

**WAMBO COAL
POLLUTION MONITORING DATA
1 JULY 2022 – 30 JULY 2022**

JULY MONTHLY REPORT

Published 23 August 2022

**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 | 04/07/2022 | 7.12 | 365 | 112 | |
| Point 25 | SW02 | 04/07/2022 | 7.16 | 378 | 114 | |
| Point 26 | SW03 | 04/07/2022 | 7.08 | 202 | 142 | |
| Point 27 | SW04 | 04/07/2022 | 6.95 | 165 | 36 | |
| Point 28 | SW05 | 04/07/2022 | 7.12 | 150 | 215 | |
| Point 29 | SW06 | 04/07/2022 | 6.75 | 128 | 82 | |
| Point 30 | SW07 | 04/07/2022 | 6.85 | 132 | 143 | |
| Point 31 | SW08 | 04/07/2022 | 7.16 | 247 | 89 | |
| Point 33 | SW15 | 04/07/2022 | 8.65 | 2560 | 6 | |
| Point 34 | SW27a | 04/07/2022 | 7.05 | 159 | 310 | |
| Point 36 | SW32a | 04/07/2022 | 7.10 | 163 | 316 | |
| Point 39 | SW39 | 04/07/2022 | 7.30 | 84 | 76 | |
| Point 40 | SW40 | 04/07/2022 | 6.56 | 67 | 24 | |
| Point 41 | SW41 | 04/07/2022 | 7.10 | 82 | 15 | |

Water Discharge Monitoring
Monitoring Frequency:

Sampling Method:

Limits:

Date sampled: Continuous
Date obtained: Continuous

Continuous during discharge (EC, pH, Turbidity)
Daily during discharge (TSS, Volume)
In line instrumentation (EC, pH Turbidity)
Grab sample (TSS)
pH- 6.5 to 9.5
TSS – 120
Volume – 250ML/day

Table 2 - WCPL Discharge Monitoring

| Site | Date | pH | Conductivity (µS/cm) Avg | TSS (mg/L) | Turbidity (NTU) | Volume (ML/day) | Comments |
|-----------------|-----------------------|------|--------------------------|------------|-----------------|-----------------|----------|
| Point 4 | | | | | | | |
| | 4/07/2022 | 8.68 | 3550 | 59 | 130 | 2.4 | |
| | 5/07/2022 | 8.63 | 3800 | 42 | 85 | 30.1 | |
| | 6/07/2022 | 8.65 | 2730 | 95 | 200 | 41.7 | |
| | 7/07/2022 | 0 | 0 | 0 | 0 | 0.0 | |
| | 8/07/2022 | 8.67 | 2670 | 39 | 140 | 14.2 | |
| | 9/07/2022 | 8.64 | 3100 | 54 | 130 | 92.5 | |
| | 10/07/2022 | 8.69 | 2970 | 23 | 32 | 60.7 | |
| | 11/07/2022 | 8.67 | 2780 | 10 | 16 | 78.8 | |
| | 12/07/2022 | 8.65 | 2770 | 16 | 17 | 97.0 | |
| | 13/07/2022 | 8.65 | 2660 | 12 | 13 | 98.9 | |
| | 14/07/2022 | 8.63 | 3070 | 26 | 32 | 93.6 | |
| | 15/07/2022 | 8.68 | 2880 | 56 | 85 | 63.8 | |
| | 16/07/2022 | 8.68 | 3160 | 7 | 16 | 44.4 | |
| | 17/07/2022 | 8.66 | 3740 | 7 | 17 | 35.9 | |
| | 18/07/2022 | 8.69 | 4220 | 8 | 15 | 25.3 | |
| | 19/07/2022 | 8.72 | 3420 | 17 | 16 | 23.6 | |
| | 20/07/2022 | 8.73 | 2950 | 18 | 20 | 24.5 | |
| | 21/07/2022 | 8.66 | 3130 | 10 | 16 | 22.8 | |
| | 22/07/2022 | 8.7 | 3290 | 13 | 25 | 18.3 | |
| | 23/07/2022 | 8.7 | 3480 | 14 | 16 | 21.5 | |
| | 24/07/2022 | 8.77 | 3530 | 10 | 11 | 20.1 | |
| | 25/07/2022 | 8.81 | 3590 | 9 | 7.6 | 16.8 | |
| | 26/07/2022 | 8.76 | 3360 | 12 | 4.7 | 14.2 | |
| | 27/07/2022 | 8.72 | 3860 | 12 | 6 | 12.9 | |
| | 28/07/2022 | 8.65 | 4140 | <5 | 5.7 | 15.2 | |
| | 29/07/2022 | 8.66 | 4250 | 10 | 6.5 | 14.8 | |
| | 30/07/2022 | 8.7 | 4410 | 6 | 5.6 | 10.6 | |
| | 31/07/2022 | 8.65 | 4440 | 7 | 5.1 | 8.9 | |
| Point 19 | No Discharges in July | | | | | | |

Sewerage Treatment Monitoring

Monitoring Frequency: Quarterly during discharge

Sampling Method: Grab sample

Limits: Nil

Date sampled: No sample in July

Date obtained:

Table 3- WCPL Discharge Monitoring

| EPL ID | Site ID | Date | pH | Faecal Coliforms | Comments |
|----------|---------|------|----|------------------|--------------|
| Point 42 | STPD2 | | | | No sample |
| Point 52 | STP2 | | | | No sample |
| 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 | PM02 - Wambo Road (Caban) (EPA14) | | PM03 - Thelander (EPA15) | | PM04 - Muller (EPA16) | | PM05 - 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 |
| 1/07/2022 | 8.0 | 11.09 | 8.9 | 8.20 | 15.6 | 12.84 | 13.1 | 15.46 |
| 2/07/2022 | 4.8 | 11.07 | 4.3 | 8.18 | 9.0 | 12.82 | 6.7 | 15.45 |
| 3/07/2022 | 5.2 | 11.07 | 2.4 | 8.18 | 3.8 | 12.82 | 5.6 | 15.43 |
| 4/07/2022 | 4.4 | 11.07 | 2.3 | 8.18 | 4.2 | 12.82 | 1.8 | 15.41 |
| 5/07/2022 | 4.2 | 11.06 | 0.3 | 8.17 | 4.8 | 12.82 | 2.3 | 15.39 |
| 6/07/2022 | 2.3 | 11.05 | 0.3 | 8.17 | 2.4 | 12.81 | 0.8 | 15.36 |
| 7/07/2022 | 4.0 | 11.04 | 1.6 | 8.16 | 3.8 | 12.81 | 3.0 | 15.35 |
| 8/07/2022 | 0.8 | 11.01 | 3.3 | 8.15 | 5.6 | 12.80 | 6.9 | 15.34 |
| 9/07/2022 | 5.7 | 10.99 | 4.2 | 8.15 | 5.9 | 12.79 | 7.7 | 15.31 |
| 10/07/2022 | 7.3 | 10.98 | 3.6 | 8.14 | 7.1 | 12.78 | 5.3 | 15.29 |
| 11/07/2022 | 4.7 | 10.98 | 3.9 | 8.15 | 6.5 | 12.78 | 4.6 | 15.29 |
| 12/07/2022 | 5.8 | 10.97 | 3.7 | 8.14 | 5.5 | 12.77 | 6.0 | 15.29 |
| 13/07/2022 | 4.5 | 10.96 | 2.2 | 8.14 | 3.8 | 12.76 | 5.2 | 15.27 |
| 14/07/2022 | 5.7 | 10.96 | 3.8 | 8.14 | 6.4 | 12.76 | 5.0 | 15.25 |
| 15/07/2022 | 5.2 | 10.95 | 0.2 | 8.12 | 4.8 | 12.75 | 5.6 | 15.23 |
| 16/07/2022 | 6.9 | 10.95 | 2.8 | 8.10 | 5.5 | 12.75 | 12.7 | 15.24 |
| 17/07/2022 | 15.4 | 10.97 | 4.3 | 8.09 | 7.9 | 12.75 | 22.1 | 15.26 |
| 18/07/2022 | 7.5 | 10.95 | 3.4 | 8.08 | 5.2 | 12.73 | 14.7 | 15.25 |
| 19/07/2022 | 9.7 | 10.96 | 4.4 | 8.08 | 9.2 | 12.74 | 10.6 | 15.24 |
| 20/07/2022 | 6.6 | 10.96 | 5.2 | 8.09 | 10.4 | 12.75 | 7.7 | 15.23 |
| 21/07/2022 | 9.2 | 10.97 | 5.0 | 8.10 | 13.0 | 12.78 | 13.9 | 15.24 |
| 22/07/2022 | 8.8 | 10.98 | 10.2 | 8.12 | 15.0 | 12.80 | 14.4 | 15.26 |
| 23/07/2022 | 4.7 | 10.97 | 5.1 | 8.12 | 11.6 | 12.80 | 10.5 | 15.25 |
| 24/07/2022 | 6.5 | 10.95 | 6.8 | 8.12 | 11.4 | 12.81 | 14.2 | 15.24 |
| 25/07/2022 | 9.7 | 10.96 | 5.3 | 8.13 | 10.0 | 12.82 | 12.4 | 15.23 |
| 26/07/2022 | 7.3 | 10.96 | 3.1 | 8.12 | 6.3 | 12.82 | 9.5 | 15.23 |
| 27/07/2022 | 9.2 | 10.96 | 3.4 | 8.12 | 7.0 | 12.82 | 13.2 | 15.22 |
| 28/07/2022 | 6.8 | 10.94 | 1.6 | 8.11 | 5.3 | 12.81 | 12.3 | 15.20 |
| 29/07/2022 | 7.8 | 10.92 | 3.9 | 8.11 | 8.5 | 12.81 | 9.5 | 15.15 |
| 30/07/2022 | 9.0 | 10.93 | 9.4 | 8.11 | 14.6 | 12.83 | 10.9 | 15.14 |
| 31/07/2022 | 8.5 | 10.92 | 11.4 | 8.12 | 13.8 | 12.85 | 14.5 | 15.15 |

*NaN >75% of data collected during period

Meteorological Monitoring

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

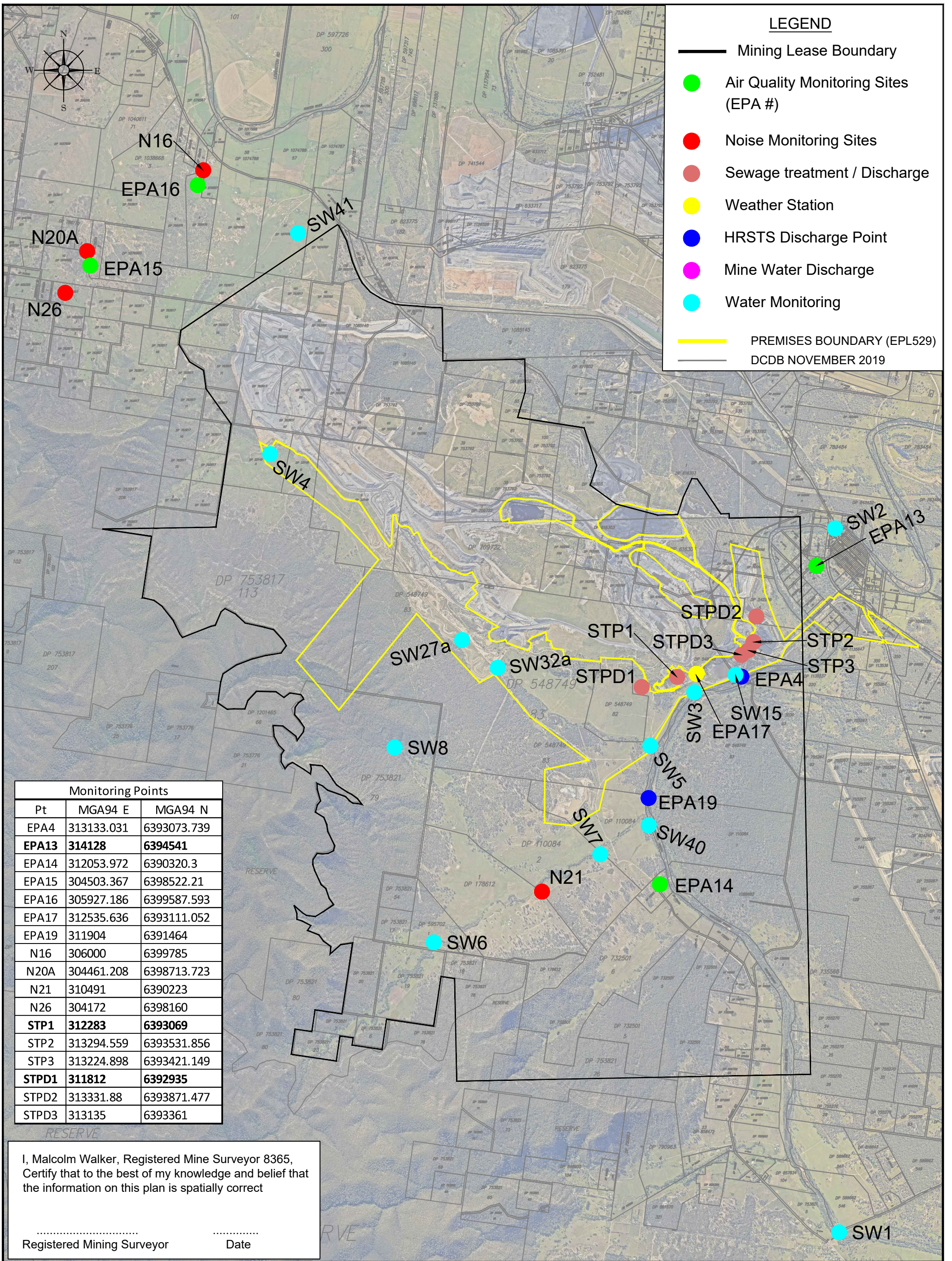
Limits: Nil

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 |
| 1/07/2022 | 12.6 | 10.7 | 14.0 | 12.6 | 11.2 | 13.8 | 79.2 | 72.5 | 99.7 | 64.3 | 254.3 | 0 | 1.7 | 0.6 | 2.9 | 155.0 | 18.0 | 28.2 | 9.7 |
| 2/07/2022 | 12.7 | 10.8 | 15.0 | 12.7 | 10.8 | 14.8 | 97.7 | 86 | 100.0 | 37.7 | 209.3 | 3.4 | 0.7 | 0 | 1.7 | 126.8 | 28.8 | 94.7 | 7.5 |
| 3/07/2022 | 13.1 | 12.3 | 14.9 | 13.1 | 12.3 | 14.7 | 100.0 | 99 | 100.0 | 22.7 | 223.8 | 84 | 1.2 | 0.1 | 2.9 | 258.9 | 31.0 | 83.7 | 5.1 |
| 4/07/2022 | 12.7 | 11.4 | 14.4 | 12.7 | 11.6 | 14.4 | 99.1 | 93.1 | 100.0 | 44.1 | 353.9 | 27 | 1.7 | 0.1 | 4.2 | 268.6 | 30.6 | 86.5 | 8 |
| 5/07/2022 | 14.3 | 13.2 | 15.7 | 14.3 | 13.2 | 15.6 | 99.6 | 92.1 | 100.0 | 21.2 | 201.9 | 53 | 2.3 | 0.7 | 6.4 | 144.9 | 21.8 | 73.1 | 10.2 |
| 6/07/2022 | 14.6 | 13.3 | 15.5 | 14.6 | 13.3 | 15.6 | 96.5 | 86.1 | 100.0 | 28.8 | 180.0 | 16.6 | 2.7 | 1.6 | 4.2 | 169.3 | 18.5 | 79.4 | 9 |
| 7/07/2022 | 14.5 | 9.1 | 18.6 | 14.8 | 9.7 | 18.4 | 87.8 | 64.6 | 100.0 | 72.1 | 487.2 | 2.2 | 1.3 | 0.1 | 4.2 | 178.7 | 29.0 | 99.5 | 10.5 |
| 8/07/2022 | 10.5 | 7.1 | 15.8 | 10.5 | 7.2 | 15.5 | 68.7 | 51.9 | 82.1 | 157.3 | 632.2 | 0 | 3.4 | 0.4 | 5.6 | 301.6 | 21.3 | 82.0 | 13.2 |
| 9/07/2022 | 9.7 | 4.1 | 16.6 | 9.8 | 4.9 | 15.9 | 77.5 | 45.2 | 100.0 | 158.7 | 638.7 | 0 | 2.2 | 0.1 | 4.5 | 273.3 | 25.2 | 102.0 | 6.8 |
| 10/07/2022 | 8.8 | 3.6 | 12.9 | 9.2 | 4.5 | 13.2 | 95.2 | 78.2 | 100.0 | 45.8 | 291.9 | 7.6 | 1.1 | 0 | 2.9 | 157.6 | 29.9 | 95.2 | 8.1 |
| 11/07/2022 | 11.5 | 6.2 | 16.6 | 11.9 | 7.1 | 16.4 | 85.7 | 57.2 | 100.0 | 118.6 | 822.7 | 0 | 1.0 | 0 | 2.8 | 182.6 | 25.5 | 86.8 | 5.3 |
| 12/07/2022 | 8.8 | 4 | 15.3 | 8.9 | 4.2 | 15.1 | 93.2 | 61.9 | 100.0 | 105.2 | 719.1 | 3.6 | 0.9 | 0 | 5.4 | 190.5 | 28.8 | 99.9 | 0 |
| 13/07/2022 | 10.1 | 5.8 | 14.7 | 10.5 | 6.6 | 14.7 | 81.9 | 54.2 | 100.0 | 109.7 | 740.6 | 0 | 1.2 | 0.1 | 3.2 | 236.1 | 35.0 | 95.2 | 11.2 |
| 14/07/2022 | 10.7 | 5.7 | 15.6 | 11.3 | 7.3 | 15.2 | 72.2 | 55.1 | 100.0 | 122.2 | 721.1 | 0 | 2.1 | 0.2 | 5.3 | 184.7 | 28.8 | 83.8 | 6.8 |
| 15/07/2022 | 7.6 | 1.7 | 16.2 | 8.1 | 2.7 | 15.9 | 84.7 | 43.8 | 100.0 | 163.0 | 661.0 | 0 | 1.1 | 0.1 | 3.0 | 215.7 | 28.0 | 77.1 | 5.2 |
| 16/07/2022 | 8.6 | -0.4 | 17.9 | 9.2 | -0.1 | 17.6 | 74.2 | 41.7 | 100.0 | 147.1 | 683.1 | 0 | 1.5 | 0 | 4.0 | 241.5 | 30.1 | 93.0 | 9.1 |
| 17/07/2022 | 14.1 | 6.1 | 20.4 | 14.5 | 7.9 | 19.7 | 56.9 | 38.7 | 97.2 | 165.6 | 789.8 | 0 | 3.1 | 0.5 | 6.4 | 264.9 | 21.5 | 67.2 | 9.4 |
| 18/07/2022 | 12.7 | 7.4 | 16.9 | 13.0 | 8.3 | 16.5 | 55.3 | 33.7 | 82.0 | 147.2 | 706.1 | 0 | 2.8 | 0.4 | 5.2 | 266.7 | 20.8 | 87.7 | 8.5 |
| 19/07/2022 | 8.8 | 2.6 | 14.2 | 9.0 | 2.9 | 13.9 | 84.6 | 58.5 | 100.0 | 87.0 | 500.5 | 0.6 | 1.5 | 0.1 | 3.8 | 119.6 | 22.4 | 98.1 | 6.8 |
| 20/07/2022 | 11.2 | 7.1 | 16.3 | 11.6 | 8 | 16.1 | 82.3 | 50.6 | 100.0 | 141.3 | 740.0 | 0.2 | 1.7 | 0.1 | 4.5 | 140.2 | 21.3 | 95.9 | 7.8 |
| 21/07/2022 | 13.2 | 9.1 | 18.4 | 13.2 | 9.5 | 17.9 | 77.7 | 43.6 | 98.3 | 142.0 | 885.4 | 0 | 2.8 | 1 | 6.1 | 124.3 | 16.2 | 31.5 | 7.8 |
| 22/07/2022 | 13.8 | 10.5 | 17.9 | 13.9 | 11.3 | 17.5 | 79.8 | 54.7 | 94.9 | 107.5 | 673.0 | 0.2 | 2.3 | 1 | 5.8 | 130.3 | 15.9 | 32.9 | 8.5 |
| 23/07/2022 | 13.3 | 9.2 | 18.6 | 13.6 | 10.6 | 18.2 | 84.9 | 56.7 | 100.0 | 109.0 | 780.4 | 0 | 1.4 | 0.1 | 3.4 | 145.2 | 20.0 | 95.5 | 7.5 |
| 24/07/2022 | 11.1 | 6 | 17.4 | 11.5 | 6.4 | 17.2 | 89.6 | 61.7 | 100.0 | 118.0 | 800.0 | 0 | 0.7 | 0 | 1.8 | 146.3 | 31.2 | 97.0 | 5.7 |
| 25/07/2022 | 10.0 | 5 | 17.4 | 10.2 | 5.5 | 17.6 | 92.0 | 60.8 | 100.0 | 129.4 | 687.7 | 0 | 0.8 | 0.1 | 2.2 | 160.9 | 24.5 | 83.0 | 5.4 |
| 26/07/2022 | 11.2 | 5.7 | 19.4 | 11.3 | 6 | 18.6 | 76.6 | 39.4 | 100.0 | 109.4 | 793.9 | 3.8 | 2.4 | 0 | 6.7 | 236.7 | 28.1 | 100.1 | 8.3 |
| 27/07/2022 | 10.7 | 4.6 | 17.8 | 11.1 | 6.9 | 17.2 | 67.1 | 39 | 99.5 | 178.4 | 701.1 | 0 | 2.5 | 0.1 | 4.2 | 261.3 | 24.5 | 103.2 | 6 |
| 28/07/2022 | 10.0 | 3.3 | 18.3 | 10.7 | 4.3 | 17.8 | 79.7 | 44 | 100.0 | 176.6 | 701.1 | 0 | 1.4 | 0.1 | 3.9 | 233.2 | 33.0 | 98.0 | 9.1 |
| 29/07/2022 | 11.1 | 4 | 17.8 | 11.3 | 5.3 | 17.6 | 69.0 | 31.8 | 100.0 | 181.4 | 720.8 | 0 | 1.2 | 0.1 | 4.4 | 206.2 | 34.5 | 92.2 | 7.5 |
| 30/07/2022 | 7.6 | 0.4 | 16.4 | 8.0 | 1.2 | 16.0 | 80.5 | 42.1 | 100.0 | 177.2 | 697.7 | 0 | 0.9 | 0.1 | 1.9 | 177.5 | 30.2 | 90.4 | 4.8 |
| 31/07/2022 | 8.5 | 0.3 | 18.2 | 8.9 | 0.4 | 17.6 | 82.7 | 41 | 100.0 | 133.6 | 702.1 | 0 | 0.7 | 0.1 | 1.9 | 173.1 | 27.7 | 100.3 | 5.9 |
| | 11.2 | -0.4 | 20.4 | 11.5 | -0.1 | 19.7 | 82.4 | 31.8 | 100.0 | 114.1 | 885.4 | 202.2 | 1.7 | 0 | 6.7 | 196.3 | 26.0 | 103.2 | 0.0 |



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 |

WAMBO COAL PTY LIMITED
 ABN 13 000 668 057

Jerry's Plains Rd, Warkworth Phone: 02 65 702200
 Via Singleton, NSW, 2330 Fax: 02 65 702290

Peabody Energy

Prepared by NWU Survey Ph: 02 65 702318

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

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

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