

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 publish pollution monitoring data (2012)*.

2 ENVIRONMENT PROTECTION LICENCE DETAILS

Cullen Valley Mine (EPL 10341)

Licensee: Shoalhaven Coal Pty Ltd

Address: Cullen Valley Mine, Portland Road, Cullen Bullen NSW 2790

Link: <http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50797&SYSUID=1&LICID=10341>

3 AIR QUALITY

3.1 DEPOSITIONAL DUST

All depositional dust sampling locations were in compliance with the rolling annual average limit (4g/m²/month) for the period of November 2020 – October 2021. Depositional dust monitoring results are presented in **Table 1**.

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October 2021



Table 1 *Depositional Dust Monitoring Results: October 2021*

Obtained: 16/11/2021		Premise: Cullen Valley Mine		
Published: 05/01/2022		Licensee: Shoalhaven Coal		
		EPL number: 10341		
		Exposure Period: 30 days		
Sampling Point	Start Date	End Date	Insoluble Solids (g/m ² /month)	Rolling Annual Average
CDD1 (Railway)	5/10/2021	3/11/2021	<0.1	0.3
CDD2 (Hillcroft)	5/10/2021	3/11/2021	0.1	0.3
CDD3 (Office)	5/10/2021	3/11/2021	0.5	0.4
CDD4 (Cranes)	5/10/2021	3/11/2021	0.1	0.3
CDD5 (Doble)	5/10/2021	3/11/2021	0.4	1.0
Annual Average Limit				4.0

Required Frequency: Monthly - exposure period 30 ± 2 days.

3.2 PM₁₀ AND TSP

The 24-hour maximum PM₁₀ particulate matter concentration less than 10 microns (PM₁₀) criterion of 50µg/m³ was not exceeded during October 2021. The total suspended particulate (TSP) and PM₁₀ annual average results were in compliance with the annual average limit for October 2021.

PM₁₀ and TSP monitoring results are presented in **Table 2**.

Table 2 *High Volume Air Sampler Monitoring Results: October 2021*

Obtained: 16/11/2021		Premise: Cullen Valley Mine	
Published: 05/01/2022		Licensee: Shoalhaven Coal	
		EPL number: 10341	
Sampling Point	Run Date	PM ₁₀ (µg/m³)	TSP (µg/m³)^
HVAS1	06-October-21	8	20.0
	12- October -21	2	5.0
	18- October -21	5	12.5
	24- October -21	5	12.5
	30- October -21	7	17.5
Rolling Annual Average (calculation period November-20 to October-21)		6.7	16.8
24 Hour Limit		50	--
Annual Average Limit		30	90

Note: Results in *italics* indicates the results were less than laboratory detection limit.

Required Frequency: High Volume Air Sample run event every six days for 24 hours

-- No Limit ^ TSP result is an estimate obtained from a calculation of the PM₁₀ concentration.

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4 SURFACE WATER QUALITY

A discharge event is deemed to occur when water leaves the site either through the overflow channel of either Dam 1 or Dam 4, or as a result of actively pumping water. A discharge event was not observed during the site visit on the 5 October; therefore, a sample was not required to be collected at either Dam 1 or Dam 4 (EPA Point 1 and EPA Point 2 respectively). A sample was collected from both Dams for due diligence purposes only. Water quality results are presented in **Table 3**.

Table 3 Monthly Surface Water Quality Results: October 2021

Sampled:	5/10/2021	Premise:	Cullen Valley Mine	
Obtained:	27/10/2021	Licensee:	Shoalhaven Coal	
Published:	05/01/2022	EPL number:	10341	
Sampling Point	Frequency	Pollutant	Limit	Measurement
Dam 1 (EPA Point 1) ¹	Weekly during discharge	pH (pH unit)	6.5 – 8.5	5.71
		TSS (mg/L)	50	11
		Oil & Grease (mg/L)	10	<5
		Conductivity (µS/cm)*	--	ND
		Total Iron (mg/L)*	--	ND
		Total Manganese (mg/L)*	--	ND
Dam 4 (EPA Point 4) ¹	Weekly during discharge	pH (pH unit)	6.5 – 8.5	5.62
		TSS (mg/L)	50	6
		Oil & Grease (mg/L)	10	<5
		Conductivity (µS/cm)*	--	ND
		Total Iron (mg/L)*	--	ND
		Total Manganese (mg/L)*	--	ND

¹ – sample collected for due diligence purposes only.

-- No limit provided in EPL 10341

* Only analysed during discharge events.

ND – no data as there was no discharge from the site during this period, therefore analysis not required.

The pH, total suspended solids (TSS) and oil and grease concentration was compliant with the EPL limits as there was no discharge event.

5 NOISE LIMITS

Noise monitoring is undertaken on a quarterly frequency. Previous environmental noise monitoring reports are available on the Castlereagh Coal website:
http://www.castlereaghcoal.com.au/?page_id=1101

6 BLASTING

No blasting was undertaken during October 2021.

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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