



Barossa Infrastructure Ltd
ATTN: Simon Schutz
PO Box 665
TANUNDA
SA 5352 AUSTRALIA

27/02/2020

Dear Simon

Please find attached the Final Analytical Report for

Customer Service Request: 122622-2019-CSR-1
Account: 122622
Project: AWQC-144294 Barossa Infrastructure Ltd - Routine 19/20

This report has also been sent to: Neville Skipworth

AWQC Sample Receipt hours are Monday and Tuesday 8:30am to 8pm and Wednesday, Thursday and Friday 8:30am to 4:30pm.

Yours sincerely,

Brendan Walsh
Customer Service Officer
Brendan.Walsh@sawater.com.au
+61 8 7424 2889





FINAL REPORT: 275198

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Report Information

Project Name AWQC-144294
Customer Barossa Infrastructure Ltd
CSR_ID 122622-2019-CSR-1

Analytical Results

Customer Sample Description BIL Connection Point
Sampling Point 84513-Barossa Infrastructure Ltd - Fromms Square Williamstown
Sampled Date 7/02/2020 8:31:55AM
Sample Received Date 7/02/2020 8:31:55AM
Sample Analysis Completed 18/02/2020 10:49:55AM
Sample ID 2020-000-2663
Status Endorsed
GuidelineType ECOLI
Collection Type AWQC Collected

Bacteriology	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
E.coli & Thermotolerant Coliforms T0081-01 WMZ-500(ADEL)			07/02/2020
E.coli		0 cfu/100mL	
Thermotolerant Coliforms		0 cfu/100mL	

Inorganic Chemistry - Metals	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Arsenic - Total TIC-006 W09-023(ADEL)			10/02/2020
Arsenic - Total	0.0003	0.0014 mg/L	
Boron - Soluble TIC-006 W09-023(ADEL)			10/02/2020
Boron - Soluble	0.020	0.197 mg/L	
Cadmium - Total TIC-006 W09-023(ADEL)			10/02/2020
Cadmium - Total	0.0001	<0.0001 mg/L	
Calcium TIC-004 W09-023(ADEL)			11/02/2020
Calcium	0.1	8.0 mg/L	
Chromium - Total TIC-006 W09-023(ADEL)			10/02/2020
Chromium - Total	0.0001	0.0060 mg/L	
Iron - Total TIC-006 W09-023(ADEL)			10/02/2020
Iron - Total	0.0005	5.603 mg/L	
Lead - Total TIC-006 W09-023(ADEL)			10/02/2020
Lead - Total	0.0001	0.0027 mg/L	
Magnesium TIC-004 W09-023(ADEL)			11/02/2020
Magnesium	0.05	5.84 mg/L	
Manganese - Total TIC-006 W09-023(ADEL)			10/02/2020
Manganese - Total	0.0001	0.0916 mg/L	
Potassium TIC-004 W09-023(ADEL)			11/02/2020



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Potassium TIC-004 W09-023(ADEL)			11/02/2020
Potassium	0.05	2.39 mg/L	
Sodium Adsorption Ratio W09-023(ADEL)			07/02/2020
Sodium Adsorption Ratio - Calculation		2.18	
Sodium TIC-004 W09-023(ADEL)			11/02/2020
Sodium	0.1	33.2 mg/L	
Sulphur TIC-004 W09-023(ADEL)			11/02/2020
Sulphate	1.5	12.3 mg/L	
Sulphur	0.5	4.1 mg/L	
Total Hardness as CaCO3 W09-023(ADEL)			07/02/2020
Total Hardness as CaCO3	2.0	44 mg/L	
Zinc - Total TIC-006 W09-023(ADEL)			10/02/2020
Zinc - Total	0.0003	0.0127 mg/L	

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Chloride T0104-02 W09-023(ADEL)			10/02/2020
Chloride	4.0	52 mg/L	
Nitrate + Nitrite as N T0161-01 W09-023(ADEL)			17/02/2020
Nitrate + Nitrite as N	0.003	0.076 mg/L	
Nitrogen - Total TMZ-M06 W09-023(ADEL)			07/02/2020
Nitrogen - Total		0.50 mg/L	
Phosphorus - Total T0109-01 W09-023(ADEL)			13/02/2020
Phosphorus - Total	0.005	0.079 mg/L	
TKN as N T0112-01 W09-023(ADEL)			13/02/2020
TKN as Nitrogen	0.05	0.42 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Conductivity & Total Dissolved Solids T0016-01 W09-023(ADEL)			10/02/2020
Conductivity	2	272 µS/cm	
Total Dissolved Solids (by EC)	1	150 mg/L	



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Status	Endorsed
GuidelineType	ECOLI
Collection Type	AWQC Collected

pH T0010-01 W09-023(ADEL)			10/02/2020
pH		7.5 pH units	
Temperature at which pH is measured		23.0 °C	
Turbidity T0018-01 W09-023(ADEL)			10/02/2020
Turbidity	0.1	59 NTU	



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AWQC Signatories

Mira Banasiak - Supervisor Bacteriology

Dzung Bui - Supervisor Metals and Physical

Thuy Diep - Technical Officer Chemistry

David Evans - Technical Officer Chemistry

Aji John - Technical Officer Chemistry



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Guidelines

ECOLI	Ecoli	Minimum Value	Maximum Value	Units
Guideline Version:2				
Health1				
110960, 110961, 110963, 110964, 120464, 120465, 120466, 120468, 120469, 122450	E.coli	-	0	cfu/100mL
122436, 122437	E.coli/F Coliforms - Presumptive	-	0	cfu/100mL
Primary Contact				
110965, 110967, 110968, 110970, 110972, 120470, 120471, 120472, 120475, 120476	E.coli	-	150	MPN/100mL
110969, 110971, 110973, 110974, 120473, 120474	Faecal coliforms	-	150	cfu/100mL

Analytical Method

Analytical Method Code	Description	Reference Method
T0010-01	Determination of pH	AP4500HB
T0016-01	Determination of Conductivity - Corrected to 25C	AP2510B
T0018-01	Turbidity - Nephelometric Measurement	APAWWA-WEF
T0081-01	E. coli - Membrane filtration	USEPA1604_1H
T0104-02	Chloride - Discrete Analyser	AP4500CLE
T0109-01	Phosphorus - total by discrete analyser	AP4500PF
T0112-01	Nitrogen- Total Kjeldahl by discrete analyser	AP4500NORGA
T0161-01	Nitrate + Nitrate (NOx) - Automated Flow Colorimetry	AP4500NO3I
TIC-004	Determination of Metals - ICP Spectrometry by ICP2	AP3120
TIC-006	Elemental Analysis By ICP- MS	EPA200.8
TMZ-M06	Derived Results and Data Checks	AP4500NORGA
W-052	Preparation of Samples for Metal Analysis	AP3030AD

Sampling Method

Sampling Method Code	Description
W09-023	Sampling Method for Chemical Analyses
WMZ-500	Sampling Method for Microbiological Analyses

When samples are taken by customers, samples are analysed as received.



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Laboratory Information

Laboratory	NATA accreditation ID
Inorganic Chemistry - Physical	1115
Inorganic Chemistry - Nutrients	1115
Bacteriology	1115
Inorganic Chemistry - Metals	1115



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Notes

1. The last figure of the result value is a significant figure.
2. # determination of the component is not covered by NATA Accreditation.
3. ^ indicates result is out of specification according to the reference guideline. Refer to report footer.
4. * indicates an incident has been recorded against the sample. Refer to report footer.
5. & Indicates the results have changed since the last issued report.
6. The Limit of Reporting (LOR) is the lowest concentration of analyte which is reported at the AWQC and is based on the LOQ rounded up to a more readily used value. The Limit of Quantitation (LOQ) is the lowest concentration of analyte for which quantitative results may be obtained within a specified degree of confidence.
7. Where collection type is AWQC Collect, NATA has confirmed that due to a robust system in place for maintaining the temperature integrity for samples collected by AWQC's Field Laboratory Services, the recording of temperature when samples arrive at the AWQC is out of scope.
8. Where applicable the [Measurement of Uncertainty](https://www.awqc.com.au/our-services/analytical-services/measurement-uncertainty) is available at <https://www.awqc.com.au/our-services/analytical-services/measurement-uncertainty>.
9. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
10. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.