

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: March 2023

Obtained Date: 11/04/2023

Publication Date: 18/04/2023

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	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
6	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	

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	1	14/03	-	-	57	50	Yes	Sample taken after approx. 66mm of rain, therefore limit for TSS does not apply
	Conductivity	µS/cm		1	14/03	-	-	476	NA	NA	
	Oil & Grease	mg/L		1	14/03	-	-	<5	10	No	
	pH	pH		1	14/03	-	-	7.97	6.5 – 8.5	No	
2	TSS	mg/L	Upon discharge	2	25/03, 29/03	25/03	144	197	50	Yes	Sample taken after approx. 38.6mm of rain, therefore limit for TSS does not apply
	Conductivity	µS/cm		2	25/03, 29/03	25/03	334	422	NA	NA	
	Oil & Grease	mg/L		2	25/03, 29/03	-	<5	<5	10	No	
	pH	pH		2	25/03, 29/03	25/03	7.27	7.54	6.5 – 8.5	No	
3	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	
26	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	

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		-	-	-	-	-	-	-	
27	TSS	mg/L	Upon discharge	-	-	-	-	-	-	-	-
	Conductivity	µS/cm		-	-	-	-	-	-	-	
	Oil & Grease	mg/L		-	-	-	-	-	-	-	
	pH	pH		-	-	-	-	-	-	-	

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	24/03	24/03	-	-	-	3340
	Lead	mg/L		1	24/03	24/03	-	-	-	<0.001
	pH	pH		1	24/03	24/03	-	-	-	8
	Standing Water Level	metres		1	24/03	24/03	-	-	-	6.41
10	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	24/03	24/03	-	-	-	961
	Lead	mg/L		1	24/03	24/03	-	-	-	0.001
	pH	pH		1	24/03	24/03	-	-	-	7.38
	Standing Water Level	metres		1	24/03	24/03	-	-	-	6.89
12	Conductivity	µS/cm	6 monthly – (Mar- Sep)	1	24/03	24/03	-	-	-	2860
	Lead	mg/L		1	24/03	24/03	-	-	-	0.002
	pH	pH		1	24/03	24/03	-	-	-	8.03
	Standing Water Level	metres		1	24/03	24/03	-	-	-	9.12
13	Conductivity	µS/cm	Quarterly - (Feb, May, Aug, Nov)	-	-	-	-	-	-	-
	Oil & Grease	mg/L		-	-	-	-	-	-	-
	pH	pH		-	-	-	-	-	-	-
	TSS	mg/L		-	-	-	-	-	-	-

Table 4 – Quarterly Attended Noise Monitoring

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

Table 1				
TCM Operational Noise Monitoring Results – 14 March 2023 (Day)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC¹	Identified Noise Sources
Matong – TN2	4:06pm	38	1.8 / 273 / A	Birds (37), insects (29), TCM (<20)
Barbers Lagoon – TN3	12:49pm	55	3.3 / 159 / D	Birds (53), traffic (50), insects (30), TCM (<20)
Bungalow – TN4	2:22pm	45	5.6 / 157 / D	Traffic (44), birds (38), TCM (<20)

Table 2				
TCM Operational Noise Monitoring Results – 14 March 2023 (Evening)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	9:02pm	50	3.2 / 113 / D	Insects (50), frogs (36), TCM (<20)
Barbers Lagoon – TN3	7:32pm	44	0.9 / 158 / E	Insects (42), birds (40), TCM (<20)
Bungalow – TN4	8:17pm	51	2.2 / 114 / E	Insects (51), traffic (30), frogs (28), TCM (<20)

Table 3				
TCM Operational Noise Monitoring Results – 14 – 15 March 2023 (Night)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	10:00pm	54	3.1 / 092 / E	Insects (54), frogs (27), TCM (<20)
Barbers Lagoon – TN3	12:30am	45	0.8 / 056 / E	Insects (45), birds (31), frogs (30), TCM (<20)
Bungalow – TN4	11:19pm	48	3.8 / 116 / D	Insects (47), frogs (41), birds (34), TCM (<20)

Table 4				
TCM Operational Noise Monitoring Results – 15 March 2023 (Day)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	2:56pm	37	0.5 / 289 / A	Birds (36), traffic (26), insects (25), TCM (<20)
Barbers Lagoon – TN3	11:32am	47	3.6 / 170 / A	Traffic (46), birds (40), insects (24), TCM (<20)
Bungalow – TN4	1:11pm	38	2.3 / 290 / B	Birds (38), insects (25), TCM (<20)

Table 5				
TCM Operational Noise Monitoring Results – 15 March 2023 (Evening)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	9:12pm	48	2.0 / 029 / F	Insects (48), frogs (29), TCM (<20)
Barbers Lagoon – TN3	7:47pm	42	0.8 / 059 / E	Birds (41), traffic (31), insects (30), TCM (<20)
Bungalow – TN4	8:26pm	55	0.9 / 043 / E	Insects (55), frogs (35), TCM (<20)

Table 6				
TCM Operational Noise Monitoring Results – 15 – 16 March 2023 (Night)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	10:00pm	57	1.4 / 075 / D	Insects (57), birds (28), frogs (27), TCM (<20)
Barbers Lagoon – TN3	12:28am	46	0.9 / 020 / E	Insects (44), birds (41), frogs (32), TCM (<20)
Bungalow – TN4	11:17pm	51	1.4 / 026 / E	Insects (51), birds (32), frogs (31), TCM (<20)

Table 7				
TCM Operational Noise Monitoring Results – 16 March 2023 (Day)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	2:50pm	39	1.0 / 317 / A	Birds (38), traffic (29), insects (24), TCM (<20)
Barbers Lagoon – TN3	11:22am	49	1.0 / 105 / A	Birds (48), traffic (38), insects (34), TCM (<20)
Bungalow – TN4	1:04pm	36	3.5 / 277 / D	Birds (36), insects (23), TCM (<20)

Table 8				
TCM Operational Noise Monitoring Results – 16 March 2023 (Evening)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	9:15pm	51	1.8 / 041 / E	Insects (51), frogs (27), TCM (<20)
Barbers Lagoon – TN3	7:48pm	47	0.7 / 031 / E	Traffic (45), frogs (43), insects (29), TCM (<20)
Bungalow – TN4	8:29pm	56	1.8 / 042 / F	Insects (56), frogs (28), TCM (<20)

Table 9				
TCM Operational Noise Monitoring Results – 16 – 17 March 2023 (Night)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	10:00pm	60	2.0 / 037 / D	Insects (60), frogs (26), dogs (23), TCM (<20)
Barbers Lagoon – TN3	12:28am	43	1.3 / 045 / D	Insects (43), birds (26), frogs (23), TCM (<20)
Bungalow – TN4	11:18pm	53	1.8 / 026 / D	Insects (53), frogs (27), TCM (<20)

Table 10				
TCM Operational Noise Monitoring Results – 17 March 2023 (Day)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	3:53pm	45	2.3 / 196 / A	Birds (45), insects (33), TCM (<20)
Barbers Lagoon – TN3	2:09pm	47	7.2 / 206 / D	Birds (46), traffic (40), insects (23), TCM (<20)
Bungalow – TN4	12:30pm	46	3.9 / 238 / C	Traffic (45), birds (40), insects (23), TCM (<20)

Table 11				
TCM Operational Noise Monitoring Results – 17 March 2023 (Evening)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	9:18pm	51	0.6 / 042 / D	Insects (51), frogs (27), TCM (<20)
Barbers Lagoon – TN3	7:52pm	43	0.6 / 035 / E	Insects (42), birds (36), frogs (32), TCM (<20)
Bungalow – TN4	8:31pm	57	0.9 / 048 / E	Insects (57), frogs (31), TCM (<20)

Table 12				
TCM Operational Noise Monitoring Results – 17 – 18 March 2023 (Night)				
Location	Time	Total dB(A), Leq (15 min)	Wind speed / direction / PSC	Identified Noise Sources
Matong – TN2	10:00pm	53	1.8 / 035 / E	Insects (53), frogs (23), TCM (<20)
Barbers Lagoon – TN3	12:31am	47	2.4 / 040 / E	Insects (47), birds (34), frogs (32), TCM (<20)
Bungalow – TN4	11:19pm	48	2.6 / 048 / E	Insects (48), birds (35), frogs (30), TCM (<20)

Table 13					
TCM Sleep Disturbance Monitoring Results – 14 – 15 March 2023 (Night)					
Location	Time	dB(A) L1 (1 min)¹	dB(A) L1 (1 min)²	L1 Source	Wind speed / direction / PSC
Matong – TN2	10:00pm	62	<20	Insects	3.1 / 092 / E
Barbers Lagoon – TN3	12:30am	61	<20	Bird	0.8 / 056 / E
Bungalow – TN4	11:19pm	65	<20	Bird	3.8 / 116 / D

1. L1 (1 min) – total measured level.
2. L1 (1 min) – TCM noise only.

Table 14 TCM Sleep Disturbance Monitoring Results – 15 – 16 March 2023 (Night)					
Location	Time	dB(A) L1 (1 min) ¹	dB(A) L1 (1 min) ²	L1 Source	Wind speed / direction / PSC
Matong – TN2	10:00pm	65	<20	Insects	1.4 / 075 / D
Barbers Lagoon – TN3	12:28am	76	<20	Bird	0.9 / 020 / E
Bungalow – TN4	11:17pm	65	<20	Insects	1.4 / 026 / E

Table 15 TCM Sleep Disturbance Monitoring Results – 16 – 17 March 2023 (Night)					
Location	Time	dB(A) L1 (1 min) ¹	dB(A) L1 (1 min) ²	L1 Source	Wind speed / direction / PSC
Matong – TN2	10:00pm	66	<20	Insects	2.0 / 037 / D
Barbers Lagoon – TN3	12:28am	57	<20	Insects	1.3 / 045 / D
Bungalow – TN4	11:18pm	63	<20	Insects	1.8 / 026 / D

Table 16 TCM Sleep Disturbance Monitoring Results – 17 – 18 March 2023 (Night)					
Location	Time	dB(A) L1 (1 min) ¹	dB(A) L1 (1 min) ²	L1 Source	Wind speed / direction / PSC
Matong – TN2	10:00pm	65	<20	Insects	1.8 / 035 / E
Barbers Lagoon – TN3	12:31am	72	<20	Bird	2.4 / 040 / E
Bungalow – TN4	11:19pm	70	<20	Bird	2.6 / 048 / E

Table 5 – Monthly Monitoring (Blasts – Limits Apply)

November	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max Value	100%ile Limit	(Potential) Non-compliance /breach	Date Obtained
Coomalgah	Blast Noise	dB (Lin Peak)	Every Blast	6	98.7	108.00	120	Nil	31-03-23
	Blast Vibration	mm/s	Every Blast	6	0.4	0.98	10	Nil	02-03-23

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
28 "Flixton" property* TEOM ($\mu\text{g}/\text{m}^3$)	Continuous	0.02	19.3	337.7

**Mine owned property – no limit apply*

Figure 1 – EPL 12365 Monitoring Locations

