

**WAMBO COAL  
ENVIRONMENTAL REPORTING  
1 JUNE – 30 JUNE 2018**

10 July 2018

**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**

Monitoring Frequency: Once per month  
 Sampling Method: Grab sample  
 Limits: Nil

Date sampled: 7, 8 and 12 June  
 Date obtained: 29 June and 9 July 2018  
 Date published: 10 July 2018

Table 1 - WCPL Groundwater Results

Site	Date	pH	EC ( $\mu\text{S}/\text{cm}$ )	Depth	Comments
P106	8 June				Dry
P109	8 June	6.6	752	6.30	
P114	8 June				Dry
P116	8 June	7.0	2260	6.91	
P202	8 June	8.0	3960	9.16	
P206	8 June	7.9	2040	21.58	
P301	7 June	6.8	6210	16.69	
P315	7 June				Dry
GW02	7 June	7.1	515	8.78	
GW08	8 June	7.8	1769	7.29	
GW09	8 June				Dry
GW11	7 June	7.1	626	6.87	
GW12	7 June				Insufficient Water
GW13	8 June	6.9	3470	6.46	
GW15	8 June	7.0	600	11.47	
GW16	7 June	7.6	1167	11.28	
GW17	7 June	7.1	5360	12.29	
GW21	7 June				Dry
GW22	8 June	8.5	6880	35.67	
GW23	7 June				Insufficient Water
GW24	7 June	6.2	1746	8.71	
GW25	7 June				Dry
GW26	7 June	7.1	1067	7.79	
P1	12 June	6.64	1949	26.70	
P3	12 June				Removed
P11	12 June				Mud
P16	12 June	7.28	8070	9.05	
P20	12 June	7.34	6810	8.59	

Monitoring Frequency: Once per month  
 Sampling Method: Grab sample  
 Limits: Nil

Date sampled: 18 and 29 June 2018  
 Date obtained: 22 June and 5 July 2018  
 Date published: 10 July 2018

Table 2 - WCPL Surface and Mine Water Dam Results

Site	Date	pH	EC ( $\mu\text{S}/\text{cm}$ )	TSS (mg/L)	Comments
SW01	29 June	7.72	984	6	
SW02	29 June				Pool
SW03	29 June				Pool
SW04	29 June				Dry
SW05	29 June				Dry
SW06	29 June				Dry
SW07	29 June				Dry
SW08	29 June				Dry
SW14	18 June	8.42	589	<5	
SW15	29 June	8.84	8190	82	
SW27	29 June				Pool
SW31	18 June	9.09	8810	114	
SW32a	29 June				Dry
SW38	18 June	8.96	8640	250	
SW39	18 June				Dry
SW40	29 June				Pool
SW41	18 June				Dry
SW52	18 June	9.22	2780	12	

Monitoring Frequency: Once per month  
Sampling Method: AM19  
Limits: 4g / m<sup>2</sup> / month EPA Guideline

Date sampled: 15 June 2018  
Date obtained: 25 June 2018  
Date published: 10 July 2018

Table 3 - WCPL Depositional Dust Gauges

Site	Date	Ash (g/m <sup>2</sup> )	Total Insoluble Matter (g/m <sup>2</sup> )	AR/IS Ratio	Comment
D11	15 June	1.60	2.40	66.6	
D19	15 June	1.80	2.70	66.6	
D21	15 June	0.80	1.20	66.6	
D22	15 June	2.40	3.30	72.7	

Monitoring Frequency: Continuous

Sampling Method: AM22

Limits: Nil

Date sampled: Dust readings recorded daily

Date obtained: The next day for the preceding day's result

Date published: 10 July 2018

Table 4 - WCPL PM10 Results

Date of Run	PM01 - Coralie (Sentinex 19)		PM02 - Wambo Road (Caban) (Sentinex 20)		PM03 - Thelander (Sentinex 21)		PM04 - Muller (Sentinex 22)	
	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average	PM10 24 Hour Result (ug/m <sup>3</sup> )	YTD Average
1 June	10.9	27.97	12.2	25.66	7.9	20.62	12.6	28.12
2 June	12.3	27.87	10.9	25.56	7.9	20.54	6.6	27.98
3 June	13.2	27.77	10.6	25.46	9.2	20.46	14.7	27.89
4 June	12.3	27.67	9	25.36	9.1	20.39	15.4	27.81
5 June	11.3	27.57	10.2	25.26	8.3	20.31	17.5	27.75
6 April	2.73	27.41	5.7	25.13	9.3	20.24	14.9	27.66
7 June	17	27.34	10.3	25.04	16.3	20.22	28.1	27.67
8 June	15.6	27.27	15.4	24.98	9.1	20.15	15.6	27.59
9 June	10	27.16	7.5	24.87	6.4	20.06	7.5	27.47
10 June	7.4	27.04	8.9	24.77	6.3	19.97	8.6	27.35
11 June	11.3	26.94	6	24.65	9.2	19.90	17	27.29
12 June	17.1	26.88	12.6	24.58	8.5	19.83	17.2	27.22
13 June	14.6	26.80	10.7	24.49	7.4	19.76	9.6	27.12
14 June	15.9	26.74	13.4	24.43	8.4	19.69	10.7	27.02
15 June	15.1	26.67	17.1	24.38	9	19.62	10.2	26.92
16 June	12.5	26.58	13.5	24.32	7.2	19.55	9.4	26.81
17 June	8	26.47	8.4	24.22	6	19.46	6.7	26.69
18 June	10.5	26.38	3.78	24.10	5.2	19.38	2.26	26.55
19 June	7.3	26.27	4.6	23.98	1.68	19.27	5.2	26.42
20 June	12.5	26.19	9.6	23.90	10	19.22	11.1	26.33
21 June	20	26.15	14	23.84	10.6	19.17	15	26.26
22 June	12.9	26.07	9.3	23.76	5.1	19.09	12	26.18
23 June	13.4	26.00	10.1	23.68	6.8	19.01	9.6	26.09
24 June	24.6	25.99	16.1	23.63	11.8	18.97	23.2	26.07
25 June	22.9	25.97	19.7	23.61	14	18.94	26.2	26.07
26 June	24.3	25.96	17.7	23.58	15.9	18.93	29.7	26.09
27 June	<b>35</b>	26.02	18.1	23.55	15.8	18.91	21.8	26.07
28 June	7.8	25.91	6.6	23.45	5	18.83	6.9	25.96
29 June	7.2	25.81	5.6	23.35	3.7	18.75	4.2	25.84
30 June	10.9	25.73	7.6	23.26	5.3	18.67	6.7	25.73

**Monitoring Frequency: Every blast**  
**Airblast Overpressure Limit: 120 dBL**  
**Ground Vibration Limit: 10mm/s**

**Date sampled: After each blast event**  
**Date obtained: After each blast event**  
**Date published: 10 July 2018**

**Table 5 - WCPL Blast Monitoring Results**

Date & Time	ID	BM02 - Kelly		BM05 - Muller		BM07 - Thelander	
		dBL	mm/sec	dBL	mm/sec	dBL	mm/sec
2018-06-08 14:47:49	ME_WMA_277	101.7	0.14	105.1	0.26	97.3	0.17
2018-06-08 14:59:25	M_27WMA_270	111.6	0.19	107.9	1.87	101.8	1.42
2018-06-14 15:36:42	MW_DZ_275	89.4	0.02	92.7	0.08	82.3	0.12
2018-06-14 15:40:29	M28_RCA_278	99.1	0.03	103.1	0.30	98.5	0.44
2018-06-22 13:21:24	M28_RCA_279	96.4	0.04	104.5	0.50	100.8	0.46
2018-06-22 13:17:34	HD_RCA_280	91.8	0.04	95.8	0.11	92.4	0.07
2018-06-29 13:11:43	HD_1WWA_283	103.3	0.14	99.7	0.45	92.7	0.32
2018-06-29 13:15:44	MP_27WWA_282	96.0	0.05	96.1	1.01	98.5	0.95

Monitoring Frequency: Continuous  
 Sampling Method: Site Meteorological Station  
 Limits: Nil

Date sampled: Weather readings recorded daily  
 Date obtained: 1 June 2018  
 Date published: 10 July 2018

Table 6 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN mm	Wind Speed		
	Min	Average	Max	Min	Average	Max	Min	Average	Max	Average	Max		Min	Average	Max
1 June	4.9	12.1	17.9	6.7	12.7	17.4	41.8	59.9	95.2	144.2	639	0	0.1	2.2	6.1
2 June	4.4	13.2	17.1	9.1	13.8	17	49.3	66.5	95.8	51.2	651.9	1	0.2	1.2	5.3
3 June	13.6	16.4	20.7	14	16.4	20.2	42.1	63.7	75.5	135.5	616.1	0	0.8	2.5	4.8
4 June	8.7	14.1	19.8	9.9	14.6	19.1	46.5	71.1	93	121.4	663.6	0	0.1	1.1	3.9
5 June	11.5	14.3	17.6	12.2	14.3	17.1	55.5	71.9	93.6	67.9	670	0	0.3	1.8	4.5
6 April	10.5	13.4	15.7	10.9	13.5	15.3	72.7	89	98.6	42.7	228.1	1.8	0.1	1	2.5
7 June	7.1	13.3	19.7	9	13.6	19.2	54.2	83	99.1	109.5	692.3	0.2	0.2	0.8	4.1
8 June	3.7	10.3	17.6	4.6	11	17.4	55.3	87.5	99.5	47.9	259.6	0.4	0	0.2	2.8
9 June	7.9	12.7	16.4	9	12.8	16.3	73.5	93.8	99.8	25.7	154.5	2	0.1	0.3	3.8
10 June	7.1	12.2	15.9	7.5	12.2	15.6	73.8	88	100	51.2	481.2	0.6	0.1	1.2	3.9
11 June	5.1	13.1	18.1	7.1	13.4	17.8	52.5	76	98	74.6	609.4	0	0.1	1	2.6
12 June	2.5	9.2	19.4	2.9	9.7	18.9	52.1	87.9	100	98.2	625.9	0	0	0.3	2.8
13 June	0.7	9.7	18.5	3	11.1	18.1	41.4	73.8	99.8	97.1	641.8	0.2	0.1	1.4	4.9
14 June	1.9	9.3	19.1	3.9	10.7	18.5	35.7	72.1	97.2	117.3	557.4	0	0.1	0.9	5.2
15 June	-0.2	12.5	19.8	1.4	12.9	19.5	31.6	56.2	97	131.2	540.3	0	0	3.2	7.1
16 June	10	13.2	17.5	10.1	13.2	17.1	31.4	50.2	69	129.4	565.6	0	1.7	3.6	6.5
17 June	8.8	10.9	13.9	8.8	10.7	13.4	42.7	60.3	73.1	108	561.7	0	2.6	4.5	6.5
18 June	9.7	13	18.1	9.7	13	17.6	36.9	60.7	81.4	95.6	638.3	0	0.3	1.6	5.5
19 June	6	11.4	16	8.4	11.7	15.7	52.9	75.5	93.1	64.9	555.7	10	0.2	1.8	6.5
20 June	8.1	13.6	17.9	9.8	13.8	17.4	54.6	75.2	96.6	125.7	604.1	2	0.2	1.9	4.8
21 June	6.6	11.9	17.4	8.2	12.2	17.1	57.6	83.5	98.7	89.3	477.9	0	0.1	0.2	2.8
22 June	3.3	8.6	17.3	3.6	9.1	16.8	63.1	91	100	102.1	556.8	0	0.1	0.3	2.4
23 June	-0.2	8.8	20.8	0.5	9.3	20.4	33.8	76.5	100	143.5	569.6	0.2	0.1	1	4.8
24 June	-0.1	7.9	17.9	1.3	8.7	17.3	40.9	78.4	99.2	135.6	558.4	0	0.1	0.3	2.5
25 June	0.9	8.2	17.5	2.1	9.1	17	41.9	79	99.6	142.2	566.5	0	0.1	0.3	2.4
26 June	-0.5	8.2	18.2	0.5	9	17.5	44.4	79.9	99.8	137.7	550.3	0	0.1	0.4	3.3
27 June	1.5	10.7	17.4	2.1	10.9	16.8	62	85.8	99.5	104.1	542.5	0	0.1	0.6	2.8
28 June	6.3	12.1	17.6	7.4	12.1	17.1	61.5	92.8	99.7	68.3	558.2	11	0	0.1	5.1
29 June	5.5	10.1	15.9	6.7	10.4	15.6	49.8	81.9	100	120.8	594.8	0.2	0	1.4	4.7
30 June	1.6	10	19.5	2.8	10.8	19.1	35.2	72.3	99.1	149.1	610.6	0	0.3	1.4	6
MONTH	-0.5	11.4	20.8	0.5	11.8	20.4	31.4	76.1	100	101.0	692.3	29.6	0	1.2	7.1

