

**WAMBO COAL
POLLUTION MONITORING DATA
1 OCTOBER 2020 – 31 OCTOBER 2020**

OCTOBER REPORT

Published 24 November 2020

**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	26/10/2020	7.2	755	<5	
Point 25	SW02	26/10/2020	7.2	660	<5	
Point 26	SW03	26/10/2020	7.3	670	<5	
Point 27	SW04	26/10/2020	-	-	-	No Flow
Point 28	SW05	26/10/2020	-	-	-	No Flow
Point 29	SW06	26/10/2020	7.0	460	276	
Point 30	SW07	26/10/2020	-	-	-	No Flow
Point 31	SW08	26/10/2020	-	-	-	No Access
Point 32	SW14	20/10/2020	8.7	655	6	
Point 33	SW15	20/10/2020	9.0	8000	26	
Point 34	SW27a	26/10/2020	7.9	785	107	
Point 35	SW31	20/10/2020	9.3	9200	31	
Point 36	SW32a	26/10/2020	7.7	572	276	
Point 37	SW38	20/10/2020	9.1	8690	<5	
Point 38	SW12	26/10/2020	8.8	7120	12	
Point 39	SW39	26/10/2020	-	-	-	No Flow
Point 40	SW40	26/10/2020	7.3	679	<5	
Point 41	SW41	26/10/2020	-	-	-	No Flow
Point 46	SW52	20/10/2020	9.1	4700	8	
Point 47	Wombat Dam	20/10/2020	10.2	655	11	
Point 48	Milk Can Dam	20/10/2020	9.4	2830	9	
Point 49	Rug Dump Dam	20/10/2020	-	-	-	Dry
Point 50	Montrose East 1	26/10/2020	8.5	459	168	
Point 51	Montrose East 2	26/10/2020	8.4	523	57	

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: No sample in October
Date obtained: No sample in October

Table 3- WCPL Discharge Monitoring

EPL ID	Site ID	Date	pH	Faecal Coliforms	Comments
Point 18	STPD1	-	-	-	No sample in October
Point 42	STPD2	-	-	-	No sample in October
Point 52	STP2	-	-	-	No sample in October

PM10 Monitoring

Monitoring Frequency: Continuous

Sampling Method: AM22

Limits: Nil

Date sampled: Continuous

Date obtained: Continuous

Table 4 - WCPL PM10 Results

Date of Run	PM01 - Coralie (EPA13)		PM02 - Wambo Road (Caban) (EPA14)		PM03 - Thelander (EPA15)		PM04 - Muller (EPA16)	
	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
01/10/2020	17.2	20.57	10.6	19.78	7.4	15.07	13.5	20.14
02/10/2020	16.8	20.55	16.7	19.77	13.2	15.07	22.3	20.14
03/10/2020	33.5	20.60	24.5	19.79	15.9	15.07	23.3	20.15
04/10/2020	34.5	20.65	20.5	19.79	14.9	15.07	18.9	20.15
05/10/2020	26.9	20.67	23.4	19.80	16.6	15.08	16.7	20.14
06/10/2020	25.0	20.69	17.3	19.79	23.4	15.11	28.4	20.17
07/10/2020	31.1	20.72	17.8	19.79	21.1	15.13	29.3	20.20
08/10/2020	26.8	20.75	17.3	19.78	16.7	15.13	19.5	20.20
09/10/2020	22.3	20.75	20.6	19.78	4.5	15.09	6.8	20.15
10/10/2020	11.7	20.72	14.2	19.76	6.4	15.06	7.5	20.10
11/10/2020	22.1	20.72	20.6	19.77	11.1	15.05	20.1	20.10
12/10/2020	29.5	20.75	23.5	19.78	20.9	15.07	33.0	20.15
13/10/2020	32.1	20.79	25.5	19.80	NaN	15.07	31.3	20.19
14/10/2020	36.0	20.85	26.1	19.82	24.4	15.10	32.1	20.23
15/10/2020	37.4	20.90	24.2	19.84	14.0	15.10	19.0	20.23
16/10/2020	46.0	20.99	27.3	19.86	26.4	15.14	32.7	20.27
17/10/2020	30.0	21.02	35.2	19.91	29.6	15.19	24.9	20.29
18/10/2020	11.8	20.99	7.0	19.87	2.8	15.15	6.8	20.24
19/10/2020	17.3	20.98	15.5	19.85	9.9	15.13	17.6	20.23
20/10/2020	21.2	20.98	12.6	19.83	13.2	15.12	21.1	20.23
21/10/2020	31.9	21.02	19.6	19.83	14.0	15.12	36.7	20.29
22/10/2020	28.5	21.04	23.7	19.84	16.2	15.12	29.6	20.32
23/10/2020	28.0	21.07	25.9	19.86	17.3	15.13	26.6	20.34
24/10/2020	11.6	21.03	9.2	19.83	7.9	15.10	8.4	20.30
25/10/2020	6.0	20.98	3.6	19.77	0.7	15.06	5.0	20.25
26/10/2020	4.2	20.93	3.7	19.72	1.9	15.01	4.4	20.20
27/10/2020	7.4	20.88	5.6	19.67	2.5	14.97	8.4	20.16
28/10/2020	8.6	20.84	7.4	19.63	5.9	14.94	8.2	20.12
29/10/2020	8.9	20.80	5.7	19.59	6.2	14.91	9.6	20.08
30/10/2020	18.9	20.80	10.2	19.55	8.4	14.89	15.4	20.07
31/10/2020	21.1	20.80	9.7	19.52	7.4	14.86	11.0	20.04

*NaN due to power outage >75% of data collection period

Blast Monitoring

Monitoring Frequency: Every blast

Airblast Overpressure Limit: 120 dBL
115 dBL (5% of blast each year)

Ground Vibration Limit: 10mm/s
5mm/s (5% of blast each year)

Date sampled: Continuous

Date obtained: Continuous

Table 5 - WCPL Blast Monitoring Results

Date & Time	ID	BM02 – Kelly (EPA10)		BM05 – Muller (EPA11)		BM07 – Thelander (EPA12)	
		dBL	mm/sec	dBL	mm/sec	dBL	mm/sec
Thurs/01/Oct/2020 1010hrs	WTA_500_8_part2	91.5	0.26	98.0	0.43	97.6	0.41
Fri/02/Oct/2020 1508hrs	WMA_506R	83.2	0.07	93.0	0.01	84.5	0.00
Fri/09/Oct/2020 1200hrs	WMA_524 (reshoot)	86.2	0.05	94.1	0.13	91.2	0.08
Sat/17/Oct/2020 1034hrs	WMA_520 (Ramp)	91.4	0.27	100.2	0.37	94.7	0.34
Fri/23/Oct/2020	WTA_500_7	89.6	0.3	99.8	0.49	95.4	0.31

Refer to Annual Blasting Report for Annual compliance limits

Meteorological Monitoring

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

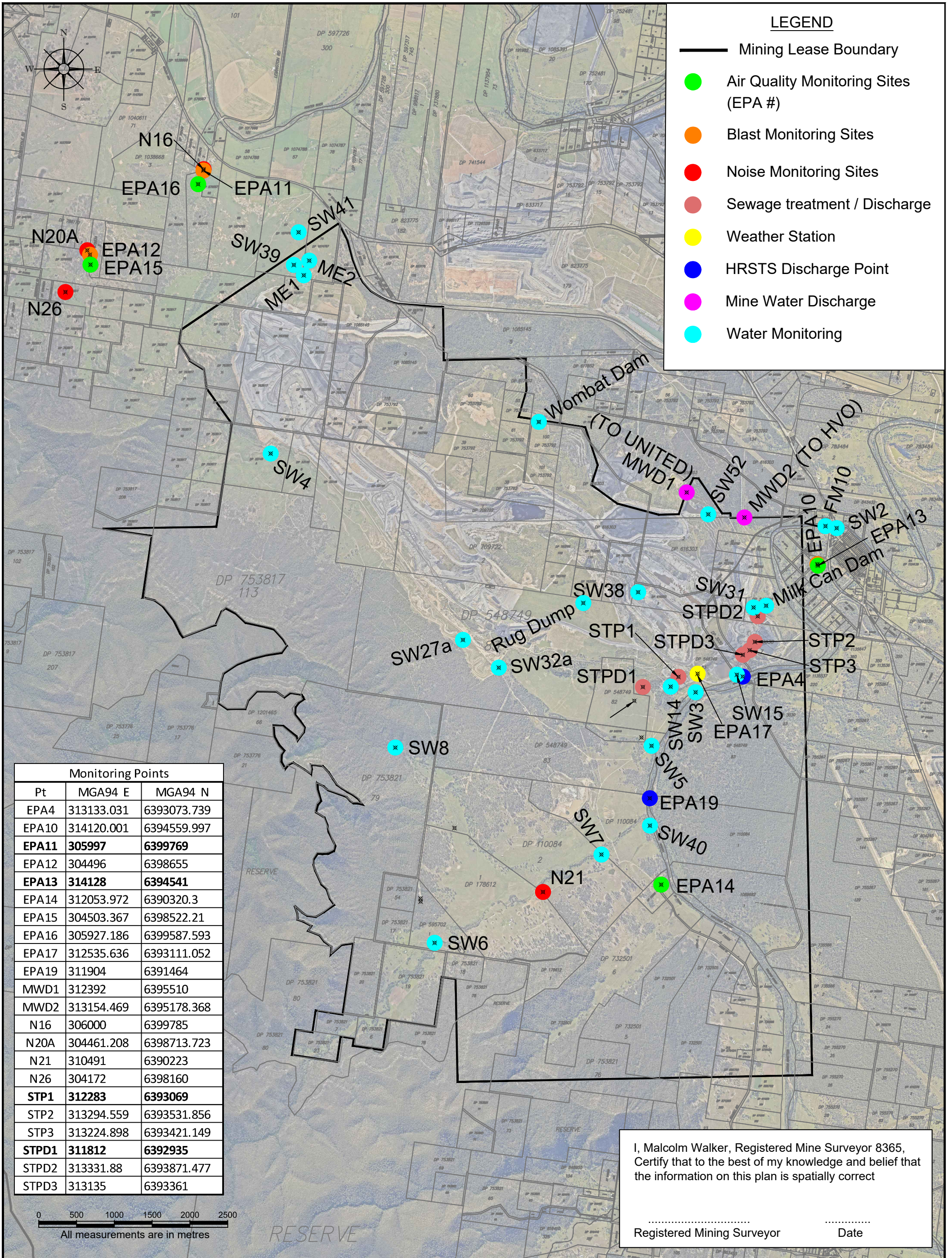
Limits: Nil

Date sampled: continuous

Date obtained: continuous

Table 6 - 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
01/10/2020	18.5	9.7	26.2	18.8	11.4	25.6	56.5	29.3	82.3	253	1050	0.2	3.3	0.2	6.3	281	19.8	80.1	9.7
02/10/2020	16.2	5.4	27.8	16.8	6.0	27.4	62.1	19.7	100	320	1029	0	1.1	0.1	3.5	219.5	26.2	102.2	6.3
03/10/2020	16.2	5.2	30.3	18.5	6.2	30.1	58.1	15.1	100	320	1037	0	0.9	0.1	2.5	166.3	33.3	89.1	5.5
04/10/2020	17.9	8.5	31.4	21.4	9.5	31.0	56.8	21.9	100	344	1014	0	1.7	0.1	4.1	231.4	25.7	87.5	6.1
05/10/2020	20.9	9.1	31.3	21.4	9.9	30.8	58.6	25.7	98	313	1012	0	1.9	0.1	5.5	231.2	28.2	96.0	5.0
06/10/2020	20.7	12.9	24.1	18.6	14.4	23.5	73.7	54.3	89	203	1074	0	2.1	0.2	4.8	137.5	22.6	85.3	7.9
07/10/2020	18.4	17.1	25.1	20.1	17.2	24.6	74.0	54.0	95	183	1109	0	1.8	0.2	4.3	104.8	23.4	101.8	11.2
08/10/2020	20.2	13.9	30.6	22.8	14.4	30.1	63.8	30.5	100	296	989	0.2	2.8	0.1	6.6	241.1	26.5	89.5	6.9
09/10/2020	22.8	10.6	24.0	18.6	13.0	23.4	45.5	27.8	72	284	1166	0	2.9	0.5	5.2	282.6	21.7	65.1	7.5
10/10/2020	18.4	6.4	26.6	18.3	7.9	26.0	48.0	22.2	98	317	1038	0	1.6	0.1	4.2	239.3	34.7	92.7	8.9
11/10/2020	17.6	5.5	27.7	18.4	6.3	27.0	48.4	21.5	94	288	1152	0	1.2	0.1	3.3	172.7	30.2	88.1	5.4
12/10/2020	17.8	11.2	28.1	20.2	12.6	27.6	57.1	25.4	86	299	1045	0	2.0	0.2	6.0	133.6	24.2	74.0	5.8
13/10/2020	20.0	9.8	29.8	20.7	10.6	29.3	58.2	21.4	100	311	1051	0	1.5	0.0	5.6	159.1	29.2	96.0	6.7
14/10/2020	19.6	12.9	24.9	19.5	13.6	24.2	65.4	44	96.2	244.2	1110	0	1.9	0.1	5	115	20.5	49.4	6.5
15/10/2020	20.8	10.7	30.9	21.2	11.5	30.3	63.3	22	100	303.4	985.9	0	1.3	0.1	4.4	315	22.3	79.3	6.6
16/10/2020	19.6	12.5	26.7	20.1	14.8	26.1	63.7	41.4	82.4	202.9	1141.5	0	1.9	0.2	5.7	101	25.2	92.7	11
17/10/2020	23.6	17.1	33	23.6	17.2	32.4	57.4	21.5	84.6	249.3	1119.6	0.4	1.2	0.2	6.2	311	25.9	89.8	8.7
18/10/2020	20.1	17.2	23.3	20.1	17.4	23.3	71.6	49.8	91	113.2	684.7	0.6	3	0.5	5.9	304	20.5	77.5	11.4
19/10/2020	18	14.3	21.3	17.9	15.1	20.7	72.6	55.4	93.9	142.7	740.3	0.2	2	0.6	4.8	121	19.4	39.9	8.2
20/10/2020	17.7	10.2	24.6	17.8	12	23.9	73.3	40.4	100	232.7	1188.3	0	1.6	0.1	5.1	117	22.3	70.9	6.5
21/10/2020	19.2	9.9	28.2	19.3	11	27.7	68.5	33.7	100	314.2	1171.1	0	1.1	0.2	5.8	113	26.9	100.9	6.8
22/10/2020	21.5	14.3	28.5	21.6	14.8	27.8	63.9	35.5	93	286.1	1203.6	0	1.1	0.1	5.4	87	28.5	82.7	9.8
23/10/2020	22	12	31.3	22.1	12.8	30.8	68.5	33	100	310.3	1191.6	0	0.6	0.2	4.7	74	27.9	90.6	7.0
24/10/2020	19.9	16.8	23.5	19.9	16.7	23	94.5	76.6	100	81.4	606.7	45.6	1.1	0	4.6	320	27.3	91.4	6.2
25/10/2020	15.3	13	18.3	15.3	12.9	18.5	92.4	76.1	100	83.2	711.2	13.8	1.7	0.3	4.1	146	21.0	70.8	10.1
26/10/2020	14.8	13.8	16.8	14.9	13.9	16.5	86.5	73.1	100	140	986.2	12.8	3.3	0.3	5.9	168	17.1	69.1	10.3
27/10/2020	16.5	13.6	20.2	16.4	13.6	19.8	74.2	60.8	84.6	200.1	948.4	0	2.2	0.8	4.4	154	18.5	34.9	8.9
28/10/2020	15.7	13.2	20.1	15.7	12.9	19.6	87.4	67.8	100	141.6	1213.7	17.2	1.5	0.2	4.8	113	19.2	89.7	8.0
29/10/2020	16.5	12.9	23.8	16.5	13.2	23.3	85	48.5	100	207.5	1248.3	10.4	0.7	0.1	5.5	170	30.3	89.0	7.9
30/10/2020	16.5	9.2	23.6	16.6	9.8	23.4	80.7	48.6	100	255.5	1166.6	0.4	1.5	0.1	6.2	119	26.0	85.8	5
31/10/2020	19.5	14.4	25.9	19.6	14.5	25.3	67	25.9	97.5	334.6	1276.2	0.2	1.3	0.1	9.4	258	23.9	75.3	7.7
	18.9	5.2	33	19.1	6.0	32.4	67.7	15.1	100	243.8	1276.2	102	1.5	0	9.4	193.7	24.8	102.2	5.0



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

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