

**WAMBO COAL
POLLUTION MONITORING DATA
1 SEPTEMBER 2023 – 30 SEPTEMBER 2023
SEPTEMBER MONTHLY REPORT**

Published 9 October 2023

**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-prpoeo>

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	26.09.2023	7.44	1060	<5	
Point 25	SW02	26.09.2023	7.56	934	<5	
Point 26	SW03	26.09.2023	7.52	966	<6	
Point 27	SW04	26.09.2023	-	-	-	DRY
Point 28	SW05	26.09.2023	-	-	-	DRY
Point 29	SW06	26.09.2023	-	-	-	DRY
Point 30	SW07	26.09.2023	7.47	752	<5	
Point 31	SW08	26.09.2023	-	-	-	DRY
Point 33	SW15	05.09.2023	8.75	5680	18	
Point 34	SW27a	26.09.2023	-	-	-	N/A
Point 36	SW32a	26.09.2023	-	-	-	DRY
Point 39	SW39	26.09.2023	-	-	-	DRY
Point 40	SW40	26.09.2023	7.37	788	8	
Point 41	SW41	26.09.2023	-	-	-	DRY

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 (Avg)	Conductivity (µS/cm) Avg	TSS (mg/L)	Turbidity (NTU)	Volume (ML/day)	Comments
Point 4	No Discharges in September						
Point 19	No Discharges in September						

Sewerage Treatment Monitoring

Monitoring Frequency: Quarterly during discharge

Sampling Method: Grab sample

Limits: Nil

Date sampled: Sample not required

Date obtained:

Table 3- WCPL Discharge Monitoring

EPL ID	Site ID	Date	pH	Faecal Coliforms (CFU/100mL)	Comments
Point 43	STPD3	-	-	-	No discharge
Point 52	STPD2	-	-	-	Sample required quarterly
Point 56	STP1	-	-	-	Sample required quarterly

PM10 Monitoring

Monitoring Frequency: Continuous

Sampling Method: AM22

Limits: Nil

Date sampled: Continuous

Date obtained: Continuous

Table 4 - WCPL PM10 Results

Date	PM02 (D2)- Wambo Road (Caban) (EPA14)		PM03 (D4) - Thelander (EPA15)		PM04 (D1) - Muller (EPA16)		PM05 (D5) - Kelly (EPA 53)	
	PM10 24 Hour Result (ug/m ³)	Annual Average	PM10 24 Hour Result (ug/m ³)	Annual Average	PM10 24 Hour Result (ug/m ³)	Annual Average	PM10 24 Hour Result (ug/m ³)	Annual Average
1/09/2023	12.2	13.40	9.8	10.39	20.6	15.30	12.9	19.01
2/09/2023	12.8	13.40	11.8	10.40	22.5	15.33	15.6	19.02
3/09/2023	21.5	13.42	11.5	10.40	19.9	15.35	19.7	19.03
4/09/2023	25.4	13.47	21.2	10.45	31.0	15.42	23.6	19.08
5/09/2023	13.7	13.49	6.6	10.46	8.7	15.42	36.0	19.16
6/09/2023	24.3	13.53	11.2	10.47	21.8	15.45	28.5	19.22
7/09/2023	31.2	13.60	18.9	10.51	28.2	15.50	42.8	19.31
8/09/2023	6.9	13.58	2.0	10.49	6.6	15.48	11.3	19.32
9/09/2023	7.3	13.56	4.3	10.47	9.2	15.46	16.0	19.32
10/09/2023	17.7	13.59	8.6	10.49	15.8	15.48	14.4	19.34
11/09/2023	20.2	13.64	15.3	10.53	23.6	15.53	20.8	19.37
12/09/2023	20.6	13.67	14.4	10.55	21.9	15.57	20.8	19.37
13/09/2023	24.9	13.71	16.3	10.58	28.8	15.63	25.6	19.40
14/09/2023	26.1	13.75	24.5	10.63	37.0	15.71	29.7	19.45
15/09/2023	26.7	13.80	14.3	10.66	20.8	15.73	30.2	19.51
16/09/2023	22.1	13.83	11.0	10.67	19.3	15.76	52.9	19.62
17/09/2023	19.4	13.87	14.5	10.70	30.3	15.83	35.3	19.69
18/09/2023	28.0	13.92	17.8	10.73	30.2	15.89	39.0	19.73
19/09/2023	30.8	13.97	20.3	10.78	30.6	15.95	76.3	19.87
20/09/2023	37.8	14.04	19.8	10.82	34.5	16.03	94.5	20.06
21/09/2023	25.2	14.07	19.1	10.84	34.4	16.08	31.1	20.11
22/09/2023	15.8	14.08	10.8	10.85	27.8	16.11	21.1	20.12
23/09/2023	17.7	14.11	17.9	10.88	41.3	16.21	22.3	20.16
24/09/2023	15.8	14.13	13.5	10.91	30.1	16.27	16.2	20.18
25/09/2023	18.4	14.16	10.0	10.93	23.5	16.31	33.8	20.23
26/09/2023	33.3	14.23	18.1	10.97	32.1	16.38	28.5	20.27
27/09/2023	27.7	14.27	15.8	10.99	23.6	16.41	30.6	20.30
28/09/2023	15.1	14.28	9.6	10.99	15.5	16.42	10.7	20.29
29/09/2023	16.5	14.30	9.5	11.00	15.5	16.44	22.6	20.32
30/09/2023	21.2	14.34	16.5	11.04	31.6	16.51	28.3	20.38

*NaN >75% of data collected during period

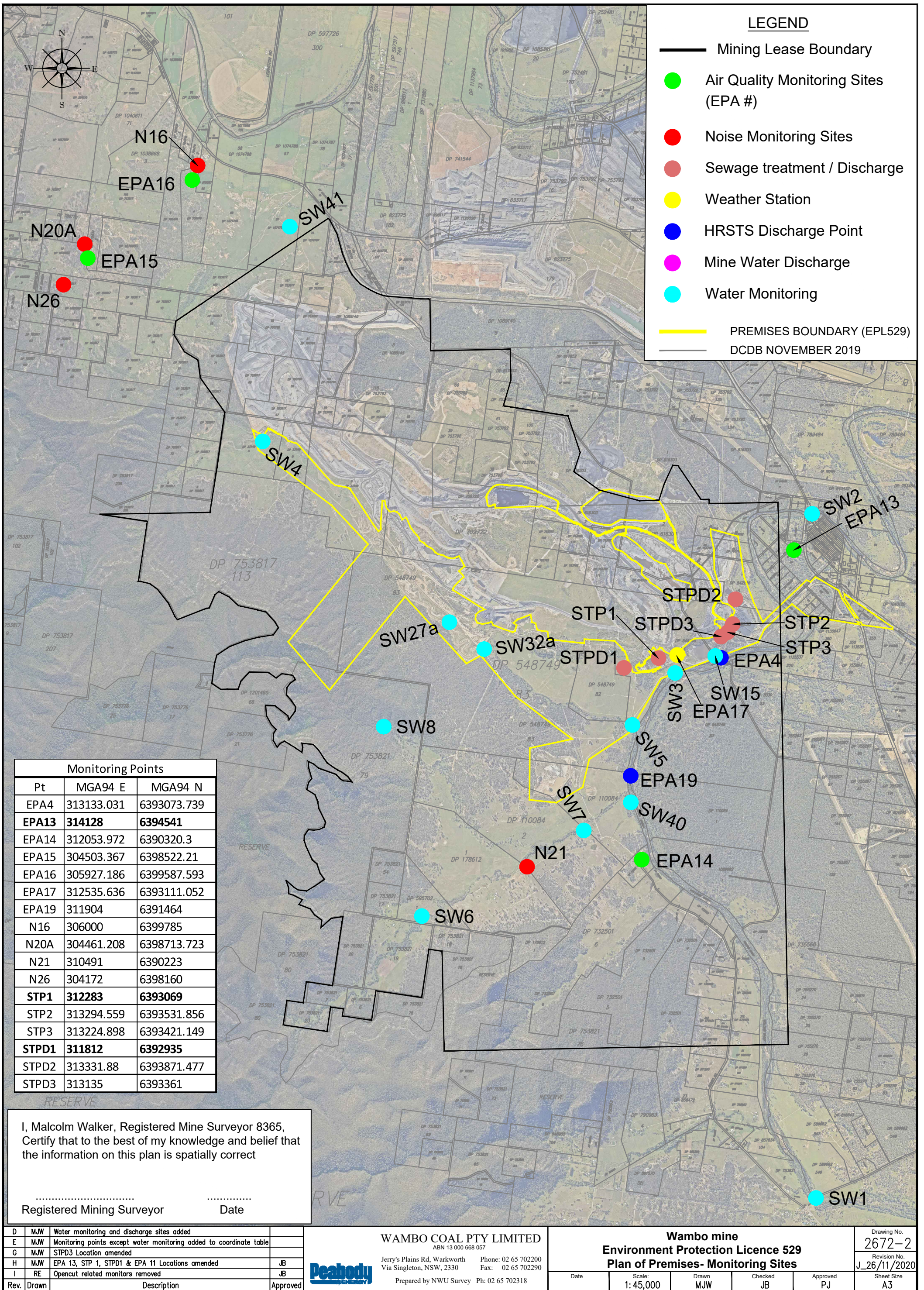
Meteorological Monitoring
Monitoring Frequency: Continuous
Sampling Method: Site Meteorological Station EPA17
Limits: Nil

Date sampled: continuous
Date obtained: continuous

Table 5 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN	Wind Speed at 10m			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
1/09/2023	15.4	6.9	20.0	15.4	8.3	19.3	57.5	44.2	100.0	249.6	944.0	0.2	2.2	0.2	5.4	139.4	25.7	83.8	11.8
2/09/2023	11.8	2.5	20.3	12.4	3.8	19.9	71.9	35.0	100.0	233.4	858.6	0.0	1.2	0.1	3.4	135.9	34.7	93.5	7.5
3/09/2023	12.6	3.5	20.9	13.1	5.0	20.4	73.6	36.1	100.0	222.9	854.4	0.0	1.2	0.1	4.3	155.4	29.6	92.4	5.8
4/09/2023	14.2	4.4	24.3	14.7	5.9	23.9	80.2	40.8	100.0	220.7	791.1	6.4	1.0	0.1	2.5	132.5	29.4	101.1	8.5
5/09/2023	17.0	7.7	26.2	17.7	8.7	25.6	52.4	15.3	100.0	262.6	899.2	0.2	2.4	0.1	5.0	238.1	29.4	102.2	6.6
6/09/2023	13.5	1.3	25.1	14.2	2.3	24.9	55.3	15.1	99.5	268.2	924.7	0.0	1.1	0.1	3.3	186.1	34.6	101.7	8.1
7/09/2023	17.2	2.9	30.7	18.2	4.1	30.3	60.5	20.4	100.0	238.2	855.8	0.0	1.5	0.0	5.9	213.7	30.6	90.4	5.3
8/09/2023	15.9	9.2	21.3	16.3	10.6	21.9	61.8	26.9	100.0	104.2	702.5	8.6	3.9	0.2	54.9	294.0	24.3	94.3	13.5
9/09/2023	12.3	5.4	20.0	12.5	7.2	19.4	54.0	23.4	85.6	276.0	933.9	0.0	2.6	0.2	4.6	282.9	23.8	75.3	14.4
10/09/2023	11.0	1.9	19.3	11.5	3.1	18.9	61.0	25.8	100.0	273.6	954.6	0.0	1.0	0.1	2.7	171.9	36.2	93.8	8.4
11/09/2023	11.3	1.4	20.4	11.8	2.6	19.8	68.6	33.8	100.0	243.8	963.0	0.0	1.2	0.0	3.9	151.6	27.4	94.0	5.0
12/09/2023	13.5	3.0	23.3	13.9	4.4	22.5	68.6	31.9	100.0	233.6	888.4	0.0	1.2	0.1	4.4	160.0	27.7	84.7	5.3
13/09/2023	14.8	3.2	25.6	15.3	4.2	25.3	66.3	22.9	100.0	269.0	922.2	0.0	1.3	0.1	5.0	186.8	26.5	87.6	4.9
14/09/2023	15.1	3.7	25.7	15.7	4.8	25.2	63.6	26.6	100.0	259.7	885.5	0.0	1.2	0.1	3.5	167.4	27.1	85.3	7.0
15/09/2023	16.3	3.8	29.6	17.1	4.8	29.1	57.5	15.2	100.0	251.3	892.9	0.0	1.4	0.1	3.5	249.0	24.8	100.7	5.1
16/09/2023	20.0	4.9	32.7	21.0	6.5	32.1	47.5	14.5	98.3	268.5	908.2	0.0	2.0	0.0	5.4	267.4	31.5	96.3	9.5
17/09/2023	20.8	7.6	34.1	22.0	10.3	33.5	42.5	11.7	90.0	273.1	914.7	0.0	1.9	0.1	5.5	222.2	27.5	94.5	6.1
18/09/2023	20.2	6.0	35.1	21.2	7.0	34.4	45.7	10.0	91.8	272.5	910.7	0.0	1.4	0.1	4.5	241.2	25.0	82.2	6.5
19/09/2023	22.8	8.6	33.8	23.8	10.5	33.1	37.3	13.7	83.6	271.4	913.0	0.0	2.4	0.0	5.6	270.1	28.0	89.2	15.2
20/09/2023	26.8	20.6	33.1	27.1	21.3	32.6	23.9	17.0	32.5	269.2	902.2	0.0	3.5	0.8	6.5	307.4	22.5	47.2	12.7
21/09/2023	19.8	13.9	27.2	20.3	15.1	26.9	46.1	12.5	68.5	278.7	954.2	0.0	2.8	0.2	6.3	158.9	23.5	75.1	10.9
22/09/2023	15.0	6.5	19.8	15.1	8.2	19.1	58.2	37.2	97.0	198.8	1001.1	0.0	2.5	0.1	5.1	142.3	18.9	63.1	4.9
23/09/2023	12.9	2.9	20.5	13.2	4.0	19.8	67.7	39.8	100.0	201.4	833.3	0.0	1.8	0.0	4.6	128.1	25.4	76.9	10.3
24/09/2023	14.5	4.8	23.1	14.9	7.2	22.5	64.8	32.4	100.0	283.1	940.1	0.0	1.8	0.0	5.3	150.7	22.5	84.4	4.5
25/09/2023	16.9	3.9	28.4	17.5	5.6	27.6	58.5	21.4	100.0	269.5	939.4	0.0	1.5	0.1	3.9	242.2	26.3	101.1	7.2
26/09/2023	17.9	5.8	28.7	18.2	7.0	27.9	64.5	21.9	100.0	212.9	967.3	1.2	1.6	0.1	5.3	176.8	26.9	84.2	8.6
27/09/2023	19.6	13.8	28.3	19.5	14.4	28.0	75.2	30.0	100.0	222.7	1019.5	1.6	1.8	0.1	5.6	179.2	26.6	83.4	8.7
28/09/2023	17.9	11.0	23.9	18.0	13.0	23.1	81.1	50.7	100.0	215.2	1086.5	0.0	1.9	0.2	4.6	151.7	19.7	85.6	7.9
29/09/2023	19.9	7.2	32.6	20.2	7.5	32.1	62.9	20.4	100.0	291.5	961.7	0.0	1.6	0.1	5.4	227.8	26.3	74.2	6.0
30/09/2023	21.1	9.2	33.3	21.7	10.8	32.5	59.6	16.0	100.0	291.5	960.1	0.0	1.4	0.0	4.7	212.8	28.8	100.0	6.5
Total	16.6	1.3	35.1	17.1	2.3	34.4	59.6	10.0	100.0	247.5	1086.5	18.2	1.8	0.0	54.9	198.7	27.0	102.2	4.5

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LEGEND

- Mining Lease Boundary
- Air Quality Monitoring Sites (EPA #)
- Noise Monitoring Sites
- Sewage treatment / Discharge
- Weather Station
- HRSTS Discharge Point
- Mine Water Discharge
- Water Monitoring
- PREMISES BOUNDARY (EPL529)
- DCDB NOVEMBER 2019

Monitoring Points		
Pt	MGA94 E	MGA94 N
EPA4	313133.031	6393073.739
EPA13	314128	6394541
EPA14	312053.972	6390320.3
EPA15	304503.367	6398522.21
EPA16	305927.186	6399587.593
EPA17	312535.636	6393111.052
EPA19	311904	6391464
N16	306000	6399785
N20A	304461.208	6398713.723
N21	310491	6390223
N26	304172	6398160
STP1	312283	6393069
STP2	313294.559	6393531.856
STP3	313224.898	6393421.149
STPD1	311812	6392935
STPD2	313331.88	6393871.477
STPD3	313135	6393361

I, Malcolm Walker, Registered Mine Surveyor 8365, Certify that to the best of my knowledge and belief that the information on this plan is spatially correct

.....
Registered Mining Surveyor Date

Rev.	Drawn	Description	Approved
D	MJW	Water monitoring and discharge sites added	
E	MJW	Monitoring points except water monitoring added to coordinate table	
G	MJW	STPD3 Location amended	
H	MJW	EPA 13, STP 1, STPD1 & EPA 11 Locations amended	JB
I	RE	Opencut related monitors removed	JB

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Wambo mine
 Environment Protection Licence 529
 Plan of Premises- Monitoring Sites

Drawing No.
2672-2
 Revision No.
J_26/11/2020
 Sheet Size
A3

Date	Scale:	Drawn	Checked	Approved
	1: 45,000	MJW	JB	PJ