

**WAMBO COAL
POLLUTION MONITORING DATA
1 JUNE 2020 – 30 JUNE 2020**

FINAL REPORT

Published 28 July 2020

**Environment Protection Licence Number: 529
Licensee: Wambo Coal Pty Limited, PMB 1, Singleton NSW 2330
Premises: Wambo Coal Pty Limited, Jerrys Plains Road, Warkworth NSW 2330**

The following pollution monitoring data is published as a requirement of the Wambo Environmental Protection Licence (EPL) 529. A link to EPL529 can be found on the Environmental Protection Authority (EPA) Public Register. A link to the EPA's public register can be found at: <https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers/about-prpoec>

Monthly interim reports will be provided on a fortnightly basis until a final monthly report is produced when all monthly data is available.

The location of each sampling point is provided in 'Plan 2672-2' at the end of this document.

Monitoring Data

Surface and Mine Water Dam Monitoring

Monitoring Frequency: Once per month

Sampling Method: Grab sample

Limits: Nil

Table 1 - WCPL Surface and Mine Water Dam Results

EPL ID	Site ID	Date	pH	EC (µS/cm)	TSS (mg/L)	Comments
Point 24	SW01	29/06/2020				No safe access
Point 25	SW02	29/06/2020	7.3	845	9	
Point 26	SW03	29/06/2020	7.2	881	<5	
Point 27	SW04	29/06/2020				Dry
Point 28	SW05	29/06/2020				No Flow
Point 29	SW06	29/06/2020	7.0	518	44	
Point 30	SW07	29/06/2020				No Flow
Point 31	SW08	29/06/2020				Dry
Point 32	SW14	18/06/2020	8.4	720	17	
Point 33	SW15	18/06/2020	8.8	4340	11	
Point 34	SW27a	29/06/2020				Dry
Point 35	SW31	18/06/2020				No safe access
Point 36	SW32a	29/06/2020				Dry
Point 37	SW38	18/06/2020	8.3	6620	21	
Point 38	SW12	18/06/2020	8.9	6990	13	
Point 39	SW39	29/06/2020				No Flow
Point 40	SW40	29/06/2020				No Flow
Point 41	SW41	29/06/2020				No Flow
Point 46	SW52	18/06/2020	9.2	2740	7	
Point 47	Wombat Dam	18/06/2020	8.1	537	20	
Point 48	Milk Can Dam	18/06/2020	8.6	2030	16	
Point 49	Rug Dump Dam	18/06/2020				Dry
Point 50	Montrose East 1	29/06/2020	8.6	502	26	
Point 52	Montrose East 2	29/06/2020	8.2	422	32	

Water Discharge Monitoring

Monitoring Frequency: Continuous during discharge (EC, pH, Turbidity)
 Daily during discharge (TSS, Volume)
 Sampling Method: In line instrumentation (EC, pH Turbidity)
 Grab sample (TSS)
 Limits: pH- 6.5 to 9.5
 TSS – 120
 Volume – 250ML/day
 Date sampled: Continuous
 Date obtained: Continuous

Table 2 - WCPL Discharge Monitoring

Site	Date	pH	TSS (mg/L)	Turbidity (NTU)	Volume (ML/day)	Comments
Point 4						No Discharges
Point 19						No Discharges

Sewerage Treatment Monitoring

Monitoring Frequency: Quarterly during discharge
 Sampling Method: Grab sample
 Limits: Nil
 Date sampled: No monitoring in June
 Date obtained: No monitoring in June

Table 3- WCPL Discharge Monitoring

Site	Date	pH	Faecal Coliforms	Comments
Point 18				No monitoring in June
Point 42				No monitoring in June
Point 52				No monitoring in June

PM10 Monitoring
Monitoring Frequency: Continuous
Sampling Method: AM22
Limits: Nil

Date sampled: Continuous
Date obtained: Continuous

Table 4 - WCPL PM10 Results

Date of Run	PM01 - Coralie (EPA13)		PM02 - Wambo Road (Caban) (EPA14)		PM03 - Thelander (EPA15)		PM04 - Muller (EPA16)	
	PM10 24 Hour Result (ug/m ³)	YTD Average	PM10 24 Hour Result (ug/m ³)	YTD Average	PM10 24 Hour Result (ug/m ³)	YTD Average	PM10 24 Hour Result (ug/m ³)	YTD Average
01/06/2020	24.5	24.88	21.9	24.65	11.2	21.08	12.7	24.98
02/06/2020	10.3	24.79	16.2	24.60	6.3	20.98	6.2	24.86
03/06/2020	12.0	24.70	13.7	24.53	8.9	20.90	27.6	24.88
04/06/2020	15.5	24.65	9.4	24.43	12.7	20.85	23.7	24.87
05/06/2020	13.5	24.57	21.6	24.41	6.1	20.75	6.8	24.76
06/06/2020	17.8	24.53	21.4	24.40	11.6	20.70	18.4	24.72
07/06/2020	22.0	24.51	25.2	24.40	17.9	20.68	22.9	24.70
08/06/2020	13.0	24.44	11.4	24.32	11.7	20.62	16.7	24.65
09/06/2020	7.9	24.34	5.5	24.20	7.8	20.54	8.9	24.56
10/06/2020	8.6	24.24	3.9	24.08	5.3	20.45	7.8	24.45
11/06/2020	11.3	24.16	6.5	23.97	8.8	20.38	15.4	24.40
12/06/2020	17.4	24.12	7.6	23.87	10.6	20.32	28.9	24.42
13/06/2020	17.1	24.08	12.4	23.80	19.6	20.31	33.2	24.48
14/06/2020	10.7	24.00	8.8	23.71	10.1	20.25	8.1	24.38
15/06/2020	11.0	23.92	10.8	23.63	8.1	20.18	7.4	24.28
16/06/2020	11.2	23.84	9.9	23.55	8.3	20.11	6.5	24.17
17/06/2020	15.0	23.79	9.4	23.47	NaN*	20.11	14.0	24.11
18/06/2020	14.3	23.73	10.4	23.39	NaN*	20.11	14.6	24.06
19/06/2020	12.2	23.66	11.1	23.32	11.7	20.06	10.6	23.98
20/06/2020	10.1	23.59	8.4	23.23	5.4	19.97	5.8	23.87
21/06/2020	11.6	23.52	9.1	23.15	7.9	19.90	7.3	23.78
22/06/2020	6.6	23.42	5.8	23.05	5.0	19.81	5.1	23.67
23/06/2020	5.6	23.32	8.8	22.97	3.9	19.72	4.0	23.56
24/06/2020	6.9	23.22	18.7	22.94	4.3	19.63	4.5	23.45
25/06/2020	9.6	23.14	11.0	22.88	4.8	19.54	4.7	23.34
26/06/2020	12.6	23.08	13.7	22.82	8.0	19.48	18.5	23.31
27/06/2020	21.9	23.08	12.6	22.77	12.8	19.44	24.9	23.32
28/06/2020	24.0	23.08	7.8	22.68	18.9	19.44	26.2	23.34
29/06/2020	19.2	23.06	13.2	22.63	14.0	19.41	23.7	23.34
30/06/2020	11.0	23.00	10.1	22.56	8.2	19.34	12.3	23.28

*NaN due to power outage >75% of data collection period

Blast Monitoring

Monitoring Frequency: Every blast

**Airblast Overpressure Limit: 120 dBL
115 dBL (5% of blast each year)**

**Ground Vibration Limit: 10mm/s
5mm/s (5% of blast each year)**

Date sampled: Continuous

Date obtained: Continuous

Table 5 - WCPL Blast Monitoring Results

Date & Time	ID	BM02 – Kelly (EPA10)		BM05 – Muller (EPA11)		BM07 – Thelander (EPA12)	
		dBL	mm/sec	dBL	mm/sec	dBL	mm/sec
Fri/05/Jun/2020 1202hrs	WRC_507	94.1	0.10	103.3	0.21	94.4	0.16
Tue/16/Jun/2020 1407hrs	WMA_509	83.4	0.13	94.3	0.36	93.8	0.30
Wed/24/Jun/2020 1503hrs	WTA_500_3	84.0	0.20	98.0	0.55	95.8	0.36

Refer to Annual Blasting Report for Annual compliance limits

Meteorological Monitoring

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

Limits: Nil

Date sampled: continuous

Date obtained: continuous

Table 6 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN	Wind Speed			Wind Direction at 10m	Sigma Theta		
	Average	Min	Max	Average	Min	Max	Average	Min	Max	Average	Max	Sum (mm)	Average	Min	Max	Average	Average	Max	Min
01/06/2020	14	7.1	22.1	14.4	7.8	21.9	67.2	35.7	100	118.7	596.6	0	2.8	0.1	7.3	291	19.6	78.5	6.8
02/06/2020	10.2	6.8	15.1	10.3	7.1	14.7	63.7	48	76.7	139.8	714.6	0	4.1	1.7	6.8	305	18.5	26.6	12.8
03/06/2020	11.6	4.1	19.4	12.1	6.6	19.1	66.6	38.9	94.9	144.6	625.6	0	1.6	0.1	4.7	303	26.0	89.2	7.2
04/06/2020	10.6	3.9	17	11.4	5.4	16.5	72.7	47.6	97.8	117.7	674.6	0	0.8	0.1	2.8	135	25.1	89.5	6.5
05/06/2020	8.3	0.2	18.8	9.1	1.1	18.4	80.7	41	100	152.4	602.2	0	0.7	0.1	3.4	312	25.2	88.8	6.1
06/06/2020	8.2	-0.2	19.3	9.2	1	19.1	80.4	41.2	99.4	148.4	585.2	0	0.3	0.1	1.4	240	27.8	85.5	5.5
07/06/2020	8.7	0.4	18.5	9.5	1	18.3	83.6	52.1	100	132.3	576.7	0	0.3	0.1	2.7	153	26.9	95.8	4.0
08/06/2020	12.3	5.6	18.4	13.1	6.8	18.1	73.3	38.9	100	134	578.7	0.2	1.3	0.1	4.5	172	21.5	85.0	6.8
09/06/2020	14	11.5	16.4	14.2	12.3	16.2	91.6	77.9	100	64.5	567.5	4.2	1.4	0.5	3.6	153	16.0	40.6	7.0
10/06/2020	15	13.3	16.8	15	13.6	16.7	98.6	90.6	100	44.7	424.8	4	0.7	0.3	1.7	156	20.8	49.8	8.1
11/06/2020	14.9	10.2	21	15.3	11.2	20.7	87.6	55	100	140.5	602.1	0.2	0.3	0	3.2	307	26.3	92.2	6.4
12/06/2020	14.3	9.1	19.1	14.9	11.3	18.7	85.2	65.5	100	85.6	654.1	0	1.2	0.1	3	163	21.3	90.3	7.2
13/06/2020	14.1	11	19.4	14.5	11.9	19.3	92.2	68.2	100	81.7	679.1	0	0.3	0.1	34.9	337	33.7	97.8	6.9
14/06/2020	14.7	10	20.8	15.1	11.3	20.7	77.3	42.1	100	128	641.2	13.2	2.1	0	6.6	298	27.1	97.1	8.5
15/06/2020	11.8	5.4	18.5	12.2	6.7	18.1	72.6	46.2	100	153.9	600.9	0	1.9	0.1	4.3	307	24.1	75.0	5.8
16/06/2020	10.3	2	19.9	11.2	2.6	19.8	82.2	49.5	100	151.3	596.8	0	1.3	0.1	4.4	296	27.4	92.5	10.2
17/06/2020	11.4	2.5	19.6	12	3.7	19.3	87.9	54.7	100	120.6	603.4	6	1.2	0.1	5	153	27.9	93.4	7.5
18/06/2020	13.5	6.7	17.6	14	8.1	17.3	78.1	59.2	99.7	105.6	688.8	0	1.4	0.4	4.1	143	15.8	40.1	5.1
19/06/2020	9.6	3.4	18.7	10.2	3.8	18.5	89.5	60.5	100	145.4	587.7	0.2	0	0	2.2	116	27.3	95.4	5.6
20/06/2020	9.4	3.3	20.3	9.8	3.4	20	90.9	52.9	100	103.4	569.9	0.2	0	0	2.4	196	30.0	91.4	5.8
21/06/2020	11.2	6.4	17.5	11.7	7	17	88.5	53.1	100	64.6	484.4	11.6	0.7	0.1	4.1	309	29.6	102.1	9.9
22/06/2020	11.3	6.1	15.1	11.7	8.7	14.8	70.8	58.7	93.5	116.4	760.6	0.2	3.2	0.2	5.4	294	21.0	70.0	13.0
23/06/2020	10.8	7.8	14.9	10.8	8.1	14.5	72	49.5	87.4	128.8	674.6	0	3.3	1.9	5.2	306	18.2	27.3	13.8
24/06/2020	12.1	8.9	16.5	12.1	9.2	16.2	69.7	51.2	85.2	153.1	596.5	0	3.6	1.4	10.4	311	20.5	40.6	14.0
25/06/2020	10.9	5	16.6	11.4	7	16.4	75.1	54.4	97.8	150.7	589.4	0	2.1	0.1	5.8	305	27.1	92.9	9.1
26/06/2020	8.5	0.7	18	9.5	2.4	17.7	81	44.8	100	153.2	607	0	0.1	0	2.8	258	30.7	94.1	6.8
27/06/2020	10.7	3.8	17	11	5.1	16.6	83.2	57.7	100	123.8	664.7	0	0.8	0	3.8	140	24.6	85.1	6.0
28/06/2020	11.4	5.3	17.5	11.9	6.2	17.1	80.4	49.6	99.5	141.4	612.4	0	0.9	0	4.2	108	21.5	84.4	3.9
29/06/2020	8.7	1.7	17.1	9.4	2.4	16.8	87.4	59.2	100	133.3	671.4	0	0.2	0.1	2.4	116	26.4	86.2	6.8
30/06/2020	8.2	2.3	18.4	8.9	2.7	18.1	85.9	43.6	100	131.6	591.1	0.2	0.4	0.1	2.6	280	26.0	89.5	5.5
	11.4	-0.2	22.1	11.9	1.0	21.9	80.5	35.7	100	123.7	760.6	40.2	1.3	0	34.9	232.1	24.5	102.1	3.9