

**WAMBO COAL
ENVIRONMENTAL REPORTING
1 SEPTEMBER – 30 SEPTEMBER 2017**

9 October 2017

**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: 21 and 26 September 2017
 Date obtained: 27 September 2017
 Date published: 9 October 2017

Table 1 - WCPL Surface and Mine Water Dam Results

Site	Date	pH	EC ($\mu\text{S}/\text{cm}$)	TSS (mg/L)	Comments
SW01	26 September	7.48	822	8	
SW02	26 September	7.46	906	5	
SW03	26 September	7.62	1270	6	
SW04	26 September				Dry
SW05	26 September				Dry
SW06	26 September				Dry
SW07	26 September				Dry
SW08	26 September				Dry
SW14	21 September	8.44	742	-	
SW15	26 September	9.06	8420	26	
SW20					No access
SW27	26 September				Dry
SW31	21 September	9.12	8100	-	
SW32a	26 September				Dry
SW38	21 September	9.07	7730	-	
SW39	26 September				Dry
SW40	26 September				No flow

Monitoring Frequency: Every 6 days
Sampling Method: AM15
Limits: 90 ug/m³ annual average limit

Date sampled: 3, 9, 15, 21 and 27 September
Date obtained: 25 September and 5 October 2017
Date published: 9 October 2017

Table 2 - WCPL HVAS

Site	Date	TSP (UG/m3)
HV1	3 September	99.3
HV1	9 September	60.5
HV1	15 September	25.9
HV1	21 September	85.3
HV1	27 September	154
HV2	3 September	115
HV2	9 September	65
HV2	15 September	67.3
HV2	21 September	83.8
HV2	27 September	150
HV3	3 September	42.7
HV3	9 September	46
HV3	15 September	18.3
HV3	21 September	41.8
HV3	27 September	138
HV4	3 September	39.9
HV4	9 September	92
HV4	15 September	21.3
HV4	21 September	41.0
HV4	27 September	197

Monitoring Frequency: Once per month
Sampling Method: AM19
Limits: 4g / m² / month EPA Guideline

Date sampled: 15 September 2017
Date obtained: 22 September 2017
Date published: 9 October 2017

Table 3 - WCPL Depositional Dust Gauges

Site	Date	Ash (g/m ²)	Total Insoluble Matter (g/m ²)	AR/IS Ratio	Comment
D01	15 September	2.6	11.0	23.63636	
D03	15 September	1.1	3.1	35.48387	
D07	15 September	2.0	2.6	76.92308	
D09	15 September	2.5	3.7	67.56757	
D11	15 September	1.6	2.1	76.19048	
D12	15 September	1.6	3.7	43.24324	
D17	15 September	0.8	0.8	100	
D19	15 September	1.8	2.4	75	
D20	15 September	1.3	1.8	72.22222	
D21	15 September	1.2	1.7	70.58824	
D22	15 September	1.4	1.8	77.77778	
D23	15 September	1.0	1.3	76.92308	
D24	15 September	0.5	0.7	71.42857	
D25	15 September	1.3	1.6	81.25	
D26	15 September	1.2	1.5	80	

Monitoring Frequency: Continuous
 Sampling Method: AM22
 Limits: 50 (ug/m³)

Date sampled: Dust readings recorded daily
 Date obtained: The next day for the preceding day's result
 Date published: 9 October 2017

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 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
1/9/2017	23.5	18.93	31.9	18.54	19.2	13.33	24.5	16.20
2/9/2017	20.6	18.94	40.2	18.63	11.1	13.32	16	16.20
3/9/2017	29.4	18.98	41.1	18.72	15.7	13.33	14.3	16.19
4/9/2017	17.3	18.97	17.6	18.71	20.26	13.36	11.8	16.17
5/9/2017	14.8	18.96	17.6	18.71	12.4	13.36	10.7	16.15
6/9/2017	11.6	18.93	17.8	18.71	10.2	13.34	8.5	16.12
7/9/2017	15.6	18.91	20.5	18.71	8.8	13.32	7.3	16.09
8/9/2017	13	18.89	17.4	18.71	8.6	13.31	7.1	16.05
9/9/2017	16.7	18.88	18.9	18.71	13.9	13.31	21	16.07
10/9/2017	27.2	18.91	29.8	18.75	17.6	13.33	26.1	16.11
11/9/2017	20.7	18.92	41	18.84	14.1	13.33	13.9	16.10
12/9/2017	22.5	18.93	37.5	18.91	15.9	13.34	14.5	16.09
13/9/2017	32.3	18.99	41.6	19.00	19.4	13.36	17.5	16.10
14/9/2017	9.7	18.95	8.4	18.96	7.6	13.34	6.4	16.06
15/9/2017	10.3	18.92	17.4	18.96	9.2	13.32	8.7	16.03
16/9/2017	14.3	18.90	18.9	18.96	13	13.32	11.1	16.01
17/9/2017	18.6	18.90	14.2	18.94	16.5	13.33	27	16.06
18/9/2017	21.9	18.91	20.9	18.94	15.5	13.34	19.8	16.07
19/9/2017	19.7	18.91	22.5	18.96	17.1	13.36	16.7	16.07
20/9/2017	27.9	18.95	23.1	18.97	20.8	13.39	30.8	16.13
21/9/2017	24.3	18.97	25.1	19.00	15.9	13.40	16.9	16.13
22/9/2017	33.6	19.02	36.1	19.06	20.4	13.42	18.9	16.14
23/9/2017	38.5	19.10	49.9	19.18	25.10	13.47	26.5	16.18
24/9/2017	53*	19.22	44.7	19.27	31.5	13.53	28.6	16.23
25/9/2017	39.9	19.30	27.7	19.30	19.9	13.56	16.8	16.23
26/9/2017	35.9	19.36	25.4	19.33	22.50	13.59	22.5	16.25
27/9/2017	42.7	19.45	51*	19.44	37.9	13.68	49.6	16.38
28/9/2017	35	19.50	35.2	19.50	22.8	13.72	23.9	16.41
29/9/2017	17.9	19.50	18	19.50	10.5	13.70	9	16.38
30/9/2017	18.6	19.50	17	19.49	14.5	13.71	12	16.36

* Note these exceedances were reported to the Department of Planning and Environment

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

Date sampled: Blast readings recorded on 4, 12, 19 and 25 September 2017
Date obtained: Following each blast event
Date published: 9 October 2017

Table 5 - WCPL Blast Monitoring Results

Date & Time	ID	BM02 - Kelly		BM05 - Muller		BM07 - Thelander	
		dBL	mm/sec	dBL	mm/sec	dBL	mm/sec
2017-09-04 16:04:29	M_27WWA_175	95.9	0.07	98.1	0.88	72.3	0.62
2017-09-04 15:36:28	M_27WWA_175 - note 2 shots fired simultaenously	96.3	0.04	108.3	0.15	77.1	0.09
2017-09-12 15:33:58	Montrose-27 B185	100.5	0.08	99.3	0.54	68.4	0.44
2017-09-12 15:37:08	Montrose-22 B180	101.0	0.08	109.3	0.49	74.4	0.35
2017-09-19 14:17:27	Montrose East -23 B184	110.3	0.04	98.5	0.19	76.1	0.10
2017-09-25 15:41:01	ME_22WTA_189	98.7	0.20	100.0	0.85	68.4	0.65

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

Date sampled: Weather readings recorded daily
 Date obtained: 1 October 2017
 Date published: 9 October 2017

Table 6 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN mm	SUM RAIN mm	Wind Speed		
	Min	Average	Max	Min	Average	Max	Min	Average	Max	Average	Max			Min	Average	Max
1/9/2017	1.3	10.2	19.8	2.2	11	19.5	31.3	68	98.2	205.1	772.8	0	0	0.1	0.5	3.1
2/9/2017	-0.2	12.1	25.4	1	12.9	24.7	17.2	59.2	98.5	215.4	750.3	0	0	0.1	1.3	5.1
3/9/2017	1.9	16.3	29.3	3.2	16.9	28.8	13	49.9	89.7	205.2	749.9	0.4	0.4	0.1	2.1	7.6
4/9/2017	12.7	16.9	22	13	17	21.6	21.4	37.7	51.5	229.2	788.3	0.8	1.2	1.3	4	7.7
5/9/2017	11	14.7	18.9	11.4	14.8	18.3	25.5	37.1	47.9	232.1	815.8	0	1.2	1.7	4.1	8.3
6/9/2017	11.1	15.2	20.4	11.7	15.2	20.1	21.6	36.6	50.2	235.5	809.8	0	1.2	1.3	3.9	7.3
7/9/2017	4.7	14.1	21.9	8	14.8	21.5	18.6	42.5	75.8	235.5	825	0	1.2	0.1	2.3	5.8
8/9/2017	4.4	14.6	21.3	7.6	14.8	20.7	23.3	39.5	76.6	226.2	882.7	0	1.2	0.3	2.8	5.7
9/9/2017	1.4	12.1	20.6	4.4	12.8	20.1	21	47.7	85.3	242.8	825.5	0	1.2	0.1	0.1	5.3
10/9/2017	0	10.4	20.4	0.8	11.1	20	29.5	62.7	95.5	178.7	793.1	0	1.2	0	0.2	2.6
11/9/2017	0.5	14.2	25.9	1.9	14.8	25.5	13.4	50.6	98.1	224.2	815.2	0	1.2	0.1	1.6	4.6
12/9/2017	2.9	18.5	30.3	4.5	19.1	29.8	17.2	38.5	82	223.2	822.5	0	1.2	0.2	2.2	5.4
13/9/2017	6.3	22.7	33	7.2	23.2	32.8	10.4	33.4	79.3	218.5	838.8	0	1.2	0.3	3	7.2
14/9/2017	10.3	14	22	10.4	14	22.3	26.3	49.4	96.5	252.5	929.5	7.6	8.8	0.3	3.3	7.2
15/9/2017	8.1	14.9	23.2	8.2	15.1	22.7	26.1	45.5	67.5	254	951.9	0	8.8	0.7	3.3	6
16/9/2017	8.4	16.5	24.4	10	16.6	23.9	22.4	48.5	89.3	228.9	848.5	0	8.8	0.2	2.6	7.9
17/9/2017	2.6	12.2	20.2	4.9	12.7	19.8	28.5	62.9	97.7	259.5	872	0	8.8	0	0.9	4.4
18/9/2017	1.5	14.6	27.4	2.9	15.4	27.1	21.7	59.7	97.4	260.5	882.4	0	8.8	0.1	1.1	4.6
19/9/2017	5.4	17	26.5	6.7	17.8	25.9	10.8	43.1	93.2	266.5	878.9	0	8.8	0.1	2.5	7.8
20/9/2017	1.8	13.1	22.3	2.8	13.8	22	23.5	54.9	90.5	256.5	873	0	8.8	0.1	0.1	2.3
21/9/2017	2.7	15.3	29.5	3.6	16.3	29	11.1	54.1	98.3	247.1	845.7	0	8.8	0.1	1.1	4.8
22/9/2017	2.9	17.5	31.5	4.8	18.7	31.1	10.1	43.2	88.1	260.2	871.8	0	8.8	0.1	1.2	4.4
23/9/2017	6.5	22.7	35.4	8.2	23.6	35.2	11.8	36.9	79.4	198.3	869	0	8.8	0.2	2	6.7
24/9/2017	16	28.4	33.1	18	28.9	32.6	14.5	22.4	49.8	209.8	801.2	0	8.8	0.3	3.1	6.7
25/9/2017	9.6	21	30.1	11.1	21.5	29.4	11.7	32.2	77.2	229.2	873.4	0	8.8	0.1	2.7	7.1
26/9/2017	6.5	17.3	27	8.6	17.8	26.5	17.3	44.7	77.1	278	908.1	0	8.8	0.2	0.6	6.5
27/9/2017	11.7	19.7	28.1	12.5	19.8	27.7	26.7	59.3	87	244.8	858.4	0	8.8	0.1	1	3
28/9/2017	12.8	20.6	26.4	15.3	21.2	25.9	23	54.8	94.8	109.3	890.9	0	8.8	0.1	1.9	6.9
29/9/2017	6.8	18.9	27.2	8.6	19.6	26.7	15.7	41.4	88.5	275.9	897.3	0	8.8	0.1	1.9	6.5
30/9/2017	14.5	20.4	25.9	14.9	20.8	25.6	9.4	28.6	72.6	161.7	769.1	0	8.8	0.1	1.9	4.9
MONTH	-0.2	16.53	35.4	0.8	17.06	35.2	9.4	46.16	98.5	228.81	951.9	8.8	8.8	0	1.97	8.3