

Cootamundra Gundagai Regional Council

Wednesday, November 21, 2018

PO Box 420

Cootamundra NSW 2590



NATA Accredited Laboratory  
Number: 9597

Accredited for compliance with  
ISO/IEC 17025 - Testing

## LABORATORY ANALYSIS REPORT

Report Number:1811-0047

Page 1 of 3

For all enquiries related to this report please quote document number: 1811-0047

<u>Facility:</u>	<u>Order #</u>	<u>Date Received</u>
<u>Sample Type</u>	<u>Collected By</u>	
Water	G Finucane	08-November-2018

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
18Nov-0113	Tip Dam 1 Surface (EPA 1) 06.11.18 9.30am	Alkalinity, Total as CaCO <sub>3</sub>	98 mg/L	APHA 2320 B	2
		Ammonia as N	2.3 mg/L	APHA 4500-NH <sub>3</sub> F	0.1
		Calcium (acid extractable)	20.2 mg/L	APHA 3030 E/3120 B	0.03
		Chloride	30.8 mg/L	APHA 4110 B	0.1
		Conductivity	377 µS/cm	APHA 2510 B	1
		Fluoride	0.5 mg/L	APHA 4110 B	0.1
		Iron (acid extractable)	4.02 mg/L	APHA 3030 E/3120 B	0.01
		Magnesium (acid extractable)	7.45 mg/L	APHA 3030 E/3120 B	0.02
		Manganese (acid extractable)	0.188 mg/L	APHA 3030 E/3120 B	0.001
		Nitrate as N	<0.1 mg/L	APHA 4110 B	0.1
		Phenolics - Total	<0.001 mg/L	* APHA 5530 D	0.2
		pH	7.5 pH units	APHA 4500-H+ B	
		Potassium (acid extractable)	6.7 mg/L	APHA 3030 E/3120 B	0.2
		Sodium (acid extractable)	26.3 mg/L	APHA 3030 E/3120 B	0.05
		Refer to ALS Report Number:	18-51080	Analysis by ALS, Melbourne (acc no. 992)	
		Sulphate	35.7 mg/L	APHA 4110 B	0.5
		Total Organic Carbon	29 mg/L	Analysis by Ecowise, Melbourne (acc no: 992)	
		Total Suspended Solids	12 mg/L	APHA 2540 D	2
18Nov-0114	Tip Dam 4 Surface (EPA ?) 06.11.18 9.40am	Alkalinity, Total as CaCO <sub>3</sub>	161 mg/L	APHA 2320 B	2
		Ammonia as N	4.9 mg/L	APHA 4500-NH <sub>3</sub> F	0.1

Cootamundra Gundagai Regional Council

Wednesday, November 21, 2018

PO Box 420

Cootamundra NSW 2590



NATA Accredited Laboratory  
Number: 9597

Accredited for compliance with  
ISO/IEC 17025 - Testing

## LABORATORY ANALYSIS REPORT

Report Number: 1811-0047

Page 2 of 3

For all enquiries related to this report please quote document number: 1811-0047

<u>Facility:</u>	<u>Order #</u>	
<u>Sample Type</u>	<u>Collected By</u>	<u>Date Received</u>
Water	G Finucane	08-November-2018

<u>EAL ID</u>	<u>Client ID.</u> Date/Time sample taken	<u>Test</u>	<u>Result (units)</u>	<u>Method Reference</u>	<u>Limit of Reporting</u>
18Nov-0114	Tip Dam 4 Surface (EPA ?) 06.11.18 9.40am	Calcium (acid extractable)	85.3 mg/L	APHA 3030 E/3120 B	0.03
		Chloride	621 mg/L	APHA 4110 B	0.1
		Conductivity	2420 µS/cm	APHA 2510 B	1
		Fluoride	0.2 mg/L	APHA 4110 B	0.1
		Iron (acid extractable)	1.36 mg/L	APHA 3030 E/3120 B	0.01
		Magnesium (acid extractable)	36.4 mg/L	APHA 3030 E/3120 B	0.02
		Manganese (acid extractable)	2.08 mg/L	APHA 3030 E/3120 B	0.001
		Nitrate as N	<0.1 mg/L	APHA 4110 B	0.1
		Phenolics - Total	<0.01 mg/L	* APHA 5530 D	0.2
		pH	7.0 pH units	APHA 4500-H+ B	
		Potassium (acid extractable)	50.8 mg/L	APHA 3030 E/3120 B	0.2
		Sodium (acid extractable)	208 mg/L	APHA 3030 E/3120 B	0.05
		Refer to ALS Report Number:	18-51080	Analysis by ALS, Melbourne (acc no. 992)	
		Sulphate	68.8 mg/L	APHA 4110 B	0.5
		Total Organic Carbon	64 mg/L	Analysis by Ecowise, Melbourne (acc no: 992)	
		Total Suspended Solids	92 mg/L	APHA 2540 D	2

Note:

\* NATA Accreditation does not cover the performance of this service.

**Cootamundra Gundagai Regional Council**

Wednesday, November 21, 2018

**PO Box 420**

**Cootamundra NSW 2590**



NATA Accredited Laboratory  
Number: 9597

Accredited for compliance with  
ISO/IEC 17025 - Testing

## LABORATORY ANALYSIS REPORT

**Report Number: 1811-0047**

Page 3 of 3

*For all enquiries related to this report please quote document number: 1811-0047*

<b><u>Facility:</u></b>	<b><u>Order #</u></b>	
<b><u>Sample Type</u></b>	<b><u>Collected By</u></b>	<b><u>Date Received</u></b>
Water	G Finucane	08-November-2018

<b><u>EAL ID</u></b>	<b><u>Client ID.</u></b> Date/Time sample taken	<b><u>Test</u></b>	<b><u>Result (units)</u></b>	<b><u>Method Reference</u></b>	<b><u>Limit of Reporting</u></b>
----------------------	--	--------------------	------------------------------	--------------------------------	----------------------------------

Signed .....  ..... David Wade, Laboratory Manager.

*All samples analysed as received.  
All soil results are reported on a dry basis.  
The EAL takes no responsibility for the end use of results within this report.  
This report shall not be reproduced except in full.  
This report replaces any previously issued report*

## CERTIFICATE OF ANALYSIS

<b>Batch No:</b>	18-51080	<i>Page</i>	Page 1 of 3
<i>Final Report</i>	724565	<i>Laboratory</i>	Scoresby Laboratory
<i>Client:</i>	Environmental and Analytical Laboratories	<i>Address</i>	Caribbean Business Park, 22 Dalmore Drive, Scoresby, VIC 3179
<i>Contact:</i>	David Wade	<i>Phone</i>	03 8756 8000
<i>Address:</i>	Charles Sturt University Locked Bag 588 WAGGA WAGGA NSW 2678	<i>Fax</i>	03 9763 1862
		<i>Contact:</i>	Brad Snibson Client Manager Brad.Snibson@alsglobal.com
<i>PO No:</i>	P0197464	<i>Date Sampled:</i>	15-Nov-2018
<i>Sampler Name:</i>		<i>Date Samples Received:</i>	15-Nov-2018
<i>ALS Program Ref:</i>	EAL	<i>Date Issued:</i>	21-Nov-2018
<i>Program Description:</i>	Analysis for EAL		
<i>Client Ref:</i>	18NOV-0085-0114		

The hash (#) below indicates methods not covered by NATA accreditation in the performance of this service.

Analysis	Method	Laboratory	Analysis	Method	Laboratory
CHC	WP084	Scoresby	HVOL	WP074	Scoresby
Phenols(Halo)	WP075A	Scoresby	Phenols(NonHalo)	WP075A	Scoresby
Total Phenols	WP075A	Scoresby	TOC (SFA)	WP005SF 002SF	Scoresby
VFA / VOA	WP045B	Scoresby			

TOC is analysed as NPOC and VOCs if present may be compromised when removing inorganic carbon.

### Signatories

Name	Title	Name	Title
Chatura Perera	Team Leader Nutrients	Hao Zhang	Team Leader Organics
Kosta Christopoulos	Deputy Team Leader Organics		



Samples not collected by ALS and are tested as received.

Soil results expressed in mg/kg dry weight unless specified otherwise. Soil microbiological testing was commenced within 48 hours from the day received unless otherwise stated. Water microbiological testing was commenced on the day received and within 24 hours of sampling unless otherwise stated.

MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate.

MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate.

Calculated results are based on raw data.

Legionella species refers to Legionella species other than Legionella pneumophila

Measurement Uncertainties values for your compliance results are available at this link



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
5883045		18Nov-0085	WATER	15/11/18
5883046		18Nov-0086	WATER	15/11/18
5883047		18Nov-0113	WATER	15/11/18
5883048		18Nov-0114	WATER	15/11/18

Analysis - Analyte	Sample No.	5883045	5883046	5883047	5883048
	Site Code				
	Units				
TOC (SFA) - Total Organic Carbon	mg/L			29	64
Total Phenols - Total Phenols via Calculation	mg/L			<0.001	<0.01
VFA / VOA - Volatile Fatty Acids / Volatile Organic Acids	mg/L	15	26		
CHC - 1,2,3,4-Tetrachlorobenzene	mg/L			<0.001	<0.001
CHC - 1,2,3,5-Tetrachlorobenzene	mg/L			<0.001	<0.001
CHC - 1,2,3-Trichlorobenzene	mg/L			<0.001	<0.001
CHC - 1,2,4,5-Tetrachlorobenzene	mg/L			<0.001	<0.001
CHC - 1,2,4-Trichlorobenzene	mg/L			<0.001	<0.001
CHC - 1,2-Dichlorobenzene	mg/L			<0.001	<0.001
CHC - 1,3,5-Trichlorobenzene	mg/L			<0.001	<0.001
CHC - 1,3-Dichlorobenzene	mg/L			<0.001	<0.001
CHC - 1,4-Dichlorobenzene	mg/L			<0.001	<0.001
CHC - 2-Chloronaphthalene	mg/L			<0.001	<0.001
CHC - Benzal Chloride	mg/L			<0.001	<0.001
CHC - Benzotrichloride	mg/L			<0.001	<0.001
CHC - Benzylchloride	mg/L			<0.001	<0.001
CHC - Hexachloroethane	mg/L			<0.001	<0.001
CHC - Hexachlorobutadiene	mg/L			<0.001	<0.001
CHC - Hexachlorocyclopentadiene	mg/L			<0.001	<0.001
CHC - Pentachlorobenzene	mg/L			<0.001	<0.001
HVOL - 1,1,1,2-Tetrachloroethane	mg/L			<0.001	<0.001
HVOL - 1,1,2,2-Tetrachloroethane	mg/L			<0.001	<0.001
HVOL - 1,1-Dichloroethane	mg/L			<0.001	<0.001
HVOL - 1,1-Dichloroethene	mg/L			<0.001	<0.001
HVOL - 1,1-Dichloropropene	mg/L			<0.001	<0.001
HVOL - 1,2,3-Trichloropropane	mg/L			<0.001	<0.001
HVOL - 1,2-Dibromo-3-chloropropane	mg/L			<0.001	<0.001
HVOL - 1,2-Dibromoethane	mg/L			<0.001	<0.001
HVOL - 1,2-Dichloroethene [cis]	mg/L			<0.001	<0.001
HVOL - 1,2-Dichloroethene [trans]	mg/L			<0.001	<0.001
HVOL - 1,2-Dichloroethane	mg/L			<0.001	<0.001
HVOL - 1,2-Dichloropropane	mg/L			<0.001	<0.001
HVOL - 1,3-Dichloropropane	mg/L			<0.001	<0.001
HVOL - 1,3-Dichloropropene [cis]	mg/L			<0.001	<0.001
HVOL - 1,3-Dichloropropene [trans]	mg/L			<0.001	<0.001
HVOL - 2,2-Dichloropropane	mg/L			<0.001	<0.001
HVOL - 2-Chlorotoluene	mg/L			<0.001	<0.001
HVOL - 4-Chlorotoluene	mg/L			<0.001	<0.001
HVOL - Bromochloromethane	mg/L			<0.001	<0.001
HVOL - Bromodichloromethane	mg/L			<0.001	<0.001
HVOL - Bromobenzene	mg/L			<0.001	<0.001
HVOL - Bromoform (Tribromomethane)	mg/L			<0.001	<0.001
HVOL - Carbon Tetrachloride	mg/L			<0.001	<0.001
HVOL - Chloroform (Trichloromethane)	mg/L			<0.001	<0.001
HVOL - Chlorobenzene	mg/L			<0.001	<0.001
HVOL - Dibromochloromethane	mg/L			<0.001	<0.001
HVOL - Dibromomethane	mg/L			<0.001	<0.001
HVOL - Dichloromethane	mg/L			<0.002	<0.002



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
5883045		18Nov-0085	WATER	15/11/18
5883046		18Nov-0086	WATER	15/11/18
5883047		18Nov-0113	WATER	15/11/18
5883048		18Nov-0114	WATER	15/11/18

		5883045	5883046	5883047	5883048
HVOL - Trichlorofluoromethane (CFC11)	mg/L			<0.002	<0.002
HVOL - Tetrachloroethene	mg/L			<0.001	<0.001
HVOL - Vinyl Chloride (Monomer)	mg/L			<0.002	<0.002
HVOL - 1,1,1-Trichloroethane	mg/L			<0.001	<0.001
HVOL - 1,1,2-Trichloroethane	mg/L			<0.001	<0.001
HVOL - Trichloroethene	mg/L			<0.001	<0.001
Phenols(Halo) - 4-Chloro-3-Methylphenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - 2-Chlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - 2,4-Dichlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - 2,6-Dichlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - Pentachlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - 2,3,4,5-Tetrachlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - 2,3,4,6-Tetrachlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - 2,3,5,6-Tetrachlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - 2,4,5-Trichlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - 2,4,6-Trichlorophenol	mg/L			<0.001	<0.01 LORR
Phenols(Halo) - Total Phenols (Halogenated)	mg/L			<0.001	<0.01 LORR
Phenols(NonHalo) - Phenol	mg/L			<0.001	<0.01 LORR
Phenols(NonHalo) - 2-Methylphenol (O-Cresol)	mg/L			<0.001	<0.01 LORR
Phenols(NonHalo) - 3-Methylphenol (M-Cresol)	mg/L			<0.001	<0.01 LORR
Phenols(NonHalo) - 4-Methylphenol (P-Cresol)	mg/L			<0.001	<0.01 LORR
Phenols(NonHalo) - 2,4-Dimethylphenol	mg/L			<0.001	<0.01 LORR
Phenols(NonHalo) - 2-Nitrophenol	mg/L			<0.001	<0.01 LORR
Phenols(NonHalo) - 4-Nitrophenol	mg/L			<0.001	<0.01 LORR
Phenols(NonHalo) - Total Phenols (non Halogenated)	mg/L			<0.001	<0.01 LORR

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

A blank space indicates no test performed.