

# LDO GROUP Report



<b>SITE:</b>	<b>Chain Valley Colliery</b>
<b>Department:</b>	<b>HSEC</b>
<b>REPORT TITLE:</b>	<b>Monthly Environmental Report – August 2014</b>
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## Introduction

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

Chain Valley Colliery operates under the following regulatory instruments;

- A Development Consent (SSD-5465) and a Project Approval (MP 10\_0161) issued under the Environmental Planning and Assessment Act, 1979.
- An Environment Protection Licence (1770) issued under the Protection of the Environment Operations Act, 1997.
- A groundwater bore licence (20BL173107) issued under the Water Act, 1912.

The above development consent/approval and licences require various monitoring and reporting to be undertaken by LakeCoal for Chain Valley Colliery.

This report provides environmental monitoring data from Chain Valley Colliery for the period 1<sup>st</sup> August 2014 to 31<sup>st</sup> August 2014.

Details of the Chain Valley Colliery and EPL 1770 are provided below.

Chain Valley Colliery Information	
Premises name	Chain Valley Colliery
Address	Construction Road, Chain Valley Bay, NSW, 2259
Licensee	LakeCoal Pty Ltd
EPL #	1770
EPL location	<a href="http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32911&amp;SYSUID=1&amp;LICID=1770">http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32911&amp;SYSUID=1&amp;LICID=1770</a>

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

## Scope

This report presents the results from the various environmental monitoring programs undertaken for Chain Valley Colliery.

Results in this report are typically only a single month of data, which is due to a legislative requirement introduced by the *Protection of the Environment Legislation Amendment Act 2011*, which requires publishing data publically within 14 days. As LakeCoal is required to undertake monitoring on a monthly basis, each report generally cover a single month of environmental monitoring data.

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

Monitoring results presented include;

- Water – quality
- Water – volume
- Depositional dust
- Operational noise

## Definitions

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

µg/L – micrograms per litre

µS/cm – microSiemens per centimetre

## References

ALS Group - Monthly Water Monitoring Results (August 2014 - Work Order ES1417717)

Hunter Water Laboratories - Report of Analysis (HWA-14/06049)

Steel River Testing - Dust Deposition Report August 2014 (Report 7078-0)

Development Consent SSD-5465

Project Approval 10\_0161 (as modified)

Environment Protection Licence 1770 (Licence version date: 20 August 2013)

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## Monitoring Results

### Water – Quality

August 2014			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	12-Aug-14		
Date Obtained	19-Aug-14		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Aluminium (total)	µg/L		30
Aluminium (dissolved)	µg/L		<10
Ammonia as N	mg/L		0.03
Arsenic (total)	µg/L		2
Arsenic (dissolved)	µg/L		1
Beryllium (total)	µg/L		<1
Beryllium (dissolved)	µg/L		<1
Cadmium (total)	µg/L		<0.1
Cadmium (dissolved)	µg/L		<0.1
Chromium (total)	µg/L		<1
Chromium (dissolved)	µg/L		<1
Cobalt (total)	µg/L		<1
Cobalt (dissolved)	µg/L		<1
Conductivity	µs/cm		32500
Copper (total)	µg/L		<1
Copper (dissolved)	µg/L		<1
Faecal Coliforms	CFU/100mL	200	60
Lead (total)	µg/L		<1
Lead (dissolved)	µg/L		<1
Mercury (total)	µg/L		<0.1
Mercury (dissolved)	µg/L		<0.1
Molybdenum (total)	µg/L		5
Molybdenum (dissolved)	µg/L		4
Nickel (total)	µg/L		2
Nickel (dissolved)	µg/L		2
pH	pH	6.5-8.5	7.95
Selenium (total)	µg/L		<10
Selenium (dissolved)	µg/L		<10
Silver (total)	µg/L		<1
Silver (dissolved)	µg/L		<1
Total Sus. Solids	µg/L	50	<5
Vanadium (total)	µg/L		<10
Vanadium (dissolved)	µg/L		<10
Zinc (total)	µg/L		36
Zinc (dissolved)	µg/L		33

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## Water – Volume

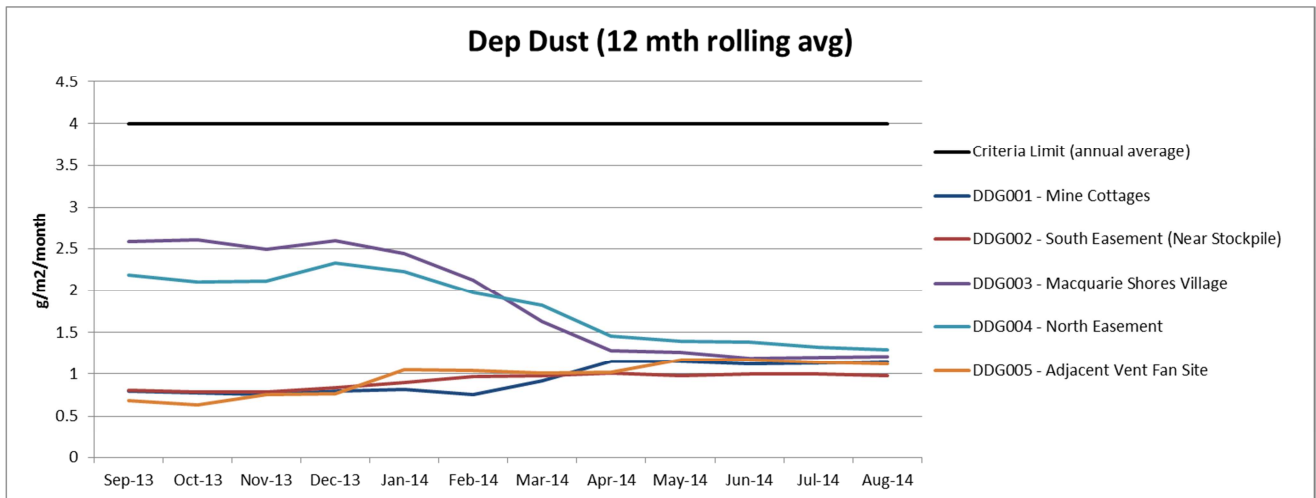
August 2014	
EPL	1770
Licensee	LakeCoal Pty Ltd
Premises	Chain Valley Colliery
Date Sampled	Daily
Date Reported	Refer report date
Discharge volume limit	12161 kilolitres per day
Sampling Point	1

Date (24 hour period)	Unit	Volume
01/08/2014	kL	4419
02/08/2014	kL	6910
03/08/2014	kL	5879
04/08/2014	kL	5763
05/08/2014	kL	5461
06/08/2014	kL	7796
07/08/2014	kL	7585
08/08/2014	kL	5475
09/08/2014	kL	7288
10/08/2014	kL	9363
11/08/2014	kL	9645
12/08/2014	kL	6777
13/08/2014	kL	6772
14/08/2014	kL	6775
15/08/2014	kL	6745
16/08/2014	kL	6750
17/08/2014	kL	10799
18/08/2014	kL	6719
19/08/2014	kL	6722
20/08/2014	kL	6722
21/08/2014	kL	2072
22/08/2014	kL	5715
23/08/2014	kL	11708
24/08/2014	kL	6137
25/08/2014	kL	5770
26/08/2014	kL	5735
27/08/2014	kL	6258
28/08/2014	kL	2852
29/08/2014	kL	5228
30/08/2014	kL	7017
31/08/2014	kL	5442

## Depositional Dust

August 2014	
Sampling Date	18/07/2014 to 18/08/2014
Site	Insoluble Matter (g/m <sup>2</sup> /month)
DDG001	0.9
DDG002	0.6
DDG003	0.6
DDG004	1.4
DDG005	0.5

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



## Operational Noise

The Q2 2014 noise monitoring was undertaken and reported in the May 2014 monthly report. No noise criteria exceedances were recorded during Q2 2014. Q3 monitoring results will be reported when it is completed and results have been provided to LakeCoal.