

# INVINCIBLE COLLIERY

## Monthly Environmental Monitoring Data

### for

## Castlereagh Coal

## 1 INTRODUCTION

Castlereagh Coal owns and operates Invincible Colliery 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

**Licensee:** Shoalhaven Coal Pty Ltd

**Address:** Invincible Colliery, Castlereagh Highway, Cullen Bullen, NSW 2790

**Link:** <https://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=287085&SYSUID=1&LICID=1095>

## 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<sup>2</sup> /month) for the period June 2023 to May 2024. The maximum annual increase in deposited dust levels are also below the criteria limit of 2 g/m<sup>2</sup> /month. Depositional dust monitoring results are presented in **Table 1**.

Table 1: Depositional Dust Monitoring Results: May 2024

<b>Obtained:</b>	30/06/2024	<b>Premise:</b>	Invincible Colliery	
<b>Published:</b>	14/08/2024	<b>Licensee:</b>	Shoalhaven	
		<b>EPL Number:</b>	1095	
		<b>Exposure Period:</b>	32 days	
Sampling Point	Start Date	End Date	Insoluble Solids (g/m <sup>2</sup> /month)	Rolling Annual Average (g/m <sup>2</sup> /month)
ID-D1 (EPA Point 3)	10/05/2024	11/06/2024	0.8	0.69
ID-D2 (EPA Point 4)	10/05/2024	11/06/2024	1.2	0.83
ID-D3 (EPA Point 5)	10/05/2024	11/06/2024	0.9	0.89
ID-D4 (EPA Point 6)	10/05/2024	11/06/2024	0.5	0.57
ID-D5 (EPA Point 7)	10/05/2024	11/06/2024	0.4	0.57
ID-D6 (EPA Point 8)	10/05/2024	11/06/2024	0.4	0.97
Annual Average Limit				4.0

Required Frequency: Monthly - exposure period 30 ± 2 days

### 3.2 PM10 AND TSP

The 24-hour maximum PM<sub>10</sub> particulate matter concentration less than 10 microns (PM<sub>10</sub>) criterion of 50µg/m<sup>3</sup> was not exceeded during May 2024. The TSP and PM<sub>10</sub> annual rolling average results were calculated with the available data for the period of June 2023 to May 2024. The average values were less than the annual average EPL limit as presented in **Table 2**.

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

<b>Obtained:</b> 05/08/2024		<b>Premise:</b> Invincible Colliery	
<b>Published:</b> 14/08/2024		<b>Licensee:</b> Shoalhaven	
		<b>EPL Number:</b> 1095	
Sampling Point	Run Date	PM10 (µg/m <sup>3</sup> )	TSP (µg/m <sup>3</sup> ) ^
HVAS1 (EPA Point 3)	04/05/2024	4.0	11.0
	10/05/2024	3.0	20.0
	16/05/2024	10.0	21.0
	22/05/2024	5.0	7.0
	29/05/2024	12.0	41.0
<b>Rolling Annual Average (Calculation period June 2023 to May 2024)</b>		8.4	16.4
<b>24 Hour Limit</b>		50	--
<b>Annual Average Limit</b>		30	90

Required Frequency: Weekly – High Volume Air Sample run events occur every six days for 24 hours. -- No Limit

## 4 SURFACE WATER QUALITY

A discharge event is deemed to occur when water leaves the site either through the overflow channel of the Main Dam or as a result of actively pumping water. No discharge occurred from the Main Dam Discharge Point 2 (LD002) during May 2024. A monthly sample was collected

from the Main Dam for due diligence purposes only. Water quality results are presented in **Table 3**.

**Table 3: Discharge Water Quality Results – May 2024**

<b>Sampled:</b> 9/05/2024		<b>Premise:</b> Invincible Colliery		
<b>Obtained:</b> 20/05/2024		<b>Licensee:</b> Shoalhaven		
<b>Published:</b> 14/08/2024		<b>EPL Number:</b> 1095		
Sampling Point	Frequency	Pollutant	100 Percentile Concentration Limit ^	Sample Concentration
Main Dam	Monthly (for due diligence)	pH (pH unit)	--	6.91
		TSS (mg/L)	--	<5
		Oil & Grease (mg/L)	--	<5
Discharge Point 2 (LD002) (EPA Point 2)	Monthly during discharge	pH (pH unit)	6.5 – 8.5	N/A
		TSS (mg/L)	30	N/A
		Oil & Grease (mg/L)	10	N/A

--No limit applies

## **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**