

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 June 2023 to May 2024. Maximum annual increase in deposited dust levels are also below the criteria limit of 2 g/m² /month. Depositional dust monitoring results are presented in **Table 1**.

Table 1: Depositional Dust Monitoring Results: May 2024

Obtained: 01/07/2024		Premise: Cullen Valley Mine		
Published: 14/08/2024		Licensee: Shoalhaven Coal		
		EPL Number: 10341		
		Exposure Period: 32 days		
Sampling Point	Start Date	End Date	Insoluble Solids (g/m ² /month)	Rolling Annual Average (g/m ² /month)
CDD1 (Railway)	10/05/2024	11/06/2024	0.5	0.58
CDD2 (Hillcroft)	10/05/2024	11/06/2024	0.3	0.40
CDD3 (Office)	10/05/2024	11/06/2024	0.3	0.61
CDD4 (Cranes)	10/05/2024	11/06/2024	0.5	1.00
CDD5 (Doble)	10/05/2024	11/06/2024	0.4	0.64
Annual Average Limit				4.0

Required Frequency: Monthly - exposure period 30 ± 2 days

Rolling annual average calculation period from June 2023 to May 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 exceeded on 10th of May 2024 (97 µg/m³) and the 29th of May (280 µg/m³). The Department of Planning, Housing and Infrastructure (DPHI) and relevant stakeholders were notified of the exceedances. An investigation was conducted to determine the likely cause of the exceedances.

The PM₁₀ and total suspended particulate (TSP) annual average results were in compliance with the annual average limit for the period of June 2023 to May 2024.

The PM₁₀ and TSP results for May 2024 are presented in

Table 2.

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

Obtained: 05/08/2024		Premise: Cullen Valley Mine	
Published: 14/08/2024		Licensee: Shoalhaven Coal	
		EPL Number: 10341	
Sampling Point	Run Date	PM ₁₀ (µg/m ³)	TSP (µg/m ³) ^
HVAS1	04/05/2024	4.0	10.0
	10/05/2024	97.0	242.5
	16/05/2024	10.0	25.0
	22/05/2024	5.0	12.5
	29/05/2024	280.0	700.0
Rolling Annual Average (Calculation period June 2023 to May 2024)		16.3	35.3
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

NR – No result

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 May 2024; however a sample was collected weekly from Dam 3 for due diligence purposes only. Dam 4 (EPA Point 4) was observed to be discharging throughout May 2024.

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

Table 3: Discharge Water Quality Results – May 2024

Obtained: 07/06/2024 Published: 14/08/2024 Premise: Cullen Valley Mine Licensee: Shoalhaven Coal EPL Number: 10341					
Sampling Point	Frequency	Pollutant	Limit	Date	Measurement
Dam 3 (EPA Point 1) ¹	Weekly during discharge ¹	pH (pH unit)	6.5 – 8.5	08/05/2024	7.42
		Conductivity (µS/cm)*	--	08/05/2024	447
		TSS (mg/L)	50	08/05/2024	25
		Oil & Grease (mg/L)	10	08/05/2024	<5
		Total Iron (mg/L)*	--	08/05/2024	0.13
		Total Manganese (mg/L)*	--	08/05/2024	0.013
		pH (pH unit)	6.5 – 8.5	16/05/2024	6.71
		Conductivity (µS/cm)*	--	16/05/2024	822
		TSS (mg/L)	50	16/05/2024	7
		Oil & Grease (mg/L)	10	16/05/2024	<5
		Total Iron (mg/L)*	--	16/05/2024	0.06
		Total Manganese (mg/L)*	--	16/05/2024	0.017
		pH (pH unit)	6.5 – 8.5	23/05/2024	6.74
		Conductivity (µS/cm)*	--	23/05/2024	824
		TSS (mg/L)	50	23/05/2024	6
		Oil & Grease (mg/L)	10	23/05/2024	<5
		Total Iron (mg/L)*	--	23/05/2024	0.03
		Total Manganese (mg/L)*	--	23/05/2024	0.012
		pH (pH unit)	6.5 – 8.5	29/05/2024	7.04
		Conductivity (µS/cm)*	--	29/05/2024	315
		TSS (mg/L)	50	29/05/2024	<5
		Oil & Grease (mg/L)	10	29/05/2024	<5
		Total Iron (mg/L)*	--	29/05/2024	0.03
		Total Manganese (mg/L)*	--	29/05/2024	0.01
Dam 4 (EPA Point 4)	Weekly during discharge	pH (pH unit)	6.5 – 8.5	08/05/2024	7.41
		Conductivity (µS/cm)*	--	08/05/2024	622
		TSS (mg/L)	50	08/05/2024	19
		Oil & Grease (mg/L)	10	08/05/2024	<5
		Total Iron (mg/L)*	--	08/05/2024	0.19

	Total Manganese (mg/L)*	--	08/05/2024	0.28
	pH (pH unit)	6.5 – 8.5	16/05/2024	7.73
	Conductivity (µS/cm)*	--	16/05/2024	250
	TSS (mg/L)	50	16/05/2024	<5
	Oil & Grease (mg/L)	10	16/05/2024	<5
	Total Iron (mg/L)*	--	16/05/2024	0.12
	Total Manganese (mg/L)*	--	16/05/2024	0.29
	pH (pH unit)	6.5 – 8.5	23/05/2024	7.63
	Conductivity (µS/cm)*	--	23/05/2024	245
	TSS (mg/L)	50	23/05/2024	<5
	Oil & Grease (mg/L)	10	23/05/2024	<5
	Total Iron (mg/L)*	--	23/05/2024	0.06
	Total Manganese (mg/L)*	--	23/05/2024	0.27
	pH (pH unit)	6.5 – 8.5	29/05/2024	6.82
	Conductivity (µS/cm)*	--	29/05/2024	614
	TSS (mg/L)	50	29/05/2024	<5
	Oil & Grease (mg/L)	10	29/05/2024	<5
	Total Iron (mg/L)*	--	29/05/2024	0.03
	Total Manganese (mg/L)*	--	29/05/2024	0.16

¹ – sample collected for due diligence purposes only.

*-- No limit provided in EPL 10341

NR – No result obtained from laboratory

The pH, total suspended solids (TSS) and oil and grease concentration were compliant with the EPL limits at Dam 4 which was discharging at the time of sampling. Dam 3 was sampled for due diligence purposes only.

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 May 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