

Cootamundra Gundagai Regional Council

Thursday, April 18, 2019

PO Box 420

Cootamundra NSW 2590



NATA Accredited Laboratory
Number: 9597

Accredited for compliance with
ISO/IEC 17025 - Testing

LABORATORY ANALYSIS REPORT

Report Number: 1904-0024

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For all enquiries related to this report please quote document number: 1904-0024

<u>Facility:</u>	<u>Order #</u>	<u>Date Received</u>
<u>Sample Type</u>	<u>Collected By</u>	
Water	G Finucane	04-April-2019

<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>
19Apr-0085	Tip Dam 1 Surface (EPA Pt 1) 02.04.19 9.45am	Alkalinity, Total as CaCO ₃	41 mg/L	APHA 2320 B	2
		Ammonia as N	0.4 mg/L	APHA 4500-NH ₃ F	0.1
		Calcium (acid extractable)	10.1 mg/L	APHA 3030 E/3120 B	0.03
		Chloride	47.1 mg/L	APHA 4110 B	0.1
		Conductivity	258 µS/cm	APHA 2510 B	1
		Fluoride	<0.1 mg/L	APHA 4110 B	0.1
		Iron (acid extractable)	2.70 mg/L	APHA 3030 E/3120 B	0.01
		Magnesium (acid extractable)	5.12 mg/L	APHA 3030 E/3120 B	0.02
		Manganese (acid extractable)	0.179 mg/L	APHA 3030 E/3120 B	0.001
		Nitrate as N	<0.1 mg/L	APHA 4110 B	0.1
		Phenolics - Total	0.7 mg/L	* APHA 5530 D	0.2
		pH	7.0 pH units	APHA 4500-H+ B	
		Potassium (acid extractable)	9.2 mg/L	APHA 3030 E/3120 B	0.2
		Sodium (acid extractable)	20.9 mg/L	APHA 3030 E/3120 B	0.05
		Refer to ALS Report Number:	19-18141	Analysis by ALS, Melbourne (acc no. 992)	
		Sulphate	10.6 mg/L	APHA 4110 B	0.5
		Total Organic Carbon	12 mg/L	Analysis by ALS Melbourne (acc no: 992)	
		Total Suspended Solids	31 mg/L	APHA 2540 D	2

19Apr-0086	Tip Dam 3 Surface (EPA Pt 5) 02.04.19 9.55am	Phenolics - Total	1.9 mg/L	* APHA 5530 D	0.2
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<u>Facility:</u>	<u>Order #</u>	<u>Date Received</u>
<u>Sample Type</u> Water	<u>Collected By</u> G Finucane	04-April-2019

<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>
19Apr-0086	Tip Dam 3 Surface (EPA Pt 5) 02.04.19 9.55am	Refer to ALS Report Number:	19-18141	Analysis by ALS, Melbourne (acc no. 992)	
19Apr-0087	Tip Dam 4 Surface (EPA Pending) 02.04.19 10.10am	Alkalinity, Total as CaCO ₃	66 mg/L	APHA 2320 B	2
		Ammonia as N	<0.1 mg/L	APHA 4500-NH3 F	0.1
		Calcium (acid extractable)	15.7 mg/L	APHA 3030 E/3120 B	0.03
		Chloride	69.8 mg/L	APHA 4110 B	0.1
		Conductivity	375 µS/cm	APHA 2510 B	1
		Fluoride	0.1 mg/L	APHA 4110 B	0.1
		Iron (acid extractable)	7.83 mg/L	APHA 3030 E/3120 B	0.01
		Magnesium (acid extractable)	9.20 mg/L	APHA 3030 E/3120 B	0.02
		Manganese (acid extractable)	0.717 mg/L	APHA 3030 E/3120 B	0.001
		Nitrate as N	<0.1 mg/L	APHA 4110 B	0.1
		Phenolics - Total	1.4 mg/L	* APHA 5530 D	0.2
		pH	6.7 pH units	APHA 4500-H+ B	
		Potassium (acid extractable)	13.2 mg/L	APHA 3030 E/3120 B	0.2
		Sodium (acid extractable)	28.8 mg/L	APHA 3030 E/3120 B	0.05
		Refer to ALS Report Number:	19-18141	Analysis by ALS, Melbourne (acc no. 992)	
		Sulphate	11.6 mg/L	APHA 4110 B	0.5
		Total Organic Carbon	22 mg/L	Analysis by ALS Melbourne (acc no: 992)	
		Total Suspended Solids	138 mg/L	APHA 2540 D	2

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LABORATORY ANALYSIS REPORT

Report Number:1904-0024

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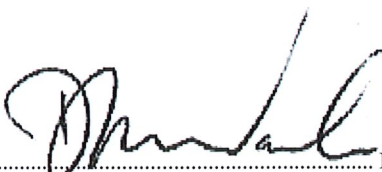
For all enquiries related to this report please quote document number: 1904-0024

<u>Facility:</u>	<u>Order #</u>	<u>Sample Type</u>	<u>Collected By</u>	<u>Date Received</u>
Water			G Finucane	04-April-2019

<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>

Note:

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

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

Batch No:	19-18141	Page	Page 1 of 5
Final Report	749812	Laboratory	Scoresby Laboratory
Client:	Environmental and Analytical Laboratories	Address	Caribbean Business Park, 22 Dalmore Drive, Scoresby, VIC 3179
Contact:	David Wade	Phone	03 8756 8000
Address:	Charles Sturt University Locked Bag 588 WAGGA WAGGA NSW 2678	Fax	03 9763 1862
		Contact:	Brad Snibson Client Manager Brad.Snibson@alsglobal.com
PO No:	P0197464	Date Sampled:	02-Apr-2019 - 03-Apr-2019
Sampler Name:		Date Samples Received:	08-Apr-2019
ALS Program Ref:	EAL	Date Issued:	15-Apr-2019
Program Description:	Analysis for EAL		
Client Ref:	Analysis		

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

Analysis	Method	Laboratory	Analysis	Method	Laboratory
BTEXN	WP074	Scoresby	CHC	WP084	Scoresby
Cyanide	WK026SF	Scoresby	HVOL	WP074	Scoresby
PAH	WP075B	Scoresby	TOC (SFA)	WP005SF 002SF	Scoresby
TRH F2	# WP071	Scoresby	TRH & TPH (>C10)	WP071	Scoresby
TRH (C6-C10) & F1	WP071 (F1 not NATA)	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
Joseph De Alwis	Analyst	Kosta Christopoulos	Chemist/Analyst



Samples not collected by ALS and are tested as received.

Soil microbiological testing was commenced within 4 days from the day collected 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
6065013		19Apr-0070	WATER	03/04/19
6065014		19Apr-0071	WATER	03/04/19
6065015		19Apr-0085	WATER	02/04/19
6065016		19Apr-0086	WATER	02/04/19

Analysis - Analyte	Sample No. Site Code Units	6065013	6065014	6065015	6065016
				TD 1	
TOC (SFA) - Total Organic Carbon	mg/L			12	
Cyanide - Total Cyanide, as CN	mg/L				<0.004 ALSS
VFA / VOA - Volatile Fatty Acids / Volatile Organic Acids	mg/L	38	29		
BTEXN - Benzene	mg/L				<0.001
BTEXN - Toluene	mg/L				<0.001
BTEXN - Ethyl Benzene	mg/L				<0.001
BTEXN - Xylene - m & p	mg/L				<0.002
BTEXN - Xylene - o	mg/L				<0.001
BTEXN - Naphthalene	mg/L				<0.001
BTEXN - Total Xylenes	mg/L				<0.002
BTEXN - BTEX (Sum)	mg/L				<0.002
TRH (C6-C10) & F1 - TPH C6-C9	mg/L				<0.1
TRH (C6-C10) & F1 - TRH C6-C10	mg/L				<0.1
TRH (C6-C10) & F1 - TRH C6-C10 minus BTEX	mg/L				<0.1
TRH F2 - TRH>C10-C16 minus Naphthalene	mg/L				<0.1
TRH & TPH (>C10) - TPH C10-C14	mg/L				<0.1
TRH & TPH (>C10) - TPH C15-C28	mg/L				<0.1
TRH & TPH (>C10) - TPH C29-C36	mg/L				<0.1
TRH & TPH (>C10) - TRH>C10-C16	mg/L				<0.1
TRH & TPH (>C10) - TRH>C16-C34	mg/L				<0.1
TRH & TPH (>C10) - TRH>C34-C40	mg/L				<0.1
TRH & TPH (>C10) - Sum of TRH>C10-C40	mg/L				<0.1
PAH - Naphthalene	mg/L				<0.001
PAH - Acenaphthylene	mg/L				<0.001
PAH - Acenaphthene	mg/L				<0.001
PAH - Fluorene	mg/L				<0.001
PAH - Phenanthrene	mg/L				<0.001
PAH - Anthracene	mg/L				<0.001
PAH - Fluoranthene	mg/L				<0.001
PAH - Pyrene	mg/L				<0.001
PAH - Benz(a)anthracene	mg/L				<0.001
PAH - Chrysene	mg/L				<0.001
PAH - Benzo(b)fluoranthene	mg/L				<0.001
PAH - Benzo(k)fluoroanthene	mg/L				<0.001
PAH - Benzo(a)pyrene	mg/L				<0.001
PAH - Dibenzo(a,h)anthracene	mg/L				<0.001
PAH - Benzo(g,h,i)perylene	mg/L				<0.001
PAH - Indeno(1,2,3-cd)pyrene	mg/L				<0.001
PAH - Total PAH	mg/L				<0.001
CHC - 1,2,3,4-Tetrachlorobenzene	mg/L			<0.001	
CHC - 1,2,3,5-Tetrachlorobenzene	mg/L			<0.001	
CHC - 1,2,3-Trichlorobenzene	mg/L			<0.001	
CHC - 1,2,4,5-Tetrachlorobenzene	mg/L			<0.001	
CHC - 1,2,4-Trichlorobenzene	mg/L			<0.001	
CHC - 1,2-Dichlorobenzene	mg/L			<0.001	
CHC - 1,3,5-Trichlorobenzene	mg/L			<0.001	
CHC - 1,3-Dichlorobenzene	mg/L			<0.001	
CHC - 1,4-Dichlorobenzene	mg/L			<0.001	



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
6065013		19Apr-0070	WATER	03/04/19
6065014		19Apr-0071	WATER	03/04/19
6065015		19Apr-0085	WATER	02/04/19
6065016		19Apr-0086	WATER	02/04/19

		6065013	6065014	6065015	6065016
CHC - 2-Chloronaphthalene	mg/L			<0.001	
CHC - Benzal Chloride	mg/L			<0.001	
CHC - Benzotrifluoride	mg/L			<0.001	
CHC - Benzylchloride	mg/L			<0.001	
CHC - Hexachloroethane	mg/L			<0.001	
CHC - Hexachlorobutadiene	mg/L			<0.001	
CHC - Hexachlorocyclopentadiene	mg/L			<0.001	
CHC - Pentachlorobenzene	mg/L			<0.001	
HVOL - 1,1,1,2-Tetrachloroethane	mg/L			<0.001	
HVOL - 1,1,2,2-Tetrachloroethane	mg/L			<0.001	
HVOL - 1,1-Dichloroethane	mg/L			<0.001	
HVOL - 1,1-Dichloroethene	mg/L			<0.001	
HVOL - 1,1-Dichloropropene	mg/L			<0.001	
HVOL - 1,2,3-Trichloropropane	mg/L			<0.001	
HVOL - 1,2-Dibromo-3-chloropropane	mg/L			<0.001	
HVOL - 1,2-Dibromoethane	mg/L			<0.001	
HVOL - 1,2-Dichloroethene [cis]	mg/L			<0.001	
HVOL - 1,2-Dichloroethene [trans]	mg/L			<0.001	
HVOL - 1,2-Dichloroethane	mg/L			<0.001	
HVOL - 1,2-Dichloropropane	mg/L			<0.001	
HVOL - 1,3-Dichloropropane	mg/L			<0.001	
HVOL - 1,3-Dichloropropene [cis]	mg/L			<0.001	
HVOL - 1,3-Dichloropropene [trans]	mg/L			<0.001	
HVOL - 2,2-Dichloropropane	mg/L			<0.001	
HVOL - 2-Chlorotoluene	mg/L			<0.001	
HVOL - 4-Chlorotoluene	mg/L			<0.001	
HVOL - Bromochloromethane	mg/L			<0.001	
HVOL - Bromodichloromethane	mg/L			<0.001	
HVOL - Bromobenzene	mg/L			<0.001	
HVOL - Bromoform (Tribromomethane)	mg/L			<0.001	
HVOL - Carbon Tetrachloride	mg/L			<0.001	
HVOL - Chloroform (Trichloromethane)	mg/L			<0.001	
HVOL - Chlorobenzene	mg/L			<0.001	
HVOL - Dibromochloromethane	mg/L			<0.001	
HVOL - Dibromomethane	mg/L			<0.001	
HVOL - Dichloromethane	mg/L			<0.002	
HVOL - Trichlorofluoromethane (CFC11)	mg/L			<0.002	
HVOL - Tetrachloroethene	mg/L			<0.001	
HVOL - Vinyl Chloride (Monomer)	mg/L			<0.002	
HVOL - 1,1,1-Trichloroethane	mg/L			<0.001	
HVOL - 1,1,2-Trichloroethane	mg/L			<0.001	
HVOL - Trichloroethene	mg/L			<0.001	

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 Batch No: 19-18141
 Report Number: 749812
 Client: Environmental and Analytical Laboratories
 ALS Program Ref: EAL
 Program Description: Analysis for EAL



Sample No	Site Code	Site Description	Sample Type	Sampled Date/Time
6065017		19Apr-0087	WATER	02/04/19

Analysis - Analyte	Sample No. Site Code Units	6065017
TOC (SFA) - Total Organic Carbon	mg/L	22
CHC - 1,2,3,4-Tetrachlorobenzene	mg/L	<0.001
CHC - 1,2,3,5-Tetrachlorobenzene	mg/L	<0.001
CHC - 1,2,3-Trichlorobenzene	mg/L	<0.001
CHC - 1,2,4,5-Tetrachlorobenzene	mg/L	<0.001
CHC - 1,2,4-Trichlorobenzene	mg/L	<0.001
CHC - 1,2-Dichlorobenzene	mg/L	<0.001
CHC - 1,3,5-Trichlorobenzene	mg/L	<0.001
CHC - 1,3-Dichlorobenzene	mg/L	<0.001
CHC - 1,4-Dichlorobenzene	mg/L	<0.001
CHC - 2-Chloronaphthalene	mg/L	<0.001
CHC - Benzal Chloride	mg/L	<0.001
CHC - Benzotrifluoride	mg/L	<0.001
CHC - Benzylchloride	mg/L	<0.001
CHC - Hexachloroethane	mg/L	<0.001
CHC - Hexachlorobutadiene	mg/L	<0.001
CHC - Hexachlorocyclopentadiene	mg/L	<0.001
CHC - Pentachlorobenzene	mg/L	<0.001
HVOL - 1,1,1,2-Tetrachloroethane	mg/L	<0.001
HVOL - 1,1,1,2-Tetrachloroethane	mg/L	<0.001
HVOL - 1,1-Dichloroethane	mg/L	<0.001
HVOL - 1,1-Dichloroethene	mg/L	<0.001
HVOL - 1,1-Dichloropropene	mg/L	<0.001
HVOL - 1,2,3-Trichloropropane	mg/L	<0.001
HVOL - 1,2-Dibromo-3-chloropropane	mg/L	<0.001
HVOL - 1,2-Dibromoethane	mg/L	<0.001
HVOL - 1,2-Dichloroethene [cis]	mg/L	<0.001
HVOL - 1,2-Dichloroethene [trans]	mg/L	<0.001
HVOL - 1,2-Dichloroethane	mg/L	<0.001
HVOL - 1,2-Dichloropropane	mg/L	<0.001
HVOL - 1,3-Dichloropropane	mg/L	<0.001
HVOL - 1,3-Dichloropropene [cis]	mg/L	<0.001
HVOL - 1,3-Dichloropropene [trans]	mg/L	<0.001
HVOL - 2,2-Dichloropropane	mg/L	<0.001
HVOL - 2-Chlorotoluene	mg/L	<0.001
HVOL - 4-Chlorotoluene	mg/L	<0.001
HVOL - Bromochloromethane	mg/L	<0.001
HVOL - Bromodichloromethane	mg/L	<0.001
HVOL - Bromobenzene	mg/L	<0.001
HVOL - Bromoform (Tribromomethane)	mg/L	<0.001
HVOL - Carbon Tetrachloride	mg/L	<0.001
HVOL - Chloroform (Trichloromethane)	mg/L	<0.001
HVOL - Chlorobenzene	mg/L	<0.001
HVOL - Dibromochloromethane	mg/L	<0.001
HVOL - Dibromomethane	mg/L	<0.001
HVOL - Dichloromethane	mg/L	<0.002
HVOL - Trichlorofluoromethane (CFC11)	mg/L	<0.002
HVOL - Tetrachloroethene	mg/L	<0.001
HVOL - Vinyl Chloride (Monomer)	mg/L	<0.002
HVOL - 1,1,1-Trichloroethane	mg/L	<0.001
HVOL - 1,1,2-Trichloroethane	mg/L	<0.001
HVOL - Trichloroethene	mg/L	<0.001

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Batch No: 19-18141
Report Number: 749812
Client: Environmental and Analytical Laboratories
ALS Program Ref: EAL
Program Description: Analysis for EAL



A blank space indicates no test performed.