

## A. Statement of Compliance - Licence Details

**ALL Licence holders must check that the Licence details in Section A are correct.**

If there are changes to any of these details, **you must advise Environment Protection Authority (EPA) and apply as soon as possible for a variation to your Licence or for a Licence transfer.**

Licence variation and transfer application forms are available on the EPA website at: <http://www.epa.nsw.gov.au/licensing-and-regulation/licensing> or from regional offices of the EPA, or by contacting by telephone 02 9995 5700.

If you are applying to vary or transfer your Licence, you must still complete and submit this Annual Return.

### A1. Licence holder

**Licence number** : 6263  
**Licence holder** : GRIFFITH CITY COUNCIL  
**Trading name (if applicable)** :  
**ABN** : 81 274 100 792  
**ACN** :  
**Reporting period** : From: 16-9-2017 To: 15-9-2018

### A2. Premises to which Licence Applies (if applicable)

**Common name (if any)** : YENDA WASTE MANAGEMENT CENTRE  
**Premises** : McMANUS ROAD YENDA 2681 NSW

### A3. Activities to which Licence Applies

Waste disposal (application to land)

### A4. Other Activities (if applicable)

### A5. Fee-Based Activity Classifications

**Note** that the fee based activity classification is used to calculate the administrative fee.

Fee-based activity	Activity scale	Unit of measure
Waste disposal by application to land	> 0.00	capacity

### A6. Assessable Pollutants (if applicable)

**Note** that the identification of assessable pollutants is used to calculate the **load-based fee**.  
The following assessable pollutants are identified for the fee-based activity classifications in the licence:

## B. Monitoring and Complaints Summary

### B1. Number of Pollution Complaints

Pollution Complaint Category	Complaints
Air	0
Water	0
Noise	0
Waste	0
Other	0
<b>Total complaints recorded by the licensee during the reporting period</b>	<b>0</b>

### B2. Concentration Monitoring Summary

For each concentration monitoring point identified in your licence, details are displayed below. If concentration monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

**Note** that this does not exclude the need to conduct appropriate concentration monitoring of assessable pollutants as required by load-based licensing (if applicable).

#### Monitoring Point 1

Groundwater quality monitoring, Piezometer labelled as bore 1 on map titled "Location of bores - Yenda Landfill" dated 10 November 1999 and on EPA file 235471A1

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Fluoride	milligrams per litre					
Potassium	milligrams per litre					
Chlorinated volatile compounds	milligrams per litre					
Ammonia	milligrams per litre					
Calcium	milligrams per litre					
Alkalinity (as calcium carbonate)	milligrams per litre					
Total Phenolics	milligrams per litre					

Total organic carbon	milligrams per litre					
Sulfate	milligrams per litre					
Chloride	milligrams per litre					
Conductivity	microsiemens per centimetre					
Iron	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	milligrams per litre					
Nitrate	milligrams per litre					
pH	pH					
Sodium	milligrams per litre					
Standing Water Level	metres					

## Monitoring Point 2

Groundwater quality monitoring, Piezometer labelled as bore 2 on map titled "Location of bores - Yenda Landfill" dated 10 November 1999 and on EPA file 235471A1

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Fluoride	milligrams per litre					
Potassium	milligrams per litre					
Chlorinated volatile compounds	milligrams per litre					
Ammonia	milligrams per litre					
Calcium	milligrams per litre					
Alkalinity (as calcium carbonate)	milligrams per litre					
Total Phenolics	milligrams per litre					
Total organic carbon	milligrams per litre					
Sulfate	milligrams per litre					

Chloride	milligrams per litre					
Conductivity	microsiemens per centimetre					
Iron	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	milligrams per litre					
Nitrate	milligrams per litre					
pH	pH					
Sodium	milligrams per litre					
Standing Water Level	metres					

## Monitoring Point 3

Groundwater quality monitoring, Piezometer labelled as bore 3 on map titled "Location of bores - Yenda Landfill" dated 10 November 1999 and on EPA file 235471A1

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Fluoride	milligrams per litre					
Potassium	milligrams per litre					
Chlorinated volatile compounds	milligrams per litre					
Ammonia	milligrams per litre					
Calcium	milligrams per litre					
Alkalinity (as calcium carbonate)	milligrams per litre					
Total Phenolics	milligrams per litre					
Total organic carbon	milligrams per litre					
Sulfate	milligrams per litre					
Chloride	milligrams per litre					
Conductivity	microsiemens per centimetre					

Iron	milligrams per litre					
Magnesium	milligrams per litre					
Manganese	milligrams per litre					
Nitrate	milligrams per litre					
pH	pH					
Sodium	milligrams per litre					
Standing Water Level	metres					

## Monitoring Point 4

Groundwater quality monitoring, Piezometer labelled as bore 4 on map titled "Location of bores - Yenda Landfill" dated 10 November 1999 and on EPA file 235471A1

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Fluoride	milligrams per litre					
Potassium	milligrams per litre					
Chlorinated volatile compounds	milligrams per litre					
Ammonia	milligrams per litre					
Calcium	milligrams per litre					
Alkalinity (as calcium carbonate)	milligrams per litre					
Total Phenolics	milligrams per litre					
Total organic carbon	milligrams per litre					
Sulfate	milligrams per litre					
Chloride	milligrams per litre					
Conductivity	microsiemens per centimetre					
Iron	milligrams per litre					
Magnesium	milligrams per litre					

Manganese	milligrams per litre					
Nitrate	milligrams per litre					
pH	pH					
Sodium	milligrams per litre					
Standing Water Level	metres					

Name of the uploaded file containing point data ▼
Ground Water Analysis for Yenda For web page.pdf

## B3. Volume or Mass Monitoring Summary

For each volume or mass monitoring point identified in your licence, details are displayed below. If volume or mass monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

**Note** that this does not exclude the need to conduct appropriate volume or mass monitoring of assessable pollutants are required by load-based licensing (if applicable).

## C. Statement of Compliance - Licence Conditions

### C1. Compliance with Licence Conditions

Were all conditions of the licence complied with (including monitoring and reporting requirements)?	Yes
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## D. Statement of Compliance - Load Based Fee Calculation

If you are not required to monitor assessable pollutants by your licence, **no data** will appear below.

If assessable pollutants have been identified on your licence, the following worksheets for each assessable pollutant will determine your load based fee for the licence fee period to which this Annual Return relates.

**Loads of assessable pollutants must be calculated using any of the methods provided in EPA's Load Calculation Protocol for the relevant activity.** A Load Calculation Protocol would have been already sent to you with your licence. If you require additional copies, you can download the Protocol from the EPA's website or you can contact us on telephone 02 9995 5700.

You are required to keep all records used to calculate licence fees for four years after the licence fee was paid or became payable, whichever is the later date.

## E. Statement of Compliance - Requirement to Prepare PIRMP

Have you prepared a Pollution Incident Response Management Plan (PIRMP) as required under section 153A of the Protection of the Environment Operations (POEO) Act 1997?		Yes
Is the PIRMP available at the premises?		Yes
Is the PIRMP available in a prominent position on a publicly accessible website?		Yes
Address of the web page where the PIRMP can be accessed ▼		
<a href="https://www.griffith.nsw.gov.au/cp_themes/default/page.asp?p=DOC-KCB-52-46-17">https://www.griffith.nsw.gov.au/cp_themes/default/page.asp?p=DOC-KCB-52-46-17</a>		
Has the PIRMP been tested?		Yes
The PIRMP was last tested on	20-8-2018	
Has the PIRMP been updated?		Yes
The PIRMP was last updated on	20-8-2018	
Number of times the PIRMP was activated in this reporting period?		0
The PIRMP was activated on		

## F. Statement of Compliance - Requirement to Publish Pollution Monitoring Data

Are there any conditions attached to your licence that require pollution monitoring to be undertaken as required under section 66(6) of the Protection of the Environment Operations (POEO) Act 1997?		Yes
Do you operate a website?		Yes
Is the pollution monitoring data published on your website in accordance with the EPA's written requirements for publishing pollution monitoring data?		Yes
Address of the web page where the pollution monitoring data can be accessed ▼		
<a href="https://www.griffith.nsw.gov.au/cp_themes/default/page.asp?p=DOC-KCB-52-46-17">https://www.griffith.nsw.gov.au/cp_themes/default/page.asp?p=DOC-KCB-52-46-17</a>		

## G. Statement of Compliance - Environment Management System and Practices

Do you have an ISO 14001 certified Environmental Management System (EMS) OR any other system that EPA considers is equivalent to the accountability, procedures, documentation and record keeping requirements of an ISO 14001 certified EMS?		No
Have you conducted an assessment of your activities and operations to identify the aspects that have a potential to cause environmental impacts and implemented operational controls to address these aspects?		No
Have you established and implemented an operational maintenance program, including preventative maintenance?		No
Do you keep records of regular inspections and maintenance of plant and equipment?		Yes

Do you conduct regular site audits to assess compliance with environmental legal requirements and assess conformance to the requirements of any documented environmental practices, procedures and systems in place?	<b>No</b>
Are the audits of documented environmental practices, procedures and systems undertaken by a third party?	<b>No</b>
Have you established and implemented an environmental improvement or management plan?	<b>No</b>
Do you train staff in environmental issues that may arise from your activities and operations and keep records of this	<b>Yes</b>

## H. Signature and Certification

This Annual Return may only be signed by person(s) with legal authority to sign it as set out in following categories: an Individual, a Company, a Public authority or a Local council.

It is an offence to supply any information in this form that is false or misleading in a material respect, or to certify a statement that is false or misleading in a material respect. There is a maximum penalty of \$250,000 for a corporation and \$120,000 for an individual.

I/We

- declare that the information in the Monitoring and Complaints Summary in Section B of this Annual Return application is correct and not false or misleading in a material respect, and
- certify that the information in the Statement and Compliance in sections A, C, D, E, F, G and H and any other pages attached to Section C is correct and not false or misleading in a material respect.

### Signed by: General Manager

<b>Name</b>	Brett Stonestreet
<b>Position</b>	General Manager of Griffith City Council
<b>Email Address</b>	Brett.Stonestreet@griffith.nsw.gov.au
<b>Phone Number</b>	02 6962 8123

<b>Signature</b>	
<b>Name</b>	
<b>Position</b>	
<b>Date</b>	/ /

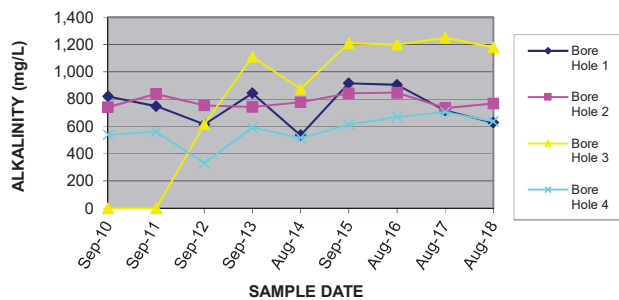


## Declaration

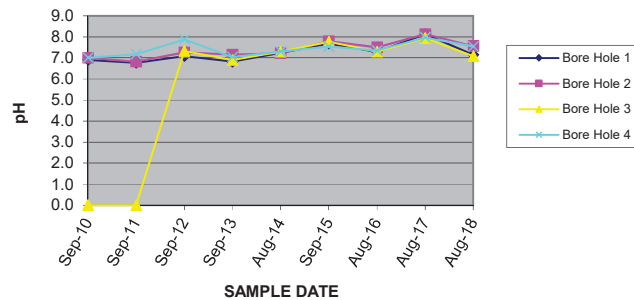
I declare that the information in the Monitoring and Complaints Summary in section B of this Annual Return is correct and not false or misleading in a material respect, and

I certify that the information in the Statement of Compliance in section A,C,D,E,F and G and any pages attached to Section C is correct and not false or misleading in a material respect.

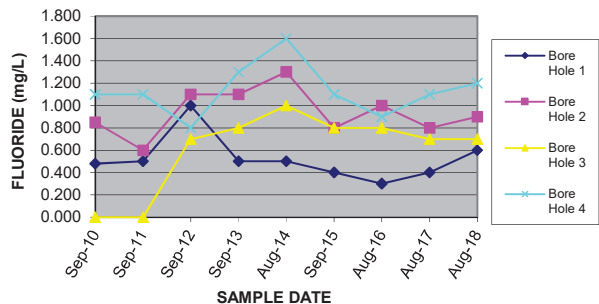
YENDA LANDFILL -2010-2018



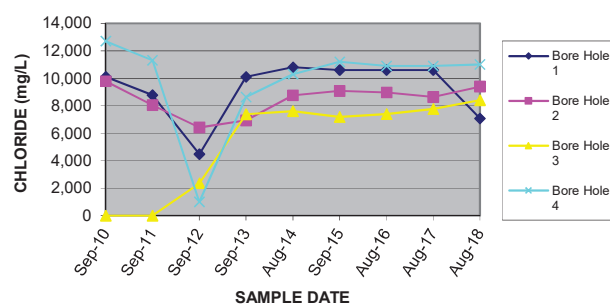
YENDA LANDFILL -2004-2017



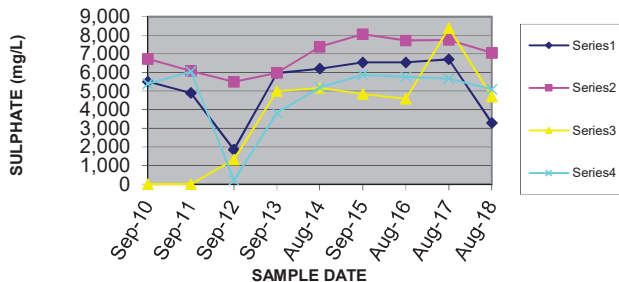
YENDA LANDFILL -2010-2018



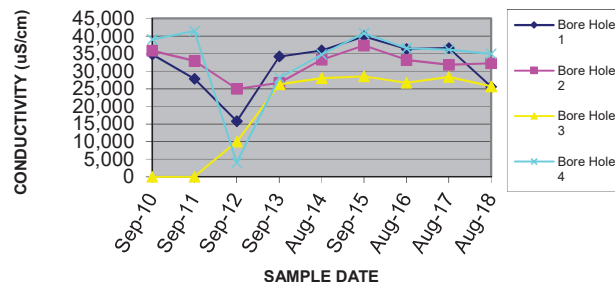
YENDA LANDFILL -2010-2018



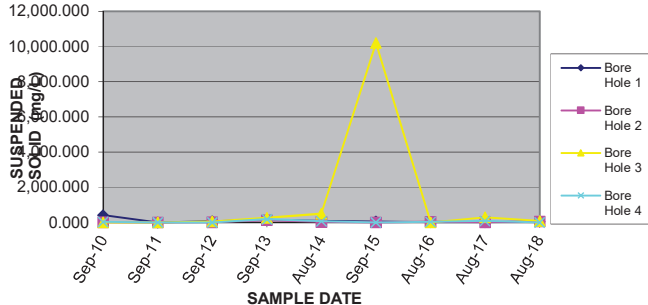
YENDA LANDFILL -2010-2018



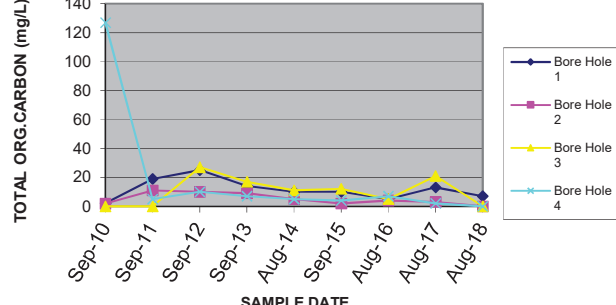
YENDA LANDFILL -2010-2018



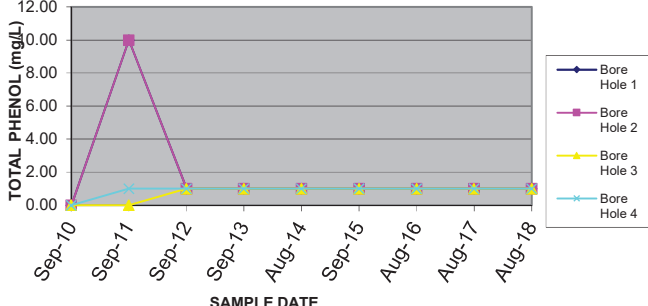
YENDA LANDFILL -2010-2018



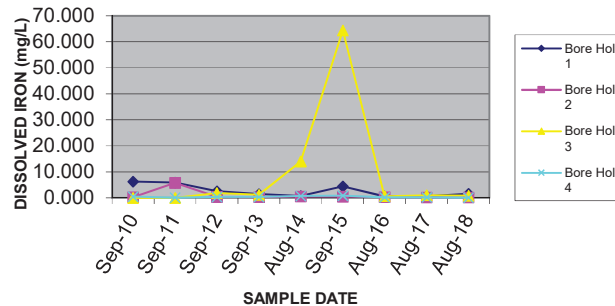
YENDA LANDFILL -2010-2018

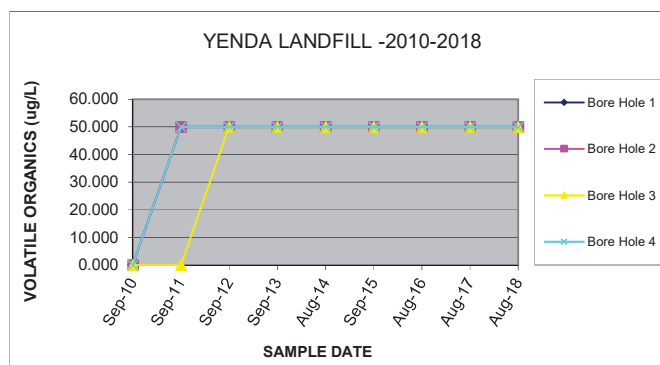
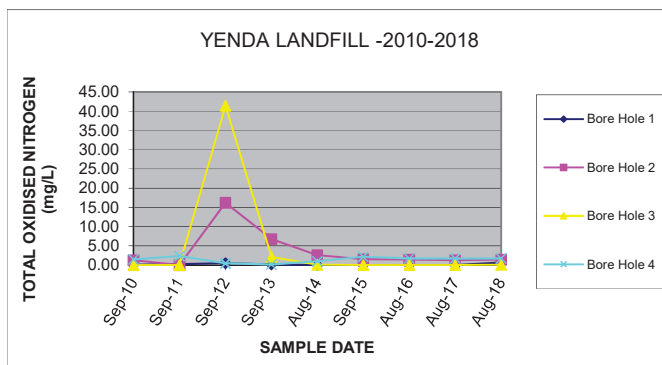
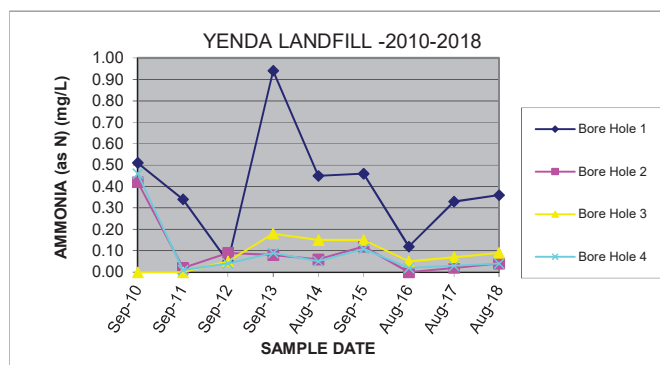
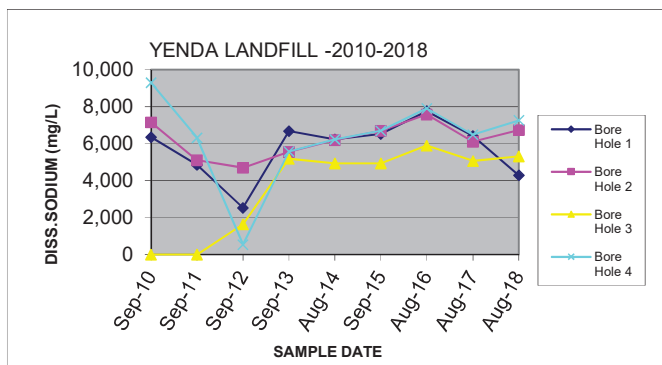
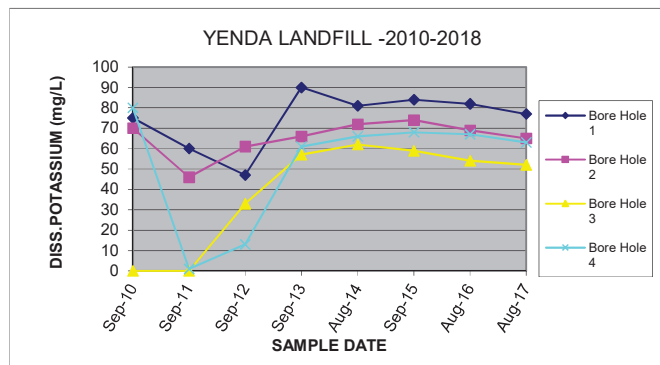
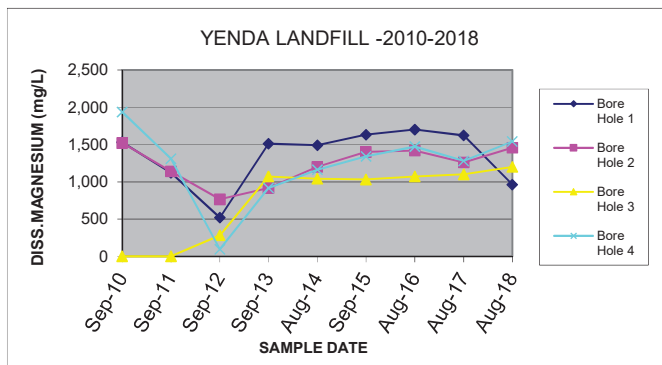
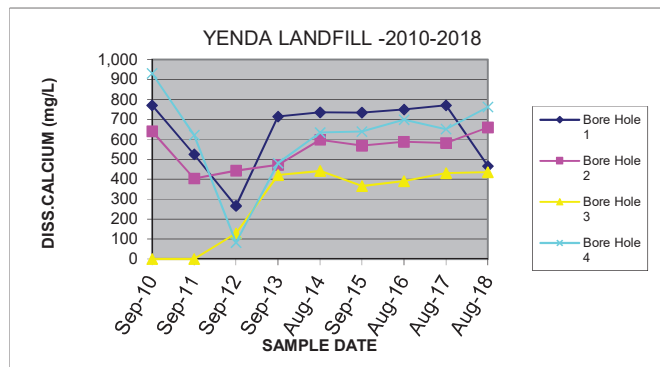
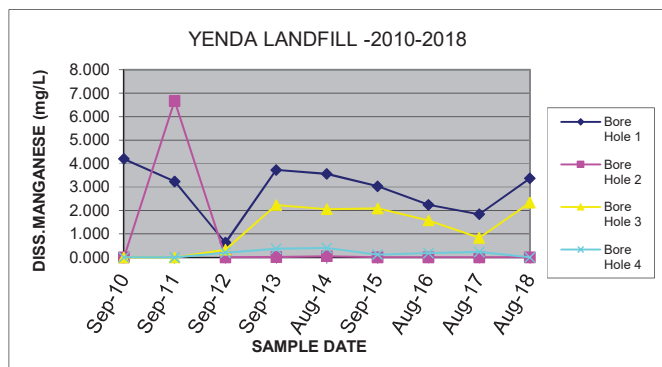


YENDA LANDFILL -2010-2018



YENDA LANDFILL -2010-2018







## CERTIFICATE OF ANALYSIS

Work Order	: EM1812254	Page	: 1 of 7
Client	: GRIFFITH CITY COUNCIL	Laboratory	: Environmental Division Melbourne
Contact	: JOHN ROSER	Contact	: Customer Services EM
Address	: 40-46 JENSEN ROAD GRIFFITH NSW 2680	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: +61 02 6962 8100	Telephone	: +61-3-8549 9600
Project	: 152306/284	Date Samples Received	: 01-Aug-2018 11:10
Order number	:	Date Analysis Commenced	: 02-Aug-2018
C-O-C number	: ----	Issue Date	: 07-Aug-2018 15:36
Sampler	: CHRIS VELIS		
Site	: ----		
Quote number	: ME/286/10		
No. of samples received	: 4		
No. of samples analysed	: 4		



Accreditation No. 825  
Accredited for compliance with  
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: **Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.**

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Nikki Stepniewski	Senior Inorganic Instrument Chemist	Melbourne Inorganics, Springvale, VIC
Xing Lin	Senior Organic Chemist	Melbourne Organics, Springvale, VIC

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Work Order : EM1812254  
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Project : 152306/284



### General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting

ø = ALS is not NATA accredited for these tests.

~ = Indicates an estimated value.

- EA010-P: Electrical Conductivity @ 25°C was analysed by manual method (EA010).
- EP005:EM1812254 #2, #3 Particular samples required dilution prior to extraction due to matrix interferences. LOR values have been adjusted accordingly.
- Ionic balances were calculated using: major anions - chloride, alkalinity and sulfate; and major cations - calcium, magnesium, potassium and sodium.
- ED045G: The presence of thiocyanate can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenzo(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	Yenda Point 1	Yenda Point 2	Yenda Point 3	Yenda Point 4	----
Client sampling date / time				31-Jul-2018 00:00	31-Jul-2018 00:00	31-Jul-2018 00:00	31-Jul-2018 00:00	----	
Compound	CAS Number	LOR	Unit	EM1812254-001	EM1812254-002	EM1812254-003	EM1812254-004	-----	
				Result	Result	Result	Result	----	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.14	7.56	7.09	7.55	----	
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm	25600	32200	25700	34900	----	
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	5	mg/L	46	60	86	8	----	
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	----	
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	----	
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	626	768	1180	636	----	
Total Alkalinity as CaCO3	----	1	mg/L	626	768	1180	636	----	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	3290	7060	4720	5090	----	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	7070	9400	8410	11000	----	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	466	659	435	762	----	
Magnesium	7439-95-4	1	mg/L	962	1460	1200	1540	----	
Sodium	7440-23-5	1	mg/L	4290	6740	5310	7260	----	
Potassium	7440-09-7	1	mg/L	76	97	71	93	----	
EG020T: Total Metals by ICP-MS									
Manganese	7439-96-5	0.001	mg/L	3.38	0.008	2.34	0.015	----	
Iron	7439-89-6	0.05	mg/L	1.54	0.12	0.78	0.06	----	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.6	0.9	0.7	1.2	----	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.36	0.04	0.09	0.04	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.17	<0.01	0.14	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.64	1.24	0.08	1.57	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	0.64	1.41	0.08	1.71	----	
EN055: Ionic Balance									

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 Client : GRIFFITH CITY COUNCIL  
 Project : 152306/284



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	Yenda Point 1	Yenda Point 2	Yenda Point 3	Yenda Point 4	----
Client sampling date / time					31-Jul-2018 00:00	31-Jul-2018 00:00	31-Jul-2018 00:00	31-Jul-2018 00:00	----
Compound	CAS Number	LOR	Unit		EM1812254-001	EM1812254-002	EM1812254-003	EM1812254-004	-----
					Result	Result	Result	Result	----
<b>EN055: Ionic Balance - Continued</b>									
Total Anions	----	0.01	meq/L		280	427	359	429	----
Total Cations	----	0.01	meq/L		291	449	353	483	----
Ionic Balance	----	0.01	%		1.84	2.42	0.82	5.92	----
<b>EP005: Total Organic Carbon (TOC)</b>									
Total Organic Carbon	----	1	mg/L		7	<5	<5	<1	----
<b>EP074D: Fumigants</b>									
2,2-Dichloropropane	594-20-7	5	µg/L		<5	<5	<5	<5	----
1,2-Dichloropropane	78-87-5	5	µg/L		<5	<5	<5	<5	----
cis-1,3-Dichloropropylene	10061-01-5	5	µg/L		<5	<5	<5	<5	----
trans-1,3-Dichloropropylene	10061-02-6	5	µg/L		<5	<5	<5	<5	----
1,2-Dibromoethane (EDB)	106-93-4	5	µg/L		<5	<5	<5	<5	----
<b>EP074E: Halogenated Aliphatic Compounds</b>									
Dichlorodifluoromethane	75-71-8	50	µg/L		<50	<50	<50	<50	----
Chloromethane	74-87-3	50	µg/L		<50	<50	<50	<50	----
Vinyl chloride	75-01-4	50	µg/L		<50	<50	<50	<50	----
Bromomethane	74-83-9	50	µg/L		<50	<50	<50	<50	----
Chloroethane	75-00-3	50	µg/L		<50	<50	<50	<50	----
Trichlorofluoromethane	75-69-4	50	µg/L		<50	<50	<50	<50	----
1,1-Dichloroethene	75-35-4	5	µg/L		<5	<5	<5	<5	----
Iodomethane	74-88-4	5	µg/L		<5	<5	<5	<5	----
trans-1,2-Dichloroethene	156-60-5	5	µg/L		<5	<5	<5	<5	----
1,1-Dichloroethane	75-34-3	5	µg/L		<5	<5	<5	<5	----
cis-1,2-Dichloroethene	156-59-2	5	µg/L		<5	<5	<5	<5	----
1,1,1-Trichloroethane	71-55-6	5	µg/L		<5	<5	<5	<5	----
1,1-Dichloropropylene	563-58-6	5	µg/L		<5	<5	<5	<5	----
Carbon Tetrachloride	56-23-5	5	µg/L		<5	<5	<5	<5	----
1,2-Dichloroethane	107-06-2	5	µg/L		<5	<5	<5	<5	----
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5	<5	----
Dibromomethane	74-95-3	5	µg/L		<5	<5	<5	<5	----
1,1,2-Trichloroethane	79-00-5	5	µg/L		<5	<5	<5	<5	----
1,3-Dichloropropane	142-28-9	5	µg/L		<5	<5	<5	<5	----
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5	<5	----
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/L		<5	<5	<5	<5	----
trans-1,4-Dichloro-2-butene	110-57-6	5	µg/L		<5	<5	<5	<5	----

Page : 5 of 7  
 Work Order : EM1812254  
 Client : GRIFFITH CITY COUNCIL  
 Project : 152306/284



## Analytical Results

Sub-Matrix: <b>WATER</b> (Matrix: <b>WATER</b> )				Client sample ID	Yenda Point 1	Yenda Point 2	Yenda Point 3	Yenda Point 4	----
Client sampling date / time					31-Jul-2018 00:00	31-Jul-2018 00:00	31-Jul-2018 00:00	31-Jul-2018 00:00	----
Compound	CAS Number	LOR	Unit		EM1812254-001	EM1812254-002	EM1812254-003	EM1812254-004	-----
					Result	Result	Result	Result	----
<b>EP074E: Halogenated Aliphatic Compounds - Continued</b>									
cis-1,4-Dichloro-2-butene	1476-11-5	5	µg/L		<5	<5	<5	<5	----
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/L		<5	<5	<5	<5	----
1,2,3-Trichloropropane	96-18-4	5	µg/L		<5	<5	<5	<5	----
Pentachloroethane	76-01-7	5	µg/L		<5	<5	<5	<5	----
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/L		<5	<5	<5	<5	----
Hexachlorobutadiene	87-68-3	5	µg/L		<5	<5	<5	<5	----
<b>EP074F: Halogenated Aromatic Compounds</b>									
Chlorobenzene	108-90-7	5	µg/L		<5	<5	<5	<5	----
Bromobenzene	108-86-1	5	µg/L		<5	<5	<5	<5	----
2-Chlorotoluene	95-49-8	5	µg/L		<5	<5	<5	<5	----
4-Chlorotoluene	106-43-4	5	µg/L		<5	<5	<5	<5	----
1,3-Dichlorobenzene	541-73-1	5	µg/L		<5	<5	<5	<5	----
1,4-Dichlorobenzene	106-46-7	5	µg/L		<5	<5	<5	<5	----
1,2-Dichlorobenzene	95-50-1	5	µg/L		<5	<5	<5	<5	----
1,2,4-Trichlorobenzene	120-82-1	5	µg/L		<5	<5	<5	<5	----
1,2,3-Trichlorobenzene	87-61-6	5	µg/L		<5	<5	<5	<5	----
<b>EP074G: Trihalomethanes</b>									
Chloroform	67-66-3	5	µg/L		<5	<5	<5	<5	----
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5	<5	----
Dibromochloromethane	124-48-1	5	µg/L		<5	<5	<5	<5	----
Bromoform	75-25-2	5	µg/L		<5	<5	<5	<5	----
<b>EP075(SIM)A: Phenolic Compounds</b>									
Phenol	108-95-2	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
2-Chlorophenol	95-57-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
2-Methylphenol	95-48-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
3- & 4-Methylphenol	1319-77-3	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	----
2-Nitrophenol	88-75-5	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
2,4-Dimethylphenol	105-67-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
2,4-Dichlorophenol	120-83-2	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
2,6-Dichlorophenol	87-65-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
4-Chloro-3-methylphenol	59-50-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
2,4,6-Trichlorophenol	88-06-2	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
2,4,5-Trichlorophenol	95-95-4	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	----
Pentachlorophenol	87-86-5	2.0	µg/L		<2.0	<2.0	<2.0	<2.0	----





Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	Yenda Point 1	Yenda Point 2	Yenda Point 3	Yenda Point 4	----
Client sampling date / time					31-Jul-2018 00:00	31-Jul-2018 00:00	31-Jul-2018 00:00	31-Jul-2018 00:00	----
Compound	CAS Number	LOR	Unit		EM1812254-001	EM1812254-002	EM1812254-003	EM1812254-004	-----
					Result	Result	Result	Result	----
EP074S: VOC Surrogates									
1,2-Dichloroethane-D4	17060-07-0	5	%		110	99.8	92.5	91.4	----
Toluene-D8	2037-26-5	5	%		102	92.9	86.3	84.5	----
4-Bromofluorobenzene	460-00-4	5	%		123	113	106	105	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		37.9	38.0	38.8	36.0	----
2-Chlorophenol-D4	93951-73-6	1.0	%		74.8	73.2	79.4	75.8	----
2,4,6-Tribromophenol	118-79-6	1.0	%		78.2	70.0	80.2	74.6	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		83.5	78.9	87.6	87.7	----
Anthracene-d10	1719-06-8	1.0	%		86.3	81.6	91.3	89.9	----
4-Terphenyl-d14	1718-51-0	1.0	%		86.1	81.8	90.7	91.0	----



Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP074S: VOC Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72	132
Toluene-D8	2037-26-5	77	132
4-Bromofluorobenzene	460-00-4	67	131
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	46
2-Chlorophenol-D4	93951-73-6	23	104
2,4,6-Tribromophenol	118-79-6	28	130
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	36	114
Anthracene-d10	1719-06-8	51	119
4-Terphenyl-d14	1718-51-0	49	127

# Annual Report

## Yenda Landfill & Waste Disposal Facility

Reporting Period: 16 September 2017 to 15 September 2018.

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**1. Assessment of Environmental Performance**

See attached Statement of Compliance

**2. Tabulated Results of Monitoring**

See Annual Return

Laboratory test results attached.

**3. Graphical Results**

See attached

**4. Analysis of Data**

See attached

**5. Analysis of Complaints**

Council has a single access number for all complaints. All complaint/complainants are being logged in CRM system for appropriate action. All records are maintained.

**6. Deficiencies in Environmental Performance**

Nil

**7. Recommendations**

Nil

# Annual Return Griffith City Council

## **Statement of Compliance**

### **3. Limit Conditions**

#### **L5.2 Total tonnage not exceeded.**

There was a total of 147.42tn's of waste disposed of within this reporting period.

A total of 55.4tn's of waste was transported from Yenda Waste Management Centre to Tharbogang Waste Management Centre for disposal.

#### **L6 Noise Limits**

Due to casual machinery operation (5 to 6 times a year), the noise on the premises was not measured. The plant used complies with requirements.

#### **L7 Hours of Operation**

Landfill operates on Sunday between 1pm and 5pm (4 hours). Capping the cell takes place on a needs basis.

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### **4. Operating Conditions**

#### **O2 Maintenance of plant and equipment**

Council's plant and equipment maintained by Council workshop staff to address any breakdowns and maintenance issues.

#### **O10 Covering of waste**

Some compaction is carried out periodically by excavator and loader when covering material is imported to cover landfill.

#### **O11 Control of Pests, vermin and weeds**

A Contractor is employed to eradicate feral animals and pests periodically.

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### **5. Monitoring and Recording Conditions**

M2.1 All Boreholes were sampled.

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### **6. Reporting Conditions**

#### **R2 Notification of environmental harm**

Nil

#### **R4 Recording of Fires**

There were no fires at this facility within this reporting period.

#### **R6 Annual Report**

- ✓ Environmental performance
- ✓ Tabulated results
- ✓ Graphical representation
- ✓ Analysis and interpretation of data
- ✓ Analysis of response and complaints received
- ✓ Identify and deficiencies, trends or incidents
- ✓ Recommendations on improvements

**Depth (m)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1			3.750	4.05	5.50	4.63	3.93	4.70	4.50
Bore Hole 2			1.850	4.22	5.90	6.08	5.47	5.23	3.90
Bore Hole 3			2.800	5.27	5.94	5.60	5.13	5.55	6.00
Bore Hole 4			2.000	4.83	6.10	6.19	5.45	5.73	6.50

**pH**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	6.9	6.76	7.09	6.82	7.24	7.68	7.28	8.13	7.14
Bore Hole 2	7.0	6.82	7.26	7.15	7.23	7.79	7.50	8.13	7.56
Bore Hole 3	0.0	0.00	7.33	6.90	7.29	7.77	7.29	7.94	7.09
Bore Hole 4	7.0	7.18	7.87	7.04	7.30	7.54	7.35	7.97	7.55

**Alkalinity (mg/L)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	820	748	615	843.00	535.00	915	905.00	716.00	626.00
Bore Hole 2	741	838	754	743.00	776.00	843	847.00	734.00	768.00
Bore Hole 3	0	0	615	1,110.00	875.00	1210	1,200.00	1,250.00	1,180.00
Bore Hole 4	538	560	330	592.00	514.00	613	670.00	705.00	636.00

**Fluoride (mg/L)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	0.480	0.500	1.000	0.50	0.50	0.4	0.30	0.40	0.60
Bore Hole 2	0.850	0.600	1.100	1.10	1.30	0.8	1.00	0.80	0.90
Bore Hole 3	0.000	0.000	0.700	0.80	1.00	0.8	0.80	0.70	0.70
Bore Hole 4	1.100	1.100	0.800	1.30	1.60	1.1	0.90	1.10	1.20

**Chloride (mg/L)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	10,100	8,770	4,470	10,100.00	10,800.00	10600	10,600.00	10,600.00	7,070.00
Bore Hole 2	9,780	8,050	6,420	6,940.00	8,750.00	9080	8,970.00	8,630.00	9,400.00
Bore Hole 3	0	0	2,350	7,370.00	7,600.00	7180	7,400.00	7,770.00	8,410.00
Bore Hole 4	12,700	11,300	997	8,630.00	10,300.00	11200	10,900.00	10,900.00	11,000.00

**Sulphate (mg/L) SO4**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	5,508	4,900	1,850	5,970.00	6,210.00	6540	6,550.00	6710	3,290.00
Bore Hole 2	6,725	6,090	5,500	5,990.00	7,380.00	8060	7,720.00	7,750.00	7,060.00
Bore Hole 3	0	0	1,310	5,000.00	5,170.00	4850	4,590.00	8,390.00	4,720.00
Bore Hole 4	5,398	6,050	205	3,830.00	5,200.00	5880	5,760.00	5,670.00	5,090.00

**Conductivity (uS/cm)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	34,800	27,800	15,800	34,200.00	35,900.00	39900	36,300.00	36,600.00	25,600.00
Bore Hole 2	35,800	32,900	25,000	26,700.00	33,300.00	37300	33,200.00	31,800.00	32,200.00
Bore Hole 3	0	0	9,990	26,300.00	28,000.00	28500	26,700.00	28,400.00	25,700.00
Bore Hole 4	39,000	41,400	4,050	28,100.00	34,700.00	40800	36,500.00	36,100.00	34,900.00

**Suspended.Solid (mg/L)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	415.000	0.000	69	149.00	93.00	56	15	20.00	46.00
Bore Hole 2	16.000	0.000	20	130.00	30.00	6	44.00	14.00	60.00
Bore Hole 3	0.000	0.000	62	264.00	509.00	10200	7.00	302.00	86.00
Bore Hole 4	35.000	0.000	10	192.00	81.00	7	30.00	94.00	8.00

**Total Org Carbon-filt (mg/L)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	2	19	25.000	14.00	10.00	10	5	13	7
Bore Hole 2	2	11	10.000	9.00	5.00	2	4.00	3.00	<5
Bore Hole 3	0	0	27.000	17.00	11.00	12	5.00	21.00	<5
Bore Hole 4	127	5	10.000	7.00	5.00	4	7.00	2.00	<1

**Total Phenol (mg/L)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	0.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Bore Hole 2	0.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Bore Hole 3	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Bore Hole 4	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Dissolved Iron (mg/L)**

	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	6.260	5.840	2.620	1.50	0.72	4.34	0.54	0.59	1.54
Bore Hole 2	0.290	5.740	0.340	0.21	0.50	0.46	0.27	0.16	0.12
Bore Hole 3	0.000	0.000	1.790	1.16	14.00	64.4	0.66	0.98	0.78

Bore Hole 4	0.460	0.050	0.340	0.30	0.74	0.82	0.18	0.15	0.06
<b><u>Dissolved Manganese (mg/L)</u></b>									
	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	4.200	3.240	0.627	3.73	3.56	3.03	2.25	1.84	3.38
Bore Hole 2	0.010	6.670	0.011	0.02	0.05	0.011	0.01	0.01	0.01
Bore Hole 3	0.000	0.000	0.333	2.24	2.06	2.09	1.58	0.84	2.34
Bore Hole 4	0.010	0.004	0.209	0.37	0.40	0.124	0.18	0.23	0.02
<b><u>Dissolved Calcium (mg/L)</u></b>									
	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	770	524	266	714.00	735.00	734	750.00	770.00	466.00
Bore Hole 2	640	403	442	472.00	597.00	568	587.00	581.00	659.00
Bore Hole 3	0	0	128	421.00	441.00	366	390.00	430.00	435.00
Bore Hole 4	930	620	82	480.00	634.00	639	698.00	651.00	762.00
<b><u>Dissolved Magnesium (mg/L)</u></b>									
	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	1,530	1,120	518	1,510.00	1,490.00	1630	1,700.00	1620	962.00
Bore Hole 2	1,520	1,140	765	916.00	1,200.00	1400	1,420.00	1,260.00	1,460.00
Bore Hole 3	0	0	282	1,070.00	1,040.00	1030	1,070.00	1,100.00	1,200.00
Bore Hole 4	1,935	1,310	94	917.00	1,160.00	1340	1,470.00	1,280.00	1,540.00
<b><u>Dissolved Potassium (mg/L)</u></b>									
	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	75	60	47	90.00	81.00	84	82.00	77.00	76.00
Bore Hole 2	70	46	61	66.00	72.00	74	69.00	65.00	97.00
Bore Hole 3	0	0	33	57.00	62.00	59	54.00	52.00	71.00
Bore Hole 4	80	1	13	61.00	66.00	68	67.00	63.00	93.00
<b><u>Dissolved Sodium (mg/L)</u></b>									
	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	6,350	4,850	2,530	6,680.00	6,232.00	6520	7,760.00	6,420.00	4,290.00
Bore Hole 2	7,150	5,110	4,700	5,550.00	6,190.00	6700	7,580.00	6,110.00	6,740.00
Bore Hole 3	0	0	1,630	5,190.00	4,940.00	4930	5,900.00	5,070.00	5,310.00
Bore Hole 4	9,300	6,310	545	5,580.00	6,230.00	6700	7,910.00	6,490.00	7,260.00
<b><u>Ammonia (as N) (mg/L) N</u></b>									
	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	0.51	0.34	0.05	0.94	0.45	0.46	0.12	0.33	0.36
Bore Hole 2	0.42	0.02	0.09	0.08	0.06	0.12	0.00	0.02	0.04
Bore Hole 3	0.00	0.00	0.05	0.18	0.15	0.15	0.05	0.07	0.09
Bore Hole 4	0.46	0.01	0.04	0.09	0.05	0.11	0.02	0.03	0.04
<b><u>Total Oxidised Nitrogen (as N) (mg/L)</u></b>									
Nitrate	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	0.09	0.25	0.51	0.13	0.05	0.03	0.06	0.03	0.64
Bore Hole 2	1.30	0.02	16.20	6.78	2.60	1.57	1.46	1.29	1.41
Bore Hole 3	0.00	0.00	41.40	2.13	0.11	0.05	0.00	0.06	0.08
Bore Hole 4	1.50	2.37	0.48	0.15	1.02	2.19	1.72	1.73	1.71
<b><u>Volatile Organics (ug/L)</u></b>									
	Sep-10	Sep-11	Sep-12	Sep-13	Aug-14	Sep-15	Aug-16	Aug-17	Aug-18
Bore Hole 1	0.000	50.000	50.000	50.00	50.00	50.00	50.00	50.00	50.00
Bore Hole 2	0.000	50.000	50.000	50.00	50.00	50.00	50.00	50.00	50.00
Bore Hole 3	0.000	0.000	50.000	50.00	50.00	50.00	50.00	50.00	50.00
Bore Hole 4	0.000	50.000	50.000	50.00	50.00	50.00	50.00	50.00	50.00