

**WAMBO COAL
POLLUTION MONITORING DATA
1 SEPTEMBER 2021 – 15 SEPTEMBER 2021
SEPTEMBER INTERIM REPORT**

Published 21 September 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 | | | | | Yet to receive water sample analysis. |
| 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 | 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 September
 Date obtained: No sample in September

Table 3- WCPL Discharge Monitoring

| EPL ID | Site ID | Date | pH | Faecal Coliforms | Comments |
|----------|---------|------|----|------------------|----------|
| Point 42 | STPD2 | | | | |
| Point 52 | STP2 | | | | |
| Point 55 | STPD1 | | | | |

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) | 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 |
| 1/09/2021 | 25.2 | 13.28 | 14.8 | 9.04 | 28.2 | 14.46 | 21.9 | 12.98 |
| 2/09/2021 | 23.8 | 13.29 | 19.6 | 9.05 | 26.2 | 14.43 | 25.1 | 13.01 |
| 3/09/2021 | 16.4 | 13.26 | 11.3 | 9.05 | 15.7 | 14.42 | 18.6 | 13.03 |
| 4/09/2021 | 11.3 | 13.17 | 7.9 | 9.03 | 11.5 | 14.39 | 21.8 | 13.06 |
| 5/09/2021 | 5.0 | 13.11 | 2.7 | 9.00 | 3.9 | 14.35 | 9.0 | 13.05 |
| 6/09/2021 | 9.4 | 13.11 | 4.3 | 8.98 | 8.9 | 14.34 | 10.4 | 13.04 |
| 7/09/2021 | 10.8 | 13.09 | 5.2 | 8.94 | 7.2 | 14.26 | 26.2 | 13.08 |
| 8/09/2021 | 17.4 | 13.11 | 8.7 | 8.93 | 11.0 | 14.23 | 22.6 | 13.11 |
| 9/09/2021 | 17.8 | 13.11 | 6.2 | 8.91 | 7.3 | 14.20 | 35.8 | 13.18 |
| 10/09/2021 | 21.1 | 13.14 | 9.2 | 8.91 | 13.9 | 14.19 | 37.9 | 13.26 |
| 11/09/2021 | 15.8 | 13.16 | 12.1 | 8.94 | 14.9 | 14.19 | 33.7 | 13.33 |
| 12/09/2021 | 21.2 | 13.19 | 11.4 | 8.97 | 15.1 | 14.18 | 55.3 | 13.46 |
| 13/09/2021 | 14.1 | 13.21 | 14.4 | 9.01 | 21.0 | 14.22 | 19.9 | 13.48 |
| 14/09/2021 | 4.6 | 13.18 | 2.3 | 9.01 | 5.0 | 14.21 | 5.9 | 13.46 |
| 15/09/2021 | 5.9 | 13.15 | 2.9 | 9.01 | 6.3 | 14.18 | 4.7 | 13.43 |

*NaN >75% of data collected during period

Meteorological Monitoring

Monitoring Frequency: Continuous

Sampling Method: Site Meteorological Station EPA17

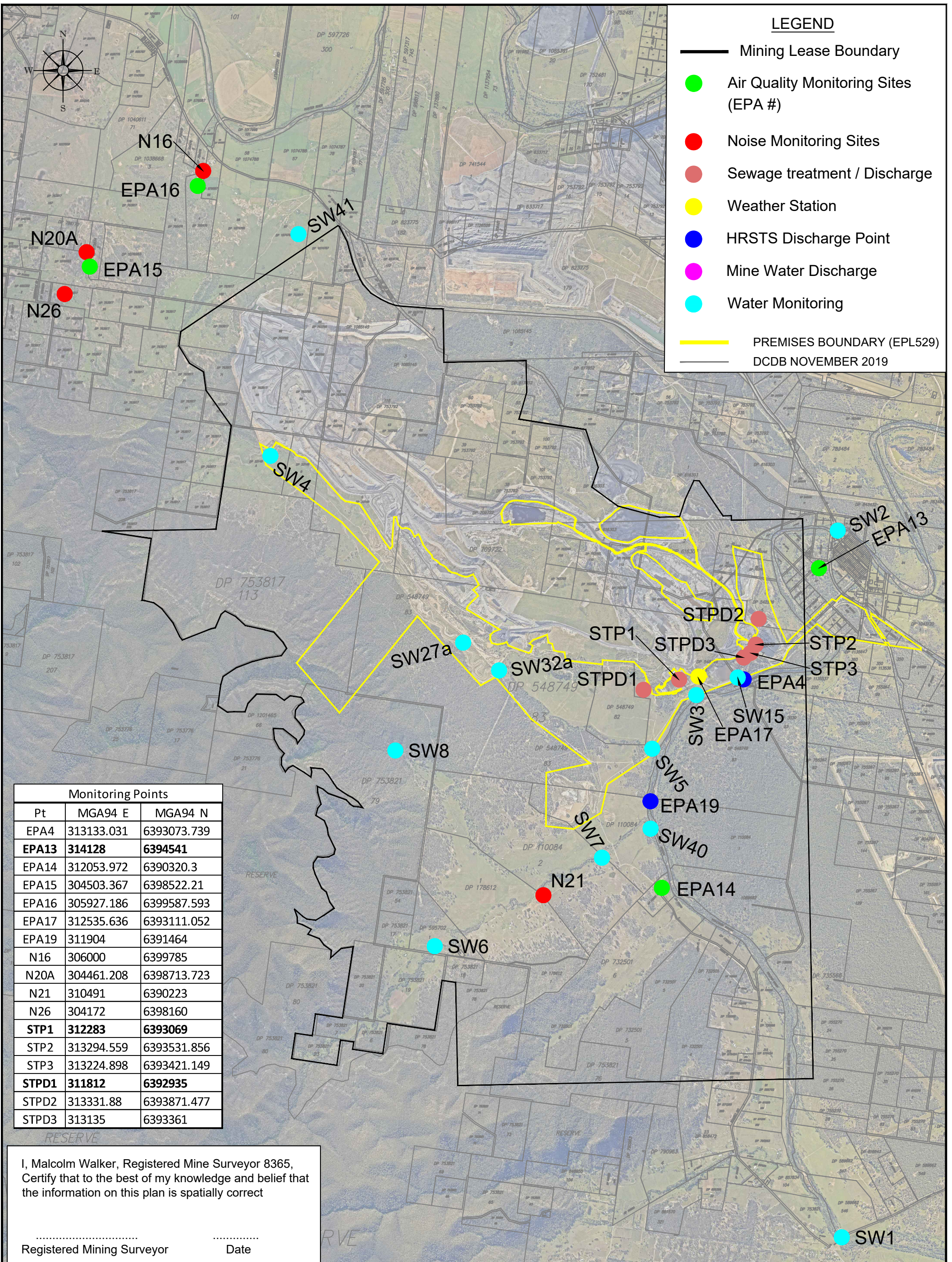
Limits: Nil

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 |
| 1/08/2021 | 18.1 | 3.4 | 26.2 | 18.4 | 3.9 | 25.7 | 48.9 | 14.5 | 100.0 | 345.3 | 864.5 | 0.0 | 1.2 | 0.2 | 3.7 | 167.7 | 30.3 | 93.4 | 7.2 |
| 2/08/2021 | 16.6 | 6.7 | 25.9 | 16.9 | 8.6 | 25.5 | 74.6 | 45.5 | 96.8 | 207.4 | 814.1 | 0.0 | 1.4 | 0.1 | 4.0 | 143.2 | 26.6 | 97.6 | 8.0 |
| 3/08/2021 | 15.9 | 7.7 | 26.4 | 16.3 | 8.2 | 25.8 | 71.1 | 25.0 | 100.0 | 241.1 | 851.0 | 0.0 | 1.2 | 0.0 | 3.1 | 226.2 | 27.5 | 100.9 | 6.2 |
| 4/08/2021 | 15.8 | 7.2 | 24.8 | 16.0 | 7.9 | 23.9 | 78.1 | 40.1 | 100.0 | 136.4 | 838.7 | 2.6 | 2.0 | 0.2 | 4.6 | 253.3 | 24.7 | 77.7 | 7.7 |
| 5/08/2021 | 14.6 | 10.8 | 18.5 | 14.5 | 10.9 | 17.8 | 69.4 | 34.4 | 100.0 | 219.1 | 991.6 | 3.4 | 3.8 | 0.9 | 6.1 | 297.5 | 19.7 | 29.2 | 15.2 |
| 6/08/2021 | 12.6 | 5.6 | 21.3 | 12.8 | 6.6 | 20.9 | 61.2 | 22.0 | 99.1 | 263.3 | 924.3 | 0.0 | 2.1 | 0.1 | 5.1 | 236.4 | 26.8 | 87.3 | 9.4 |
| 7/08/2021 | 12.6 | 1.5 | 24.8 | 13.3 | 2.8 | 24.3 | 60.3 | 15.4 | 100.0 | 268.4 | 912.8 | 0.0 | 2.2 | 0.0 | 5.8 | 224.1 | 31.9 | 89.8 | 6.9 |
| 8/08/2021 | 13.2 | 4.1 | 23.3 | 13.7 | 5.0 | 22.6 | 69.4 | 33.2 | 100.0 | 259.1 | 887.5 | 0.0 | 0.9 | 0.0 | 2.5 | 211.5 | 31.5 | 81.7 | 5.9 |
| 9/08/2021 | 16.7 | 4.2 | 26.9 | 17.1 | 5.2 | 26.3 | 51.5 | 14.4 | 100.0 | 267.1 | 951.9 | 0.0 | 2.9 | 0.1 | 6.0 | 266.5 | 24.9 | 98.8 | 7.9 |
| 10/08/2021 | 19.6 | 13.1 | 28.8 | 19.7 | 14.1 | 28.3 | 47.0 | 17.3 | 96.3 | 261.5 | 932.0 | 0.0 | 3.0 | 0.3 | 6.9 | 275.2 | 20.5 | 70.3 | 7.8 |
| 11/08/2021 | 18.5 | 6.6 | 29.7 | 18.9 | 8.4 | 29.0 | 57.0 | 18.2 | 100.0 | 271.4 | 921.5 | 0.0 | 1.8 | 0.1 | 4.6 | 247.6 | 25.9 | 82.2 | 8.3 |
| 12/08/2021 | 18.5 | 5.9 | 30.7 | 19.3 | 6.9 | 30.0 | 49.0 | 10.4 | 97.9 | 267.6 | 895.9 | 0.0 | 2.3 | 0.0 | 8.1 | 252.6 | 26.5 | 89.6 | 6.3 |
| 13/08/2021 | 14.9 | 10.2 | 21.3 | 14.9 | 10.0 | 20.5 | 66.1 | 29.4 | 100.0 | 153.4 | 990.6 | 9.2 | 1.7 | 0.0 | 5.8 | 161.5 | 26.3 | 98.2 | 8.7 |
| 14/08/2021 | 12.5 | 8.7 | 17.2 | 12.3 | 9.4 | 16.4 | 71.9 | 49.3 | 97.9 | 192.0 | 1021.5 | 2.4 | 3.0 | 0.2 | 6.1 | 175.3 | 19.7 | 96.9 | 9.0 |
| 15/08/2021 | 13.2 | 6.9 | 19.9 | 13.4 | 8.5 | 19.1 | 65.7 | 35.9 | 99.2 | 237.1 | 1129.7 | 0.0 | 1.5 | 0.1 | 3.5 | 172.6 | 27.2 | 93.7 | 6.1 |



| 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

| | | | | | |
|------|--------------------|--------------|---------------|----------------|------------------------------|
| Date | Scale: 1:45,000 | Drawn MJW | Checked JB | Approved PJ | Drawing No. 2672-2 |
| | | | | | Revision No. J_26/11/2020 |
| | | | | | Sheet Size A3 |