

# Monthly Website Report



<b>SITE:</b>	<b>Mannering Colliery</b>
<b>Department:</b>	<b>Technical Services</b>
<b>REPORT TITLE:</b>	<b>Monthly Environmental Report – March 2017</b>
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<b>Report Date:</b>	<b>13/04/2017</b>
<b>Distribution:</b>	<b>Mannering Colliery Website</b>

# Report

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## Summary

Monitoring was undertaken in February 2017 with all results in compliance with the required limits.

## Introduction

LakeCoal Pty Ltd (LakeCoal) operates the Mannering Colliery, an underground coal mine at the southern end of Lake Macquarie.

This monthly report is to satisfy the requirements of;

- section 66(6) of the Protection of the Environment Operations Act, 1997, to make monitoring data related to an Environment Protection Licence publically available and
- condition 7 & 10, schedule 5, of Development Approval 06\_0311 (as modified) to provide details of monitoring results and environmental performance.

This report provides environmental monitoring data from Mannering Colliery for the period 1 March 2017 to 31 March 2017.

Environmental monitoring data is collected as required under Environment Protection Licence 191 (EPL 191).

Details of the Mannering Colliery and EPL 191 are provided below.

<b>Mannering Colliery Information</b>	
Premises name	Mannering Colliery
Address	Rutleys Road, Doyalson, NSW, 2262
Licensee	LakeCoal Pty Ltd
EPL #	191
EPL location	<a href="http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50781&amp;SYSUID=1&amp;LICID=191">http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50781&amp;SYSUID=1&amp;LICID=191</a>

The overall purpose of this report is to keep stakeholders informed of the environmental monitoring results at Mannering Colliery and maintain a transparent and accountable reporting system.

# Report

Title:

Manning Colliery Monthly Environmental Report

## Scope

This report presents the results from the various environmental monitoring undertaken for Manning Colliery.

Results are presented for each specific month and annual data, averages and trends in data are shown to where relevant.

Where applicable, the results of the monitoring programs are compared with the relevant criteria (from the EPL or Project Approval) to determine compliance.

Monitoring results presented include;

- Water – quality;
- Water – volume;
- Air quality;
- Operational noise; and
- Weather data

## Definitions

°C – degrees celsius

dB – decibels

dB(A) – noise level measurement units are decibels (dB). The A-weighting scale is used to approximate human perception of noise

g/m<sup>2</sup>/month – grams per square metre per month

kL – kilolitres

L<sub>Aeq</sub> – the average A-weighted noise energy (in dB) for a measurement period

mg/L – Milligrams per litre

mm – millimetre

µS/cm – microsiemens per centimetre

## References

Project Approval 06\_0311 (as modified)

Environment Protection Licence 191 (Licence version date: 13 May 2015)

Steel River Testing - Dust Deposition Report – March 2017 Report

ALS Environmental - Monthly Water Monitoring Results March 2017

Steel River Testing – Water Analysis Report –March 2017 Report

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## Monitoring Results

### Water – Quality

#### Water Quality Results

March 2017			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	13-Mar-17		
Date Obtained	17-Mar-17		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Aluminium (Dissolved)	µg/L		<10
Aluminium (Total)	µg/L		<10
Antimony	µg/L		<1
Arsenic (Dissolved)	µg/L		2
Arsenic (Total)	µg/L		1
Barium	µg/L		288
Beryllium (Dissolved)	µg/L		<1
Beryllium (Total)	µg/L		<1
Boron	µg/L		380
Cadmium (Dissolved)	µg/L		<0.1
Cadmium (Total)	µg/L		<0.1
Calcium	mg/L		242
Chromium (Dissolved)	µg/L		<1
Chromium (Total)	µg/L		<1
Cobalt (Dissolved)	µg/L		<1
Cobalt (Total)	µg/L		<1
Conductivity	µs/cm		29200
Copper (Dissolved)	µg/L		<1
Copper (Total)	µg/L		<1
Iron	µg/L		250
Lead (Total)	µg/L		<1
Lead (dissolved)	µg/L		<1
Lithium	µg/L		673
Magnesium	mg/L		290
Manganese (dissolved)	µg/L		88
Mercury (Total)	µg/L		<0.1
Mercury (dissolved)	µg/L		<0.1
Molybdenum (Dissolved)	µg/L		22
Molybdenum (Total)	µg/L		24
Nickel (Dissolved)	µg/L		4
Nickel (Total)	µg/L		4
Nitrogen (Ammonia)	mg/L		1.32
Phosphorous (Total)	mg/L		0.02
Potassium	mg/L		36
Selenium (Dissolved)	µg/L		<10
Selenium (Total)	µg/L		<10
Silica	mg/L		12.3
Silver (Total)	µg/L		<1
Silver (dissolved)	µg/L		<1
Sulfur	mg/L		142
Tin (Total)	µg/L		<1
Titanium (Total)	µg/L		<10
Vanadium (Dissolved)	µg/L		<10
Vanadium (Total)	µg/L		<10
Zinc (Dissolved)	µg/L		13
Zinc (Total)	µg/L		18

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## Water – Volume

March 2017		
EPL	191	
Licensee	LakeCoal Pty Ltd	
Premises	Mannering Colliery	
Date Sampled	Daily	
Date Reported	Refer report date	
Discharge volume limit	4000 kilolitres per day	
Sampling Point	LDP001 (EPA ID # 1)	
Date (24 hour period)	Unit	Volume
01/03/2017	kL	1603
02/03/2017	kL	1268
03/03/2017	kL	1995
04/03/2017	kL	1885
05/03/2017	kL	399
06/03/2017	kL	1155
07/03/2017	kL	1456
08/03/2017	kL	1062
09/03/2017	kL	1355
10/03/2017	kL	440
11/03/2017	kL	1099
12/03/2017	kL	1094
13/03/2017	kL	1455
14/03/2017	kL	1382
15/03/2017	kL	2359
16/03/2017	kL	2164
17/03/2017	kL	2080
18/03/2017	kL	2263
19/03/2017	kL	0
20/03/2017	kL	1205
21/03/2017	kL	1142
22/03/2017	kL	1025
23/03/2017	kL	1480
24/03/2017	kL	1893
25/03/2017	kL	1076
26/03/2017	kL	1072
27/03/2017	kL	1065
28/03/2017	kL	1074
29/03/2017	kL	1813
30/03/2017	kL	1562
31/03/2017	kL	1458

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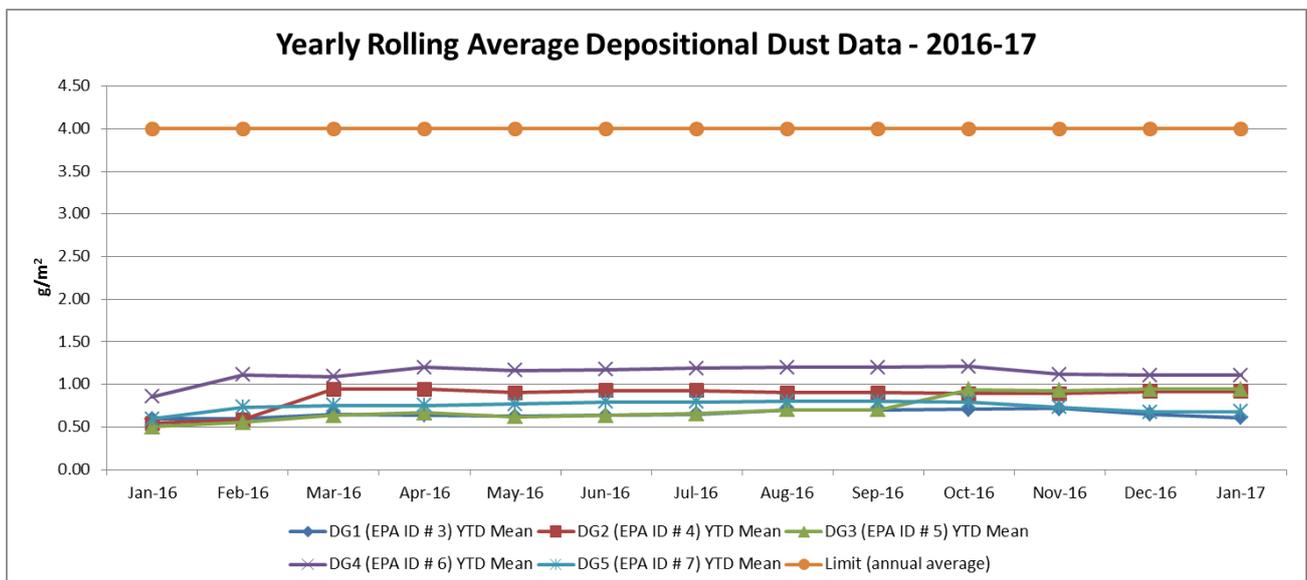
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## Air Quality

### Monthly depositional dust results

Monthly Depositional Dust Data			
March 2017			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	12-Feb-17	to	12-Mar-17
Date Obtained	16-Mar-17		
Date Reported	Refer report date		
Sampling Point	As per site below		
Site	Insoluble Matter (g/m <sup>2</sup> /month)		
DG1 (EPA ID # 3)	0.5		
DG2 (EPA ID # 4)	0.6		
DG3 (EPA ID # 5)	0.8		
DG4 (EPA ID # 6)	0.9		
DG5 (EPA ID # 7)	0.2		
Notes:			
- For site locations refer to Air Quality Management Plan			

### Rolling annual average depositional dust results



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## Operational Noise

Next attended noise monitoring results are summarised below. None of the noise criteria has been exceeded.

Monthly Depositional Dust Data			
March 2017			
<b>EPL</b>	191		
<b>Licensee</b>	LakeCoal Pty Ltd		
<b>Premises</b>	Mannering Colliery		
<b>Date Sampled</b>	12-Feb-17	to	12-Mar-17
<b>Date Obtained</b>	16-Mar-17		
<b>Date Reported</b>	Refer report date		
<b>Sampling Point</b>	As per site below		
<b>Site</b>	<b>Insoluble Matter (g/m2/month)</b>		
DG1 (EPA ID # 3)	0.5		
DG2 (EPA ID # 4)	0.6		
DG3 (EPA ID # 5)	0.8		
DG4 (EPA ID # 6)	0.9		
DG5 (EPA ID # 7)	0.2		
Notes: - For site locations refer to Air Quality Management Plan			

## Weather

A summary of weather data recorded by an on-site meteorological monitoring station at the Colliery is presented below for the year to date.

Monthly Weather Data			
2017			
<b>EPL</b>	191		
<b>Licensee</b>	LakeCoal Pty Ltd		
<b>Premises</b>	Mannering Colliery		
<b>Location</b>	W1 (on-site weather station)		
<b>Date published:</b>	Refer report date		
<b>Date sampled:</b>	Daily		
<b>Date obtained:</b>	12/4/17		
<b>Month</b>	<b>Total Rainfall / Month (mm)</b>	<b>Minimum Temperature (°C)</b>	<b>Maximum Temperature (°C)</b>
Jan-17	68.6	17.4	40.1
Feb-17	141.2	13.1	39
Mar-17	404	14.5	31.9