



**Centennial Coal**



**Environment Protection Licence 3607**

**February 2017**

**Environmental Monitoring Data**

**Springvale Colliery**



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Appendix A Monitoring Locations

## Abbreviations

Abbreviation	Description
DG	Dust Gauge
EC	Electrical Conductivity
EPL	Environment Protection Licence
kL	kilolitre
L	litre
LDP	Licensed Discharge Point
Mg	milligrams
ML	Megalitre
TSS	Total Suspended Solids
uS or $\mu$ S	microsiemens

## 1 Introduction

This report summarises the environmental monitoring results for Springvale Colliery for February 2017. The locations of the Licensed Discharge Points (LDPs) are shown in Appendix 1. Monitoring results for LDP006 and LDP007 are reported separately from this report.

A variation was made to EPL 3607 in December 2014. The variation aligned the mining scale with MOD 4 of the Development Consent which allows production of coal up to 4.5 million tonnes. The EPL was further varied on the 26<sup>th</sup> of February 2016 to align with SSD5594 commitments.

The EPL for Springvale is available on the NSW Environment Protection Authority web site [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au). The direct link is shown below.

<http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32604&SYSUID=1&LICID=3607>

Additional information about Springvale Colliery is available on the Centennial Coal Website [www.centennialcoal.com.au](http://www.centennialcoal.com.au).

## 2 Weather

A summary of rainfall data recorded at the Springvale meteorological monitoring station is shown in Table 1 below.

**Table 1. Weather Summary**

Month	Total Rainfall (mm)	Minimum Temperature (°C) @ 2m	Maximum Temperature (°C) @ 2m
February 2016	31.2	6.86	33.89
March 2016	56.8	4.69	31.14
April 2016	6.0	5.56	15.28
May 2016	19.4	- 8.23	14.00
June 2016	155.8	- 6.4	15.02
July 2016	79.6	- 2.03	15.74
August 2016	59.0	- 1.38	10.24
September 2016	101.6	1.42	12.88
October 2016	57.0	1.49	16.08
November 2016	61	0.47	29.05
December 2016	72.2	3.65	32.2
January 2017	25.8	10.4	37.27
February 2017	15.6	2.07	39.81

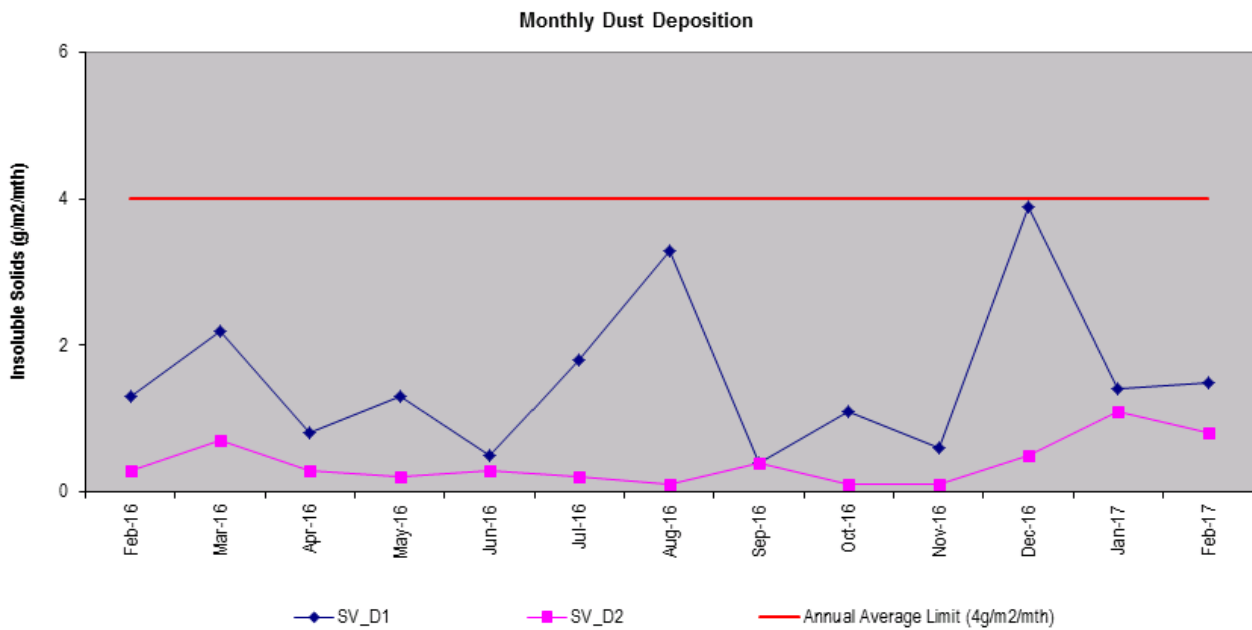
### 3 Air Quality Monitoring

The air quality monitoring results for the monthly reporting period are summarised in Table 2 and a 12 month comparison of dust results is displayed in Figure 1.

#### 3.1 Depositional Dust

**Table 2. Depositional Dust**

<b>Data Published:</b>	10/03/2017		<b>Licensee:</b>		Springvale Coal Pty Limited	
<b>Data Sampled:</b>	Exposure period 06/01/2017 to 03/02/2017		<b>Address:</b>		Castlereagh Hwy, Lidsdale	
<b>Data Obtained:</b>	10/03/2017		<b>EPL No.</b>		3607	
<b>Sampling Point</b>	<b>Monitoring frequency</b>	<b>Pollutant</b>	<b>Measurement</b>	<b>Limit</b>	<b>Units</b>	<b>Exceedence (yes/no)</b>
SV_D1	Monthly	Insoluble Solids	1.5	NA	g/m <sup>2</sup>	no
SV_D2	Monthly	Insoluble Solids	0.8	NA	g/m <sup>2</sup>	no



**Figure 1: 12 Month Summary of Dust Results**

## 4 Surface Water Quality

A summary of monitoring data for LDP001 and LDP009 is provided in Table 3 below.

There were no discharges from LDP004, LDP005, and LDP10 during the month.

**Table 3. Surface Water Quality - February 2017**

Date Published:	10/03/2017	Licensee:	Springvale Coal Pty Ltd				
Data Sampled:	February 2017	Address:	Castlereagh Highway, Lidsdale				
Date Obtained:	10/03/2017	EPL No:	3607				
<b>LDP001</b>							
	Frequency required	100th Percentile Limit	Unit of Measure	7/02/2017	14/02/2017	21/02/2017	28/02/2017
<b>Oil and Grease</b>	monthly	10	mg/L	<5			
<b>pH</b>	weekly	6.5-9.0	pH	8.52	8.31	8.7	8.71
<b>Total Suspended Solids</b>	monthly	30	mg/L	<5			
<b>EC</b>	weekly	Monitoring requirement only	uS/cm	1022	1138	1034	1120
<b>Manganese Filterable</b>	monthly	Monitoring requirement only	mg/L	0.002			
<b>Iron Filterable</b>	monthly	Monitoring requirement only	mg/L	<0.05			
<b>LDP009</b>							
	Frequency required	100th Percentile Limit	Unit of Measure	7/02/2017	14/02/2017	21/02/2017	28/02/2017
<b>pH</b>	weekly	6.5-9.0	pH	7.70	7.78	7.77	8.37
<b>EC</b>	weekly	1200	uS/cm	1198	1231	1191	1195
<b>Turbidity</b>	weekly	50	NTU	2	3	3	3
<b>TSS</b>	weekly	50	mg/L	<5	<5	<5	5
<b>Aluminium (filt)</b>	weekly	0.45	mg/L	<0.01	0.01	<0.01	<0.01
<b>Arsenic (filt)</b>	weekly	0.024	mg/L	0.018	0.014	0.013	0.02
<b>Copper (filt)</b>	weekly	0.007	mg/L	<0.001	<0.001	<0.001	<0.001
<b>Manganese (filt)</b>	weekly	1.7	mg/L	0.014	0.017	0.02	0.02
<b>Nickel (filt)</b>	weekly	0.047	mg/L	0.002	0.003	0.003	0.004
<b>Zinc (filt)</b>	weekly	0.05	mg/L	<0.005	<0.005	0.008	<0.005
<b>Boron (filt)</b>	weekly	0.37	mg/L	0.07	0.07	0.08	0.07
<b>Iron (filt)</b>	weekly	0.40	mg/L	<0.05	<0.05	<0.05	<0.05
<b>Fluoride</b>	weekly	1.80	mg/L	1.3	1.2	1.2	1.2
<b>Oil and Grease</b>	weekly	10.00	mg/L	<5	<5	<5	<5

Results are presented graphically to show a comparison with historic data trends in the following pages.

During the reporting period one EC exceedance was recorded at LDP009. The recorded result was 1231uS/cm against the EPL limit of 1200uS/cm. Elevated EC is caused by increased exposure of mine water make with goaf material. Various specialist assessments have been undertaken as part of the Springvale Mine Extension Project which conclude that there are no adverse impacts from elevated EC levels. Centennial is currently undertaking a holistic review of water management activities within the Western Region with the objective of meeting the agreed requirements of the Springvale Mine Extension Project.

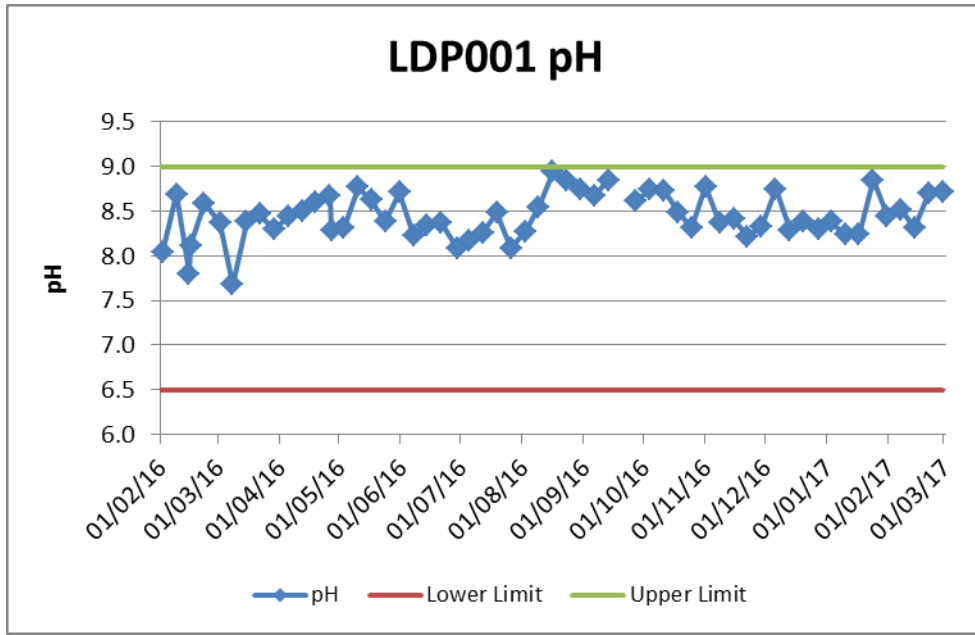


Figure 2: LDP001 pH 12 month summary

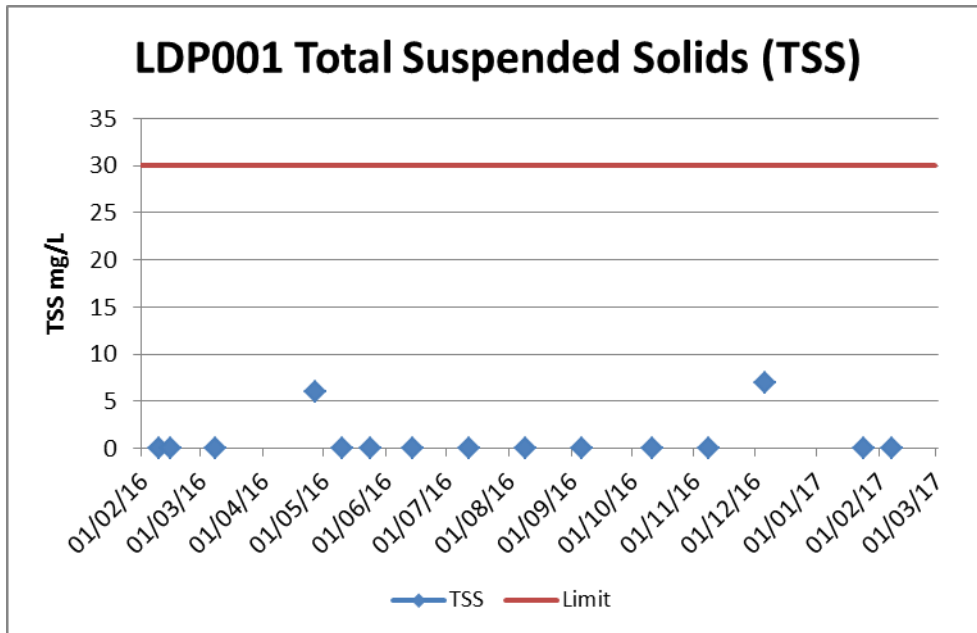


Figure 3: LDP001 TSS 12 month summary



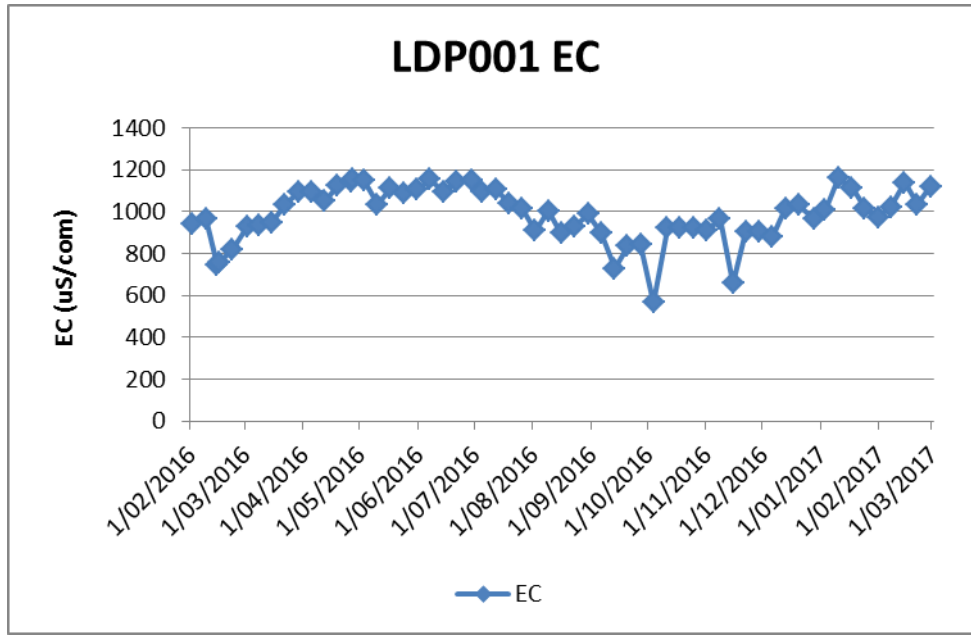


Figure 4: LDP001 EC 12 month summary

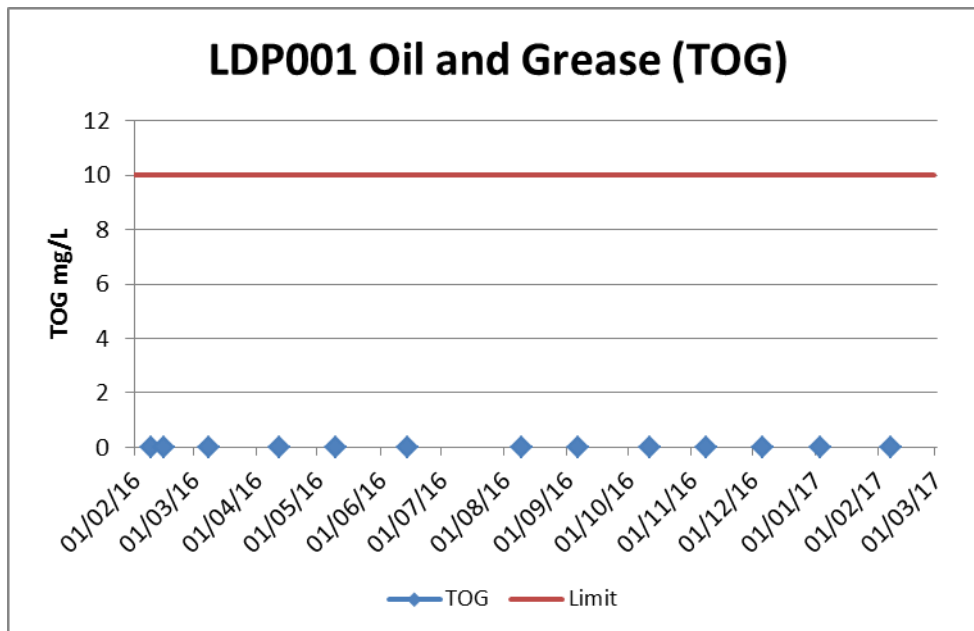


Figure 5: LDP001 TOG 12 month summary

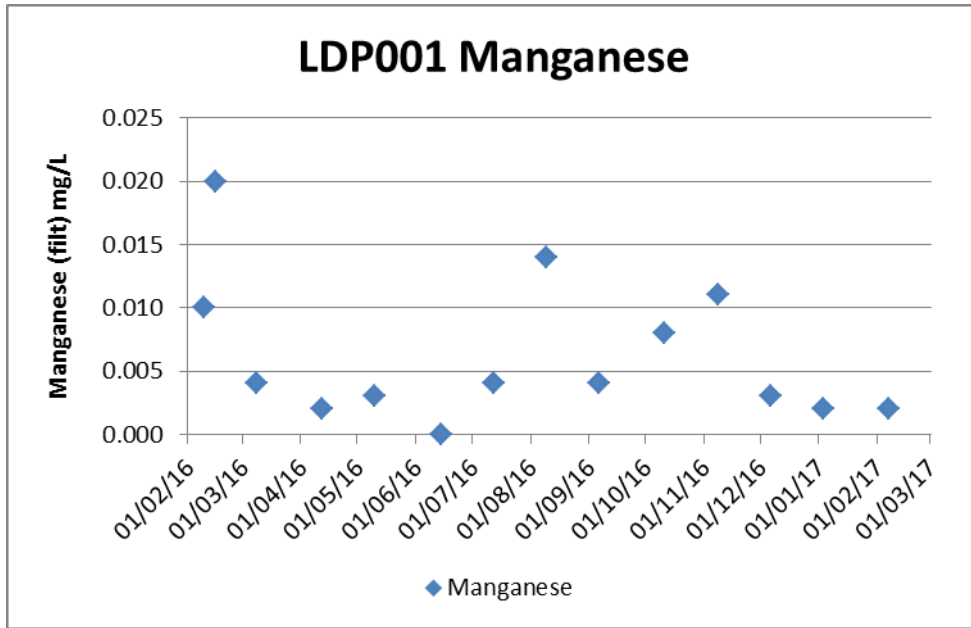


Figure 6: LDP001 Manganese 12 month summary

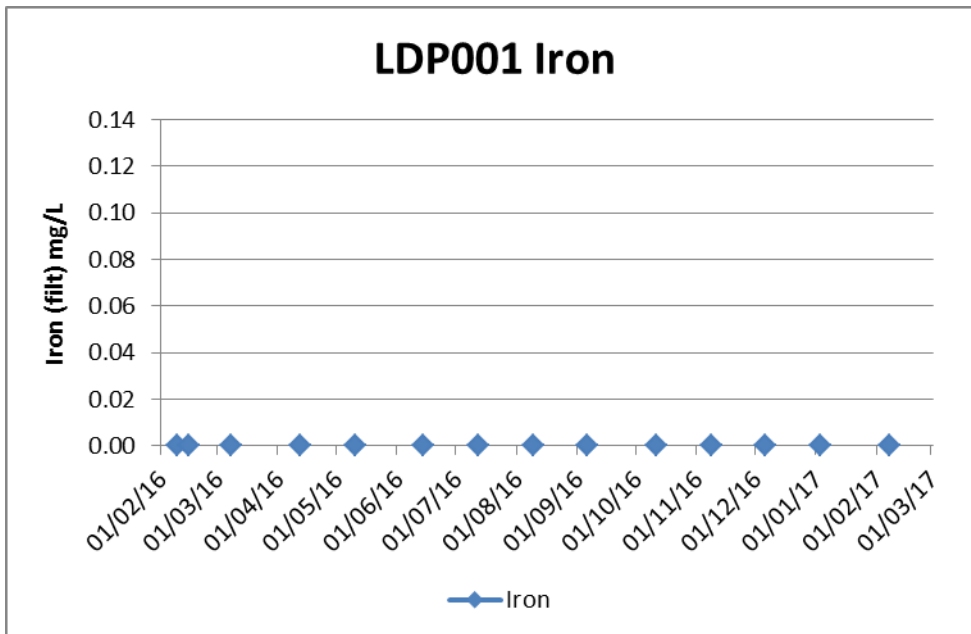


Figure 7: LDP001 Iron 12 month summary

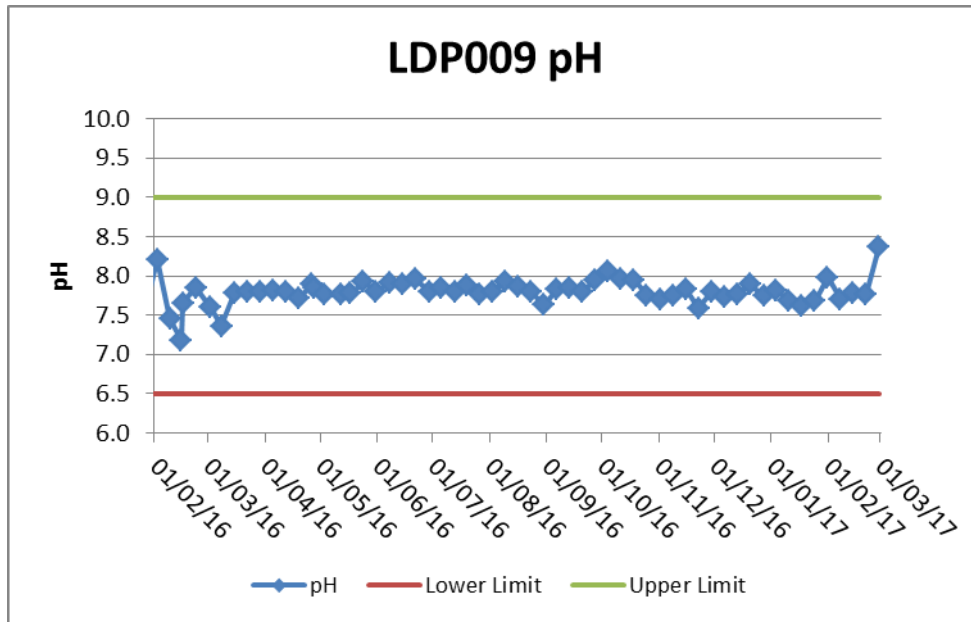


Figure 8: LDP009 pH 12 month summary

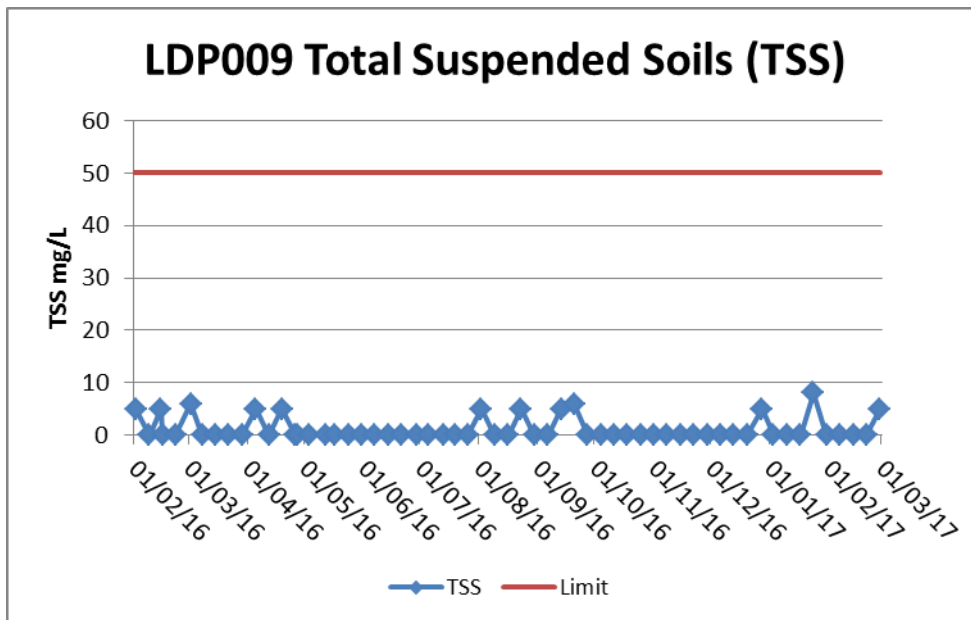


Figure 9: LDP009 TSS 12 month summary

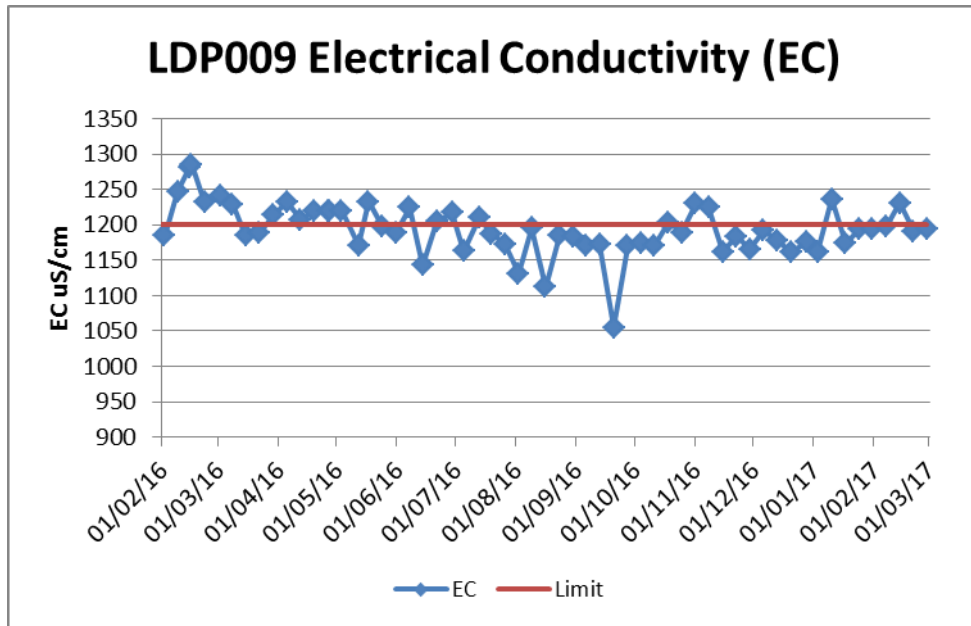


Figure 10: LDP009 EC 12 month summary

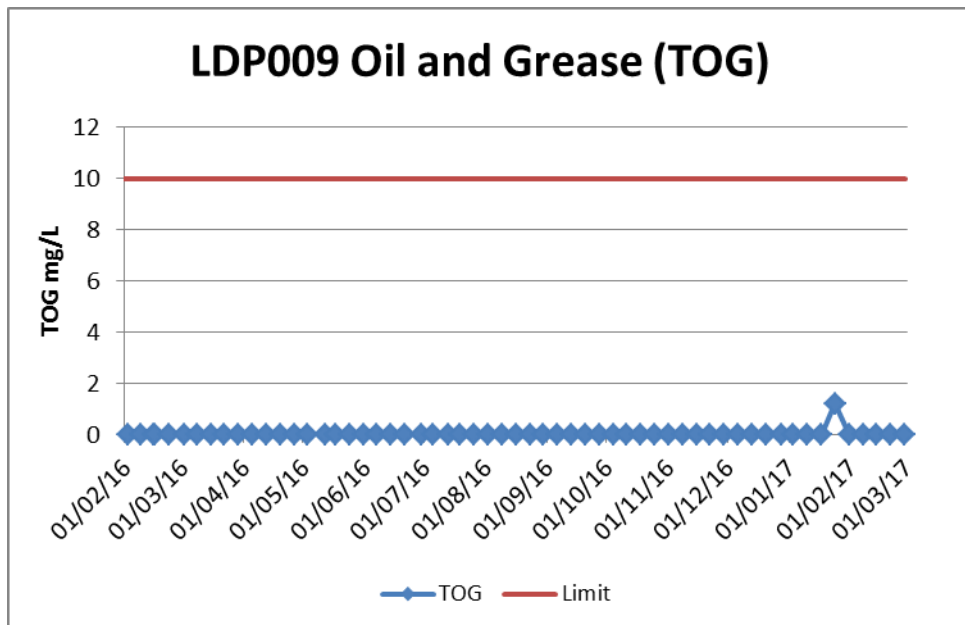


Figure 11: LDP009 TOG 12 month summary

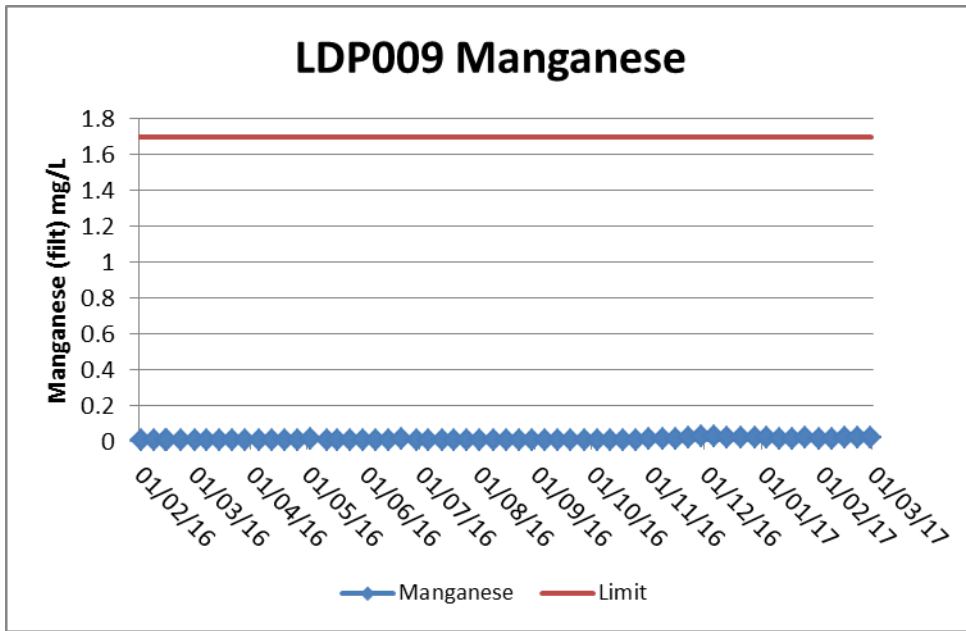


Figure 12: LDP009 Manganese 12 month summary

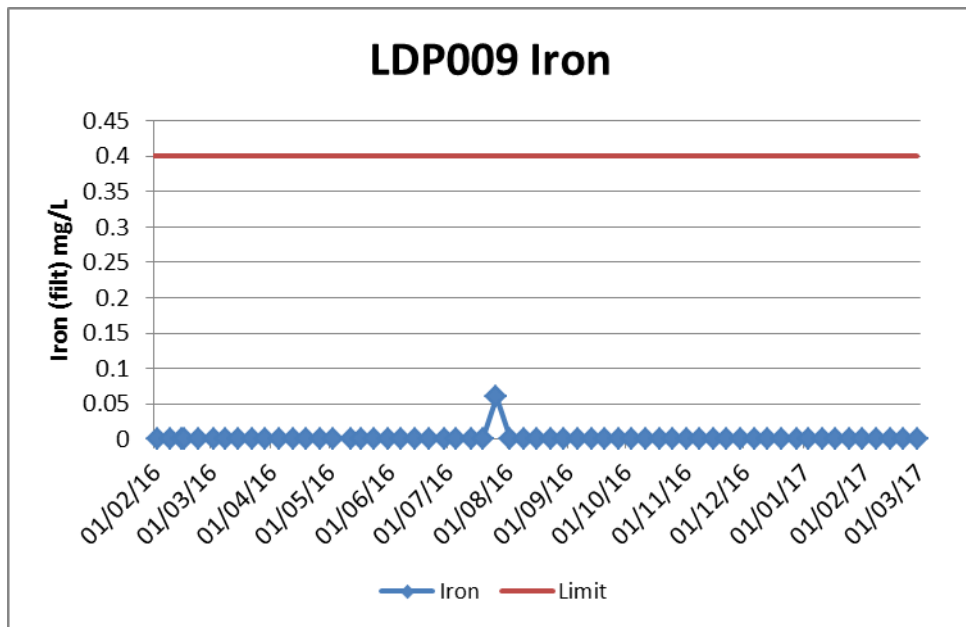


Figure 13: LDP009 Iron 12 month summary

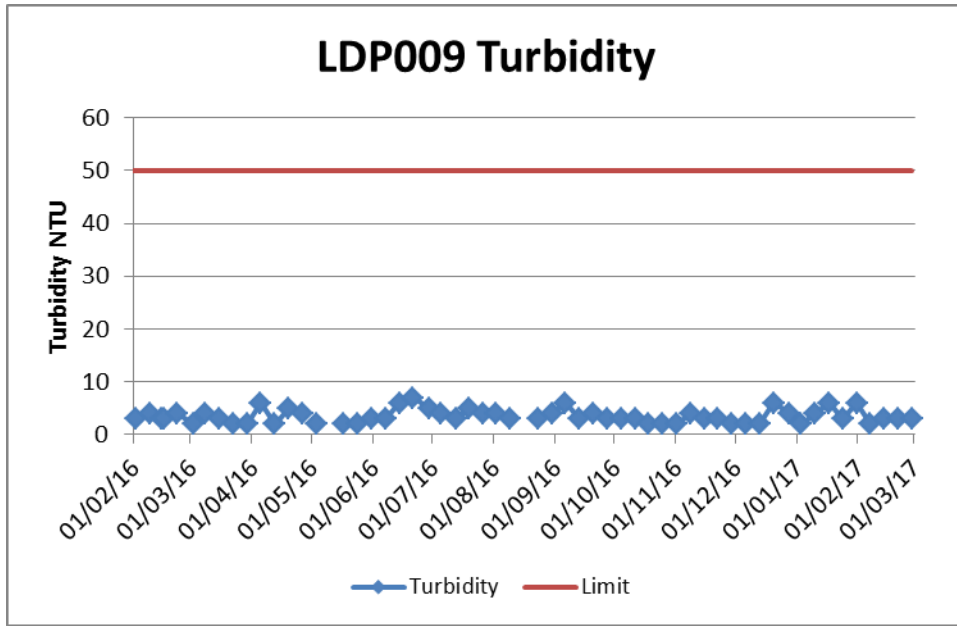


Figure 14: LDP009 Turbidity 12 month summary

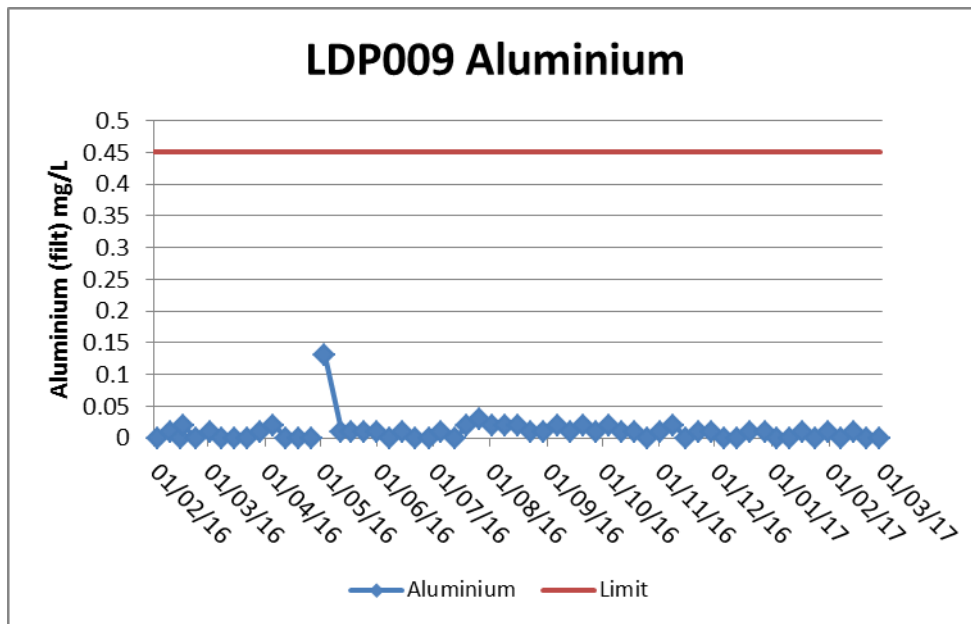


Figure 15: LDP009 Aluminium 12 month summary



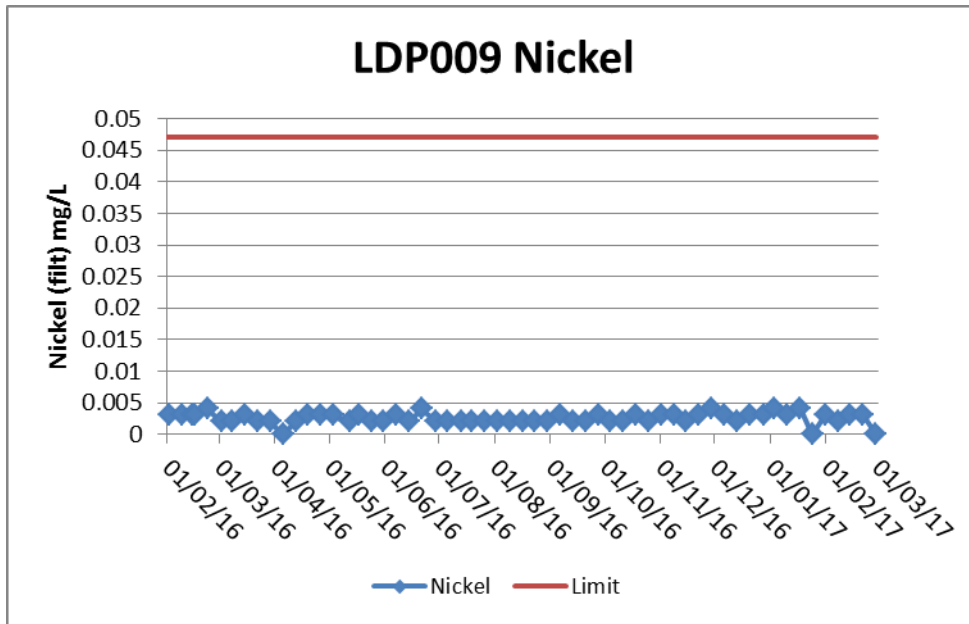


Figure 18: LDP009 Nickel 12 month summary

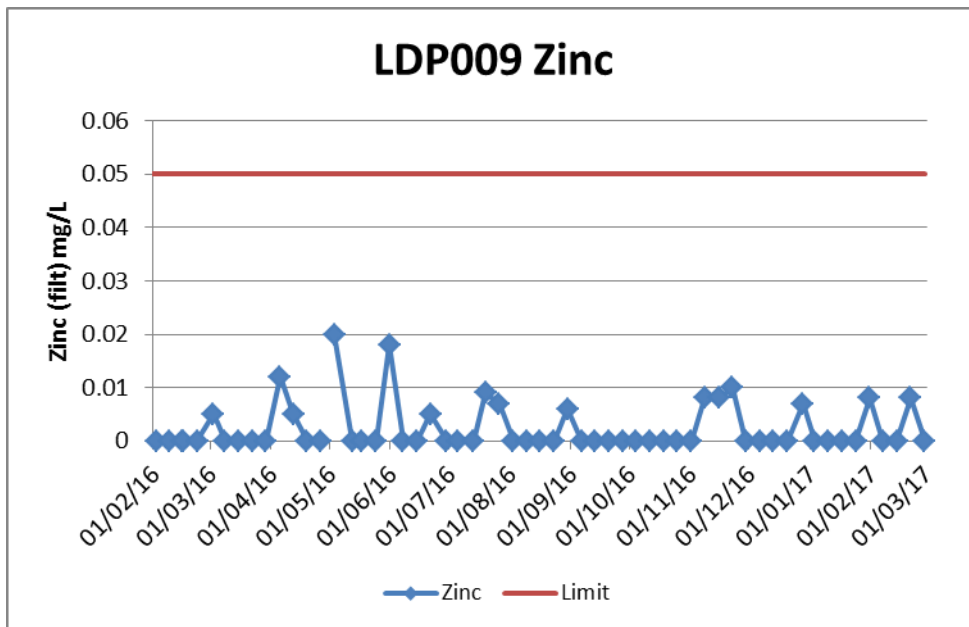


Figure 19: LDP009 Zinc 12 month summary



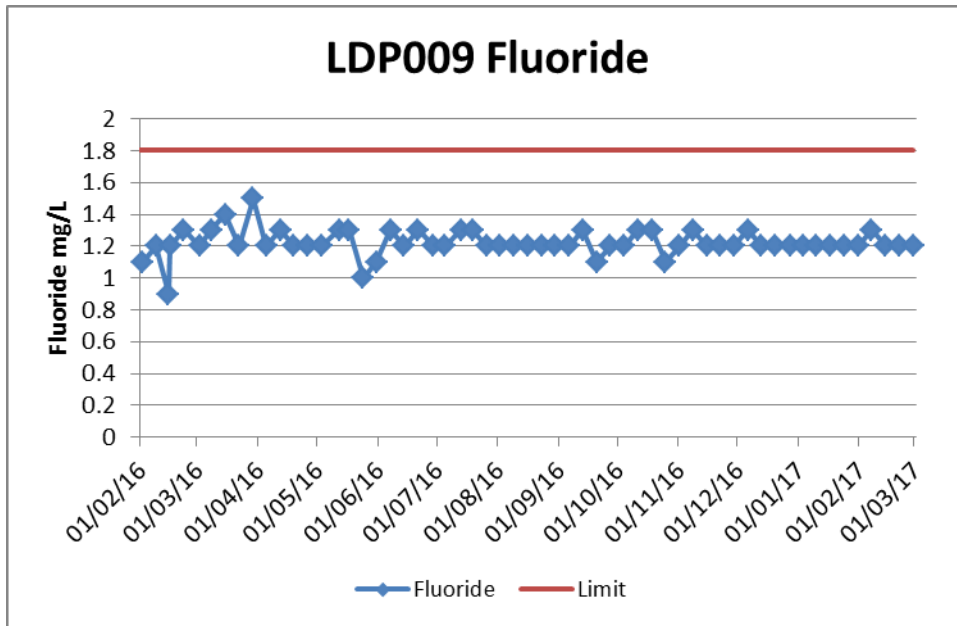


Figure 20: LDP009 Fluoride 12 month summary

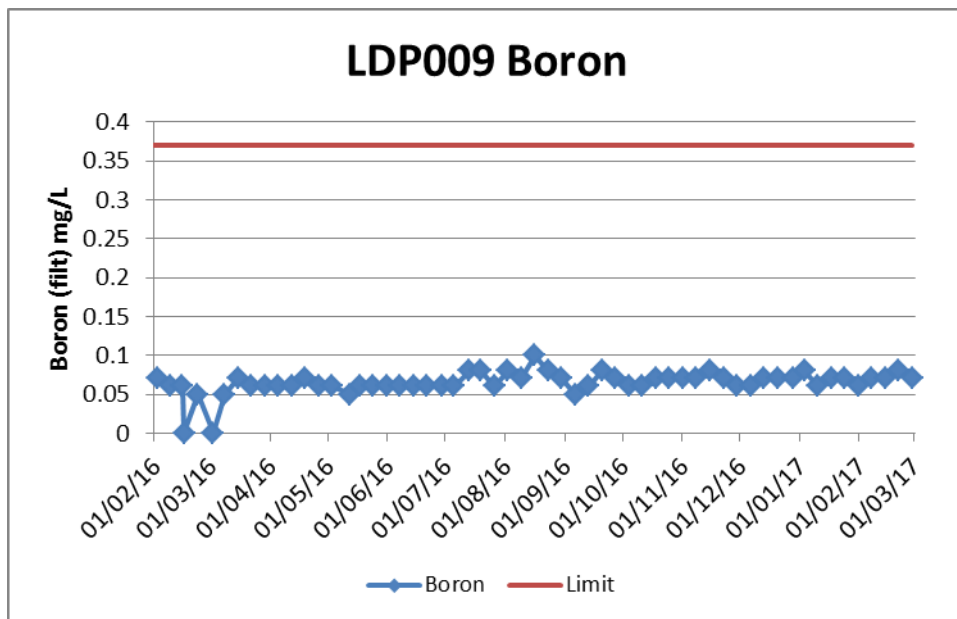


Figure 21: LDP009 Boron 12 month summary

## 5 Water Volume

**Table 4. Licensed Discharge Points - Water Volume**

<b>Data Published:</b>		10/03/2017		<b>Licensee:</b>		Springvale Coal Pty Limited	
<b>Data Sampled:</b>		Feb-17		<b>Address:</b>		Castlereagh Hwy, Lidsdale	
<b>Data Obtained:</b>		10/03/2017		<b>EPL No.</b>		3607	
<b>Discharge Point</b>	<b>Unit</b>	<b>Licence Monitoring Frequency</b>	<b>Frequency Measured</b>	<b>Min. Value (kL)</b>	<b>Max. Value (kL)</b>	<b>Volume Limit (kL)</b>	<b>Exceedence (yes/no)</b>
LDP001	kL	Daily	Daily	184	1873	10000	no
LDP002	kL	Daily	Daily	0	0.00	#	n/a
LDP004	kL	Daily during discharge	Daily	No discharge	No discharge	15000	no
LDP005	kL	Daily during discharge	Daily	No discharge	No discharge	15000	no
LDP009	kL	Daily during discharge	Daily	19806	23970	30000	no
LDP010	kL	Daily during discharge	Daily	No discharge	No discharge	#	n/a

# No volume discharge limits apply.

## 6 Noise Monitoring

No noise monitoring was undertaken in February.

## 7 Complaints

One complaint was received during the reporting period. The complaint is summarised in Table 7 below and a 12 month summary presented in Figure 22.

**Table 5. Complaint Summary**

Date	Complaint/ Enquiry	Method	Description	Investigation/Cause	Springvale Response
24/02/2017	Complaint	Phone	<p>A complaint was received in relation to noise generated from the haulage of coal along the Castlereagh Highway at Blackman's Flat.</p> <p>The complainant stated that:</p> <ul style="list-style-type: none"> <li>- the haulage of coal should be undertaken via the existing conveyor infrastructure and additional private haul road links should be constructed if this activity is to continue;</li> <li>- the trucks with trailers are the noisiest on the return journey along Blackman's Flat due to increased noise generated from the uneven road surface;</li> <li>- the haulage of coal along public roads results in more regular truck movements and therefore has an increased noise and amenity impact.</li> </ul>	Springvale Mine is temporarily hauling ROM coal to Springvale Coal Services (SCS) via the Castlereagh Highway.	<p>The following actions had been implemented for the duration of hauling:</p> <ul style="list-style-type: none"> <li>• Minimise truck movements and truck speed leaving SCS.</li> <li>• Check tailgates on trucks are fastened.</li> <li>• Truck movements only to occur on weekdays.</li> </ul> <p>Complainant acknowledged actions being taken by Springvale to reduce impacts.</p> <p>Hauling is being undertaken in accordance with Springvale SSD_5594.</p>

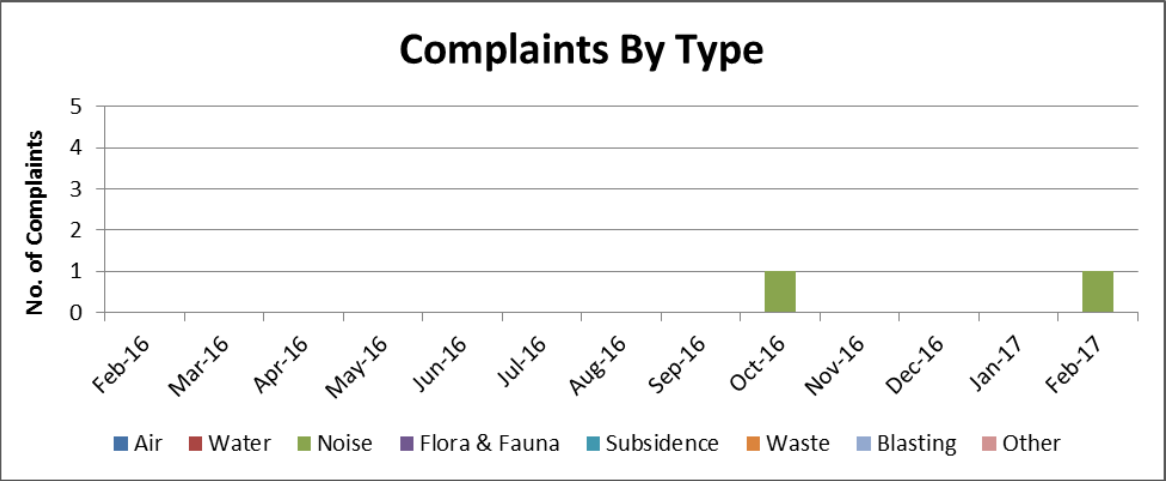


Figure 22: 12 month Complaints Summary

### 8 Correction Log

No corrections have been made to previous monthly reports.

# **Appendix A EPL Environmental Monitoring Location**



Licensed Discharge Point Deposition Gauge	<b>NOTES:</b>  	Drawn: Jim Macpherson Date: 10-05-2013	<b>SPRINGVALE MINE</b>	
		Project: SVY01587 Client: S:\Starvey\Z_Plans		
		Checked: Tony Nolan		<b>Springvale                  Licensed Discharge Points</b>
		Scale: SCALE 1:10000		



# Centennial Coal

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