

**WAMBO COAL
ENVIRONMENTAL REPORTING
1 FEBRUARY – 28 FEBRUARY 2018**

12 March 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: 20 and 26 February 2018
 Date obtained: 26 February and 2 March 2018
 Date published: 12 March 2018

Table 1 - WCPL Surface and Mine Water Dam Results

Site	Date	pH	EC ($\mu\text{S}/\text{cm}$)	TSS (mg/L)	Comments
SW01	26 February 2018	7.89	921	8	
SW02	26 February 2018	7.61	1310	5	
SW03	26 February 2018	7.71	2310	113	
SW04	26 February 2018				Pool
SW05	26 February 2018				Dry
SW06	26 February 2018				No flow
SW07	26 February 2018				Pool
SW08	26 February 2018				Unsafe access
SW14	20 February 2018	8.79	564	17	
SW15	26 February 2018	8.83	8550	309	
SW27	26 February 2018	7.41	580	548	
SW31	20 February 2018	9.14	10500	9980	
SW32a	26 February 2018	7.42	466	507	
SW38	20 February 2018	9.12	9980	554	
SW39	26 February 2018				Dry
SW40	26 February 2018				Pool
SW52	20 February 2018	9.33	5230	75	

Monitoring Frequency: Every 2 months
 Sampling Method: Grab sample
 Limits: Nil

Date sampled: 2, 15 and February 2018
 Date obtained: 5 and 9 March 2018
 Date published: 12 March 2018

Table 2 - WCPL Groundwater Results

Site	Date	pH	EC ($\mu\text{S}/\text{cm}$)	Depth	Comments
P106	2 February				Dry
P109	2 February	6.5	770	6.20	
P114	2 February				Dry
P116	2 February	6.9	2220	6.81	
P202	2 February	7.7	3790	8.89	
P206	2 February	7.8	2040	21.28	
P301	2 February	6.7	5880	16.32	
P315	2 February	6.2	4141	9.07	
GW02	2 February	6.7	624	8.50	
GW08	2 February	7.3	1910	7.10	
GW09	2 February				Dry
GW11	2 February	6.6	676	6.60	
GW12	2 February			12.66	Insufficient Water
GW13	2 February	6.9	3030	6.16	
GW15	2 February	7.4	609	11.34	
GW16	2 February	7.6	1274	10.88	
GW17	2 February	7.0	5380	12.12	
GW21	2 February				Dry
GW22	2 February	8.4	6890	35.51	
GW23	15 February	7.2	4880	8.05	
GW24	15 February	6.9	3340	8.45	
GW25	15 February			5.72	Dry
GW26	15 February	6.9	1363	7.55	
P1	19 February	6.9	7890	26.27	
P3	19 February				Removed
P11	19 February				Mud
P16	19 February	7.33	7640	8.85	
P20	19 February	7.38	7300	8.50	

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

Date sampled: 15 February 2018
Date obtained: 22 February 2018
Date published: 12 March 2018

Table 3 - WCPL Depositional Dust Gauges

Site	Date	Ash (g/m ²)	Total Insoluble Matter (g/m ²)	AR/IS Ratio	Comment
D11	15 February	1.5	1.9	78.9	
D19	15 February	5.4	7.1	76.0	
D21	15 February	2.1	2.6	80.7	
D22	15 February	3.1	3.8	81.5	

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: 12 March 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 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 February	32.4	34.45	19.7	26.85	20.6	23.96	28.6	32.46
2 February	18.7	33.97	13.1	26.43	12	23.57	20.3	32.09
3 February	22.4	33.63	13	26.04	14.1	23.27	23.9	31.85
4 February	15.2	33.11	12.6	25.65	15.7	23.04	19.3	31.49
5 February	22.6	32.81	19.5	25.48	20.4	22.97	28.8	31.42
6 February	23.4	32.56	19.2	25.31	17.2	22.80	22.9	31.19
7 February	26.3	32.40	19.6	25.16	19.6	22.71	25.9	31.05
8 February	21.7	32.12	29.8	25.28	25.5	22.79	35.8	31.17
9 February	43.4	32.40	42.5	25.71	26.0	22.87	59.6	31.88
10 February	37.9	32.54	26.5	25.73	28.4	23.01	38.6	32.05
11 February	39.1	32.69	33.8	25.92	26.9	23.11	33.2	32.07
12 February	46.4	33.01	36.1	26.16	32.3	23.34	35.9	32.16
13 February	35.4	33.07	25.5	26.15	25.8	23.39	32.6	32.17
14 February	22.3	32.83	25.4	26.13	17.9	23.27	15.6	31.80
15 February	80.6	33.87	66	27.00	58.7	24.07	70.9	32.65
16 February	50.6	34.22	55.3	27.60	52	24.69	52.8	33.08
17 February	46.2	34.47	33.7	27.73	30.4	24.82	41.4	33.26
18 February	38.2	34.55	34.5	27.86	30.5	24.94	43.2	33.46
19 February	59.9	35.06	31.1	27.93	34.1	25.13	46.9	33.73
20 February	19.9	34.76	14.5	27.66	14	24.90	16.3	33.39
21 February	20	34.47	27.5	27.66	16.1	24.73	19.3	33.12
22 February	24.5	34.29	14.9	27.42	15.7	24.55	27.7	33.01
23 February	30.2	34.21	21.4	27.31	24.6	24.55	30.4	32.96
24 February	27.4	34.09	24.7	27.26	13.7	24.34	27.6	32.87
25 February	12.8	33.71	15.1	27.04	10.1	24.08	16.9	32.58
26 February	5.6	33.21	4.1	26.64	4.8	23.73	4.6	32.09
27 February	19.8	32.98	14.7	26.44	15.3	23.58	16.1	31.82
28 February	22.6	32.81	15.6	26.25	11.3	23.36	16.2	31.55

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: 12 March 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
2018-02-09 10:05:46	M_27RCA_223 & M_27RCA_232	98.8	0.05	102.2	0.41	96.2	0.44
2018-02-09 10:07:28	M_27WWA_228	100.4	0.10	101.3	1.25	97.4	1.14
2018-02-14 11:11:41	ME_WTA_233	96.9	0.10	103.7	0.28	97.1	0.14
2018-02-14 11:21:29	M_27_WWA_230	96.2	0.07	103.0	1.37	97.6	1.11
2018-02-21 15:14:40	RP_1WWA_237	93.6	0.07	99.3	0.04	89.7	0.03
2018-02-24 12:06:25	B235 Montrose East	95.2	0.11	100.2	0.21	101.2	0.08
2018-02-24 12:17:02	B236 Hilldale	93.5	0.09	101.0	0.19	94.9	0.11
2018-02-24 12:27:23	B234 Montrose 27	98.7	0.08	107.9	2.12	99.6	1.01

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

Date sampled: Weather readings recorded daily
 Date obtained: 1 March 2018
 Date published: 12 March 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 February	18.5	20.4	23.3	18.2	19.9	22.6	44.5	54.8	63.3	122.8	679.6	0	1.1	2.8	5.2
2 February	17.2	20.4	24.4	17	20	23.6	45.4	62.4	77.3	143.8	587.5	0	0.8	2.3	6.2
3 February	16.7	21.6	27.1	16.4	21.1	26	40	62.3	90.7	272.4	1182.1	0	0.5	2.9	6.6
4 February	14.9	21.9	28.1	15.8	21.5	26.9	39.1	61.5	91.5	301	1210	0	0.4	2.6	6.5
5 February	12.5	22.5	31.6	13.9	22.3	30.6	25.8	58.5	94.1	360.9	1089.3	0	0.1	1.7	6.7
6 February	16.1	23.8	31.7	16.5	23.4	30.2	28.3	58.1	90.3	337.2	1115.2	0	0.1	2.4	7.2
7 February	16.6	24.4	31.9	17.1	24	30.6	30.2	55.4	89	349	1084.8	0	0.3	2.2	6.2
8 February	13.8	25.6	35.2	15.1	25.5	34.4	15.6	49.2	88.1	351.6	1058.9	0	0	0.8	3.3
9 February	16.6	27.9	40.2	17.6	27.8	39.5	16.9	51.4	88.3	288.3	1092.5	2.6	0	0.2	7.2
10 February	18.2	26.9	37	18.6	26.5	36.2	26.6	63.4	97	343.9	1054.3	0	0.1	1.3	5.5
11 February	20.7	27.9	41.1	21.7	27.7	40	13.6	55.1	80.6	208.5	1164.2	0	0.1	1	6.5
12 February	22.9	27.8	38.8	22.5	27.3	38	10.9	58	78.4	315.4	1120.4	0	0.3	0.8	5.7
13 February	23.2	27.3	34.8	22.9	26.8	33.7	33.5	64.2	83.1	307.1	1110	0	0.9	2.3	7.2
14 February	24.2	30.9	40.3	24	30.5	39.4	9.7	45	86.2	329.7	1064.2	0	0.4	1.4	5.8
15 February	21.2	27.8	38.5	21.2	27.3	37.7	12.1	50.7	74.5	336.3	1063.8	0	0.5	1.2	6
16 February	14.2	25.2	37.6	14.9	25.1	36.7	6.9	57.1	97.4	324.5	1279.7	0	0	1.5	7.4
17 February	19.7	25.4	32.7	20	24.9	31.4	35.9	62.4	82.7	316.8	1069.6	0	0.8	2.5	6
18 February	18	27.5	37	18.7	27.2	36.1	27.2	56.9	93.3	325.2	1017.8	0	0.1	1.4	6.7
19 February	19.9	25.4	32.3	20.2	25.1	31	31.4	54.8	72.5	196.9	1065.3	0	0.3	2.8	7
20 February	17	20.6	23.5	16.7	20.3	23.3	56.2	73.5	93.5	62.1	476.5	4.2	1.2	2.9	6.1
21 February	15.5	21.6	27.8	15.8	21.2	26.8	36.7	61.8	90.8	305.1	1292.8	0	0.8	2.5	6.2
22 February	16.5	22.8	29.3	16.9	22.5	28.3	34.2	62.1	89.3	257.8	1124.8	0	0.1	1.9	4.9
23 February	17.6	24.9	33.6	17.9	24.6	33	28.9	60.4	85.8	278.1	1099.2	0	0.3	1.3	5.8
24 February	18.1	28	36.1	18.3	27.9	35.3	35.1	59.2	92	266.9	1042.3	0	0	1.6	5.4
25 February	18.3	25.7	36.4	17.8	25.4	35.3	38.3	72	99.2	166.6	1355.7	58	0.5	0.6	5.6
26 February	17.9	19.1	21	17.5	18.8	20.4	73	86.5	99.7	100.2	774.5	17	0.9	2.5	5.2
27 February	16.4	21.3	27.2	16.9	20.9	26.2	42.3	65.7	89.7	297	1230.4	0.2	0.1	2.2	5.1
28 February	12.6	23.6	34.9	12.7	23.4	34.4	32.5	66.6	98.3	327.9	1048.9	0	0.1	1.2	5
MONTH	12.5	24.5	41.1	12.7	24.2	40	6.9	60.3	99.7	271.1	1355.7	82	0	1.8	7.4

