# MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

**Site Information**

**EPL No:** 20221
**EPA Website Link:** **Hyperlink to Maules Creek Coal, Environment Protection Licence**
**Licensee:** Maules Creek Coal Mine Pty Ltd
**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382
**EPL Monitoring Points:** See Figure 1 below
**Sampling Period:** February 2024
**Obtained Date:** 15th March 2024
**Publication Date:** 16th March 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the NSW Environment Protection Authority (EPA).

# Monthly Monitoring Summary

## Ground Water Monitoring

### Table 1 – Groundwater Quality Monitoring

| ID EPL (Bore) | Parameters | Units | Frequency | Samples | Date | Laboratory Results Received | Min | Mean | Max / Only Value |
|---|---|---|---|---|---|---|---|---|---|
| 15 (BCM01) | pH | pH | Quarterly | Next sample in March 2024 | | | | | |
| | Conductivity | µs/cm | | | | | | | |
| | TDS | mg/L | | | | | | | |
| 16 (BCM03) | pH | pH | Quarterly | | | | | | |
| | Conductivity | µs/cm | | | | | | | |
| | TDS | mg/L | | | | | | | |
| 17 (REG10A) | pH | pH | Quarterly | | | | | | |
| | Conductivity | µs/cm | | | | | | | |
| | TDS | mg/L | | | | | | | |
| 24 (RB05A) | pH | pH | Quarterly | | | | | | |
| | Conductivity | µs/cm | | | | | | | |
| | TDS | mg/L | | | | | | | |

## Surface Water Monitoring

### Table 2 – Surface Water Monitoring – Mine Void

| ID EPL (Site) | Parameter | Units | Frequency | Samples | Date | Laboratory Results Received | Min | Mean | Max / Only Value |
|---|---|---|---|---|---|---|---|---|---|
| 12 (Mine Void) | TSS | mg/L | Every 2 months | 1 | 13/02/2024 | | | | <5 |
| | Conductivity | µs/cm | | | | | | | 1180 |
| | Oil & Grease | mg/L | | | | | | | <5 |
| | pH | pH | | | | | | | 8.28 |

*report amended on 17/04/2024 to include mine void monitoring results

### Table 3 – Wet Weather Discharge - Surface Water Monitoring

| ID EPL (Site) | Parameter | Units | Frequency | Samples | Date | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 (SD3) | Conductivity | µs/cm | Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36. | No discharge occurred at these locations in February 2024 | | | | | | |
| | Nitrate | mg/L | | | | | | | | |
| | Nitrogen (total) | mg/L | | | | | | | | |
| | Oil & Grease | mg/L | | | | | | | | |
| | pH | pH | | | | | | | | |
| | Phosphorous | mg/L | | | | | | | | |
| | Reactive Phosphorous | mg/L | | | | | | | | |
| | TSS | mg/L | | | | | | | | |
| 36 (SD12) | Conductivity | µs/cm | Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36 | | | | | | | |
| | Nitrate | mg/L | | | | | | | | |
| | Nitrogen (total) | mg/L | | | | | | | | |
| | Oil & Grease | mg/L | | | | | | | | |
| | pH | pH | | | | | | | | |
| | Phosphorous | mg/L | | | | | | | | |
| | Reactive Phosphorous | mg/L | | | | | | | | |
| | TSS | mg/L | | | | | | | | |
| | Conductivity | µs/cm | | | | | | | | |

## Table 4 – Clean Water Discharge - Surface Water Monitoring

| ID EPL (Site) | Parameter | Units | Frequency | Samples | Date | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---|---|---|---|---|---|---|---|---|---|---|
| 38 (Flow Meter Upstream) | Conductivity | µs/cm | Special Frequency 3 - within 12 hours of discharge from any discharge location. | No discharge occurred at these locations in February 2024 | | | | | | |
| | Nitrate | mg/L | | | | | | | | |
| | Nitrogen (total) | mg/L | | | | | | | | |
| | Oil & Grease | mg/L | | | | | | | | |
| | pH | pH | | | | | | | | |
| | Phosphorous | mg/L | | | | | | | | |
| | Reactive Phosphorous | mg/L | | | | | | | | |
| | TSS | mg/L | | | | | | | | |
| | Conductivity | µs/cm | | | | | | | | |
| | Nitrate | mg/L | | | | | | | | |
| | Nitrogen (total) | mg/L | | | | | | | | |
| | Oil & Grease | mg/L | | | | | | | | |
| | pH | pH | | | | | | | | |
| | Phosphorous | mg/L | | | | | | | | |
| | Reactive Phosphorous | mg/L | | | | | | | | |
| | TSS | mg/L | | | | | | | | |
| 39 (Flow Meter downstream) | Conductivity | µs/cm | Special Frequency 3 - within 12 hours of discharge from any discharge location. | | | | | | | |
| | Nitrate | mg/L | | | | | | | | |
| | Nitrogen (total) | mg/L | | | | | | | | |
| | Oil & Grease | mg/L | | | | | | | | |
| | pH | pH | | | | | | | | |
| | Phosphorous | mg/L | | | | | | | | |
| | Reactive Phosphorous | mg/L | | | | | | | | |
| | TSS | mg/L | | | | | | | | |
| | Conductivity | µs/cm | | | | | | | | |
| | Nitrate | mg/L | | | | | | | | |
| | Nitrogen (total) | mg/L | | | | | | | | |
| | Oil & Grease | mg/L | | | | | | | | |
| | pH | pH | | | | | | | | |
| | Phosphorous | mg/L | | | | | | | | |
| | Reactive Phosphorous | mg/L | | | | | | | | |

| | | | | |
|---|---|---|---|---|
| | TSS | mg/L | | |
| 40 (HWD8) | TSS | mg/L | Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period | |
| | Conductivity | µs/cm | | |
| | Oil & Grease | mg/L | | |
| | pH | pH | | |
| 41 (HWD9) | TSS | mg/L | Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period | No discharge occurred at these locations in February 2024 |
| | Conductivity | µs/cm | | |
| | Oil & Grease | mg/L | | |
| | pH | pH | | |
| | TSS | mg/L | | |
| | Conductivity | µs/cm | | |
| | Oil & Grease | mg/L | | |
| | pH | pH | | |
| 42 (HWD10) | TSS | mg/L | Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or | |
| | Conductivity | µs/cm | | |
| | Oil & Grease | mg/L | | |

| | | | | |
|---|---|---|---|---|
| | pH | pH | within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period | |
| 43 (HWD11) | TSS | mg/L | Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period | No discharge occurred at these locations in February 2024 |
| | Conductivity | µs/cm | | |
| | Oil & Grease | mg/L | | |
| | pH | pH | | |
| | TSS | mg/L | | |
| | Conductivity | µs/cm | | |
| | Oil & Grease | mg/L | | |
| | pH | pH | | |
| 44 (WCWD) | TSS | mg/L | Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day | |
| | Conductivity | µs/cm | | |
| | Oil & Grease | mg/L | | |
| | pH | pH | | |
| | TSS | mg/L | | |
| | Conductivity | µs/cm | | |

| | | | | |
|---|---|---|---|---|
| | Oil & Grease | mg/L | consecutive period | |
| | pH | pH | | |
| | pH | pH | | |
| | TSS | mg/L | | |
| | Oil & Grease | mg/L | | |
| | pH | mg/L | | |
| | TSS | pH | | |

## Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

| MCC ID | Date | Start Time | Wind Speed (m/s) | MCCP $L_{Aeq\ 15min}$ dB | Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria | MCCP $L_{Aeq\ 1min}$ dB | Limit $L_{A1\ (1\ min)}$ (dB) Operations Criteria | Weather Rain (mm) | Exceedance (Yes / No) |
|---|---|---|---|---|---|---|---|---|---|
| NM1 | 27/02/2024 | 22:30 | 4.3 | IA | 35 | IA | 45 | 0.0 | No |
| NM2 | 27/02/2024 | 23:38 | 4.2 | IA | 39 | IA | 45 | 0.0 | No |
| NM3 | 27/02/2024 | 23:21 | 3.8 | IA | 35 | IA | 45 | 0.0 | No |
| NM4 | 27/02/2024 | 23:00 | 4.3 | IA | 35 | IA | 45 | 0.0 | No |
| NM5 | 27/02/2024 | 22:00 | 3.1 | IA | 35 | IA | 45 | 0.0 | No |
| NM6 | 28/02/2024 | 00:04 | 3.7 | IA | 35 | IA | 45 | 0.0 | No |

MCC ID = Locations as per the EPL No.20221.
ND = No data due to high prevailing winds during the attended noise monitoring event.
*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*
NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.
IA = Site noise was inaudible at the monitoring location.
N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.

## Blast Monitoring

Table 8 – Blast Monitoring (Blasts – Limits Apply)

| Location | Parameter | Units | Frequency | Number | Average | Max | 100% Limit | Exceedance (Yes / No) |
|---|---|---|---|---|---|---|---|---|
| Operations Blasts | Overpressure | Db (Lin Peak) | All | 7 | 96.43 | 112.70 | 120 | No |
| | Vibration | mm/s | | 7 | 0.11 | 0.36 | 10 | No |

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*

## Air Quality Monitoring

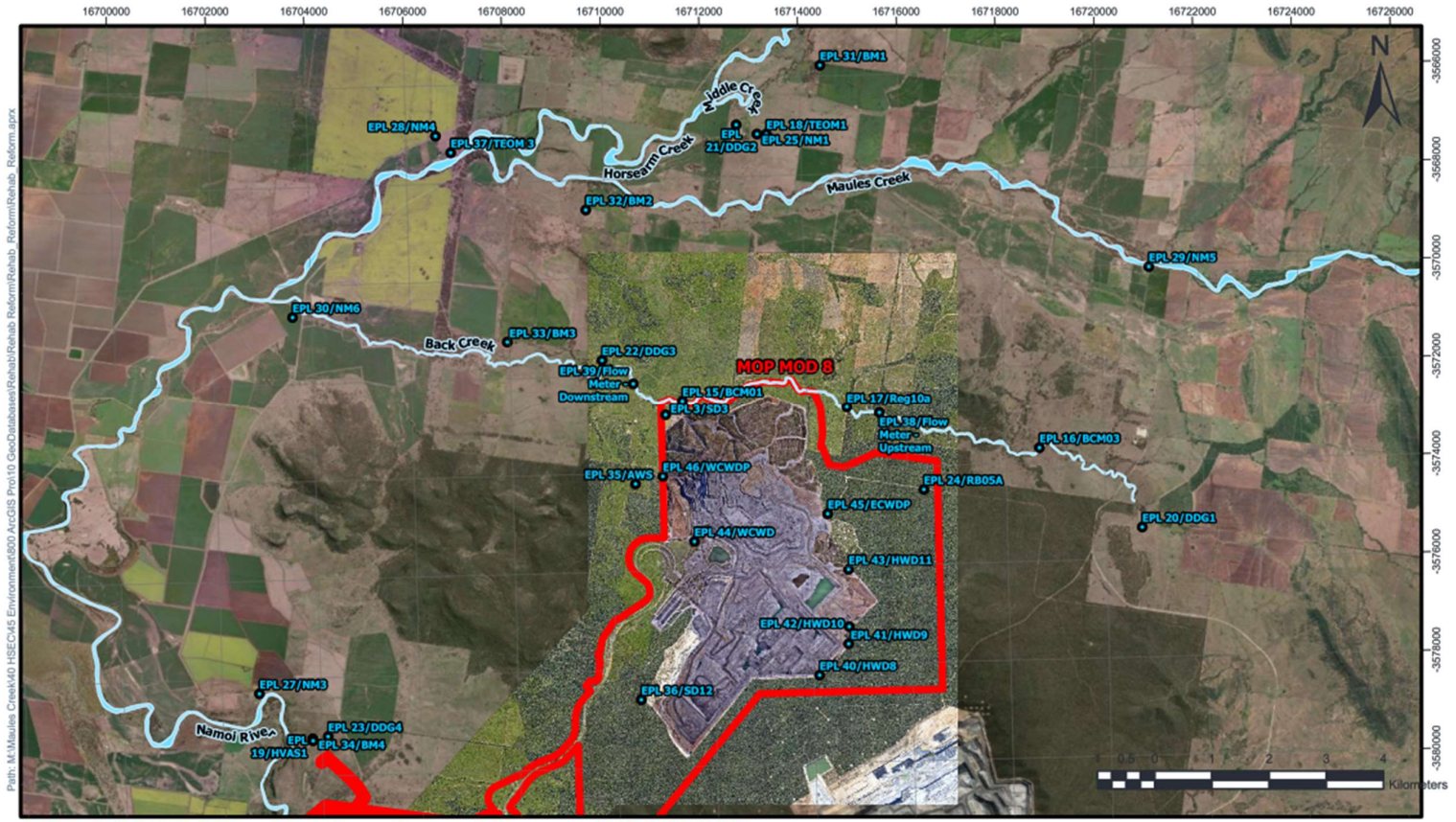
Table 9 – $PM_{10}$ (Limits Apply)

| ID EPL (Site) | Sample period | Unit | Parameter | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---|---|---|---|---|---|---|
| 18 (TEOM1) | Continuous | µg/m³ month | $PM_{10}$ | 11.7 | 30 | No |
| 37 (TEOM3) | Continuous | µg/m³ month | $PM_{10}$ | 14.3 | 30 | No |
| 19 (HVAS) | 5 days | µg/m³ | $PM_{10}$ | 15.3 | 30 | No |

Table 10 – Depositional Dust (Limits Apply)

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---|---|---|---|---|---|
| 20 (DDG1/MC1) | Monthly | g/m² month | 2.2 | 4 | No |
| 21 (DDG2/MC2) | Monthly | g/m² month | 2.1 | 4 | No |
| 22 (DDG3/MC3) | Monthly | g/m² month | 2.0 | 4 | No |
| 23 (DDG4/MC4) | Monthly | g/m² month | 1.2 | 4 | No |

Figure 1 – EPL 20221 Monitoring Locations




## EPL20221 Monitoring Locations - 2/08/2022

Maules Creek Coal

Legend

- EPL Monitoring locations

05 Project Boundary_Boundaries

- MCCM Project Boundary (Mod 8)

Scale: 1:88,442

Author: shenanewman

Date Exported: 16/09/2022 11:51 AM

Spatial Reference
Name: GDA2020 MGA Zone 56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