

**WAMBO COAL
POLLUTION MONITORING DATA
1 JUNE 2023 – 30 JUNE 2023**

JUNE MONTHLY REPORT

Published 7 July 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 | | | | | Yet to Receive Data |
| Point 25 | SW02 | | | | | |
| Point 26 | SW03 | | | | | |
| Point 27 | SW04 | | | | | |
| Point 28 | SW05 | | | | | |
| Point 29 | SW06 | | | | | |
| Point 30 | SW07 | | | | | |
| Point 31 | SW08 | | | | | |
| Point 33 | SW15 | | | | | |
| Point 34 | SW27a | | | | | |
| Point 36 | SW32a | | | | | |
| Point 39 | SW39 | | | | | |
| Point 40 | SW40 | | | | | |
| Point 41 | SW41 | | | | | |

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 June | | | | | | |
| Point 19 | No Discharges in June | | | | | | |

Sewerage Treatment Monitoring

Monitoring Frequency: Quarterly during discharge

Sampling Method: Grab sample

Limits: Nil

Date sampled: Not sampled in June

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 | - | - | - | Sampled Quarterly |
| Point 56 | STP1 | - | - | - | Sampled 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 |
| 1/06/2023 | 11.9 | 12.48 | 5.1 | 9.36 | 7.7 | 13.49 | 25.3 | 16.88 |
| 2/06/2023 | 16.9 | 12.50 | 13.0 | 9.38 | 18.1 | 13.52 | 15.0 | 16.88 |
| 3/06/2023 | 15.7 | 12.53 | 14.2 | 9.41 | 16.1 | 13.55 | 24.9 | 16.92 |
| 4/06/2023 | 12.5 | 12.54 | 13.8 | 9.45 | 21.7 | 13.60 | 22.7 | 16.95 |
| 5/06/2023 | 11.4 | 12.56 | 12.1 | 9.47 | 21.3 | 13.65 | 17.3 | 16.97 |
| 6/06/2023 | 8.5 | 12.57 | 10.2 | 9.48 | 16.3 | 13.68 | 7.3 | 16.95 |
| 7/06/2023 | 14.6 | 12.60 | 10.1 | 9.50 | 14 | 13.70 | 10.7 | 16.93 |
| 8/06/2023 | 8.6 | 12.60 | 5.2 | 9.51 | 6.9 | 13.71 | 12.4 | 16.93 |
| 9/06/2023 | 26 | 12.66 | 3.4 | 9.51 | 6.6 | 13.71 | 15.2 | 16.94 |
| 10/06/2023 | 10.2 | 12.67 | 4.9 | 9.52 | 7.7 | 13.72 | 13.9 | 16.91 |
| 11/06/2023 | 14 | 12.69 | 9.3 | 9.54 | 12.9 | 13.75 | 14.8 | 16.90 |
| 12/06/2023 | 14.4 | 12.71 | 8.5 | 9.56 | 11.1 | 13.77 | 21.5 | 16.90 |
| 13/06/2023 | 9.9 | 12.71 | 3.7 | 9.55 | 6.7 | 13.76 | 15.9 | 16.86 |
| 14/06/2023 | 5.2 | 12.70 | 3.7 | 9.55 | 5.6 | 13.75 | 13.7 | 16.87 |
| 15/06/2023 | 6 | 12.70 | 3.8 | 9.55 | 6.1 | 13.75 | 16.1 | 16.88 |
| 16/06/2023 | 9.6 | 12.70 | 4.1 | 9.55 | 7 | 13.76 | 13.4 | 16.87 |
| 17/06/2023 | 9 | 12.69 | 5.7 | 9.55 | 7.8 | 13.76 | 10.6 | 16.85 |
| 18/06/2023 | 9.2 | 12.70 | 5.0 | 9.56 | 7.9 | 13.76 | 14.9 | 16.86 |
| 19/06/2023 | 12.3 | 12.70 | 3.6 | 9.56 | 4.2 | 13.75 | 22.6 | 16.90 |
| 20/06/2023 | 12.5 | 12.71 | 4.4 | 9.56 | 3.3 | 13.73 | 15.8 | 16.92 |
| 21/06/2023 | 7.4 | 12.71 | 9.5 | 9.57 | 17.3 | 13.74 | 15.3 | 16.94 |
| 22/06/2023 | 8.5 | 12.71 | 24.9 | 9.62 | 37 | 13.83 | 26.9 | 16.96 |
| 23/06/2023 | 6.5 | 12.71 | 4.8 | 9.62 | 6.9 | 13.83 | 18.8 | 16.98 |
| 24/06/2023 | 5 | 12.70 | 1.9 | 9.62 | 3.6 | 13.82 | 24.7 | 16.98 |
| 25/06/2023 | 6.8 | 12.69 | 2.8 | 9.62 | 5.6 | 13.82 | 29.7 | 17.00 |
| 26/06/2023 | 10.1 | 12.69 | 3.1 | 9.61 | 7.2 | 13.82 | 31.5 | 17.04 |
| 27/06/2023 | 9.5 | 12.69 | 7.0 | 9.63 | 10 | 13.83 | 34.3 | 17.10 |
| 28/06/2023 | 8.9 | 12.69 | 5.5 | 9.63 | 8.1 | 13.84 | 20.0 | 17.13 |
| 29/06/2023 | 8 | 12.68 | 2.8 | 9.62 | 5 | 13.82 | 28.4 | 17.17 |
| 30/06/2023 | 9.8 | 12.66 | 2.0 | 9.60 | 6.3 | 13.80 | 43.6 | 17.24 |

*NaN >75% of data collected during period

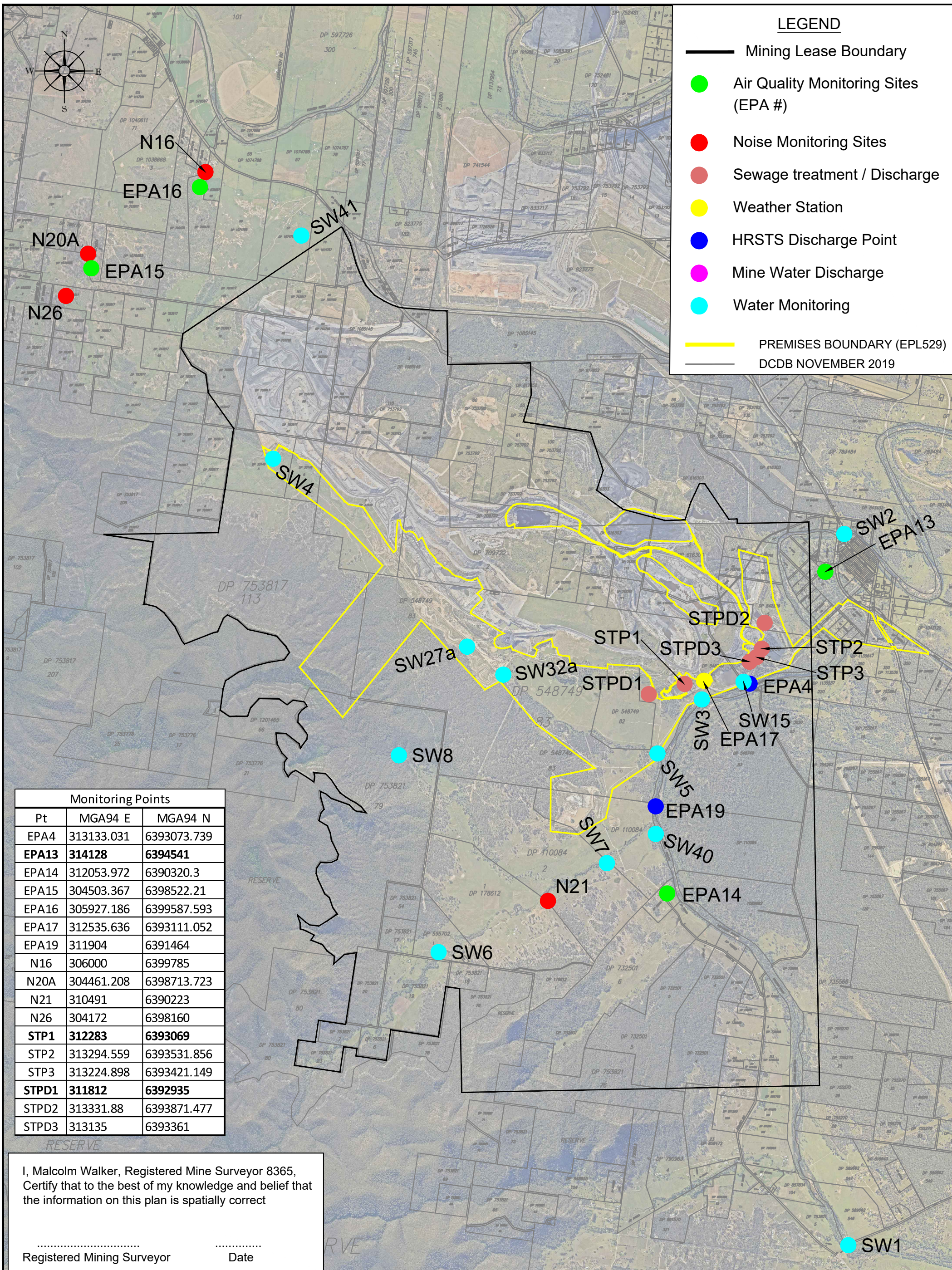
Meteorological Monitoring
Monitoring Frequency: Continuous
Sampling Method: Site Meteorological Station EPA17
Limits: Nil

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 |
| 1/06/2023 | 17.3 | 7.9 | 24.4 | 17.7 | 8.9 | 24.2 | 76.0 | 50.7 | 100.0 | 148.7 | 687.2 | 0 | 2.0 | 0.1 | 5.0 | 263 | 22.9 | 88.9 | 90.0 |
| 2/06/2023 | 13.1 | 4.7 | 22.3 | 13.5 | 5.4 | 21.6 | 91.0 | 62.6 | 100.0 | 131.8 | 601.8 | 0 | 0.9 | 0.1 | 2.7 | 166 | 26.3 | 70.5 | 94.0 |
| 3/06/2023 | 16.3 | 9.5 | 25.5 | 16.5 | 10.4 | 25.0 | 86.6 | 48.7 | 100.0 | 132.6 | 753.1 | 0 | 1.0 | 0.1 | 3.6 | 221 | 29.1 | 56.9 | 89.6 |
| 4/06/2023 | 16.1 | 13.5 | 19.4 | 16.1 | 13.3 | 18.7 | 92.0 | 74.5 | 100.0 | 48.6 | 584.1 | 0.6 | 1.8 | 0.6 | 5.2 | 136 | 15.9 | 75.7 | 39.3 |
| 5/06/2023 | 15.5 | 11.5 | 19.0 | 15.5 | 12.2 | 18.4 | 83.3 | 64.8 | 100.0 | 85.0 | 605.9 | 0.2 | 2.0 | 0.6 | 4.7 | 143 | 17.8 | 79.9 | 33.2 |
| 6/06/2023 | 13.3 | 8.0 | 19.2 | 13.5 | 9.1 | 18.8 | 92.9 | 65.1 | 100.0 | 98.6 | 668.7 | 0 | 1.1 | 0.1 | 2.9 | 137 | 22.0 | 86 | 93.5 |
| 7/06/2023 | 12.5 | 5.4 | 19.5 | 12.8 | 6.4 | 18.7 | 92.8 | 72.8 | 100.0 | 138.3 | 601.3 | 0 | 0.9 | 0.0 | 2.1 | 160 | 25.6 | 94.5 | 96.3 |
| 8/06/2023 | 12.2 | 5.2 | 18.9 | 12.3 | 5.3 | 18.2 | 94.5 | 65.7 | 100.0 | 53.6 | 375.4 | 0.8 | 1.8 | 0.1 | 4.4 | 245 | 25.1 | 97.9 | 68.9 |
| 9/06/2023 | 14.1 | 7.2 | 19.4 | 14.1 | 8.1 | 18.8 | 78.3 | 51.2 | 100.0 | 147.0 | 624.6 | 0 | 2.6 | 0.1 | 4.9 | 278 | 25.9 | 75 | 100.3 |
| 10/06/2023 | 10.3 | 3.0 | 19.9 | 10.6 | 3.5 | 19.0 | 82.8 | 46.2 | 100.0 | 150.6 | 633.9 | 0 | 1.1 | 0.1 | 2.9 | 235 | 29.2 | 87.7 | 96.4 |
| 11/06/2023 | 8.0 | -0.8 | 18.9 | 8.5 | -0.3 | 19.2 | 85.9 | 51.0 | 100.0 | 148.4 | 626.7 | 0 | 0.7 | 0.0 | 1.9 | 199 | 26.2 | 95.5 | 85.5 |
| 12/06/2023 | 10.9 | 1.5 | 21.7 | 11.1 | 1.6 | 20.6 | 86.2 | 51.4 | 100.0 | 137.3 | 629.9 | 0 | 0.9 | 0.1 | 3.7 | 216 | 24.9 | 90.9 | 94.0 |
| 13/06/2023 | 11.6 | 4.5 | 18.0 | 11.9 | 5.1 | 17.6 | 92.6 | 74.2 | 100.0 | 77.7 | 637.1 | 1.8 | 1.7 | 0.1 | 5.3 | 239 | 30.3 | 88.8 | 96.5 |
| 14/06/2023 | 11.7 | 4.3 | 18.2 | 12.1 | 6.4 | 17.7 | 81.7 | 49.7 | 100.0 | 149.2 | 631.5 | 0.2 | 2.6 | 0.2 | 4.9 | 275 | 28.9 | 92.8 | 81.6 |
| 15/06/2023 | 8.4 | 0.1 | 18.3 | 9.2 | 1.2 | 17.3 | 83.9 | 48.7 | 100.0 | 150.2 | 624.6 | 0 | 1.6 | 0.1 | 4.0 | 210 | 31.8 | 93.4 | 93.8 |
| 16/06/2023 | 7.5 | -0.8 | 19.3 | 8.1 | 0.1 | 18.7 | 85.0 | 47.1 | 100.0 | 146.0 | 618.2 | 0 | 1.2 | 0.1 | 3.9 | 235 | 23.1 | 90 | 82.3 |
| 17/06/2023 | 7.4 | -1.4 | 19.6 | 7.9 | -1.3 | 18.9 | 85.0 | 46.6 | 100.0 | 144.6 | 613.5 | 0 | 1.2 | 0.0 | 4.2 | 228 | 24.4 | 96.9 | 94.8 |
| 18/06/2023 | 8.8 | -1.7 | 20.5 | 9.4 | -0.2 | 20.0 | 77.1 | 37.5 | 100.0 | 143.5 | 606.8 | 0 | 1.8 | 0.1 | 5.6 | 232 | 27.1 | 97.4 | 89.6 |
| 19/06/2023 | 9.1 | -1.7 | 16.5 | 9.6 | -1.0 | 15.8 | 74.6 | 45.9 | 100.0 | 145.6 | 606.3 | 0 | 2.6 | 0.1 | 5.6 | 259 | 32.1 | 91.9 | 83.6 |
| 20/06/2023 | 9.0 | -0.1 | 16.7 | 9.1 | 0.5 | 15.7 | 79.2 | 45.1 | 100.0 | 146.4 | 618.9 | 0 | 2.0 | 0.0 | 4.1 | 275 | 28.4 | 86.1 | 90.4 |
| 21/06/2023 | 5.6 | -3.4 | 16.2 | 6.0 | -3.0 | 15.6 | 85.7 | 45.6 | 100.0 | 141.7 | 609.4 | 0 | 0.8 | 0.0 | 2.2 | 176 | 28.6 | 78.4 | 99.3 |
| 22/06/2023 | 8.5 | 1.2 | 14.3 | 8.5 | 1.9 | 13.8 | 92.3 | 70.3 | 100.0 | 64.5 | 680.6 | 0.8 | 0.6 | 0.0 | 1.9 | 157 | 29.5 | 70.2 | 93.3 |
| 23/06/2023 | 13.1 | 8.6 | 18.4 | 12.9 | 8.5 | 17.7 | 78.6 | 48.3 | 100.0 | 138.4 | 627.6 | 4.4 | 2.7 | 0.1 | 6.6 | 250 | 30.3 | 62.9 | 94.3 |
| 24/06/2023 | 13.4 | 8.7 | 18.8 | 13.2 | 8.8 | 18.4 | 66.2 | 45.4 | 84.5 | 150.9 | 636.0 | 0 | 3.1 | 1.4 | 5.4 | 304 | 21.7 | 62 | 33.8 |
| 25/06/2023 | 13.3 | 1.6 | 21.3 | 13.7 | 3.1 | 20.8 | 64.5 | 39.1 | 100.0 | 150.1 | 633.3 | 0 | 2.9 | 0.2 | 6.1 | 258 | 24.6 | 99.2 | 75.9 |
| 26/06/2023 | 13.5 | 8.3 | 20.3 | 13.3 | 8.5 | 19.6 | 62.6 | 42.0 | 77.7 | 151.5 | 635.5 | 0 | 3.4 | 1.7 | 5.7 | 307 | 21.7 | 94.1 | 31.2 |
| 27/06/2023 | 13.5 | 4.3 | 19.2 | 13.3 | 5.8 | 18.0 | 71.9 | 51.4 | 100.0 | 141.8 | 715.5 | 0 | 2.4 | 0.2 | 5.0 | 275 | 25.4 | 94.4 | 76.0 |
| 28/06/2023 | 11.8 | 10.5 | 14.1 | 11.6 | 10.2 | 14.1 | 91.5 | 68.9 | 100.0 | 21.6 | 171.2 | 0.6 | 1.7 | 0.1 | 4.4 | 277 | 27.8 | 78.9 | 95.2 |
| 29/06/2023 | 11.1 | 4.6 | 17.3 | 11.0 | 6.2 | 16.5 | 80.0 | 50.7 | 100.0 | 142.3 | 656.1 | 0 | 2.4 | 0.1 | 5.1 | 266 | 28.3 | 96.9 | 95.9 |
| 30/06/2023 | 11.0 | 6.3 | 17.8 | 10.7 | 6.3 | 16.8 | 76.6 | 54.1 | 93.1 | 142.8 | 598.1 | 0 | 3.5 | 2.0 | 5.4 | 307 | 23.7 | 83.8 | 33.9 |
| Total | 11.5 | -3.4 | 25.5 | 11.7 | -3.0 | 25.0 | 82.4 | 37.5 | 100.0 | 125.3 | 753.1 | 9.4 | 1.8 | 0.0 | 6.6 | 231 | 26.0 | 99.2 | 100.3 |

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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 |

WAMBO COAL PTY LIMITED
ABN 13 000 668 057

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Via Singleton, NSW, 2330 Fax: 02 65 702290

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