



# Report

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<b>Site:</b>	<b>Chain Valley Colliery</b>
<b>Department:</b>	<b>Technical Services</b>
<b>Report Title:</b>	<b>Monthly Environmental Report - April 2017</b>
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<b>Distribution:</b>	<b>Chain Valley Colliery website</b>

## Table of Contents

Introduction .....	3
Scope.....	4
Definitions .....	4
References .....	5
Monitoring Results.....	5
Water – Quality .....	5
Water – Volume.....	6
Depositional Dust .....	7
Operational Noise.....	7
Weather Data .....	8

### 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 2017 to 30 April 2017.

Details of the Chain Valley Colliery 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=50980&amp;SYSUID=1&amp;LICID=1770">http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=50980&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) 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/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 April 2017 - Work Order ES1709235)

ALS Water - Report of Analysis (WN1701631)

Steel River Testing - Dust Deposition Report April 2017 (Report 13398-0)

Development Consent SSD-5465 (as modified)

Environment Protection Licence 1770 (Licence version date: 8 June 2016)

### Monitoring Results

Water – Quality

April 2017			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	19-Apr-17		
Date Obtained	27-Apr-17		
Date Reported	Refer report date		
Sampling Point	1		

Parameter	Units	Limit	Result
Biochem. Oxygen Demand	mg/L	-	<2
Enterococci	col/100mL	-	110
Faecal Coliforms	CFU/100mL	200	140
pH	pH	6.5-8.5	7.78
Total Sus. Solids	mg/L	50	<5

There was no exceedance of water quality criteria during the month.

### Water – Volume

April 2017	
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

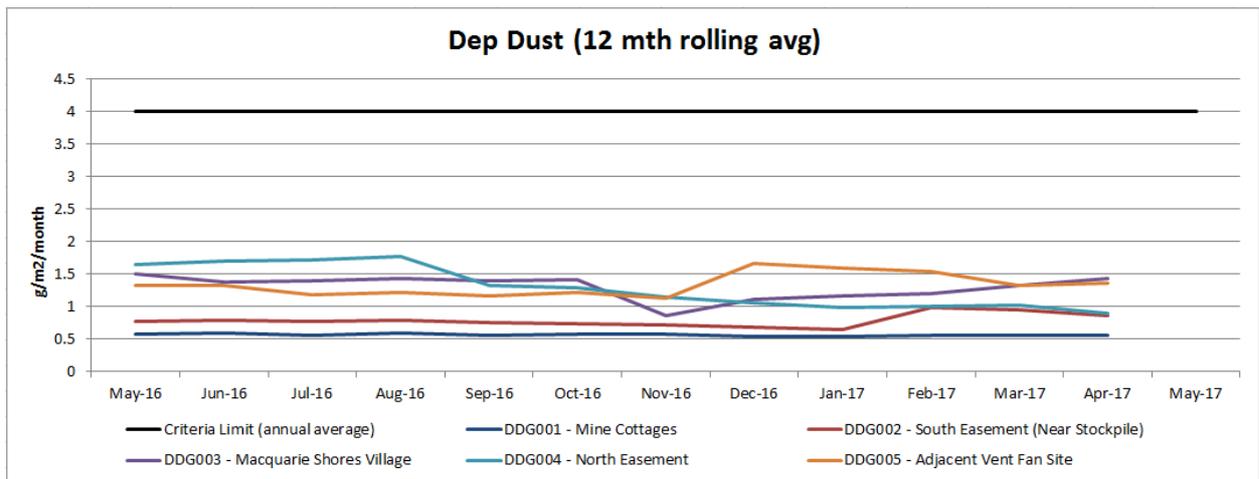
Date (24 hour period)	Unit	Volume
01/04/2017	kL	6121
02/04/2017	kL	6653
03/04/2017	kL	6853
04/04/2017	kL	7577
05/04/2017	kL	7164
06/04/2017	kL	6772
07/04/2017	kL	6675
08/04/2017	kL	6486
09/04/2017	kL	6565
10/04/2017	kL	6842
11/04/2017	kL	6716
12/04/2017	kL	8580
13/04/2017	kL	6975
14/04/2017	kL	6514
15/04/2017	kL	6482
16/04/2017	kL	6438
17/04/2017	kL	6429
18/04/2017	kL	5812
19/04/2017	kL	5919
20/04/2017	kL	6342
21/04/2017	kL	6394
22/04/2017	kL	6364
23/04/2017	kL	6499
24/04/2017	kL	6435
25/04/2017	kL	6156
26/04/2017	kL	5855
27/04/2017	kL	6542
28/04/2017	kL	6580
29/04/2017	kL	6550
30/04/2017	kL	6794

There were no exceedances of the volumetric limits at the Licenced Discharge Point during the month.

## CVC Monthly Environmental Report

### Depositional Dust

April 2017		
Sampling Date	12/03/2017 to	12/04/2017
<b>Site</b>	<b>Insoluble Matter (g/m<sup>2</sup>/month)</b>	
DDG001	0.4	
DDG002	0.4	
DDG003	1.7	
DDG004	1.0	
DDG005	0.9	
<b>Notes:</b>		
- For site locations refer to Air Quality Management Plan		



### Operational Noise

There was no noise monitoring undertaken in April. The next round of monitoring is scheduled for June 2017.

### Weather Data

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

Monthly Weather Data			
2016/17			
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	14/04/2017		
Month	Total Rainfall / Month (mm)	Minimum Temperature (°C)	Maximum Temperature (°C)
Feb-16	17.4	16.4	37.7
Mar-16	92.2	14.3	30.1
Apr-16	36.2	12.1	33.5
May-16	46.6	5.3	27.8
Jun-16	248.2	3.4	21.4
Jul-16	73.2	2.5	25
Aug-16	115	4.5	24.3
Sep-16	68	7.4	24.2
Oct-16	61	7.3	33.3
Nov-16	46.8	10.9	35.2
Dec-16	85.2	14.5	38.9
Jan-17	68.6	17.4	40.1
Feb-17	141.2	13.1	39
Mar-17	404	14.5	31.9
Apr-17	85.6	17.4	24.8