Dust

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

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

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	06/02/2017	17/02/2017	21/02/2017	1.3	
Monthly	01/03/2017	17/03/2017	20/03/2017	1.1	
Monthly	29/03/2017	12/04/2017	24/04/2017	3.7	
Monthly	26/04/2017	10/05/2017	23/05/2017	2.8	
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Frequency	Date Sampled	Date Obtained	Date Published	Aluminium (mg/kg)	Arsenic (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	Comments
Six Monthly	29/03/2017	12/04/2017	24/04/2017	14000	4.5	0.54	200	14	0.47	1230	
Six Monthly											

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

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	31/01/2017	17/02/2017	21/02/2017	2.7	
Monthly	01/03/2017	17/03/2017	20/03/2017	0.9	
Monthly	29/03/2017	12/04/2017	24/04/2017	8.5	
Monthly	26/04/2017	10/05/2017	23/05/2017	0.5	
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Frequency	Date Sampled	Date Obtained	Date Published	Aluminium (mg/kg)	Arsenic (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	Comments
Six Monthly	29/03/2017	12/04/2017	24/04/2017	5760	2.2	0.15	39	12	<0.2	820	
Six Monthly											

Monitoring Point: 3 <DG05>
Dust monitoring, Dust gauge located within Lake Cowal to the east of ML1535 boundary

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	02/02/2017	17/02/2017	21/02/2017	13.8	Elevated particulates due to wave action against gauge and deposition of lake sediments
Monthly	02/03/2017	17/03/2017	20/03/2017	3.9	
Monthly	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

Frequency	Date Sampled	Date Obtained	Date Published	Aluminium (mg/kg)	Arsenic (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	Comments
Six Monthly	-	-	-	-	-	-	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

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

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	-	-	-	-	
Monthly	-	-	-	-	
Monthly	29/03/2017	12/04/2017	24/04/2017	4.7	Monitoring point added as part of EPL variation - 20/02/2017
Monthly	26/04/2017	10/05/2017	23/05/2017	1.1	
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Frequency	Date Sampled	Date Obtained	Date Published	Aluminium (mg/kg)	Arsenic (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	Comments
Six Monthly	29/03/2017	12/04/2017	24/04/2017	13800	2.7	0.21	28	7.5	<0.2	740	
Six Monthly											

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

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	31/01/2017	17/02/2017	21/02/2017	3.9	
Monthly	01/03/2017	17/03/2017	20/03/2017	2.7	
Monthly	29/03/2017	12/04/2017	24/04/2017	2.3	
Monthly	26/04/2017	10/05/2017	23/05/2017	0.4	
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Frequency	Date Sampled	Date Obtained	Date Published	Aluminium (mg/kg)	Arsenic (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	Comments
Six Monthly	29/03/2017	12/04/2017	24/04/2017	4650	25.5	2.1	230	13	0.23	34100	
Six Monthly											

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

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	03/02/2017	17/02/2017	21/02/2017	2.0	
Monthly	02/03/2017	17/03/2017	20/03/2017	0.7	
Monthly	29/03/2017	12/04/2017	24/04/2017	1.9	
Monthly	28/04/2017	10/05/2017	23/05/2017	1.1	
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Frequency	Date Sampled	Date Obtained	Date Published	Aluminium (mg/kg)	Arsenic (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	Comments
Six Monthly	29/03/2017	12/04/2017	24/04/2017	23600	22	0.6	270	47	0.52	2430	
Six Monthly											

Dust

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited

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

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m^2/mth)	Comments
Monthly	06/02/2017	17/02/2017	21/02/2017	3.0	
Monthly	01/03/2017	17/03/2017	20/03/2017	0.8	
Monthly	29/03/2017	12/04/2017	24/04/2017	2.2	
Monthly	26/04/2017	10/05/2017	23/05/2017	1.3	
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Frequency	Date Sampled	Date Obtained	Date Published	Aluminium (mg/kg)	Arsenic (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Zinc (mg/kg)	Comments
Six Monthly	29/03/2017	12/04/2017	24/04/2017	17400	4.1	0.45	26	12	0.34	1940	
Six Monthly											

Monitoring Point: 6 <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 6 days	03/01/2017	07/03/2017	20/03/2017	25.0	
Every 6 days	09/01/2017	07/03/2017	20/03/2017	53.2	
Every 6 days	15/01/2017	07/03/2017	20/03/2017	29.9	
Every 6 days	21/01/2017	07/03/2017	20/03/2017	31.3	
Every 6 days	27/01/2017	07/03/2017	20/03/2017	34.8	
Every 6 days	02/02/2017	07/03/2017	20/03/2017	39.0	
Every 6 days	08/02/2017	07/03/2017	20/03/2017	27.1	
Every 6 days	14/02/2017	07/03/2017	20/03/2017	47.1	
Every 6 days	20/02/2017	07/03/2017	20/03/2017	46.4	
Every 7 days	26/02/2017	07/03/2017	20/03/2017	5.3	Monitoring frequency changed to Every 7 days as part of EPL variation - 20/02/2017
Every 7 days	03/03/2017	05/05/2017	23/05/2017	26.6	
Every 7 days	10/03/2017	05/05/2017	23/05/2017	42.9	
Every 7 days	17/03/2017	05/05/2017	23/05/2017	49.5	
Every 7 days	24/03/2017	05/05/2017	23/05/2017	11.3	
Every 7 days	31/03/2017	05/05/2017	23/05/2017	29.9	
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Surface Water

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

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
Weekly	03/01/2017	11/01/2017	21/02/2017	7.8	1751	20	
Weekly	09/01/2017	16/01/2017	21/02/2017	7.5	1717	20	
Weekly	17/01/2017	24/01/2017	21/02/2017	8.0	233	11	Labatory EC results = 2320 (µS/cm)
Weekly	25/01/2017	01/02/2017	21/02/2017	7.7	2937	4	
Weekly	31/01/2017	09/02/2017	21/02/2017	8.4	2014	14	
Weekly	07/02/2017	14/02/2017	21/02/2017	7.8	3481	42	
Weekly	14/02/2017	20/02/2017	21/02/2017	8.7	3820	5	
Weekly	21/02/2017	27/02/2017	20/03/2017	5.7	4190	10	
Weekly	28/02/2017	06/03/2017	20/03/2017	8.5	4370	10	
Weekly	07/03/2017	13/03/2017	20/03/2017	8.4	4830	39	
Weekly	14/03/2017	14/03/2017	20/03/2017	8.1	4640	35	
Weekly	22/03/2017	22/03/2017	24/04/2017	8.4	4570	12	Special Frequency 1 - 20mm rainfall event
Monthly	04/04/2017	13/04/2017	24/04/2017	8.6	5170	19	Monitoring frequency changed to Monthly as part of EPL variation - 20/02/2017
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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
Weekly	03/01/2017	11/01/2017	21/02/2017	6.91	36540	11	
Weekly	09/01/2017	16/01/2017	21/02/2017	7.47	697	65	Labatory EC results = 77700 (µS/cm)
Weekly	17/01/2017	24/01/2017	21/02/2017	-	-	-	No water present in D4
Weekly	25/01/2017	01/02/2017	21/02/2017	-	-	-	No water present in D4
Weekly	31/01/2017	09/02/2017	21/02/2017	-	-	-	No water present in D4
Weekly	07/02/2017	14/02/2017	21/02/2017	-	-	-	No water present in D4
Weekly	14/02/2017	20/02/2017	21/02/2017	-	-	-	No water present in D4
Weekly	21/02/2017	27/02/2017	20/03/2017	-	-	-	No water present in D4
Weekly	28/02/2017	06/03/2017	20/03/2017	-	-	-	No water present in D4
Weekly	07/03/2017	13/03/2017	20/03/2017	-	-	-	No water present in D4
Weekly	14/03/2017	14/03/2017	20/03/2017	-	-	-	No water present in D4
Weekly	22/03/2017	22/03/2017	24/04/2017	-	-	-	No water present in D4
Monthly	04/04/2017	13/04/2017	24/04/2017	8.3	2580	49	Monitoring frequency changed to Monthly as part of EPL variation - 20/02/2017
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Lake Water

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

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	05/01/2017	05/01/2017	21/02/2017	7.90	275	234	
Weekly	10/01/2017	10/01/2017	21/02/2017	7.93	1006	171	Labatory EC results = 287(µS/cm)
Weekly	19/01/2017	19/01/2017	21/02/2017	8.00	297	312	
Weekly	25/01/2017	25/01/2017	21/02/2017	7.89	388	221	
Weekly	01/02/2017	01/02/2017	21/02/2017	7.51	415	296	
Weekly	06/02/2017	06/02/2017	21/02/2017	7.75	422	196	
Weekly	14/02/2017	14/02/2017	21/02/2017	8.26	310	274	
Weekly	21/02/2017	21/02/2017	20/03/2017	7.25	426	189	
Weekly	02/03/2017	02/03/2017	20/03/2017	8.15	363	159	
Weekly	09/03/2017	09/03/2017	20/03/2017	8.21	388	293	
Weekly	16/03/2017	16/03/2017	20/03/2017	7.73	503	151	
Weekly	22/03/2017	22/03/2017	24/04/2017	7.71	376	92	Special Frequency 1 - 20mm rainfall event
Weekly	29/03/2017	05/04/2017	24/04/2017	8.08	382	55	
Weekly	06/04/2017	06/04/2017	24/04/2017	8.11	385	218	
Weekly	13/04/2017	13/04/2017	23/05/2017	8.17	345	118	
Weekly	18/04/2017	18/04/2017	23/05/2017	8.24	385	61	
Weekly	28/04/2017	28/04/2017	23/05/2017	8.27	308	115	
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Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	19/01/2017	02/02/2017	21/02/2017	108	0.006	<0.0001	0.012	0.01	<0.0001	<0.01	312	0.009	
Quarterly	28/04/2017	09/05/2017	23/05/2017	128	0.005	<0.0001	0.004	<0.001	<0.0001	<0.01	115	<0.005	
Quarterly													
Quarterly													

Monitoring Point: 15 <P2>
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	05/01/2017	05/01/2017	21/02/2017	8.11	285	78	
Weekly	10/01/2017	10/01/2017	21/02/2017	7.91	327	120	
Weekly	19/01/2017	19/01/2017	21/02/2017	8.02	301	328	
Weekly	25/01/2017	25/01/2017	21/02/2017	7.89	388	290	
Weekly	01/02/2017	01/02/2017	21/02/2017	7.64	416	260	
Weekly	06/02/2017	06/02/2017	21/02/2017	7.80	421	127	
Weekly	14/02/2017	14/02/2017	21/02/2017	8.22	311	264	
Weekly	21/02/2017	21/02/2017	20/03/2017	7.38	430	123	
Weekly	02/03/2017	02/03/2017	20/03/2017	8.19	360	111	
Weekly	09/03/2017	09/03/2017	20/03/2017	8.21	368	376	
Weekly	16/03/2017	16/03/2017	20/03/2017	7.79	503	202	
Weekly	22/03/2017	22/03/2017	24/04/2017	7.73	388	119	
Monthly	28/04/2017	28/04/2017	23/05/2017	8.27	308	124	Monitoring frequency changed to Monthly as part of EPL variation - 20/02/2017
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Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	19/01/2017	02/02/2017	21/02/2017	106	0.004	<0.0001	0.004	<0.001	<0.0001	<0.01	328	0.014	
Quarterly	28/04/2017	09/05/2017	23/05/2017	128	0.005	<0.0001	0.004	<0.001	<0.0001	<0.01	124	<0.005	
Quarterly													
Quarterly													

Monitoring Point: 16 <P3>
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	05/01/2017	05/01/2017	21/02/2017	8.08	278	129	
Weekly	10/01/2007	10/01/2007	21/02/2017	7.95	288	144	
Weekly	19/01/2017	19/01/2017	21/02/2017	7.89	300	288	
Weekly	25/01/2017	25/01/2017	21/02/2017	8.07	403	377	
Weekly	01/02/2017	01/02/2017	21/02/2017	7.73	417	248	
Weekly	06/02/2017	06/02/2017	21/02/2017	7.85	431	154	
Weekly	14/02/2017	14/02/2017	21/02/2017	8.22	310	278	
Weekly	21/02/2017	21/02/2017	20/03/2017	7.50	428	212	
Weekly	02/03/2017	02/03/2017	20/03/2017	8.11	352	103	
Weekly	09/03/2017	09/03/2017	20/03/2017	8.18	368	396	
Weekly	16/03/2017	16/03/2017	20/03/2017	7.80	500	163	
Weekly	22/03/2017	22/03/2017	24/04/2017	7.73	375	115	Special Frequency 1 - 20mm rainfall event
Weekly	29/03/2017	05/04/2017	24/04/2017	8.03	372	67	
Weekly	06/04/2017	06/04/2017	24/04/2017	8.04	384	164	
Weekly	13/04/2017	13/04/2017	23/05/2017	8.32	373	118	
Weekly	18/04/2017	18/04/2017	23/05/2017	8.20	381	37	
Weekly	28/04/2017	28/04/2017	23/05/2017	8.24	317	104	
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Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	19/01/2017	02/02/2017	21/02/2017	105	0.003	<0.0001	0.003	<0.001	<0.0001	<0.01	288	0.009	
Quarterly	28/04/2017	09/05/2017	23/05/2017	135	0.004	<0.0001	0.004	<0.001	<0.0001	<0.01	104	<0.005	
Quarterly													
Quarterly													

Lake Water

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

Monitoring Point: 17 <81>
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	05/01/2017	05/01/2017	21/02/2017	7.90	191	124	
Weekly	10/01/2017	10/01/2017	21/02/2017	7.81	286	156	
Weekly	19/01/2017	19/01/2017	21/02/2017	7.87	300	281	
Weekly	25/01/2017	25/01/2017	21/02/2017	7.75	383	225	
Weekly	01/02/2017	01/02/2017	21/02/2017	7.35	409	208	
Weekly	06/02/2017	06/02/2017	21/02/2017	7.83	423	90	
Weekly	14/02/2017	14/02/2017	21/02/2017	8.18	311	265	
Weekly	21/02/2017	21/02/2017	20/03/2017	7.57	428	210	
Weekly	02/03/2017	02/03/2017	20/03/2017	8.19	358	99	
Weekly	09/03/2017	09/03/2017	20/03/2017	8.14	370	341	
Weekly	16/03/2017	16/03/2017	20/03/2017	7.81	493	236	
Weekly	22/03/2017	22/03/2017	24/04/2017	7.70	380	107	
Monthly	28/04/2017	28/04/2017	23/05/2017	8.23	311	127	Monitoring frequency changed to Monthly as part of EPL variation - 20/02/2017
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Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	19/01/2017	02/02/2017	21/02/2017	105	0.004	<0.0001	0.003	<0.001	<0.0001	<0.01	281	0.008	
Quarterly	28/04/2017	09/05/2017	23/05/2017	131	0.004	<0.0001	0.004	<0.001	<0.0001	<0.01	127	<0.005	
Quarterly													
Quarterly													

Monitoring Point: 18 <85>
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)	Total Suspended Solids (mg/L)	Comments
Weekly	05/01/2017	13/01/2017	21/02/2017	8.15	290	322	
Weekly	10/01/2017	18/01/2017	21/02/2017	7.64	278	158	
Weekly	19/01/2017	02/02/2017	21/02/2017	7.91	307	311	
Weekly	25/01/2017	01/02/2017	21/02/2017	7.82	397	223	
Weekly	01/02/2017	09/02/2017	21/02/2017	6.97	396	175	
Weekly	06/02/2017	13/02/2017	21/02/2017	7.90	422	277	
Weekly	14/02/2017	14/02/2017	21/02/2017	8.24	309	770	
Weekly	21/02/2017	21/02/2017	20/03/2017	7.65	428	361	
Weekly	02/03/2017	09/03/2017	20/03/2017	8.11	352	274	
Weekly	09/03/2017	16/03/2017	20/03/2017	8.23	359	516	
Weekly	16/03/2017	16/03/2017	20/03/2017	7.89	478	373	
Weekly	22/03/2017	22/03/2017	28/03/2017	7.94	376	150	
Weekly	-	-	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	19/01/2017	25/01/2017	21/02/2017	110	0.004	<0.0001	0.004	<0.001	<0.0001	<0.01	159	0.01	
Quarterly	-	-	-	-	-	-	-	-	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

Monitoring Point: 18 <86>
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	-	-	-	-	-	
Monthly	-	-	-	-	-	
Monthly	16/03/2017	16/03/2017	24/04/2017	7.94	472	Monitoring point added as part of EPL variation - 20/02/2017
Monthly	28/04/2017	28/04/2017	23/05/2017	8.25	397	
Monthly						
Monthly						
Monthly						
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Monthly						

Frequency	Date Sampled	Date Obtained	Date Published	Alkalinity (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Copper (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly													
Quarterly	28/04/2017	09/05/2017	23/05/2017	124	0.004	<0.0001	0.005	<0.001	<0.0001	<0.01	171	<0.005	Monitoring point added as part of EPL variation - 20/02/2017
Quarterly													
Quarterly													

Groundwater

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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	09/01/2017	23/01/2017	21/02/2017	6.68	32240	20.924	
Monthly	14/02/2017	14/02/2017	20/03/2017	6.76	32180	20.980	
Monthly	28/03/2017	28/03/2017	24/04/2017	6.66	28590	20.964	
Monthly	13/04/2017	13/04/2017	23/05/2017	6.73	26710	21.013	
Monthly	03/05/2017	03/05/2017	23/05/2017	6.83	28730	21.100	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	09/01/2017	23/01/2017	21/02/2017	869	<0.0005	<0.0005	0.0006	287	9780	<0.001	<0.004	0.006	<0.0002	750	0.327	0.0072	23	0.002	5920	2320	3800	22200	<1	0.068	
Quarterly	19/04/2017	28/04/2017	23/05/2017	663	<0.0005	<0.0005	0.0006	260	10000	<0.001	<0.004	0.016	<0.0002	736	0.138	0.0049	23	0.003	5640	2260	3680	28100	<1	0.007	
Quarterly																									
Quarterly																									

Monitoring Point: 20 <P555B>
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	-	-	21/02/2017	-	-	-	Bore is dry
Monthly	-	-	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	-	-	21/02/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Bore is dry
Quarterly	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

Monitoring Point: 21 <P558A-R>
Groundwater quality monitoring, Piezometer located up 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	09/01/2017	23/01/2017	21/02/2017	6.80	35580	19.348	
Monthly	06/02/2017	20/03/2017	20/03/2017	6.95	35530	19.930	
Monthly	28/03/2017	28/03/2017	24/04/2017	6.73	31810	19.484	
Monthly	13/04/2017	13/04/2017	23/05/2017	7.03	29460	19.323	
Monthly	03/05/2017	03/05/2017	23/05/2017	6.88	31740	19.435	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	09/01/2017	23/01/2017	21/02/2017	810	<0.0005	<0.0005	<0.0002	290	10600	0.017	<0.004	1.08	<0.0002	780	0.082	0.542	27	0.007	7300	2950	3940	26100	22	0.056	
Quarterly	19/04/2017	28/04/2017	23/05/2017	661	<0.0005	<0.0005	<0.0002	258	11000	0.004	<0.004	0.436	<0.0002	757	0.021	0.156	25	0.006	6890	2980	3760	27800	2	<0.005	
Quarterly																									
Quarterly																									

Monitoring Point: 22 <P412A-R>
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	30/01/2017	06/02/2017	21/02/2017	6.63	39840	10.645	
Monthly	15/02/2017	15/02/2017	20/03/2017	6.57	42470	10.665	
Monthly	02/03/2017	02/03/2017	24/04/2017	6.42	43950	10.625	
Monthly	12/04/2017	12/04/2017	23/05/2017	6.62	36330	10.624	
Monthly	03/05/2017	03/05/2017	23/05/2017	6.63	40330	10.630	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	30/01/2017	06/02/2017	21/02/2017	505	<0.0005	0.0009	0.0007	687	12600	0.002	<0.004	0.076	<0.0002	1310	0.0291	0.0345	44	0.003	7870	2770	7110	31200	8	0.005	
Quarterly	12/04/2017	26/04/2017	23/05/2017	468	<0.0005	0.0012	0.0007	520	13200	0.002	<0.005	0.025	<0.0002	999	0.0195	0.0293	37	<0.002	6200	3000	5410	29000	3	<0.005	
Quarterly																									
Quarterly																									

Monitoring Point: 23 <P412A>
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	-	-	-	-	-	-	
Monthly	-	-	-	-	-	-	
Monthly	02/03/2017	02/03/2017	24/04/2017	6.6	43990	11.94	Monitoring point added as part of EPL variation - 20/02/2017
Monthly	12/04/2017	12/04/2017	23/05/2017	6.7	36460	11.813	
Monthly	03/05/2017	03/05/2017	23/05/2017	6.8	39330	11.803	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Monitoring point added as part of EPL variation - 20/02/2017
Quarterly	12/04/2017	26/04/2017	23/05/2017	471	<0.0005	<0.0005	0.0002	664	15800	0.001	<0.005	0.026	<0.0002	1410	0.0062	0.0422	65	0.004	7990	3510	83	25700	<1	<0.005	
Quarterly																									
Quarterly																									

Monitoring Point: 23 <P412B>
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	-	-	21/02/2017	-	-	-	Bore is dry
Monthly	-	-	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	-	-	21/02/2017	-	-	-	-	-	-	-	-		-	-			-	-	-	-	-	-		-	Bore is dry
Quarterly	-	-	-	-	-	-	-	-	-	-	-		-	-			-	-	-	-	-	-		-	Monitoring point removed as part of EPL variation - 20/02/2017

Groundwater

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Monitoring Point: 24 <P414A>
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	18/01/2017	27/01/2017	21/02/2017	6.54	42250	12.230	
Monthly	10/02/2017	10/02/2017	20/03/2017	6.79	42290	12.245	
Monthly	27/03/2017	27/03/2017	24/04/2017	6.36	38530	12.215	
Monthly	13/04/2017	13/04/2017	23/05/2017	6.71	37930	12.249	
Monthly	08/05/2017	08/05/2017	23/05/2017	6.84	37760	12.229	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	18/01/2017	27/01/2017	21/02/2017	588	<0.0005	<0.0005	<0.0002	547	14500	<0.001	<0.020	0.044	<0.0002	1220	0.0031	0.0197	47	0.014	8410	3070	6390	31900	36	<0.005	R raised for Total Cyanide and WAD Cyanide due to sample mat
Quarterly	13/04/2017	26/04/2017	23/05/2017	611	<0.0005	<0.0005	<0.0002	467	15600	<0.001	<0.005	0.011	<0.0002	1250	0.0024	0.0151	37	0.014	7740	3280	6310	24200	<1	<0.005	
Quarterly																									
Quarterly																									

Monitoring Point: 25 <P414B>
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	18/01/2017	27/01/2017	21/02/2017	6.62	30890	12.340	Labatory EC results = 42100 µS/cm
Monthly	10/02/2017	10/02/2017	20/03/2017	6.80	41360	12.295	
Monthly	14/03/2017	14/03/2017	24/04/2017	6.46	40710	12.305	
Monthly	28/04/2017	28/04/2017	23/05/2017	6.89	37580	12.299	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	18/01/2017	27/01/2017	21/02/2017	612	<0.0005	<0.0005	<0.0002	456	14400	<0.001	<0.020	0.061	0.0003	1330	0.002	0.0015	35	0.01	8200	3110	6620	42100	20	0.01	R raised for Total Cyanide and WAD Cyanide due to sample mat
Quarterly	28/04/2017	08/05/2017	23/05/2017	487	<0.0005	0.0016	<0.0002	406	13100	<0.001	<0.005	1.22	0.0004	1330	0.618	0.0028	27	<0.002	8590	2740	6490	34400	16	0.01	
Quarterly																									
Quarterly																									

Monitoring Point: 26 <PP03>
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	27/01/2017	06/02/2017	21/02/2017	7.51	31630	16.655	Labatory EC results = 3840 µS/cm
Monthly	22/02/2017	22/02/2017	20/03/2017	6.84	2560	16.915	
Monthly	31/03/2017	31/03/2017	24/04/2017	7.80	2040	16.943	
Monthly	27/04/2017	27/04/2017	23/05/2017	7.73	1532	16.923	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	27/01/2017	06/02/2017	21/02/2017	241	<0.0005	0.0011	<0.0002	81	684	0.005	<0.004	0.021	<0.0002	52	<0.0005	0.0006	9	0.006	606	586	416	2830	293	0.034	
Quarterly	28/04/2017	08/05/2017	23/05/2017	154	0.0005	0.0017	<0.0002	26	278	0.007	<0.004	0.279	0.0014	15	0.0274	0.0024	5	<0.002	240	107	127	854	184	0.009	
Quarterly																									
Quarterly																									

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	27/01/2017	06/02/2017	21/02/2017	6.85	48510	15.960	
Monthly	22/02/2017	22/02/2017	20/03/2017	6.51	38300	16.150	
Monthly	31/03/2017	31/03/2017	24/04/2017	6.62	46720	16.390	
Monthly	27/04/2017	27/04/2017	23/05/2017	6.78	34720	16.409	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	27/01/2017	06/02/2017	21/02/2017	519	<0.0005	<0.0005	<0.0002	791	16300	<0.001	<0.004	0.087	0.0002	1580	0.001	0.0019	47	0.01	9270	3160	8480	42500	26	0.022	
Quarterly	28/04/2017	08/05/2017	23/05/2017	426	<0.0005	0.0101	<0.0002	765	15500	0.015	<0.005	5.190	0.0618	1670	0.068	0.0068	49	0.01	10000	3140	8790	43000	5420	0.01	
Quarterly																									
Quarterly																									

Groundwater

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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	12/01/2017	23/01/2017	21/02/2017	6.53	46090	12.54	
Monthly	08/02/2017	08/02/2017	20/03/2017	6.59	46100	12.57	
Monthly	27/03/2017	27/03/2017	24/04/2017	6.51	40830	12.52	
Monthly	19/04/2017	19/04/2017	23/05/2017	6.64	41330	12.535	
Monthly	11/05/2017	11/05/2017	23/05/2017	6.75	41240	12.524	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	12/01/2017	23/01/2017	21/02/2017	519	<0.0005	<0.0005	0.0007	657	14900	<0.001	<0.004	0.012	<0.0002	1430	0.0288	0.0127	32	0.004	8410	2920	7530	34800	<1	<0.005	
Quarterly	19/04/2017	28/04/2017	23/05/2017	432	<0.0005	<0.0005	0.0008	584	15400	<0.001	<0.004	0.017	<0.0002	1360	0.0401	0.0084	32	0.005	7940	3030	7060	40900	<1	<0.005	
Quarterly																									
Quarterly																									

Monitoring Point: 31 <P417B>

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	18/01/2017	27/01/2017	21/02/2017	6.44	41700	12.456	
Monthly	08/02/2017	08/02/2017	20/03/2017	6.76	41690	12.520	
Monthly	30/03/2017	30/03/2017	24/04/2017	6.50	45810	9.961	
Monthly	28/04/2017	28/04/2017	23/05/2017	6.96	37160	12.497	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	12/01/2017	23/01/2017	21/02/2017	646	<0.0005	<0.0005	<0.0002	519	14700	0.002	<0.004	0.01	<0.0002	1350	0.28	0.0067	23	0.003	9720	4340	6860	37200	<1	0.071	
Quarterly	28/04/2017	08/05/2017	23/05/2017	207	<0.0005	<0.0005	<0.0002	490	13400	<0.001	<0.005	0.01	<0.0002	1290	0.0015	0.0014	20	0.009	7770	2250	6540	34100	15	0.006	
Quarterly																									
Quarterly																									

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	12/01/2017	23/01/2017	21/02/2017	6.46	43870	9.930	
Monthly	06/02/2017	06/02/2017	20/03/2017	6.56	43710	9.935	
Monthly	30/03/2017	30/03/2017	24/04/2017	6.41	41260	9.937	
Monthly	13/04/2017	13/04/2017	23/05/2017	6.54	42950	9.970	
Monthly	09/05/2017	09/05/2017	23/05/2017	6.70	42820	9.984	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	12/01/2017	23/01/2017	21/02/2017	617	<0.0005	<0.0005	<0.0002	329	13400	0.018	<0.004	0.018	<0.0002	1100	0.0308	0.217	10	0.003	9120	3930	5350	33600	<1	0.076	
Quarterly	13/04/2017	26/04/2017	23/05/2017	571	<0.0005	<0.0005	<0.0002	278	15000	0.008	<0.005	0.085	<0.0002	1050	0.0167	0.123	9	0.002	8620	4220	5020	32700	<1	<0.005	
Quarterly																									
Quarterly																									

Monitoring Point: 34 <TSFNA>
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	12/01/2017	23/01/2017	21/02/2017	6.60	49540	12.490	
Monthly	22/02/2017	22/02/2017	20/03/2017	6.56	48910	12.530	
Monthly	27/03/2017	27/03/2017	24/04/2017	6.55	44910	12.483	
Monthly	12/04/2017	12/04/2017	23/05/2017	6.55	49570	12.562	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	12/01/2017	23/01/2017	21/02/2017	578	<0.0005	0.0015	<0.0002	647	16000	<0.001	<0.004	0.6	<0.0002	1460	4.09	0.003	23	<0.002	9770	4220	7630	38700	<1	0.06	
Quarterly	12/04/2017	26/04/2017	23/05/2017	550	<0.0005	0.0015	<0.0002	588	18400	<0.001	<0.005	0.908	<0.0002	1380	4.23	0.0036	24	<0.002	9240	4410	7150	36400	2	<0.005	
Quarterly																									
Quarterly																									

Groundwater

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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	24/01/2017	06/02/2017	21/02/2017	6.39	54250	14.975	
Monthly	14/02/2017	14/02/2017	20/03/2017	6.51	54320	15.150	
Monthly	23/03/2017	23/03/2017	24/04/2017	6.37	48830	15.413	
Monthly	18/04/2017	18/04/2017	23/05/2017	6.67	46520	15.127	
Monthly	03/05/2017	03/05/2017	23/05/2017	6.58	48560	15.150	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	24/01/2017	06/02/2017	21/02/2017	<0.0005	<0.0005	0.0013	976	18700	<0.001	0.049	<0.0002	1840	2.8	0.0714	30	0.002	10400	3590	10000	41600	2	0.061	
Quarterly	18/04/2017	24/04/2017	23/05/2017	0.0014	0.0005	0.0011	869	17600	<0.001	0.221	<0.0002	1660	3.38	0.0613	29	<0.002	9630	4130	9000	41600	<1	<0.005	
Quarterly																							
Quarterly																							

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	30/01/2017	06/02/2017	21/02/2017	6.45	39510	82.200	Labatory EC results = 51800
Monthly	14/02/2017	14/02/2017	20/03/2017	6.49	42580	82.245	
Monthly	31/03/2017	31/03/2017	24/04/2017	6.63	49250	82.267	
Monthly	28/04/2017	28/04/2017	23/05/2017	7.29	40080	82.204	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	30/01/2017	06/02/2017	21/02/2017	<0.0005	0.0005	0.0007	1140	17700	0.004	0.161	0.0009	2070	0.0635	0.0025	48	0.014	9000	5210	11400	49500	<1	0.015	
Quarterly	28/04/2017	08/05/2017	23/05/2017	0.008	0.0017	0.0153	1500	14600	0.008	0.256	0.0022	1530	2.67	0.0044	49	0.003	8360	2710	10000	39000	38	0.174	
Quarterly																							
Quarterly																							

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	26/01/2017	06/02/2017	21/02/2017	6.32	51830	29.546	
Monthly	15/02/2017	15/02/2017	20/03/2017	6.16	47860	29.695	
Monthly	31/03/2017	31/03/2017	24/04/2017	6.22	50340	29.945	
Monthly	18/04/2017	18/04/2017	23/05/2017	6.41	47360	30.407	
Monthly	11/05/2017	11/05/2017	23/05/2017	6.97	47220	30.158	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	26/01/2017	06/02/2017	21/02/2017	<0.0005	0.0043	0.0044	817	18200	<0.001	0.012	<0.0002	1870	0.0281	0.0107	42	0.002	9450	2770	9740	47300	<1	0.102	
Quarterly	18/04/2017	24/04/2017	23/05/2017	<0.00050	0.0046	0.0041	740	18400	0.003	0.066	<0.0002	1820	0.0294	0.01	42	0.003	9350	3180	9340	61600	3	0.046	
Quarterly																							
Quarterly																							

Monitoring Point: 44 <MON01A>
Groundwater quality monitoring, Groundwater monitoring bore located to the east of the northern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	30/01/2017	06/02/2017	21/02/2017	6.52	47600	11.170	
Monthly	06/02/2017	06/02/2017	20/03/2017	6.54	47760	11.175	
Monthly	22/03/2017	22/03/2017	24/04/2017	6.38	26300	11.169	Potential transcription error
Monthly	18/04/2017	18/04/2017	23/05/2017	6.50	43080	11.203	
Monthly	03/05/2017	03/05/2017	23/05/2017	6.60	42790	11.185	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	30/01/2017	06/02/2017	21/02/2017	353	<0.0005	<0.0005	0.009	513	15300	<0.01	<0.004	0.034	<0.002	1380	0.466	0.0704	24	<0.002	9580	3940	6960	33700	2	<0.005	
Quarterly	19/04/2017	28/04/2017	23/05/2017	294	<0.0005	<0.0005	0.001	483	15400	<0.001	<0.004	0.012	<0.0002	1340	0.386	0.0469	24	<0.002	9340	4440	6720	43600	1	<0.005	
Quarterly																									
Quarterly																									

Groundwater

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Monitoring Point: 45 <MON02A>
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	31/01/2017	08/02/2017	21/02/2017	6.77	41540	9.755	
Monthly	14/02/2017	14/02/2017	20/03/2017	6.05	41600	9.805	
Monthly	27/03/2017	27/03/2017	24/04/2017	6.58	38620	9.705	
Monthly	13/04/2017	13/04/2017	23/05/2017	6.73	37250	9.754	
Monthly	09/05/2017	09/05/2017	23/05/2017	6.86	37070	9.734	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	31/01/2017	08/02/2017	21/02/2017	740	<0.0005	<0.0005	0.0002	535	13100	0.002	<0.004	0.027	<0.0002	1330	0.0847	0.238	49	0.014	9060	2760	6810	32500	<1	<0.005	
Quarterly	13/04/2017	26/04/2017	23/05/2017	722	<0.0005	<0.0005	0.0002	440	14800	<0.001	<0.005	0.024	<0.0002	1090	0.0283	0.0629	43	0.009	7580	3230	5590	31500	<1	<0.005	
Quarterly																									
Quarterly																									

Monitoring Point: 50 <TSFNB>
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	18/01/2017	27/01/2017	21/02/2017	6.36	46890	12.725	
Monthly	22/02/2017	22/02/2017	20/03/2017	6.50	46830	12.765	
Monthly	27/03/2017	27/03/2017	24/04/2017	6.51	41680	12.716	
Monthly	12/04/2017	12/04/2017	23/05/2017	6.43	42220	12.764	
Monthly	09/05/2017	09/05/2017	23/05/2017	6.72	41990	12.790	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	27/03/2017	03/04/20017	24/04/2017	274	<0.0005	0.0006	0.0004	497	15300	0.017	<0.004	0.086	<0.0002	1310	0.111	0.697	48	0.006	8950	3880	6640	29100	40	0.006	Never sent for lab testing?
Quarterly	12/04/2017	26/04/2017	23/05/2017	276	<0.0005	<0.0005	0.0004	436	17100	0.017	<0.005	0.629	<0.0002	1300	0.0948	0.500	44	0.004	8660	4230	6440	33500	39	<0.005	
Quarterly																									
Quarterly																									

Monitoring Point: 51 <TSFNC>
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	12/01/2017	23/01/2017	21/02/2017	6.60	42220	12.915	
Monthly	22/02/2017	22/02/2017	20/03/2017	6.12	42900	12.998	
Monthly	27/03/2017	27/03/2017	24/04/2017	6.06	40140	12.938	
Monthly	12/04/2017	12/04/2017	23/05/2017	5.99	41280	13.000	
Monthly	09/05/2017	09/05/2017	23/05/2017	6.19	41630	12.995	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	12/01/2017	23/01/2017	21/02/2017	140	<0.0005	<0.0005	0.0005	453	12900	0.004	<0.004	0.231	<0.0002	1180	0.0252	0.192	42	0.002	7600	3420	5990	32000	16	0.14	
Quarterly	12/04/2017	26/04/2017	23/05/2017	132	<0.0005	<0.0005	0.0006	465	16600	0.005	<0.005	0.061	<0.0002	1310	0.0135	0.184	44	<0.002	8530	4210	6560	28300	4	0.066	
Quarterly																									
Quarterly																									

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	24/01/2017	06/02/2017	21/02/2017	6.39	54250	4.745	
Monthly	14/02/2017	14/02/2017	20/03/2017	6.32	50880	4.850	
Monthly	22/03/2017	22/03/2017	24/04/2017	6.09	45190	4.933	
Monthly	18/04/2017	18/04/2017	23/05/2017	6.18	45830	5.540	
Monthly	11/05/2017	11/05/2017	23/05/2017	6.31	45530	5.549	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	24/01/2017	06/02/2017	21/02/2017	<0.0005	0.0008	<0.0002	871	17200	<0.001	2.39	<0.0002	1790	0.58	0.0082	22	<0.002	9650	3390	9550	46700	5	0.072	
Quarterly	18/04/2017	24/04/2017	23/05/2017	<0.00050	0.0008	<0.0002	748	17200	<0.001	3.2	<0.0002	1590	0.509	0.0076	20	<0.002	8670	4120	8420	46100	<1	<0.005	
Quarterly																							
Quarterly																							

Groundwater

EPL No: 11912 environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

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	30/01/2017	06/02/2017	21/02/2017	6.06	51990	21.510	
Monthly	14/02/2017	14/02/2017	20/03/2017	6.29	52350	21.565	
Monthly	31/03/2017	31/03/2017	24/04/2017	6.01	49820	21.575	
Monthly	28/04/2017	28/04/2017	23/05/2017	6.21	46700	21.557	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	30/01/2017	06/02/2017	21/02/2017	0.0017	0.0018	0.0056	1270	18700	0.016	0.017	0.017	2040	1.16	0.0165	55	0.005	10200	3260	11600	49700	26	0.992	Not sure why these metals are elevated.
Quarterly	28/04/2017	08/05/2017	23/05/2017	<0.00050	0.0005	0.0007	1150	16700	<0.001	0.017	<0.0002	2130	0.0497	0.0022	48	0.016	9650	4640	11600	48400	5	<0.005	
Quarterly																							
Quarterly																							

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	26/01/2017	06/02/2017	21/02/2017	5.93	50540	12.304	
Monthly	15/02/2017	15/02/2017	20/03/2017	6.18	50520	12.415	
Monthly	31/03/2017	31/03/2017	24/04/2017	5.90	48060	12.882	
Monthly	18/04/2017	18/04/2017	23/05/2017	5.95	45010	13.374	
Monthly	11/05/2017	11/05/2017	23/05/2017	6.11	44780	13.597	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	26/01/2017	06/02/2017	21/02/2017	<0.0005	0.0014	0.0012	862	17600	<0.001	0.009	<0.0002	1860	0.014	0.004	46	<0.002	9390	2850	9810	46500	2	0.066	
Quarterly	18/04/2017	24/04/2017	23/05/2017	<0.0005	0.0013	0.0011	800	17200	<0.001	0.013	<0.0002	1780	0.0124	0.0046	47	<0.002	9080	3280	9330	43800	<1	<0.005	
Quarterly																							
Quarterly																							

Monitoring Point: S5 <MON01B>
Groundwater quality monitoring, Groundwater monitoring bore located to the east of the northern tailings storage facility

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	18/01/2017	27/01/2017	21/02/2017	6.21	33500	13.850	Labatory EC results = 44200 µS/cm
Monthly	10/02/2017	10/02/2017	20/03/2017	5.09	45780	13.375	
Monthly	31/03/2017	31/03/2017	24/04/2017	5.19	46620	13.145	
Monthly	28/04/2017	28/04/2017	23/05/2017	6.27	38150	13.150	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	18/01/2017	27/01/2017	21/02/2017	28	<0.0005	0.0042	0.0004	490	15200	0.005	<0.020	0.012	0.0154	1210	0.237	0.0274	50	0.007	9460	4050	6210	23200	10	0.128	R raised for Total Cyanide and WAD Cyanide due to sample mat
Quarterly	28/04/2017	08/05/2017	23/05/2017	50	<0.0005	0.0015	0.0003	424	13300	0.003	<0.005	0.072	0.003	1240	0.463	0.0219	36	0.002	8630	3620	6160	36300	11	0.044	
Quarterly																									
Quarterly																									

Monitoring Point: S6 <MON02B>
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	31/01/2017	08/02/2017	21/02/2017	6.72	40590	9.255	
Monthly	15/02/2017	15/02/2017	20/03/2017	6.77	40530	9.265	
Monthly	27/03/2017	27/03/2017	24/04/2017	6.55	37490	9.713	
Monthly	13/04/2017	13/04/2017	23/05/2017	6.69	36320	9.107	
Monthly	09/05/2017	09/05/2017	23/05/2017	6.87	36180	9.011	
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Sulphate (mg/L)	Total Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	31/01/2017	08/02/2017	21/02/2017	886	<0.0005	<0.0005	<0.0002	474	12700	0.01	<0.004	0.081	<0.0002	1480	0.112	0.583	69	0.018	8670	2720	7280	32800	48	<0.005	
Quarterly	13/04/2017	26/04/2017	23/05/2017	886	<0.0005	<0.0005	<0.0002	387	14400	0.004	<0.005	0.074	<0.0002	1210	0.041	0.264	60	0.014	7670	3200	5950	30700	<1	<0.005	
Quarterly																									
Quarterly																									

Waste Rock Leachate

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

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)	SWL (m)	Comments
Monthly	04/01/2017	04/01/2017	21/02/2017	-	-	-	No water present in external toe drain
Monthly	08/02/2017	14/02/2017	15/03/2017	-	-	-	No water present in external toe drain
Monthly	07/03/2017	07/03/2017	20/03/2017	-	-	-	No water present in external toe drain
Monthly	04/04/2017	04/04/2017	24/04/2017	-	-	-	No water present in external toe drain
Monthly	01/05/2017	01/05/2017	23/05/2017	-	-	-	No water present in external toe drain
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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 Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	04/01/2017	04/01/2017	21/02/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in external toe drain
Quarterly	04/04/2017	13/04/2017	23/05/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in external toe drain
Quarterly																									
Quarterly																									

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

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	SWL (m)	Comments
Monthly	04/01/2017	04/01/2017	21/02/2017	7.61	12230	-	Insufficient water available to measure SWL
Monthly	08/02/2017	14/02/2017	15/03/2017	7.63	12740	-	Insufficient water available to measure SWL
Monthly	07/03/2017	07/03/2017	20/03/2017	7.56	12740	-	Insufficient water available to measure SWL
Monthly	04/04/2017	04/04/2017	24/04/2017	7.42	12240	-	Insufficient water available to measure SWL
Monthly	01/05/2017	01/05/2017	23/05/2017	7.94	10480	-	Insufficient water available to measure SWL
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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 Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	04/01/2017	11/01/2017	21/02/2017	215	<0.0005	<0.0005	0.0051	496	3310	<0.001	<0.005	<0.0002	370	0.0383	0.0041	<0.005	22	0.004	1800	1870	2760	3	8890	0.157	
Quarterly	04/04/2017	13/04/2017	23/05/2017	283	<0.0005	<0.0005	0.008	567	3920	<0.001	<0.005	<0.0002	363	0.0847	0.0043	0.0006	26	0.004	1890	2010	9710	<1	<1	0.199	
Quarterly																									
Quarterly																									

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)	SWL (m)	Comments
Monthly	04/01/2017	04/01/2017	21/02/2017	-	-	-	No water present in external toe drain
Monthly	08/02/2017	14/02/2017	15/03/2017	-	-	-	No water present in external toe drain
Monthly	07/03/2017	07/03/2017	20/03/2017	-	-	-	No water present in external toe drain
Monthly	04/04/2017	04/04/2017	24/04/2017	-	-	-	No water present in external toe drain
Monthly	01/05/2017	01/05/2017	23/05/2017	-	-	-	No water present in external toe drain
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							
Monthly							

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 Hardness (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)	Zinc (mg/L)	Comments
Quarterly	04/01/2017	04/01/2017	21/02/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in external toe drain
Quarterly	04/04/2017	13/04/2017	23/05/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in external toe drain
Quarterly																									
Quarterly																									

Ambient Noise

EPL No: 11 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

Q1 Noise Monitoring - January 2016

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

Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01	17/01/2017	17/03/2017	20/03/2017	26	26	-	
N05	16/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N09	17/01/2017	17/03/2017	20/03/2017	<20	<20	35	
N10	17/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N11	17/01/2017	17/03/2017	20/03/2017	<20	<20	37	
N12	17/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N13	16/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N14	17/01/2017	17/03/2017	20/03/2017	<20	<20	35	

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

Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01	17/01/2017	17/03/2017	20/03/2017	22	25	-	
N05	16/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N09	17/01/2017	17/03/2017	20/03/2017	<20	<20	35	
N10	17/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N11	17/01/2017	17/03/2017	20/03/2017	<20	<20	37	
N12	17/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N13	16/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N14	17/01/2017	17/03/2017	20/03/2017	<20	<20	35	

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

Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01	17/01/207	17/03/2017	20/03/2017	31	30	-	
N05	16/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N09	18/01/2017	17/03/2017	20/03/2017	<20	<20	35	
N10	18/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N11	17/01/207	17/03/2017	20/03/2017	<20	<20	37	
N12	17/01/207	17/03/2017	20/03/2017	<20	<20	36	
N13	16/01/2017	17/03/2017	20/03/2017	<20	<20	36	
N14	18/01/2017	17/03/2017	20/03/2017	<20	<20	35	

n/a - Mine noise emission not discernible

Q2 Noise Monitoring

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

Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

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

Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

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

Location	Date Sampled	Date Obtained	Date Published	Mine Contributed $LA_{eq(15minute)}$ - dBA Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

N/A - Mine noise emission not discernible

Q3 Noise Monitoring

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

Mine Contributed $LA_{eq(15minute)}$ = dBA

Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

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

Mine Contributed $LA_{eq(15minute)}$ = dBA

Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

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

Mine Contributed $LA_{eq(15minute)}$ = dBA

Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

N/A - Mine noise emission not discernible

Q4 Noise Monitoring

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

Mine Contributed $LA_{eq(15minute)}$ = dBA

Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

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

Mine Contributed $LA_{eq(15minute)}$ = dBA

Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

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

Mine Contributed $LA_{eq(15minute)}$ = dBA

Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2	Noise Criteria $LA_{eq(15minute)}$ - dBA	Comments
N01						-	
N05						36	
N09						35	
N10						36	
N11						37	
N12						36	
N13						36	
N14						35	

N/A - Mine noise emission not discernible

Blasting & Ground Vibration

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

Monitoring Point: BM01
Blast monitoring, Airblast overpressure and ground vibration peak particle velocity recorded at private residence to the south-east of ML1535 boundary

					Compliance Limits		BM01 at Blast Time		
Blast Number	**Day/Date**	**Time**	**Date Obtained**	**Date Published**	**Ground Vibration (mm/s)**	**Airblast Overpressure (dB(L))**	**Ground Vibration (mm/s)**	**Airblast Overpressure (dB(L))**	**Comments**
JANUARY									
903-17	Wednesday, 4 January 2017	12:35:35	08/02/2017	21/02/2017	5	115	0.10	88.0	
903-18	Monday, 9 January 2017	12:25:12	08/02/2017	21/02/2017	5	115	0.11	94.0	
912-36	Thursday, 12 January 2017	12:38:43	08/02/2017	21/02/2017	5	115	0.10	88.0	
903-20	Saturday, 14 January 2017	12:28:16	08/02/2017	21/02/2017	5	115	0.10	94.0	
921-40	Monday, 16 January 2017	12:29:23	08/02/2017	21/02/2017	5	115	0.10	88.0	
903-19	Friday, 20 January 2017	12:32:25	08/02/2017	21/02/2017	5	115	0.09	105.5	
912-37	Sunday, 22 January 2017	12:28:36	08/02/2017	21/02/2017	1	95	0.10	88.0	
912-38	Tuesday, 24 January 2017	12:39:31	08/02/2017	21/02/2017	5	115	0.10	91.5	
903-21	Wednesday, 25 January 2017	12:25:39	08/02/2017	21/02/2017	5	115	0.11	97.5	
912-39	Thursday, 26 January 2017	12:36:13	08/02/2017	21/02/2017	1	95	0.13	91.5	
903-524	Friday, 27 January 2017	12:30:05	08/02/2017	21/02/2017	5	115	0.10	97.5	
930-Wedge	Saturday, 28 January 2017	15:10:01	08/02/2017	21/02/2017	5	115	0.12	95.9	
903-24	Sunday, 29 January 2017	12:27:03	08/02/2017	21/02/2017	1	95	0.12	91.5	
FEBRUARY									
921-39	Thursday, 2 February 2017	12:28:55	06/03/2017	20/03/2017	5	115	0.09	88.0	
903-25	Monday, 6 February 2017	12:39:33	06/03/2017	20/03/2017	5	115	0.13	91.5	
903-520	Tuesday, 7 February 2017	13:05:31	06/03/2017	20/03/2017	5	115	0.10	95.9	
903-521	Thursday, 9 February 2017	12:31:32	06/03/2017	20/03/2017	5	115	0.11	91.5	
912-27	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	1	95	0.12	**97.5**	Local environmental factors
921-Toe-2	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	1	95	0.12	**97.5**	Local environmental factors
912-Berm-Toe	Wednesday, 15 February 2017	12:37:49	06/03/2017	20/03/2017	5	115	0.11	88.0	
903-522	Wednesday, 15 February 2017	12:39:06	06/03/2017	20/03/2017	5	115	0.12	100.0	
912-41	Tuesday, 21 February 2017	12:38:42	06/03/2017	20/03/2017	5	115	0.09	88.0	
912-28	Tuesday, 21 February 2017	12:41:23	06/03/2017	20/03/2017	5	115	0.09	88.0	
912-29	Thursday, 23 February 2017	12:37:57	06/03/2017	20/03/2017	5	115	0.12	95.9	
912-30	Sunday, 26 February 2017	12:30:03	06/03/2017	20/03/2017	1	95	0.10	94.0	
903-26	Tuesday, 28 February 2017	12:31:55	06/03/2017	20/03/2017	5	115	0.13	88.0	
MARCH									
903-27	Thursday, 2 March 2017	12:28:23	10/04/2017	24/04/2017	5	115	0.11	88.0	
939-Geotech Hazard	Friday, 3 March 2017	12:38:00	10/04/2017	24/04/2017	5	115	0.10	97.5	
903-22	Saturday, 4 March 2017	12:20:50	10/04/2017	24/04/2017	5	115	0.10	94.0	
912-45	Wednesday, 8 March 2017	12:22:38	10/04/2017	24/04/2017	5	115	0.08	91.5	
912-40	Friday, 10 March 2017	12:32:38	10/04/2017	24/04/2017	5	115	0.10	88.0	
903-33	Thursday, 16 March 2017	12:27:41	10/04/2017	24/04/2017	5	115	0.09	88.0	
903-48	Monday, 20 March 2017	12:36:15	10/04/2017	24/04/2017	5	115	0.09	88.0	
903-523	Monday, 20 March 2017	12:38:57	10/04/2017	24/04/2017	5	115	0.09	91.5	
903-47	Saturday, 25 March 2017	12:31:01	10/04/2017	24/04/2017	5	115	0.10	88.0	
903-527	Saturday, 25 March 2017	12:31:01	10/04/2017	24/04/2017	5	115	0.10	88.0	
912-44	Sunday, 26 March 2017	10:27:55	10/04/2017	24/04/2017	1	95	0.08	88.0	
912-43	Monday, 27 March 2017	12:39:00	10/04/2017	24/04/2017	5	115	0.09	98.8	
903-46	Tuesday, 28 March 2017	12:33:30	10/04/2017	24/04/2017	5	115	0.10	88.0	
912-42	Thursday, 30 March 2017	12:33:58	10/04/2017	24/04/2017	5	115	0.09	88.0	
903-23	Friday, 31 March 2017	12:35:52	10/04/2017	24/04/2017	5	115	0.09	88.0	
APRIL									
903-28	Sunday, 2 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
903-34	Tuesday, 4 April 2017	12:31:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
903-29	Thursday, 6 April 2017	12:35:00	08/05/2017	23/05/2017	5	115	0.09	91.5	
903-37	Friday, 7 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.09	91.5	
903-38	Sunday, 9 April 2017	12:28:00	08/05/2017	23/05/2017	1	95	0.08	100.0	Local environmental factors
903-32	Monday, 10 April 2017	12:35:00	08/05/2017	23/05/2017	5	115	0.08	107.5	
894-501	Tuesday, 11 April 2017	12:31:00	08/05/2017	23/05/2017	5	115	0.08	88.0	
894-502	Thursday, 13 April 2017	12:29:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
903-35	Thursday, 13 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
903-45	Saturday, 15 April 2017	12:33:00	08/05/2017	23/05/2017	5	115	0.08	88.0	
903-44	Sunday, 16 April 2017	12:56:00	08/05/2017	23/05/2017	1	95	0.07	88.0	
903-30	Tuesday, 18 April 2017	12:33:00	08/05/2017	23/05/2017	5	115	0.08	88.0	
903-36	Tuesday, 18 April 2017	12:37:00	08/05/2017	23/05/2017	5	115	0.08	88.0	
894-503	Wednesday, 19 April 2017	13:00:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
894-504	Thursday, 20 April 2017	12:25:00	08/05/2017	23/05/2017	5	115	0.08	91.5	
903-31	Friday, 21 April 2017	15:35:00	08/05/2017	23/05/2017	5	115	0.07	88.0	
894-505	Saturday, 22 April 2017	12:32:00	08/05/2017	23/05/2017	1	95	0.09	88.0	
894-10	Monday, 24 April 2017	16:57:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
894-506	Monday, 24 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
894-11	Thursday, 27 April 2017	12:28:00	08/05/2017	23/05/2017	5	115	0.09	100.0	
903-39	Friday, 28 April 2017	12:28:00	08/05/2017	23/05/2017	5	115	0.10	88.0	
894-12	Saturday, 29 April 2017	12:40:00	08/05/2017	23/05/2017	5	115	0.08	88.0	
894-507	Saturday, 29 April 2017	12:25:00	08/05/2017	23/05/2017	5	115	0.09	91.5	
894-15	Sunday, 30 April 2017	12:25:00	08/05/2017	23/05/2017	1	95	0.08	88.0	

Monitoring Point: BM02

Blast monitoring, Airblast overpressure and ground vibration peak particle velocity recorded to the south of ML1535 boundary

					Compliance Limits		BM02 at Blast Time		
Blast Number	**Day/Date**	**Time**	**Date Obtained**	**Date Published**	**Ground Vibration (mm/s)**	**Airblast Overpressure (dB(L))**	**Ground Vibration (mm/s)**	**Airblast Overpressure (dB(L))**	**Comments**
JANUARY									
903-17	Wednesday, 4 January 2017	12:35:35	08/02/2017	21/02/2017	5	115	0.10	91.5	
903-18	Monday, 9 January 2017	12:25:12	08/02/2017	21/02/2017	5	115	0.15	97.5	
912-36	Thursday, 12 January 2017	12:38:43	08/02/2017	21/02/2017	5	115	0.11	88.0	
903-20	Saturday, 14 January 2017	12:28:16	08/02/2017	21/02/2017	5	115	0.11	97.5	
921-40	Monday, 16 January 2017	12:29:23	08/02/2017	21/02/2017	5	115	0.11	97.5	
903-19	Friday, 20 January 2017	12:32:25	08/02/2017	21/02/2017	5	115	0.12	112.6	
912-37	Sunday, 22 January 2017	12:28:36	08/02/2017	21/02/2017	1	95	0.11	94.0	
912-38	Tuesday, 24 January 2017	12:39:31	08/02/2017	21/02/2017	5	115	0.11	94.0	
903-21	Wednesday, 25 January 2017	12:25:39	08/02/2017	21/02/2017	5	115	0.14	88.0	
912-39	Thursday, 26 January 2017	12:36:13	08/02/2017	21/02/2017	1	95	0.12	94.0	
903-524	Friday, 27 January 2017	12:30:05	08/02/2017	21/02/2017	5	115	0.13	97.5	
930-Wedge	Saturday, 28 January 2017	15:10:01	08/02/2017	21/02/2017	5	115	0.11	95.9	
903-24	Sunday, 29 January 2017	12:27:03	08/02/2017	21/02/2017	1	95	0.12	94.0	
FEBRUARY									
921-39	Thursday, 2 February 2017	12:28:55	06/03/2017	20/03/2017	5	115	0.12	88.0	
903-25	Monday, 6 February 2017	12:39:33	06/03/2017	20/03/2017	5	115	0.12	97.5	
903-520	Tuesday, 7 February 2017	13:05:31	06/03/2017	20/03/2017	5	115	0.11	104.2	
903-521	Thursday, 9 February 2017	12:31:32	06/03/2017	20/03/2017	5	115	0.19	105.5	
912-27	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	1	95	0.13	**106.0**	Local environmental factors
921-Toe-2	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	1	95	0.13	**106.0**	Local environmental factors
912-Berm-Toe	Wednesday, 15 February 2017	12:37:49	06/03/2017	20/03/2017	5	115	0.10	91.5	
903-522	Wednesday, 15 February 2017	12:39:06	06/03/2017	20/03/2017	5	115	0.15	91.5	
912-41	Tuesday, 21 February 2017	12:38:42	06/03/2017	20/03/2017	5	115	0.09	88.0	
912-28	Tuesday, 21 February 2017	12:41:23	06/03/2017	20/03/2017	5	115	0.12	88.0	
912-29	Thursday, 23 February 2017	12:37:57	06/03/2017	20/03/2017	5	115	0.13	98.8	
912-30	Sunday, 26 February 2017	12:30:03	06/03/2017	20/03/2017	1	95	0.09	**103.5**	Local environmental factors
903-26	Tuesday, 28 February 2017	12:31:55	06/03/2017	20/03/2017	5	115	0.11	91.5	
MARCH									
903-27	Thursday, 2 March 2017	12:28:23	10/04/2017	24/04/2017	5	115	0.09	91.5	
939-Geotech Hazard	Friday, 3 March 2017	12:38:00	10/04/2017	24/04/2017	5	115	0.09	101.9	
903-22	Saturday, 4 March 2017	12:20:50	10/04/2017	24/04/2017	5	115	0.11	97.5	
912-45	Wednesday, 8 March 2017	12:22:38	10/04/2017	24/04/2017	5	115	0.09	91.5	
912-40	Friday, 10 March 2017	12:32:38	10/04/2017	24/04/2017	5	115	0.09	88.0	
903-33	Thursday, 16 March 2017	12:27:41	10/04/2017	24/04/2017	5	115	0.14	91.5	
903-48	Monday, 20 March 2017	12:36:15	10/04/2017	24/04/2017	5	115	0.09	103.5	
903-523	Monday, 20 March 2017	12:38:57	10/04/2017	24/04/2017	5	115	0.10	101.0	
903-47	Saturday, 25 March 2017	12:31:01	10/04/2017	24/04/2017	5	115	0.11	88.0	
903-527	Saturday, 25 March 2017	12:31:01	10/04/2017	24/04/2017	5	115	0.11	88.0	
912-44	Sunday, 26 March 2017	10:27:55	10/04/2017	24/04/2017	1	95	0.09	88.0	
912-43	Monday, 27 March 2017	12:39:00	10/04/2017	24/04/2017	5	115	0.09	103.5	
903-46	Tuesday, 28 March 2017	12:33:30	10/04/2017	24/04/2017	5	115	0.10	94.0	
912-42	Thursday, 30 March 2017	12:33:58	10/04/2017	24/04/2017	5	115	0.09	107.5	
903-23	Friday, 31 March 2017	12:35:52	10/04/2017	24/04/2017	5	115	0.10	100.0	
APRIL									
903-28	Sunday, 2 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.09	81.9	
903-34	Tuesday, 4 April 2017	12:31:00	08/05/2017	23/05/2017	5	115	0.13	101.0	
903-29	Thursday, 6 April 2017	12:35:00	08/05/2017	23/05/2017	5	115	0.09	100.0	
903-37	Friday, 7 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.09	95.9	
903-38	Sunday, 9 April 2017	12:28:00	08/05/2017	23/05/2017	1	95	0.10	104.2	Local environmental factors
903-32	Monday, 10 April 2017	12:35:00	08/05/2017	23/05/2017	5	115	0.12	108.8	
894-501	Tuesday, 11 April 2017	12:31:00	08/05/2017	23/05/2017	5	115	0.09	81.9	
894-502	Thursday, 13 April 2017	12:29:00	08/05/2017	23/05/2017	5	115	0.09	81.9	
903-35	Thursday, 13 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.13	81.9	
903-45	Saturday, 15 April 2017	12:33:00	08/05/2017	23/05/2017	5	115	0.09	94.0	
903-44	Sunday, 16 April 2017	12:56:00	08/05/2017	23/05/2017	1	95	0.09	81.9	
903-30	Tuesday, 18 April 2017	12:33:00	08/05/2017	23/05/2017	5	115	0.09	81.9	
903-36	Tuesday, 18 April 2017	12:37:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
894-503	Wednesday, 19 April 2017	13:00:00	08/05/2017	23/05/2017	5	115	0.09	94.0	
894-504	Thursday, 20 April 2017	12:25:00	08/05/2017	23/05/2017	5	115	0.08	101.0	
903-31	Friday, 21 April 2017	15:35:00	08/05/2017	23/05/2017	5	115	0.09	81.9	
894-505	Saturday, 22 April 2017	12:32:00	08/05/2017	23/05/2017	1	95	0.09	88.0	
894-10	Monday, 24 April 2017	16:57:00	08/05/2017	23/05/2017	5	115	0.15	88.0	
894-506	Monday, 24 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.15	88.0	
894-11	Thursday, 27 April 2017	12:28:00	08/05/2017	23/05/2017	5	115	0.11	103.5	
903-39	Friday, 28 April 2017	12:28:00	08/05/2017	23/05/2017	5	115	0.10	94.0	
894-12	Saturday, 29 April 2017	12:40:00	08/05/2017	23/05/2017	5	115	0.10	95.9	
894-507	Saturday, 29 April 2017	12:25:00	08/05/2017	23/05/2017	5	115	0.09	101.0	
894-15	Sunday, 30 April 2017	12:25:00	08/05/2017	23/05/2017	1	95	0.13	91.5	

Monitoring Point: BM03

Blast monitoring, Airblast overpressure and ground vibration peak particle velocity recorded at private residence to the north of ML1535 boundary

Blast Number	Day/Date	Time	Date Obtained	Date Published	Compliance Limits		BM03 at Blast Time		Comments
					Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	
JANUARY									
903-17	Wednesday, 4 January 2017	12:35:35	08/02/2017	21/02/2017	5	115	0.17	81.9	
903-18	Monday, 9 January 2017	12:25:12	08/02/2017	21/02/2017	5	115	0.13	88.0	
912-36	Thursday, 12 January 2017	12:38:43	08/02/2017	21/02/2017	5	115	0.10	88.0	
903-20	Saturday, 14 January 2017	12:28:16	08/02/2017	21/02/2017	5	115	-	-	Unit offline
921-40	Monday, 16 January 2017	12:29:23	08/02/2017	21/02/2017	5	115	-	-	Unit offline
903-19	Friday, 20 January 2017	12:32:25	08/02/2017	21/02/2017	5	115	0.11	97.5	
912-37	Sunday, 22 January 2017	12:28:36	08/02/2017	21/02/2017	1	95	0.10	88.0	
912-38	Tuesday, 24 January 2017	12:39:31	08/02/2017	21/02/2017	5	115	0.10	94.0	
903-21	Wednesday, 25 January 2017	12:25:39	08/02/2017	21/02/2017	5	115	0.15	88.0	
912-39	Thursday, 26 January 2017	12:36:13	08/02/2017	21/02/2017	1	95	0.10	88.0	
903-524	Friday, 27 January 2017	12:30:05	08/02/2017	21/02/2017	5	115	0.11	88.0	
930-Wedge	Saturday, 28 January 2017	15:10:01	08/02/2017	21/02/2017	5	115	0.10	88.0	
903-24	Sunday, 29 January 2017	12:27:03	08/02/2017	21/02/2017	1	95	0.15	88.0	
FEBRUARY									
921-39	Thursday, 2 February 2017	12:28:55	06/03/2017	20/03/2017	5	115	0.10	91.5	
903-25	Monday, 6 February 2017	12:39:33	06/03/2017	20/03/2017	5	115	0.15	91.5	
903-520	Tuesday, 7 February 2017	13:05:31	06/03/2017	20/03/2017	5	115	0.09	100.0	
903-521	Thursday, 9 February 2017	12:31:32	06/03/2017	20/03/2017	5	115	0.14	88.0	
912-27	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	1	95	0.11	**109.2**	Local environmental factors
921-Toe-2	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	1	95	0.11	**109.2**	Local environmental factors
912-Berm-Toe	Wednesday, 15 February 2017	12:37:49	06/03/2017	20/03/2017	5	115	0.10	91.5	
903-522	Wednesday, 15 February 2017	12:39:06	06/03/2017	20/03/2017	5	115	0.18	95.9	
912-41	Tuesday, 21 February 2017	12:38:42	06/03/2017	20/03/2017	5	115	0.09	88.0	
912-28	Tuesday, 21 February 2017	12:41:23	06/03/2017	20/03/2017	5	115	0.12	88.0	
912-29	Thursday, 23 February 2017	12:37:57	06/03/2017	20/03/2017	5	115	0.11	91.5	
912-30	Sunday, 26 February 2017	12:30:03	06/03/2017	20/03/2017	1	95	0.10	91.5	
903-26	Tuesday, 28 February 2017	12:31:55	06/03/2017	20/03/2017	5	115	0.14	91.5	
MARCH									
903-27	Thursday, 2 March 2017	12:28:23	10/04/2017	24/04/2017	5	115	0.10	91.5	
939-Geotech Hazard	Friday, 3 March 2017	12:38:00	10/04/2017	24/04/2017	5	115	0.09	88.0	
903-22	Saturday, 4 March 2017	12:20:50	10/04/2017	24/04/2017	5	115	0.10	100.0	
912-45	Wednesday, 8 March 2017	12:22:38	10/04/2017	24/04/2017	5	115	0.09	91.5	
912-40	Friday, 10 March 2017	12:32:38	10/04/2017	24/04/2017	5	115	0.09	88.0	
903-33	Thursday, 16 March 2017	12:27:41	10/04/2017	24/04/2017	5	115	0.12	81.9	
903-48	Monday, 20 March 2017	12:36:15	10/04/2017	24/04/2017	5	115	0.10	81.9	
903-523	Monday, 20 March 2017	12:38:57	10/04/2017	24/04/2017	5	115	0.10	88.0	
903-47	Saturday, 25 March 2017	12:31:01	10/04/2017	24/04/2017	5	115	0.11	88.0	
903-527	Saturday, 25 March 2017	12:31:01	10/04/2017	24/04/2017	5	115	0.11	88.0	
912-44	Sunday, 26 March 2017	10:27:55	10/04/2017	24/04/2017	1	95	0.09	81.9	
912-43	Monday, 27 March 2017	12:39:00	10/04/2017	24/04/2017	5	115	0.10	81.9	
903-46	Tuesday, 28 March 2017	12:33:30	10/04/2017	24/04/2017	5	115	0.09	97.5	
912-42	Thursday, 30 March 2017	12:33:58	10/04/2017	24/04/2017	5	115	0.10	97.5	
903-23	Friday, 31 March 2017	12:35:52	10/04/2017	24/04/2017	5	115	0.10	97.5	
APRIL									
903-28	Sunday, 2 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.10	81.9	
903-34	Tuesday, 4 April 2017	12:31:00	08/05/2017	23/05/2017	5	115	0.12	95.9	
903-29	Thursday, 6 April 2017	12:35:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
903-37	Friday, 7 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.11	88.0	
903-38	Sunday, 9 April 2017	12:28:00	08/05/2017	23/05/2017	1	95	0.11	94.0	
903-32	Monday, 10 April 2017	12:35:00	08/05/2017	23/05/2017	5	115	0.12	106.0	
894-501	Tuesday, 11 April 2017	12:31:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
894-502	Thursday, 13 April 2017	12:29:00	08/05/2017	23/05/2017	5	115	0.10	81.9	
903-35	Thursday, 13 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.11	88.0	
903-45	Saturday, 15 April 2017	12:33:00	08/05/2017	23/05/2017	5	115	0.10	88.0	
903-44	Sunday, 16 April 2017	12:56:00	08/05/2017	23/05/2017	1	95	0.10	88.0	
903-30	Tuesday, 18 April 2017	12:33:00	08/05/2017	23/05/2017	5	115	0.09	81.9	
903-36	Tuesday, 18 April 2017	12:37:00	08/05/2017	23/05/2017	5	115	0.11	88.0	
894-503	Wednesday, 19 April 2017	13:00:00	08/05/2017	23/05/2017	5	115	0.09	81.9	
894-504	Thursday, 20 April 2017	12:25:00	08/05/2017	23/05/2017	5	115	0.10	88.0	
903-31	Friday, 21 April 2017	15:35:00	08/05/2017	23/05/2017	5	115	0.10	88.0	
894-505	Saturday, 22 April 2017	12:32:00	08/05/2017	23/05/2017	1	95	0.09	91.5	
894-10	Monday, 24 April 2017	16:57:00	08/05/2017	23/05/2017	5	115	0.20	81.9	
894-506	Monday, 24 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.20	81.9	
894-11	Thursday, 27 April 2017	12:28:00	08/05/2017	23/05/2017	5	115	0.11	94.0	
903-39	Friday, 28 April 2017	12:28:00	08/05/2017	23/05/2017	5	115	0.10	91.5	
894-12	Saturday, 29 April 2017	12:40:00	08/05/2017	23/05/2017	5	115	0.09	91.5	
894-507	Saturday, 29 April 2017	12:25:00	08/05/2017	23/05/2017	5	115	0.09	88.0	
894-15	Sunday, 30 April 2017	12:25:00	08/05/2017	23/05/2017	1	95	0.13	88.0	

Monitoring Point: BM04.1 <Bird Breeding Area>

Blast monitoring, Airblast overpressure and ground vibration peak particle velocity recorded in Lake Cowal to the north-north-east of ML1535 boundary

Blast Number	Day/Date	Time	Date Obtained	Date Published	Compliance Limits		BM04 at Blast Time		Comments
					Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	
JANUARY - This monitor is not located relative to any privately owned residence.									
903-17	Wednesday, 4 January 2017	12:35:35	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-18	Monday, 9 January 2017	12:25:12	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-36	Thursday, 12 January 2017	12:38:43	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-20	Saturday, 14 January 2017	12:28:16	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
921-40	Monday, 16 January 2017	12:29:23	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-19	Friday, 20 January 2017	12:32:25	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-37	Sunday, 22 January 2017	12:28:36	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-38	Tuesday, 24 January 2017	12:39:31	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-21	Wednesday, 25 January 2017	12:25:39	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-39	Thursday, 26 January 2017	12:36:13	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-524	Friday, 27 January 2017	12:30:05	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
930-Wedge	Saturday, 28 January 2017	15:10:01	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-24	Sunday, 29 January 2017	12:27:03	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
FEBRUARY									
921-39	Thursday, 2 February 2017	12:28:55	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-25	Monday, 6 February 2017	12:39:33	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-520	Tuesday, 7 February 2017	13:05:31	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-521	Thursday, 9 February 2017	12:31:32	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-27	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
921-Toe-2	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-Berm-Toe	Wednesday, 15 February 2017	12:37:49	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-522	Wednesday, 15 February 2017	12:39:06	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-41	Tuesday, 21 February 2017	12:38:42	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-28	Tuesday, 21 February 2017	12:41:23	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-29	Thursday, 23 February 2017	12:37:57	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-30	Sunday, 26 February 2017	12:30:03	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-26	Tuesday, 28 February 2017	12:31:55	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
MARCH									
-	-	-	-	-	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

Monitoring Point: BM05 <Bird Breeding Area>

Blast monitoring, Airblast overpressure and ground vibration peak particle velocity recorded in Lake Cowal to the north-east of ML1535 boundary

Blast Number	Day/Date	Time	Date Obtained	Date Published	Compliance Limits		BM05 at Blast Time		Comments
					Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	
JANUARY - This monitor is not located relative to any privately owned residence.									
903-17	Wednesday, 4 January 2017	12:35:35	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-18	Monday, 9 January 2017	12:25:12	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-36	Thursday, 12 January 2017	12:38:43	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-20	Saturday, 14 January 2017	12:28:16	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
921-40	Monday, 16 January 2017	12:29:23	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-19	Friday, 20 January 2017	12:32:25	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-37	Sunday, 22 January 2017	12:28:36	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-38	Tuesday, 24 January 2017	12:39:31	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-21	Wednesday, 25 January 2017	12:25:39	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-39	Thursday, 26 January 2017	12:36:13	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-524	Friday, 27 January 2017	12:30:05	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
930-Wedge	Saturday, 28 January 2017	15:10:01	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-24	Sunday, 29 January 2017	12:27:03	08/02/2017	21/02/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
FEBRUARY									
921-39	Thursday, 2 February 2017	12:28:55	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-25	Monday, 6 February 2017	12:39:33	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-520	Tuesday, 7 February 2017	13:05:31	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-521	Thursday, 9 February 2017	12:31:32	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-27	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
921-Toe-2	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-Berm-Toe	Wednesday, 15 February 2017	12:37:49	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-522	Wednesday, 15 February 2017	12:39:06	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-41	Tuesday, 21 February 2017	12:38:42	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-28	Tuesday, 21 February 2017	12:41:23	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-29	Thursday, 23 February 2017	12:37:57	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
912-30	Sunday, 26 February 2017	12:30:03	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
903-26	Tuesday, 28 February 2017	12:31:55	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
MARCH									
-	-	-	-	-	-	-	-	-	Monitoring point removed as part of EPL variation - 20/02/2017

Monitoring Point: BM08.1 <Cowal North>

Blast monitoring, Airblast overpressure and ground vibration peak particle velocity recorded at private residence to the north, north east of ML1535 boundary

Blast Number	Day/Date	Time	Date Obtained	Date Published	Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	Comments
JANUARY									
903-17	Wednesday, 4 January 2017	12:35:35	08/02/2017	21/02/2017	5	115	0.06	94.0	
903-18	Monday, 9 January 2017	12:25:12	08/02/2017	21/02/2017	5	115	0.06	91.5	
912-36	Thursday, 12 January 2017	12:38:43	08/02/2017	21/02/2017	5	115	0.04	94.0	
903-20	Saturday, 14 January 2017	12:28:16	08/02/2017	21/02/2017	5	115	0.03	95.9	
921-40	Monday, 16 January 2017	12:29:23	08/02/2017	21/02/2017	5	115	0.04	91.5	
903-19	Friday, 20 January 2017	12:32:25	08/02/2017	21/02/2017	5	115	0.06	111.5	
912-37	Sunday, 22 January 2017	12:28:36	08/02/2017	21/02/2017	1	95	0.05	91.5	
912-38	Tuesday, 24 January 2017	12:39:31	08/02/2017	21/02/2017	5	115	0.03	94.0	
903-21	Wednesday, 25 January 2017	12:25:39	08/02/2017	21/02/2017	5	115	0.06	94.0	
912-39	Thursday, 26 January 2017	12:36:13	08/02/2017	21/02/2017	1	95	0.04	88.0	
903-524	Friday, 27 January 2017	12:30:05	08/02/2017	21/02/2017	5	115	0.01	91.5	
930-Wedge	Saturday, 28 January 2017	15:10:01	08/02/2017	21/02/2017	5	115	0.02	91.5	
903-24	Sunday, 29 January 2017	12:27:03	08/02/2017	21/02/2017	1	95	0.10	88.0	
FEBRUARY									
921-39	Thursday, 2 February 2017	12:28:55	06/03/2017	20/03/2017	5	115	0.05	91.5	
903-25	Monday, 6 February 2017	12:39:33	06/03/2017	20/03/2017	5	115	0.12	91.5	
903-520	Tuesday, 7 February 2017	13:05:31	06/03/2017	20/03/2017	5	115	0.05	104.2	
903-521	Thursday, 9 February 2017	12:31:32	06/03/2017	20/03/2017	5	115	0.10	94.0	
912-27	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	1	95	0.06	**110.6**	Local environmental factors
921-Toe-2	Sunday, 12 February 2017	12:32:19	06/03/2017	20/03/2017	1	95	0.06	**110.6**	Local environmental factors
912-Berm-Toe	Wednesday, 15 February 2017	12:37:49	06/03/2017	20/03/2017	5	115	0.01	91.5	
903-522	Wednesday, 15 February 2017	12:39:06	06/03/2017	20/03/2017	5	115	0.17	94.0	
912-41	Tuesday, 21 February 2017	12:38:42	06/03/2017	20/03/2017	5	115	0.02	94.0	
912-28	Tuesday, 21 February 2017	12:41:23	06/03/2017	20/03/2017	5	115	0.05	88.0	
912-29	Thursday, 23 February 2017	12:37:57	06/03/2017	20/03/2017	5	115	0.06	94.0	
912-30	Sunday, 26 February 2017	12:30:03	06/03/2017	20/03/2017	1	95	0.01	91.5	
903-26	Tuesday, 28 February 2017	12:31:55	06/03/2017	20/03/2017	5	115	0.09	91.5	
MARCH									
903-27	Thursday, 2 March 2017	12:28:23	10/04/2017	24/04/2017	5	115	0.06	91.5	
939-Geotech Hazard	Friday, 3 March 2017	12:38:00	10/04/2017	24/04/2017	5	115	0.02	103.5	
903-22	Saturday, 4 March 2017	12:20:50	10/04/2017	24/04/2017	5	115	0.07	103.5	
912-45	Wednesday, 8 March 2017	12:22:38	10/04/2017	24/04/2017	5	115	0.04	98.8	
912-40	Friday, 10 March 2017	12:32:38	10/04/2017	24/04/2017	5	115	0.08	91.5	
903-33	Thursday, 16 March 2017	12:27:41	10/04/2017	24/04/2017	5	115	0.06	88.0	
903-48	Monday, 20 March 2017	12:36:15	10/04/2017	24/04/2017	5	115	0.07	91.5	
903-523	Monday, 20 March 2017	12:38:57	10/04/2017	24/04/2017	5	115	0.05	88.0	
903-47	Saturday, 25 March 2017	12:31:01	10/04/2017	24/04/2017	5	115	0.09	91.5	
903-527	Saturday, 25 March 2017	12:31:01	10/04/2017	24/04/2017	5	115	0.09	91.5	
912-44	Sunday, 26 March 2017	10:27:55	10/04/2017	24/04/2017	1	95	0.04	91.5	
912-43	Monday, 27 March 2017	12:39:00	10/04/2017	24/04/2017	5	115	0.02	101.0	
903-46	Tuesday, 28 March 2017	12:33:30	10/04/2017	24/04/2017	5	115	0.04	91.5	
912-42	Thursday, 30 March 2017	12:33:58	10/04/2017	24/04/2017	5	115	0.02	101.0	
903-23	Friday, 31 March 2017	12:35:52	10/04/2017	24/04/2017	5	115	0.05	95.9	
APRIL									
903-28	Sunday, 2 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.03	88.0	
903-34	Tuesday, 4 April 2017	12:31:00	08/05/2017	23/05/2017	5	115	0.04	94.0	
903-29	Thursday, 6 April 2017	12:35:00	08/05/2017	23/05/2017	5	115	0.03	91.5	
903-37	Friday, 7 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.06	88.0	
903-38	Sunday, 9 April 2017	12:28:00	08/05/2017	23/05/2017	1	95	0.06	110.2	Local environmental factors
903-32	Monday, 10 April 2017	12:35:00	08/05/2017	23/05/2017	5	115	0.03	106.0	
894-501	Tuesday, 11 April 2017	12:31:00	08/05/2017	23/05/2017	5	115	0.02	91.5	
894-502	Thursday, 13 April 2017	12:29:00	08/05/2017	23/05/2017	5	115	0.03	91.5	
903-35	Thursday, 13 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.04	91.5	
903-45	Saturday, 15 April 2017	12:33:00	08/05/2017	23/05/2017	5	115	0.03	88.0	
903-44	Sunday, 16 April 2017	12:56:00	08/05/2017	23/05/2017	1	95	0.04	88.0	
903-30	Tuesday, 18 April 2017	12:33:00	08/05/2017	23/05/2017	5	115	0.02	91.5	
903-36	Tuesday, 18 April 2017	12:37:00	08/05/2017	23/05/2017	5	115	0.05	91.5	
894-503	Wednesday, 19 April 2017	13:00:00	08/05/2017	23/05/2017	5	115	0.01	91.5	
894-504	Thursday, 20 April 2017	12:25:00	08/05/2017	23/05/2017	5	115	0.03	94.0	
903-31	Friday, 21 April 2017	15:35:00	08/05/2017	23/05/2017	5	115	0.02	88.0	
894-505	Saturday, 22 April 2017	12:32:00	08/05/2017	23/05/2017	1	95	0.02	88.0	
894-10	Monday, 24 April 2017	16:57:00	08/05/2017	23/05/2017	5	115	0.12	88.0	
894-506	Monday, 24 April 2017	12:32:00	08/05/2017	23/05/2017	5	115	0.12	88.0	
894-11	Thursday, 27 April 2017	12:28:00	08/05/2017	23/05/2017	5	115	0.08	100.0	
903-39	Friday, 28 April 2017	12:28:00	08/05/2017	23/05/2017	5	115	0.03	91.5	
894-12	Saturday, 29 April 2017	12:40:00	08/05/2017	23/05/2017	5	115	0.01	91.5	
894-507	Saturday, 29 April 2017	12:25:00	08/05/2017	23/05/2017	5	115	0.01	91.5	
894-15	Sunday, 30 April 2017	12:25:00	08/05/2017	23/05/2017	1	95	0.07	91.5	

Cyanide

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

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	9.2	26.7	28.5	39.2	
Weekly	February	4	9.2	14.3	11.0	26.1	
Weekly	March	4	8.79	25.32	29.48	33.54	
Weekly	April	4	7.41	24.78	25.80	40.10	
Weekly	May						
Weekly	June						
Weekly	July						
Weekly	August						
Weekly	September						
Weekly	October						
Weekly	November						
Weekly	December						

			WAD Cyanide (mg/L)		Concentration Limits		
Frequency	**Month**	**No Sampled during Month**	**Minimum**	**Maximum**	**90th Percentile**	**100th Percentile**	**Comments**
Twice daily	January	61	2.4	15.1	20ppm	30ppm	On the following dates, samples were not collected due to mill shutdown: 17/1/16 (morning)
Twice daily	February	52	0.7	11.0	20ppm	30ppm	On the following dates, samples were not collected due to mill shutdown: 12/02/17 (morning), 22/02/17 (evening) & 23/02/17 (morning and evening)
Twice daily	March	54	0.5	19.4	20ppm	30ppm	On the following dates, samples were not collected due to mill shutdown: 14/03/17 (morning & Evening) - 17/03/17 (morning and evening)
Twice daily	April	60	3.6	14.6	20ppm	30ppm	
Twice daily	May				20ppm	30ppm	
Twice daily	June				20ppm	30ppm	
Twice daily	July				20ppm	30ppm	
Twice daily	August				20ppm	30ppm	
Twice daily	September				20ppm	30ppm	
Twice daily	October				20ppm	30ppm	
Twice daily	November				20ppm	30ppm	
Twice daily	December				20ppm	30ppm	

EPL Exceedances

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

EPL Correction Log

EPL No: 11912 http://www.environment.nsw.gov.au/prpoeoapp/
Licensee: Evolution Mining (Cowal) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

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