

**WAMBO COAL  
ENVIRONMENTAL REPORTING  
1 MARCH – 31 MARCH 2019**

May 2019

**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/ Rain Event Sampling  
 Sampling Method: Grab sample  
 Limits: Nil

Table 1 - WCPL Surface and Mine Water Dam Results

Site	Date	pH	EC (µS/cm)	TSS (mg/L)	Comments
SW01	18/03/2019				Pool
	1/04/2019*				Pool
SW02	18/03/2019				Dry
	1/04/2019*				Dry
SW03	18/03/2019				Pool
	1/04/2019*				Pool
SW04	18/03/2019				Dry
	1/04/2019*				Dry
SW05	18/03/2019				Dry
	1/04/2019*				Dry
SW06	18/03/2019				Dry
	1/04/2019*				Dry
SW07	18/03/2019				Dry
	1/04/2019*				Dry
SW08	18/03/2019				Dry
	1/04/2019*				Dry
SW12	26/03/2019	8.95	4160	31	
SW14	26/03/2019	9.00	470	16	
SW15	18/03/2019	9.02	4420	187	
	1/04/2019*	8.98	2740	91	
SW27	18/03/2019				Dry
	1/04/2019*				Pool
SW31	18/03/2019	3.67	5020	168	
SW32a	18/03/2019				Pool
	1/04/2019*				Pool
SW38	18/03/2019	9.20	3270	15	
SW39	18/03/2019				Pool
	1/04/2019*				Pool
SW40	18/03/2019				Pool
	1/04/2019*				Pool
SW51	26/03/2019	9.01	1560	1690	
SW52	18/03/2019	9.84	6791	200	
Wombat Dam	18/03/2019				Insufficient Water
	1/04/2019*	7.55	318	59	
Milk Can Dam	18/03/2019	9.78	2050	402	
	1/04/2019*	8.08	645	95	
Rug Dump Dam	18/03/2019	8.58	430	628	

Site	Date	pH	EC ( $\mu\text{S}/\text{cm}$ )	TSS (mg/L)	Comments
<b>Montrose East 1</b>	18/03/2019	7.64	316	353	
	1/04/2019*	7.75	247	754	
<b>Montrose East 2</b>	18/03/2019	7.77	325	279	
	1/04/2019*	8.27	258	391	

\* 30 - 31 March 2019 Rain Event Sample

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

Date sampled: 18 March 2019  
Date obtained: 22 March 2019  
Date published: 27 May 2019

Table 2 - 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	18 March 2019	2.0	2.4	83.33	Insects
D19	18 March 2019	5.4	7.4	72.97	Insects
D21	18 March 2019	1.7	2.0	85.00	Insects
D22	18 March 2019	3.3	3.9	84.61	Insects

Monitoring Frequency: Continuous  
 Sampling Method: AM22  
 Limits: Nil

Date sampled: Continuous  
 Date obtained: Continuous  
 Date published: 27 May 2019

Table 3 - 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
1/03/2019	35.3	32.70	21	25.25	33.8	32.45	20.1	23.78
2/03/2019	27.9	32.62	19.1	25.14	36.2	32.51	17.5	23.67
3/03/2019	26.3	32.52	23	25.11	27.9	32.44	17.4	23.57
4/03/2019	37.9	32.60	34	25.25	34.4	32.47	27.9	23.64
5/03/2019	42	32.75	35.1	25.40	47.7	32.70	23.8	23.64
6/03/2019	72	33.35	77	26.20	78.1	33.40	68.1	24.33
7/03/2019	35.9	33.39	28.4	26.23	35	33.43	32.2	24.45
8/03/2019	37	33.44	31.9	26.32	40.2	33.53	26.6	24.48
9/03/2019	NaN	33.44	NaN	26.32	NaN	33.53	NaN	24.48
10/03/2019	NaN	33.44	NaN	26.32	NaN	33.53	NaN	24.48
11/03/2019	43.3	33.59	46	26.61	55.8	33.86	41.8	24.73
12/03/2019	41.6	33.71	31.5	26.68	38.1	33.92	26.1	24.75
13/03/2019	50.5	33.95	30.3	26.73	54.3	34.21	31.2	24.84
14/03/2019	35.6	33.97	35.1	26.85	40.8	34.30	28.5	24.90
15/03/2019	24.5	33.84	14.1	26.67	15	34.03	11.3	24.71
16/03/2019	14.8	33.58	11.6	26.46	15.2	33.78	11.5	24.53
17/03/2019	6.1	33.21	6	26.19	8.4	33.43	6.2	24.28
18/03/2019	5.8	32.84	7.4	25.94	8.6	33.10	5.6	24.03
19/03/2019	14.3	32.60	11	25.74	13.5	32.84	10.5	23.85
20/03/2019	16.2	32.38	11.5	25.55	17.7	32.65	15.9	23.75
21/03/2019	15.3	32.16	9.7	25.35	18.6	32.47	11.5	23.59
22/03/2019	17.7	31.98	11.9	25.18	17	32.27	13.5	23.46
23/03/2019	15.7	31.78	16	25.07	16.6	32.08	11.7	23.32
24/03/2019	22.2	31.66	24.1	25.05	26.7	32.01	19	23.26
25/03/2019	17.8	31.49	17.5	24.96	21.8	31.88	14.6	23.16
26/03/2019	31	31.48	31.5	25.04	35	31.92	28	23.22
27/03/2019	33.6	31.51	26.7	25.06	48.5	32.12	26.1	23.25
28/03/2019	29.6	31.49	21.5	25.02	28.7	32.08	22.1	23.24
29/03/2019	39	31.57	31.2	25.09	27.1	32.02	20	23.20

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
30/03/2019	12	31.35	13.9	24.96	18.9	31.87	11.2	23.06
31/03/2019	46.8	31.53	48.4	25.23	60.4	32.19	56.6	23.44

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

**Date sampled: Continuous**  
**Date obtained: Continuous**  
**Date published: 27 May 2019**

**Table 4 - WCPL Blast Monitoring Results**

Date & Time	ID	BM02 - Kelly		BM05 - Muller		BM07 - Thelander	
		dBL	mm/sec	dBL	mm/sec	dBL	mm/sec
29/03/2019 11:06	M_27WRC_364	97.2	0.06	110.8	0.76	103.	0.82
25/03/2019 16:02	HD_RCA_367/369	101.6	0.05	98.3	0.10	81.1	0.00
25/03/2019 15:55	HD_WWA_371	101.7	0.10	11.0	0.18	103.2	0.11
25/03/2019 16:09	M_27WRC_365	106.8	0.09	107.3	1.10	105.6	1.08
12/03/2019 12:22	ME_2WTA_354	93.1	0.07	109.3	1.29	103.7	0.96
12/03/2019 12:03	M_27WMA_358	99.9	0.09	104.5	1.85	97.4	1.91
5/03/2019 16:15	ME_2WMB_363 & M_27WRC_108_362	94.8	0.10	107.1	0.93	102.3	0.78
5/03/2019 16:11	M_27WRC_360	94.5	0.06	106.5	1.05	97.2	1.18
5/03/2019 15:54	M_27WRA_357/359	97.9	0.30	100.5	0.41	93.2	0.30

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

Date sampled: continuous  
 Date obtained: 1 April 2019  
 Date published: 27 May 2019

Table 5 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN	Wind Speed		
	Min	Average	Max	Min	Average	Max	Min	Average	Max	Average	Max	Sum (mm)	Min	Average	Max
1/03/2019	17.6	24.2	31.4	18.6	24.1	30.2	29.7	61	88.2	294.6	1184.5	0	0.3	2.4	6.4
2/03/2019	19.2	24.3	31	19.7	24	30.1	28.7	60.1	77.9	272.2	1201.8	0	0.5	2.4	5.8
3/03/2019	16.7	24.7	33.1	17.1	24.5	32	30	62.6	93.9	319.8	1019.5	0	0	1.4	5.7
4/03/2019	16.4	25.8	34.6	16.9	25.7	34	26.6	61	94.4	318.6	1015.1	0	0.1	1.2	4.9
5/03/2019	16.1	26.7	37.2	16.8	26.8	36.4	22.2	57.4	94.9	307.4	995.4	0	0.2	0.8	4.4
6/03/2019	19	27.8	37.6	19.9	27.9	36.9	20.3	50.5	81.7	241.8	1184.7	0.6	0.1	1.5	37.5
7/03/2019	19.3	20.4	22.8	19.1	20.2	23	57.8	62.8	79.8	54.6	260.6	0	1.2	2.7	5.2
8/03/2019	16.7	25.1	34.6	17.5	25	34.1	31.8	58.9	85.3	303.7	988.6	0	0.5	0.6	3.2
9/03/2019	20.8	24.7	35.1	21.4	24.8	34.7	33.4	76.4	98	149.6	999.8	10.8	0	0.4	5
10/03/2019	21.4	26	35	21.4	26	34.7	27.6	68.4	97.2	230	1012.1	0	0.1	0.8	3.9
11/03/2019	18.6	25.9	35.1	19.8	26.1	34.4	27.3	60.8	88.2	302.9	997.7	0	0.1	1.4	7.4
12/03/2019	20.8	27.6	36.7	21.5	27.5	36	14.5	52.6	87	311.9	1021.8	0	0.2	1.2	5.2
13/03/2019	20.4	23.7	27.6	21.4	23.5	26.9	52.3	68.6	80.7	162.1	1043.8	0	0.9	3.2	6
14/03/2019	21.4	26	33.2	21.3	25.7	32.7	31.4	64.6	83	230.3	1099.1	0	0.8	1	4.5
15/03/2019	20.3	22.9	27.5	20.1	22.6	26.7	47.7	65.5	79.8	218.2	987.9	0	0.8	2.5	4.8
16/03/2019	18.6	20.3	23.9	18.5	20.2	23.4	66.6	81.9	98.5	68.8	462	21.2	0.9	1.6	4.5
17/03/2019	18.5	19.8	22.7	18.8	19.8	22.5	74.7	91	97.9	57	432.5	26.2	0	0.4	3.8
18/03/2019	17.7	20.3	25.2	17.6	20.3	24.9	61.1	86.4	98.6	77.2	441.2	19.6	0.2	1.3	4.6
19/03/2019	17.7	20.6	26	17.9	20.6	25.5	56.5	85	97.5	136.9	1059.4	1.8	0	0.7	4.8
20/03/2019	17.9	22.4	28.9	18.3	22.5	28.4	47.7	78.5	98.6	211.8	972	0.2	0	1	4.6
21/03/2019	16.9	22.4	28.8	17.4	22.6	28.3	50.3	77.5	98.5	224.9	1104	0	0	1.4	5.9
22/03/2019	17.5	21.9	28.9	17.4	21.8	28.5	50	81	97.2	204.3	1007.5	10.6	0	0.8	5.2
23/03/2019	14.3	22.5	32.2	14.6	22.4	31.6	47.3	77.8	99.2	266.1	948.5	7.2	0.1	0.3	3.2
24/03/2019	18.5	25.8	35.2	18.6	25.8	34.9	32.5	69.8	98.1	252	941.8	0	0.1	0.5	4.9
25/03/2019	21.4	23.8	27.2	21.5	23.8	26.9	61.3	76.6	94.9	120.6	684	2.2	0.4	2.1	7.2
26/03/2019	16.1	22.8	27.6	16.5	22.8	27.2	29.3	58.7	80.4	272.1	962	0	0.1	1.7	4.9
27/03/2019	14.3	20.1	25.5	14.6	20.1	24.9	39.9	61.9	86.4	243	1044.8	0	0.1	2.3	5.9
28/03/2019	14.3	20.8	27.2	14.8	20.9	26.8	39.6	66.1	91.7	265.5	1076.2	0	0.1	1.5	4.4
29/03/2019	12.9	20.8	28.7	13.4	21.1	28.3	44	72.8	97.9	194.6	752.9	0	0.1	0	1.9
30/03/2019	13.4	19.6	25.5	13.5	19.4	25.1	33.8	71.8	99.9	192.4	975.1	65.8	0.3	2.2	7.2
31/03/2019	11.4	16.3	22.9	11.4	16.2	22.4	32.8	50.5	65.1	283.7	953.1	0	0.4	2.4	5.3
<b>MONTH</b>	<b>11.4</b>	<b>23.1</b>	<b>37.6</b>	<b>11.4</b>	<b>23.1</b>	<b>36.9</b>	<b>22.4</b>	<b>68.3</b>	<b>99.9</b>	<b>218.9</b>	<b>1201.8</b>	<b>166.2</b>	<b>0</b>	<b>1.4</b>	<b>37.5</b>



