

# CULLEN VALLEY MINE

## Monthly Environmental Monitoring Data

### for

## Castlereagh Coal

## 1 INTRODUCTION

Castlereagh Coal owns and operates Cullen Valley Mine located near Cullen Bullen in the Central West district of New South Wales. This report has been prepared pursuant to Chapter 2, Part 3.5, Condition 66(6) of the Protection of the Environment operations Act 1997 for the publication of results of monitoring and the NSW Environmental Protection Authority guideline titled Requirements for publishing pollution monitoring data (2013).

## 2 ENVIRONMENTAL PROTECTION LICENCE DETAILS

### Cullen Valley Mine (EPL 10341)

**Licensee:** Shoalhaven Coal Pty Ltd

**Address:** Cullen Valley Mine, Portland Road, Cullen Bullen, NSW 2790

**Link:** <https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50797&SYSUID=1&LICID=10341>

## 3 ENVIRONMENTAL PROTECTION LICENCE DETAILS

### 3.1 DEPOSITIONAL DUST

All depositional dust sampling locations were in compliance with the rolling annual average limit ( $4 \text{ g/m}^2$  /month) for the period September 2023 to August 2024. Maximum annual increase in deposited dust levels are also below the criteria limit of  $2 \text{ g/m}^2$  /month. Depositional dust monitoring results are presented in **Table 1**.

**Table 1: Depositional Dust Monitoring Results: August 2024**

<b>Obtained:</b> 22/10/2024			<b>Premise:</b> Cullen Valley Mine	
<b>Published:</b> 06/11/2024			<b>Licensee:</b> Shoalhaven Coal	
			<b>EPL Number:</b> 10341	
			<b>Exposure Period:</b> 29 days	
Sampling Point	Start Date	End Date	Insoluble Solids (g/m <sup>2</sup> /month)	Rolling Annual Average (g/m <sup>2</sup> /month)
CDD1 (Railway)	08/08/2024	09/09/2024	0.40	0.52
CDD2 (Hillcroft)	08/08/2024	09/09/2024	0.40	0.47
CDD3 (Office)	08/08/2024	09/09/2024	0.30	0.62
CDD4 (Cranes)	08/08/2024	09/09/2024	0.90	1.20
CDD5 (Doble)	08/08/2024	09/09/2024	0.70	0.67
Annual Average Limit				4.0

Required Frequency: Monthly - exposure period 30 ± 2 days

Rolling annual average calculation period from September 2023 to August 2024

### 3.2 PM<sub>10</sub> AND TSP

The 24-hour maximum PM<sub>10</sub> particulate matter concentration less than 10 microns (PM<sub>10</sub>) criterion of 50 µg/m<sup>3</sup> was not exceeded during August 2024. The PM<sub>10</sub> and total suspended particulate (TSP) annual average results were in compliance with the annual average limit for the period September 2023 to August 2024.

PM<sub>10</sub> and TSP results for August 2024 are presented in

**Table 2.**

**Table 2: High Volume Air Sampler Monitoring Results: August 2024**

<b>Obtained:</b> 22/10/2024		<b>Premise:</b> Cullen Valley Mine	
<b>Published:</b> 06/11/2024		<b>Licensee:</b> Shoalhaven Coal	
		<b>EPL Number:</b> 10341	
Sampling Point	Run Date	PM <sub>10</sub> (µg/m <sup>3</sup> )	TSP (µg/m <sup>3</sup> ) ^
<b>HVAS1</b>	03/08/2024	6.0	15.0
	09/08/2024	4.0	10.0
	15/08/2024	<1.0	<1.0
	21/08/2024	5.0	12.5
	27/08/2024	<1.0	2.50
<b>Rolling Annual Average</b> (Calculation period September 2023 to August 2024)		14.5	31.0
<b>24 Hour Limit</b>		<b>50</b>	--
<b>Annual Average Limit</b>		<b>30</b>	<b>90</b>

^TSP calculated from an estimate of PM<sub>10</sub>

Required Frequency: Weekly – High Volume Air Sample run events occur every six days for 24 hours.

-- No Limit

#### 4 SURFACE WATER QUALITY

A discharge event is deemed to occur when water leaves the site either through the overflow channel or as a result of actively pumping water. Site did not discharge from Dam 3 (EPA Point 1) in August 2024, samples were collected from Dam 3 for due diligence purposes only. Discharge was observed at Dam 4 (EPA Point 4) throughout August 2024.

Water quality results are presented in **Table 3**

**Table 3: Discharge Water Quality Results – August 2024**

<b>Obtained:</b> 17/09/2024		<b>Premise:</b> Cullen Valley Mine			
<b>Published:</b> 06/11/2024		<b>Licensee:</b> Shoalhaven Coal			
		<b>EPL Number:</b> 10341			
Sampling Point Frequency	Frequency	Pollutant	Limit	Date	Measure ment
Dam 3  Due Diligence Sample (Non-Discharge) <sup>1</sup>	N/A	pH (pH unit)	6.5 – 8.5	8/08/2024	7.65
		Conductivity (µS/cm)	--	8/08/2024	235
		TSS (mg/L)	50	8/08/2024	<5
		Oil & Grease (mg/L)	10	8/08/2024	<5
		Total Iron (mg/L)	--	8/08/2024	0.170
		Total Manganese (mg/L)	--	8/08/2024	0.042
		pH (pH unit)	6.5 – 8.5	14/08/2024	6.98
		Conductivity (µS/cm)	--	14/08/2024	225
		TSS (mg/L)	50	14/08/2024	5
		Oil & Grease (mg/L)	10	14/08/2024	<5
		Total Iron (mg/L)	--	14/08/2024	0.01
		Total Manganese (mg/L)	--	14/08/2024	0.0012
		pH (pH unit)	6.5 – 8.5	21/08/2024	7.38
		Conductivity (µS/cm)	--	21/08/2024	235
		TSS (mg/L)	50	21/08/2024	8
		Oil & Grease (mg/L)	10	21/08/2024	<5
		Total Iron (mg/L)	--	21/08/2024	--
		Total Manganese (mg/L)	--	21/08/2024	--

**MONTHLY ENVIRONMENTAL MONITORING DATA**  
**August 2024**

		pH (pH unit)	6.5 – 8.5	27/08/2024	7.42
		Conductivity (µS/cm)	--	27/08/2024	693
		TSS (mg/L)	50	27/08/2024	<5
		Oil & Grease (mg/L)	10	27/08/2024	<5
		Total Iron (mg/L)	--	27/08/2024	--
		Total Manganese (mg/L)	--	27/08/2024	--
Discharge Point 1 (Dam 3) (EPA Point 1)	Weekly during discharge	pH (pH unit)	6.5 – 8.5	--	N/A
		Conductivity (µS/cm)	--	--	N/A
		TSS (mg/L)	50	--	N/A
		Oil & Grease (mg/L)	10	--	N/A
		Total Iron (mg/L)	--	--	N/A
		Total Manganese (mg/L)	--	--	N/A
Dam 4 (EPA Point 4)	*Weekly during discharge	pH (pH unit)	6.5 – 8.5	8/08/2024	6.95
		Conductivity (µS/cm)	--	8/08/2024	672
		TSS (mg/L)	50	8/08/2024	<5
		Oil & Grease (mg/L)	10	8/08/2024	<5
		Total Iron (mg/L)	--	8/08/2024	0.050
		Total Manganese (mg/L)	--	8/08/2024	0.150
		pH (pH unit)	6.5 – 8.5	14/08/2024	6.9
		Conductivity (µS/cm)	--	14/08/2024	461
		TSS (mg/L)	50	14/08/2024	50
		Oil & Grease (mg/L)	10	14/08/2024	<5
		Total Iron (mg/L)	--	14/08/2024	--
		Total Manganese (mg/L)	--	14/08/2024	--
		pH (pH unit)	6.5 – 8.5	21/08/2024	7.42
		Conductivity (µS/cm)	--	21/08/2024	693
		TSS (mg/L)	50	21/08/2024	<5

		Oil & Grease (mg/L)	10	21/08/2024	<5
		Total Iron (mg/L)	--	21/08/2024	--
		Total Manganese (mg/L)	--	21/08/2024	--
		pH (pH unit)	6.5 – 8.5	27/08/2024	6.82
		Conductivity (µS/cm)	--	27/08/2024	750
		TSS (mg/L)	50	27/08/2024	<5
		Oil & Grease (mg/L)	10	27/08/2024	<5
		Total Iron (mg/L)	--	27/08/2024	--
		Total Manganese (mg/L)	--	27/08/2024	--

<sup>1</sup> – sample collected for due diligence purposes only.

--No limit provided in EPL 10341

\*Note the sample on the 03/08/24 failed to be collected

The pH, oil and grease concentrations at Dam 4 were compliant with the EPL limits however total suspended solids (TSS) (50 mg/L) result was equal to the EPL limit (50 mg/L). Dam 3 was sampled for due diligence purposes only as there was no discharge conducted throughout the reporting period.

## 5 NOISE LIMITS

Attended noise monitoring is required to be undertaken on a quarterly frequency. Noise Monitoring reports for previous quarters are available on the Castlereagh Coal website: <https://ccoal.com.au/environmental-reporting-compliance/>

## 6 BLASTING

No blasting was undertaken during August 2024.

## 7 DISCLAIMER

This report is considered accurate at the date of issue with regard to current environmental conditions. Monitoring results may vary from those presented in this report following further assessment. This report must not be reproduced except in full. Results or figures from this report must not be used without acknowledgment.

Yours Faithfully,

**CASTLEREAGH COAL**