

## 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

November 2019

## 3 AIR QUALITY

### 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 of December 2018 – November 2019. The maximum annual increase in deposited dust levels are also 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 November 2019*

<b>Obtained:</b> 16/12/2019 <b>Published:</b> 19/12/2019		<b>Premise:</b> Cullen Valley Mine		
		<b>Licensee:</b> Shoalhaven Coal		
		<b>EPL number:</b> 10341		
		<b>Exposure Period:</b> 32 days		
Sampling Point	Start Date	End Date	Insoluble Solids (g/m <sup>2</sup> /month)	Rolling Annual Average
CDD1 (Railway)	4/11/2019	5/12/2019	0.8	1.1
CDD2 (Hillcroft)	4/11/2019	5/12/2019	0.2	1.1
CDD3 (Office)	4/11/2019	5/12/2019	1.2	1.1
CDD4 (Cranes)	4/11/2019	5/12/2019	1.6	1.5
CDD5 (Doble)	4/11/2019	5/12/2019	7.1	1.6
Annual Average Limit				4.0

Required Frequency: Monthly - exposure period  $30 \pm 2$  days.

### 3.2 $\text{PM}_{10}$ AND TSP

The 24-hour maximum  $\text{PM}_{10}$  particulate matter concentration less than 10 microns ( $\text{PM}_{10}$ ) criterion of  $50\mu\text{g/m}^3$  was exceeded on the 22 November 2019. This elevated concentration is considered to be due to bushfire activity in the region. A 24-hour average  $\text{PM}_{10}$  concentration of  $200\mu\text{g/m}^3$  was recorded at the Department of Planning, Industry and Environment (DPIE) Bathurst air quality monitoring station on the 22 November 2019. The total suspended particulate (TSP) and  $\text{PM}_{10}$  annual average results were in compliance with the annual average limit for November 2019.

$\text{PM}_{10}$  and TSP monitoring results are presented in **Table 2**.

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

<b>Obtained:</b> 16/12/2019		<b>Premise:</b> Cullen Valley Mine	
<b>Published:</b> 19/12/2019		<b>Licensee:</b> Shoalhaven Coal	
		<b>EPL number:</b> 10341	
Sampling Point	Run Date	$\text{PM}_{10}$ ( $\mu\text{g/m}^3$ )	TSP ( $\mu\text{g/m}^3$ )^
HV02 (EPA Point 3)	04-Nov-19	5	12.5
	10-Nov-19	8	20.0
	16-Nov-19	21	52.5
	22-Nov-19	145	362.5
	28-Nov-19	42	105.0
<i>Annual Average</i>		15.2	37.9
<b>24 Hour Limit</b>		<b>50</b>	--
<b>Annual Average Limit</b>		<b>30</b>	<b>90</b>

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  $\text{PM}_{10}$  concentration.

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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 November 2019. The EPL limits are only applicable during a discharge event, and therefore, do not apply to the results shown in **Table 3**.

**Table 3** *Monthly Surface Water Quality Results November 2019*

<b>Sampled:</b>	4/11/2019	<b>Premise:</b>	Cullen Valley Mine	
<b>Obtained:</b>	20/09/2019	<b>Licensee:</b>	Shoalhaven Coal	
<b>Published:</b>	19/12/2019	<b>EPL number:</b>	10341	
Sampling Point	Frequency	Pollutant	Limit	Measurement
Dam 1 (Point 1)	Monthly	pH (pH unit)	6.5 – 8.5	7.49
		TSS (mg/L)	50	12
		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	7.55
		TSS (mg/L)	50	20
		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 November 2019 were for due diligence purposes only; there are no applicable EPL limits.

### 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](http://www.castlereaghcoal.com.au/?page_id=1101)

### 6 BLASTING

No blasting was undertaken during November 2019.

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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**