



Centennial Coal



***CENTENNIAL ANGUS PLACE
PTY. LTD.
ANGUS PLACE COLLIERY
ANNUAL REVIEW***

March 2016



Table 1: Annual Review Title Block

Name of Operation	Angus Place Colliery
Name of Operator	Centennial Angus Place Pty Ltd
Development Consent/ Project Approval #	PA 06_0021
Mining Lease #	CCL704, ML1424, ML1699, ML1720
Name of Holder of Mining Lease	Centennial Springvale Pty Ltd and Springvale SK Kores Pty Ltd
Water License #	WAL36445; WAL36449; WAL37340; WAL37343
Name of Holder of Water License	Centennial Angus Place Pty Ltd
MOP/RMP Start Date	1 July 2013
MOP/RMP End Date	31 March 2016
Annual Review Start Date	1 January 2015
Annual Review End Date	31 December 2015
<p>I, Mick Cairney, certify that this audit report is a true and accurate record of the compliance status of Angus Place Colliery for the period 2015 and that I am authorized to make this statement on behalf of Centennial Angus Place.</p> <p><i>Note:</i></p> <p>a) <i>The Annual Review is an 'environmental audit' for the purposes of s122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion) in an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p>b) <i>The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents – maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Name of Authorised Reporting Officer	Mick Cairney
Title of Authorised Reporting Officer	Executive General Manager Operations
Signature of Authorised Reporting Officer	
Date	

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1. STATEMENT OF COMPLIANCE

Table 2: Statement of Compliance

Were all conditions of the relevant approval(s) complied with?	
PA 06_0021	No*
EPBC 2011/5952	Yes
CCL 704	No*
ML 1424	No*
ML 1699	Yes
ML 1720	Yes
EPL 467	No
Extraction Plan Approval 12/15868	Yes
SMP Approval OUT14/10918	Yes
SMP Approval 04/1675	Yes*
WAL36445	Yes*
WAL36449	Yes*
WAL37340	Yes
WAL37343	Yes
Radiation Management Licence RML29229	Yes

* Compliance status has been determined from the Angus Place 2014 compliance audit. This is attached as an appendix.

Table 3: Non-Compliances

Relevant Approval	Condition #	Condition summary	Compliance Status	Comment	Section addressed in Annual Review
PA06_0021	Schedule 2; Condition 1	Obligation to minimise harm to the environment	Non compliant	Exceedance of Project Approval criteria	N/A
ELP467	N/A	N/A	Non compliant	Notification to the Environmental Pollution Hotline (ref 03730-2015) regarding approx. 400-600L ferric chloride spilt	11

				from bore 940 surface pipe work during maintenance outage.	
EPL467	L3.1	Volume and mass limits	Non compliant	LDP001 volume exceeded 2000 kL/day limit on 8 and 17 June 2015	11
ELP467	L3.1	Volume and mass limits	Non compliant	LDP001 volume exceeded 2000 kL/day limit on 23/12/2015	11

Note: Compliance Status Key for Table 3

Risk Level	Colour Code	Description
High		Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium		Non-compliance with: <ul style="list-style-type: none"> • Potential for serious environmental consequences, but is unlikely to occur; or • Potential for moderate environmental consequences, but is likely to occur
Low		Non-compliance with: <ul style="list-style-type: none"> • Potential for moderate environmental consequences, but is unlikely to occur; or Potential for low environmental consequences, but is likely to occur
Administrative		Only to be applied where the non-compliance does not result in any risk of environmental harm (eg submitting a report to government later than required under approval conditions)

2. INTRODUCTION

Angus Place Colliery (Angus Place) is an underground coal mining operation located approximately 5 kilometres (km) north of the village of Lidsdale, 8 km northeast of the township of Wallerawang and approximately 15 km northwest of the city of Lithgow in the Blue Mountains region of New South Wales (NSW). It is bordered by Springvale Colliery to the south, Ivanhoe Colliery to the northwest and the Wolgan Valley and Newnes Plateau to the north and east respectively.

Angus Place has been in operation since 1979 and is operated by Centennial Angus Place Pty Ltd, a joint venture company owned in equal share between Centennial Coal Company Ltd and SK Kores Pty Ltd. Angus Place utilises the longwall retreat method of mining to extract coal from the Lithgow Seam, within Mining Lease (ML) 1424 and Consolidated Coal Lease (CCL) 704.

In response to the prolonged downturn in international coal markets, a decision was made by Centennial Coal to commence ‘care and maintenance’ at Angus Place following the completion of secondary extraction within Longwall 900W. Angus Place completed secondary extraction of the longwall panel on 15 February 2015 and the mine was placed on ‘care and maintenance’ on 28 March 2015. To increase the operational efficiency of the neighbouring Springvale Mine (Springvale), two development crews and some mining equipment were redeployed. While on ‘care and maintenance’, Angus Place will continue to meet safety and environmental regulations and the site will be appropriately maintained to enable a reopening when the Springvale reserves have been extracted or if market conditions improve.

Angus Place’s existing Project Approval (PA) 06_0021 was granted on 13 September 2006 pursuant to Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and provided for extension of the mining area with a production limit of 3.5 million tonnes per annum of coal from the Lithgow seam. Four modifications to PA06_0021 have since been approved:

- Modification 1 - two additional longwall panels (910 and 900W) and an increase in production to 4 million tonnes per annum.
- Modification 2 - construction and operation of an additional ventilation facility on Newnes Plateau.
- Modification 3 - longwall panel 980 and 900W geometry changes.
- Modification 4 – development continuity.

The main components of Angus Place’s operations are an underground longwall mine and development panels with supporting surface infrastructure situated at the Angus Place pit top area and on the Newnes Plateau.

On 18 November 2013, Centennial Angus Place lodged a State Significant Development Application (SSD 5602) with the NSW Department of Planning and Environment. Assessment of this project is currently ongoing.

Key Contact Details are:

Contact	Contact Details
Terry O’Brien – Mine Manager	(02) 6354 8721
Tom Hollis – Environment and Community Coordinator	(02) 6354 8938
Community Information and Complaints Line	(02) 6354 8700

3. APPROVALS

Approval	Changes During the Reporting Period
Development Consent	
PA 06_0021	No
EPBC Approval	
EPBC 2011/5952	No
Mining Operations Plan	
Mining Operations Plan	Yes – extended until 31 March 2016
Mining Leases	
CCL 704	No
ML 1424	No
ML 1699	No
ML 1720	Yes – granted on 23 November 2015
MLA 498	Yes – application lodged on 28 May 2015
EL 6856	No
EL 6293	Yes – renewal application is pending
EL7415	Yes – renewal application is pending
EL 8188	No
Environment Protection Licence	
EPL 467	No
Subsidence Management Plans/Extraction Plans	
SMP Approval 04/1675	No
Extraction Plan Approval 12/15868	No
SMP Approval OUT14/10918	No
Water Licences	
WAL36445	No
WAL36449	No
WAL37340	Yes granted on 9 October 2015
WAL37343	Yes granted on 9 October 2015
10BL601829	No
10BL603236	No
10BL603802	No

10BL604512	No
10BL604709	No
10BL605132	No
Forestry Corporation of NSW Occupation Permits	
Level 3 Occupation Permit	No
Approval Under the NSW Threatened Species Conservation Act 1995	
Section 95(2) Certificate	No
Radiation Licence	
Radiation Management Licence RML29229	Yes renewed during 2015

4. OPERATIONS SUMMARY

Table 4: Production Summary

Material	Approved Limit (and source)	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Next Reporting Period (Forecast)
Waste Rock/ Overburden	N/A	N/A	N/A	N/A
ROM Coal	4,000,000	3,424,888	298,286*	0
Coarse reject	N/A	N/A	N/A	N/A
Fine reject (Tailings)	N/A	N/A	N/A	N/A
Saleable product	N/A	3,424,888	298,286*	0

* Low production during 2015 reporting period due to Angus Place Colliery being on care and maintenance.

4.1. Other Operations

Table 5: Operations Summary

	Approved Limit (and source)	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Comment (if applicable)
Hours of operation	24 hours a day, 7 days a week	24 hours a day, 7 days a week	24 hours a day, 7 days a week	Currently under Care and Maintenance provisions (since 28 March 2015)

Transport (private haul road)	Up to 4 mtpa via Wallerawang Haul Road and Up to 4 mtpa via Mount Piper Haul Road	3,424,888	298,286	-
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4.2. Next Reporting Period

All activities within the 2016 reporting period will be undertaken in accordance with the approved Mining Operations Plan due to expire on 31 March 2016. Centennial Angus Place has drafted a revised 'Care and Maintenance' Mining Operations Plan for approval by the Division of Resources and Energy. Care and maintenance provisions will continue throughout the 2016 reporting period.

5. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

Table 5: Actions from previous Annual Review

Action Required	Requested By	Action Taken	Where addressed in Annual Review
PA06_0021 Schedule 5, Condition 10 requires all appropriate documents to be publically available via the company website.	DP&E via letter dated 2 April 2015	The required documents were uploaded to the company website by 16 April 2015. This was confirmed to DP&E via email on 17 April 2015.	N/A
DP&E requests that the proponent provide an update within four weeks from the date of letter (2/04/15) on the following actions: <ul style="list-style-type: none"> • S2, C6; • S2, C11-13; • S5, C6. 	DP&E via letter dated 2 April 2015	Letter submitted on 30 April 2015 to update DP&E on matters raised. This was accepted by DP&E via email on 5 May 2015.	N/A
DP&E notes that in the next reporting period the Proponent is required to satisfy the following conditions: S3, C24B; S3 C27.	DP&E via letter dated 2 April 2015	Centennial Angus Place is working towards meeting the requirements of Condition 24B by the end of December 2016. S3, C27 was issued	N/A

		as part of the original consent (13/09/2006). Centennial Angus Place completed a Wallerawang Power Station Coal Conveyor Feasibility Report in May 2008 which includes the required elements.	
Angus Place to respond to Actions 7 and 9 from the 2013 DRE AEMR response letter by 31 January 2016.	DRE via letter dated 6 January 2016	Centennial Angus Place responded to DRE regarding the matters raised on 3 February 2016. DRE has since raised additional matters in an email dated 5 February 2016. Centennial Angus Place is due to respond to DRE.	N/A

6. ENVIRONMENTAL PERFORMANCE

Noise

Angus Place operates in accordance with the approved *Noise Monitoring Program*, as required by Schedule 3, Condition 22 of PA 06_0021. Potential noise sources from the Pit Top facilities include machinery operations (predominantly the CHP), coal sizing and coal loading at the CHP, and coal transportation to the Wallerawang and Mount Piper Power Stations on dedicated coal haul roads. These predominant noise generating sources ceased operations at the commencement of the 'care and maintenance' period during Q1. This is clearly reflected in the noise monitoring results.

Summary of Attended Noise Monitoring Results dB(A) $L_{Aeq}(15min)$

Site	PA Criteria	EA Mod 1 Criteria	Q1	Q2	Q3	Q4
Day (7:00am – 6:00pm)						
R1 – Sharpe	42	40	<30	IA	IA	IA
R2 – Mason	41	38	<30	IA	IA	IA
R3 – Lidsdale	44	43	<30	IA	IA	IA
Evening (6:00pm – 10:00pm)						
R1 – Sharpe	38	38	<30	<25	<25	IA
R2 – Mason	37	37	<30	<25	<20	IA
R3 – Lidsdale	40	39	<30	IA	IA	IA
Night (10:00pm – 7:00am)						
R1 – Sharpe	36	N/A-*	<30	IA	<20	IA

R2 – Mason	35	N/A*	<30	IA	<20	IA
R3 – Lidsdale	35	N/A*	<30	IA	IA	IA

* As stated in the Project Approval, the Colliery is not permitted to use the Wallerawang power station haul road during the night-time period.

2014 Results- for comparison to the 2015 results

Site	Criteria	Q1 2014	Q2 2014	Q3 2014	Q4 2014
Day (7:00am – 6:00pm)					
R1 - Sharpe	42	<30	30	<30	39
R2 - Mason	41	<30	<30	<30	34
R3 - Neubeck	44	<30	<30	<30	<30
Evening (6:00pm – 10:00pm)					
R1 - Sharpe	38	<30	<30	<30	35
R2 - Mason	37	<30	<30	<30	33
R3 - Neubeck	40	<30	<30	<30	<30
Night (10:00pm – 7:00am)					
R1 - Sharpe	36	<30	<30	<30	33
R2 - Mason	35	<30	<30	<30	34
R3 - Neubeck	35	<30	<30	<30	<30

Reference	EA Predictions (max)	
	Day	Evening
Sharpe	45	45
Mason	44	44
Neubeck	47	47

From the comparison between the 2014 and 2015 results (as well as EA predicted levels), it can clearly be seen that the activities associated with Care and Maintenance are related to decreased levels of noise at all 3 monitoring locations.

Angus Place Colliery complied with the applicable noise limits and EA predictions at all monitoring locations during 2015. Given the continuation of 'care and maintenance' provisions and the reduced noise trend no actions are proposed for 2016.

Air Quality

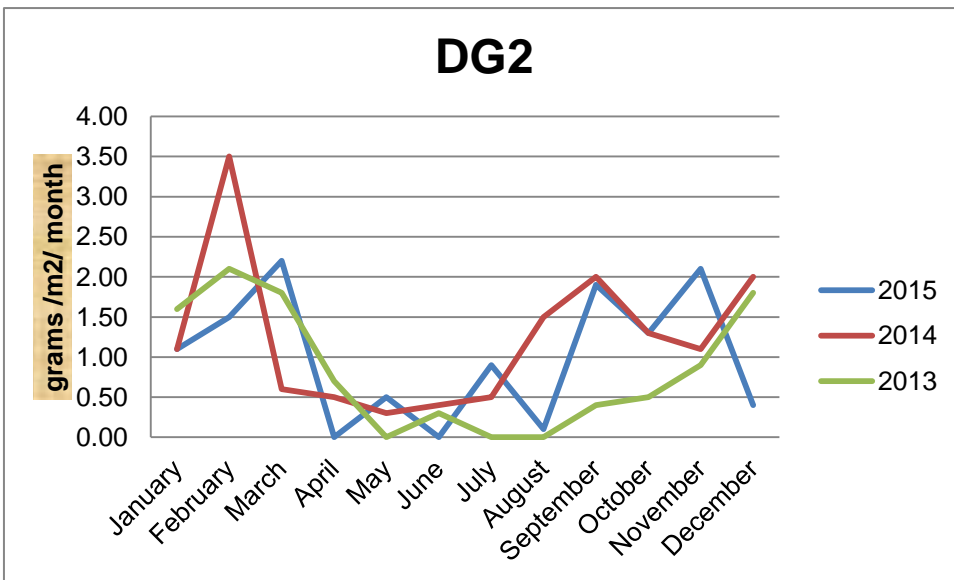
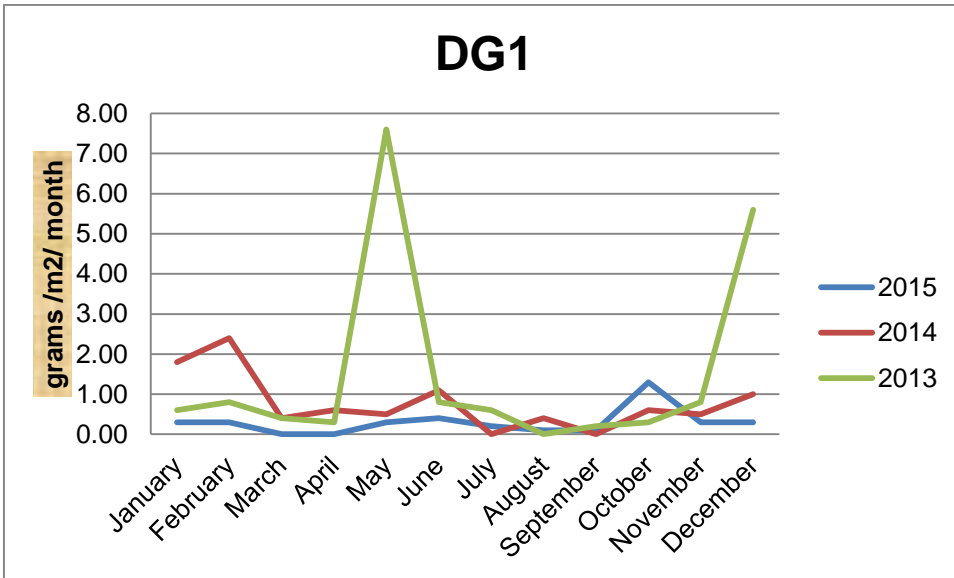
Dust emissions from Angus Place are managed in accordance with the Angus Place *Air Quality Monitoring Program*. The air quality monitoring system at Angus Place consists of a combination of Dust Deposition Gauges and a High Volume Air Sampler (HVAS). Air quality monitoring data obtained during the reporting period appears in the following tables.

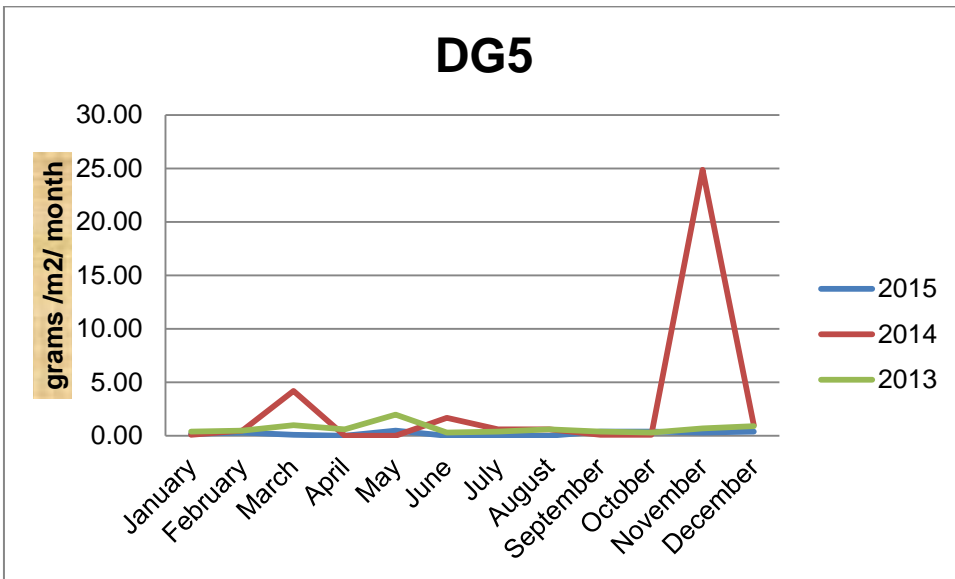
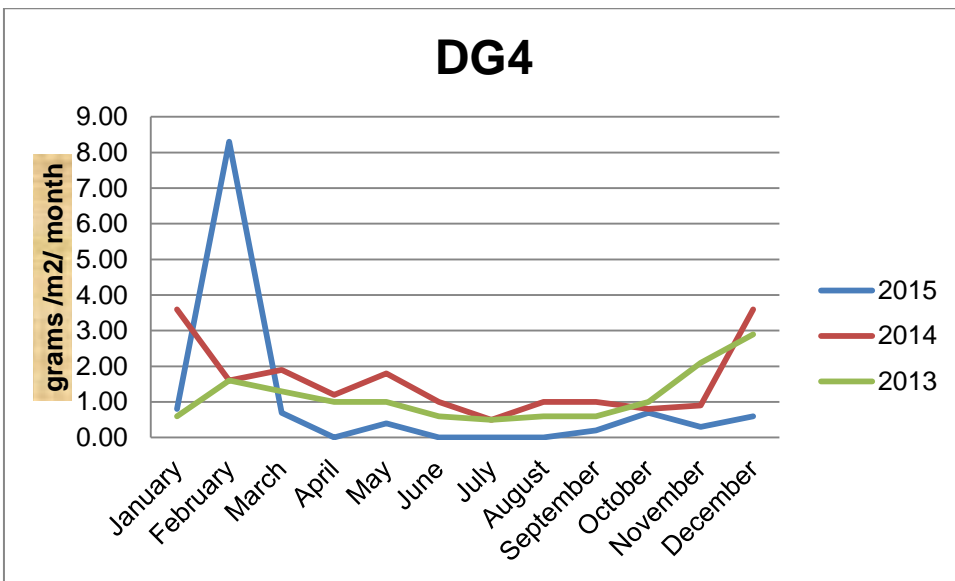
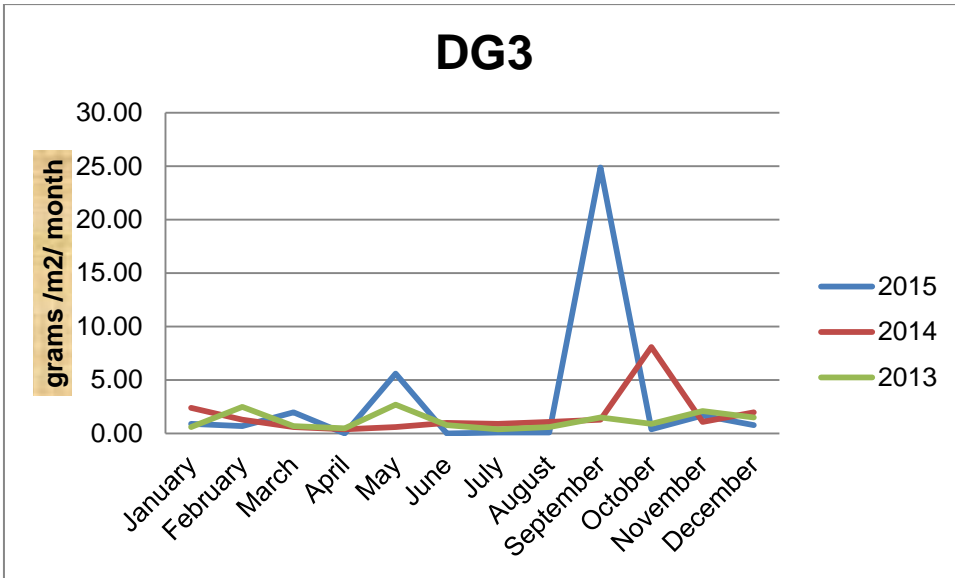
Depositional Dust Gauge Results 2015

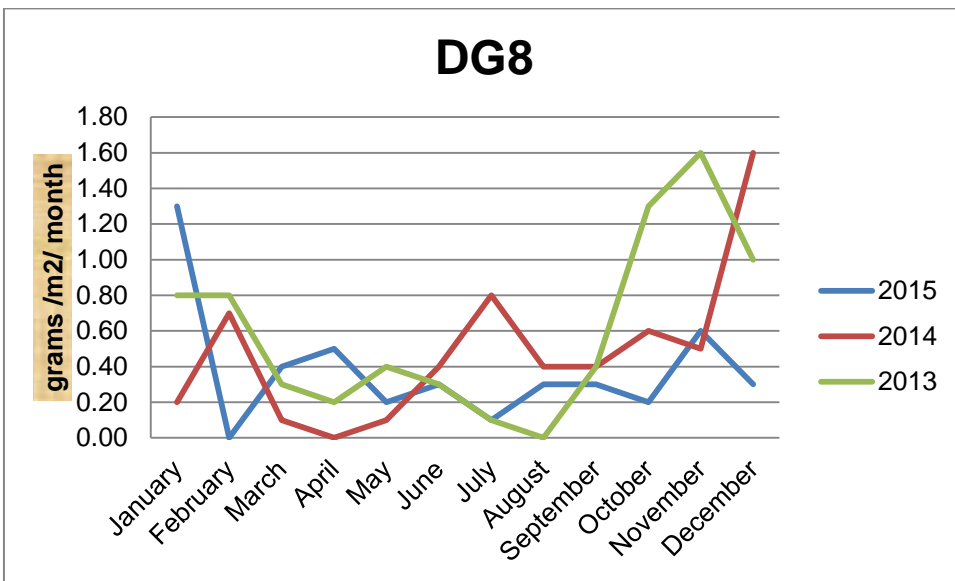
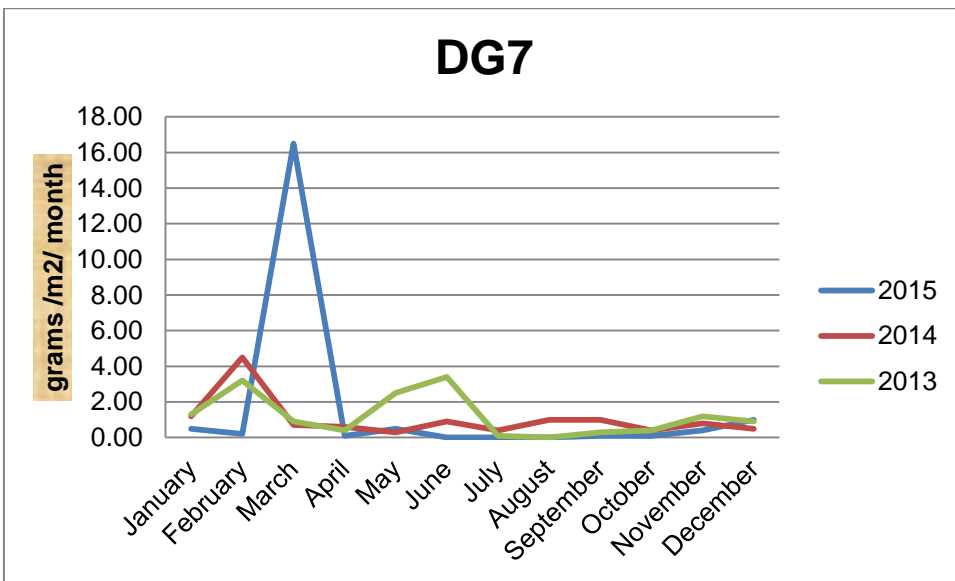
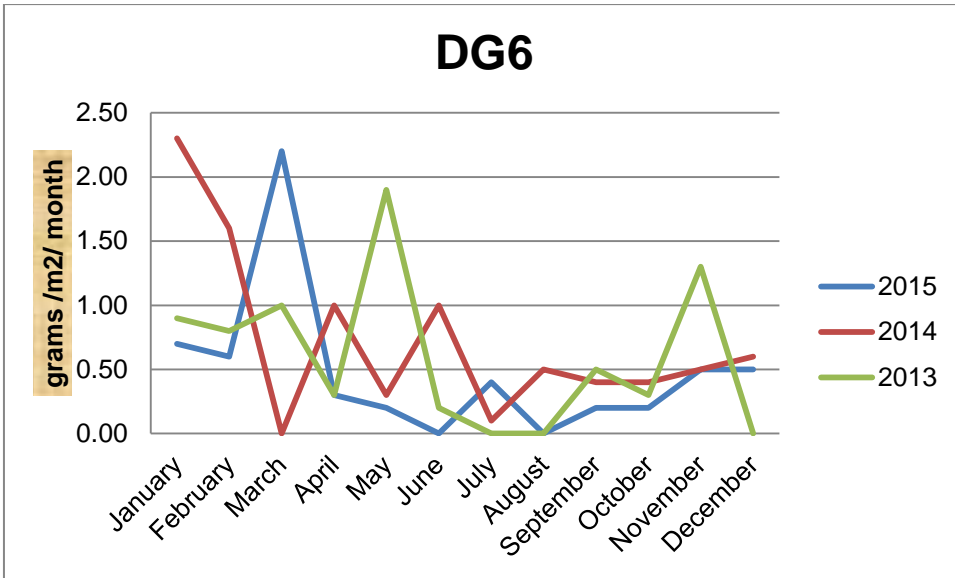
Gauge	Consent Criteria (g/m ² /month)	Insoluble Solids (g/m ² /mth)*
DDG1	4	0.36
DDG2	4	1.20

DDG3	4	3.72
DDG4	4	1.50
DDG5	4	0.33
DDG6	4	0.58
DDG7	4	2.16
DDG8	4	0.44

A graphical representation of the dust results at each monitoring locations is included below. The past three years has been captured and presented at each location.







HVAS Results 2015

	PM₁₀ (µg/m³)**	TSP (µg/m³)
Consent Criteria	30	90
Minimum	<1	<1
Average	5.25	17
Maximum	17	33

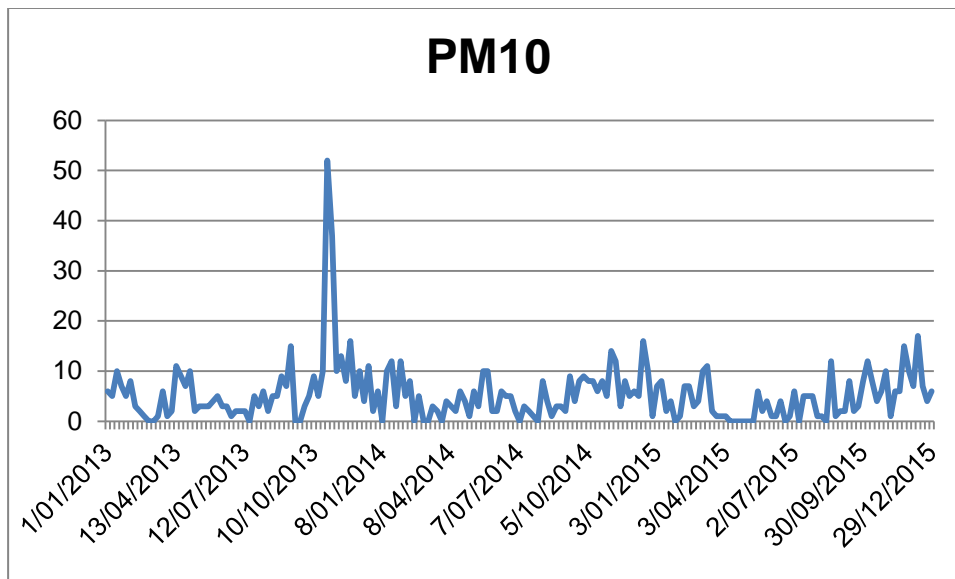
In addition to being compliant with the approval criteria, the 2015 results are generally consistent with the results recorded during years 2011 – 2014.

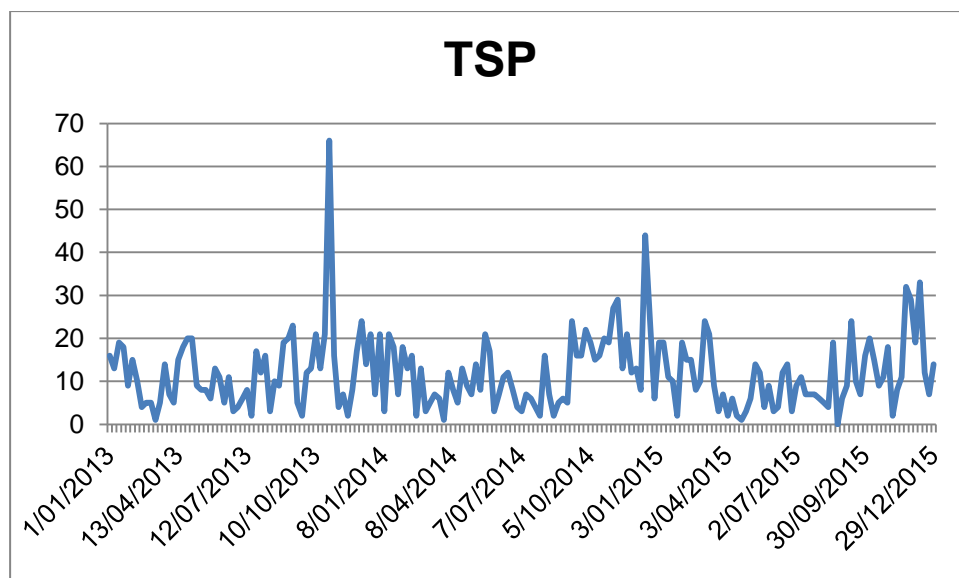
As a component of the Mod 1 Environmental Assessment an Air Quality Assessment was undertaken by Heggies Pty. Ltd. This assessment outlined that the results of modelling indicate that the operations would generally comply with the relevant criteria. In summary it was reported that:

- Dust deposition levels are predicted to be below the project air quality criteria at all surrounding dwellings.
- Cumulative annual average PM₁₀ and TSP concentrations are predicted to be below the project air quality goal at all surrounding dwellings.
- Incremental 24-hour PM₁₀ concentrations attributable to the modifications are predicted to be well below the project air quality goals set at the majority of surrounding dwellings.
- Minimal impacts associated with the ventilation fans (odour and particles).

Air quality monitoring undertaken by Angus Place during the 2015 reporting period indicates that observed results are consistent with the predicted air quality emissions for the operation. Given the continuation of care and maintenance provisions and the reduced noise trend no actions are proposed.

PM10 and TSP results for the past 3 years is trended in the figures below.





Biodiversity

Angus Place manages potential impacts to flora and fauna in accordance with the approved Flora and Fauna Management Plan, required under Schedule 3, Condition 24 of PA 06_0021. The purpose of the Flora and Fauna Management Plan is to protect threatened species and communities, minimise impacts upon native flora and fauna, manage clearing on the site, control weeds, control access to environmentally sensitive areas and manage any potential conflicts between flora and fauna and Aboriginal heritage.

Monitoring of flora and fauna is undertaken in accordance with the Flora and Fauna Management Plan, Longwalls 930 – 980 Environmental Monitoring Program and the Longwalls 900W and 910 Environmental Monitoring Program. There are currently 21 flora monitoring sites at Angus Place which have been established.

Longwalls 930 – 980 SMP Area

Monitoring of fauna at Angus Place is undertaken for the Longwalls 930 – 980 SMP Area (SMP Area) in accordance with the approved *Flora and Fauna Management Plan* and the *Longwalls 930 – 980 Environmental Monitoring Program*.

A total of 64 bird, 9 reptile, 4 amphibian and 20 native (plus four introduced) mammal species were located within Angus Place Colliery SMP Application area during the 2015 surveys. This number of species is similar to that obtained for the last five years and can be considered as typical of that expected from the Central Tablelands. The total numbers of species found in Angus Place SMP Area since 2004 are: birds 116; reptiles 29; native mammals 35, and amphibians 9.

A search of various databases resulted in a species listing for the Angus Place Colliery that was provided in the 2004 report. According to the results from the search, 102 bird, 20 mammal and 26 reptile species have been previously recorded from the Colliery area. By 2013, more than 100% of the bird species and 92% of the reptile species had been located as a result of the monitoring surveys. More mammal species are known from the

area than has been previously recorded (33 versus 20 native species) because of the current surveys.

Longwalls 900W and 910 Integrated SMP/Extraction Plan Area

Monitoring of fauna at Angus Place is undertaken for the Longwalls 900W and 910 Integrated SMP/Extraction Plan Area (Extraction Plan Area) in accordance with the approved *Flora and Fauna Management Plan* and the *Longwalls 900W and 910 Environmental Monitoring Program*.

During the 2015 reporting period new monitoring sites were established within the Extraction Plan Area to identify and monitor the potential development of subsidence related impacts resulting from the extraction of the relevant longwall panels.

A total of 64 bird, 21 native mammals (plus three introduced), six reptile and five amphibian species were located within the Extraction Plan Area. The results from the surveys show that Extraction Plan Area is typical of the forest and swamp environments on the Newnes Plateau. Biodiversity indices for birds and mammals were similar to that found within the remainder of Angus Place Colliery and consequently there is a good database to use for future monitoring.

Swamp Results

During the 2015 reporting period there was no secondary extraction beneath Newnes Plateau Shrub Swamps or Newnes Plateau Hanging Swamps.

No additional biodiversity actions are proposed.

Heritage

Management of Aboriginal cultural heritage at Angus Place is undertaken in accordance with Centennial's Western Region *Aboriginal Cultural Heritage Management Plan* (ACHMP). This document was prepared in consultation with the Registered Aboriginal parties, the NSW Office of Environment and Heritage (OEH) and DP&E, and outlines protocols for Aboriginal consultation, handling sensitive cultural information, monitoring and management of Aboriginal cultural heritage and dispute resolution.

Angus Place also undertakes the management of Aboriginal cultural heritage in accordance with the approved *Longwalls 900W and 910 Heritage Management Plan*. This plan was prepared in consultation with OEH and relevant Aboriginal stakeholders and outlines the monitoring and management measures to be implemented to manage potential environmental consequences of proposed secondary extraction of Longwalls 900W and 910 upon Aboriginal heritage sites or values. This plan is a component of the approved Longwalls 900W and 910 Integrated SMP/Extraction Plan.

As outlined in the *Longwalls 900W and 910 Heritage Management Plan*, there is only one known Aboriginal heritage site associated with the approved longwall panels. This site is a Rock Shelter with Potential Archaeological Deposit (PAD) which was identified during a survey undertaken during the preparation of the relevant Cultural Heritage Impact Assessment by RPS (2010). The Rock Shelter with PAD is located approximately

465 m to the west of Longwall 910 and is 280 m from the limit of predicted vertical subsidence. DgS (2010) stated that “it is very unlikely that cracking of cliff lines associated with the site would occur due to mine subsidence as all known cliff lines occur outside the predicted area of subsidence”. From the end of March 2015, Angus Place was placed on ‘care and maintenance’. Secondary extraction of Longwall 900W was completed in February 2015. Longwall 910 is not planned to be extracted until the recommencement of mining.

A Western Region Aboriginal Cultural Heritage Sub-Committee was established in 2015. Two meetings were held in May and December 2015. The meeting invitees include Registered Aboriginal Groups, OEH and Centennial representatives. An update was held on activities completed in the previous three months and upcoming three months. Discussions during 2015 included Aboriginal Groups involvement in due diligence surveys, access to heritage sites on Centennial land and regarding site specific heritage activities. No European Heritage activities were undertaken in 2015.

There were no archaeological or heritage related complaints, non-compliances or incidents reported at Angus Place during the reporting period. No further actions are proposed.

7. WATER MANAGEMENT

It is important to note that Table 7 reports on the WATER YEAR which is from 1 July to 30 June, not the calendar year.

Table 7: Water Take

License #	Water Sharing Plan, source and management zone (as applicable)	Entitlement	Passive take inflows /	Active pumping	TOTAL
WAL36445 WAL37340	Sydney Basin Coxs River Groundwater Source	2,701 329	N/A	328	328
WAL36449 WAL37343	Sydney Basin Richmond Groundwater Source	2,523 35	N/A	2,346	2,346

Volume is reported in annual megalitres (ML)

LDP001

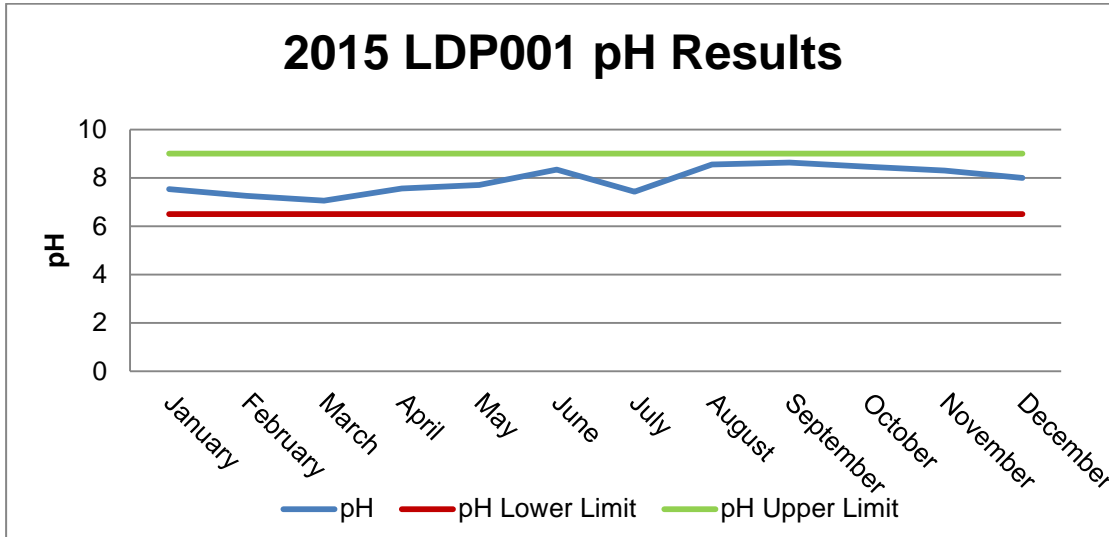
Pollutant	EPL Limit	Minimum	Average	Maximum
Conductivity (µs/cm)	-	733	952.25	1065
Oil and Grease (mg/L)	10	<5	6	6
pH	6.5-9	7.06	7.84	8.64

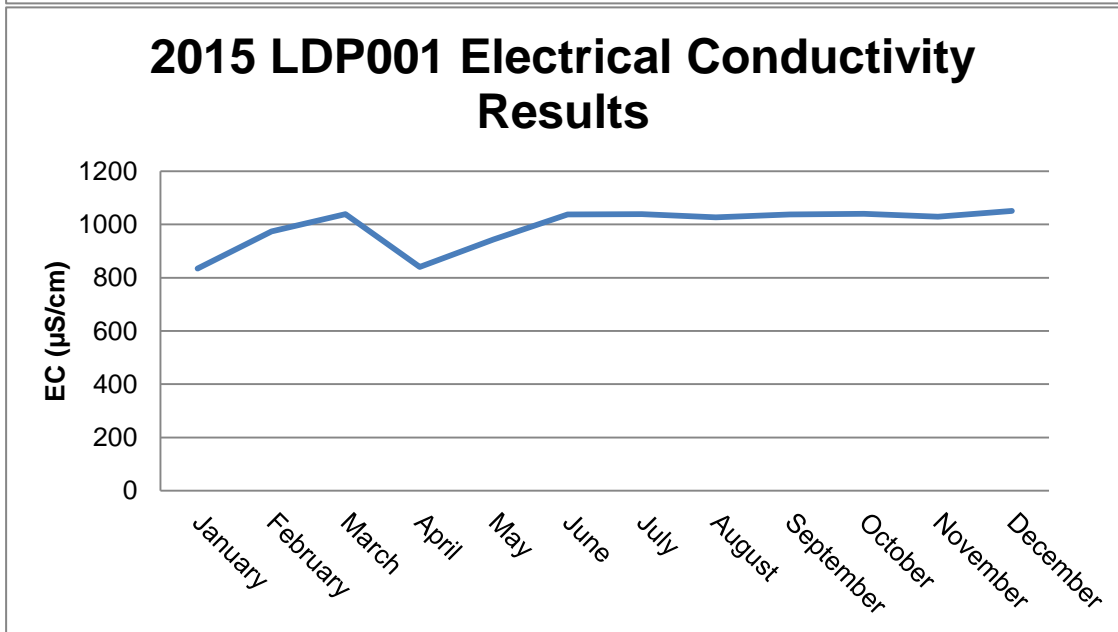
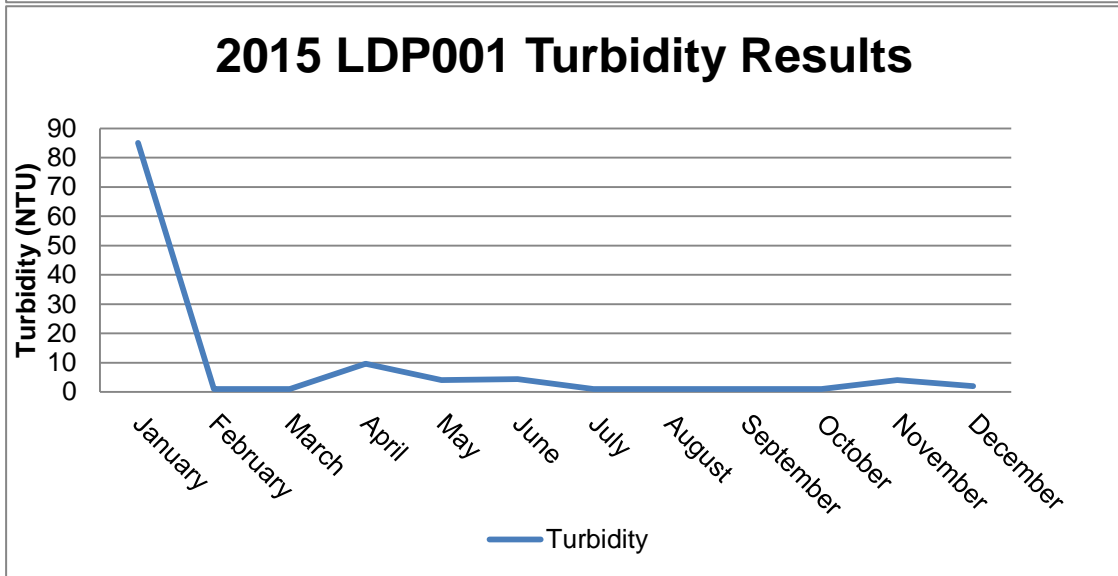
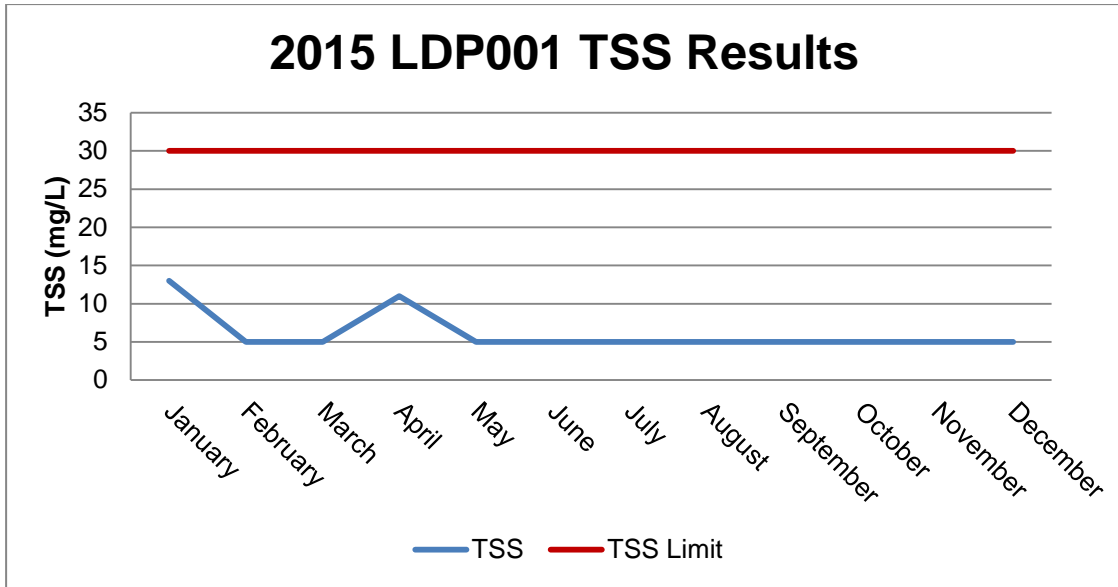
Total Suspended Solids (mg/L)	30	<5	12	13
Turbidity (NTU)	-	1	8.67	85
Flow (kL/day)	2000kL/day	0	985.76	2123.86*

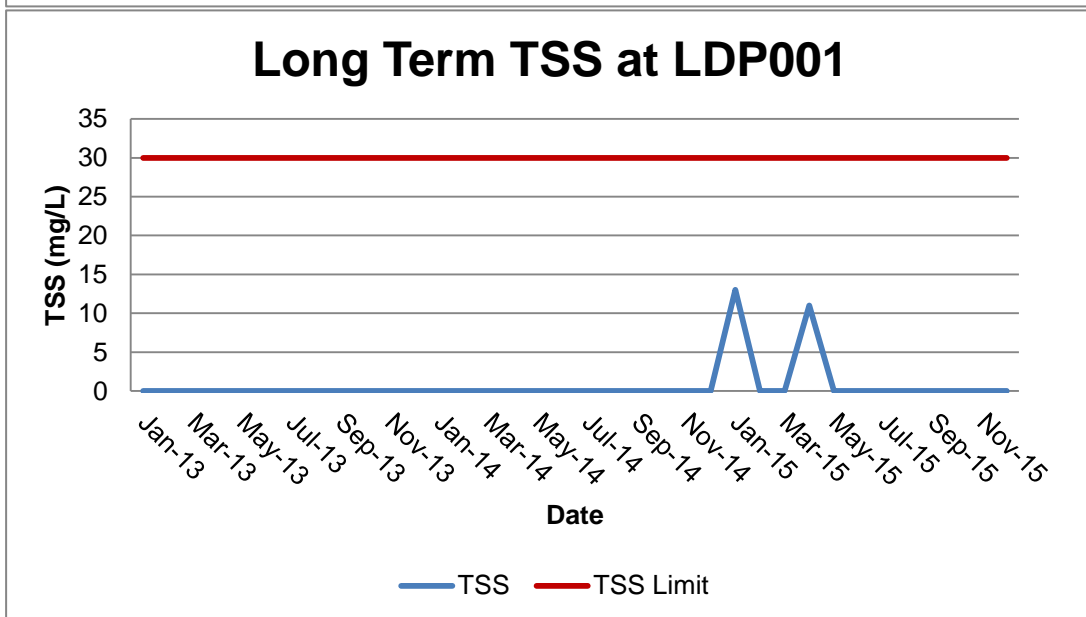
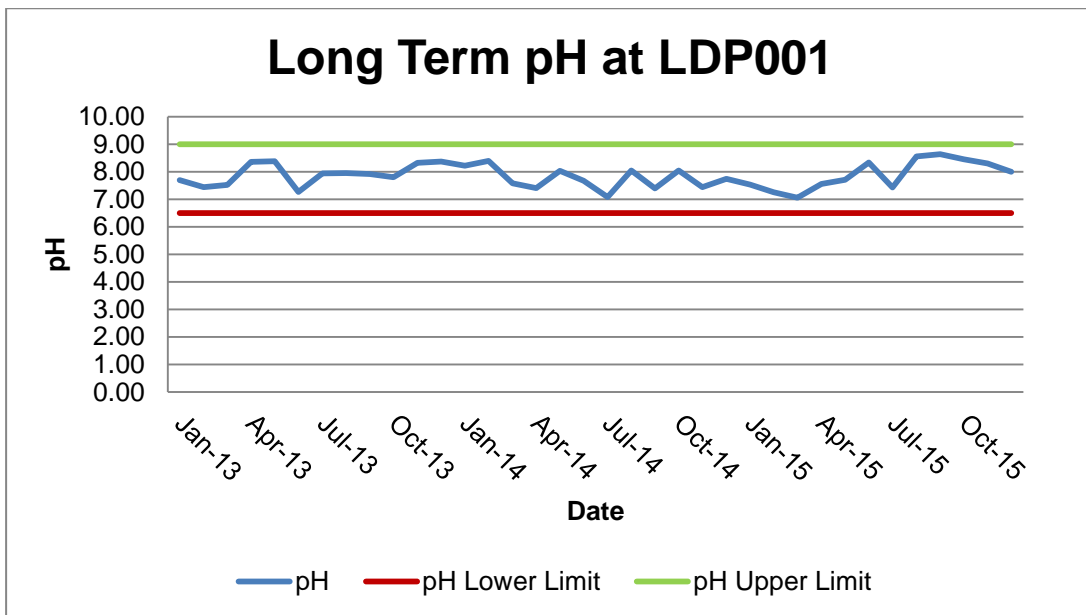
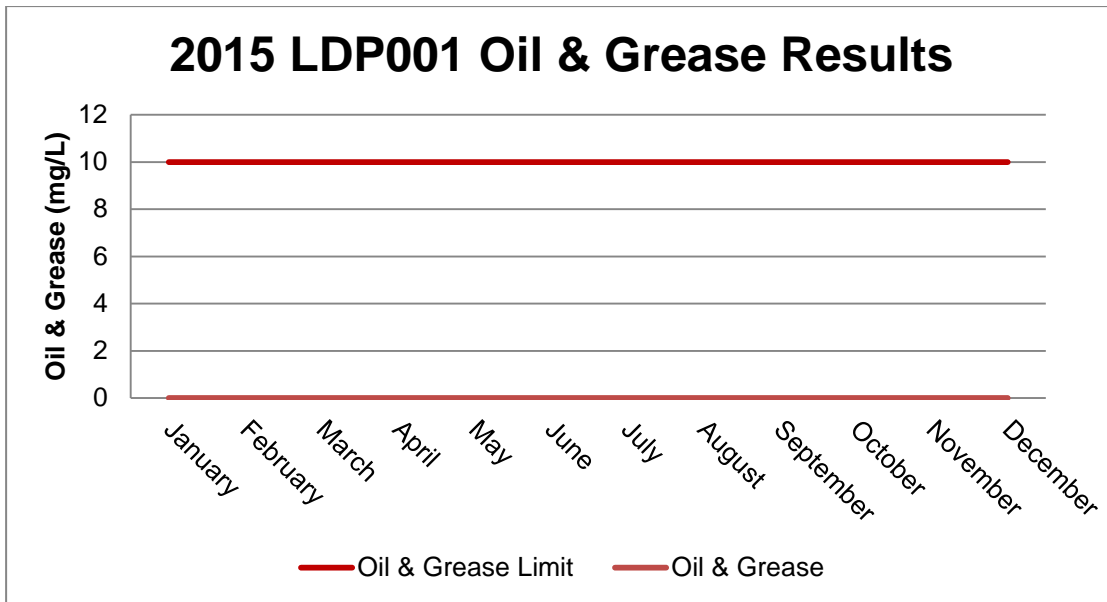
* Discharge limit exceeded after surface flow from rainfall contributed to flow through LDP001.

Total volume of water discharged from LDP001 during 2015 was 359.803 ML.

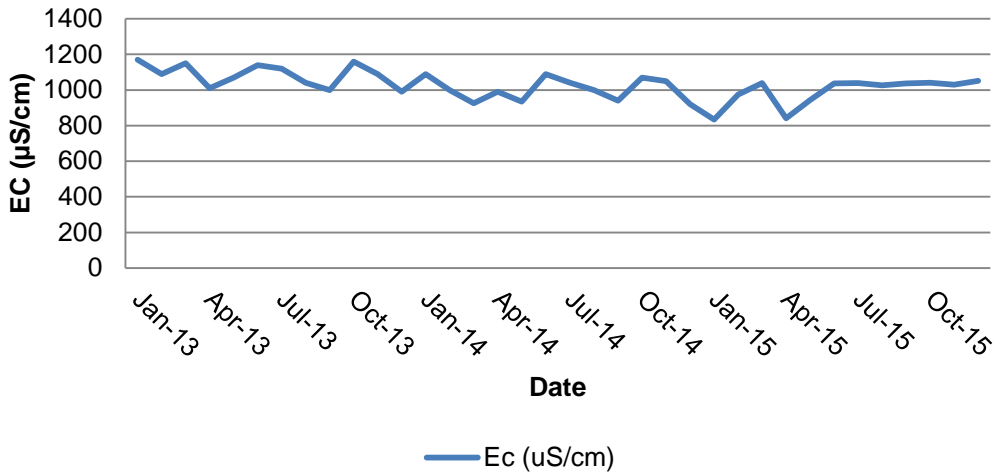
A graphical representation for each parameter monitored at LDP001 for the 2015 period and the past 3 years is included below.



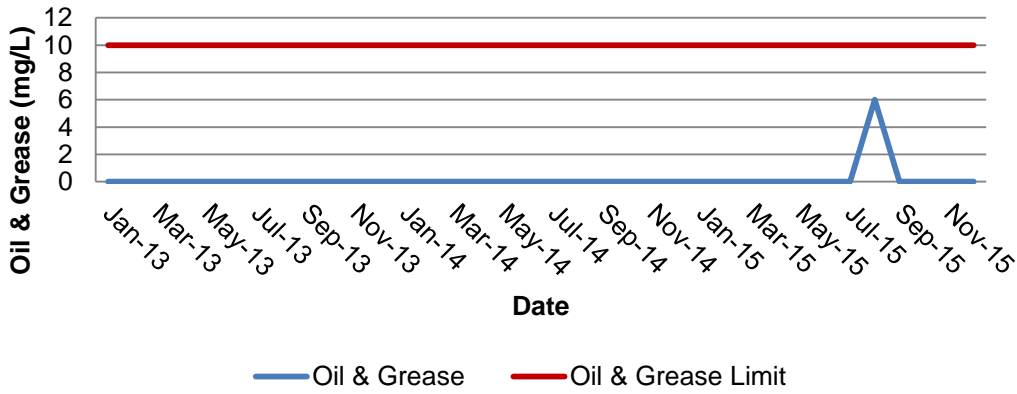




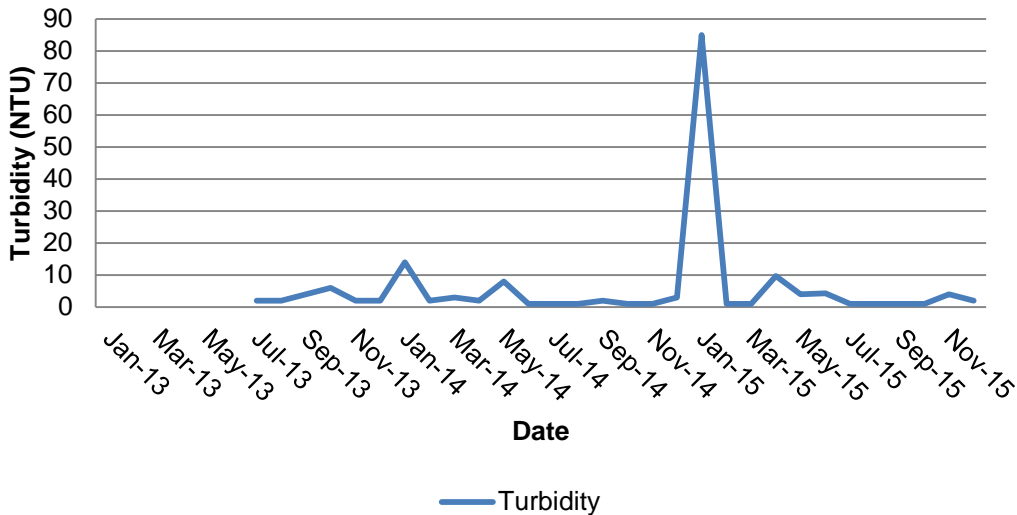
Long Term EC at LDP001



Long Term Oil & Grease at LDP001



Long Term Turbidity at LDP001

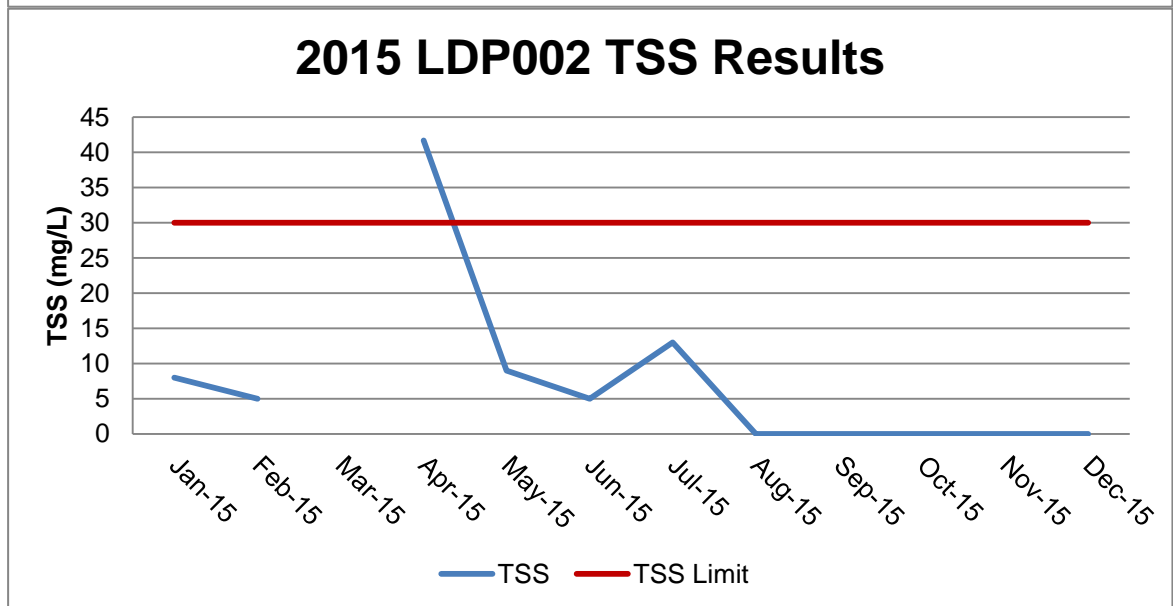
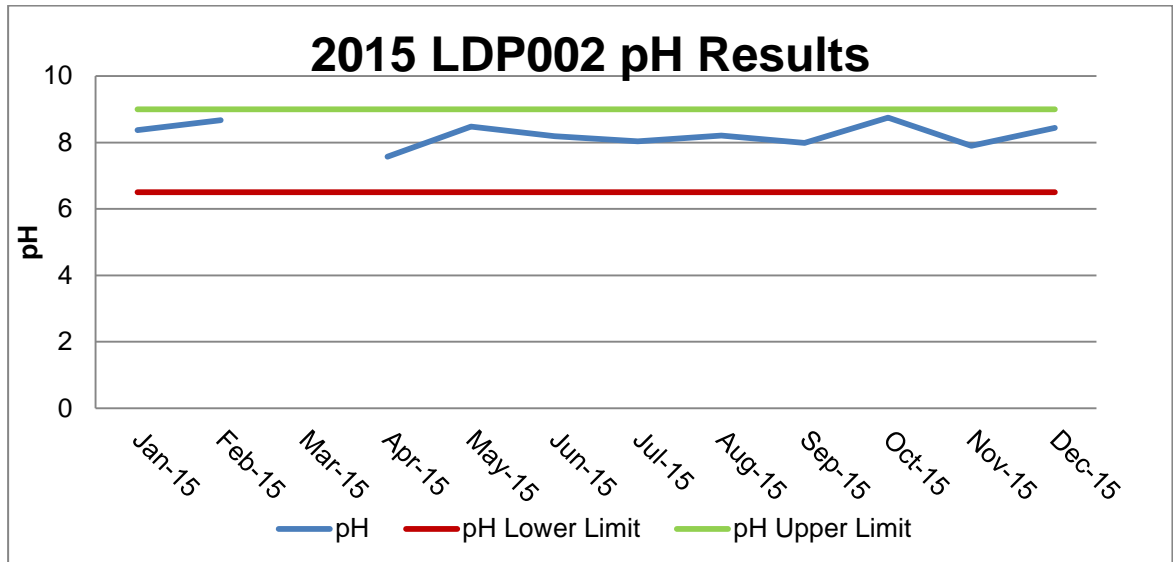


LDP002

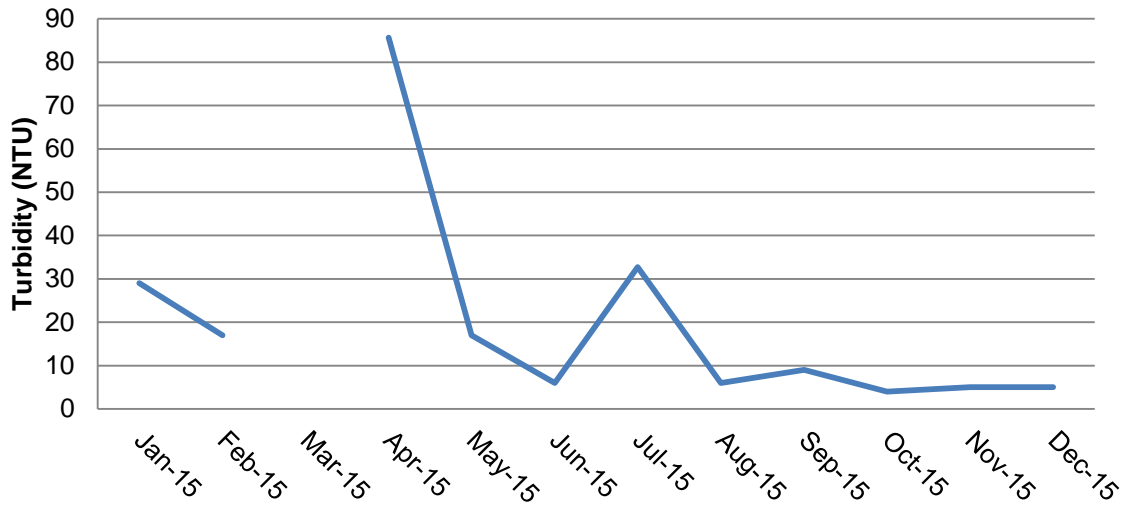
Pollutant	EPL Limit	Minimum	Average	Maximum
Conductivity (µs/cm)	-	199	298	355
Oil and Grease (mg/L)	10	<5	7	8
pH	6.5-9	7.41	8.2	8.75
Total Suspended Solids (mg/L)	30	<5	15.25	95*
Turbidity (NTU)	-	4	27.11	160

* Result from discharge event during 21 April where Limit Condition L2.5 replaces L2.4 (rain event exceeded 44mm rainfall).

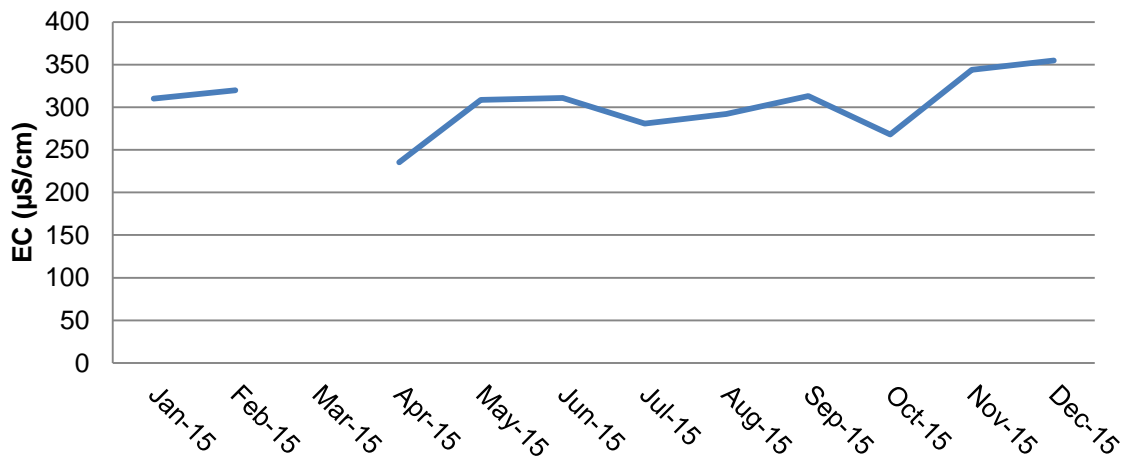
A graphical representation for each parameter monitored at LDP002 for the 2015 period and the past 3 years is included below. A high result was recorded for both TSS and NTU during the 2015 period. These high concentrations of each are directly linked to a large rainfall event and therefore are not counted as exceedances, as explained in the 2015 EPL467 Annual Return.



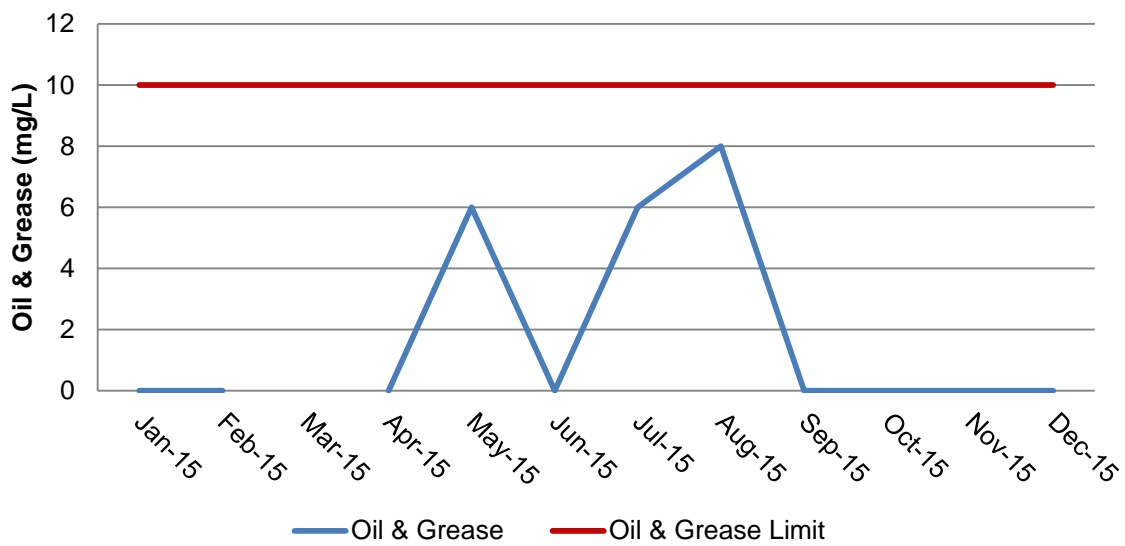
2015 LDP002 Turbidity Results

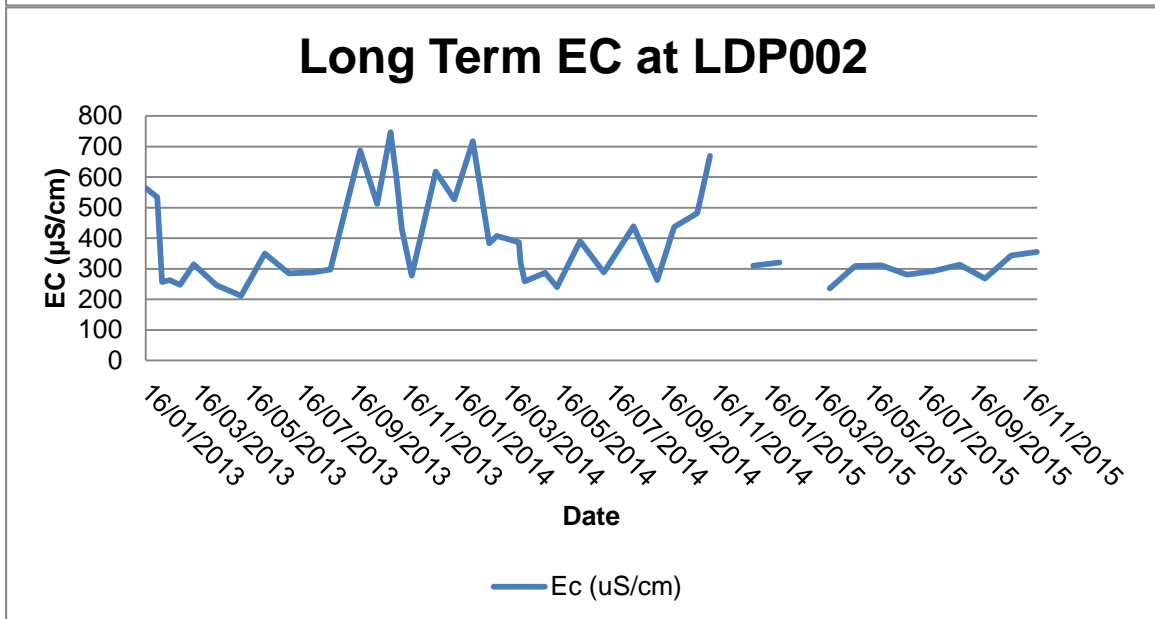
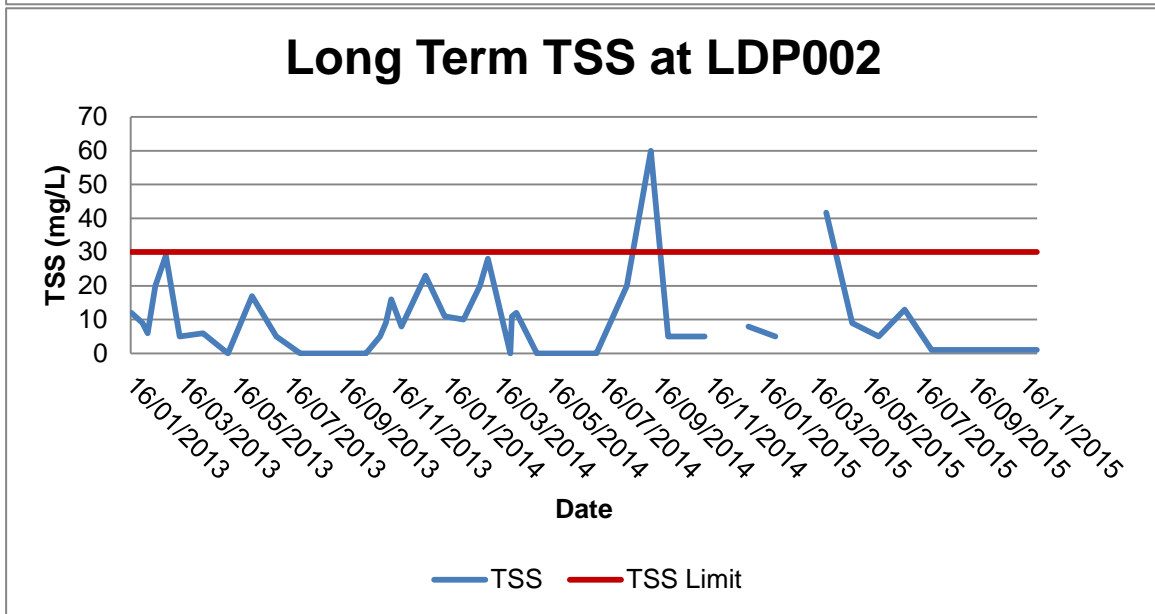
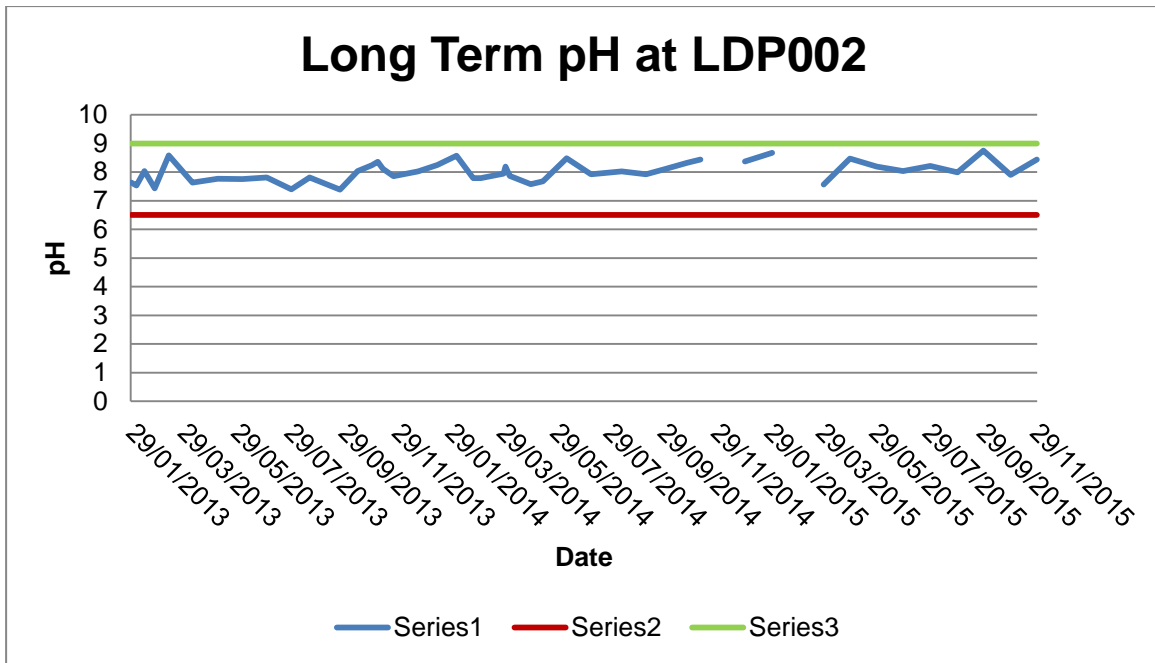


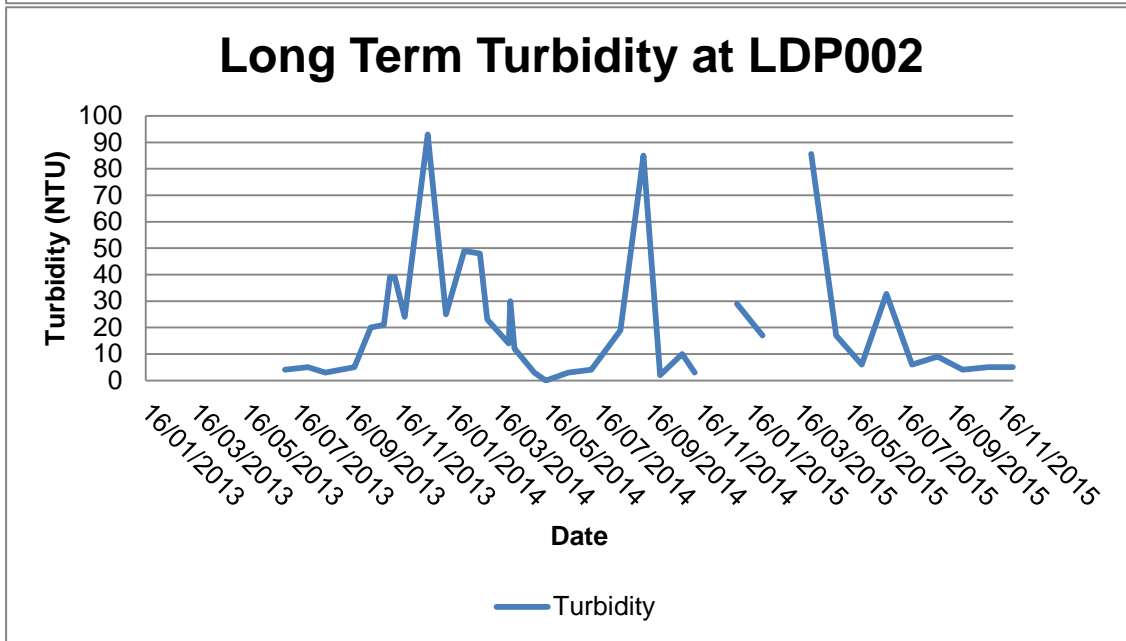
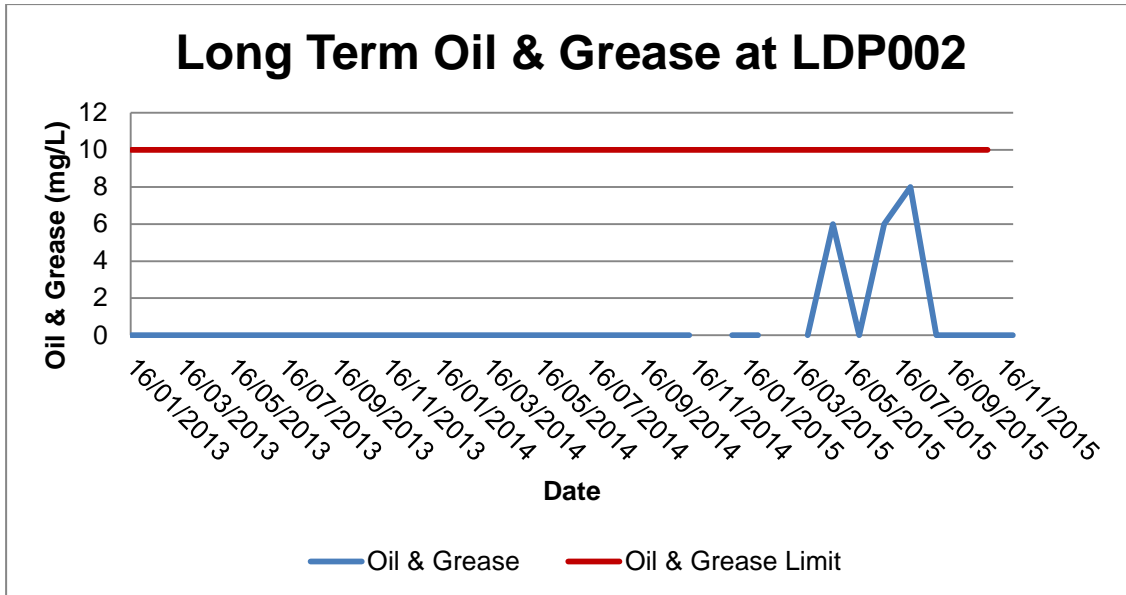
2015 LDP002 Electrical Conductivity Results



2015 LDP002 Oil & Grease Results







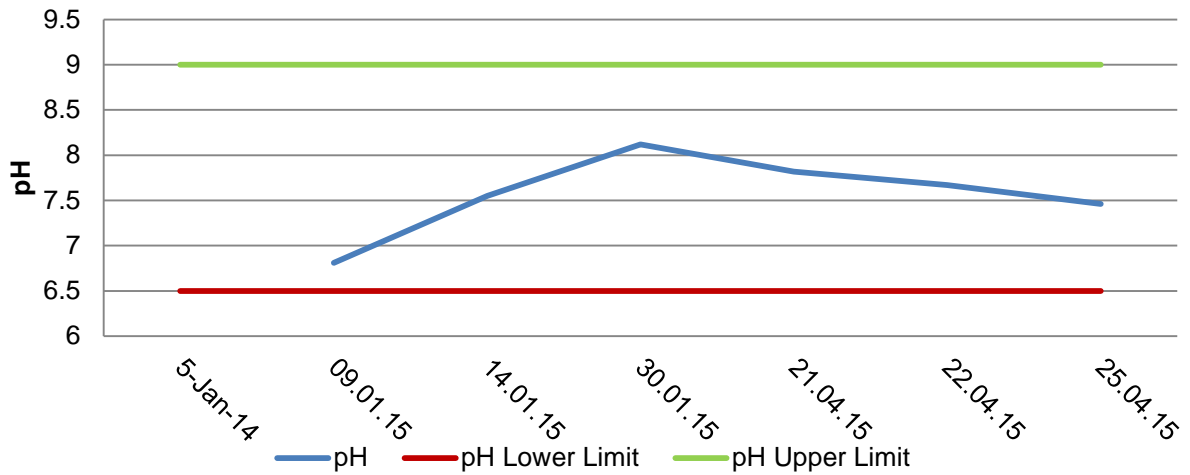
LDP003

Pollutant	EPL Limit	Minimum	Average	Maximum
Conductivity (µs/cm)	-	51	81.83	110
Oil and Grease (mg/L)	10	<5	<5	<5
pH	6.5-8.5	6.81	7.57	8.12
Total Suspended Solids (mg/L)	50	<5	48.33	80*
Turbidity (NTU)	-	9	52.5	128*

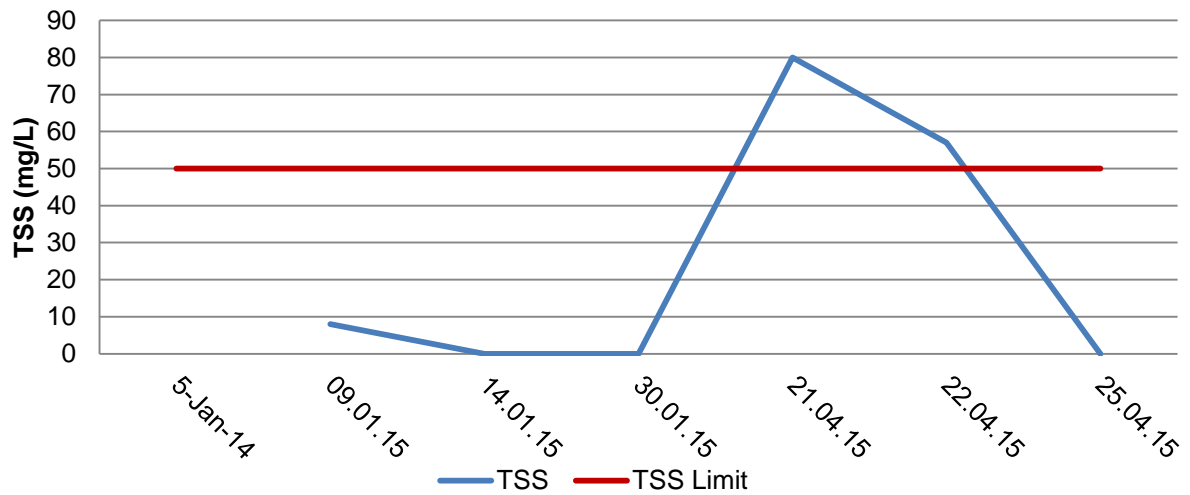
* Result from discharge event during 21-22 April where Limit Condition L2.5 replaces L2.4 (rain event exceeded 44mm rainfall).

A graphical representation for each parameter monitored at LDP003 for the 2015 period and the past 3 years is included below. A high result was recorded for both TSS and NTU during the 2015 period. These high concentrations of each are directly linked to a large rainfall event and therefore are not counted as exceedances, as explained in the 2015 EPL467 Annual Return.

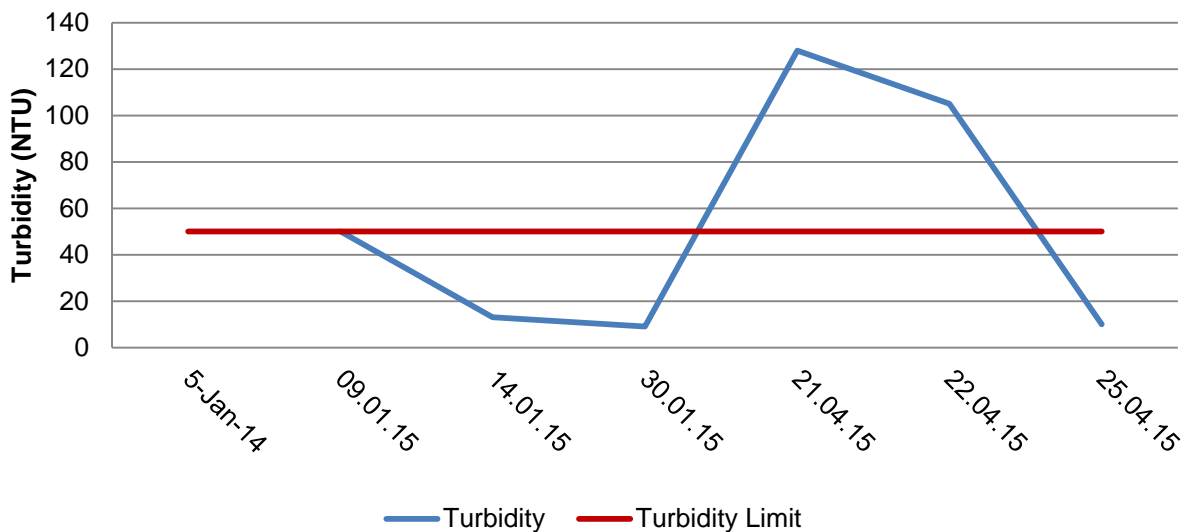
2014 LDP003 pH Results

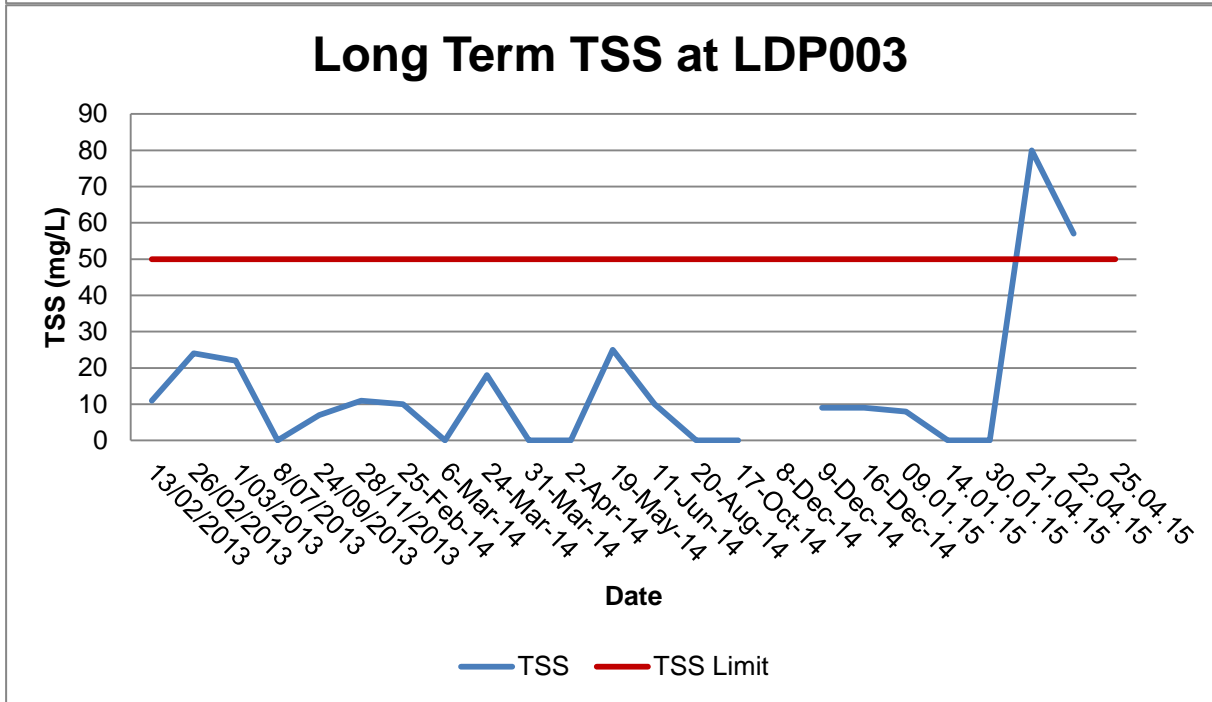
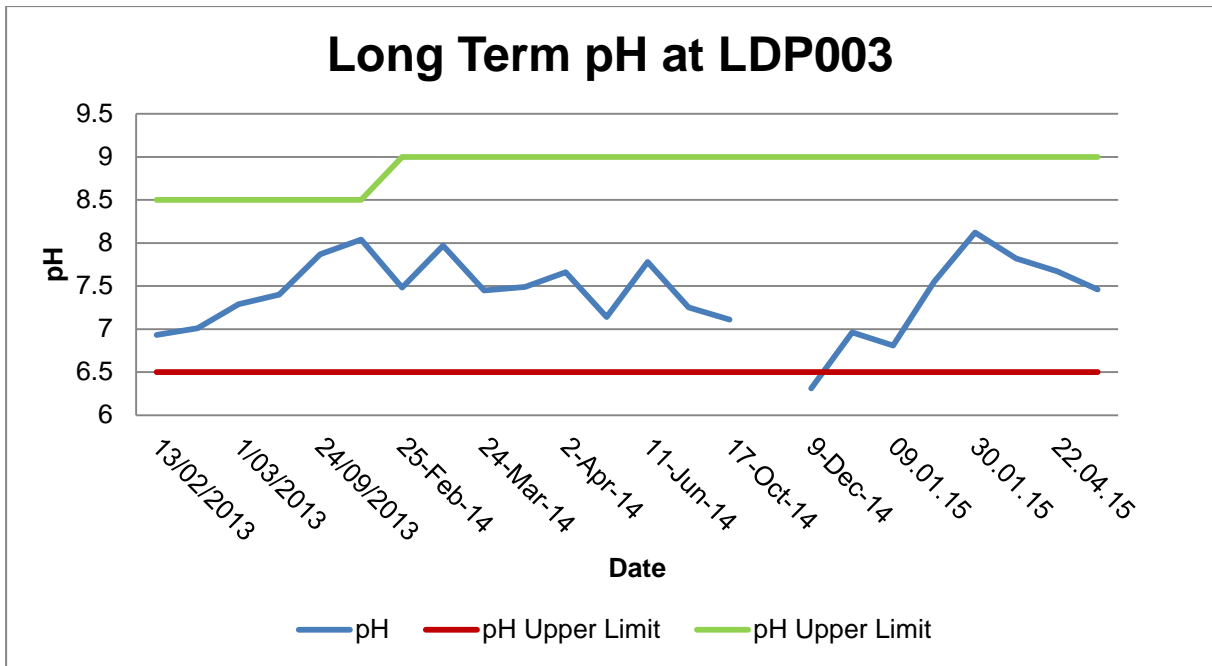


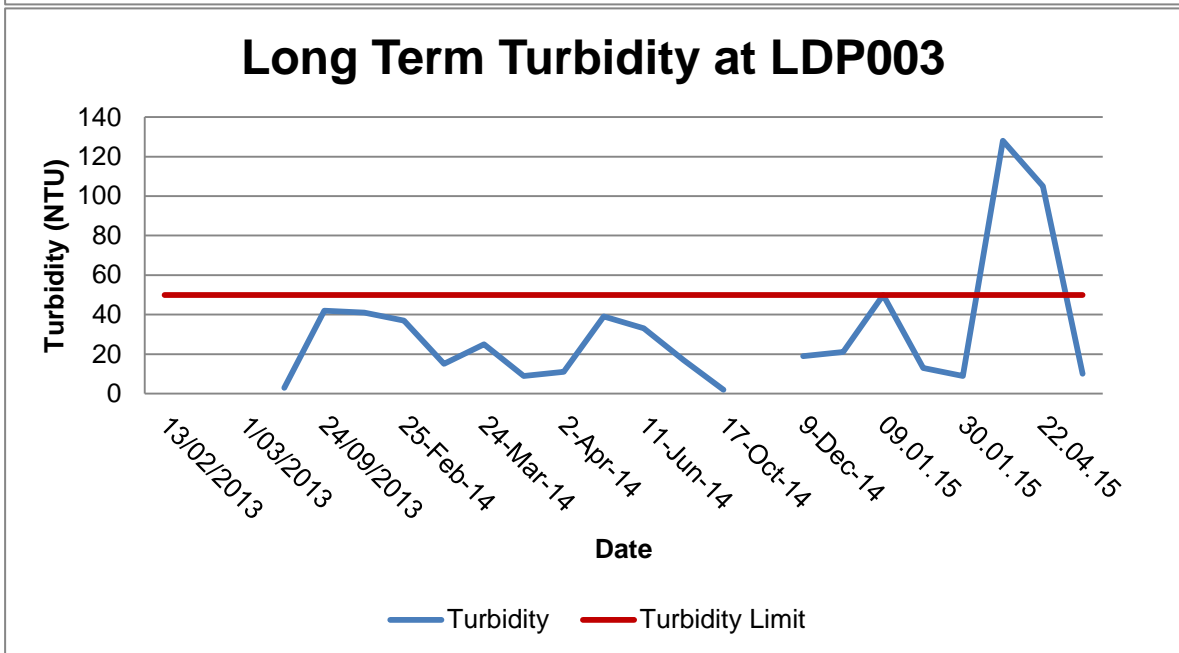
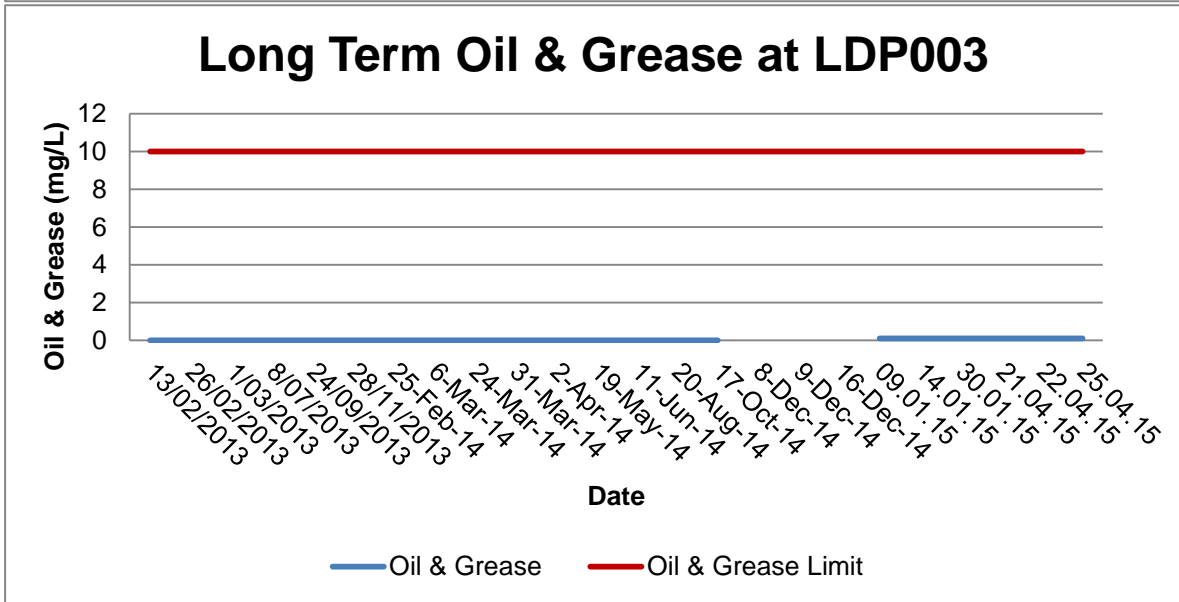
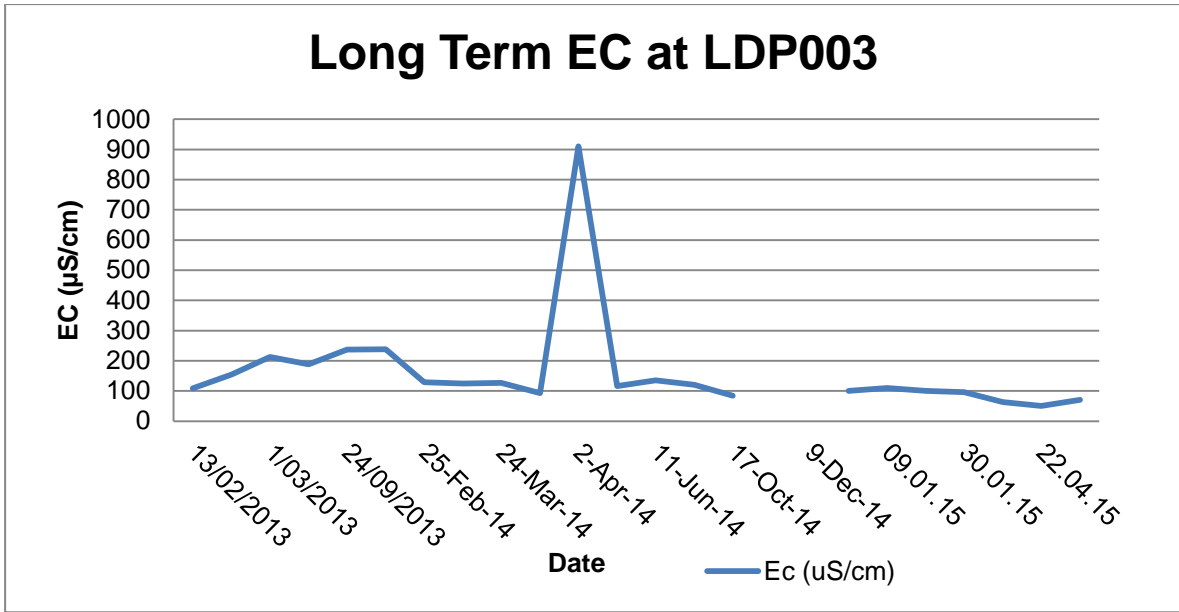
2014 LDP003 TSS Results

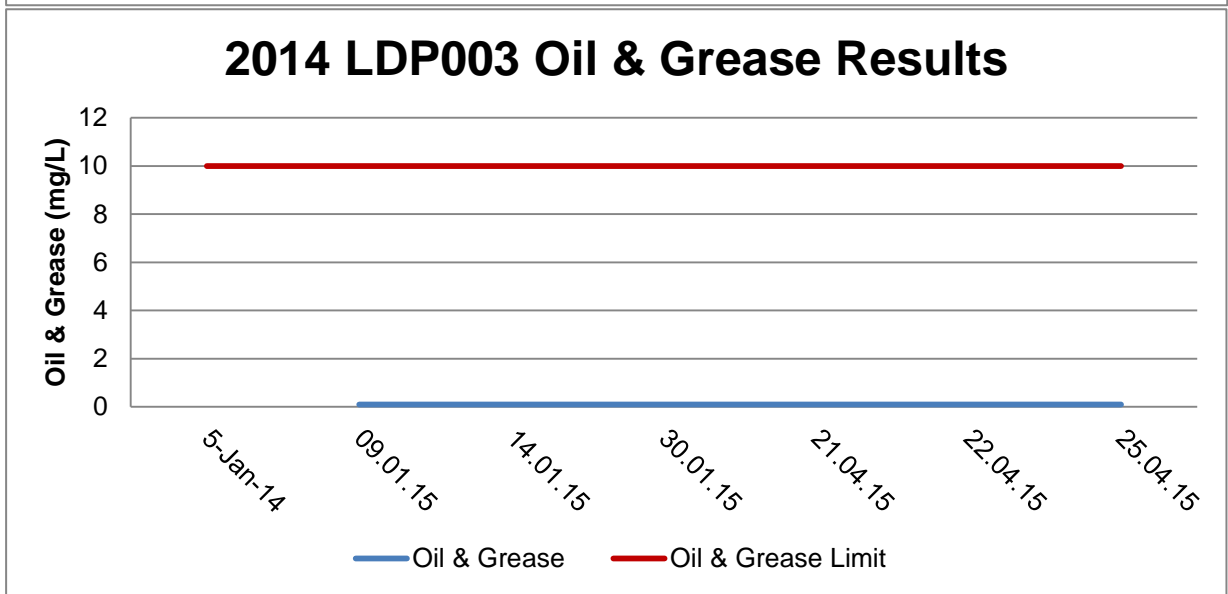
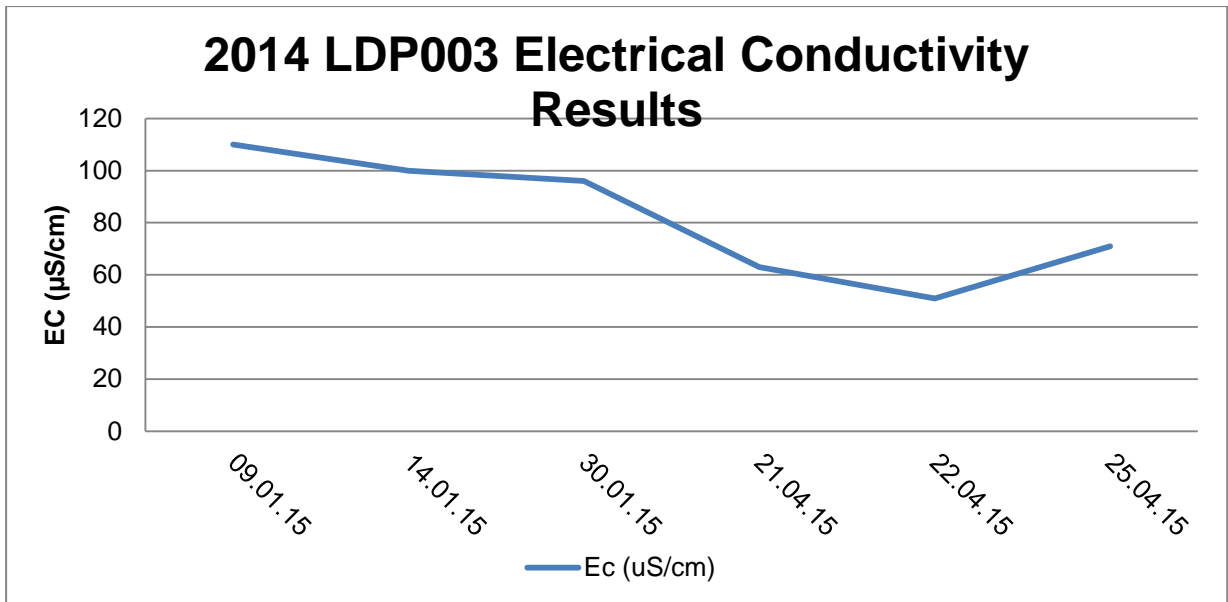


2014 LDP003 Turbidity Results









8. REHABILITATION

Buildings

No permanent buildings were removed during the 2015 reporting period. There are a number of transportable buildings on the hardstand area of the Angus Place Pit Top. It is anticipated when Angus Place progresses to minimal workforce during the care and maintenance term the requirement for these temporary portable infrastructure will be reviewed. These buildings will not decrease the rehabilitation status/disturbance footprint of the site.

Rehabilitation of Disturbed Land

Newnes Plateau

During the 2015 reporting period a significant section of disturbance associated with the Angus Place Ventilation Facility was rehabilitated within the Ventilation Facility Site and also along the infrastructure corridor established along Sunnyside Ridge Road.

A baseline rehabilitation monitoring program was commenced during 2014 which identified that all plots showed natural regeneration from the existing seedbed. The monitoring program continued in 2015 included monitoring of the new rehabilitation activities undertaken at the Ventilation Facility Site.

Angus Place Pit Top

No rehabilitation activities occurred at the Pit Top during the 2015 reporting period.

8.1. Next Reporting Period

Angus Place proposed to undertake progressive rehabilitation of the ventilation facility situated on Newnes Plateau during the next reporting period.

Table 8: Rehabilitation Status

Mine Area Type	Previous Reporting Period (Actual)	This Reporting Period (Actual)	Next Reporting Period (Forecast)
	2014 (ha)	2015 (ha)	2016 (ha)
A. Total mine footprint ¹	39.8	41.87	41.87
B. Total active disturbance ²	39.8	41.87	41.87
C. Land being prepared for rehabilitation ³	0	1.76	1.76
D. Land under active rehabilitation ⁴	0	4.87	4.87
E. Completed rehabilitation ⁵	0	0	0

9. COMMUNITY

During the 2015 reporting period no community complaints were received by Angus Place Colliery. This is consistent with previous years.

Community Consultative Committee

In accordance with Schedule 5, Condition 8 of PA 06_0021, a Community Consultative Committee (CCC) has been established to monitor the operations and provide a forum

¹ **Total Mine Footprint:** includes all areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to mining and associated activities. As such it is the sum of total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem establishment, ecosystem development and relinquished lands (as defined in the DRE MOP/RMP Guidelines). Please note that subsidence remediation areas are excluded.

² **Total Active Disturbance:** includes all areas requiring rehabilitation

³ **Land being prepared for rehabilitation:** includes the sum of mine disturbed land that is under the following rehabilitation phases – decommissioning, landform establishment and growth medium development (as defined in DRE MOP/RMP Guidelines)

⁴ **Land under active rehabilitation:** includes areas under rehabilitation and being managed to achieve relinquishment – includes 'ecosystem and land use establishment' and 'ecosystem and land use sustainability' (as defined under the DRE MOP/RMP Guidelines)

⁵ **Completed rehabilitation:** requires formal sign off from DRE that the area has successfully met the rehabilitation land use objectives or completion criteria

whereby the community can communicate with the mine operators and be kept up to date with the progress of the mine. The committee is composed of:

- An independent chairperson;
- Four representatives from Centennial Coal, including the Environment and Community Coordinator;
- One representative from Council; and
- At least three representatives from the local community.

In October 2014 the CCC was also expanded to include Springvale Colliery and Western Coal Services. The combined Angus Place, Springvale and Western Coal Services CCC aims to facilitate a single channel of communication regarding current operations in the area. During the 2015 reporting period two CCC meetings were held on 1 April 2015 and 14 October 2015. Minutes from the meeting are available on the Centennial Coal website and at Wallerawang Library. Meetings will continue to be held during 2016.

Broader Engagement and Donations

During 2015, Angus Place contributed through monetary in kind donations and/or attendance at local community events to a range of local organisations.

10. INDEPENDENT AUDIT

An independent audit as required under Schedule 5, Condition 8 was not triggered during the 2015 reporting year. The next independent audit is required during the 2017 reporting year. The 2014 independent audit report was used to determine the compliance status of several approvals listed in Table 1 of this report.

11. INCIDENTS AND NON-COMPLIANCES DURING THE REPORTING PERIOD

Table 9: Incident/Non-Compliance Summary

Nature of the incident/non-compliance	Notification to the Environmental Pollution Hotline (Reference Number 03730-2015) Approx. 400-600L Ferric chloride was spilt from Bore 940 surface pipe work during a maintenance outage.
Date of incident/ non-compliance (if known; if not known state not known)	16/03/2015
The location of the incident/ non-compliance (include a figure if appropriate), if known	Angus Place Bore 940, Newness Plateau, NSW
Detail the cause of the incident/non-compliance	The integrity of the above ground pipework at the bore may have been compromised as result of a build-up of ferric chloride causing the galvanised pipe to corrode and leak following a shutdown of the pipeline on 9 March

	2015 for maintenance and repair.
Detail action that has been, or will be, taken to mitigate any adverse effects of the incident/ non-compliance	Ferric chloride that had leached into the soil was excavated, turned and treated with hydrated lime to stabilise the pH. New road base material replaced the excavated material. Excavated material was tested and classified safe for landfill. Approx. 6-8m ³ taken to landfill.
Detail action that has been, or will be, taken to prevent recurrence of the incident/ non-compliance	The outlet from the ferric chloride pump pipework to the 940 Bore pipework is now raised well above elevation of the ferric chloride IBC, and therefore preventing the possibility of a transfer from the IBC to the 940 Bore pipework.

Nature of the incident/non-compliance	LDP001 Volume exceeding 2000 KL/Day limit.
Date of incident/ non-compliance (if known; if not known state not known)	8 June 2015 and 17 June 2015
The location of the incident/ non-compliance (include a figure if appropriate), if known	LDP001
Detail the cause of the incident/non-compliance	<p>On 8 June 2015, water from the underground workings is pumped to the surface and discharges through LDP001. Maintenance was undertaken at the underground pump on 7 June 2015 and changes to the valve's position caused a higher than usual flow rate to the surface.</p> <p>On 17 June 2015, 14 mm of rainfall was recorded on-site. The rainfall event in the area contributed clean-water runoff to LDP001 from the local catchment.</p>
Detail action that has been, or will be, taken to mitigate any adverse effects of the incident/ non-compliance	<p>Centennial engaged ALS Water Resources Group to upgrade the LDP001 weir / v-notch on 24 June 2015. As the site's downstream conditions have changed over time, stream stabilisation efforts and reed growth downstream had raised the water level putting the 60 degree v-notch in a "drowned state". Consequently, the water flow recorded was reading between more than 5 - 15% depending on flow conditions. A 90 degree v-notch was installed and the sill level raised so the nape would be free and allow the weir plate to operate as intended.</p> <p>Upon investigation by ALS Water Resources Group of the previous data recorded, they determined likely reading for the reported exceedances that occurred on 8 June 2015 of 2013 KL and 17 June 2015 of 2085 KL is 1880 KL and 1947 KL respectively.</p>
Detail action that has been, or will be, taken to prevent recurrence of the incident/	As apart of the weir upgrade, real-time monitoring for data such as water flow and total calculated flow for the day can now be accessed via a web browser at any point in time. Phone alerts are now active to notify relevant

<p>non-compliance</p>	<p>personnel when the discharge volume is close to 2000 KL. The underground pump can now also be operated remotely which has allowed for a quicker management response.</p> <p>Centennial will continue the LDP001 investigation and discuss the possible re-location of the volume monitoring point with the EPA once all relevant data has been collected, and also to discuss specific time frames for calculating the previous 24Hour volume from 'daily' to midday-midday.</p>
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<p>Nature of the incident/non-compliance</p>	<p>LDP001 Volume exceeding 2000 KL/Day limit.</p>
<p>Date of incident/ non-compliance (if known; if not known state not known)</p>	<p>23 December 2015</p>
<p>The location of the incident/ non-compliance (include a figure if appropriate), if known</p>	<p>LDP001</p>
<p>Detail the cause of the incident/non-compliance</p>	<p>The exceedance was caused from surface water flows adding to the total volume. The volume of groundwater recorded from the bore pipe from underground was below the 2000KL/day limit.</p> <p>An action from a similar incident previously recommended that the personnel monitoring flow from LDP001 count from a mid-day to mid-day basis. The volume recorded at LDP001 was measured to be below the 2000KL/day limit when counting from mid-day, however exceeded when counting the flow from mid-night to midnight.</p>
<p>Detail action that has been, or will be, taken to mitigate any adverse effects of the incident/ non-compliance</p>	<p>The additional water was not expected to cause any adverse effects.</p>
<p>Detail action that has been, or will be, taken to prevent recurrence of the incident/ non-compliance</p>	<p>The timing from when AP personnel calculate the volume for previous 24Hour period was changed from midnight-midnight to midday-midday. This allows AP staff to react in the event that discharge Volume may be exceeded if forecast rain will contribute to the discharge. This is to be discussed with EPA.</p> <p>To re-visit the discussion with the EPA to vary EPL 467 to have the methodology for volume calculation for LDP001 changed to either "flow meter and continuous logger" or "flow rate multiplied by time operated (as per LDP005)" and to note under the volume limit condition stating what the limit applies to i.e. groundwater</p>

	discharges only.
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Table 10: Summary of Reportable Incidents and Regulatory Actions

Compliance Type	Agency	Number	Response
Incidents	EPA	1	Notification to the Environmental Pollution Hotline (Reference Number 03730-2015)
Caution Notices		Nil	
Warning Letters		Nil	
Penalty Notices		Nil	
Prosecutions		Nil	

12. ACTIVITIES TO BE COMPLETED IN THE NEXT REPORTING PERIOD

Angus Place Colliery proposes to undertake the following activities during the next reporting period:

- Finalise and seek approval for the revised 'Care and Maintenance' Mining Operations Plan which if approved will remain current until either recommencement of mining operations or expiry on 31 March 2023;
- Update site environmental management plans (as required) for consistency with PA06_0021 MOD 4;
- Review relevant environmental monitoring programs;
- Implement erosion and sedimentation control improvements;
- Undertake progressive rehabilitation of the ventilation facility; and
- Investigate and undertake water management improvements.



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