



BAROSSA INFRASTRUCTURE LTD  
ATTN: Paul Shanks  
PO Box 665  
TANUNDA  
SA 5352 AUSTRALIA

27/05/2019

Dear Paul

Please find attached the Final Analytical Report for

**Customer Service Request:**      122622-2018-CSR-1  
**Account:**      122622  
**Project:**      AWQC-136262 Barossa Infrastructure Ltd - Routine 18/19

This report has also been sent to: Patsy Biscoe 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,

Michelle de Ruyter  
Scientist  
[Michelle.DeRuyter@sawater.com.au](mailto:Michelle.DeRuyter@sawater.com.au)  
+61 8 7424 2852





**FINAL REPORT: 252211**

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**Report Information**

**Project Name** AWQC-136262  
**Customer** BAROSSA INFRASTRUCTURE LTD  
**CSR\_ID** 122622-2018-CSR-1

**Analytical Results**

**Sampling Point** 84513-Barossa Infrastructure Ltd - Fromms Square Williamstown  
**Sampled Date** 10/05/2019 8:41:12AM  
**Sample Received Date** 10/05/2019 8:41:12AM  
**Sample Analysis Completed** 23/05/2019 11:27:21AM  
**Sample ID** 2019-003-0275  
**Status** Endorsed  
**GuidelineType** ECOLI  
**Collection Type** AWQC Collected

Bacteriology	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
<b>E.coli &amp; Thermotolerant Coliforms T0081-01 WMZ-500(ADEL)</b>			10/05/2019
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>			
<b>Arsenic - Total TIC-006 W09-023(ADEL)</b>			14/05/2019
Arsenic - Total	0.0003	0.0006 mg/L	
<b>Boron - Soluble TIC-006 W09-023(ADEL)</b>			14/05/2019
Boron - Soluble	0.020	0.162 mg/L	
<b>Cadmium - Total TIC-006 W09-023(ADEL)</b>			14/05/2019
Cadmium - Total	0.0001	<0.0001 mg/L	
<b>Calcium TIC-004 W09-023(ADEL)</b>			15/05/2019
Calcium	0.1	11.3 mg/L	
<b>Chromium - Total TIC-006 W09-023(ADEL)</b>			14/05/2019
Chromium - Total	0.0001	<0.0001 mg/L	
<b>Iron - Total TIC-006 W09-023(ADEL)</b>			14/05/2019
Iron - Total	0.0005	0.0051 mg/L	
<b>Lead - Total TIC-006 W09-023(ADEL)</b>			14/05/2019
Lead - Total	0.0001	0.0002 mg/L	
<b>Magnesium TIC-004 W09-023(ADEL)</b>			15/05/2019
Magnesium	0.05	5.29 mg/L	
<b>Manganese - Total TIC-006 W09-023(ADEL)</b>			14/05/2019
Manganese - Total	0.0001	0.0025 mg/L	
<b>Potassium TIC-004 W09-023(ADEL)</b>			15/05/2019
Potassium	0.05	1.81 mg/L	



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<b>Sodium Adsorption Ratio W09-023(ADEL)</b>			10/05/2019
Sodium Adsorption Ratio - Calculation		1.97	
<b>Sodium TIC-004 W09-023(ADEL)</b>			15/05/2019
Sodium	0.1	32.0 mg/L	
<b>Sulphur TIC-004 W09-023(ADEL)</b>			15/05/2019
Sulphate	1.5	26.4 mg/L	
Sulphur	0.5	8.8 mg/L	
<b>Total Hardness as CaCO3 W09-023(ADEL)</b>			10/05/2019
Total Hardness as CaCO3	2.0	50 mg/L	
<b>Zinc - Total TIC-006 W09-023(ADEL)</b>			14/05/2019
Zinc - Total	0.0003	0.0015 mg/L	

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
<b>Chloride T0104-02 W09-023(ADEL)</b>			21/05/2019
Chloride	4.0	45 mg/L	
<b>Nitrate + Nitrite as N T0161-01 W09-023(ADEL)</b>			14/05/2019
Nitrate + Nitrite as N	0.003	0.060 mg/L	
<b>Nitrogen - Total TMZ-M06 W09-023(ADEL)</b>			10/05/2019
Nitrogen - Total		0.56 mg/L	
<b>Phosphorus - Total T0109-01 W09-023(ADEL)</b>			14/05/2019
Phosphorus - Total	0.005	0.013 mg/L	
<b>TKN as N T0112-01 W09-023(ADEL)</b>			14/05/2019
TKN as Nitrogen	0.05	0.50 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
<b>Conductivity &amp; Total Dissolved Solids T0016-01 W09-023(ADEL)</b>			13/05/2019
Conductivity	2	282 µS/cm	
Total Dissolved Solids (by EC)	1	150 mg/L	
<b>pH T0010-01 W09-023(ADEL)</b>			13/05/2019
pH		8.0 pH units	
Temperature at which pH is measured		22.2 °C	



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Collection Type	AWQC Collected

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**Turbidity T0018-01 W09-023(ADEL)**

13/05/2019

Turbidity	0.1	<0.1 NTU
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**AWQC Signatories**

Mira Banasiak - Supervisor Bacteriology

Dzung Bui - Supervisor Metals and Physical

Kerrie Davey - Supervisor Nutrients and Waste

Gayle Polley - Snr Technical Officer



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**Guidelines**

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

**Analytical Method**

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

**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**

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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.