

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>

MONTHLY ENVIRONMENTAL MONITORING DATA

February 2019

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 month of February 2019. Maximum annual increase in deposited dust levels are also below the criteria limit of 2g/m²/month. Depositional dust monitoring results are presented in **Table 1**.

Table 1 *Depositional Dust Monitoring Results February 2019*

Obtained: 14/03/2019		Premise: Cullen Valley Mine		
Published: 19/03/2019		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
CDD1 (Railway)	7/02/2019	11/03/2019	2.5	1.2
CDD2 (Hillcroft)	7/02/2019	11/03/2019	0.7	1.1
CDD3 (Office)	7/02/2019	11/03/2019	1.4	1.0
CDD4 (Cranes)	7/02/2019	11/03/2019	1.8	1.3
CDD5 (Doble)	7/02/2019	11/03/2019	0.8	1.6
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 for the month of February 2019. The total suspended particulate (TSP) and PM₁₀ annual average results were in compliance with the annual average limit for February 2019. A dust storm was noted on the 13 February 2019, this is considered to have impacted particulate concentrations on a regional scale on this day.

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

Table 2 *High Volume Air Sampler Monitoring Results February 2019*

Obtained: 14/03/2019		Premise: Cullen Valley Mine	
Published: 19/03/2019		Licensee: Shoalhaven Coal	
		EPL number: 10341	
Sampling Point	Run Date	PM ₁₀ (µg/m ³)	TSP (µg/m ³) [^]
HV02 (EPA Point 3)	01-Feb-19	4	10.0
	07-Feb-19	8	20.0
	13-Feb-19*	50	125.0
	19-Feb-19	35	87.5
	25-Feb-19	11	27.5
<i>Annual Average</i>		14.0	35.0
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.

* Dust storm event and regional increase of PM₁₀ observed

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4 SURFACE WATER QUALITY

Monthly surface water monitoring quality monitoring is undertaken for pH, TSS and oil and grease, results are presented in **Table 3**. There were no discharge events during February 2019. The EPL limits are only applicable during a discharge event, and not applicable to the results shown in **Table 3**.

Table 3 Monthly Surface Water Quality Results February 2019

Sampled:	7/02/2019	Premise:	Cullen Valley Mine	
Obtained:	28/02/2019	Licensee:	Shoalhaven Coal	
Published:	19/03/2019	EPL number:	10341	
Sampling Point	Frequency	Pollutant	Limit	Measurement
Dam 1 (Point 1)	Monthly	pH (pH unit)	6.5 – 8.5	7.16
		TSS (mg/L)	50	21
		Oil & Grease (mg/L)	10	<5
		Conductivity (µS/cm)*	--	ND
		Total Iron (mg/L)*	--	ND
		Total Manganese (mg/L)*	--	ND
Dam 4 (Point 4)	Monthly	pH (pH unit)	6.5 – 8.5	6.99
		TSS (mg/L)	50	99
		Oil & Grease (mg/L)	10	<5
		Conductivity (µS/cm)*	--	ND
		Total Iron (mg/L)*	--	ND
		Total Manganese (mg/L)*	--	ND

-- 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.

Surface water samples collected during February 2019 were for due diligence purposes only; there are no applicable EPL limits. The TSS concentration recorded at LD004 was not above the EPL limit as there was no discharge events during February 2019. There was 5.2 mm of rain recorded on the day of sampling. TSS concentrations may have been impacted by rainfall runoff carrying suspended particles into the dams.

5 NOISE LIMITS

Quarterly noise monitoring was not undertaken during February 2019. Environmental Noise Monitoring Results are available on the Castlereagh Coal website:

http://www.castlereaghcoal.com.au/?page_id=1101

6 BLASTING

No blasting was undertaken during February 2019.

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