

LDO GROUP Report



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| SITE: | Chain Valley Colliery |
| Department: | HSEC |
| REPORT TITLE: | Monthly Environmental Report – March 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 1st March 2015 to 31st March 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 (March 2015 - Work Order ES1505591)

ALS Water - Report of Analysis (HWA-15/02007)

Steel River Testing - Dust Deposition Report March 2015 (Report 8431-0)

Development Consent SSD-5465 (as modified)

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

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Monitoring Results

Water – Quality

| March 2015 | | | |
|------------------------|-----------------------|---------|--------|
| EPL | 1770 | | |
| Licensee | LakeCoal Pty Ltd | | |
| Premises | Chain Valley Colliery | | |
| Date Sampled | 10-Mar-15 | | |
| Date Obtained | 17-Mar-15 | | |
| Date Reported | Refer report date | | |
| Sampling Point | 1 | | |
| | | | |
| Parameter | Units | Limit | Result |
| Biochem. Oxygen Demand | mg/L | | <2 |
| Enterococci | CFU/100mL | | 120 |
| Faecal Coliforms | CFU/100mL | 200 | 140 |
| pH | pH | 6.5-8.5 | 7.92 |
| Total Sus. Solids | mg/L | 50 | <5 |

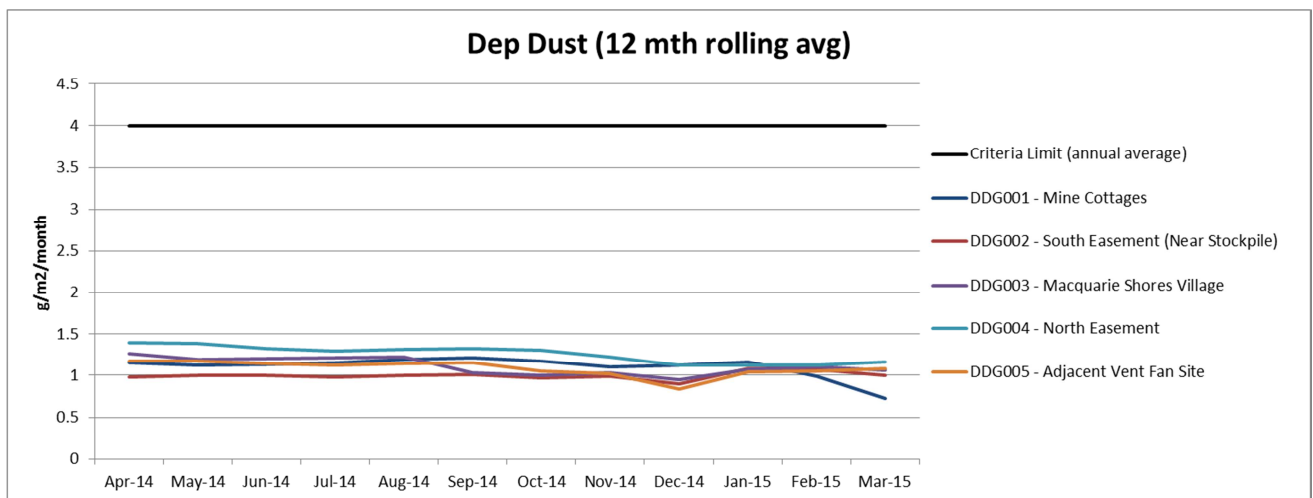
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Water – Volume

| March 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 |
| 01/03/2015 | kL | 3160 |
| 02/03/2015 | kL | 4010 |
| 03/03/2015 | kL | 4440 |
| 04/03/2015 | kL | 3360 |
| 05/03/2015 | kL | 5144 |
| 06/03/2015 | kL | 2259 |
| 07/03/2015 | kL | 4997 |
| 08/03/2015 | kL | 5416 |
| 09/03/2015 | kL | 5586 |
| 10/03/2015 | kL | 5566 |
| 11/03/2015 | kL | 10081 |
| 12/03/2015 | kL | 10433 |
| 13/03/2015 | kL | 10105 |
| 14/03/2015 | kL | 4880 |
| 15/03/2015 | kL | 6310 |
| 16/03/2015 | kL | 4070 |
| 17/03/2015 | kL | 5620 |
| 18/03/2015 | kL | 5690 |
| 19/03/2015 | kL | 5470 |
| 20/03/2015 | kL | 5580 |
| 21/03/2015 | kL | 5580 |
| 22/03/2015 | kL | 5090 |
| 23/03/2015 | kL | 1140 |
| 24/03/2015 | kL | 5550 |
| 25/03/2015 | kL | 4030 |
| 26/03/2015 | kL | 3130 |
| 27/03/2015 | kL | 1190 |
| 28/03/2015 | kL | 5680 |
| 29/03/2015 | kL | 4720 |
| 30/03/2015 | kL | 5780 |
| 31/03/2015 | kL | 4310 |

Depositional Dust

| March 2015 | | | |
|---|--|----|------------|
| Sampling Date | 19/02/2015 | to | 20/03/2015 |
| Site | Insoluble Matter (g/m ² /month) | | |
| DDG001 | 0.8 | | |
| DDG002 | 1.0 | | |
| DDG003 | 0.6 | | |
| DDG004 | 1.9 | | |
| DDG005 | 0.5 | | |
| Notes: | | | |
| - For site locations refer to Air Quality Management Plan | | | |



Operational Noise

Quarter 1 2015 attended noise monitoring has been undertaken, with the results shown below.

There were no exceedances of noise criteria during the quarter.

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| LAeq (15 min) attended noise monitoring results – Quarter 1 2015 | | | |
|--|------------------|------------------|-------------------------|
| Location | Date / Time | Criteria LAeq dB | LAeq dB (from Colliery) |
| Day | | | |
| ATN001 | 03/03/2015 11:37 | 35 | Inaudible |
| ATN002 | 03/03/2015 13:44 | 49 | Not measureable |
| ATN003 | 03/03/2015 12:49 | 36 | Inaudible |
| ATN004 | 03/03/2015 12:25 | 35 | Inaudible |
| ATN005 | 03/03/2015 14:14 | 35 | Inaudible |
| ATN006 | 03/03/2015 14:39 | 37 | Inaudible |
| ATN007 | 03/03/2015 15:12 | 46 | 40 |
| Evening | | | |
| ATN001 | 03/03/2015 18:00 | 35 | Inaudible |
| ATN002 | 03/03/2015 19:27 | 49 | <30 |
| ATN003 | 03/03/2015 18:47 | 36 | Inaudible |
| ATN004 | 03/02/2015 19:23 | 35 | Inaudible |
| ATN005 | 03/02/2015 19:52 | 35 | Inaudible |
| ATN006 | 03/02/2015 20:17 | 37 | Inaudible |
| ATN007 | 03/02/2015 20:45 | 46 | 39 |
| Night | | | |
| ATN001 | 03/02/2015 22:02 | 35 | Inaudible |
| ATN002 | 03/02/2015 23:52 | 49 | 43 |
| ATN003 | 03/02/2015 23:12 | 36 | 33 |
| ATN004 | 03/02/2015 22:49 | 35 | Inaudible |
| ATN005 | 04/02/2015 0:18 | 35 | Not measureable |
| ATN006 | 04/02/2015 0:43 | 37 | Not measureable |
| ATN007 | 04/02/2015 1:10 | 46 | 37 |
| Notes: For monitoring locations refer to Noise Management Plan | | | |

| LA1 (1min) attended noise monitoring results – Quarter 1 2015 | | | |
|--|------------------|-----------------|------------------------|
| Location | Date / Time | Criteria LA1 dB | LA1 dB (from Colliery) |
| Night | | | |
| ATN001 | 03/02/2015 22:02 | 45 | Inaudible |
| ATN002 | 03/02/2015 23:52 | 54 | 48 |
| ATN003 | 03/02/2015 23:12 | 45 | 36 |
| ATN004 | 03/02/2015 22:49 | 45 | Inaudible |
| ATN005 | 04/02/2015 0:18 | 45 | Not measureable |
| ATN006 | 04/02/2015 0:43 | 45 | Not measureable |
| ATN007 | 04/02/2015 1:10 | 46 | 38 |
| Notes: For monitoring locations refer to Noise Management Plan | | | |

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 |

