TARRAWONGA COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 12365
EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=55113&SYSUID=1&LICID=12365
Licensee: Tarrawonga Coal Pty Ltd
Licensee Address: Tarrawonga Coal Mine, 469 Goonbri Road, BOGGABRI NSW 2382
EPL Monitoring Points: See Figure 1 below
Sampling Period: September 2020
Obtained Date: 13/10/2020
Publication Date: 13/10/2020

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date of Max. Value Obtained	Min Value	Mean Value	Median Value	Max or Only Value	Comments
5	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
6	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date of Max. Value Obtained	Min Value	Max or Only Value	100%ile Limit	Exceed -ance (Yes/ No)	Comment/s
1	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
2	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
3	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
24	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date of Max. Value Obtained	Min Value	Max or Only Value	100%ile Limit	Exceed -ance (Yes/ No)	Comment/s
	pH	pH		0	-	-	-	-	-	-	-
26	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-
27	TSS	mg/L	Upon discharge	0	-	-	-	-	-	-	-
	Conductivity	µS/cm		0	-	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-	-

Table 3 – Monitoring (Quarterly & 6 Monthly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date of Max. Value Obtained	Min Value	Mean Value	Median Value	Max or Only Value
9	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	23.09.20	23.09.20	-	-	-	3,260
	Lead	mg/L		1	23.09.20	23.09.20	-	-	-	2
	pH	pH		1	23.09.20	23.09.20	-	-	-	8.16
	Standing Water Level	metres		1	23.09.20	23.09.20	-	-	-	7.94
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	23.09.20	23.09.20	-	-	-	435
	Lead	mg/L		1	23.09.20	23.09.20	-	-	-	1
	pH	pH		1	23.09.20	23.09.20	-	-	-	7.39
	Standing Water Level	metres		1	23.09.20	23.09.20	-	-	-	4.18
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	23.09.20	23.09.20	-	-	-	3,380
	Lead	mg/L		1	23.09.20	23.09.20	-	-	-	2
	pH	pH		1	23.09.20	23.09.20	-	-	-	8.02
	Standing Water Level	metres		1	23.09.20	23.09.20	-	-	-	11.0
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	0	-	-	-	-	-	-
	Oil & Grease	mg/L		0	-	-	-	-	-	-
	pH	pH		0	-	-	-	-	-	-
	TSS	mg/L		0	-	-	-	-	-	-

Note: From April 2012 to February 2019, Electrical Conductivity was reported with the incorrect unit of measure (mS/cm). From January 2019 it has been corrected to µS/cm.

Table 4 – Quarterly Attended Noise Monitoring

(Noise Limits Apply -35dB LAeq(15min) -Day, Evening and Night;45dB LA1(1min) -Night)

(Extracts from consultants' report for the quarter)

Date	Time	Total Noise Levels (dB)						Mine LAeq Noise Level (dB)	Wind Speed (m/s)	Wind Direction (°)	Stability Category	Rain (mm)
		LA eq	LA max	LA min	LA1	LA10	LA90					
TN2												
14/09/2020	09:45	34	65	19	43	32	22	24	0.5	217	A	0
	10:00	34	68	20	38	33	21	23	1.8	278	A	0
	10:15	33	54	20	46	35	21	21	0.7	148	A	0
	10:32	30	56	20	40	32	22	22	0.2	47	A	0
	10:48	32	61	20	41	31	22	22	1.8	306	A	0
	11:03	32	63	21	42	31	23	22	1.5	246	A	0
	21:23	30	61	16	39	26	18	<20	0.1	270	E	0
	21:40	24	48	17	34	24	18	<20	0.9	19	E	0
	22:00	28	63	16	34	23	18	<20	0.7	56	E	0
	22:16	29	61	16	40	21	17	<20	0.8	42	E	0
	22:32	24	54	16	31	21	17	<20	0.6	355	D	0
	22:47	21	54	16	26	20	16	<18	0.8	10	E	0

15/09/2020	10:03	38	68	21	50	37	24	23	3.1	212	D	0
	10:18	32	63	22	38	33	24	23	1.8	212	D	0
	10:34	33	61	22	45	33	24	<24	4.9	222	B	0
	10:49	33	57	21	45	36	24	<24	2.3	203	D	0
	11:05	32	53	22	43	33	23	<23	4.6	227	D	0
	11:22	30	59	20	40	30	22	<22	3.1	222	A	0
	21:25	28	63	16	38	24	16	<6 (I/A)	1.9	25	E	0
	21:41	23	50	16	35	21	16	<6 (I/A)	2	31	E	0
	22:00	23	55	16	33	19	16	<6 (I/A)	2.2	20	E	0
	22:16	22	51	16	31	20	17	<7 (I/A)	1.6	13	E	0
	22:31	26	54	18	33	24	19	<9 (I/A)	1.2	4	F	0
	22:47	33	56	25	38	35	28	<18 (I/A)	1.8	18	D	0
16/09/2020	09:29	37	66	23	48	35	25	<25	1.5	217	A	0
	09:45	31	56	21	40	32	23	<24	1.6	197	A	0
	10:02	30	55	21	39	32	23	<24	1.6	241	A	0
	10:17	32	61	22	40	32	24	<24	3.3	261	A	0
	10:34	32	58	21	42	34	23	<24	2.7	193	A	0
	10:50	31	53	21	42	32	24	<24	1.4	201	A	0
	21:22	34	50	27	40	36	30	34	0.3	323	E	0
	21:38	31	58	27	36	32	29	31	0.9	6	E	0

	22:00	29	55	23	35	31	25	<29	1.6	14	D	0
	22:16	26	48	21	32	27	24	26	1.8	23	D	0
	22:32	25	52	19	32	27	21	25	2.5	33	E	0
	22:48	27	55	20	32	27	22	25	2	27	E	0
17/09/2020	10:46	37	65	20	50	32	21	<21	0.6	60	A	0
	11:04	32	66	20	37	28	21	<21	1.1	6	A	0
	11:20	30	57	20	40	28	21	<21	0.6	335	B	0
	11:36	35	69	20	43	29	21	<21	2.1	52	A	0
	11:53	31	63	20	40	27	21	<21	1.9	12	A	0
	12:08	33	65	19	38	28	21	<21	1.7	263	A	0
	21:25	23	52	17	33	23	18	<8 (I/A)	1.9	59	E	0
	21:41	22	53	16	30	21	17	<20	0.9	80	D	0
	22:00	24	57	16	25	20	17	<7 (I/A)	1.5	38	D	0
	22:15	27	63	17	26	21	18	<8 (I/A)	1.3	70	E	0
	22:31	24	54	17	30	21	18	<8 (I/A)	1.5	57	E	0
	22:46	24	58	16	29	19	16	<6 (I/A)	1.7	52	E	0
TN3												
14/09/2020	11:57	38	61	21	52	36	22	<12 (I/A)	2.2	155	B	0
	12:12	46	73	21	60	34	22	<12 (I/A)	1.5	161	B	0
	12:30	38	71	21	47	33	22	<12 (I/A)	2.1	256	A	0
	12:47	37	65	21	49	38	23	<13 (I/A)	2.4	256	B	0
	13:03	34	58	21	47	34	22	<12 (I/A)	2.1	299	A	0

	13:19	45	69	21	59	39	23	<13 (I/A)	0.9	203	B	0
	20:40	37	68	22	48	35	24	<14 (I/A)	1.2	22	E	0
	20:56	41	69	18	49	45	22	<12 (I/A)	1.1	17	F	0
	23:23	31	54	19	43	33	20	<23	1.4	22	E	0
	23:38	48	69	19	63	35	21	<22	2.4	72	E	0
	23:55	40	56	20	54	34	22	23	0.5	4	D	0
	00:10	46	61	20	57	51	22	24	1.6	86	E	0
15/09/2020	11:55	52	70	20	65	53	22	<12 (I/A)	0.6	301	A	0
	12:12	43	65	20	55	44	23	<13 (I/A)	2	329	A	0
	12:29	43	68	20	57	34	22	<12 (I/A)	3.1	238	A	0
	12:45	48	73	20	61	41	22	<12 (I/A)	0.4	95	A	0
	13:01	43	71	19	55	33	21	<11 (I/A)	1.7	223	C	0
	13:19	43	73	20	56	38	22	<12 (I/A)	2.7	138	B	0
	20:36	37	58	19	47	42	22	<12 (I/A)	2.2	28	E	0
	20:52	25	55	17	36	23	18	<8 (I/A)	2.3	23	E	0
	23:23	48	61	20	56	53	22	24	2.2	357	D	0
	23:38	46	59	20	56	53	22	24	3.6	17	D	0
	23:54	45	58	20	55	51	22	24	2.1	20	D	0
	00:09	48	59	21	55	53	24	25	4.1	7	D	0
16/09/2020	11:27	43	68	22	55	38	26	<16 (I/A)	2	176	A	0
	11:43	38	61	24	48	40	28	<18 (I/A)	3.2	295	A	0
	12:00	39	68	22	49	36	26	<16 (I/A)	1.7	15	A	0
	12:15	39	64	21	48	40	26	<16 (I/A)	2.5	331	A	0
	12:33	33	55	22	44	36	26	<16 (I/A)	4.7	321	B	0
	12:49	38	72	22	46	37	26	<16 (I/A)	2.4	313	B	0
	20:35	29	59	21	38	28	22	<22	1	17	D	0
	20:51	26	54	22	35	26	23	<13 (I/A)	0.5	314	F	0

	23:22	27	53	17	39	26	18	<20	3.1	22	E	0
	23:38	32	57	18	46	25	19	<20	2.4	18	E	0
	23:55	29	54	18	42	25	19	<20	1.6	23	E	0
	00:10	37	68	18	43	26	19	<20	1	40	F	0
17/09/2020	10:18	48	68	21	61	52	25	<15 (I/A)	1.3	307	A	0
	10:33	41	66	21	54	41	23	<13 (I/A)	1.5	301	A	0
	10:48	44	68	21	58	41	24	<14 (I/A)	0.2	270	A	0
	11:03	45	69	21	58	44	23	<13 (I/A)	1.1	6	A	0
	11:18	49	76	20	59	44	23	<13 (I/A)	0.6	335	B	0
	11:33	33	58	20	46	31	21	<11 (I/A)	2.1	52	A	0
	20:10	31	56	25	37	32	26	<16 (I/A)	1	60	E	0
	20:25	27	45	23	32	28	25	<15 (I/A)	1.6	63	E	0
	23:24	32	56	21	43	31	25	27	1.4	32	F	0
	23:40	27	52	22	34	27	24	26	0.5	90	F	0
	23:56	30	55	25	37	31	27	26	2.3	25	E	0
	00:11	30	54	26	37	29	27	<26	3.6	18	E	0
TN4												
14/09/2020	13:59	41	73	24	52	42	27	<17 (I/A)	1.9	139	A	0
	14:15	38	64	22	47	41	27	<17 (I/A)	5.4	224	A	0
	14:30	35	55	23	44	38	27	<17 (I/A)	0.1	69	A	0
	14:47	40	65	23	49	43	29	<19 (I/A)	2.5	175	A	0
	15:02	42	65	24	55	41	27	<17 (I/A)	5	221	C	0
	15:17	38	64	22	49	40	26	<16 (I/A)	3.3	203	D	0
	19:50	34	58	24	47	32	26	<16 (I/A)	0.4	21	F	0
	20:05	28	48	22	35	28	24	<14 (I/A)	0.6	71	F	0
	00:48	32	52	28	40	33	30	<20 (I/A)	1.2	269	E	0
	01:03	29	41	25	33	31	27	<17 (I/A)	1	264	E	0

	01:18	30	46	25	40	30	27	<17 (I/A)	1.1	63	D	0
	01:33	31	45	27	36	34	28	<18 (I/A)	2.5	55	E	0
15/09/2020	14:06	40	67	21	51	41	24	<14 (I/A)	2.8	144	A	0
	14:21	39	66	21	51	38	23	<13 (I/A)	0.7	160	A	0
	14:36	39	64	21	51	40	23	<13 (I/A)	0.5	80	A	0
	14:51	38	66	21	49	40	24	<14 (I/A)	1.7	160	D	0
	15:08	35	57	20	45	38	23	<13 (I/A)	1	334	A	0
	15:24	39	62	20	52	41	25	<15 (I/A)	0.7	229	A	0
	19:39	33	53	22	46	31	24	<14 (I/A)	1.4	27	F	0
	19:54	30	51	22	42	31	24	<14 (I/A)	1.7	23	F	0
	00:50	27	49	23	31	29	25	<15 (I/A)	3.7	8	D	0
	01:05	27	36	23	30	29	26	<16 (I/A)	4.1	31	D	0
	01:20	27	48	24	30	28	26	<16 (I/A)	5.1	52	D	0
	01:35	27	46	23	30	28	25	<15 (I/A)	3.2	33	D	0
16/09/2020	13:37	41	64	26	49	43	33	<23 (I/A)	3.9	241	A	0
	13:53	43	66	29	55	44	33	<23 (I/A)	2.1	337	B	0
	14:08	43	71	28	53	44	33	<23 (I/A)	3.9	279	D	0
	14:24	43	71	27	53	44	31	<21 (I/A)	5.6	294	C	0
	14:40	44	78	27	54	45	33	<23 (I/A)	4.3	307	C	0
	14:56	44	69	29	55	45	33	<23 (I/A)	4.6	271	C	0
	19:40	28	45	23	35	30	25	<15 (I/A)	2	26	F	0
	19:55	26	41	21	34	28	23	<13 (I/A)	2.6	27	F	0
	00:45	25	43	21	30	27	23	<13 (I/A)	1	67	E	0
	01:00	25	36	21	29	27	23	<13 (I/A)	1	56	E	0
	01:15	24	45	20	29	25	22	<12 (I/A)	1.9	62	F	0
	01:30	23	43	20	26	24	22	<12 (I/A)	1.2	52	F	0
	12:00	35	55	20	47	37	23	<13 (I/A)	0.8	330	A	0

17/09/2020	12:15	41	63	20	54	42	23	<13 (I/A)	2	301	A	0
	12:30	34	67	20	42	34	23	<13 (I/A)	1.9	201	A	0
	12:45	39	62	21	50	41	24	<14 (I/A)	1.8	67	D	0
	13:00	37	64	22	49	38	25	<15 (I/A)	1	139	A	0
	13:15	31	48	20	41	34	23	<13 (I/A)	1.5	332	A	0
	21:30	24	40	20	31	25	22	<12 (I/A)	1.6	76	D	0
	21:45	23	42	21	31	24	22	<12 (I/A)	0.8	80	D	0
	22:00	25	43	21	33	26	22	<12 (I/A)	1.5	38	D	0
	22:15	24	45	21	30	25	22	<12 (I/A)	1.3	70	E	0
	22:30	24	39	21	29	25	23	<23	1.5	57	E	0
	22:45	31	50	22	42	32	24	<24	1.7	52	E	0

Notes:

- Acronyms used: I/A = Inaudible, m/s = metres/second, dB = decibel.
- Coloured Cells = Non-compliant weather conditions not included in calculation of average for that period. Non-compliant weather conditions are any:
  a) Wind speeds greater than 3m/s at 10m above ground level
  b) Stability Category F temperature inversion conditions and wind speeds greater than 2m/s, 10m above the ground
  c) Stability category G temperature inversions.
- Real time weather conditions retrieved from the mine, after monitoring occurs.

Table 5 – Monthly Monitoring (Blasts – Limits Apply)

Location	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date of Max. Value Obtained
Coomalgah (TB2)	**Blast Noise**	**dB (Lin Peak)**	**Every Blast**	8	100.48	107.20	**120**	**Nil**	18/09/2020
	Blast Vibration	**mm/s**	**Every Blast**	8	0.32	1.27	**10**	**Nil**	28/09/2020

Table 6- Monthly Monitoring (Dust PM10 – No Limits apply)

Location	No. of samples required by licence	Lowest sample value	Mean of sample	Highest sample value
"Flixton" property* TEOM (µg/m^3) – 24hr average	Continuous	3.8	16.4	44.1

*****_Mine owned property – no limit apply_

Figure 1 – EPL 12365 Monitoring Locations