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^2 /month) for the period November 2023 to October 2024. Maximum annual increase in deposited dust levels is below the criteria limit of 2 g/m^2 /month. Depositional dust monitoring results are presented in **Table 1**.

Table 1: Depositional Dust Monitoring Results: October 2024

Obtained:	26/11/2024	**Premise:**	Cullen Valley Mine	
Published:	17/12/2024	**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)	10/10/2024	11/11/2024	0.9	0.59
CDD2 (Hillcroft)	10/10/2024	11/11/2024	0.6	0.47
CDD3 (Office)	10/10/2024	11/11/2024	0.8	0.61
CDD4 (Cranes)	10/10/2024	11/11/2024	1.6	1.04
CDD5 (Doble)	10/10/2024	11/11/2024	0.9	0.66
			Annual Average Limit	**4.0**

Required Frequency: Monthly - exposure period 30 ± 2 days
Rolling annual average calculation period from November 2023 to October 2024

3.2 PM10 AND TSP

The 24-hour maximum PM_{10} particulate matter concentration less than 10 microns (PM_{10}) criterion of 50 µg/m^3 was not exceeded during October 2024. The PM_{10} and total suspended particulate (TSP) annual average results were in compliance with the annual average limit for the period November 2023 to October 2024.

PM_{10} and TSP results for October 2024 are presented in

Table *2*.

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

Obtained:	29/11/2024	**Premise:**	Cullen Valley Mine
Published:	17/12/2024	**Licensee:**	Shoalhaven Coal
		EPL Number:	10341
Sampling Point	**Run Date**	**PM10 (µg/m^3)**	**TSP (µg/m^3) ^**
HVAS1	08/10/2024	7.0	-
	09/10/2024	6.0	-
	15/10/2024	14.0	-
	17/10/2024	2.0	-
	22/10/2024	15.0	
	29/10/2024	18.0	
	31/10/2024	13.0	-
Rolling Annual Average (Calculation period November 2023 to October 2024)		12.3	38.1
24 Hour Limit		**50**	**--**
Annual Average Limit		**30**	**90**

^TSP calculated from an estimate of PM_{10}
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 October 2024, samples were collected from Dam 3 for due diligence purposes only. Discharge was observed at Dam 4 (EPA Point 4) throughout October 2024.

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

Table 3: Discharge Water Quality Results – October 2024

Obtained: 26/11/2024 **Published:** 17/12/2024		**Premise:** Cullen Valley Mine **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	09/10/2024	7.85
		Conductivity (µS/cm)	--	09/10/2024	287
		TSS (mg/L)	50	09/10/2024	<5
		Oil & Grease (mg/L)	10	09/10/2024	<5
		Total Iron (mg/L)	--	09/10/2024	0.220
		Total Manganese (mg/L)	--	09/10/2024	0.043
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	02/10/2024	7.47
		Conductivity (µS/cm)	--	02/10/2024	749
		TSS (mg/L)	50	02/10/2024	5
		Oil & Grease (mg/L)	10	02/10/2024	<5
		Total Iron (mg/L)	--	02/10/2024	0.140
		Total Manganese (mg/L)	--	02/10/2024	0.070

		pH (pH unit)	6.5 – 8.5	16/10/2024	7.28
		Conductivity (µS/cm)	--	16/10/2024	780
		TSS (mg/L)	50	16/10/2024	<5
		Oil & Grease (mg/L)	10	16/10/2024	<5
		Total Iron (mg/L)	--	16/10/2024	0.070
		Total Manganese (mg/L)	--	16/10/2024	0.065
		pH (pH unit)	6.5 – 8.5	24/10/2024	7.67
		Conductivity (µS/cm)	--	24/10/2024	826
		TSS (mg/L)	50	24/10/2024	<5
		Oil & Grease (mg/L)	10	24/10/2024	<5
		Total Iron (mg/L)	--	24/10/2024	0.190
		Total Manganese (mg/L)	--	24/10/2024	0.240
		pH (pH unit)	6.5 – 8.5	30/10/2024	6.66
		Conductivity (µS/cm)	--	30/10/2024	817
		TSS (mg/L)	50	30/10/2024	<5
		Oil & Grease (mg/L)	10	30/10/2024	<5
		Total Iron (mg/L)	--	30/10/2024	0.09
		Total Manganese (mg/L)	--	30/10/2024	0.210

[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. 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 October 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