

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 ($4 \text{ g/m}^2 \text{ /month}$) for the period October 2024 to September 2025. Maximum annual increase in deposited dust levels is below the criteria limit of $2 \text{ g/m}^2 \text{ /month}$. Depositional dust monitoring results are presented in **Table 1**.

Table 1: Depositional Dust Monitoring Results: September 2025

Obtained: 31/10/2025		Premises: Cullen Valley Mine		
Published: 25/11/2025		Licensee: Shoalhaven Coal		
		EPL Number: 10341		
		Exposure		Period: 31 days
Sampling Point	Start Date	End Date	Insoluble Solids (g/m ² /month)	Rolling Annual Average (g/m ² /month)
CDD1 (Railway)	01/09/2025	02/10/2025	0.9	0.81
CDD2 (Hillcroft)	01/09/2025	02/10/2025	0.2	0.48
CDD3 (Office)	01/09/2025	02/10/2025	0.9	1.13
CDD4 (Cranes)	01/09/2025	02/10/2025	1.2	0.86
CDD5 (Doble)	01/09/2025	02/10/2025	0.9	0.51
Annual Average Limit				4.0

Required Frequency: Monthly - exposure period 30 ± 2 days

Rolling annual average calculation period from October 2024 to September 2025

3.2 PM₁₀, PM_{2.5} AND TSP

The 24-hour maximum PM₁₀ particulate matter concentration less than 10 microns (PM₁₀) criterion of 50 µg/m³ was not exceeded during September 2025. The PM₁₀ and total suspended particulate (TSP) annual average results were in compliance with the annual average limit for the period October 2024 to September 2025.

PM₁₀, PM_{2.5} and TSP results for September 2025 are presented in **Table 2**.

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

Obtained: 04/11/2025		Premises: Cullen Valley Mine		
Published: 25/11/2025		Licensee: Shoalhaven Coal		
		EPL Number: 10341		
Sampling Point	Run Date	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	TSP (µg/m ³) ^
HVAS1	01/09/2025	6	3	15.0
	02/09/2025	3	1.5	7.5
	08/09/2025	9	4.5	22.5
	15/09/2025	5	2.5	12.5
	19/09/2025	2	1.0	5.0
	25/09/2025	10	5.0	25.0
Rolling Annual Average (Calculation period October 2024 to September 2025)		12.0		29.9
24 Hour Limit		50	25	--
Annual Average Limit		25	8	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

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

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

Table 3: Discharge Water Quality Results – September 2025

Obtained: 4/11/25		Premises: Cullen Valley Mine			
Published: 25/11/25		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	01/09/2025	6.6
		Conductivity (µS/cm)	650	01/09/2025	170
		TSS (mg/L)	50	01/09/2025	15
		Oil & Grease (mg/L)	10	01/09/2025	<5
		Total Iron (mg/L)	0.3	01/09/2025	0.48
		Total Manganese (mg/L)	1.9	01/09/2025	0.23
Discharge Point 1 (Dam 3) (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

MONTHLY ENVIRONMENTAL MONITORING DATA
September 2025

Sampling Point Frequency	Frequency	Pollutant	Limit	Date	Measurement
		Total Zinc (mg/L)	0.008	--	N/A
		Total Iron (mg/L)	0.3	--	N/A
		Total Manganese (mg/L)	1.9	--	N/A
Dam 4 (EPA Point 4)	Weekly during discharge	pH (pH unit)	6.5 – 8.5	03/09/2025	7.1
				10/09/2025	7.3
				17/09/2025	7.4
				24/09/2025	6.8
		Conductivity (µS/cm)	-- 650	03/09/2025	338.2
				10/09/2025	612.6
				17/09/2025	549.5
				24/09/2025	555.1
		TSS (mg/L)	50	03/09/2025	40
				10/09/2025	10
				17/09/2025	28
				24/09/2025	6
		Oil & Grease (mg/L)	10	03/09/2025	<5
				10/09/2025	<5
				17/09/2025	<5
				24/09/2025	<5
		Total Boron (mg/L)	-- 0.94	03/09/2025	0.09
				10/09/2025	<0.05
				17/09/2025	<0.05
				24/09/2025	<0.05
		Total Cobalt (mg/L)	- 0.0014	03/09/2025	0.001
				10/09/2025	<0.001
				17/09/2025	0.002
				24/09/2025	<0.001
		Total Copper (mg/L)	- 0.0014	03/09/2025	0.004
				10/09/2025	<0.001
				17/09/2025	<0.001
				24/09/2025	<0.001
		Total Nickel (mg/L)	- 0.011	03/09/2025	0.006
				10/09/2025	0.005
				17/09/2025	0.009
				24/09/2025	0.003
		Total Zinc (mg/L)	- 0.008	03/09/2025	0.006
				10/09/2025	0.007
				17/09/2025	0.01
				24/09/2025	<0.005

Sampling Point Frequency	Frequency	Pollutant	Limit	Date	Measurement
Dam 4 (EPA Point 4)		Total Iron (mg/L)	- 0.3	03/09/2025	1.02
				10/09/2025	0.56
				17/09/2025	0.94
				24/09/2025	0.14
		Total Manganese (mg/L)	- 1.9	03/09/2025	0.278
				10/09/2025	0.248
				17/09/2025	0.298
				24/09/2025	0.106

1 – sample collected for due diligence purposes only.

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, manganese, nickel and boron at Dam 4 were compliant for all weeks during discharge in September. Cobalt concentration limits were exceeded one of the four weeks, copper in one of the four weeks, zinc in one of the four weeks and iron in three of the four 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 September 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