

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/m² /month) for the period January 2024 to December 2024. Maximum annual increase in deposited dust levels is below the criteria limit of 2 g/m² /month. Depositional dust monitoring results are presented in **Table 1**.

Table 1: Depositional Dust Monitoring Results: December 2024

Obtained: 14/01/2025		Premise: Cullen Valley Mine		
Published: 04/02/2025		Licensee: Shoalhaven Coal		
		EPL Number: 10341		
		Exposure Period: 29 days		
Sampling Point	Start Date	End Date	Insoluble Solids (g/m ² /month)	Rolling Annual Average (g/m ² /month)
CDD1 (Railway)	10/12/2024	10/01/2025	1.0	0.82
CDD2 (Hillcroft)	10/12/2024	10/01/2025	0.9	0.58
CDD3 (Office)	10/12/2024	10/01/2025	6.4	1.16
CDD4 (Cranes)	10/12/2024	10/01/2025	2.8	1.08
CDD5 (Doble)	10/12/2024	10/01/2025	1.0	0.69
Annual Average Limit				4.0

Required Frequency: Monthly - exposure period 30 ± 2 days

Rolling annual average calculation period from January 2024 to December 2024

3.2 PM₁₀ AND TSP

The 24-hour maximum PM₁₀ particulate matter concentration less than 10 microns (PM₁₀) criterion of 50 µg/m³ was not exceeded during December 2024. The PM₁₀ and total suspended particulate (TSP) annual average results were in compliance with the annual average limit for the period January 2024 to December 2024.

PM₁₀ and TSP results for December 2024 are presented in **Table 2**.

Table 2: High Volume Air Sampler Monitoring Results: December 2024

Obtained: 03/02/2025		Premise: Cullen Valley Mine	
Published: 04/02/2025		Licensee: Shoalhaven Coal	
		EPL Number: 10341	
Sampling Point	Run Date	PM ₁₀ (µg/m ³)	TSP (µg/m ³) ^
HVAS1	1/12/2024	2	-
	2/12/2024	14	
	5/12/2024	85	
	7/12/2024	15	-
	14/12/2024	15	-
	19/12/2024	21	-
	23/12/2024	20	
	31/12/2024	19	
Rolling Annual Average (Calculation period January 2024 to December 2024)		14.16	44.00
24 Hour Limit		50	--
Annual Average Limit		30	90

^TSP calculated from an estimate of PM₁₀

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

-- No Limit

SNR- Sampled but Analysis Not Received by sampling company.

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 December 2024, samples were collected from Dam 3 for due diligence purposes only. Discharge was observed at Dam 4 (EPA Point 4) throughout December 2024.

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

Table 3: Discharge Water Quality Results – December 2024

Obtained:	14/01/2025	Premise:	Cullen Valley Mine		
Published:	04/02/2025	Licensee:	Shoalhaven Coal		
		EPL Number:	10341		
Sampling Point Frequency	Frequency	Pollutant	Limit	Date	Measurement
Dam 3 Due Diligence Sample (Non-Discharge) ¹	N/A	pH (pH unit)	6.5 – 8.5	10/12/2024	7.4
		Conductivity (µS/cm)	--	10/12/2024	232
		TSS (mg/L)	50	10/12/2024	14
		Oil & Grease (mg/L)	10	10/12/2024	<5
		Total Iron (mg/L)	--	10/12/2024	690
		Total Manganese (mg/L)	--	10/12/2024	110
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	06/12/2024	7.0
		Conductivity (µS/cm)	--	06/12/2024	658
		TSS (mg/L)	50	06/12/2024	20
		Oil & Grease (mg/L)	10	06/12/2024	<5
		Total Iron (mg/L)	--	06/12/2024	0.800
		Total Manganese (mg/L)	--	06/12/2024	0.277

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		pH (pH unit)	6.5 – 8.5	10/12/2024	6.94
		Conductivity (µS/cm)	--	10/12/2024	587
		TSS (mg/L)	50	10/12/2024	23.4
		Oil & Grease (mg/L)	10	10/12/2024	<5
		Total Iron (mg/L)	--	10/12/2024	0.420
		Total Manganese (mg/L)	--	10/12/2024	0.230
		pH (pH unit)	6.5 – 8.5	18/12/2024	7.5
		Conductivity (µS/cm)	--	18/12/2024	593
		TSS (mg/L)	50	18/12/2024	<5
		Oil & Grease (mg/L)	10	18/12/2024	<5
		Total Iron (mg/L)	--	18/12/2024	<0.05
		Total Manganese (mg/L)	--	18/12/2024	0.099
		pH (pH unit)	6.5 – 8.5	23/12/2024	7.2
		Conductivity (µS/cm)	--	23/12/2024	593
		TSS (mg/L)	50	23/12/2024	94
		Oil & Grease (mg/L)	10	23/12/2024	<5
		Total Iron (mg/L)	--	23/12/2024	0.400
		Total Manganese (mg/L)	--	23/12/2024	0.108
		pH (pH unit)	6.5 – 8.5	31/12/2024	7.3
		Conductivity (µS/cm)	--	31/12/2024	595
		TSS (mg/L)	50	31/12/2024	<5
		Oil & Grease (mg/L)	10	31/12/2024	<5
		Total Iron (mg/L)	--	31/12/2024	<0.05
		Total Manganese (mg/L)	--	31/12/2024	0.037

¹ – sample collected for due diligence purposes only.
 --No limit provided in EPL 10341

The pH, oil and grease concentrations at Dam 4 were compliant with the EPL limits, however on the 23/12/2024 Dam 4 Total Suspended Solids exceeded the EPL limit of 50mg/L with a result of 94mg/L. The exceedance and investigation was reported to the Department of

Housing, Planning and Infrastructure and also The Environment Protection Authority. The exceedance will be reported in the 2024 Annual Review and the Annual Return. 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 December 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