

Dust

EPL No: 1512 <http://www.epa.nsw.gov.au/licensing-and-regulation/public-registers>  
 Licensee: Evolution Mining (Cowl) Pty Limited  
 Address: PO Box 210 West Wyalong NSW 2671

Monitoring Point: 1 <McIntacks 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 <sup>3</sup> /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	
Monthly	24/05/2017	15/06/2017	22/06/2017	10.4	Sowing of winter agricultural crops occurring in April - May
Monthly	23/06/2017	18/07/2017	22/08/2017	-	Invalid record: 30.1 - Field observation, contaminated grass and dung
Monthly	25/07/2017	18/08/2017	26/09/2017	5.0	
Monthly	23/08/2017	31/08/2017	19/10/2017	2.3	
Monthly	27/09/2017	17/10/2017	19/10/2017	2.4	
Monthly	01/11/2017	22/11/2017	23/11/2017	4.2	
Monthly	30/11/2017	15/12/2017	22/12/2017	6.3	
Monthly	05/01/2018	16/01/2018	22/01/2018	5.5	

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	23/06/2017	17/07/2017	19/10/2017	6880	2.7	0.05	6.1	3.9	0.40	26	
Six Monthly	27/09/2017	17/10/2017	19/10/2017	8150	2.1	0.50	52	4.3	0.2	380	

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 <sup>3</sup> /mth)	Comments
Monthly	31/03/2017	17/03/2017	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	
Monthly	24/05/2017	15/06/2017	22/06/2017	3.6	
Monthly	23/06/2017	18/07/2017	22/08/2017	3.3	
Monthly	25/07/2017	18/08/2017	26/09/2017	2.1	
Monthly	23/08/2017	31/08/2017	19/10/2017	4.6	
Monthly	27/09/2017	17/10/2017	19/10/2017	3.2	
Monthly	01/11/2017	22/11/2017	23/11/2017	3.2	
Monthly	30/11/2017	15/12/2017	22/12/2017	4.7	
Monthly	05/01/2018	16/01/2018	22/01/2018	13.9	

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	23/06/2017	17/07/2017	19/10/2017	3280	1.5	0.13	38	9.4	0.2	150	
Six Monthly	27/09/2017	17/10/2017	19/10/2017	7500	3.8	0.76	99	6.7	0.2	550	

Monitoring Point: 3 <D605>

Dust monitoring. Dust gauge located within Lake Cowl to the east of ML1535 boundary

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m <sup>3</sup> /mth)	Comments
Monthly	02/02/2017	17/02/2017	21/02/2017	18.8	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	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 <D606>

Dust monitoring. Dust gauge located on private property to the east of ML1535 boundary

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m <sup>3</sup> /mth)	Comments
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	
Monthly	24/05/2017	15/06/2017	22/06/2017	7.1	
Monthly	23/06/2017	18/07/2017	22/08/2017	2.3	
Monthly	25/07/2017	18/08/2017	26/09/2017	3.3	
Monthly	23/08/2017	31/08/2017	19/10/2017	5.3	
Monthly	27/09/2017	17/10/2017	19/10/2017	2.9	
Monthly	01/11/2017	22/11/2017	23/11/2017	-	Invalid record: 16.4 - Field observation, contaminated large bags
Monthly	30/11/2017	15/12/2017	22/12/2017	11.9	Wge, Organics, Bird poo
Monthly	27/12/2017	16/01/2018	22/01/2018	7.5	

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	23/06/2017	17/07/2017	19/10/2017	14500	2.8	0.2	47	8.6	0.3	450	
Six Monthly	27/09/2017	17/10/2017	19/10/2017	6460	1.5	0.37	100	3.7	0.2	200	

Monitoring Point: 4 <D609>

Dust monitoring. Dust gauge located on private property to the south of ML1535 boundary

Frequency	Date Sampled	Date Obtained	Date Published	Particulates (g/m <sup>3</sup> /mth)	Comments
Monthly	31/03/2017	17/03/2017	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	
Monthly	24/05/2017	15/06/2017	22/06/2017	0.5	
Monthly	23/06/2017	18/07/2017	22/08/2017	0.5	
Monthly	25/07/2017	18/08/2017	26/09/2017	0.7	
Monthly	23/08/2017	31/08/2017	19/10/2017	0.4	
Monthly	27/09/2017	17/10/2017	19/10/2017	0.4	
Monthly	01/11/2017	-	-	-	Sample container broke in transit, sample lost
Monthly	30/11/2017	15/12/2017	22/12/2017	7.1	
Monthly	05/01/2018	16/01/2018	22/01/2018	4.5	

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	23/09/1512	25.5	2.1	230	13	0.23	34100	
Six Monthly	23/06/2017	17/07/2017	19/10/2017	8670	6	0.2	91	6	0.20	2950	
Six Monthly	27/09/2017	17/10/2017	19/10/2017	15200	6.2	0.1	56	30	0.20	250	

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 <sup>3</sup> /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	
Monthly	24/05/2017	15/06/2017	22/06/2017	1.3	
Monthly	23/06/2017	18/07/2017	22/08/2017	1.5	
Monthly	25/07/2017	18/08/2017	26/09/2017	-	Invalid record: 56.4 - Field observation, Contaminated water clean stopper fell in during collection
Monthly	23/08/2017	31/08/2017	19/10/2017	0.4	
Monthly	27/09/2017	17/10/2017	19/10/2017	1.5	
Monthly	01/11/2017	22/11/2017	23/11/2017	4.4	
Monthly	30/11/2017	15/12/2017	22/12/2017	2.9	
Monthly	05/01/2018	16/01/2018	22/01/2018	3.2	

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	23/06/2017	17/07/2017	19/10/2017	23500	49	3.4	190	9	0.40	680	
Six Monthly	27/09/2017	17/10/2017	19/10/2017	22900	30	1.4	170	21	0.24	340	



Surface Water

EPL No: 11912 <http://www.epa.nsw.gov.au/licensing-and-regulation/public-registers>  
 Licensee: Evolution Mining (Coral) 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	31/02/2017	7.5	1717	20	
Weekly	17/01/2017	24/01/2017	21/02/2017	8.0	-	11	Invalid record: 233 - Laboratory 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	34	
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	10/03/2017	10/03/2017	20/03/2017	6.7	23260	21	
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
Monthly	01/05/2017	05/05/2017	22/05/2017	8.5	6060	18	
Monthly	15/06/2017	22/06/2017	24/07/2017	8.9	5110	17	
Monthly	18/07/2017	27/07/2017	22/08/2017	-	7660	18	Invalid record: 9.4 - Lab pH 9.01
Monthly	15/08/2017	23/08/2017	26/09/2017	8.5	5880	30	
Monthly	05/09/2017	15/09/2017	19/10/2017	8.4	7440	12	
Monthly	16/10/2017	23/10/2017	23/11/2017	8.0	8200	15	
Monthly	13/11/2017	20/11/2017	22/12/2017	8.9	8300	51	
Monthly	28/11/2017	05/12/2017	22/12/2017	8.4	9120	8	Special Frequency 1 - 20mm rainfall event
Monthly	04/12/2017	04/12/2017	22/01/2018	7.8	3800	16	Special Frequency 2 - 20mm rainfall event

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	6.9	36540	11	
Weekly	09/01/2017	16/01/2017	21/02/2017	7.5	-	65	Invalid record: 697 - Laboratory 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
Monthly	01/05/2017	05/05/2017	22/05/2017	8.5	2720	306	
Monthly	15/06/2017	22/06/2017	24/07/2017	-	-	-	No water present in D4
Monthly	18/07/2017	27/07/2017	22/08/2017	-	-	-	No water present in D4
Monthly	15/08/2017	23/08/2017	26/09/2017	-	-	-	No water present in D4
Monthly	05/09/2017	15/09/2017	26/10/2017	-	-	-	No water present in D4
Monthly	16/10/2017	16/10/2017	23/11/2017	-	-	-	No water present in D4
Monthly	13/11/2017	13/11/2017	22/12/2017	-	-	-	No water present in D4
Monthly	28/11/2017	05/12/2017	22/12/2017	7.6	598	5540	Special Frequency 1 - 20mm rainfall event (Water level very low, muddy)
Monthly	04/12/2017	04/12/2017	22/01/2018	7.7	1711	182	Special Frequency 2 - 20mm rainfall event

Lake Water

EPL No: 19192 http://www.epa.nsw.gov.au/licensing-and-regulation/water-registers
Licensee: Evolution Mining (Cowell) Pty Limited
Address: PO Box 210 West Wyalong NSW 2471

Monitoring Point: 14 -#1>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Table with 7 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (µS/cm), Total Suspended Solids (mg/L), Comments. Contains weekly data from 05/01/2017 to 27/12/2017.

Table with 14 columns: 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), Antimony - Dissolved (mg/L), Mo - D (mg/L), Ni - D (mg/L), Comments. Contains quarterly data from 19/01/2017 to 03/10/2017.

Monitoring Point: 15 -#2>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Table with 7 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (µS/cm), Total Suspended Solids (mg/L), Comments. Contains weekly data from 05/01/2017 to 05/12/2017.

Table with 14 columns: 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), Antimony - Dissolved (mg/L), Mo - D (mg/L), Ni - D (mg/L), Comments. Contains quarterly data from 19/01/2017 to 03/10/2017.

Monitoring Point: 16 -#3>
Ambient water quality monitoring, Surface water point within ML1535 on Lake Cowal

Table with 7 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (µS/cm), Total Suspended Solids (mg/L), Comments. Contains weekly data from 05/01/2017 to 27/12/2017.

Table with 14 columns: 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), Antimony - Dissolved (mg/L), Mo - D (mg/L), Ni - D (mg/L), Comments. Contains quarterly data from 19/01/2017 to 03/10/2017.

Lake Water

EPL No: 11912 <http://www.epa.nsw.gov.au/licensing-and-regulation/eplbc-registry>  
 Licensee: Evolution Mining (Cowell) Pty Limited  
 Address: PO Box 210 West Wyalung NSW 2471

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

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	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	15/01/2017	15/01/2017	21/02/2017	7.87	300	281	
Weekly	20/01/2017	20/01/2017	21/02/2017	7.75	383	225	
Weekly	25/01/2017	25/01/2017	21/02/2017	7.45	409	208	
Weekly	01/02/2017	01/02/2017	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	338	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	451	256	
Weekly	23/03/2017	23/03/2017	20/03/2017	7.70	389	307	
Monthly	28/04/2017	28/04/2017	13/05/2017	8.23	311	127	Monitoring frequency changed to Monthly as part of EPL variation - 20/02/2017
Monthly	13/05/2017	13/05/2017	22/06/2017	8.17	416	-	Total Suspended Solids removed as part of EPL variation - 20/02/2017
Monthly	13/06/2017	22/06/2017	24/07/2017	8.17	265	-	
Monthly	06/07/2017	13/07/2017	22/08/2017	7.56	380	-	
Monthly	03/08/2017	09/08/2017	06/09/2017	7.58	221	-	
Monthly	12/09/2017	12/09/2017	19/10/2017	8.09	414	-	
Monthly	03/10/2017	03/10/2017	23/11/2017	8.4	391	-	
Monthly	03/11/2017	03/11/2017	23/12/2017	7.8	424	-	
Monthly	05/12/2017	05/12/2017	22/01/2018	8.18	512	-	

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)	Antimony - Dissolved (mg/L)	Mo - D (mg/L)	Ni - D (mg/L)	Comments
Quarterly	15/01/2017	02/02/2017	21/02/2017	105	0.004	<0.0001	0.003	<0.001	<0.0001	<0.01	281	0.008	<0.001	<0.001	0.003	
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	<0.001	0.001	0.002	
Quarterly	06/07/2017	13/07/2017	22/08/2017	147	0.004	<0.0001	0.003	<0.001	<0.0001	<0.01	49	<0.005	<0.001	<0.001	0.003	
Quarterly	03/10/2017	13/10/2017	23/11/2017	168	0.004	<0.0001	0.004	<0.001	<0.0001	<0.01	156	0.007	0.001	0.001	0.001	

Monitoring Point: 18 -B5->  
 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	122	
Weekly	10/01/2017	18/01/2017	21/02/2017	7.84	278	158	
Weekly	15/01/2017	02/02/2017	21/02/2017	7.91	307	311	
Weekly	20/01/2017	01/02/2017	21/02/2017	7.82	397	223	
Weekly	01/02/2017	09/02/2017	21/02/2017	8.97	386	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	270	
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	156	
Weekly	16/03/2017	16/03/2017	20/03/2017	7.89	478	323	
Weekly	23/03/2017	22/03/2017	28/03/2017	7.84	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	13/01/2017	25/01/2017	21/02/2017	110	0.004	<0.0001	0.004	<0.001	<0.0001	<0.01	159	0.01	Monitoring point removed as part of EPL variation - 20/02/2017
Quarterly	-	-	-	-	-	-	-	-	-	-	-	-	

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

Frequency	Date Sampled	Date Obtained	Date Published	Field - pH (units)	Field - Electrical Conductivity (µS/cm)	Comments
Monthly	-	-	-	-	-	
Monthly	-	-	-	-	-	
Monthly	16/03/2017	16/03/2017	24/04/2017	7.84	472	Monitoring point added as part of EPL variation - 20/02/2017
Monthly	28/04/2017	28/04/2017	21/05/2017	8.25	397	
Monthly	11/05/2017	15/05/2017	22/06/2017	8.34	400	
Monthly	13/06/2017	22/06/2017	24/07/2017	8.09	256	
Monthly	06/07/2017	13/07/2017	22/08/2017	7.60	380	
Monthly	05/08/2017	09/08/2017	26/09/2017	7.45	246	
Monthly	22/09/2017	12/09/2017	19/10/2017	8.11	416	
Monthly	03/10/2017	03/10/2017	23/11/2017	8.32	384	
Monthly	09/11/2017	09/11/2017	22/12/2017	7.84	415	
Monthly	05/12/2017	05/12/2017	22/01/2018	8.24	145	

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)	Antimony - Dissolved (mg/L)	Mo - D (mg/L)	Ni - D (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	<0.001	0.002	0.005	Monitoring point added as part of EPL variation - 20/02/2017
Quarterly	06/07/2017	13/07/2017	22/08/2017	148	0.005	<0.0001	0.004	<0.001	<0.0001	<0.01	93	<0.005	<0.001	<0.001	0.003	
Quarterly	03/10/2017	13/10/2017	23/11/2017	167	0.005	<0.0001	0.005	<0.001	<0.0001	<0.01	111	0.009	0.001	0.0019	0.0049	



Groundwater

EPL No: 1912 http://www.epa.nsw.gov.au/licensing-and-regulation/public-registers
License: Evolution Mining (Cowell) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

Monitoring Point: 24 <P41A>

Groundwater quality monitoring, Piezometer located down gradient of southern tailings storage facility

Table with 7 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (µS/cm), SWL (m), Comments. Contains monthly data from 2017 to 2018.

Table with 25 columns: Frequency, Date Sampled, Date Obtained, Date Published, Alkalinity (mg/L), Antimony (mg/L), Arsenic (mg/L), Cadmium (mg/L), Calcium (mg/L), Chloride (mg/L), Copper (mg/L), Cyanide WAD (mg/L), Iron (mg/L), Lead (mg/L), Magnesium (mg/L), Manganese (mg/L), Molybdenum (mg/L), Nickel (mg/L), Potassium (mg/L), Selenium (mg/L), Sodium (mg/L), Sulphate (mg/L), Total Hardness (mg/L), Total Dissolved Solids (mg/L), Total Suspended Solids (mg/L), Zinc (mg/L), Comments. Contains quarterly data for 2017 and 2018.

Monitoring Point: 25 <P41B>

Groundwater quality monitoring, Piezometer located down gradient of southern tailings storage facility

Table with 7 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (µS/cm), SWL (m), Comments. Contains monthly data from 2017 to 2018.

Table with 25 columns: Frequency, Date Sampled, Date Obtained, Date Published, Alkalinity (mg/L), Antimony (mg/L), Arsenic (mg/L), Cadmium (mg/L), Calcium (mg/L), Chloride (mg/L), Copper (mg/L), Cyanide WAD (mg/L), Iron (mg/L), Lead (mg/L), Magnesium (mg/L), Manganese (mg/L), Molybdenum (mg/L), Nickel (mg/L), Potassium (mg/L), Selenium (mg/L), Sodium (mg/L), Sulphate (mg/L), Total Hardness (mg/L), Total Dissolved Solids (mg/L), Total Suspended Solids (mg/L), Zinc (mg/L), Comments. Contains quarterly data for 2017 and 2018.

Monitoring Point: 26 <PP03>

Groundwater quality monitoring, Piezometer located near the processing plant area

Table with 7 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (µS/cm), SWL (m), Comments. Contains monthly data from 2017 to 2018.

Table with 25 columns: Frequency, Date Sampled, Date Obtained, Date Published, Alkalinity (mg/L), Antimony (mg/L), Arsenic (mg/L), Cadmium (mg/L), Calcium (mg/L), Chloride (mg/L), Copper (mg/L), Cyanide WAD (mg/L), Iron (mg/L), Lead (mg/L), Magnesium (mg/L), Manganese (mg/L), Molybdenum (mg/L), Nickel (mg/L), Potassium (mg/L), Selenium (mg/L), Sodium (mg/L), Sulphate (mg/L), Total Hardness (mg/L), Total Dissolved Solids (mg/L), Total Suspended Solids (mg/L), Zinc (mg/L), Comments. Contains quarterly data for 2017 and 2018.

Monitoring Point: 27 <PP04>

Groundwater quality monitoring, Piezometer located near the processing plant area

Table with 7 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (µS/cm), SWL (m), Comments. Contains monthly data from 2017 to 2018.

Table with 25 columns: Frequency, Date Sampled, Date Obtained, Date Published, Alkalinity (mg/L), Antimony (mg/L), Arsenic (mg/L), Cadmium (mg/L), Calcium (mg/L), Chloride (mg/L), Copper (mg/L), Cyanide WAD (mg/L), Iron (mg/L), Lead (mg/L), Magnesium (mg/L), Manganese (mg/L), Molybdenum (mg/L), Nickel (mg/L), Potassium (mg/L), Selenium (mg/L), Sodium (mg/L), Sulphate (mg/L), Total Hardness (mg/L), Total Dissolved Solids (mg/L), Total Suspended Solids (mg/L), Zinc (mg/L), Comments. Contains quarterly data for 2017 and 2018.

Monitoring Point: 30 <P417A>







Groundwater

EPL No: 12912 http://www.epa.nsw.gov.au/licensing-and-regulation/public-register
Licensee: Evolution Mining (Crows) Pty Limited
Address: PO Box 210 West Wyalong NSW 2671

Monitoring Point: 45 <MONDZA>
Groundwater quality monitoring, Groundwater monitoring bore located to the south of the southern tailings storage facility

Table with 8 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (uS/cm), SWL (m), Comments. Contains monthly data from 2017 to 2018.

Table with 22 columns: Frequency, Date Sampled, Date Obtained, Date Published, Alkalinity (mg/L), Antimony (mg/L), Arsenic (mg/L), Cadmium (mg/L), Calcium (mg/L), Chloride (mg/L), Copper (mg/L), Cyanide WAD (mg/L), Iron (mg/L), Lead (mg/L), Magnesium (mg/L), Manganese (mg/L), Molybdenum (mg/L), Nickel (mg/L), Potassium (mg/L), Selenium (mg/L), Sodium (mg/L), Sulphate (mg/L), Total Hardness (mg/L), Total Dissolved Solids (mg/L), Total Suspended Solids (mg/L), Zinc (mg/L), Comments.

Monitoring Point: 50 <TSFNB>
Groundwater quality monitoring, Piezometer located down gradient of northern tailings storage facility

Table with 8 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (uS/cm), SWL (m), Comments. Contains monthly data from 2017 to 2018.

Table with 22 columns: Frequency, Date Sampled, Date Obtained, Date Published, Alkalinity (mg/L), Antimony (mg/L), Arsenic (mg/L), Cadmium (mg/L), Calcium (mg/L), Chloride (mg/L), Copper (mg/L), Cyanide WAD (mg/L), Iron (mg/L), Lead (mg/L), Magnesium (mg/L), Manganese (mg/L), Molybdenum (mg/L), Nickel (mg/L), Potassium (mg/L), Selenium (mg/L), Sodium (mg/L), Sulphate (mg/L), Total Hardness (mg/L), Total Dissolved Solids (mg/L), Total Suspended Solids (mg/L), Zinc (mg/L), Comments.

Monitoring Point: 51 <TSFNC>
Groundwater quality monitoring, Piezometer located down gradient of northern tailings storage facility

Table with 8 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (uS/cm), SWL (m), Comments. Contains monthly data from 2017 to 2018.

Table with 22 columns: Frequency, Date Sampled, Date Obtained, Date Published, Alkalinity (mg/L), Antimony (mg/L), Arsenic (mg/L), Cadmium (mg/L), Calcium (mg/L), Chloride (mg/L), Copper (mg/L), Cyanide WAD (mg/L), Iron (mg/L), Lead (mg/L), Magnesium (mg/L), Manganese (mg/L), Molybdenum (mg/L), Nickel (mg/L), Potassium (mg/L), Selenium (mg/L), Sodium (mg/L), Sulphate (mg/L), Total Hardness (mg/L), Total Dissolved Solids (mg/L), Total Suspended Solids (mg/L), Zinc (mg/L), Comments.

Monitoring Point: 52 <POB18>
Groundwater quality monitoring, Pit dewatering bore

Table with 8 columns: Frequency, Date Sampled, Date Obtained, Date Published, Field - pH (units), Field - Electrical Conductivity (uS/cm), SWL (m), Comments. Contains monthly data from 2017 to 2018.

Table with 22 columns: 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), Molybdenum (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.



Waste Rock Leachate

EPL No: 11912 <http://www.epa.nsw.gov.au/licensing-and-regulation/public-register>  
 Licensee: Evolution Mining (EvoM) 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	20/03/2017	-	-	-	No water present in external toe drain
Monthly	07/03/2017	07/03/2017	24/04/2017	-	-	-	No water present in external toe drain
Monthly	04/04/2017	04/04/2017	23/05/2017	-	-	-	No water present in external toe drain
Monthly	01/05/2017	01/05/2017	22/06/2017	-	-	-	No water present in external toe drain
Monthly	15/06/2017	22/06/2017	24/07/2017	-	-	-	No water present in external toe drain
Monthly	18/07/2017	27/07/2017	22/08/2017	-	-	-	No water present in external toe drain
Monthly	15/08/2017	23/08/2017	26/09/2017	-	-	-	No water present in external toe drain
Monthly	05/09/2017	12/09/2017	19/10/2017	-	-	-	No water present in external toe drain
Monthly	16/10/2017	16/10/2017	23/11/2017	-	-	-	No water present in external toe drain
Monthly	13/11/2017	13/11/2017	22/12/2017	-	-	-	No water present in external toe drain
Monthly	13/12/2017	13/12/2017	22/01/2018	-	-	-	No water present in external toe drain

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	18/07/2017	27/07/2017	26/09/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in external toe drain
Quarterly	16/10/2017	16/10/2017	23/11/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in external toe drain

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	20/03/2017	7.63	12740	-	Insufficient water available to measure SWL
Monthly	07/03/2017	07/03/2017	24/04/2017	7.56	12740	-	Insufficient water available to measure SWL
Monthly	04/04/2017	04/04/2017	23/05/2017	7.42	12240	-	Insufficient water available to measure SWL
Monthly	01/05/2017	01/05/2017	22/06/2017	7.94	10480	-	Insufficient water available to measure SWL
Monthly	15/06/2017	22/06/2017	24/07/2017	7.47	11680	-	Insufficient water available to measure SWL
Monthly	18/07/2017	27/07/2017	22/08/2017	7.70	8410	-	Insufficient water available to measure SWL
Monthly	15/08/2017	23/08/2017	19/10/2017	-	12720	-	Invalid record: 10.24 - Lab pH 7.7; insufficient water available to measure SWL
Monthly	05/09/2017	12/09/2017	19/10/2017	7.52	14630	-	Insufficient water available to measure SWL
Monthly	16/10/2017	23/10/2017	23/11/2017	7.33	13190	-	Insufficient water available to measure SWL
Monthly	13/11/2017	13/11/2017	22/12/2017	7.63	14960	-	Insufficient water available to measure SWL
Monthly	13/12/2017	13/12/2017	22/01/2018	8.56	15730	-	Insufficient water available to measure SWL

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	0.0066	26	0.004	1990	2010	9710	<1	<1	0.199	-
Quarterly	18/07/2017	27/07/2017	26/09/2017	268	<0.0005	0.0006	0.0041	488	3780	0.002	<0.005	<0.0002	408	0.0068	0.0043	0.0017	24	0.003	1930	2030	2900	9720	12	0.107	-
Quarterly	16/10/2017	23/10/2017	23/11/2017	292	<0.0005	0.0006	0.0076	560	4260	0.002	<0.005	<0.0002	495	0.0777	0.0043	0.0015	38	0.004	2200	2027	3330	10700	117	0.193	-

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	20/03/2017	-	-	-	No water present in external toe drain
Monthly	07/03/2017	07/03/2017	24/04/2017	-	-	-	No water present in external toe drain
Monthly	04/04/2017	04/04/2017	23/05/2017	-	-	-	No water present in external toe drain
Monthly	01/05/2017	01/05/2017	22/06/2017	-	-	-	No water present in external toe drain
Monthly	15/06/2017	22/06/2017	24/07/2017	-	-	-	No water present in external toe drain
Monthly	18/07/2017	27/07/2017	26/09/2017	-	-	-	No water present in external toe drain
Monthly	15/08/2017	23/08/2017	19/10/2017	-	-	-	No water present in external toe drain
Monthly	05/09/2017	12/09/2017	19/10/2017	-	-	-	No water present in external toe drain
Monthly	16/10/2017	16/10/2017	23/11/2017	-	-	-	No water present in external toe drain
Monthly	13/11/2017	13/11/2017	22/12/2017	-	-	-	No water present in external toe drain
Monthly	13/12/2017	13/12/2017	22/01/2018	-	-	-	No water present in external toe drain

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	18/07/2017	27/07/2017	26/09/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in external toe drain
Quarterly	16/10/2017	16/10/2017	23/11/2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No water present in external toe drain

Q1 Noise Monitoring - January 2016

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LA <sub>eq(5min)</sub> * dBA		Noise Criteria LA <sub>eq(5min)</sub> - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
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 20 µPa)				Mine Contributed LA <sub>eq(5min)</sub> * dBA		Noise Criteria LA <sub>eq(5min)</sub> - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
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 20 µPa)				Mine Contributed LA <sub>eq(5min)</sub> * dBA		Noise Criteria LA <sub>eq(5min)</sub> - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	17/01/2017	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	17/01/2017	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	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 20 µPa)				Mine Contributed LA <sub>eq(5min)</sub> * dBA		Noise Criteria LA <sub>eq(5min)</sub> - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	14/06/2017	30/06/2017	24/07/2017	29	32	-	
N05	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N09	14/06/2017	30/06/2017	24/07/2017	26	25	39	
N10	14/06/2017	30/06/2017	24/07/2017	20	20	38	
N11	14/06/2017	30/06/2017	24/07/2017	<20	22	39	
N12	14/06/2017	30/06/2017	24/07/2017	<20	<20	38	
N13	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N14	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N15	14/06/2017	30/06/2017	24/07/2017	<20	<20	38	Monitoring point added as part of EPL variation -23/05/2017
N16	14/06/2017	30/06/2017	24/07/2017	30	30	37	Monitoring point added as part of EPL variation -23/05/2017
N17	14/06/2017	30/06/2017	24/07/2017	24	23	37	Monitoring point added as part of EPL variation -23/05/2017

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LA <sub>eq(5min)</sub> * dBA		Noise Criteria LA <sub>eq(5min)</sub> - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	14/06/2017	30/06/2017	24/07/2017	28	30	-	
N05	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N09	14/06/2017	30/06/2017	24/07/2017	24	23	39	
N10	13/06/2017	30/06/2017	24/07/2017	21	22	38	
N11	13/06/2017	30/06/2017	24/07/2017	22	22	39	
N12	14/06/2017	30/06/2017	24/07/2017	<20	<20	38	
N13	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N14	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N15	14/06/2017	30/06/2017	24/07/2017	22	22	38	Monitoring point added as part of EPL variation -23/05/2017
N16	14/06/2017	30/06/2017	24/07/2017	22	22	37	Monitoring point added as part of EPL variation -23/05/2017
N17	13/06/2017	30/06/2017	24/07/2017	23	23	37	Monitoring point added as part of EPL variation -23/05/2017

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LA <sub>eq(5min)</sub> * dBA		Noise Criteria LA <sub>eq(5min)</sub> - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	14/06/2017	30/06/2017	24/07/2017	28	26	-	
N05	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N09	14/06/2017	30/06/2017	24/07/2017	26	26	39	
N10	13/06/2017	30/06/2017	24/07/2017	25	24	38	
N11	13/06/2017	30/06/2017	24/07/2017	20	21	39	
N12	14/06/2017	30/06/2017	24/07/2017	<20	<20	38	
N13	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N14	-	-	-	-	-	-	Monitoring point removed as part of EPL variation -23/05/2017
N15	14/06/2017	30/06/2017	24/07/2017	26	25	38	Monitoring point added as part of EPL variation -23/05/2017
N16	15/06/2017	30/06/2017	24/07/2017	23	23	37	Monitoring point added as part of EPL variation -23/05/2017
N17	13/06/2017	30/06/2017	24/07/2017	25	25	37	Monitoring point added as part of EPL variation -23/05/2017

N/A - Mine noise emission not discernible

Q3 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LAeq(5min) - dBA		Noise Criteria LAeq(5min) - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	23/08/2017	04/09/2017	19/10/2017	30	31	-	
N09	23/08/2017	04/09/2017	19/10/2017	27	25	39	
N10	23/08/2017	04/09/2017	19/10/2017	<20	<20	38	
N11	23/08/2017	04/09/2017	19/10/2017	<20	<20	39	
N12	23/08/2017	04/09/2017	19/10/2017	<20	<20	38	
N15	23/08/2017	04/09/2017	19/10/2017	26	28	38	
N16	23/08/2017	04/09/2017	19/10/2017	<20	<20	37	
N17	23/08/2017	04/09/2017	19/10/2017	22	20	37	

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LAeq(5min) - dBA		Noise Criteria LAeq(5min) - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	23/08/2017	04/09/2017	19/10/2017	34	35	-	
N09	22/08/2017	04/09/2017	19/10/2017	<20	<20	39	
N10	22/08/2017	04/09/2017	19/10/2017	<20	<20	38	
N11	22/08/2017	04/09/2017	19/10/2017	<20	<20	39	
N12	22/08/2017	04/09/2017	19/10/2017	<20	<20	38	
N15	23/08/2017	04/09/2017	19/10/2017	<20	<20	38	
N16	22/08/2017	04/09/2017	19/10/2017	<20	<20	37	
N17	22/08/2017	04/09/2017	19/10/2017	<20	<20	37	

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LAeq(5min) - dBA		Noise Criteria LAeq(5min) - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	23/08/2017	04/09/2017	19/10/2017	35	37	-	
N09	22/08/2017	04/09/2017	19/10/2017	<20	<20	39	
N10	22/08/2017	04/09/2017	19/10/2017	<20	<20	38	
N11	22/08/2017	04/09/2017	19/10/2017	20	21	39	
N12	23/08/2017	04/09/2017	19/10/2017	<20	<20	38	
N15	23/08/2017	04/09/2017	19/10/2017	<20	<20	38	
N16	24/08/2017	04/09/2017	19/10/2017	<20	<20	37	
N17	22/08/2017	04/09/2017	19/10/2017	<20	<20	37	

N/A - Mine noise emission not discernible

Q4 Noise Monitoring

Daytime Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LAeq(5min) - dBA		Noise Criteria LAeq(5min) - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	08/11/2017	27/11/2017	22/12/2017	22	23	-	
N09	08/11/2017	27/11/2017	22/12/2017	<20	<20	39	
N10	08/11/2017	27/11/2017	22/12/2017	<20	<20	38	
N11	08/11/2017	27/11/2017	22/12/2017	<20	<20	39	
N12	08/11/2017	27/11/2017	22/12/2017	<20	<20	38	
N15	08/11/2017	27/11/2017	22/12/2017	<20	<20	38	
N16	08/11/2017	27/11/2017	22/12/2017	<20	<20	37	
N17	08/11/2017	27/11/2017	22/12/2017	<20	<20	37	

Evening Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LAeq(5min) - dBA		Noise Criteria LAeq(5min) - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	08/11/2017	27/11/2017	22/12/2017	24	25	-	
N09	07/11/2017	27/11/2017	22/12/2017	<20	<20	39	
N10	07/11/2017	27/11/2017	22/12/2017	<20	<20	38	
N11	07/11/2017	27/11/2017	22/12/2017	<20	<20	39	
N12	07/11/2017	27/11/2017	22/12/2017	<20	<20	38	
N15	08/11/2017	27/11/2017	22/12/2017	<20	<20	38	
N16	07/11/2017	27/11/2017	22/12/2017	<20	<20	37	
N17	07/11/2017	27/11/2017	22/12/2017	<20	<20	37	

Night time Mine Operating Intrusive Noise Levels (dBA re 20 µPa)				Mine Contributed LAeq(5min) - dBA		Noise Criteria LAeq(5min) - dBA	Comments
Location	Date Sampled	Date Obtained	Date Published	Survey 1	Survey 2		
N01	08/11/2017	27/11/2017	22/12/2017	21	22	-	
N09	09/11/2017	27/11/2017	22/12/2017	23	23	39	
N10	07/11/2017	27/11/2017	22/12/2017	<20	<20	38	
N11	07/11/2017	27/11/2017	22/12/2017	23	22	39	
N12	07/11/2017	27/11/2017	22/12/2017	<20	<20	38	
N15	08/11/2017	27/11/2017	22/12/2017	22	24	38	
N16	08/11/2017	27/11/2017	22/12/2017	22	23	37	
N17	09/11/2017	27/11/2017	22/12/2017	<20	<20	37	

Blasting & Ground Vibration

EPL No: 11912 http://www.epa.nsw.gov.au/licensing-and-regulation/public-registers
License: Evolution Mining (Cowl) 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

Table with columns: Blast Number, Day/Date, Time, Date Obtained, Date Published, Trigger Threshold (Ground Vibration, Airblast Overpressure), BM01 at Blast Time (Ground Vibration, Airblast Overpressure), Comments. Rows are organized by month from January to September.

876-515	Thursday, 14 September 2017	12:30:28	04/10/2017	19/10/2017	5	115	0.09	107.0	
876-6	Friday, 15 September 2017	12:35:08	04/10/2017	19/10/2017	5	115	0.08	91.5	
876-507b	Saturday, 16 September 2017	12:49:59	04/10/2017	19/10/2017	5	115	0.09	103.5	
876-7	Monday, 18 September 2017	12:29:04	04/10/2017	19/10/2017	5	115	0.08	91.5	
876-508	Thursday, 21 September 2017	12:54:22	04/10/2017	19/10/2017	5	115	0.08	102.8	
885-16	Thursday, 21 September 2017	12:54:22	04/10/2017	19/10/2017	5	115	0.08	102.8	
894-40	Saturday, 23 September 2017	12:34:29	04/10/2017	19/10/2017	5	115	0.08	103.5	
876-509	Tuesday, 26 September 2017	12:43:00	04/10/2017	19/10/2017	5	115	0.09	88.0	
885-15	Tuesday, 26 September 2017	12:43:00	04/10/2017	19/10/2017	5	115	0.09	88.0	
876-510	Thursday, 28 September 2017	12:55:02	04/10/2017	19/10/2017	5	115	0.08	101.0	
876-511	Saturday, 30 September 2017	12:28:18	04/10/2017	19/10/2017	5	115	0.08	98.8	
885-13	Saturday, 30 September 2017	12:28:18	04/10/2017	19/10/2017	5	115	0.08	98.8	
<b>OCTOBER</b>									
876-516	Friday, 6 October 2017	15:00:49	08/10/2017	23/11/2017	5	115	0.09	88.0	
885-9	Friday, 6 October 2017	15:00:49	08/10/2017	23/11/2017	5	115	0.09	88.0	
876-513	Saturday, 7 October 2017	12:39:06	08/10/2017	23/11/2017	5	115	0.08	91.5	
876-514	Saturday, 7 October 2017	12:39:06	08/10/2017	23/11/2017	5	115	0.08	91.5	
876-512	Tuesday, 10 October 2017	12:29:46	08/10/2017	23/11/2017	5	115	0.09	88.0	
885-11	Tuesday, 10 October 2017	12:29:46	08/10/2017	23/11/2017	5	115	0.09	88.0	
885-24	Thursday, 12 October 2017	13:46:55	08/10/2017	23/11/2017	5	115	0.07	88.0	
885-12	Friday, 13 October 2017	12:48:55	08/10/2017	23/11/2017	5	115	0.09	88.0	
876-55	Monday, 16 October 2017	12:32:34	08/10/2017	23/11/2017	5	115	0.09	88.0	
867-1	Tuesday, 17 October 2017	12:30:12	08/10/2017	23/11/2017	5	115	0.10	88.0	
885-35	Wednesday, 18 October 2017	12:32:03	08/10/2017	23/11/2017	5	115	0.09	88.0	
885-26	Thursday, 19 October 2017	12:32:54	08/10/2017	23/11/2017	5	115	0.08	94.0	
876-11	Friday, 20 October 2017	15:19:12	08/10/2017	23/11/2017	5	115	0.09	88.0	
885-25	Saturday, 21 October 2017	12:26:40	08/10/2017	23/11/2017	5	115	0.09	88.0	
885-27	Tuesday, 24 October 2017	16:19:37	08/10/2017	23/11/2017	5	115	0.09	91.5	
876-21	Tuesday, 24 October 2017	16:19:37	08/10/2017	23/11/2017	5	115	0.09	91.5	
876-23	Friday, 27 October 2017	12:25:33	08/10/2017	23/11/2017	5	115	0.10	91.5	
885-28	Sunday, 29 October 2017	12:45:45	08/10/2017	23/11/2017	1	95	0.10	91.5	
876-8	Tuesday, 31 October 2017	12:39:20	08/10/2017	23/11/2017	5	115	0.14	91.5	
<b>NOVEMBER</b>									
885-29	Friday, 3 November 2017	12:52:00	05/12/2017	22/12/2017	5	115	0.11	94.0	
885-30	Sunday, 5 November 2017	12:34:00	05/12/2017	22/12/2017	1	95	0.11	91.5	
876-24	Monday, 6 November 2017	12:43:00	05/12/2017	22/12/2017	5	115	0.11	94.0	
885-31	Tuesday, 7 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.11	91.5	
876-22	Wednesday, 8 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.11	91.5	
885-32	Thursday, 9 November 2017	12:30:00	05/12/2017	22/12/2017	5	115	0.12	91.5	
876-20	Saturday, 11 November 2017	12:30:00	05/12/2017	22/12/2017	5	115	-	-	Unit offline
885-34	Monday, 13 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	-	-	Unit offline
876-9	Tuesday, 14 November 2017	12:31:00	05/12/2017	22/12/2017	5	115	-	-	Unit offline
885-33	Wednesday, 15 November 2017	12:38:00	05/12/2017	22/12/2017	5	115	-	-	Unit offline
876-12	Friday, 17 November 2017	12:34:00	05/12/2017	22/12/2017	5	115	0.13	94.0	
876-10	Monday, 20 November 2017	12:32:00	05/12/2017	22/12/2017	5	115	0.12	91.5	
876-13	Tuesday, 21 November 2017	15:21:00	05/12/2017	22/12/2017	5	115	0.11	91.5	
876-15	Friday, 24 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.11	91.5	
876-14	Sunday, 26 November 2017	12:31:00	05/12/2017	22/12/2017	1	95	0.11	94.0	
<b>DECEMBER</b>									
876-19	Friday, 1 December 2017	12:27:37	10/01/2018	22/01/2018	5	115	0.14	102.8	
876-16	Tuesday, 5 December 2017	13:20:24	10/01/2018	22/01/2018	5	115	0.11	101.0	
876-17	Friday, 8 December 2017	12:23:22	10/01/2018	22/01/2018	5	115	0.12	88.0	
876-18	Monday, 11 December 2017	12:33:10	10/01/2018	22/01/2018	5	115	0.11	91.5	
876-39	Wednesday, 13 December 2017	12:24:58	10/01/2018	22/01/2018	5	115	0.12	91.5	
876-38	Saturday, 16 December 2017	12:25:29	10/01/2018	22/01/2018	5	115	0.11	91.5	
876-28	Wednesday, 20 December 2017	10:05:08	10/01/2018	22/01/2018	5	115	0.11	91.5	
876-27	Friday, 22 December 2017	12:27:04	10/01/2018	22/01/2018	5	115	0.12	91.5	
876-27	Saturday, 23 December 2017	12:33:45	10/01/2018	22/01/2018	5	115	0.11	91.5	
876-36	Wednesday, 27 December 2017	12:48:35	10/01/2018	22/01/2018	5	115	0.11	91.5	
876-31	Wednesday, 27 December 2017	12:52:35	10/01/2018	22/01/2018	5	115	0.14	91.5	





894-40	Saturday, 23 September 2017	12:34:29	04/10/2017	19/10/2017	5	115	0.09	104.9	
876-509	Tuesday, 26 September 2017	12:43:00	04/10/2017	19/10/2017	5	115	0.14	81.9	
885-15	Tuesday, 26 September 2017	12:43:00	04/10/2017	19/10/2017	5	115	0.14	81.9	
876-510	Thursday, 28 September 2017	12:55:02	04/10/2017	19/10/2017	5	115	0.09	88.8	
876-511	Saturday, 30 September 2017	12:28:18	04/10/2017	19/10/2017	5	115	0.11	91.5	
885-13	Saturday, 30 September 2017	12:28:18	04/10/2017	19/10/2017	5	115	0.11	91.5	
<b>OCTOBER</b>									
876-516	Friday, 6 October 2017	15:00:49	08/10/2017	23/11/2017	5	115	0.11	111.8	
885-9	Friday, 6 October 2017	15:00:49	08/10/2017	23/11/2017	5	115	0.11	111.8	
876-513	Saturday, 7 October 2017	12:39:06	08/10/2017	23/11/2017	5	115	0.09	103.5	
876-514	Saturday, 7 October 2017	12:39:06	08/10/2017	23/11/2017	5	115	0.09	103.5	
876-512	Tuesday, 10 October 2017	12:29:46	08/10/2017	23/11/2017	5	115	0.10	94.0	
885-11	Tuesday, 10 October 2017	12:29:46	08/10/2017	23/11/2017	5	115	0.10	94.0	
885-24	Thursday, 12 October 2017	13:46:55	08/10/2017	23/11/2017	5	115	0.09	95.9	
885-12	Friday, 13 October 2017	12:48:55	08/10/2017	23/11/2017	5	115	0.10	88.0	
876-25	Monday, 16 October 2017	12:32:34	08/10/2017	23/11/2017	5	115	0.09	91.5	
887-1	Tuesday, 17 October 2017	12:30:12	08/10/2017	23/11/2017	5	115	0.13	81.9	
885-35	Wednesday, 18 October 2017	12:32:03	08/10/2017	23/11/2017	5	115	0.09	88.0	
885-26	Thursday, 19 October 2017	12:32:54	08/10/2017	23/11/2017	5	115	0.11	101.9	
876-11	Friday, 20 October 2017	15:19:12	08/10/2017	23/11/2017	5	115	0.09	107.0	
885-25	Saturday, 21 October 2017	12:26:40	08/10/2017	23/11/2017	5	115	0.09	81.9	
885-27	Tuesday, 24 October 2017	16:19:37	08/10/2017	23/11/2017	5	115	0.11	97.5	
876-21	Tuesday, 24 October 2017	16:19:37	08/10/2017	23/11/2017	5	115	0.11	97.5	
876-23	Friday, 27 October 2017	12:25:33	08/10/2017	23/11/2017	5	115	0.12	88.0	
885-28	Sunday, 29 October 2017	12:45:45	08/10/2017	23/11/2017	1	95	0.12	88.0	
876-8	Tuesday, 31 October 2017	12:39:28	08/10/2017	23/11/2017	5	115	0.14	104.2	
<b>NOVEMBER</b>									
885-29	Friday, 3 November 2017	12:52:00	05/12/2017	22/12/2017	5	115	0.12	105.5	
885-30	Sunday, 5 November 2017	12:34:00	05/12/2017	22/12/2017	1	95	0.12	94.0	
876-34	Monday, 6 November 2017	12:43:00	05/12/2017	22/12/2017	5	115	0.13	106.5	
885-31	Tuesday, 7 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.12	97.5	
876-22	Wednesday, 8 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.12	88.0	
885-32	Thursday, 9 November 2017	12:30:00	05/12/2017	22/12/2017	5	115	0.11	91.5	
876-20	Saturday, 11 November 2017	12:30:00	05/12/2017	22/12/2017	5	115	0.12	88.0	
885-34	Monday, 13 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.11	94.0	
876-9	Tuesday, 14 November 2017	12:31:00	05/12/2017	22/12/2017	5	115	0.13	101.0	
885-33	Wednesday, 15 November 2017	12:38:00	05/12/2017	22/12/2017	5	115	0.12	106.0	
876-12	Friday, 17 November 2017	12:34:00	05/12/2017	22/12/2017	5	115	0.12	104.2	
876-10	Monday, 20 November 2017	12:32:00	05/12/2017	22/12/2017	5	115	0.11	95.9	
876-13	Tuesday, 21 November 2017	15:21:00	05/12/2017	22/12/2017	5	115	0.15	88.0	
876-15	Friday, 24 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.16	91.5	
876-14	Sunday, 26 November 2017	12:31:00	05/12/2017	22/12/2017	1	95	0.11	<95	Local environmental factors = 101.0
<b>DECEMBER</b>									
876-19	Friday, 1 December 2017	12:27:37	10/01/2018	22/01/2018	5	115	0.12	104.9	
876-16	Tuesday, 5 December 2017	13:20:24	10/01/2018	22/01/2018	5	115	0.13	102.8	
876-17	Friday, 8 December 2017	12:23:22	10/01/2018	22/01/2018	5	115	0.17	88.0	
876-18	Monday, 11 December 2017	12:33:10	10/01/2018	22/01/2018	5	115	0.12	88.0	
876-38	Wednesday, 13 December 2017	12:24:58	10/01/2018	22/01/2018	5	115	0.10	101.0	
876-38	Saturday, 16 December 2017	12:25:29	10/01/2018	22/01/2018	5	115	0.11	100.0	
876-26	Wednesday, 20 December 2017	10:05:08	10/01/2018	22/01/2018	5	115	0.15	98.8	
876-37	Friday, 22 December 2017	12:27:04	10/01/2018	22/01/2018	5	115	0.10	88.0	
876-27	Saturday, 23 December 2017	12:33:45	10/01/2018	22/01/2018	5	115	0.10	88.0	
876-36	Wednesday, 27 December 2017	12:48:35	10/01/2018	22/01/2018	5	115	0.10	98.8	
876-31	Wednesday, 27 December 2017	12:52:35	10/01/2018	22/01/2018	5	115	0.11	91.5	



876-508	Thursday, 21 September 2017	12:54:22	04/10/2017	19/10/2017	5	115	0.09	88.0	
885-16	Thursday, 21 September 2017	12:54:22	04/10/2017	19/10/2017	5	115	0.09	88.0	
894-40	Saturday, 23 September 2017	12:34:29	04/10/2017	19/10/2017	5	115	0.09	91.5	
876-509	Tuesday, 26 September 2017	12:43:00	04/10/2017	19/10/2017	5	115	0.10	91.5	
885-15	Tuesday, 26 September 2017	12:43:00	04/10/2017	19/10/2017	5	115	0.10	91.5	
876-510	Thursday, 28 September 2017	12:55:02	04/10/2017	19/10/2017	5	115	0.09	91.5	
876-511	Saturday, 30 September 2017	12:28:18	04/10/2017	19/10/2017	5	115	0.09	101.0	
885-13	Saturday, 30 September 2017	12:28:18	04/10/2017	19/10/2017	5	115	0.09	101.0	
<b>OCTOBER</b>									
876-516	Friday, 6 October 2017	15:00:49	08/10/2017	23/11/2017	5	115	0.12	88.8	
885-9	Friday, 6 October 2017	15:00:49	08/10/2017	23/11/2017	5	115	0.12	88.8	
876-513	Saturday, 7 October 2017	12:39:06	08/10/2017	23/11/2017	5	115	0.09	88.8	
876-514	Saturday, 7 October 2017	12:39:06	08/10/2017	23/11/2017	5	115	0.09	88.8	
876-512	Tuesday, 10 October 2017	12:29:46	08/10/2017	23/11/2017	5	115	0.11	87.5	
885-11	Tuesday, 10 October 2017	12:29:46	08/10/2017	23/11/2017	5	115	0.11	87.5	
885-24	Thursday, 12 October 2017	13:46:55	08/10/2017	23/11/2017	5	115	0.09	81.9	
885-12	Friday, 13 October 2017	12:48:55	08/10/2017	23/11/2017	5	115	0.09	81.9	
876-25	Monday, 16 October 2017	12:32:34	08/10/2017	23/11/2017	5	115	0.10	88.0	
867-1	Tuesday, 17 October 2017	12:30:12	08/10/2017	23/11/2017	5	115	0.24	88.0	
885-35	Wednesday, 18 October 2017	12:32:03	08/10/2017	23/11/2017	5	115	0.09	81.9	
885-26	Thursday, 19 October 2017	12:32:54	08/10/2017	23/11/2017	5	115	0.08	81.9	
876-11	Friday, 20 October 2017	15:19:12	08/10/2017	23/11/2017	5	115	0.11	105.5	
885-25	Saturday, 21 October 2017	12:26:40	08/10/2017	23/11/2017	5	115	0.09	94.0	
885-27	Tuesday, 24 October 2017	16:19:37	08/10/2017	23/11/2017	5	115	-	-	Unit offline for regular maintenance
876-21	Tuesday, 24 October 2017	16:19:37	08/10/2017	23/11/2017	5	115	-	-	Unit offline for regular maintenance
876-23	Friday, 27 October 2017	12:25:33	08/10/2017	23/11/2017	5	115	0.14	91.5	
885-28	Sunday, 29 October 2017	12:45:45	08/10/2017	23/11/2017	1	95	0.13	101.0	Assessed to be most likely related to blasting practices - Not compliance location
876-8	Tuesday, 31 October 2017	12:39:20	08/10/2017	23/11/2017	5	115	0.18	102.8	
<b>NOVEMBER</b>									
885-29	Friday, 3 November 2017	12:52:00	05/12/2017	22/12/2017	5	115	0.13	88.0	
885-30	Sunday, 5 November 2017	12:34:00	05/12/2017	22/12/2017	1	95	0.12	88.0	
876-24	Monday, 6 November 2017	12:43:00	05/12/2017	22/12/2017	5	115	0.12	88.0	
885-31	Tuesday, 7 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.12	88.0	
876-22	Wednesday, 8 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.15	91.5	
885-32	Thursday, 9 November 2017	12:30:00	05/12/2017	22/12/2017	5	115	0.12	88.0	
876-20	Saturday, 11 November 2017	12:30:00	05/12/2017	22/12/2017	5	115	0.15	88.0	
885-34	Monday, 13 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.12	91.5	
876-9	Tuesday, 14 November 2017	12:31:00	05/12/2017	22/12/2017	5	115	0.13	88.0	
885-33	Wednesday, 15 November 2017	12:38:00	05/12/2017	22/12/2017	5	115	0.12	91.5	
876-12	Friday, 17 November 2017	12:34:00	05/12/2017	22/12/2017	5	115	0.17	91.5	
876-10	Monday, 20 November 2017	12:32:00	05/12/2017	22/12/2017	5	115	0.13	88.0	
876-13	Tuesday, 21 November 2017	15:21:00	05/12/2017	22/12/2017	5	115	0.15	88.0	
876-15	Friday, 24 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.17	91.5	
876-14	Sunday, 26 November 2017	12:31:00	05/12/2017	22/12/2017	1	95	0.14	94.0	
<b>DECEMBER</b>									
876-19	Friday, 1 December 2017	12:27:37	10/01/2018	22/01/2018	5	115	0.14	94.0	
876-16	Tuesday, 5 December 2017	13:20:24	10/01/2018	22/01/2018	5	115	0.13	85.9	
876-17	Friday, 8 December 2017	12:23:22	10/01/2018	22/01/2018	5	115	0.14	88.0	
876-18	Monday, 11 December 2017	12:33:10	10/01/2018	22/01/2018	5	115	0.13	91.5	
876-39	Wednesday, 13 December 2017	12:24:58	10/01/2018	22/01/2018	5	115	0.15	88.0	
876-38	Saturday, 16 December 2017	12:25:29	10/01/2018	22/01/2018	5	115	0.14	91.5	
876-28	Wednesday, 20 December 2017	10:05:08	10/01/2018	22/01/2018	5	115	0.14	91.5	
876-37	Friday, 22 December 2017	12:27:04	10/01/2018	22/01/2018	5	115	0.13	91.5	
876-27	Saturday, 23 December 2017	12:33:45	10/01/2018	22/01/2018	5	115	0.13	88.0	
876-36	Wednesday, 27 December 2017	12:48:35	10/01/2018	22/01/2018	5	115	0.13	88.0	
876-31	Wednesday, 27 December 2017	12:52:35	10/01/2018	22/01/2018	5	115	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	Trigger Threshold		BM04 at Blast Time		Comments
					Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	
<b>JANUARY - This monitor is not located relative to any privately owned residence.</b>									
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	12:36:43	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
<b>FEBRUARY</b>									
921-38	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
903-620	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
912-38	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
903-28	Tuesday, 28 February 2017	12:31:55	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
<b>MARCH</b>									
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	Trigger Threshold		BM05 at Blast Time		Comments
					Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	Ground Vibration (mm/s)	Airblast Overpressure (dB(L))	
<b>JANUARY - This monitor is not located relative to any privately owned residence.</b>									
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	12:36:43	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
<b>FEBRUARY</b>									
921-38	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
903-620	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
912-38	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
903-28	Tuesday, 28 February 2017	12:31:55	06/03/2017	20/03/2017	-	-	-	-	Unit offline. Inundated during significant flood event on Lake Cowal
<b>MARCH</b>									
Monitoring point removed as part of EPL variation - 20/02/2017									



876-7	Monday, 18 September 2017	12:29:04	04/10/2017	19/10/2017	5	115	0.06	104.2	
876-508	Thursday, 21 September 2017	12:54:22	04/10/2017	19/10/2017	5	115	0.03	91.5	
885-16	Thursday, 21 September 2017	12:54:22	04/10/2017	19/10/2017	5	115	0.03	91.5	
894-40	Saturday, 23 September 2017	12:34:29	04/10/2017	19/10/2017	5	115	0.03	105.5	
876-509	Tuesday, 26 September 2017	12:43:00	04/10/2017	19/10/2017	5	115	0.03	97.5	
885-15	Tuesday, 26 September 2017	12:43:00	04/10/2017	19/10/2017	5	115	0.03	97.5	
876-510	Thursday, 28 September 2017	12:55:02	04/10/2017	19/10/2017	5	115	0.02	101.9	
876-511	Saturday, 30 September 2017	12:28:18	04/10/2017	19/10/2017	5	115	0.04	100.0	
885-13	Saturday, 30 September 2017	12:28:18	04/10/2017	19/10/2017	5	115	0.04	100.0	
<b>OCTOBER</b>									
876-516	Friday, 6 October 2017	15:00:49	08/10/2017	23/11/2017	5	115	0.05	95.9	
885-9	Friday, 6 October 2017	15:00:49	08/10/2017	23/11/2017	5	115	0.05	95.9	
876-513	Saturday, 7 October 2017	12:39:06	08/10/2017	23/11/2017	5	115	0.02	91.5	
876-514	Saturday, 7 October 2017	12:39:06	08/10/2017	23/11/2017	5	115	0.02	91.5	
876-512	Tuesday, 10 October 2017	12:29:46	08/10/2017	23/11/2017	5	115	0.04	94.0	
885-11	Tuesday, 10 October 2017	12:29:46	08/10/2017	23/11/2017	5	115	0.04	94.0	
885-24	Thursday, 12 October 2017	12:46:55	08/10/2017	23/11/2017	5	115	0.03	94.0	
885-12	Friday, 13 October 2017	12:48:55	08/10/2017	23/11/2017	5	115	0.04	97.5	
876-25	Monday, 16 October 2017	12:32:34	08/10/2017	23/11/2017	5	115	0.04	88.0	
867-1	Tuesday, 17 October 2017	12:30:12	08/10/2017	23/11/2017	5	115	0.10	88.0	
885-35	Wednesday, 18 October 2017	12:32:03	08/10/2017	23/11/2017	5	115	0.04	88.0	
885-36	Thursday, 19 October 2017	12:32:54	08/10/2017	23/11/2017	5	115	0.02	91.5	
876-11	Friday, 20 October 2017	15:19:12	08/10/2017	23/11/2017	5	115	0.05	98.8	
885-25	Saturday, 21 October 2017	12:26:40	08/10/2017	23/11/2017	5	115	0.02	95.9	
885-27	Tuesday, 24 October 2017	16:19:37	08/10/2017	23/11/2017	5	115	0.04	94.0	
876-21	Tuesday, 24 October 2017	16:19:37	08/10/2017	23/11/2017	5	115	0.04	94.0	
876-23	Friday, 27 October 2017	12:25:33	08/10/2017	23/11/2017	5	115	0.04	88.0	
885-28	Sunday, 29 October 2017	12:45:45	08/10/2017	23/11/2017	1	95	0.02	88.0	
876-8	Tuesday, 31 October 2017	12:39:20	08/10/2017	23/11/2017	5	115	0.08	94.0	
<b>NOVEMBER</b>									
885-29	Friday, 3 November 2017	12:52:00	05/12/2017	22/12/2017	5	115	0.03	101.9	
885-30	Sunday, 5 November 2017	12:34:00	05/12/2017	22/12/2017	1	95	0.02	91.5	
876-24	Monday, 6 November 2017	12:43:00	05/12/2017	22/12/2017	5	115	0.02	97.5	
885-31	Tuesday, 7 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.03	91.5	
876-22	Wednesday, 8 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.05	88.0	
885-32	Thursday, 9 November 2017	12:30:00	05/12/2017	22/12/2017	5	115	0.02	91.5	
876-20	Saturday, 11 November 2017	12:30:00	05/12/2017	22/12/2017	5	115	0.03	91.5	
885-34	Monday, 13 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.04	91.5	
876-9	Tuesday, 14 November 2017	12:31:00	05/12/2017	22/12/2017	5	115	0.03	94.0	
885-33	Wednesday, 15 November 2017	12:38:00	05/12/2017	22/12/2017	5	115	0.03	98.8	
876-12	Friday, 17 November 2017	12:34:00	05/12/2017	22/12/2017	5	115	0.08	91.5	
876-10	Monday, 20 November 2017	12:32:00	05/12/2017	22/12/2017	5	115	0.04	88.0	
876-13	Tuesday, 21 November 2017	15:21:00	05/12/2017	22/12/2017	5	115	0.07	91.5	
876-15	Friday, 24 November 2017	12:36:00	05/12/2017	22/12/2017	5	115	0.01	91.5	
876-14	Sunday, 26 November 2017	12:31:00	05/12/2017	22/12/2017	1	95	0.06	<95	Local environmental factors = 104.2
<b>DECEMBER</b>									
876-19	Friday, 1 December 2017	12:27:37	10/01/2018	22/01/2018	5	115	0.03	94.0	
876-16	Tuesday, 5 December 2017	13:20:24	10/01/2018	22/01/2018	5	115	0.06	95.9	
876-17	Friday, 8 December 2017	12:23:22	10/01/2018	22/01/2018	5	115	0.07	91.5	
876-18	Monday, 11 December 2017	12:33:10	10/01/2018	22/01/2018	5	115	0.07	88.0	
876-39	Wednesday, 13 December 2017	12:24:58	10/01/2018	22/01/2018	5	115	0.04	91.5	
876-38	Saturday, 16 December 2017	12:25:29	10/01/2018	22/01/2018	5	115	0.05	94.0	
876-36	Wednesday, 20 December 2017	10:05:08	10/01/2018	22/01/2018	5	115	0.03	100.0	
876-37	Friday, 22 December 2017	12:27:04	10/01/2018	22/01/2018	5	115	0.05	91.5	
876-27	Saturday, 23 December 2017	12:33:45	10/01/2018	22/01/2018	5	115	0.02	91.5	
876-36	Wednesday, 27 December 2017	12:48:35	10/01/2018	22/01/2018	5	115	0.04	88.0	
876-31	Wednesday, 27 December 2017	12:52:35	10/01/2018	22/01/2018	5	115	0.02	88.0	

Compliance Summary – Overpressure level from blasting operations must not exceeded more than 5% of the total number of blasts over a period of 12 months	Total Number of blasts	776	Percentage of exceedances over 12 month period	0	
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Cyanide

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

Monitoring Point: 48

Water quality monitoring, automated sampler located at the processing plant

Frequency	Month	No Sampled during Month	Total Cyanide (mg/L)				Comments
			Minimum	Mean	Median	Maximum	
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	4	13.56	30.44	25.36	57.47	
Weekly	June	4	19.21	44.84	47.50	65.17	
Weekly	July	5	22.64	35.74	37.16	45.84	
Weekly	August	4	23.89	38.33	41.69	46.05	
Weekly	September	4	6.66	17.28	16.35	29.78	
Weekly	October	5	16.74	32.20	38.63	44.32	
Weekly	November	4	2.12	25.74	26.93	46.97	
Weekly	December	4	2.54	23.12	19.74	50.47	

Frequency	Month	No Sampled during Month	WAD Cyanide (mg/L)		Concentration Limits		Comments
			Minimum	Maximum	90th Percentile	100th Percentile	
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	57	1.1	15.1	20ppm	30ppm	On the following dates, samples were not collected due to mill shutdown: 10/05/17 (morning & Evening)
Twice daily	June	46	4.8	17.3	20ppm	30ppm	On the following dates, samples were not collected due to mill shutdown: 06/06/17 (morning & Evening), 07/06/17 (morning & Evening), 08/06/17 (morning & Evening), 09/06/17 (morning)
Twice daily	July	57	0.2	13.6	20ppm	30ppm	On the following dates, samples were not collected due to mill shutdown: 03/07/17 (Evening), 04/07/17 (Morning & Evening), 05/07/17 (Morning), 12/07/17 (Morning)
Twice daily	August	62	1.0	13.4	20ppm	30ppm	
Twice daily	September	53	0.6	10.8	20ppm	30ppm	On the following dates, samples were not collected due to mill shutdown: 11/09/17 (Evening), 12/09/17 (Morning & Evening), 13/10/17 (Morning & Evening), 14/10/17 (Morning & Evening)
Twice daily	October	62	2.3	12.0	20ppm	30ppm	
Twice daily	November	60	0.9	13.5	20ppm	30ppm	
Twice daily	December	56	0.2	10.4	20ppm	30ppm	On the following dates, samples were not collected due to mill shutdown: 05/12/17 (Evening), 06/12/17 (Morning & Evening), 07/12/17 (Morning & Evening), 08/12/17 (Morning)





