	Ammonia-N	15-Nov-10	1.5	mg/L	10-2710	
Seepage P. Pumpback	Ammonia-N	16-Dec-10	1.3	mg/L	10-2837	
Seepage P. Pumpback	Ammonia-N	25-Dec-10	1.7	mg/L	10-2871	
Seepage P. Pumpback	Cadmium, Dissolved	12-Oct-10	640	µg/L	10-2552	
Seepage P. Pumpback	Cadmium, Dissolved	15-Nov-10	11	µg/L	10-2710	
Seepage P. Pumpback	Cadmium, Dissolved	16-Dec-10	17.2	µg/L	10-2837	
Seepage P. Pumpback	Cadmium, Dissolved	25-Dec-10	18.9	µg/L	10-2871	
Seepage P. Pumpback	Calcium, Dissolved	12-Oct-10	139	mg/L	10-2552	
Seepage P. Pumpback	Calcium, Dissolved	15-Nov-10	387	mg/L	10-2710	
Seepage P. Pumpback	Calcium, Dissolved	16-Dec-10	460	mg/L	10-2837	
Seepage P. Pumpback	Calcium, Dissolved	25-Dec-10	484	mg/L	10-2871	
Seepage P. Pumpback	Chloride	12-Oct-10	27	mg/L	10-2552	
Seepage P. Pumpback	Chloride	15-Nov-10	20	mg/L	10-2710	Detected in Method Blank (NCA)
Seepage P. Pumpback	Chloride	16-Dec-10	29	mg/L	10-2837	
Seepage P. Pumpback	Chloride	25-Dec-10	29	mg/L	10-2871	
Seepage P. Pumpback	Conductivity	12-Oct-10	1733	µMHOS/cm		
Seepage P. Pumpback	Conductivity	15-Nov-10	1682	µMHOS/cm		
Seepage P. Pumpback	Conductivity	16-Dec-10	2198	µMHOS/cm		
Seepage P. Pumpback	Conductivity	25-Dec-10	1954	µMHOS/cm		
Seepage P. Pumpback	Copper, Dissolved	12-Oct-10	2	µg/L	10-2552	Detected in Method Blank (NCA)
Seepage P. Pumpback	Copper, Dissolved	15-Nov-10	2.1	µg/L	10-2710	Detected in Method Blank (NCA)
Seepage P. Pumpback	Copper, Dissolved	16-Dec-10	4	µg/L	10-2837	Detected in Method Blank (NCA)
Seepage P. Pumpback	Copper, Dissolved	25-Dec-10	4	µg/L	10-2871	Detected in Method Blank (NCA)
Seepage P. Pumpback	Iron, Dissolved	12-Oct-10	150	µg/L	10-2552	
Seepage P. Pumpback	Iron, Dissolved	15-Nov-10	14600	µg/L	10-2710	
Seepage P. Pumpback	Iron, Dissolved	16-Dec-10	13600	µg/L	10-2837	
Seepage P. Pumpback	Iron, Dissolved	25-Dec-10	16900	µg/L	10-2871	
Seepage P. Pumpback	Lead, Dissolved	12-Oct-10	17.4	µg/L	10-2552	
Seepage P. Pumpback	Lead, Dissolved	15-Nov-10	0.6	µg/L	10-2710	
Seepage P. Pumpback	Lead, Dissolved	16-Dec-10	<0.2	µg/L	10-2837	Undetect (NCA)
Seepage P. Pumpback	Lead, Dissolved	25-Dec-10	3	µg/L	10-2871	
Seepage P. Pumpback	Magnesium, Dissolved	12-Oct-10	57.2	mg/L	10-2552	
Seepage P. Pumpback	Magnesium, Dissolved	15-Nov-10	174	mg/L	10-2710	
Seepage P. Pumpback	Magnesium, Dissolved	16-Dec-10	188	mg/L	10-2837	
Seepage P. Pumpback	Magnesium, Dissolved	25-Dec-10	200	mg/L	10-2871	
Seepage P. Pumpback	Manganese, Dissolved	12-Oct-10	3340	µg/L	10-2552	
Seepage P. Pumpback	Manganese, Dissolved	15-Nov-10	13900	µg/L	10-2710	
Seepage P. Pumpback	Manganese, Dissolved	16-Dec-10	11300	µg/L	10-2837	
Seepage P. Pumpback	Manganese, Dissolved	25-Dec-10	16700	µg/L	10-2871	
Seepage P. Pumpback	pH	12-Oct-10	6.19	units		
Seepage P. Pumpback	pH	15-Nov-10	6.41	units		
Seepage P. Pumpback	pH	16-Dec-10	6.58	units		
Seepage P. Pumpback	pH	25-Dec-10	6.63	units		
Seepage P. Pumpback	Sodium, Dissolved	12-Oct-10	7.2	mg/L	10-2552	
Seepage P. Pumpback	Sodium, Dissolved	15-Nov-10	182	mg/L	10-2710	
Seepage P. Pumpback	Sodium, Dissolved	16-Dec-10	182	mg/L	10-2837	
Seepage P. Pumpback	Sodium, Dissolved	25-Dec-10	206	mg/L	10-2871	
Seepage P. Pumpback	Sulfate	12-Oct-10	1830	mg/L	10-2552	
Seepage P. Pumpback	Sulfate	15-Nov-10	1560	mg/L	10-2710	
Seepage P. Pumpback	Sulfate	16-Dec-10	1790	mg/L	10-2837	
Seepage P. Pumpback	Sulfate	25-Dec-10	2170	mg/L	10-2871	
Seepage P. Pumpback	Temperature - Water	12-Oct-10	3.2	°C		
Seepage P. Pumpback	Temperature - Water	15-Nov-10	1.74	°C		

Mine Water Quality Sample Results 4th Quarter 2010						
Location	Analyte	Sample Date	Result	Unit	Sample Number	Qualifier Comment
Seepage P. Pumpback	Temperature - Water	16-Dec-10	2.21	°C		
Seepage P. Pumpback	Temperature - Water	25-Dec-10	1.07	°C		
Seepage P. Pumpback	Total Dissolved Solids	12-Oct-10	2770	mg/L	10-2552	
Seepage P. Pumpback	Total Dissolved Solids	15-Nov-10	2780	mg/L	10-2710	
Seepage P. Pumpback	Total Dissolved Solids	16-Dec-10	2910	mg/L	10-2837	Exceeds validation limits
Seepage P. Pumpback	Total Dissolved Solids	25-Dec-10	3370	mg/L	10-2871	Exceeds validation limits
Seepage P. Pumpback	Zinc, Dissolved	12-Oct-10	68300	µg/L	10-2552	
Seepage P. Pumpback	Zinc, Dissolved	15-Nov-10	59300	µg/L	10-2710	
Seepage P. Pumpback	Zinc, Dissolved	16-Dec-10	52200	µg/L	10-2837	
Seepage P. Pumpback	Zinc, Dissolved	25-Dec-10	75700	µg/L	10-2871	
Tailings Water	Acidity as CaCO3	06-Oct-10	440	mg/L	10-2533	
Tailings Water	Acidity as CaCO3	08-Nov-10	540	mg/L	10-2703	
Tailings Water	Acidity as CaCO3	24-Dec-10	670	mg/L	10-2867	
Tailings Water	Aluminum, Dissolved	06-Oct-10	<5	µg/L	10-2533	Undetect (NCA)
Tailings Water	Aluminum, Dissolved	08-Nov-10	7	µg/L	10-2703	
Tailings Water	Aluminum, Dissolved	24-Dec-10	<5	µg/L	10-2867	Undetect (NCA)
Tailings Water	Ammonia-N	06-Oct-10	8.1	mg/L	10-2533	
Tailings Water	Ammonia-N	08-Nov-10	9.6	mg/L	10-2703	
Tailings Water	Ammonia-N	24-Dec-10	10.2	mg/L	10-2867	
Tailings Water	Cadmium, Dissolved	06-Oct-10	459.3	µg/L	10-2533	
Tailings Water	Cadmium, Dissolved	08-Nov-10	640	µg/L	10-2703	
Tailings Water	Cadmium, Dissolved	24-Dec-10	2200	µg/L	10-2867	
Tailings Water	Calcium, Dissolved	06-Oct-10	695	mg/L	10-2533	
Tailings Water	Calcium, Dissolved	08-Nov-10	592	mg/L	10-2703	
Tailings Water	Calcium, Dissolved	24-Dec-10	621	mg/L	10-2867	
Tailings Water	Chloride	06-Oct-10	60	mg/L	10-2533	
Tailings Water	Chloride	08-Nov-10	68	mg/L	10-2703	
Tailings Water	Chloride	24-Dec-10	63	mg/L	10-2867	
Tailings Water	Conductivity	06-Oct-10	3920	µMHOS/cm		
Tailings Water	Conductivity	08-Nov-10	3140	µMHOS/cm		
Tailings Water	Conductivity	24-Dec-10	3826	µMHOS/cm		
Tailings Water	Copper, Dissolved	06-Oct-10	59	µg/L	10-2533	
Tailings Water	Copper, Dissolved	08-Nov-10	31.6	µg/L	10-2703	
Tailings Water	Copper, Dissolved	24-Dec-10	22	µg/L	10-2867	
Tailings Water	Cyanide, WAD	06-Oct-10	112	µg/L	10-2533	
Tailings Water	Cyanide, WAD	08-Nov-10	416	µg/L	10-2703	Exceeds validation limits
Tailings Water	Cyanide, WAD	24-Dec-10	241	µg/L	10-2867	
Tailings Water	Iron, Dissolved	06-Oct-10	<20	µg/L	10-2533	Undetect (NCA)
Tailings Water	Iron, Dissolved	08-Nov-10	<20	µg/L	10-2703	Undetect (NCA)
Tailings Water	Iron, Dissolved	24-Dec-10	100	µg/L	10-2867	Detected in Method Blank (NCA)
Tailings Water	Lead, Dissolved	06-Oct-10	1050	µg/L	10-2533	
Tailings Water	Lead, Dissolved	08-Nov-10	1280	µg/L	10-2703	
Tailings Water	Lead, Dissolved	24-Dec-10	961	µg/L	10-2867	
Tailings Water	Magnesium, Dissolved	06-Oct-10	203	mg/L	10-2533	
Tailings Water	Magnesium, Dissolved	08-Nov-10	238	mg/L	10-2703	
Tailings Water	Magnesium, Dissolved	24-Dec-10	206	mg/L	10-2867	
Tailings Water	Manganese, Dissolved	06-Oct-10	40300	µg/L	10-2533	
Tailings Water	Manganese, Dissolved	08-Nov-10	34100	µg/L	10-2703	
Tailings Water	Manganese, Dissolved	24-Dec-10	43000	µg/L	10-2867	
Tailings Water	pH	06-Oct-10	7.2	units		
Tailings Water	pH	08-Nov-10	6.08	units		
Tailings Water	pH	24-Dec-10	6.5	units		
Tailings Water	Sodium, Dissolved	06-Oct-10	129	mg/L	10-2533	
Tailings Water	Sodium, Dissolved	08-Nov-10	138	mg/L	10-2703	

Mine Water Quality Sample Results 4th Quarter 2010						
Location	Analyte	Sample Date	Result	Unit	Sample Number	Qualifier Comment
Tailings Water	Sodium, Dissolved	24-Dec-10	163	mg/L	10-2867	
Tailings Water	Sulfate	06-Oct-10	3200	mg/L	10-2533	
Tailings Water	Sulfate	08-Nov-10	3140	mg/L	10-2703	
Tailings Water	Sulfate	24-Dec-10	3310	mg/L	10-2867	
Tailings Water	Temperature - Water	06-Oct-10	20.33	°C		
Tailings Water	Temperature - Water	08-Nov-10	16.9	°C		
Tailings Water	Temperature - Water	24-Dec-10	16.4	°C		
Tailings Water	Total Dissolved Solids	06-Oct-10	4700	mg/L	10-2533	
Tailings Water	Total Dissolved Solids	08-Nov-10	4990	mg/L	10-2703	
Tailings Water	Total Dissolved Solids	24-Dec-10	5360	mg/L	10-2867	Exceeds validation limits
Tailings Water	Zinc, Dissolved	06-Oct-10	264000	µg/L	10-2533	
Tailings Water	Zinc, Dissolved	08-Nov-10	296000	µg/L	10-2703	
Tailings Water	Zinc, Dissolved	24-Dec-10	509000	µg/L	10-2867	
West Sump	Acidity as CaCO3	12-Oct-10	<10	mg/L	10-2551	Undetect (NCA)
West Sump	Acidity as CaCO3	15-Nov-10	<10	mg/L	10-2707	Undetect (NCA)
West Sump	Acidity as CaCO3	16-Dec-10	<10	mg/L	10-2841	Undetect (NCA)
West Sump	Acidity as CaCO3	24-Dec-10	<10	mg/L	10-2869	Undetect (NCA)
West Sump	Aluminum, Dissolved	12-Oct-10	5	µg/L	10-2551	
West Sump	Aluminum, Dissolved	15-Nov-10	4	µg/L	10-2707	Detected in Method Blank (NCA)
West Sump	Aluminum, Dissolved	16-Dec-10	6	µg/L	10-2841	
West Sump	Aluminum, Dissolved	24-Dec-10	2	µg/L	10-2869	Detected in Method Blank (NCA)
West Sump	Ammonia-N	12-Oct-10	<0.1	mg/L	10-2551	Undetect (NCA)
West Sump	Ammonia-N	15-Nov-10	0.6	mg/L	10-2707	
West Sump	Ammonia-N	16-Dec-10	0.3	mg/L	10-2841	Detected in Method Blank (NCA)
West Sump	Ammonia-N	24-Dec-10	<0.1	mg/L	10-2869	Undetect (NCA)
West Sump	Cadmium, Dissolved	12-Oct-10	1	µg/L	10-2551	
West Sump	Cadmium, Dissolved	15-Nov-10	23.2	µg/L	10-2707	
West Sump	Cadmium, Dissolved	16-Dec-10	2.1	µg/L	10-2841	
West Sump	Cadmium, Dissolved	24-Dec-10	1.3	µg/L	10-2869	
West Sump	Calcium, Dissolved	12-Oct-10	93.5	mg/L	10-2551	
West Sump	Calcium, Dissolved	15-Nov-10	391	mg/L	10-2707	
West Sump	Calcium, Dissolved	16-Dec-10	258	mg/L	10-2841	
West Sump	Calcium, Dissolved	24-Dec-10	193	mg/L	10-2869	
West Sump	Chloride	12-Oct-10	8	mg/L	10-2551	
West Sump	Chloride	15-Nov-10	23	mg/L	10-2707	
West Sump	Chloride	16-Dec-10	4	mg/L	10-2841	Detected in Method Blank (NCA)
West Sump	Chloride	24-Dec-10	3	mg/L	10-2869	Detected in Method Blank (NCA)
West Sump	Conductivity	12-Oct-10	580	µMHOS/cm		
West Sump	Conductivity	15-Nov-10	404	µMHOS/cm		
West Sump	Conductivity	16-Dec-10	1251	µMHOS/cm		
West Sump	Conductivity	24-Dec-10	939	µMHOS/cm		
West Sump	Copper, Dissolved	12-Oct-10	1.5	µg/L	10-2551	Detected in Method Blank (NCA)
West Sump	Copper, Dissolved	15-Nov-10	4	µg/L	10-2707	Detected in Method Blank (NCA)
West Sump	Copper, Dissolved	16-Dec-10	3	µg/L	10-2841	Detected in Method Blank (NCA)
West Sump	Copper, Dissolved	24-Dec-10	2	µg/L	10-2869	Detected in Method Blank (NCA)
West Sump	Cyanide, WAD	12-Oct-10	<3	µg/L	10-2551	Undetect (NCA)
West Sump	Cyanide, WAD	15-Nov-10	<3	µg/L	10-2707	Undetect (NCA)
West Sump	Cyanide, WAD	16-Dec-10	<3	µg/L	10-2841	Undetected in sample, sample analyzed out of hold time
West Sump	Cyanide, WAD	24-Dec-10	<3	µg/L	10-2869	Undetect (NCA)
West Sump	Iron, Dissolved	12-Oct-10	<20	µg/L	10-2551	Undetect (NCA)
West Sump	Iron, Dissolved	15-Nov-10	3490	µg/L	10-2707	
West Sump	Iron, Dissolved	16-Dec-10	920	µg/L	10-2841	
West Sump	Iron, Dissolved	24-Dec-10	900	µg/L	10-2869	
West Sump	Lead, Dissolved	12-Oct-10	0.1	µg/L	10-2551	Detected in Method Blank (NCA)

Mine Water Quality Sample Results 4th Quarter 2010

Location	Analyte	Sample Date	Result	Unit	Sample Number	Qualifier Comment
West Sump	Lead, Dissolved	15-Nov-10	0.3	µg/L	10-2707	Detected in Method Blank (NCA)
West Sump	Lead, Dissolved	16-Dec-10	<0.1	µg/L	10-2841	Undetect (NCA)
West Sump	Lead, Dissolved	24-Dec-10	0.1	µg/L	10-2869	Detected in Method Blank (NCA)
West Sump	Magnesium, Dissolved	12-Oct-10	94.3	mg/L	10-2551	
West Sump	Magnesium, Dissolved	15-Nov-10	461	mg/L	10-2707	
West Sump	Magnesium, Dissolved	16-Dec-10	193	mg/L	10-2841	
West Sump	Magnesium, Dissolved	24-Dec-10	145	mg/L	10-2869	
West Sump	Manganese, Dissolved	12-Oct-10	176.7	µg/L	10-2551	
West Sump	Manganese, Dissolved	15-Nov-10	36600	µg/L	10-2707	
West Sump	Manganese, Dissolved	16-Dec-10	824	µg/L	10-2841	
West Sump	Manganese, Dissolved	24-Dec-10	787	µg/L	10-2869	
West Sump	pH	12-Oct-10	7.04	units		
West Sump	pH	15-Nov-10	7.44	units		
West Sump	pH	16-Dec-10	4.65	units		
West Sump	pH	24-Dec-10	6.3	units		
West Sump	Sodium, Dissolved	12-Oct-10	5.8	mg/L	10-2551	
West Sump	Sodium, Dissolved	15-Nov-10	13.1	mg/L	10-2707	
West Sump	Sodium, Dissolved	16-Dec-10	7.4	mg/L	10-2841	
West Sump	Sodium, Dissolved	24-Dec-10	6.9	mg/L	10-2869	
West Sump	Sulfate	12-Oct-10	460	mg/L	10-2551	
West Sump	Sulfate	15-Nov-10	2210	mg/L	10-2707	
West Sump	Sulfate	16-Dec-10	1230	mg/L	10-2841	
West Sump	Sulfate	24-Dec-10	790	mg/L	10-2869	
West Sump	Temperature - Water	12-Oct-10	1.41	°C		
West Sump	Temperature - Water	15-Nov-10	1.14	°C		
West Sump	Temperature - Water	16-Dec-10	4.65	°C		
West Sump	Temperature - Water	24-Dec-10	3.1	°C		
West Sump	Total Dissolved Solids	12-Oct-10	790	mg/L	10-2551	
West Sump	Total Dissolved Solids	15-Nov-10	3620	mg/L	10-2707	
West Sump	Total Dissolved Solids	16-Dec-10	1960	mg/L	10-2841	Exceeds validation limits
West Sump	Total Dissolved Solids	24-Dec-10	1340	mg/L	10-2869	Exceeds validation limits
West Sump	Zinc, Dissolved	12-Oct-10	860	µg/L	10-2551	
West Sump	Zinc, Dissolved	15-Nov-10	18800	µg/L	10-2707	
West Sump	Zinc, Dissolved	16-Dec-10	2080	µg/L	10-2841	
West Sump	Zinc, Dissolved	24-Dec-10	1570	µg/L	10-2869	