

LDO GROUP Report



SITE:	Chain Valley Colliery
Department:	HSEC
REPORT TITLE:	Monthly Environmental Report – August 2013
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TABLE OF CONTENTS

Introduction	3
Scope	3
Definitions	4
References	4
Monitoring Results	5
Water – Quality	5
Water – Volume	6
Dispositional Dust	7
Operational Noise	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 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 legislation, licence and approval require various monitoring and reporting to be undertaken by LakeCoal for Chain Valley Colliery.

This report covers the requirements of the above and attempts to make the data as understandable and easy to interpret as possible for the general public.

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 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 of receipt. 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 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/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 (August 2013 - Work Order ES1318510)

Steel River Testing - Dust Deposition Report (August 2013 – Report 5008-0)

Global Acoustics - Environmental Noise Monitoring Quarter 2 2013 (13149_R01)

Project Approval 10_0161 (as modified)

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

Monitoring Results

Water – Quality

August 2013			
EPL	1770		
Licensee	LakeCoal Pty Ltd		
Premises	Chain Valley Colliery		
Date Sampled	21-Aug-13		
Date Obtained	28-Aug-13		
Date Reported	Refer report date		
Sampling Point	1		
Parameter	Units	Limit	Result
Aluminium (total)	µg/L		21
Aluminium (soluble)	µg/L		22
Ammonia as N	mg/L		0.06
Arsenic (total)	µg/L		<0.5
Arsenic (soluble)	µg/L		<0.5
Beryllium (total)	µg/L		<0.1
Beryllium (soluble)	µg/L		<0.1
Cadmium (total)	µg/L		<0.2
Cadmium (soluble)	µg/L		<0.2
Chromium (total)	µg/L		<0.5
Chromium (soluble)	µg/L		<0.5
Cobalt (total)	µg/L		<0.2
Cobalt (soluble)	µg/L		<0.2
Conductivity	µs/cm		32200
Copper (total)	µg/L		<1
Copper (soluble)	µg/L		<1
Faecal Coliforms	CFU/100mL	200	200
Lead (total)	µg/L		<0.2
Lead (soluble)	µg/L		<0.2
Mercury (total)	mg/L		<0.0001
Mercury (soluble)	mg/L		<0.0001
Molybdenum (total)	µg/L		2.6
Molybdenum (soluble)	µg/L		2.9
Nickel (total)	µg/L		1.3
Nickel (soluble)	µg/L		1.2
pH	pH	6.5-8.5	8.14
Selenium (total)	µg/L		<2
Selenium (soluble)	µg/L		<2
Silver (total)	µg/L		<0.1
Silver (soluble)	µg/L		<0.1
Total Sus. Solids	mg/L	50	<5
Vanadium (total)	µg/L		<0.5
Vanadium (soluble)	µg/L		<0.5
Zinc (total)	µg/L		44
Zinc (soluble)	µg/L		19

Title: Monthly Environmental Report – August 2013

Water – Volume

August 2013		
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
01/08/2013	kL	7064
02/08/2013	kL	5481
03/08/2013	kL	8536
04/08/2013	kL	10692
05/08/2013	kL	6906
06/08/2013	kL	6909
07/08/2013	kL	6911
08/08/2013	kL	3819
09/08/2013	kL	8158
10/08/2013	kL	9734
11/08/2013	kL	11235
12/08/2013	kL	6889
13/08/2013	kL	6891
14/08/2013	kL	1337
15/08/2013	kL	4955
16/08/2013	kL	5085
17/08/2013	kL	8250
18/08/2013	kL	7175
19/08/2013	kL	10887
20/08/2013	kL	12114
21/08/2013	kL	6895
22/08/2013	kL	10604
23/08/2013	kL	8726
24/08/2013	kL	8913
25/08/2013	kL	7936
26/08/2013	kL	6908
27/08/2013	kL	6911
28/08/2013	kL	6910
29/08/2013	kL	6909
30/08/2013	kL	6910
31/08/2013	kL	9951

Dispositional Dust

August 2013			
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Sampling Date	18/07/2013	to	16/08/2013
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Site	Insoluble Matter (g/m ² /month)
DDG001	0.6
DDG002	0.5
DDG003	2.9
DDG004	1.3
DDG005	0.4

Notes:

- For site locations refer to Air Quality and Greenhouse Gas Management Plan

Operational Noise

LAeq (15 min) attended noise monitoring results – Quarter 2 2013			
Location	Date / Time	Criteria LAeq dB	LAeq dB (from Colliery)
Day			
ATN001	31/05/2013 9:36	35	Inaudible
ATN002	31/05/2013 10:08	51	40
ATN003	31/05/2013 10:32	37	Inaudible
ATN004	31/05/2013 10:56	36	Inaudible
ATN005	31/05/2013 11:32	36	Inaudible
ATN006	31/05/2013 12:00	40	<20
ATN007	31/05/2013 12:43	40	39
Evening			
ATN001	11/06/2013 20:58	35	Inaudible
ATN002	11/06/2013 20:29	50	46
ATN003	11/06/2013 20:08	37	<35
ATN004	11/06/2013 19:45	36	Inaudible
ATN005	11/06/2013 19:45	36	<20
ATN006	11/06/2013 18:54	40	Inaudible
ATN007	11/06/2013 18:22	40	40
Night			
ATN001	12/06/2013 0:22	35	Inaudible
ATN002	11/06/2013 23:56	50	42
ATN003	11/06/2013 23:36	37	Inaudible
ATN004	11/06/2013 23:14	36	Not measureable
ATN005	11/06/2013 22:50	36	<35
ATN006	11/06/2013 22:30	40	Not measureable
ATN007	11/06/2013 22:01	40	40
Notes: For monitoring locations refer to Noise Management Plan			

LA1 (1min) attended noise monitoring results – Quarter 2 2013			
Location	Date / Time	Criteria LA1 dB	LA1 dB (from Colliery)
Day			
ATN001	12/06/2013 0:22	45	Inaudible
ATN002	11/06/2013 23:56	54	47
ATN003	11/06/2013 23:36	45	Inaudible
ATN004	11/06/2013 23:14	45	Not measureable
ATN005	11/06/2013 22:50	45	42
ATN006	11/06/2013 22:30	45	Not measureable
ATN007	11/06/2013 22:01	45	41
Notes: For monitoring locations refer to Noise Management Plan			