

LDO GROUP Report



SITE:	Mannering Colliery
Department:	HSEC
REPORT TITLE:	Monthly Environmental Report – May 2015
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Distribution:	Mannering Colliery Website

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Summary

Monitoring was undertaken in May 2015 with all results in compliance with required limits. On the 13 May 2015 a revised version (variation) of Environment Protection Licence (EPL) 191 was issued to LakeCoal. The water monitoring frequency for a number of analytes was reduced from monthly to weekly in the varied EPL, however daily monitoring was continued until the end of May and will change to weekly in June 2015. Accordingly daily results are presented for the full month in this report.

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 May 2015 to 31 May 2015.

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.

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

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.

Scope

This report presents the results from the various environmental monitoring undertaken for Mannering 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/m²/month – grams per square metre per month

kL – kilolitres

L_{Aeq} – 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 – April 2015 (Report 8887-0)

ALS Environmental - Monthly Water Monitoring Results (May 2015)

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Monitoring Results

Water – Quality

Daily Water Quality Results

May-15			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Period	01-May-15	to	31-May-15
Location	LDPO01 (EPA ID # 1)		
Date sampled	Daily		
Date reported	Refer report date		
Monitoring requirement	Daily monitoring during discharge		
pH limit	6.5 - 8.5		
TSS limit (mg/L)	50		
Oil and grease limit (mg/L)	10		
Exceedance (Yes/No)	No		
Daily Water Quality Results			
Date	pH	TSS (mg/L)	Oil and grease (mg/L)
01/01/2015	7.7	7	<5
02/01/2015	7.7	12	<5
03/01/2015	7.5	25	<5
04/01/2015	7.7	16	<5
05/01/2015	7.7	<1	<5
06/01/2015	7.9	1	<5
07/01/2015	7.8	1	<5
08/01/2015	7.8	1	<5
09/01/2015			
10/01/2015			
11/01/2015	7.8	5	<5
12/01/2015	7.7	1	<5
13/01/2015	7.9	<1	<5
14/01/2015	7.9	<1	<5
15/01/2015	7.6	1	<5
16/01/2015			
17/01/2015			
18/01/2015	7.9	3	<5
19/01/2015	7.6	3	<5
20/01/2015	7.8	9	<5
21/01/2015	7.9	<1	<5
22/01/2015			
23/01/2015			
24/01/2015			
25/01/2015	7.8	3	<5
26/01/2015	7.8	5	<5
27/01/2015	7.8	11	<5
28/01/2015	7.9	7	<5
29/01/2015	8.0	8	<5
30/01/2015			
31/01/2015			
Notes:	Monitoring undertaken daily during water discharges There were no reportable incidents for the month of May 2015.		

Monthly Water Quality Results

May 2015	
EPL	191
Licensee	LakeCoal Pty Ltd
Premises	Manning Colliery
Date Sampled	08-May-15
Date Obtained	22-May-15
Date Reported	Refer report date
Sampling Point	1

Parameter	Units	Limit	Result
Aluminium (Dissolved)	µg/L		<100
Aluminium (Total)	µg/L		<100
Antimony	µg/L		<10
Arsenic (Dissolved)	µg/L		<10
Arsenic (Total)	µg/L		<10
Barium	µg/L		252
Beryllium (Dissolved)	µg/L		<10
Beryllium (Total)	µg/L		<10
Boron	µg/L		<500
Cadmium (Dissolved)	µg/L		<1
Cadmium (Total)	µg/L		<1
Calcium	mg/L		158
Chromium (Dissolved)	µg/L		<10
Chromium (Total)	µg/L		<10
Cobalt (Dissolved)	µg/L		<10
Cobalt (Total)	µg/L		<10
Conductivity	µs/cm		26900
Copper (Dissolved)	µg/L		<10
Copper (Total)	µg/L		<10
Iron	µg/L		<500
Lead (Total)	µg/L		<10
Lead (dissolved)	µg/L		<10
Lithium	µg/L		855
Magnesium	mg/L		281
Manganese (dissolved)	µg/L		30
Mercury (Total)	µg/L		<0.1
Mercury (dissolved)	µg/L		<0.1
Molybdenum (Dissolved)	µg/L		<10
Molybdenum (Total)	µg/L		<10
Nickel (Dissolved)	µg/L		<10
Nickel (Total)	µg/L		<10
Nitrogen (Ammonia)	mg/L		0.97
Phosphorous (Total)	mg/L		<0.02
Potassium	mg/L		57
Selenium (Dissolved)	µg/L		<100
Selenium (Total)	µg/L		<100
Silica	mg/L		13.1
Silver (Total)	µg/L		<10
Silver (dissolved)	µg/L		<10
Sulfur	mg/L		133
Tin (Total)	µg/L		<10
Titanium (Total)	µg/L		<100
Vanadium (Dissolved)	µg/L		<100
Vanadium (Total)	µg/L		<100
Zinc (Dissolved)	µg/L		<50
Zinc (Total)	µg/L		<52

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Water – Volume

May 2015		
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
01/05/2015	kL	1072
02/05/2015	kL	790
03/05/2015	kL	1430
04/05/2015	kL	1539
05/05/2015	kL	2314
06/05/2015	kL	2147
07/05/2015	kL	1237
08/05/2015	kL	15
09/05/2015	kL	0
10/05/2015	kL	0
11/05/2015	kL	1100
12/05/2015	kL	2145
13/05/2015	kL	1498
14/05/2015	kL	1759
15/05/2015	kL	786
16/05/2015	kL	0
17/05/2015	kL	0
18/05/2015	kL	1210
19/05/2015	kL	2150
20/05/2015	kL	1516
21/05/2015	kL	334
22/05/2015	kL	0
23/05/2015	kL	0
24/05/2015	kL	0
25/05/2015	kL	1306
26/05/2015	kL	2174
27/05/2015	kL	2146
28/05/2015	kL	1110
29/05/2015	kL	421
30/05/2015	kL	0
31/05/2015	kL	0

Air Quality

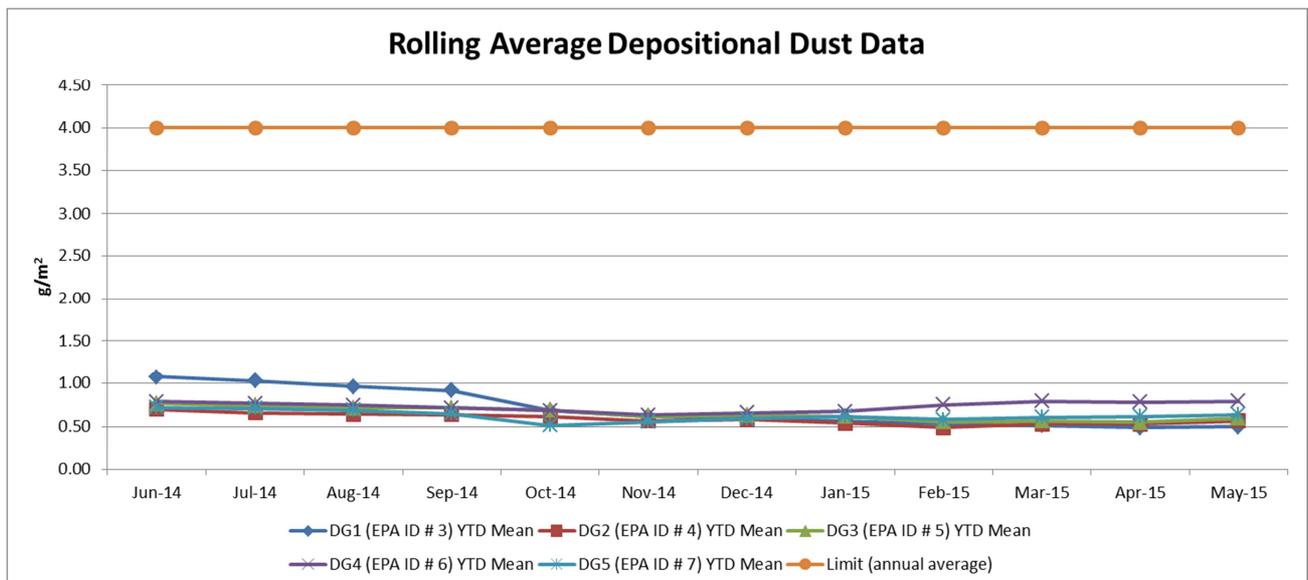
Monthly depositional dust results

Monthly Depositional Dust Data			
May 2015			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Date Sampled	17-Apr-15	to	18-May-15
Date Obtained	27-May-15		
Date Reported	Refer report date		
Sampling Point	As per site below		

Site	Insoluble Matter (g/m ² /month)
DG1 (EPA ID # 3)	0.5
DG2 (EPA ID # 4)	0.9
DG3 (EPA ID # 5)	0.8
DG4 (EPA ID # 6)	0.8
DG5 (EPA ID # 7)	0.5

Notes:
- For site locations refer to Air Quality Management Plan

Rolling annual average depositional dust results



Operational Noise

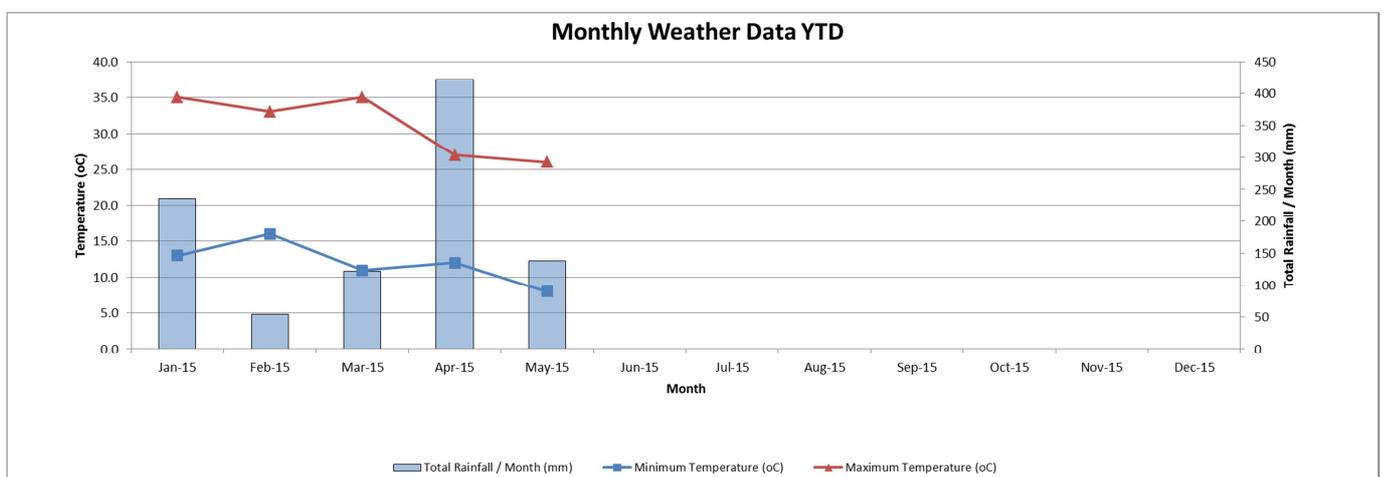
Quarter 2 2015 attended noise monitoring has not yet been completed.

Results will be provided once the monitoring results become available from the noise monitoring consultants.

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			
May-15			
EPL	191		
Licensee	LakeCoal Pty Ltd		
Premises	Mannering Colliery		
Location	W1 (on-site weather station)		
Date published	Refer report date		
Date sampled:	Daily		
Date obtained:	04/06/2015		
Month	Total Rainfall / Month (mm)	Minimum Temperature (°C)	Maximum Temperature (°C)
Jan-15	235.4	13	35
Feb-15	54.2	16	33
Mar-15	122.4	11	35
Apr-15	422.2	12	27
May-15	138.4	8	26



Note: Data from the 11/5/15 unavailable.