

# **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 g/m<sup>2</sup> /month) for the period September 2024 to August 2025. Maximum annual increase in deposited dust levels is below the criteria limit of 2 g/m<sup>2</sup> /month. Depositional dust monitoring results are presented in **Table 1**.

Table 1: Depositional Dust Monitoring Results: August 2025

<b>Obtained:</b> 31/10/2025		<b>Premises:</b> Cullen Valley Mine		
<b>Published:</b> 25/11/2025		<b>Licensee:</b> Shoalhaven Coal		
		<b>EPL Number:</b> 10341		
		<b>Exposure</b>		<b>Period:</b> 28 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)	04/08/2025	01/09/2025	0.4	0.79
CDD2 (Hillcroft)	04/08/2025	01/09/2025	0.2	0.53
CDD3 (Office)	04/08/2025	01/09/2025	0.1	1.09
CDD4 (Cranes)	04/08/2025	01/09/2025	0.2	0.81
CDD5 (Doble)	04/08/2025	01/09/2025	0.2	0.52
<b>Annual Average Limit</b>				<b>4.0</b>

Required Frequency: Monthly - exposure period 30 ± 2 days

Rolling annual average calculation period from September 2024 to August 2025

### 3.2 PM<sub>10</sub>, PM<sub>2.5</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> and the 24-hour maximum PM<sub>2.5</sub> particulate matter concentration less than 2.5 microns (PM<sub>2.5</sub>) criterion of 25 µg/m<sup>3</sup> were not exceeded during August 2025. The PM<sub>10</sub>, PM<sub>2.5</sub> and total suspended particulate (TSP) annual average results were in compliance with the annual average limit for the period September 2024 to August 2025.

PM<sub>10</sub>, PM<sub>2.5</sub> and TSP results for August 2025 are presented in **Table 2**.

Table 2: High Volume Air Sampler Monitoring Results: August 2025

<b>Obtained:</b> 21/11/2025 <b>Published:</b> 25/11/2025		<b>Premises:</b> Cullen Valley Mine <b>Licensee:</b> Shoalhaven Coal <b>EPL Number:</b> 10341		
Sampling Point	Run Date	PM10 ( $\mu\text{g}/\text{m}^3$ )	PM2.5 ( $\mu\text{g}/\text{m}^3$ )	TSP ( $\mu\text{g}/\text{m}^3$ ) ^
<b>HVAS1</b>	07/08/2025	2	n/a	5.0
	12/08/2025	3	n/a	7.5
	13/08/2025	3	n/a	7.5
	14/08/2025	2	n/a	5.0
	15/08/2025	4	n/a	10.0
	18/08/2025	Invalid	Invalid	Invalid
	19/08/2025	3	1.5	7.5
	20/08/2025	15	7.5	37.5
	21/08/2025	18	9.0	45.0
	25/08/2025	2	1.0	5.0
	26/08/2025	1	0.5	2.5
	27/08/2025	1	0.5	2.5
	28/08/2025	2	1.0	5.0
<b>Rolling Annual Average (Calculation period September 2024 to August 2025)</b>		12.0	6.0	29.9
<b>24 Hour Limit</b>		<b>50</b>	<b>25</b>	--
<b>Annual Average Limit</b>		<b>25</b>	<b>8</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

Catchup runs for previous invalid or not completed runs conducted in August/September 2025.

## 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 2025, samples were collected from Dam 3 for due diligence purposes only. Discharge was observed at Dam 4 (EPA Point 4) throughout August 2025 and was sampled weekly.

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

Table 3: Discharge Water Quality Results – September 2025

<b>Obtained:</b>	04/11/2025	<b>Premises:</b>	Cullen Valley Mine
<b>Published:</b>	25/11/2025	<b>Licensee:</b>	Shoalhaven Coal
		<b>EPL Number:</b>	10341

**MONTHLY ENVIRONMENTAL MONITORING DATA**

**August 2025**

Sampling Point Frequency	Frequency	Pollutant	Limit	Date	Measurement
Dam 3 (LD001)  Due Diligence Sample (Non-Discharge) <sup>1</sup>	N/A	pH (pH unit)	6.5 – 8.5	18/08/2025	6.8
		Conductivity (µS/cm)	--	18/08/2025	190
		TSS (mg/L)	50	18/08/2025	7
		Oil & Grease (mg/L)	10	18/08/2025	<5
		Total Iron (mg/L)	--	18/08/2025	0.15
		Total Manganese (mg/L)	--	18/08/2025	0.038

Sampling Point Frequency	Frequency	Pollutant	Limit	Date	Measurement
Dam 3 (LD001) (EPA Point 1)	Weekly during discharge	pH (pH unit)	6.5 – 8.5	--	N/A
		Conductivity (µS/cm)	650	--	N/A
		TSS (mg/L)	50	--	N/A
		Oil & Grease (mg/L)	10	--	N/A
		Total Boron (mg/L)	0.94	--	N/A
		Total Cobalt (mg/L)	0.0014	--	N/A
		Total Copper (mg/L)	0.0014	--	N/A
		Total Nickel (mg/L)	0.011	--	N/A
		Total Zinc (mg/L)	0.008	--	N/A
		Total Iron (mg/L)	0.3	--	N/A
		Total Manganese (mg/L)	1.9	--	N/A

**MONTHLY ENVIRONMENTAL MONITORING DATA**

**August 2025**

Dam 4 (LD004) (EPA Point 4)	Weekly during discharge	pH (pH unit)	6.5 – 8.5	07/08/2025 13/08/2025 20/08/2025 27/08/2025	7.5 7.3 7.4 7.1
		Conductivity (µS/cm)	-- 650	07/08/2025 13/08/2025 20/08/2025 27/08/2025	N/A 456 473 404
		TSS (mg/L)	50	07/08/2025 13/08/2025 20/08/2025 27/08/2025	<5 10 <5 <5
		Oil & Grease (mg/L)	10	07/08/2025 13/08/2025 20/08/2025 27/08/2025	<5 <5 <5 <5
		Total Boron (mg/L)	-- 0.94	07/08/2025 13/08/2025 20/08/2025 27/08/2025	N/A <0.05 <0.05 <0.05
		Total Cobalt (mg/L)	- 0.0014	07/08/2025 13/08/2025 20/08/2025 27/08/2025	N/A 0.002 <0.001 <0.001
		Total Copper (mg/L)	- 0.0014	07/08/2025 13/08/2025 20/08/2025 27/08/2025	N/A <0.001 <0.001 <0.001
		Total Nickel (mg/L)	- 0.011	07/08/2025 13/08/2025 20/08/2025 27/08/2025	N/A 0.006 0.004 0.006
		Total Zinc (mg/L)	- 0.008	07/08/2025 13/08/2025 20/08/2025 27/08/2025	N/A <0.005 <0.005 <0.005
		Total Iron (mg/L)	- 0.3	07/08/2025 13/08/2025 20/08/2025 27/08/2025	N/A 1.34 0.92 0.97
		Total Manganese (mg/L)	- 1.9	07/08/2025 13/08/2025 20/08/2025 27/08/2025	N/A 0.4 0.29 0.3

1 – sample collected for due diligence purposes only.

--No limit provided in EPL 10341

A variation to analyte concentration limits was received by the EPA as part of the variation to EPL10341 on 8 August 2025. The concentrations for pH, TSS, conductivity, oil and grease, copper, manganese, nickel, zinc and boron at Dam 4 were compliant for all weeks during discharge in August. Cobalt concentration limits were exceeded two of the three weeks and iron concentration limits were exceeded over all three weeks under the revised limits.

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 2025.

## **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**