

WAMBO COAL
POLLUTION MONITORING DATA
1 MARCH 2024 – 31 MARCH 2024

MARCH MONTHLY REPORT

Published 10 April 2024

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 (μ S/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 March | | | | | | |
| Point 19 | No Discharges in March | | | | | | |

Sewerage Treatment Monitoring

Monitoring Frequency: Quarterly during discharge
 Sampling Method: Grab sample
 Limits: Nil
 Date sampled: No Samples in March
 Date obtained: No Samples in March

Table 3- WCPL Discharge Monitoring

| EPL ID | Site ID | Date | pH | Faecal Coliforms (CFU/100mL) | Comments |
|----------|---------|------|----|------------------------------|---------------------------|
| Point 43 | STPD3 | - | - | - | No discharge |
| Point 52 | STPD2 | | | | Sample required Quarterly |
| Point 56 | STP1 | - | - | - | Sample required 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 |
| 1/03/2024 | 28.9 | 16.11 | 15.7 | 12.06 | 30.4 | 19.36 | 31.3 | 23.12 |
| 2/03/2024 | 18.6 | 16.11 | 21.5 | 12.08 | 23.6 | 19.36 | 30.0 | 23.18 |
| 3/03/2024 | 11.5 | 16.11 | 15.5 | 12.09 | 23.1 | 19.38 | 21.0 | 23.19 |
| 4/03/2024 | 24.1 | 16.14 | 25.3 | 12.13 | 28.5 | 19.41 | 26.4 | 23.22 |
| 5/03/2024 | 18.4 | 16.13 | 19.4 | 12.14 | 24.9 | 19.43 | 13.9 | 23.21 |
| 6/03/2024 | 24.0 | 16.14 | 17.6 | 12.15 | 26.4 | 19.45 | 20.6 | 23.14 |
| 7/03/2024 | 26.4 | 16.13 | 19.7 | 12.17 | 31.4 | 19.49 | 24.0 | 23.05 |
| 8/03/2024 | 12.9 | 16.09 | 8.8 | 12.14 | 17.6 | 19.47 | 16.1 | 22.96 |
| 9/03/2024 | 17.0 | 16.05 | 17.0 | 12.13 | 23.5 | 19.45 | 13.1 | 22.92 |
| 10/03/2024 | 16.0 | 16.02 | 18.5 | 12.11 | 20.4 | 19.42 | 13.2 | 22.91 |
| 11/03/2024 | 16.3 | 16.02 | 19.9 | 12.14 | 26.8 | 19.45 | 22.4 | 22.92 |
| 12/03/2024 | 24.3 | 16.04 | 19.7 | 12.15 | 27.2 | 19.46 | 27.1 | 22.96 |
| 13/03/2024 | 21.8 | 16.05 | 35.7 | 12.22 | 50.5 | 19.55 | 35.4 | 23.01 |
| 14/03/2024 | 22.5 | 16.08 | 20.3 | 12.24 | 38.9 | 19.62 | 33.0 | 23.06 |
| 15/03/2024 | 12.3 | 16.06 | 13.4 | 12.23 | 22.9 | 19.62 | 20.2 | 23.05 |
| 16/03/2024 | 14.0 | 16.05 | 14.2 | 12.23 | 20.6 | 19.62 | 17.4 | 23.02 |
| 17/03/2024 | 10.2 | 15.98 | 10.1 | 12.20 | 15.7 | 19.58 | 14.7 | 22.97 |
| 18/03/2024 | 8.9 | 15.93 | 10.2 | 12.18 | 14.3 | 19.52 | 9.8 | 22.93 |
| 19/03/2024 | 16.9 | 15.92 | 27.6 | 12.19 | 20.3 | 19.50 | 11.7 | 22.88 |
| 20/03/2024 | 12.0 | 15.89 | 12.3 | 12.16 | 13.9 | 19.44 | 16.3 | 22.85 |
| 21/03/2024 | 15.7 | 15.90 | 15.8 | 12.16 | 24.0 | 19.45 | 22.4 | 22.85 |
| 22/03/2024 | 11.2 | 15.89 | 10.0 | 12.14 | 16.4 | 19.43 | 16.1 | 22.85 |
| 23/03/2024 | 19.7 | 15.91 | 13.0 | 12.15 | 18.1 | 19.44 | 18.8 | 22.85 |
| 24/03/2024 | 16.7 | 15.92 | 12.5 | 12.15 | 24.6 | 19.47 | 23.9 | 22.88 |
| 25/03/2024 | 13.2 | 15.93 | 5.4 | 12.14 | 18.2 | 19.49 | 22.0 | 22.90 |
| 26/03/2024 | 28.8 | 15.98 | 17.5 | 12.16 | 34.1 | 19.54 | 33.6 | 22.93 |
| 27/03/2024 | 21.1 | 16.02 | 15.0 | 12.18 | 26.2 | 19.58 | 20.2 | 22.96 |
| 28/03/2024 | 17.1 | 16.04 | 12.4 | 12.19 | 22.0 | 19.61 | 18.8 | 22.97 |
| 29/03/2024 | 18.8 | 16.06 | 17.2 | 12.21 | 35.0 | 19.69 | 19.0 | 22.98 |
| 30/03/2024 | 18.3 | 16.10 | 16.4 | 12.24 | 22.2 | 19.73 | 21.0 | 23.01 |
| 31/03/2024 | 13.6 | 16.11 | 12.5 | 12.26 | 19.9 | 19.77 | 7.8 | 22.99 |

*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 |
| 1/03/2024 | 29.2 | 22.9 | 35.8 | 29.0 | 22.8 | 35.2 | 65.8 | 38.4 | 94.1 | 560.8 | 1795.9 | 0 | 1.3 | 0.2 | 4.1 | 128.4 | 26.7 | 81.2 | 7.4 |
| 2/03/2024 | 26.5 | 21.8 | 35.3 | 26.5 | 21.8 | 34.4 | 79.0 | 36.7 | 99.9 | 175.3 | 1165.6 | 1.2 | 2.4 | 0.1 | 24.8 | 185.8 | 26.8 | 98.2 | 10.8 |
| 3/03/2024 | 24.9 | 18.5 | 34.5 | 24.8 | 18.9 | 34 | 67.9 | 17.8 | 99.9 | 791.2 | 2315.1 | 0.4 | 1.5 | 0.1 | 4.9 | 215.9 | 24.7 | 87.6 | 6.0 |
| 4/03/2024 | 21.4 | 18.6 | 23.8 | 21.5 | 18.9 | 23.2 | 66.9 | 54.5 | 84.1 | 1082.9 | 1618.3 | 0 | 2.5 | 0.3 | 4.5 | 126.3 | 18.5 | 73.7 | 10.6 |
| 5/03/2024 | 21.2 | 14.1 | 27.2 | 21.2 | 15.4 | 26.7 | 65.5 | 45.1 | 99.9 | 1055.7 | 1765.3 | 0 | 1.6 | 0.1 | 3.5 | 118.6 | 22.4 | 59.8 | 9.3 |
| 6/03/2024 | 23.4 | 12.7 | 33.4 | 23.5 | 13.2 | 33.1 | 67.8 | 36.7 | 100 | 479.2 | 1095.1 | 0 | 1.2 | 0.1 | 3.9 | 168.1 | 29.5 | 76.5 | 6.1 |
| 7/03/2024 | 24.9 | 17.6 | 33.8 | 25.0 | 18 | 32.7 | 66.2 | 33.3 | 99.9 | 245.6 | 1063.6 | 0 | 1.9 | 0.1 | 5.4 | 142.5 | 25.7 | 94.2 | 7.0 |
| 8/03/2024 | 24.6 | 19.2 | 30.6 | 24.5 | 19.5 | 29.8 | 68.8 | 39.6 | 99.9 | 270.3 | 1194.4 | 0 | 2.2 | 0.1 | 4.8 | 126.6 | 22.7 | 57.8 | 7.2 |
| 9/03/2024 | 23.6 | 16.3 | 30.2 | 23.6 | 17.7 | 29.4 | 68.6 | 38.7 | 99.9 | 295.8 | 1133.3 | 0 | 2.3 | 0.2 | 5.1 | 140.8 | 21.1 | 93.1 | 7.4 |
| 10/03/2024 | 23.9 | 17.4 | 30.7 | 23.8 | 17.9 | 30 | 68.7 | 37.3 | 99.9 | 305.0 | 1195.3 | 0 | 2.2 | 0.1 | 5.5 | 135.0 | 21.8 | 66.5 | 10.4 |
| 11/03/2024 | 23.6 | 17.4 | 30.2 | 23.6 | 17.7 | 29.3 | 67.7 | 36.9 | 99.9 | 294.3 | 1148.6 | 0 | 2.1 | 0.3 | 4.8 | 145.1 | 20.9 | 66.2 | 7.1 |
| 12/03/2024 | 23.9 | 13 | 34.7 | 24.1 | 13.9 | 34 | 63.2 | 26.3 | 99.9 | 316.2 | 1015.7 | 0 | 1.4 | 0 | 3.8 | 172.3 | 25.7 | 91.3 | 7.5 |
| 13/03/2024 | 22.5 | 13.7 | 30.8 | 22.9 | 14.6 | 30 | 67.3 | 32.4 | 100 | 261.0 | 1096.1 | 0 | 1.7 | 0.1 | 4 | 120.9 | 25.1 | 88.1 | 4.7 |
| 14/03/2024 | 24.7 | 13.1 | 37.1 | 24.7 | 14.1 | 36.1 | 65.7 | 22.9 | 99.9 | 254.0 | 964.1 | 0 | 2.1 | 0 | 5.5 | 194.1 | 25.8 | 89.2 | 8.7 |
| 15/03/2024 | 20.9 | 18.1 | 24.2 | 20.7 | 18.4 | 24.1 | 66.8 | 49 | 93.1 | 72.5 | 373.5 | 0 | 2.9 | 1.3 | 7 | 138.9 | 21.5 | 45.4 | 11.0 |
| 16/03/2024 | 20.0 | 16.6 | 24.2 | 20.0 | 16.9 | 23.6 | 67.0 | 50.5 | 84.9 | 97.1 | 440.0 | 0 | 1.9 | 0.7 | 4.2 | 137.3 | 17.7 | 34.3 | 8.2 |
| 17/03/2024 | 20.3 | 17 | 25.5 | 20.2 | 16.9 | 25.1 | 82.7 | 56.5 | 100 | 603.9 | 1968.5 | 12.8 | 1.3 | 0.2 | 3.2 | 152.9 | 23.9 | 75.0 | 8.5 |
| 18/03/2024 | 20.9 | 18 | 25.7 | 20.7 | 17.9 | 25.3 | 88.0 | 60.8 | 99.9 | 1190.0 | 2362.3 | 11.4 | 1.4 | 0.1 | 5.1 | 133.5 | 22.4 | 89.7 | 8.1 |
| 19/03/2024 | 23.4 | 20 | 29.4 | 23.2 | 20 | 28.9 | 81.4 | 52.3 | 99.9 | 980.6 | 1687.0 | 0 | 0.9 | 0 | 2.7 | 134.9 | 27.9 | 86.6 | 7.5 |
| 20/03/2024 | 21.8 | 18.4 | 27.3 | 21.9 | 18.6 | 27.2 | 87.8 | 60.3 | 99.9 | 1156.0 | 1602.5 | 2.6 | 1.9 | 0.1 | 4.8 | 227.6 | 25.6 | 86.5 | 9.7 |
| 21/03/2024 | 18.7 | 14.8 | 23 | 18.6 | 14.9 | 22.3 | 59.4 | 38.2 | 79.7 | 1104.3 | 1893.1 | 0 | 2.5 | 0.6 | 5 | 134.3 | 18.2 | 33.7 | 9.6 |
| 22/03/2024 | 18.9 | 14.5 | 24.6 | 18.9 | 15.4 | 24.3 | 72.6 | 51.9 | 90.5 | 1490.9 | 2033.9 | 0 | 1.3 | 0.3 | 3.4 | 144.4 | 23.9 | 71.3 | 5.6 |
| 23/03/2024 | 18.8 | 11.4 | 25.6 | 18.9 | 12.1 | 25 | 77.7 | 46.5 | 100 | 1661.2 | 2070.2 | 0 | 1.1 | 0 | 3.1 | 137.7 | 26.5 | 95.8 | 10.0 |
| 24/03/2024 | 22.0 | 17.5 | 28.4 | 21.9 | 18 | 27.8 | 69.2 | 40.2 | 96.8 | 1664.4 | 2170.3 | 0 | 1.1 | 0.2 | 2.8 | 153.6 | 30.0 | 93.8 | 8.0 |
| 25/03/2024 | 21.9 | 13 | 31.7 | 22.0 | 13.6 | 30.9 | 64.9 | 25.4 | 100 | 1802.5 | 2198.2 | 0 | 1.3 | 0 | 4.1 | 229.1 | 26.2 | 96.5 | 8.7 |
| 26/03/2024 | 21.5 | 12.3 | 30.7 | 21.8 | 13 | 30.2 | 68.7 | 30.1 | 100 | 1844.8 | 2235.7 | 0 | 1.3 | 0.1 | 5.3 | 125.0 | 31.1 | 99.2 | 7.3 |
| 27/03/2024 | 22.1 | 17.2 | 27.8 | 22.1 | 17.9 | 27.4 | 74.7 | 46 | 99.9 | 1808.9 | 2327.4 | 0 | 2.2 | 0.1 | 4.7 | 127.5 | 20.1 | 87.8 | 7.1 |
| 28/03/2024 | 21.6 | 16.6 | 28.9 | 21.6 | 17.7 | 27.9 | 77.1 | 41.1 | 100 | 1758.6 | 2301.3 | 0 | 1.9 | 0 | 5.4 | 129.8 | 23.3 | 76.2 | 7.4 |
| 29/03/2024 | 21.4 | 15.9 | 26.5 | 21.3 | 16.4 | 25.8 | 75.2 | 51.2 | 98.4 | 1776.9 | 2316.2 | 0 | 1.9 | 0.4 | 4.3 | 131.3 | 19.1 | 36.2 | 6.9 |
| 30/03/2024 | 20.3 | 10.5 | 29.1 | 20.5 | 11.4 | 28.4 | 73.8 | 38.8 | 100 | 1869.4 | 2250.0 | 0 | 1.2 | 0.1 | 3.5 | 163.6 | 28.2 | 97.1 | 6.2 |
| 31/03/2024 | 20.0 | 11.5 | 27.4 | 20.2 | 12.3 | 26.6 | 75.7 | 43.4 | 100 | 1837.5 | 2306.6 | 0 | 1.2 | 0.1 | 3.2 | 142.3 | 26.8 | 78.6 | 7.8 |
| Total | 22.3 | 10.5 | 37.1 | 22.3 | 11.4 | 36.1 | 71.4 | 17.8 | 100 | 942.5 | 2362.3 | 28.4 | 1.7 | 0 | 24.8 | 150.7 | 24.2 | 99.2 | 4.7 |

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