

LDO GROUP Report



SITE:	Chain Valley Colliery
Department:	HSEC
REPORT TITLE:	Monthly Environmental Report – April 2015
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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 (as modified) 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 April 2015 to 30 April 2015.

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	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=36187&SYSUID=1&LICID=1770

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) to determine compliance.

Monitoring results presented include;

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

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/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

µg/L – micrograms per litre

µS/cm – microSiemens per centimetre

References

ALS Group - Monthly Water Monitoring Results (April 2015 - Work Order ES1508377)

ALS Water - Report of Analysis (HWA-15/02837)

Steel River Testing - Dust Deposition Report April 2015 (Report 8616-0)

Development Consent SSD-5465 (as modified)

Environment Protection Licence 1770 (Licence version date: 26 September 2014)

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Monitoring Results

Water – Quality

April 2015			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	14-Apr-15		
Date Obtained	21-Apr-15		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L		<2
Enterococci	CFU/100mL		36
Faecal Coliforms	CFU/100mL	200	15
pH	pH	6.5-8.5	7.91
Total Sus. Solids	mg/L	50	<5

Water – Volume

April 2015	
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
01/04/2015	kL	5050
02/04/2015	kL	7090
03/04/2015	kL	10190
04/04/2015	kL	16280
05/04/2015	kL	9590
06/04/2015	kL	6820
07/04/2015	kL	5210
08/04/2015	kL	5850
09/04/2015	kL	5810
10/04/2015	kL	4210
11/04/2015	kL	5120
12/04/2015	kL	6470
13/04/2015	kL	5190
14/04/2015	kL	3840
15/04/2015	kL	5850
16/04/2015	kL	5860
17/04/2015	kL	4990
18/04/2015	kL	5140
19/04/2015	kL	5130
20/04/2015	kL	7520
21/04/2015	kL	16894
22/04/2015	kL	4620
23/04/2015	kL	620
24/04/2015	kL	4010
25/04/2015	kL	8800
26/04/2015	kL	9070
27/04/2015	kL	5460
28/04/2015	kL	5380
29/04/2015	kL	6120
30/04/2015	kL	7080

The discharge volume limit was exceeded on both the 4 April 2015 and 21 April 2015. In both cases groundwater pumping was limited due to rainfall on the day in an attempt to remain under the discharge limit, however on both days excessive rainfall runoff resulted in the exceedance of the limit. On the 4 April 2015, 116mm of rainfall fell at the site and while groundwater pumping was restricted to 8.455 ML by disabling one of the groundwater pumps, the total volume discharged from site was 16.28 ML. On the 21 April 2015 some 153mm of rainfall fell at the site. Prior warning of this storm and accompanying rainfall was heeded and pumping was restricted to only 3.369 ML.

However, due to the rainfall intensity a total volume of 16.89 ML was discharged from site, as a result rainfall runoff totalled 13.521 ML on the 21 April.

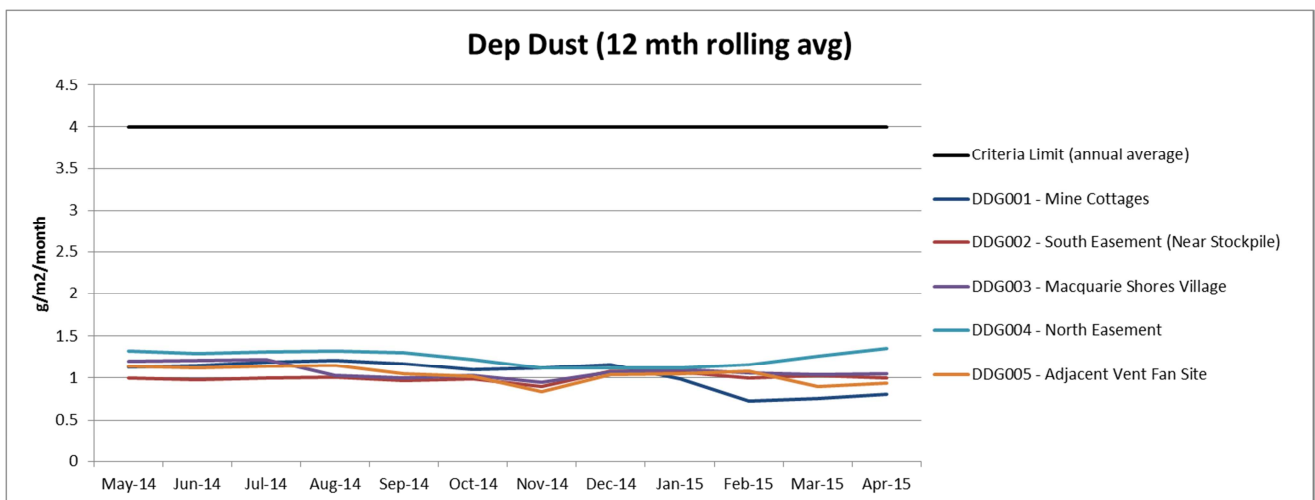
In both of the above cases, groundwater pumping was restricted well below the Colliery's commitment to limit underground pumping to 10.5 ML per day, however on both days, over 100mm of rainfall ultimately resulted in the volumetric limit being exceeded. Daily rainfall data for April 2015 is presented in the Weather Data section.

Depositional Dust

April 2015			
Sampling Date	20/03/2015	to	17/04/2015
Site	Insoluble Matter (g/m ² /month)		
DDG001	0.9		
DDG002	0.7		
DDG003	0.6		
DDG004	1.6		
DDG005	1.3		

Notes:

- For site locations refer to Air Quality Management Plan



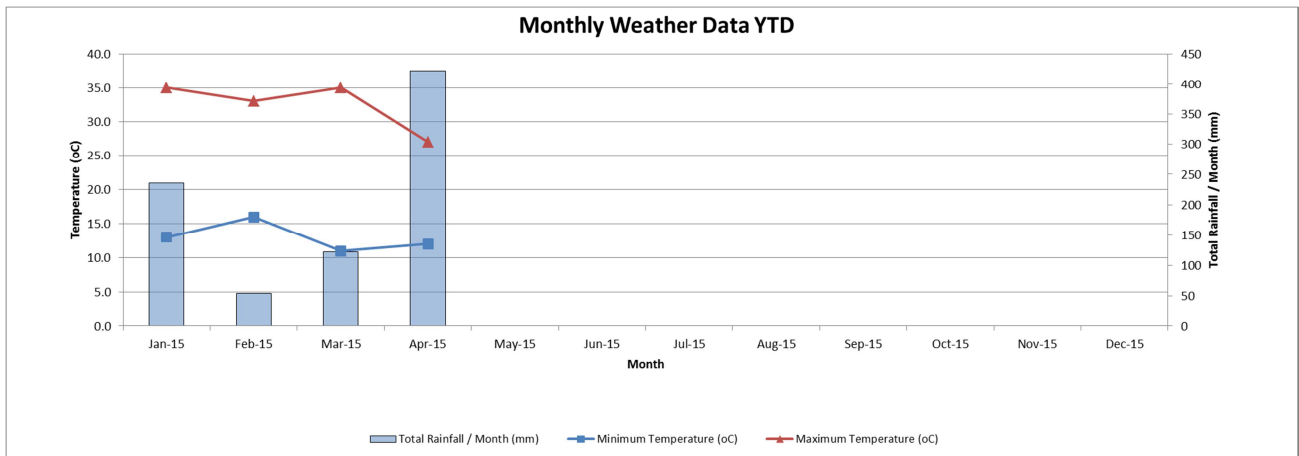
Operational Noise

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 Data

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



Note: Temperature results do not include data from the 8/4/15 to 16/4/15 due to lost data.

