Environmental Monitoring Data

March 2024

EPL No: 11912
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671
http://www.epa.nsw.gov.au/licensing-and-regulation/public-registers

Dust

Monitoring Point: 1 <McLintocks Shed>
Dust monitoring, Dust gauge located on private property to the west of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	7.89	
Monthly	15/02/2024	01/03/2024	21/03/2024	4.91	
Monthly	13/03/2024	13/03/2024	23/04/2024	0.03	
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				3	
Lowest Value				0.0	
Mean of Sample				4.3	
Highest Sample Value				7.9	
Median				4.9	

Monitoring Point: 2 <Site Office>
Dust monitoring, Dust gauge located on private property to the south of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	6.19	
Monthly	15/02/2024	01/03/2024	21/03/2024	6.35	
Monthly	14/03/2023	14/03/2024	23/04/2024	1.82	
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				3	
Lowest Value				1.8	
Mean of Sample				4.8	
Highest Sample Value				6.3	
Median				6.2	

Monitoring Point: 3 <DG06>
Dust monitoring, Dust gauge located on private property to the east of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	2.27	
Monthly	15/02/2024	01/03/2024	21/03/2024	1.38	
Monthly	14/03/2024	14/03/2024	23/04/2024	0.45	
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				3	
Lowest Value				0.4	
Mean of Sample				1.4	
Highest Sample Value				2.3	
Median				1.4	

Monitoring Point: 4 <DG09>
Dust monitoring, Dust gauge located on private property to the south of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	1.64	
Monthly	15/02/2024	01/03/2024	21/03/2024	1.47	
Monthly	14/03/2024	14/03/2024	23/04/2024	0.33	
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				3	
Lowest Value				0.3	
Mean of Sample				1.1	
Highest Sample Value				1.6	
Median				1.5	

Monitoring Point: 5 <Site 52>
Dust monitoring, Dust gauge located within ML1535 and north of the open pit

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	2.95	
Monthly	15/02/2024	01/03/2024	21/03/2024	4.04	
Monthly	14/03/2023	14/03/2024	23/04/2024	0.38	
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				3	
Lowest Value				0.4	
Mean of Sample				2.5	
Highest Sample Value				4.0	
Median				3.0	

Dust

Monitoring Point: 6 <DG01>
Dust monitoring, Dust gauge located on private property to the north of ML1535 boundary

Frequency	Date Collected	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	14/01/2024	06/02/2024	21/02/2024	1.04	
Monthly	15/02/2024	01/03/2024	21/03/2024	2.56	
Monthly	14/03/2024	14/03/2024	23/04/2024	0.70	
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Monthly					
Number of Samples Collected				3	
Lowest Value				0.7	
Mean of Sample				1.4	
Highest Sample Value				2.6	
Median				1.0	

Monitoring Point: 49 <HV1>
Dust monitoring, High volume sampler located on private property to the north of ML1535 boundary

Frequency	Date Sampled	Date Obtained	Date Published	Total Suspended Particles (µg/m^3)	Comments
Every 7 days	Wednesday, 3 January 2024	20/02/2024	21/02/2024	24.8	
Every 7 days	Wednesday, 10 January 2024	20/02/2024	21/02/2024	26.0	
Every 7 days	Wednesday, 17 January 2024	20/02/2024	21/02/2024	34.4	
Every 7 days	Wednesday, 24 January 2024	20/02/2024	21/02/2024	44.7	
Every 7 days	Wednesday, 31 January 2024	20/02/2024	21/02/2024	75.0	
Every 7 days	Wednesday, 7 February 2024	14/03/2024	21/03/2023	18.1	
Every 7 days	Wednesday, 14 February 2024	14/03/2024	21/03/2024	72.0	
Every 7 days	Wednesday, 21 February 2024	14/03/2024	21/03/2024	33.3	
Every 7 days	Wednesday, 28 February 2024	14/03/2024	21/03/2024	55.0	
Every 7 days	Wednesday, 6 March 2024	06/03/2024	23/04/2024	59.4	
Every 7 days	Wednesday, 13 March 2024	13/03/2024	23/04/2024	74.7	
Every 7 days	Wednesday, 20 March 2024	20/03/2024	23/04/2024	37.4	
Every 7 days	Wednesday, 27 March 2024	27/03/2024	23/04/2024	83.5	
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
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Every 7 days					
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Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Every 7 days					
Number of Samples Collected				13	
Lowest Value				18.1	
Mean of Sample				49.1	
Highest Sample Value				83.5	
Median				44.7	

Surface Water

Monitoring Point: 12 <D1>
Stormwater quality monitoring, Northern waste emplacement contained water storage

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Comments
Monthly	09/01/2024	09/01/2024	21/02/2024	8.38	14133	14	
Monthly	18/01/2024	18/01/2024	21/02/2024	8.17	9145	18	Rainfall Monitoring Event
Monthly	06/02/2024	06/02/2024	21/03/2024	8.43	10038	41	
Monthly	05/03/2024	05/03/2024	23/04/2024	7.46	10710	19	
Monthly	20/03/2024	20/03/2024	23/04/2024	7.13	11060	9	Rainfall Monitoring Event
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				5.00	5.00	5.00	
Lowest Value				7.13	9145.00	9.00	
Mean of Sample				7.91	11017.20	20.20	
Highest Sample Value				8.43	14133.00	41.00	
Median				8.17	10710.00	18.00	

Monitoring Point: 13 <D4>
Stormwater quality monitoring, Southern waste emplacement contained water storage

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Comments
Monthly	09/01/2024	09/01/2024	21/02/2024	7.85	10036	54	
Monthly	18/01/2024	18/01/2024	21/02/2024	8.19	3195	14	Rainfall Monitoring Event
Monthly	06/02/2024	06/02/2024	21/03/2024	8.94	1527	441	
Monthly	05/03/2024	05/03/2024	23/04/2024	-	-	-	Dry
Monthly	20/03/2024	20/03/2024	23/04/2024	7.73	21282	15	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				4.00	4.00	4.00	
Lowest Value				7.73	1527.00	14.00	
Mean of Sample				8.18	9010.00	131.00	
Highest Sample Value				8.94	21282.00	441.00	
Median				8.02	6615.50	34.50	

Lake Water

Monitoring Point: 14 <P1>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Total Suspended Solids (mg/L)	Comments
Weekly	04/01/2024	04/01/2024	21/02/2024	8.37	622.0	35	
Weekly	09/01/2024	09/01/2024	21/02/2024	8.42	622.0	30	
Weekly	16/01/2024	16/01/2024	21/02/2024	7.49	586.0	240	
Weekly	18/01/2024	18/01/2024	21/02/2024	8.51	588.0	89	Rainfall Monitoring Event
Weekly	22/01/2024	22/01/2024	21/02/2024	8.66	609.0	76	
Weekly	30/01/2024	30/01/2024	21/02/2024	8.52	615.0	59	
Weekly	06/02/2024	06/02/2024	21/02/2024	8.65	636.0	80	
Weekly	15/02/2024	15/02/2024	21/03/2024	8.95	599.0	105	
Weekly	20/02/2024	20/02/2024	21/03/2024	9.20	616.2	83	
Weekly	01/03/2024	01/03/2024	23/04/2024	8.39	665.0	112	
Weekly	08/03/2024	08/03/2024	23/04/2024	8.69	614.0	79	
Weekly	14/03/2024	14/03/2024	23/04/2024	7.88	627.0	63	
Weekly	18/03/2024	18/03/2024	23/04/2024	8.19	691.0	105	
Weekly	21/03/2024	21/03/2024	23/04/2024	7.76	642.0	177	
Weekly	26/03/2024	26/03/2024	23/04/2024	8.00	701.0	69	
Weekly							
Weekly							
Weekly					

Lake Water

Monitoring Point: 17 <B1>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	22/01/2024	07/02/2024	21/02/2024	8.55	605.0	
Monthly	20/02/2024	20/02/2024	21/03/2024	9.18	619.2	
Monthly	18/03/2024	18/03/2024	23/04/2024	8.43	693.0	
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				3	3	
Lowest Value				8.4	605.0	
Mean of Sample				8.7	639.1	
Highest Sample Value				9.2	693.0	
Median				8.6	619.2	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	07/02/2024	21/02/2024	156	<0.001	0.002	<0.0001	<0.001	<0.001	0.002	0.002	<0.01	53	<0.005	
Quarterly															
Quarterly															
Quarterly															
Lowest Value				156.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0	
Mean of Sample				156.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0	
Highest Sample Value				156.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0	

Monitoring Point: 18 <B6>
Ambient water quality monitoring, Surface water point on Lake Cowal to the south-east of ML1535 boundary

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	23/01/2024	07/02/2024	21/02/2024	6.77	204	
Monthly	20/02/2024	20/02/2024	21/03/2024	8.86	605	
Monthly	18/03/2024	18/03/2024	23/04/2024	9.03	680	
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				3	3	
Lowest Value				6.8	204.3	
Mean of Sample				8.2	496.4	
Highest Sample Value				9.0	680.0	
Median				8.9	604.9	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	07/02/2024	21/02/2024	59	<0.001	0.003	<0.0001	0.002	<0.001	<0.001	0.003	<0.01	37	<0.005	
Quarterly															
Quarterly															
Quarterly															
Lowest Value				59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	0.0	
Mean of Sample				59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	0.0	
Highest Sample Value				59.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.0	0.0	

Waste Rock Leachate

Monitoring Point: 41 <Northern Waste Emplacement>
Northern Waste Emplacement leachate quality monitoring

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	23/01/2024	-	-	-	-	No water present in toe drain
Monthly	27/02/2024	-	-	-	-	No water present in toe drain
Monthly	05/03/2024	-	-	-	-	No water present in toe drain
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				0	0	
Lowest Value				0.0	0	
Mean of Sample				0.0	0	
Highest Sample Value				0.0	0	
Median				0.0	0	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)		Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in toe drain
Quarterly		-	-																					
Quarterly		-	-																					
Quarterly																								
Lowest Value				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Mean of Sample				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Highest Sample Value				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Monitoring Point: 42 <Southern Waste Emplacement> 8.94 1527 441
Southern Waste Emplacement leachate quality monitoring

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	7.85	22140	
Monthly	27/02/2024	27/02/2024	21/03/2024	7.41	18716	
Monthly	05/03/2024	05/03/2024	23/04/2024	7.73	19340	
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				3	3	
Lowest Value				7.4	18716	
Mean of Sample				7.7	20065	
Highest Sample Value				7.9	22140	
Median				7.7	19340	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	08/02/2024	21/02/2024	216	<0.0005	<0.0005	0.0068	558	5620	0.001	0.01	<0.0002	705	0.079	0.0038	0.001	37	<0.002	3180	2950	41	4300	0.052	
Quarterly																								
Quarterly																								
Quarterly																								
Lowest Value				216.0000	0.0000	0.0000	0	558	5620.000	0.0010	0.0100	0.0000	705.0000	0.0792	0.004	0.0010	37.000	0.0000	3180	2950	41.000	4300	0.052	
Mean of Sample				216.0000	0.0000	0.0000	0	558	5620.000	0.0010	0.0100	0.0000	705.0000	0.0792	0.004	0.0010	37.000	0.0000	3180	2950	41.000	4300	0.052	
Highest Sample Value				216.0000	0.0000	0.0000	0	558	5620.000	0.0010	0.0100	0.0000	705.0000	0.0792	0.004	0.0010	37.000	0.0000	3180	2950	41.000	4300	0.052	

Monitoring Point: 43 <Perimeter Waste Emplacement>
Perimeter Waste Emplacement leachate quality monitoring

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	23/01/2024	-	-	-	-	No water present in toe drain
Monthly	27/02/2024	-	-	-	-	No water present in toe drain
Monthly	05/03/2024	-	-	-	-	No water present in toe drain
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Monthly						
Number of Samples Collected				0	0	
Lowest Value				0.0	0	
Mean of Sample				0.0	0	
Highest Sample Value				0.0	0	
Median				0.0	0	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in toe drain
Quarterly																								
Quarterly																								
Quarterly																								
Lowest Value				0.0000	0.0000	0.0000	0	0	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.000	0.0000	0	0	0.000	0	0.000	
Mean of Sample				0.0000	0.0000	0.0000	0	0	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.000	0.0000	0	0	0.000	0	0.000	
Highest Sample Value				0.0000	0.0000	0.0000	0	0	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.0000	0.000	0.0000	0	0	0.000	0	0.000	

Groundwater

Monitoring Point: 19 <P555A-R>
Groundwater quality monitoring, Piezometer located up gradient of southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.76	32273	20.570	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.76	31920	20.555	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.59	31833	20.600	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.6	31833	20.555	
Mean of Sample				6.7	32009	20.575	
Highest Sample Value				6.8	32273	20.600	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	748	<0.0005	<0.0005	<0.0002	274	8930	<0.001	<0.004	<0.005	<0.0002	787	0.0462	0.0015	0.0037	23	0.003	5920	2440	24500	3920	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				748.0	0.0000	0.0000	0.0000	274	8930	0.0000	0.0000	0.0000	0.0000	787	0.0462	0.0015	0.0037	23	0.0030	5920	2440	24500	3920	0.0000	
Mean of Sample				748.0	0.0000	0.0000	0.0000	274	8930	0.0000	0.0000	0.0000	0.0000	787.0000	0.0462	0.0015	0.0037	23	0.0030	5920	2440	24500	3920	0.0000	
Highest Sample Value				748.0	0.0000	0.0000	0.0000	274	8930	0.0000	0.0000	0.0000	0.0000	787	0.0462	0.0015	0.0037	23	0.0030	5920	2440	24500	3920	0.0000	

Monitoring Point: 26 <PP03>
Groundwater quality monitoring, Piezometer located near the processing plant area 8.94 1527 441

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.65	50023	17.425	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.64	48511	17.315	
Monthly	19/03/2024	19/03/2024	23/04/2024	6.04	46959	17.300	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.0	46959	17.300	
Mean of Sample				6.4	48498	17.347	
Highest Sample Value				6.7	50023	17.425	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	407	<0.0005	<0.0005	<0.0002	828	14300	0.003	<0.004	0.006	0.0008	1720	0.003	<0.0001	0.0008	58	0.01	9260	3380	41400	9150	0.02	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				407.0	0.0000	0.0000	0.0000	828	14300	0.0030	0.0000	0.0060	0.0008	1720	0.0030	0.0000	0.0008	58	0.0100	9260	3380	41400	9150	0.0200	
Mean of Sample				407.0	0.0000	0.0000	0.0000	828	14300	0.0030	0.0000	0.0060	0.0008	1720	0.0030	0.0000	0.0008	58	0.0100	9260	3380	41400	9150	0.0200	
Highest Sample Value				407.0	0.0000	0.0000	0.0000	828	14300	0.0030	0.0000	0.0060	0.0008	1720	0.0030	0.0000	0.0008	58	0.0100	9260	3380	41400	9150	0.0200	

Monitoring Point: 27 <PP04>
Groundwater quality monitoring, Piezometer located near the processing plant area

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.59	49241	15.675	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.60	48310	15.615	
Monthly	19/03/2024	19/03/2024	23/04/2024	6.03	42769	15.620	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.0	42769	15.615	
Mean of Sample				6.4	46773	15.637	
Highest Sample Value				6.6	49241	15.675	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	477	<0.0005	<0.0005	<0.0002	789	13800	0.003	<0.004	<0.005	<0.0002	1610	0.0031	0.0001	0.0024	52	0.009	9230	3480	40500	8600	0.018	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				477.0	0.0000	0.0000	0.0000	789	13800	0.0030	0.0000	0.0000	0.0000	1610	0.0031	0.0001	0.0024	52	0.0090	9230	3480	40500	8600	0.0180	
Mean of Sample				477.0	0.0000	0.0000	0.0000	789	13800	0.0030	0.0000	0.0000	0.0000	1610	0.0031	0.0001	0.0024	52	0.0090	9230	3480	40500	8600	0.0180	
Highest Sample Value				477.0	0.0000	0.0000	0.0000	789	13800	0.0030	0.0000	0.0000	0.0000	1610	0.0031	0.0001	0.0024	52	0.0090	9230	3480	40500	8600	0.0180	

Monitoring Point: 30 <P417A>
Groundwater quality monitoring, Piezometer located down gradient of southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.58	46945	11.010	
Monthly	22/02/2024	22/02/2024	21/03/2024	6.53	46677	10.985	
Monthly	14/03/2024	14/03/2024	23/04/2024	5.87	45007	10.98	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.9	45007	10.980	
Mean of Sample				6.3	46210	10.992	
Highest Sample Value				6.6	46945	11.010	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	450	<0.0005	<0.0005	0.001	654	13100	0.025	<0.004	1.82	<0.0002	1550	0.125	0.0065	0.476	38	0.01	8750	3150	38900	8020	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				450.0	0.0000	0.0000	0.0010	654	13100	0.0250	0.0000	1.8200	0.0000	1550	0.1250	0.0065	0.4760	38	0.0100	8750	3150	38900	8020	0.0000	
Mean of Sample				450.0	0.0000	0.0000	0.0010	654	13100	0.0250	0.0000	1.8200	0.0000	1550	0.1250	0.0065	0.4760	38	0.0100	8750	3150	38900	8020	0.0000	
Highest Sample Value				450.0	0.0000	0.0000	0.0010	654	13100	0.0250	0.0000	1.8200	0.0000	1550	0.1250	0.0065	0.4760	38	0.0100	8750	3150	38900	8020	0.0000	

Groundwater

Monitoring Point: 31 <P417B>

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.67	43786	10.970	
Monthly	22/02/2024	22/02/2024	21/03/2024	6.63	43120	10.943	
Monthly	14/03/2024	14/03/2024	23/04/2024	5.99	42561	10.94	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.0	42561	10.940	
Mean of Sample				6.4	43156	10.951	
Highest Sample Value				6.7	43786	10.970	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	233	<0.0005	<0.0005	<0.0002	524	12500	0.003	<0.004	0.006	0.0006	1430	0.0019	0.0004	0.002	20	0.009	8010	2800	35500	7200	0.02	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				233.0	0.0000	0.0000	0.0000	524	12500	0.0030	0.0000	0.0060	0.0006	1430	0.0019	0.0004	0.0020	20	0.0090	8010	2800	35500	7200	0.0200	
Mean of Sample				233.0	0.0000	0.0000	0.0000	524	12500	0.0030	0.0000	0.0060	0.0006	1430	0.0019	0.0004	0.0020	20	0.0090	8010	2800	35500	7200	0.0200	
Highest Sample Value				233.0	0.0000	0.0000	0.0000	524	12500	0.0030	0.0000	0.0060	0.0006	1430	0.0019	0.0004	0.0020	20	0.0090	8010	2800	35500	7200	0.0200	

Monitoring Point: 32 <P418A>
Groundwater quality monitoring, Piezometer located down gradient of northern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.57	49358	6.250	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.57	48627	6.170	
Monthly	06/03/2024	06/03/2024	23/04/2024	5.82	46228	6.120	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.8	46228	6.120	
Mean of Sample				6.3	48071	6.180	
Highest Sample Value				6.6	49358	6.250	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	508	<0.0005	<0.0005	<0.0002	528	17600	0.01	<0.004	0.223	<0.0002	1550	0.405	0.004	0.0172	23	<0.002	10600	4570	39400	7700	0.007	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				508.0	0.0000	0.0000	0.0000	528	17600	0.010	0.000	0.223	0.0000	1550	0.4050	0.0040	0.0172	23	0.0000	10600	4570	39400	7700	0.0070	
Mean of Sample				508.0	0.0000	0.0000	0.0000	528	17600	0.010	0.000	0.223	0.0000	1550	0.4050	0.0040	0.0172	23	0.0000	10600	4570	39400	7700	0.0070	
Highest Sample Value				508.0	0.0000	0.0000	0.0000	528	17600	0.010	0.000	0.223	0.0000	1550	0.4050	0.0040	0.0172	23	0.0000	10600	4570	39400	7700	0.0070	

Monitoring Point: 33 <P418B>
Groundwater quality monitoring, Piezometer located down gradient of northern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.45	47073	6.300	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.45	46436	6.225	
Monthly	06/03/2024	06/03/2024	23/04/2024	5.73	42205	6.190	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.7	42205	6.190	
Mean of Sample				6.2	45238	6.238	
Highest Sample Value				6.5	47073	6.300	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	616	<0.0005	<0.0005	<0.0002	382	13000	0.16	<0.004	0.053	0.001	1290	0.024	0.0062	0.1700	14	0.006	9710	4540	36000	6270	0.078	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				616.0	0.0000	0.0000	0.0000	382	13000	0.1600	0.0000	0.0530	0.0010	1290	0.0240	0.0062	0.1700	14	0.0060	9710	4540	36000	6270	0.0780	
Mean of Sample				616.0	0.0000	0.0000	0.0000	382	13000	0.1600	0.0000	0.0530	0.0010	1290	0.0240	0.0062	0.1700	14	0.0060	9710	4540	36000	6270	0.0780	
Highest Sample Value				616.0	0.0000	0.0000	0.0000	382	13000	0.1600	0.0000	0.0530	0.0010	1290	0.0240	0.0062	0.1700	14	0.0060	9710	4540	36000	6270	0.0780	

Groundwater

Monitoring Point: 36 <PDB1A>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.52	54830	16.7	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.49	54227	16.765	
Monthly	15/03/2024	15/03/2024	23/04/2024	5.78	53089	16.800	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.8	53089	16.700	
Mean of Sample				6.3	54049	16.755	
Highest Sample Value				6.5	54830	16.800	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	0.0036	<0.0005	0.0041	978	15500	0.002	<0.005	<0.0002	1780	3.02	0.0007	0.0036	37	0.002	10000	4200	45800	9770	0.006	
Quarterly																							
Quarterly																							
Quarterly																							
Lowest Value				0.0036	0.0000	0.0041	978	15500	0.002	0.0000	0.0000	1780	3.0200	0.0007	0.004	37	0.002	10000	4200	45800	9770	0.006	
Mean of Sample				0.0036	0.0000	0.0041	978	15500	0.002	0.0000	0.0000	1780	3.0200	0.0007	0.004	37	0.002	10000	4200	45800	9770	0.006	
Highest Sample Value				0.0036	0.0000	0.0041	978	15500	0.002	0.0000	0.0000	1780	3.0200	0.0007	0.004	37	0.002	10000	4200	45800	9770	0.006	

Monitoring Point: 38 <PDB3A>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	7.04	49808.1	81.100	
Monthly	23/02/2024	23/02/2024	21/03/2024	7.10	49498	81.105	
Monthly	19/03/2024	19/03/2024	23/04/2024	6.50	44719	81.250	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.5	44719	81.100	
Mean of Sample				6.9	48008	81.152	
Highest Sample Value				7.1	49808	81.250	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	0.0067	0.0013	0.0054	1010	13800	0.01	0.007	0.001	1720	0.09	0.0068	0.0154	44	0.006	8500	3610	43000	9600	0.395	
Quarterly																							
Quarterly																							
Quarterly																							
Lowest Value				0.0067	0.0013	0.0054	1010	13800	0.010	0.0070	0.0010	1720	0.0864	0.0068	0.015	44	0.006	8500	3610	43000	9600	0.395	
Mean of Sample				0.0067	0.0013	0.0054	1010	13800	0.010	0.0070	0.0010	1720	0.0864	0.0068	0.015	44	0.006	8500	3610	43000	9600	0.395	
Highest Sample Value				0.0067	0.0013	0.0054	1010	13800	0.010	0.0070	0.0010	1720	0.0864	0.0068	0.015	44	0.006	8500	3610	43000	9600	0.395	

Monitoring Point: 40 <PDB5A>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.39	54140	33.380	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.40	53505	33.536	
Monthly	19/03/2024	19/03/2024	23/04/2024	5.68	51567	33.640	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.7	51567	33.380	
Mean of Sample				6.2	53071	33.519	
Highest Sample Value				6.4	54140	33.640	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	<0.0005	0.0046	0.0036	763	15500	0.002	0.179	<0.0002	1940	0.0415	0.0024	0.109	39	0.003	9610	3250	46100	9890	0.035	
Quarterly																							
Quarterly																							
Quarterly																							
Lowest Value				0.0000	0.0046	0.0036	763	15500	0.002	0.1790	0.0000	1940	0.0415	0.0024	0.109	39	0.003	9610	3250	46100	9890	0.035	
Mean of Sample				0.0000	0.0046	0.0036	763	15500	0.002	0.1790	0.0000	1940	0.0415	0.0024	0.109	39	0.003	9610	3250	46100	9890	0.035	
Highest Sample Value				0.0000	0.0046	0.0036	763	15500	0.002	0.1790	0.0000	1940	0.0415	0.0024	0.109	39	0.003	9610	3250	46100	9890	0.035	

Monitoring Point: 52 <PDB1B>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	7.08	7157.2	4.780	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.54	27754	4.725	
Monthly	07/03/2024	07/03/2024	23/04/2024	5.50	27257	4.840	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.5	7157	4.725	
Mean of Sample				6.4	20723	4.782	
Highest Sample Value				7.1	27754	4.840	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	<0.0005	0.001	<0.0002	77	2320	0.012	0.112	<0.0002	152	0.037	0.0013	0.0187	8	<0.002	1420	434	5130	818	<0.005	
Quarterly																							
Quarterly																							
Quarterly																							
Lowest Value				0.0000	0.0010	0.0000	77	2320	0.012	0.1120	0.0000	152	0.0368	0.0013	0.019	8	0.000	1420	434	5130	818	0.000	
Mean of Sample				0.0000	0.0010	0.0000	77	2320	0.012	0.1120	0.0000	152	0.0368	0.0013	0.019	8	0.000	1420	434	5130	818	0.000	
Highest Sample Value				0.0000	0.0010	0.0000	77	2320	0.012	0.1120	0.0000	152	0.0368	0.0013	0.019	8	0.000	1420	434	5130	818	0.000	

Groundwater

Monitoring Point: S3 <PDB3B>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.09	52108	17.760	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.07	51370	17.72	
Monthly	15/03/2024	15/03/2024	23/04/2024	5.37	50490	17.800	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.4	50490	17.720	
Mean of Sample				5.8	51323	17.760	
Highest Sample Value				6.1	52108	17.800	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	<0.0005	<0.0005	0.0008	1100	15000	0.002	0.01	<0.0002	2130	0.0226	0.0021	0.0087	45	0.016	9100	5080	47000	11500	<0.005	
Quarterly																							
Quarterly																							
Quarterly																							
Lowest Value				0.0000	0.0000	0.0008	1100	15000	0.002	0.0100	0.0000	2130	0.0226	0.0021	0.009	45	0.016	9100	5080	47000	11500	0.000	
Mean of Sample				0.0000	0.0000	0.0008	1100	15000	0.002	0.0100	0.0000	2130	0.0226	0.0021	0.009	45	0.016	9100	5080	47000	11500	0.000	
Highest Sample Value				0.0000	0.0000	0.0008	1100	15000	0.002	0.0100	0.0000	2130	0.0226	0.0021	0.009	45	0.016	9100	5080	47000	11500	0.000	

Monitoring Point: S4 <PDB5B>
Groundwater quality monitoring, Pit dewatering bore

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	5.94	49965	13.985	
Monthly	23/02/2024	23/02/2024	21/03/2024	5.94	49395	14.35	
Monthly	15/03/2024	15/03/2024	23/04/2024	5.22	48379	14.160	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.2	48379	13.985	
Mean of Sample				5.7	49246	14.165	
Highest Sample Value				5.9	49965	14.350	

Frequency	Date Sampled	Date Obtained	Date Published	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	22/01/2024	05/02/2024	21/02/2024	<0.0005	0.001	0.0015	793	14100	0.007	0.131	<0.0002	1770	0.0199	0.078	0.0649	41	<0.002	8840	3320	42900	9270	0.006	
Quarterly																							
Quarterly																							
Quarterly																							
Lowest Value				0.0000	0.0010	0.0015	793	14100	0.007	0.1310	0.0000	1770	0.0199	0.0780	0.065	41	0.000	8840	3320	42900	9270	0.006	
Mean of Sample				0.0000	0.0010	0.0015	793	14100	0.007	0.1310	0.0000	1770	0.0199	0.0780	0.065	41	0.000	8840	3320	42900	9270	0.006	
Highest Sample Value				0.0000	0.0010	0.0015	793	14100	0.007	0.1310	0.0000	1770	0.0199	0.0780	0.065	41	0.000	8840	3320	42900	9270	0.006	

Monitoring Point: S7 <IWL06A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.7	44692	3.510	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.72	44208	3.460	
Monthly	07/03/2024	07/03/2024	23/04/2024	5.82	42958	3.430	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.8	42958	3.430	
Mean of Sample				6.4	43953	3.467	
Highest Sample Value				6.7	44692	3.510	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	371	<0.0005	<0.0005	<0.0002	786	12400	<0.001	<0.004	0.023	<0.0002	1400	0.0607	0.0017	0.017	42	0.006	8080	3100	37000	7730	0.011	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				371.0	0.0000	0.0000	0.0000	786	12400	0.0000	0.0000	0.0230	0.0000	1400	0.0607	0.0017	0.0170	42	0.0060	8080	3100	37000	7730	0.0110	
Mean of Sample				371.0	0.0000	0.0000	0.0000	786	12400	0.0000	0.0000	0.0230	0.0000	1400	0.0607	0.0017	0.0170	42	0.0060	8080	3100	37000	7730	0.0110	
Highest Sample Value				371.0	0.0000	0.0000	0.0000	786	12400	0.0000	0.0000	0.0230	0.0000	1400	0.0607	0.0017	0.0170	42	0.0060	8080	3100	37000	7730	0.0110	

Monitoring Point: S8 <IWL06B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	22/01/2024	22/01/2024	21/02/2024	6.62	44075	3.240	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.59	43674	3.210	
Monthly	07/03/2024	07/03/2024	23/04/2024	5.79	42536	3.150	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				5.8	42536	3.150	
Mean of Sample				6.3	43428	3.200	
Highest Sample Value				6.6	44075	3.240	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	548	<0.0005	<0.0005	0.0003	645	12600	0.004	<0.004	0.052	<0.0002	1480	0.0832	0.0032	0.453	39	0.006	7970	3120	36200	7700	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				548.0	0.0000	0.0000	0.0003	645	12600	0.0040	0.0000	0.0520	0.0000	1480	0.0832	0.0032	0.4530	39	0.0060	7970	3120	36200	7700	0.0000	
Mean of Sample				548.0	0.0000	0.0000	0.0003	645	12600	0.0040	0.0000	0.0520	0.0000	1480	0.0832	0.0032	0.4530	39	0.0060	7970	3120	36200	7700	0.0000	
Highest Sample Value				548.0	0.0000	0.0000	0.0003	645	12600	0.0040	0.0000	0.0520	0.0000	1480	0.0832	0.0032	0.4530	39	0.0060	7970	3120	36200	7700	0.0000	

Groundwater

Monitoring Point: 59 <IWL05A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.59	41718	3.340	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.58	41333	3.262	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.36	41221	3.300	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				2	3	3	
Lowest Value				6.4	41221	3.262	
Mean of Sample				6.5	41424	3.301	
Highest Sample Value				6.6	41718	3.340	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	672	<0.0005	<0.0005	<0.0002	302	11400	0.004	<0.004	0.019	<0.0002	1310	0.0726	0.0504	0.428	49	0.011	8180	3130	33400	6150	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				672.0	0.0000	0.0000	0.0000	302	11400	0.0040	0.0000	0.0190	0.0000	1310	0.0726	0.0504	0.4280	49	0.0110	8180	3130	33400	6150	0.0000	
Mean of Sample				672.0	0.0000	0.0000	0.0000	302	11400	0.0040	0.0000	0.0190	0.0000	1310	0.0726	0.0504	0.4280	49	0.0110	8180	3130	33400	6150	0.0000	
Highest Sample Value				672.0	0.0000	0.0000	0.0000	302	11400	0.0040	0.0000	0.0190	0.0000	1310	0.0726	0.0504	0.4280	49	0.0110	8180	3130	33400	6150	0.0000	

Monitoring Point: 60 <IWL05B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.61	42980	2.940	
Monthly	23/02/2024	23/02/2024	21/03/2024	6.59	42655	2.880	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.42	42485	2.96	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.4	42485	2.880	
Mean of Sample				6.5	42707	2.927	
Highest Sample Value				6.6	42980	2.960	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	430	<0.0005	<0.0005	<0.0002	135	11800	0.049	<0.004	1.02	<0.0002	1380	0.0828	0.0112	0.443	39	0.002	8230	2860	35200	6020	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				430.0	0.0000	0.0000	0.0000	135	11800	0.0490	0.0000	1.0200	0.0000	1380	0.0828	0.0112	0.4430	39	0.0020	8230	2860	35200	6020	0.0000	
Mean of Sample				430.0	0.0000	0.0000	0.0000	135	11800	0.0490	0.0000	1.0200	0.0000	1380	0.0828	0.0112	0.4430	39	0.0020	8230	2860	35200	6020	0.0000	
Highest Sample Value				430.0	0.0000	0.0000	0.0000	135	11800	0.0490	0.0000	1.0200	0.0000	1380	0.0828	0.0112	0.4430	39	0.0020	8230	2860	35200	6020	0.0000	

Monitoring Point: 61 <IWL04A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.81	35398	29.430	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.82	34926	29.440	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.63	34793	29.500	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.6	34793	29.430	
Mean of Sample				6.8	35039	29.457	
Highest Sample Value				6.8	35398	29.500	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	737	0.0008	<0.0005	<0.0002	340	9370	0.003	<0.004	0.016	<0.0002	930	0.0228	0.0033	0.0743	46	0.004	7010	2930	27500	4680	0.015	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				737.0	0.0008	0.0000	0.0000	340	9370	0.0030	0.0000	0.0160	0.0000	930	0.0228	0.0033	0.0743	46	0.0040	7010	2930	27500	4680	0.0150	
Mean of Sample				737.0	0.0008	0.0000	0.0000	340	9370	0.0030	0.0000	0.0160	0.0000	930	0.0228	0.0033	0.0743	46	0.0040	7010	2930	27500	4680	0.0150	
Highest Sample Value				737.0	0.0008	0.0000	0.0000	340	9370	0.0030	0.0000	0.0160	0.0000	930	0.0228	0.0033	0.0743	46	0.0040	7010	2930	27500	4680	0.0150	

Groundwater

Monitoring Point: 62 <IWL04B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	-	-	-	Dry
Monthly	21/02/2024	21/02/2024	21/03/2024	-	-	-	Dry
Monthly	06/03/2024	06/03/2024	23/04/2024	-	-	-	Dry
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				0	0	0	
Lowest Value				0.0	0	0.000	
Mean of Sample				0.0	0	0.000	
Highest Sample Value				0.0	0	0.000	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Mean of Sample				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Highest Sample Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	

Monitoring Point: 63 <IWL03A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.84	38736	23.385	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.85	38364	23.42	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.67	38303	23.42	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.7	38303	23.385	
Mean of Sample				6.8	38468	23.408	
Highest Sample Value				6.9	38736	23.420	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	694	<0.0005	<0.0005	<0.0002	371	10700	0.001	<0.004	0.018	<0.0002	803	0.0054	0.0007	0.0214	21	0.006	7770	3410	29600	4230	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				694.0	0.0000	0.0000	0.0000	371	10700	0.0010	0.0000	0.0180	0.0000	803	0.0054	0.0007	0.0214	21	0.0060	7770	3410	29600	4230	0.0000	
Mean of Sample				694.0	0.0000	0.0000	0.0000	371	10700	0.0010	0.0000	0.0180	0.0000	803	0.0054	0.0007	0.0214	21	0.0060	7770	3410	29600	4230	0.0000	
Highest Sample Value				694.0	0.0000	0.0000	0.0000	371	10700	0.0010	0.0000	0.0180	0.0000	803	0.0054	0.0007	0.0214	21	0.0060	7770	3410	29600	4230	0.0000	

Monitoring Point: 64 <IWL03B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	-	-	-	Dry
Monthly	21/02/2024	21/02/2024	21/03/2024	-	-	-	Dry
Monthly	06/03/2024	06/03/2024	23/04/2024	-	-	-	Dry
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				0	0	0	
Lowest Value				0.0	0	0.000	
Mean of Sample				0.0	0	0.000	
Highest Sample Value				0.0	0	0.000	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Mean of Sample				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Highest Sample Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	

Monitoring Point: 65 <IWL02A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.85	46452	11.570	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.84	45769	11.690	
Monthly	07/03/2024	07/03/2024	23/04/2024	5.95	44962	11.640	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.0	44962	11.570	
Mean of Sample				6.5	45728	11.633	
Highest Sample Value				6.9	46452	11.690	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	707	<0.0005	<0.0005	<0.0002	375	12400	0.002	<0.004	0.018	<0.0002	1000	0.0196	0.0023	0.0985	30	0.033	9940	4640	36500	5050	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				707.0	0.0000	0.0000	0.0000	375	12400	0.0020	0.0000	0.0180	0.0000	1000	0.0196	0.0023	0.0985	30	0.0330	9940	4640	36500	5050	0.0000	
Mean of Sample				707.0	0.0000	0.0000	0.0000	375	12400	0.0020	0.0000	0.0180	0.0000	1000	0.0196	0.0023	0.0985	30	0.0330	9940	4640	36500	5050	0.0000	
Highest Sample Value				707.0	0.0000	0.0000	0.0000	375	12400	0.0020	0.0000	0.0180	0.0000	1000	0.0196	0.0023	0.0985	30	0.0330	9940	4640	36500	5050	0.0000	

Groundwater

Monitoring Point: 66 <IWL02B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	-	-	10.65	Too shallow to sample
Monthly	21/02/2024	21/02/2024	21/03/2024	7.06	49913	10.535	
Monthly	07/03/2024	07/03/2024	23/04/2024	6.77	46989	10.49	pH probe calibration error
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				2	2	3	
Lowest Value				6.8	46989	10.490	
Mean of Sample				6.9	48451	10.558	
Highest Sample Value				7.1	49913	10.650	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	23/01/2024	21/02/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Mean of Sample				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	
Highest Sample Value				0.0	0.0000	0.0000	0.0000	0	0	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.0000	0.0000	0	0.0000	0	0	0	0	0.0000	

Monitoring Point: 67 <IWL01A>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.76	46698	3.810	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.76	46354	3.810	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.62	43958	3.840	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.6	43958	3.810	
Mean of Sample				6.7	45670	3.820	
Highest Sample Value				6.8	46698	3.840	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	537	<0.0005	<0.0005	0.0004	433	12700	0.002	<0.004	0.007	<0.0002	1170	0.0315	0.0013	0.0652	23	0.03	9500	4800	36000	5900	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				537.0	0.0000	0.0000	0.0004	433	12700	0.0020	0.0000	0.0070	0.0000	1170	0.0315	0.0013	0.0652	23	0.0300	9500	4800	36000	5900	0.0000	
Mean of Sample				537.0	0.0000	0.0000	0.0004	433	12700	0.0020	0.0000	0.0070	0.0000	1170	0.0315	0.0013	0.0652	23	0.0300	9500	4800	36000	5900	0.0000	
Highest Sample Value				537.0	0.0000	0.0000	0.0004	433	12700	0.0020	0.0000	0.0070	0.0000	1170	0.0315	0.0013	0.0652	23	0.0300	9500	4800	36000	5900	0.0000	

Monitoring Point: 68 <IWL01B>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	23/01/2024	23/01/2024	21/02/2024	6.48	36511	4.150	
Monthly	21/02/2024	21/02/2024	21/03/2024	6.52	36623	4.165	
Monthly	06/03/2024	06/03/2024	23/04/2024	6.22	35466	4.150	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Number of Samples Collected				3	3	3	
Lowest Value				6.2	35466	4.150	
Mean of Sample				6.4	36200	4.155	
Highest Sample Value				6.5	36623	4.165	

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Antimony (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Copper (mg/L)	Cyanide WAD (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Dissolved Solids (mg/L)	Total Hardness (mg/L)	Zinc (mg/L)	Comments
Quarterly	23/01/2024	05/02/2024	21/02/2024	330	<0.0005	<0.0005	<0.0002	190	10400	0.002	<0.004	0.008	<0.0002	760	0.0328	0.0002	0.0033	2	<0.002	7520	2830	28000	3600	<0.005	
Quarterly																									
Quarterly																									
Quarterly																									
Lowest Value				330.0	0.0000	0.0000	0.0000	190	10400	0.0020	0.0000	0.0080	0.0000	760	0.0328	0.0002	0.0033	2	0.0000	7520	2830	28000	3600	0.0000	
Mean of Sample				330.0	0.0000	0.0000	0.0000	190	10400	0.0020	0.0000	0.0080	0.0000	760	0.0328	0.0002	0.0033	2	0.0000	7520	2830	28000	3600	0.0000	
Highest Sample Value				330.0	0.0000	0.0000	0.0000	190	10400	0.0020	0.0000	0.0080	0.0000	760	0.0328	0.0002	0.0033	2	0.0000	7520	2830	28000	3600	0.0000	

Ambient Noise

Q1 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01	13/02/2024	04/03/2024	21/03/2024	25	26	-	
Laurel Park	N11	13/02/2024	04/03/2024	21/03/2024	<20	<20	35	
Lakeview III (New Westella)	N09	13/02/2024	04/03/2024	21/03/2024	<20	<20	38	
Bramboyne	N10	13/02/2024	04/03/2024	21/03/2024	<20	<20	35	
The Glen	N12	13/02/2024	04/03/2024	21/03/2024	<20	<20	37	
Caloola 2	N15	13/02/2024	04/03/2024	21/03/2024	<20	<20	35	
Lakeview I & II (Lakeview)	N17	13/02/2024	04/03/2024	21/03/2024	<20	<20	36	
Foxman Downs 2	N16	13/02/2024	04/03/2024	21/03/2024	<20	<20	36	

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01	14/02/2024	04/03/2024	21/03/2024	39	36	-	
Laurel Park	N11	14/02/2024	04/03/2024	21/03/2024	<20	<20	35	
Lakeview III (New Westella)	N09	15/02/2024	04/03/2024	21/03/2024	<20	<20	38	
Bramboyne	N10	14/02/2024	04/03/2024	21/03/2024	<20	<20	35	
The Glen	N12	14/02/2024	04/03/2024	21/03/2024	<20	<20	37	
Caloola 2	N15	14/02/2024	04/03/2024	21/03/2024	<20	<20	35	
Lakeview I & II (Lakeview)	N17	15/02/2024	04/03/2024	21/03/2024	<20	<20	36	
Foxman Downs 2	N16	14/02/2024	04/03/2024	21/03/2024	<20	<20	36	

<20 - Mine noise emission inaudible or barely audible

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Night dB(A) LAFmax	Comments
					Survey 1	Survey 2			
New Lake Foreshore	N01	14/02/2024	04/03/2024	21/03/2024	40	32	-		
Laurel Park	N11	14/02/2024	04/03/2024	21/03/2024	22	22	35		
Lakeview III (New Westella)	N09	15/02/2024	04/03/2024	21/03/2024	25	24	38		
Bramboyne	N10	15/02/2024	04/03/2024	21/03/2024	20	22	35		
The Glen	N12	14/02/2024	04/03/2024	21/03/2024	<20	<20	37		
Caloola 2	N15	14/02/2024	04/03/2024	21/03/2024	<20	<20	35		
Lakeview I & II (Lakeview)	N17	15/02/2024	04/03/2024	21/03/2024	29	28	36		
Foxman Downs 2	N16	14/02/2024	04/03/2024	21/03/2024	<20	<20	36		

<20 - Mine noise emission inaudible or barely audible

Q2 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Night dB(A) LAFmax	Comments
					Survey 1	Survey 2			
New Lake Foreshore	N01								
Laurel Park	N11								
Lakeview (New Westella)	N09								
Bramboyne	N10								
The Glen	N12								
Caloola 2	N15								
Lakeview I & II (Lakeview)	N17								
Foxman Downs 2	N16								

<20 - Mine noise emission inaudible or barely audible

Ambient Noise

Q3 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Night dB(A) LAFmax	Comments
					Survey 1	Survey 2			
New Lake Foreshore	N01								
Laurel Park	N11								
Lakeview (New Westella)	N09								
Bramboyne	N10								
The Glen	N12								
Caloola 2	N15								
Lakeview I & II (Lakeview)	N17								
Foxman Downs 2	N16								

<20 - Mine noise emission inaudible or barely audible

Q4 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Comments
					Survey 1	Survey 2		
New Lake Foreshore	N01							
Laurel Park	N11							
Lakeview (New Westella)	N09							
Bramboyne	N10							
The Glen	N12							
Caloola 2	N15							
Lakeview I & II (Lakeview)	N17							
Foxman Downs 2	N16							

<20 - Mine noise emission inaudible or barely audible

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)

	Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ * dBA		Noise Criteria $LA_{eq(15minute)}$ * dBA	Night dB(A) LAFmax	Comments
					Survey 1	Survey 2			
New Lake Foreshore	N01								
Laurel Park	N11								
Lakeview (New Westella)	N09								
Bramboyne	N10								
The Glen	N12								
Caloola 2	N15								
Lakeview I & II (Lakeview)	N17								
Foxman Downs 2	N16								

<20 - Mine noise emission inaudible or barely audible

Blasting

Table 1: Compliance percentages for the previous 12 months

Type of Exceedance	Total Number of Blasts (12 months)	No. of Exceedences (12 Months)			
		Daily Operation	Evening Operation	Night, Sunday and Public Holiday	Total % Exceedance
Open Pit					
Vibration	154	0	0	0	0.0%
Overpressure	154	0	0	2	1.3%
Underground					
Vibration	698	0	0	0	0.0%
Overpressure	698	0	0	1	0.1%
Combined					
Vibration	852	0	0	0	0.0%
Overpressure	852	0	0	3	0.4%

Table 2: Exceedances in the past 12 months

Exceedences in the past 12 months			
Type	Location	Date	Source
Overpressure	BM01 Gumbelah Residence, BM08.1 Cowal North	16th July 2023	Open Pit
Overpressure	BM03 Coniston Residence	31st October 2023	Underground
Overpressure	BM01 Gumbelah Residence, BM02 Hillgrove Residenc	12th November 2023	Open Pit

Date obtained: 12/04/2024

Cyanide

Monitoring Point: 48
Water quality monitoring, automated sampler located at the processing plant

			Total Cyanide (mg/L)				
Frequency	**Month**	**No Sampled during Month**	**Minimum**	**Mean**	**Median**	**Maximum**	**Comments**
Weekly	January	5	4.38	7.60	6.78	13.69	
Weekly	February	4	4.27	7.17	7.35	9.74	
Weekly	March	4	2.19	4.12	3.32	7.65	
Weekly	April	5					
Weekly	May	3					
Weekly	June	4					
Weekly	July	5					
Weekly	August	3					
Weekly	September	4					
Weekly	October	5					
Weekly	November	4					
Weekly	December	4					

			WAD Cyanide (mg/L)		Concentration Limits		
Frequency	**Month**	**No Sampled during Month**	**Minimum**	**Maximum**	**90th Percentile**	**100th Percentile**	**Comments**
Twice daily	January	62	0	12.17	20.00	30.00	
Twice daily	February	58	0.016	12.50	20.00	30.00	
Twice daily	March	53	0	10.09	20.00	30.00	
Twice daily	April						
Twice daily	May						
Twice daily	June						
Twice daily	July						
Twice daily	August						
Twice daily	September						
Twice daily	October						
Twice daily	November						
Twice daily	December						

EPL Correction Log

Monitoring Point	Monitoring Point Type	Date Sampled	Date Obtained	Date Originally Published	Parameter	Original	Correction	Comments

EPL Exceedances

Monitoring Point	Monitoring Point Type	Date Sampled	Date Obtained	Date Reported	Parameter	Value	EPL Limit	Comments