

**WAMBO COAL
POLLUTION MONITORING DATA
1 DECEMBER 2020 – 31 DECEMBER 2020
DECEMBER REPORT**

Published 27 January 2021

**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	29/12/2020	6.96	333	8	
Point 25	SW02	29/12/2020	7.09	347	6	
Point 26	SW03	29/12/2020	7.02	318	8	
Point 27	SW04	29/12/2020				No Flow
Point 28	SW05	29/12/2020				No Flow
Point 29	SW06	29/12/2020	6.91	360	<5	
Point 30	SW07	29/12/2020	7.03	294	20	
Point 31	SW08	29/12/2020				Inaccessible
Point 33	SW15	29/12/2020				
Point 34	SW27a	29/12/2020	7.79	586	356	
Point 36	SW32a	29/12/2020	7.65	431	139	
Point 39	SW39	29/12/2020				No Flow
Point 40	SW40	29/12/2020	6.98	260	9	
Point 41	SW41	29/12/2020				No Flow

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	TSS (mg/L)	Turbidity (NTU)	Volume (ML/day)	Comments
Point 4						No Discharges
Point 19						No Discharges

Sewerage Treatment Monitoring

Monitoring Frequency: Quarterly during discharge
 Sampling Method: Grab sample
 Limits: Nil
 Date sampled: 7 December 2020
 Date obtained:

Table 3- WCPL Discharge Monitoring

EPL ID	Site ID	Date	pH	Faecal Coliforms	Comments
Point 42	STPD2	-	-	-	No discharge
Point 43	STPD3				No sample in December
Point 52	STP2	7/12/20	6.53	1300	-
Point 55	STPD1	-	-	-	No discharge

PM10 Monitoring
Monitoring Frequency: Continuous
Sampling Method: AM22
Limits: Nil

Date sampled: Continuous
Date obtained: Continuous

Table 4 - WCPL PM10 Results

Date of Run	PM02 - Wambo Road (Caban) (EPA14)		PM03 - Thelander (EPA15)		PM04 - Muller (EPA16)		PM05 - Kelly (EPA 53)	
	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
1/12/2020	47.6	19.70	23.3	15.01	33.3	20.34	27.1	16.32
2/12/2020	20.2	19.71	NaN	15.01	21.6	20.35	23.1	16.53
3/12/2020	16.4	19.70	NaN	15.01	15.2	20.33	16.0	16.51
4/12/2020	16.5	19.69	NaN	15.01	17.1	20.32	19.7	16.61
5/12/2020	20.7	19.69	25.9	15.05	23.1	20.33	24.6	16.84
6/12/2020	14.6	19.67	16.7	15.05	13.5	20.31	21.2	16.96
7/12/2020	14.4	19.66	14.9	15.05	14.9	20.29	18.3	16.99
8/12/2020	11.3	19.64	9.0	15.03	11.0	20.27	5.6	16.69
9/12/2020	21.6	19.64	17.4	15.04	19.0	20.26	15.0	16.65
10/12/2020	20.6	19.64	19.1	15.05	27.2	20.28	24.3	16.84
11/12/2020	10.3	19.62	12.5	15.04	14.5	20.27	17.1	16.85
12/12/2020	10.5	19.59	16.9	15.05	22.7	20.27	17.6	16.87
13/12/2020	9.6	19.56	11.8	15.04	17.7	20.27	14.2	16.80
14/12/2020	12.6	19.54	14.1	15.04	14.1	20.25	9.8	16.64
15/12/2020	5.5	19.50	0.5	14.99	6.1	20.21	4.2	16.37
16/12/2020	9.4	19.47	7.1	14.97	9.4	20.18	12.2	16.28
17/12/2020	5.5	19.43	7.7	14.95	6.5	20.14	11.6	16.18
18/12/2020	11.0	19.41	8.3	14.93	10.7	20.11	9.9	16.04
19/12/2020	7.7	19.38	11.0	14.92	12.5	20.09	13.2	15.99
20/12/2020	8.3	19.34	8.4	14.90	12.5	20.07	9.6	15.86
21/12/2020	7.1	19.31	4.5	14.87	10.7	20.04	11.7	15.78
22/12/2020	2.0	19.26	3.6	14.84	3.9	19.99	5.7	15.58
23/12/2020	11.6	19.24	6.6	14.81	12.6	19.97	14.3	15.56
24/12/2020	15.9	19.23	8.6	14.80	16.0	19.96	12.2	15.50
25/12/2020	12.1	19.21	4.7	14.77	15.5	19.95	6.1	15.32
26/12/2020	10.6	19.19	NaN	14.77	12.2	19.93	11.4	15.25
27/12/2020	14.2	19.17	NaN	14.77	12.1	19.91	13.4	15.22
28/12/2020	11.9	19.15	NaN	14.77	12.1	19.88	11.1	15.15
29/12/2020	5.6	19.12	7.0	14.74	8.4	19.85	5.3	14.98
30/12/2020	5.0	19.08	3.6	14.71	8.2	19.82	6.5	14.84
31/12/2020	6.3	19.04	5.7	14.69	7.9	19.79	9.6	14.76

*NaN >75% of data collected during period

Meteorological Monitoring

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

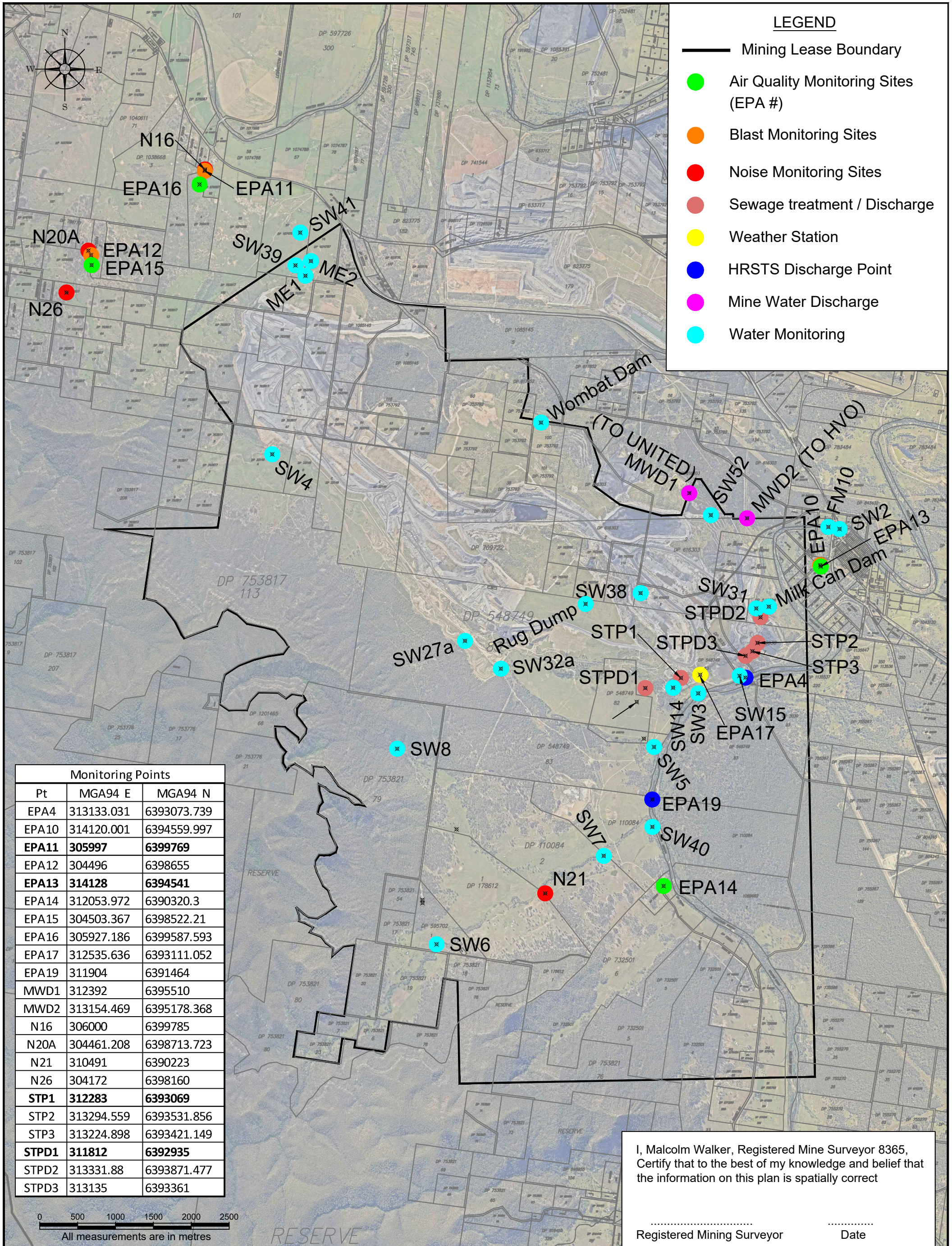
Limits: Nil

Date sampled: continuous

Date obtained: continuous

Table 5 - WCPL Meteorology

Date	Temperature (2m)			Temperature (10m)			Humidity			Solar Radiation		RAIN	Wind Speed			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
1/12/2020	29.8	20.1	37.8	29.6	19.9	37.4	57.0	34.6	100.0	535.3	1126.9	11.0	2.2	0.0	7.9	113	33.1	99.1	10.9
2/12/2020	21.6	17.9	23.6	21.6	17.9	23.8	85.7	69.9	100.0	107.0	721.2	0.0	2.7	0.1	5.7	133	21.5	88.4	8.9
3/12/2020	20.8	17.7	24.6	20.7	17.8	24.1	82.4	67.5	97.0	127.7	840.7	0.0	2.0	0.2	3.6	129	21.6	77.5	10.1
4/12/2020	26.5	17.7	36.8	26.5	18.2	36.3	57.8	20.9	100.0	373.7	1288.0	0.0	2.2	0.1	5.2	220	23.7	93.2	5.9
5/12/2020	22.4	16.4	27.4	22.7	17.8	27.4	68.5	47.5	100.0	194.0	1157.3	11.8	2.0	0.1	9.3	178	23.5	100.1	5.8
6/12/2020	25.7	19.1	31.6	25.8	21.3	31.1	53.6	21.2	100.0	418.4	1216.1	0.4	4.4	0.2	7.7	283	20.7	88.3	14.4
7/12/2020	23.3	14.7	30.6	23.6	15.8	30.0	41.0	19.4	89.7	367.5	1280.4	0.0	3.2	0.1	7.1	257	21.2	85.6	7.3
8/12/2020	20.4	13.7	27.2	20.5	14.9	26.4	41.1	17.4	82.3	429.1	1250.0	0.0	2.9	0.2	6.1	185	23.4	70.4	7.6
9/12/2020	19.5	9.4	28.5	19.5	9.8	27.9	59.9	26.1	99.3	396.8	1211.8	0.0	1.6	0.1	5.7	142	28.4	97.9	6.7
10/12/2020	21.8	13.3	32.5	21.7	13.7	31.8	61.7	20.8	95.6	353.9	1323.3	0.0	2.4	0.1	6.8	194	26.0	86.2	4.0
11/12/2020	18.1	15.3	20.6	18.0	15.3	20.3	67.6	51.1	97.7	98.1	499.0	1.6	2.9	1.2	5.3	145	17.7	24.2	12.1
12/12/2020	19.4	15.0	23.2	19.3	15.3	22.4	58.8	41.2	79.8	271.8	1279.7	0.0	3.7	1.1	7.2	123	16.6	31.0	8.2
13/12/2020	20.4	15.5	24.8	20.2	16.1	24.2	67.9	48.9	88.7	288.4	1255.0	0.0	3.4	0.8	7.0	121	17.4	33.6	6.9
14/12/2020	20.5	17.8	22.8	20.5	17.9	22.7	78.2	59.7	95.3	135.6	641.8	3.2	3.3	1.2	6.7	122	19.9	49.8	12.5
15/12/2020	21.0	17.7	23.6	21.0	17.6	23.5	97.3	84.2	100.0	64.6	288.0	28.8	2.3	1.1	14.0	144	17.3	28.2	8.6
16/12/2020	25.8	21.6	32.1	25.7	21.7	31.6	80.0	46.9	100.0	304.8	1292.4	2.0	1.5	0.0	5.6	137	26.6	84.9	7.8
17/12/2020	25.2	19.1	32.4	25.1	19.5	32.0	82.0	48.5	100.0	312.1	1346.1	27.4	1.6	0.1	10.0	227	28.2	96.5	8.2
18/12/2020	23.5	19.1	30.3	23.6	19.4	30.1	86.3	58.6	100.0	138.2	875.3	17.0	1.8	0.1	4.9	227	27.3	99.1	7.5
19/12/2020	20.2	18.8	21.8	20.2	18.8	22.0	90.6	79.7	100.0	76.5	580.2	4.6	2.3	0.9	4.8	128	16.9	30.8	9.4
20/12/2020	20.5	19.1	22.7	20.5	19.2	22.4	87.0	76.9	100.0	88.2	515.6	0.0	1.3	0.1	2.7	155	21.1	88.3	7.3
21/12/2020	19.7	18.4	22.1	19.7	18.4	21.9	96.4	79.8	100.0	73.5	325.3	34.6	1.1	0.1	2.8	158	19.4	81.7	7.0
22/12/2020	22.3	18.4	27.9	22.4	18.3	27.4	69.4	36.4	100.0	256.6	1253.1	6.6	3.4	0.4	6.1	286	20.9	65.3	12.9
23/12/2020	20.8	13.2	27.7	20.9	14.4	26.8	55.7	36.0	85.1	362.2	1435.6	0.0	2.2	0.1	5.8	188	30.8	93.5	8.6
24/12/2020	22.0	15.3	29.6	22.0	15.5	29.2	68.3	36.2	100.0	330.7	1428.9	0.0	1.1	0.1	2.9	190	29.7	95.2	6.0
25/12/2020	21.6	18.2	25.1	21.6	18.9	24.7	71.0	54.2	92.9	237.1	1324.9	0.0	2.8	0.1	5.8	142	19.7	92.5	9.5
26/12/2020	22.0	17.4	27.4	21.9	17.8	26.9	73.3	51.6	100.0	273.8	1446.5	1.8	2.2	0.3	5.1	131	22.8	91.1	8.2
27/12/2020	24.7	16.4	32.4	24.9	16.6	32.0	70.4	41.4	100.0	395.8	1219.1	0.6	2.3	0.1	6.0	231	24.1	78.2	5.1
28/12/2020	25.0	17.9	32.7	25.2	17.7	32.3	66.2	38.7	100.0	278.9	1237.9	36.4	3.0	0.3	8.0	263	23.2	81.4	8.7
29/12/2020	19.6	17.4	23.9	19.5	17.5	23.3	92.4	68.8	100.0	119.2	858.3	9.0	1.4	0.0	4.3	153	24.4	102.9	7.7
30/12/2020	20.9	18.4	25.8	20.7	18.5	25.1	85.4	63.0	100.0	285.3	1293.3	5.8	2.2	0.8	4.4	154	18.4	34.2	9.7
31/12/2020	19.7	18.4	21.8	19.7	18.3	21.8	95.6	80.1	100.0	93.9	680.2	6.4	1.9	0.8	3.8	157	16.5	35.8	9.9
	22.0	9.4	37.8	22.0	9.8	37.4	72.7	17.4	100.0	248.5	1446.5	209.0	2.4	0.0	14.0	175	22.5	102.9	4.0



LEGEND

- Mining Lease Boundary
- Air Quality Monitoring Sites (EPA #)
- Blast Monitoring Sites
- Noise Monitoring Sites
- Sewage treatment / Discharge
- Weather Station
- HRSTS Discharge Point
- Mine Water Discharge
- Water Monitoring

Monitoring Points		
Pt	MGA94 E	MGA94 N
EPA4	313133.031	6393073.739
EPA10	314120.001	6394559.997
EPA11	305997	6399769
EPA12	304496	6398655
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
MWD1	312392	6395510
MWD2	313154.469	6395178.368
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

0 500 1000 1500 2000 2500
All measurements are in metres

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

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Registered Mining Surveyor Date