



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

08/08/2022

Dear Simon

Please find attached the Final Analytical Report for

Customer Service Request: 122622-2022-CSR-1
Account: 122622
Project: AWQC-173240 Barossa Infrastructure Ltd - Routine 22/23

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,

Jason Cutler
Customer Service Officer
Jason.Cutler@sawater.com.au





FINAL REPORT: 344357

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Report Information

Project Name AWQC-173240
Customer Barossa Infrastructure Ltd
CSR_ID 122622-2022-CSR-1

Analytical Results

Sampling Point 84513-Barossa Infrastructure Ltd - Fromms Square Williamstown
Sampled Date 22/07/2022 7:52:33AM
Sample Received Date 22/07/2022 7:52:33AM
Sample Analysis Completed 5/08/2022 3:55:17PM
Sample ID *2022-005-6196
Status Endorsed
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)			22/07/2022
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)			25/07/2022
Arsenic - Total	0.0003	<0.0003 mg/L	
Boron - Soluble TIC-006 W09-023(ADEL)			25/07/2022
Boron - Soluble	0.020	0.026 mg/L	
Cadmium - Total TIC-006 W09-023(ADEL)			25/07/2022
Cadmium - Total	0.0001	<0.0001 mg/L	
Calcium TIC-004 W09-023(ADEL)			25/07/2022
Calcium	0.1	16.7 mg/L	
Chromium - Total TIC-006 W09-023(ADEL)			25/07/2022
Chromium - Total	0.0001	0.0016 mg/L	
Iron - Total TIC-006 W09-023(ADEL)			25/07/2022
Iron - Total	0.0005	0.0659 mg/L	
Lead - Total TIC-006 W09-023(ADEL)			25/07/2022
Lead - Total	0.0001	0.0004 mg/L	
Magnesium TIC-004 W09-023(ADEL)			25/07/2022
Magnesium	0.05	5.57 mg/L	
Manganese - Total TIC-006 W09-023(ADEL)			25/07/2022



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Manganese - Total TIC-006 W09-023(ADEL)			25/07/2022
Manganese - Total	0.0001	0.0109 mg/L	
Potassium TIC-004 W09-023(ADEL)			25/07/2022
Potassium	0.05	4.11 mg/L	
Sodium Adsorption Ratio TMZ-M06 W09-023(ADEL)			22/07/2022
Sodium Adsorption Ratio - Calculation		1.59	
Sodium TIC-004 W09-023(ADEL)			25/07/2022
Sodium	0.1	29.4 mg/L	
Sulphur TIC-006 W09-023(ADEL)			25/07/2022
Sulphate	0.6	44.4 mg/L	
Sulphur	0.2	14.8 mg/L	
Total Hardness as CaCO₃ TMZ-M06 W09-023(ADEL)			22/07/2022
Total Hardness as CaCO ₃	2.0	65 mg/L	
Zinc - Total TIC-006 W09-023(ADEL)			25/07/2022
Zinc - Total	0.0003	0.0126 mg/L	

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Ammonia as N T0100-01 W09-023(ADEL)			26/07/2022
Ammonia as N	0.005	0.765 mg/L	
Chloride T0104-02 W09-023(ADEL)			25/07/2022
Chloride	4.0	28 mg/L	
Nitrate + Nitrite as N T0161-01 W09-023(ADEL)			03/08/2022
Nitrate + Nitrite as N	0.003	0.222 mg/L	
Nitrogen - Total TMZ-M06 W09-023(ADEL)			22/07/2022
Nitrogen - Total		0.96 mg/L	
Phosphorus - Total T0109-01 W09-023(ADEL)			04/08/2022
Phosphorus - Total	0.005	0.038 mg/L	
TKN as N T0112-01 W09-023(ADEL)			04/08/2022
TKN as Nitrogen	0.05	0.74 mg/L	



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Organic Chemistry	LOR	Result	Test Start Date
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Sample temperature at time of receipt NA

Organophosphorous and Triazine Pesticides T0800-01 W09-023(ADEL) 25/07/2022

Atrazine	0.5	<0.5 µg/L
Azinphos-methyl	0.5	<0.5 µg/L
Diazinon	0.5	<0.5 µg/L
Fenitrothion	0.5	<0.5 µg/L
Hexazinone	0.5	<0.5 µg/L
Malathion	0.5	<0.5 µg/L
Parathion	0.5	<0.5 µg/L
Parathion methyl	0.3	<0.3 µg/L
Prometryne	0.5	<0.5 µg/L
Simazine	0.5	<0.5 µg/L

Trihalomethanes T0050-01 W09-023(ADEL) 26/07/2022

Bromodichloromethane	1	1 µg/L
Bromoform	1	<1 µg/L
Chloroform	1	4 µg/L
Dibromochloromethane	1	<1 µg/L
Trihalomethanes - Total	4	5 µg/L

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
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Sample temperature at time of receipt NA

Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01 W09-023(ADEL) 25/07/2022

Alkalinity as Calcium Carbonate		52 mg/L
Bicarbonate		63 mg/L
Carbonate		0 mg/L
Hydroxide		0 mg/L

Conductivity & Total Dissolved Solids T0016-01 W09-023(ADEL) 25/07/2022

Conductivity	2	303 µS/cm
Note		Conductivity measurement is corrected to 25°C



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Conductivity & Total Dissolved Solids T0016-01 W09-023(ADEL)		25/07/2022
Total Dissolved Solids (by EC)	1	167 mg/L
pH T0010-01 W09-023(ADEL)		25/07/2022
pH		8.2 pH units
Temperature at which pH is measured		22.1 °C
Turbidity T0018-01 W09-023(ADEL)		25/07/2022
Turbidity	0.1	1.2 NTU

Sampling	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Chlorine T0012-01 W09-023(ADEL)			22/07/2022
Chlorine - Free	0.1	<0.1 mg/L	
Chlorine - Total	0.1	3.8 mg/L	
Monochloramine	0.1	3.8 mg/L	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt NA</i>			
Biochemical Oxygen Demand - Total T0153-01 W09-023(ADEL)			22/07/2022
Biochemical Oxygen Demand	2	3 mg/L	
Suspended Solids T0160-01 W09-023(ADEL)			22/07/2022
Suspended Solids	1.0	<1 mg/L	



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AWQC Signatories

Dzung Bui - Supervisor Metals and Physical

Vickie Dalglish - Senior Technical Officer Bacteriology & Molecular Testing

Thuy Diep - Technical Officer Chemistry

David Evans - Technical Officer Chemistry

Kerrie Jooste - Manager Chemistry Services

Aji John - Technical Officer Chemistry

Melissa Phillips - Technical Officer Chemistry

Gayle Polley - Supervisor Nutrients and Waste

Kamilla Springer - Senior Technical Officer Chemistry

Sam Williams - Senior Field Technician



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Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2022-005-6196	84513	Barossa Infrastructure Ltd - Fromms Square Williamstown	22/07/2022	Turbidity	Test not processed within holding time
2022-005-6196	84513	Barossa Infrastructure Ltd - Fromms Square Williamstown	22/07/2022	pH	Test not processed within holding time
2022-005-6196	84513	Barossa Infrastructure Ltd - Fromms Square Williamstown	22/07/2022	TKN as N	Dependent results are within acceptable analytical uncertainty
2022-005-6197	921120	Barossa Infrastructure CWMS Supply cnr Gomersal and Fromm Rd Tanunda	22/07/2022	Turbidity	Test not processed within holding time
2022-005-6197	921120	Barossa Infrastructure CWMS Supply cnr Gomersal and Fromm Rd Tanunda	22/07/2022	pH	Test not processed within holding time

Analytical Method

Analytical Method Code	Description	Reference Method
W-052	Preparation of Samples for Metal Analysis	AP3030AD
T0800-01	Nitrogen and Phosphorous Containing Pesticides	USEPA507
TMZ-M06	Derived Results and Data Checks	
T0101-01	Alkalinity - Automated Acidimetric Titration	AP2320B
T0104-02	Chloride - Discrete Analyser	AP4500CLE
T0018-01	Turbidity - Nephelometric Measurement	APAWWA-WEF
TMZ-M06	Derived Results and Data Checks	AP4500NORGA
T0160-01	Suspended Solids 103C to 105C	AP4500
T0100-01	Ammonia/Ammonium - Automated Flow Colorimetry	AP4500NH3G
T0050-01	Trihalomethanes	IH
T0109-01	Phosphorus - total by discrete analyser	AP4500PF
T0153-01	Biochemical Oxygen Demand	AP5210B
T0081-01	E. coli - Membrane filtration	USEPA1604_1H
T0012-01	Chlorine by classical and portable meter (field test)	AP4500CLF
T0112-01	Nitrogen- Total Kjeldahl by discrete analyser	AP4500NORGA
TMZ-M06	Derived Results and Data Checks	APHA2340B
T0016-01	Determination of Conductivity - Corrected to 25C	AP2510B
TIC-006	Elemental Analysis By ICP- MS	EPA200.8
T0161-01	Nitrate + Nitrate (NOx) - Automated Flow Colorimetry	AP4500NO3I
T0010-01	Determination of pH	AP4500HB
TIC-004	Determination of Metals - ICP Spectrometry by ICP2	AP3120



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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.

Laboratory Information

Laboratory	NATA accreditation ID
Inorganic Chemistry - Physical	1115
Inorganic Chemistry - Waste Water	1115
Sampling	1115
Inorganic Chemistry - Nutrients	1115
Organic Chemistry	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. Where a result is required to meet compliance limits the associated measurement uncertainty must be considered. Measurement uncertainty is available at <https://www.awqc.com.au/our-services/water-quality-testing-and-analysis/measurement-uncertainty>
 7. Uncertainty of Measurement is reported with a coverage factor of 2 providing approximately 95% confidence interval
 8. 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.
 9. 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.
 10. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
 11. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.