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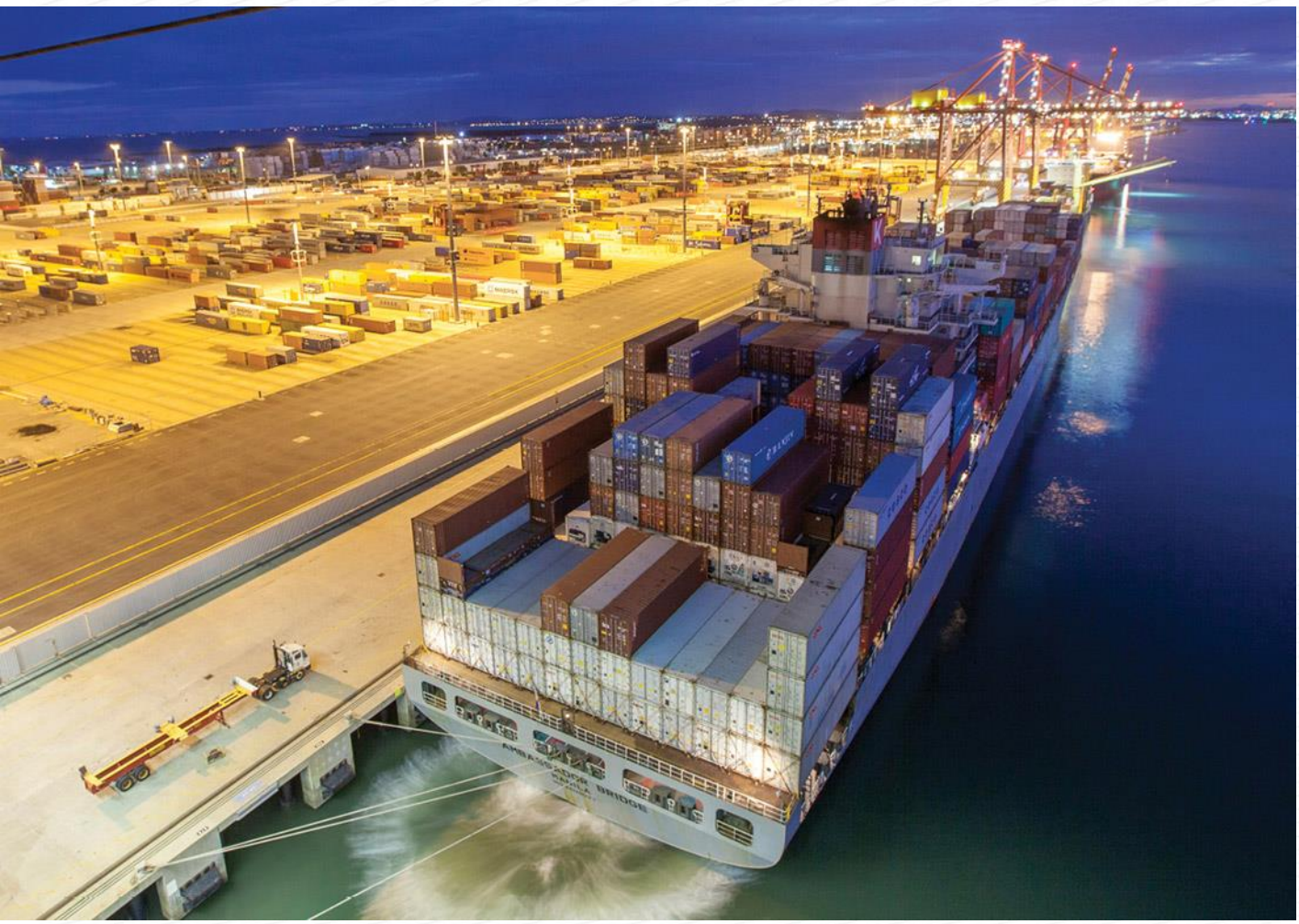
Drinking Water Quality Management Plan
2019-20 Annual Report

24 NOVEMBER 2020



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Introduction

The Port of Brisbane is located at the mouth of the Brisbane River on reclaimed land known as Fisherman Islands. The port is managed by the Port of Brisbane Pty Ltd (PBPL) and processes more than 2,600 ships each year.

PBPL is responsible for the site potable water reticulation network and is committed to ensuring that the water systems are managed so that the supply does not constitute a hazard to employees or the public. PBPL draws its drinking water supply from Queensland Urban Utilities' (UU) reticulated supply through metered supply points. The management of water quality until it is supplied to PBPL is the responsibility of Queensland Urban Utilities, however, the Australian Drinking Water Guidelines (ADWG) require management of drinking water quality through to the consumer. PBPL is considered a Water Service Provider under Queensland legislation and is required to have a Drinking Water Quality Management Plan (DWQMP) in place to manage water quality within its reticulation system.

A DWQMP was developed in early 2012 and submitted to the then Department of Energy and Water Supply (DEWS) in August 2012. The DWQMP was approved on 12 September 2012. Further correspondence from DEWS received on 16 October 2013 outlined repeal and re-approval of the DWQMP. The DWQMP was reviewed and updated in April 2014.

An external audit of the DWQMP was undertaken in March 2016 and the DWQMP underwent a significant review and was submitted to the Regulator in November 2016. In February 2017 PBPL received an Information Requirement Notice regarding the application for amendment, which PBPL then responded to in April 2017. In July 2017 a Further Information Request was received from DEWS in regards to PBPL's response to the Information Requirement Notice; the Further Information Request was addressed by PBPL in July 2017 as requested by DEWS. An Amendment Information Notice with conditional approval of the DWQMP was issued to PBPL in late July 2017, with conditions to be addressed by October 2017. PBPL addressed the conditions in a response to DEWS in October as requested, however in response DEWS directed PBPL to submit another application to amend the DWQMP – this application was submitted on 15 November 2017 and a decision was approved by DEWS on the January 2018. Recently an audit of the plan occurred in March 2020 and a review occurred in October 2020.

This report is the sixth annual report of the DWQMP and summarises all actions taken in the 2019-20 financial year in regards to the DWQMP. It should be acknowledged that during FY 2019-20, global pandemic COVID-19 resulted in alternative office arrangements at PBPL. The suspension of weekly E.coli sampling occurred between March and June.

Implementation of the DWQMP

Purpose and objectives of the DWQMP

The PBPL DWQMP contributes to maintaining a safe and reliable drinking water supply for consumers. The plan is based on the principles described in the Framework for Management of Drinking Water Quality contained in the Australian Drinking Water Guidelines 2004 (ADWG).

The purpose of the DWQMP is to provide an overview of PBPL's current management system for achieving/maintaining drinking water quality and plans to develop and continually improve the water quality management systems. The management plan focuses on the section of the drinking water scheme over which PBPL has direct control (reticulation operation, maintenance, monitoring and corrective action). The supply components over which PBPL has no control (catchment management, treatment and storage) are the responsibility of QUU and Seqwater and are considered by their respective DWQMP's.

Objectives of the DWQMP

The PBPL DWQMP addresses the 12 elements of the ADWG Framework in order to meet the required levels of service relating to drinking water quality and the legislative requirements of the Queensland *Water Supply (Safety and Reliability) Act 2008* and the *Queensland Public Health Regulation 2005*. The specific objectives of the Drinking Water Quality Management Plan are:

- To demonstrate due diligence and protect public health by implementing a management strategy to ensure a high quality water is supplied to consumers;
- To improve consumer confidence in water quality and the supplier;
- Clearly define current and future management procedures and strategies for maintaining water quality;
- Clearly define strategies for monitoring the quality of water supplied to consumers; and
- To implement a process for continual review, development and improvement of the water quality management system.

Implementation of the DWQMP

The PBPL DWQMP was implemented in its current form in October 2012. The PBPL DWQMP was reviewed and updated in April 2014. A significant review of the DWQMP was undertaken in 2016 with the revised document submitted to the Regulator for approval in November 2016. An application for approval of another revision of the plan was also approved in January 2018. Another audit occurred in March 2020 and the DWQMP was revised in October 2020.

DWQMP Review and Audit

DWQMP Review

A review of the DWQMP was undertaken in 2016 with the revised document submitted to the Regulator for approval in November 2016. A number of changes were made to the document. A new monitoring location (Pinkenba kitchen) was added to capture the provision of water on the northern side of the river. The BMT kitchen location was removed. An application for approval of another revision (addressing the requirements of an Information Requirement Notice and a Further Information Request received in response to PBPL's 2016 application for amendment of the plan) was approved by DEWS in January 2018.

A further review of the DWQMP was undertaken in October 2020.

DWQMP Audit

An audit of the DWQMP was undertaken in March 2020. A copy of the audit report was forwarded to the Regulator.

Monitoring and Compliance

Quarterly Monitoring

PBPL undertakes quarterly verification monitoring at five representative sites at the Port of Brisbane. The original DWQMP included only three test sites. A fourth site, Port West Bunnings, was added in September 2013 to capture water quality at the new PBPL Port West estate. A fifth site, reclamation, was added in May 2014 to capture water quality at the Port of Brisbane reclamation site office.

Verification sampling was undertaken September 2019, December 2019, March 2020 and June 2020.

No exceedances were recorded in FY19-20.

Elevated levels of heterotrophic plate count were detected during each sampling period across each site. No action was taken in regards to these levels.

E.coli Monitoring

PBPL undertake weekly monitoring for E.coli at the PBPL Main Office. Initial samples are tested in a desktop E.coli sample kit. Where results indicate possible E.coli, a sample is sent to a laboratory for analysis. It should be noted that during the COVID-19 pandemic, alternative office arrangements occurred resulting in the suspension of sampling between March and June of FY19-20.

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. samples collected	5	4	4	5	4	3	4	4	1	0	0	0
No. samples collected in which E.coli detected	0	0	0	0	0	0	0	0	0	0	0	0
No. detections in previous 12 months	0	0	0	0	0	0	0	0	0	0	0	0
% samples that comply	100	100	100	100	100	100	100	100	100	0	0	0
Compliance with 98% annual value	yes	yes	yes	yes	yes	yes	yes	yes	yes	nil	nil	nil

Additional Monitoring

Sampling for legionella is now undertaken at all sites. When legionella counts are detected, the water is flushed and retested until nil counts are recorded. No legionella counts of concern were detected.

Complaints Management

There were no complaints in the reporting period.

Appendix

September 2019

Analyte	Unit	Australian Drinking Water Quality Health Guidelines	BMT Kitchen	NPO Ground Floor	Port West	Reclaim	Ops Base Tea Room
pH	pH Unit	6.5-8.5 (aesthetic) No health guideline	7.82	7.96	8.03	8.19	8.14
TDS	mg/L	-	284	290	287	296	299
Colour (True)	PCU	-	3	2	2	2	2
Turbidity	NTU	-	3.2	0.3	0.4	0.4	0.4
Total Hardness as CaCO3	mg/L	-	113	127	129	130	132
Hydroxide Alkalinity as CaCO3	mg/L	-	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	-	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	-	90	97	101	110	101
Total Alkalinity as CaCO3	mg/L	-	90	97	101	110	101
Sulfate as SO4	mg/L	500	26	26	25	25	26
Chloride	mg/L	250 (aesthetic) No health guideline	60	70	69	69	69
Dissolved Major Cations							
Calcium	mg/L	-	24	26	27	29	28
Magnesium	mg/L	-	13	15	15	14	15
Sodium	mg/L	-	39	42	42	42	42
Potassium	mg/L	-	3	4	4	4	4
Dissolved Metals							
Aluminium	mg/L	-	<0.01	0.03	0.08	0.13	0.04
Antimony	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	2	0.028	0.032	0.034	0.047	0.032
Cadmium	mg/L	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	2	0.155	0.128	0.059	0.003	0.066

Lead	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/L	0.5	0.014	<0.001	0.001	<0.001	<0.001
Molybdenum	mg/L	0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	0.02	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	-	0.373	0.011	0.022	0.009	<0.005
Boron	mg/L	4	<0.05	<0.05	<0.05	<0.05	<0.05
Iron	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05
Total Metals							
Aluminium	mg/L	-	0.04	0.05	0.1	0.16	0.06
Antimony	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	2	0.027	0.034	0.036	0.046	0.032
Cadmium	mg/L	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	2	0.254	0.178	0.065	0.004	0.088
Lead	mg/L	0.01	0.002	0.001	<0.001	<0.001	<0.001
Manganese	mg/L	0.5	0.015	<0.001	0.002	<0.001	<0.001
Molybdenum	mg/L	0.05	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	0.02	<0.001	0.001	<0.001	<0.001	<0.001
Selenium	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	-	0.398	0.013	0.03	0.009	0.006
Boron	mg/L	4	<0.05	<0.05	<0.05	<0.05	<0.05
Iron	mg/L	-	0.41	<0.05	<0.05	<0.05	<0.05
Mercury	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total Cyanide	mg/L		<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	mg/L	1.5	0.6	0.7	0.7	0.7	0.8
Ammonia	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrite	mg/L	3	<0.01	<0.01	0.24	<0.01	<0.01
Nitrate	mg/L	50	0.44	0.52	0.26	0.59	0.53
Nitrite and Nitrate as N	mg/L	-	0.44	0.52	0.5	0.59	0.53
Sulfide as S2	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1
Monocyclic Aromatic Hydrocarbons							
Benzene	µg/L	1	<1	<1	<1	<1	<1
Toluene	µg/L	800	<2	<2	<2	<2	<2
Ethylbenzene	µg/L	300	<2	<2	<2	<2	<2

meta- & para-Xylene	µg/L	600	<2	<2	<2	<2	<2
Styrene	µg/L	30	<5	<5	<5	<5	<5
ortho-Xylene	µg/L	600	<2	<2	<2	<2	<2
Isopropylbenzene	µg/L	-	<5	<5	<5	<5	<5
n-Propylbenzene	µg/L	-	<5	<5	<5	<5	<5
1.3.5-Trimethylbenzene	µg/L	-	<5	<5	<5	<5	<5
sec-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
1.2.4-Trimethylbenzene	µg/L	-	<5	<5	<5	<5	<5
tert-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
p-Isopropyltoluene	µg/L	-	<5	<5	<5	<5	<5
n-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
Vinyl Acetate	µg/L	-	<50	<50	<50	<50	<50
2-Butanone (MEK)	µg/L	-	<50	<50	<50	<50	<50
4-Methyl-2-pentanone (MIBK)	µg/L	-	<50	<50	<50	<50	<50
2-Hexanone (MBK)	µg/L	-	<50	<50	<50	<50	<50
Carbon disulfide	µg/L	-	<5	<5	<5	<5	<5
2.2-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
1.2-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
cis-1.3-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
trans-1.3-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
1.2-Dibromoethane (EDB)	µg/L	-	<5	<5	<5	<5	<5
Halogenated Aliphatic Compounds							
Dichlorodifluoromethane	µg/L	-	<50	<50	<50	<50	<50
Chloromethane	µg/L	-	<50	<50	<50	<50	<50
Vinyl chloride	µg/L	0.3	<50	<50	<50	<50	<50
Bromomethane	µg/L	-	<50	<50	<50	<50	<50
Chloroethane	µg/L	-	<50	<50	<50	<50	<50
Trichlorofluoromethane	µg/L	-	<50	<50	<50	<50	<50
1.1-Dichloroethene	µg/L	30	<5	<5	<5	<5	<5
Iodomethane	µg/L	-	<5	<5	<5	<5	<5
trans-1.2-Dichloroethene	µg/L	60	<5	<5	<5	<5	<5
1.1-Dichloroethane	µg/L	-	<5	<5	<5	<5	<5
cis-1.2-Dichloroethene	µg/L	60	<5	<5	<5	<5	<5
1.1.1-Trichloroethane	µg/L	-	<5	<5	<5	<5	<5
1.1-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/L	3	<5	<5	<5	<5	<5
1.2-Dichloroethane	µg/L	3	<5	<5	<5	<5	<5
Trichloroethene	µg/L	-	<5	<5	<5	<5	<5
Dibromomethane	µg/L	-	<5	<5	<5	<5	<5
1.1.2-Trichloroethane	µg/L	-	<5	<5	<5	<5	<5

1.3-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
Tetrachloroethene	µg/L	50	<5	<5	<5	<5	<5
1.1.1.2-Tetrachloroethane	µg/L	-	<5	<5	<5	<5	<5
trans-1.4-Dichloro-2-butene	µg/L	-	<5	<5	<5	<5	<5
cis-1.4-Dichloro-2-butene	µg/L	-	<5	<5	<5	<5	<5
1.1.2.2-Tetrachloroethane	µg/L	-	<5	<5	<5	<5	<5
1.2.3-Trichloropropane	µg/L	-	<5	<5	<5	<5	<5
Pentachloroethane	µg/L	-	<5	<5	<5	<5	<5
1.2-Dibromo-3-chloropropane	µg/L	-	<5	<5	<5	<5	<5
Hexachlorobutadiene	µg/L	0.7	<5	<5	<5	<5	<5
Halogenated Aromatic Compounds							
Chlorobenzene	µg/L	300	<5	<5	<5	<5	<5
Bromobenzene	µg/L	-	<5	<5	<5	<5	<5
2-Chlorotoluene	µg/L	-	<5	<5	<5	<5	<5
4-Chlorotoluene	µg/L	-	<5	<5	<5	<5	<5
1.3-Dichlorobenzene	µg/L	-	<5	<5	<5	<5	<5
1.4-Dichlorobenzene	µg/L	40	<5	<5	<5	<5	<5
1.2-Dichlorobenzene	µg/L	1500	<5	<5	<5	<5	<5
1.2.4-Trichlorobenzene	µg/L	30	<5	<5	<5	<5	<5
1.2.3-Trichlorobenzene	µg/L	30	<5	<5	<5	<5	<5
Trihalomethanes							
Chloroform	µg/L	250	7	6	7	7	6
Bromodichloromethane	µg/L	250	9	6	12	<5	9
Dibromochloromethane	µg/L	250	12	8	18	<5	14
Bromoform	µg/L	250	<5	<5	9	<5	7
*Note: the concentration of trihalomethanes, either individually **or in total**, must not exceed 250 µg/L*							
Naphthalene	µg/L	-	<5	<5	<5	<5	<5
VOC Surrogates							
1.2-Dichloroethane-D4	%	-	72.2	95	67.2	68.7	96.1
Toluene-D8	%	-	107	106	105	102	103
4-Bromofluorobenzene	%	-	102	103	101	102	102
Total Petroleum Hydrocarbons							
C6 - C9 Fraction	µg/L	-	<20	<20	<20	<20	<20
C10 - C14 Fraction	µg/L	-	<50	<50	<50	<50	<50

C15 - C28 Fraction	µg/L	-	<100	<100	<100	<100	<100
C29 - C36 Fraction	µg/L	-	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)	µg/L	-	<50	<50	<50	<50	<50
Heterotrophic Plate Count (22°C)	CFU/mL	-	32	47	16	~6	~5
Heterotrophic Plate Count (36°C)	CFU/mL	-	250	78	~1500	34	78
Faecal Coliforms	CFU/100mL	nil	<1	<1	<1	<1	<1
Escherichia coli	CFU/100mL	nil	<1	<1	<1	<1	<1
Coliforms	CFU/100mL	nil	<1	~160	<1	<1	<1

December 2019

Analyte	Unit	Australian Drinking Water Quality Health Guidelines	BMT Kitchen	NPO Ground Floor	Port West	Reclaim	Ops Base Tea Room
pH	pH Unit	6.5-8.5 (aesthetic) No health guideline	7.86	7.88	7.91	8.24	8.08
TDS	mg/L	-	272	287	285	285	286
Colour (True)	PCU	-	2	2	2	2	2
Turbidity	NTU	-	1.7	0.4	0.4	0.2	0.5
Total Hardness as CaCO3	mg/L	-	127	133	133	137	134
Hydroxide Alkalinity as CaCO3	mg/L	-	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	-	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	-	100	106	104	112	111
Total Alkalinity as CaCO3	mg/L	-	100	106	104	112	111
Sulfate as SO4	mg/L	500	27	26	26	26	26
Chloride	mg/L	250 (aesthetic) No health guideline	72	77	76	74	77
Dissolved Major Cations							

Calcium	mg/L	-	26	27	27	30	29
Magnesium	mg/L	-	15	16	16	15	15
Sodium	mg/L	-	44	45	47	44	45
Potassium	mg/L	-	4	4	4	4	4
Dissolved Metals							
Aluminium	mg/L	-	0.05	0.06	0.08	0.18	0.07
Antimony	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	**0.01**	<0.001	<0.001	0.001	<0.001	<0.001
Barium	mg/L	**2**	0.033	0.032	0.034	0.047	0.032
Cadmium	mg/L	**0.002**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	**2**	0.26	0.24	0.046	0.005	0.054
Lead	mg/L	**0.01**	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/L	**0.5**	0.009	<0.001	0.001	<0.001	<0.001
Molybdenum	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	**0.02**	<0.001	0.001	<0.001	<0.001	<0.001
Selenium	mg/L	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	**0.1**	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	-	0.158	0.01	0.008	<0.005	<0.005
Boron	mg/L	**4**	<0.05	<0.05	<0.05	<0.05	<0.05
Iron	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05
Total Metals							
Aluminium	mg/L	-	0.07	0.06	0.09	0.18	0.08
Antimony	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	**0.01**	<0.001	<0.001	0.002	<0.001	<0.001
Barium	mg/L	**2**	0.034	0.034	0.037	0.052	0.037
Cadmium	mg/L	**0.002**	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	**2**	0.289	0.28	0.055	0.006	0.066
Lead	mg/L	**0.01**	0.001	0.001	<0.001	<0.001	<0.001
Manganese	mg/L	**0.5**	0.009	0.001	0.003	<0.001	<0.001
Molybdenum	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	**0.02**	<0.001	0.001	0.001	0.001	0.002
Selenium	mg/L	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	**0.1**	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	-	0.166	0.014	0.01	0.007	0.007
Boron	mg/L	**4**	<0.05	<0.05	<0.05	<0.05	<0.05
Iron	mg/L	-	0.18	<0.05	<0.05	<0.05	0.06
Mercury	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Total Cyanide	mg/L		<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	mg/L	**1.5**	0.8	0.9	0.8	0.9	0.8
Ammonia	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrite	mg/L	**3**	<0.01	<0.01	0.23	<0.01	<0.01
Nitrate	mg/L	**50**	0.45	0.66	0.33	0.74	0.63
Nitrite and Nitrate as N	mg/L	-	0.45	0.66	0.56	0.74	0.63
Sulfide as S2	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1
Monocyclic Aromatic Hydrocarbons							
Benzene	µg/L	**1**	<1	<1	<1	<1	<1
Toluene	µg/L	**800**	<2	<2	<2	<2	<2
Ethylbenzene	µg/L	**300**	<2	<2	<2	<2	<2
meta- & para-Xylene	µg/L	**600**	<2	<2	<2	<2	<2
Styrene	µg/L	**30**	<5	<5	<5	<5	<5
ortho-Xylene	µg/L	**600**	<2	<2	<2	<2	<2
Isopropylbenzene	µg/L	-	<5	<5	<5	<5	<5
n-Propylbenzene	µg/L	-	<5	<5	<5	<5	<5
1.3.5-Trimethylbenzene	µg/L	-	<5	<5	<5	<5	<5
sec-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
1.2.4-Trimethylbenzene	µg/L	-	<5	<5	<5	<5	<5
tert-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
p-Isopropyltoluene	µg/L	-	<5	<5	<5	<5	<5
n-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
Vinyl Acetate	µg/L	-	<50	<50	<50	<50	<50
2-Butanone (MEK)	µg/L	-	<50	<50	<50	<50	<50
4-Methyl-2-pentanone (MIBK)	µg/L	-	<50	<50	<50	<50	<50
2-Hexanone (MBK)	µg/L	-	<50	<50	<50	<50	<50
Carbon disulfide	µg/L	-	<5	<5	<5	<5	<5
2.2-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
1.2-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
cis-1.3-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
trans-1.3-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
1.2-Dibromoethane (EDB)	µg/L	-	<5	<5	<5	<5	<5
Halogenated Aliphatic Compounds							
Dichlorodifluoromethane	µg/L	-	<50	<50	<50	<50	<50
Chloromethane	µg/L	-	<50	<50	<50	<50	<50
Vinyl chloride	µg/L	**0.3**	<50	<50	<50	<50	<50
Bromomethane	µg/L	-	<50	<50	<50	<50	<50

Chloroethane	µg/L	-	<50	<50	<50	<50	<50
Trichlorofluoromethane	µg/L	-	<50	<50	<50	<50	<50
1.1-Dichloroethene	µg/L	**30**	<5	<5	<5	<5	<5
Iodomethane	µg/L	-	<5	<5	<5	<5	<5
trans-1.2-Dichloroethene	µg/L	**60**	<5	<5	<5	<5	<5
1.1-Dichloroethane	µg/L	-	<5	<5	<5	<5	<5
cis-1.2-Dichloroethene	µg/L	**60**	<5	<5	<5	<5	<5
1.1.1-Trichloroethane	µg/L	-	<5	<5	<5	<5	<5
1.1-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/L	**3**	<5	<5	<5	<5	<5
1.2-Dichloroethane	µg/L	**3**	<5	<5	<5	<5	<5
Trichloroethene	µg/L	-	<5	<5	<5	<5	<5
Dibromomethane	µg/L	-	<5	<5	<5	<5	<5
1.1.2-Trichloroethane	µg/L	-	<5	<5	<5	<5	<5
1.3-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
Tetrachloroethene	µg/L	**50**	<5	<5	<5	<5	<5
1.1.1.2-Tetrachloroethane	µg/L	-	<5	<5	<5	<5	<5
trans-1.4-Dichloro-2-butene	µg/L	-	<5	<5	<5	<5	<5
cis-1.4-Dichloro-2-butene	µg/L	-	<5	<5	<5	<5	<5
1.1.2.2-Tetrachloroethane	µg/L	-	<5	<5	<5	<5	<5
1.2.3-Trichloropropane	µg/L	-	<5	<5	<5	<5	<5
Pentachloroethane	µg/L	-	<5	<5	<5	<5	<5
1.2-Dibromo-3-chloropropane	µg/L	-	<5	<5	<5	<5	<5
Hexachlorobutadiene	µg/L	**0.7**	<5	<5	<5	<5	<5
Halogenated Aromatic Compounds							
Chlorobenzene	µg/L	**300**	<5	<5	<5	<5	<5
Bromobenzene	µg/L	-	<5	<5	<5	<5	<5
2-Chlorotoluene	µg/L	-	<5	<5	<5	<5	<5
4-Chlorotoluene	µg/L	-	<5	<5	<5	<5	<5
1.3-Dichlorobenzene	µg/L	-	<5	<5	<5	<5	<5
1.4-Dichlorobenzene	µg/L	**40**	<5	<5	<5	<5	<5
1.2-Dichlorobenzene	µg/L	**1500**	<5	<5	<5	<5	<5
1.2.4-Trichlorobenzene	µg/L	**30**	<5	<5	<5	<5	<5
1.2.3-Trichlorobenzene	µg/L	**30**	<5	<5	<5	<5	<5
Trihalomethanes							
Chloroform	µg/L	**250**	12	11	14	11	13
Bromodichloromethane	µg/L	**250**	18	<5	25	<5	14
Dibromochloromethane	µg/L	**250**	24	<5	33	<5	12
Bromoform	µg/L	**250**	10	<5	15	<5	<5

*Note: the concentration of trihalomethanes, either individually **or in total**, must not exceed 250 µg/L*							
Naphthalene	µg/L	-	<5	<5	<5	<5	<5
VOC Surrogates							
1.2-Dichloroethane-D4	%	-	106	97.1	104	99.2	99.3
Toluene-D8	%	-	102	103	101	101	104
4-Bromofluorobenzene	%	-	101	102	101	96.8	102
Total Petroleum Hydrocarbons							
C6 - C9 Fraction	µg/L	-	20	<20	30	<20	<20
C10 - C14 Fraction	µg/L	-	<50	<50	<50	<50	<50
C15 - C28 Fraction	µg/L	-	<100	<100	<100	<100	<100
C29 - C36 Fraction	µg/L	-	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)	µg/L	-	<50	<50	<50	<50	<50
Heterotrophic Plate Count (22°C)	CFU/mL	-	24	15	61	25	31
Heterotrophic Plate Count (36°C)	CFU/mL	-	40	36	39	1500	24
Faecal Coliforms	CFU/100 mL	**nil**	<1	<1	<1	<1	<1
Escherichia coli	CFU/100 mL	**nil**	<1	<1	<1	<1	<1
Coliforms	CFU/100 mL	**nil**	<1	~7	<1	<1	~1

March 2020

Analyte	Unit	Australian Drinking Water Quality Health Guidelines	BMT Kitchen	NPO Ground Floor	Port West	Reclaim	Ops Base Tea Room
pH	pH Unit	6.5-8.5 (aesthetic) No health guideline	7.67	7.77	7.77	8.13	8.02
TDS	mg/L	-	249	269	238	297	249
Colour (True)	PCU	-	2	2	2	2	2
Turbidity	NTU	-	5	0.2	0.2	0.2	0.3
Total Hardness as CaCO3	mg/L	-	105	124	110	131	118
Hydroxide Alkalinity as CaCO3	mg/L	-	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	-	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	-	77	87	79	94	84
Total Alkalinity as CaCO3	mg/L	-	77	87	79	94	84
Sulfate as SO4	mg/L	500	40	34	29	43	30
Chloride	mg/L	250 (aesthetic) No health guideline	63	68	63	76	62
Dissolved Major Cations							
Calcium	mg/L	-	24	30	26	31	29
Magnesium	mg/L	-	11	12	11	13	11
Sodium	mg/L	-	45	42	38	51	38
Potassium	mg/L	-	3	4	3	4	3
Dissolved Metals							
Aluminium	mg/L	-	0.02	0.04	0.05	0.08	0.05
Antimony	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	**0.01**	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	**2**	0.026	0.031	0.03	0.045	0.028
Cadmium	mg/L	**0.002**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	**2**	0.283	0.315	0.057	0.006	0.053
Lead	mg/L	**0.01**	<0.001	<0.001	<0.001	<0.001	<0.001

Manganese	mg/L	**0.5**	0.017	<0.001	<0.001	<0.001	<0.001
Molybdenum	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	**0.02**	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium	mg/L	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	**0.1**	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	-	0.358	0.021	0.014	0.006	0.006
Boron	mg/L	**4**	0.05	<0.05	<0.05	<0.05	<0.05
Iron	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05
Total Metals							
Aluminium	mg/L	-	0.04	0.04	0.06	0.08	0.05
Antimony	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	**0.01**	<0.001	<0.001	0.002	<0.001	<0.001
Barium	mg/L	**2**	0.026	0.032	0.03	0.046	0.029
Cadmium	mg/L	**0.002**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	**2**	0.387	0.304	0.057	0.005	0.049
Lead	mg/L	**0.01**	0.001	0.001	<0.001	<0.001	<0.001
Manganese	mg/L	**0.5**	0.017	<0.001	0.001	<0.001	<0.001
Molybdenum	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	**0.02**	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium	mg/L	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	**0.1**	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	-	0.362	0.019	0.014	0.006	<0.005
Boron	mg/L	**4**	<0.05	<0.05	<0.05	<0.05	<0.05
Iron	mg/L	-	0.45	<0.05	<0.05	<0.05	<0.05
Mercury	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total Cyanide	mg/L		<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	mg/L	**1.5**	0.4	0.7	0.6	0.5	0.7
Ammonia	mg/L	-	0.01	<0.01	0.02	<0.01	<0.01
Nitrite	mg/L	**3**	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate	mg/L	**50**	0.34	0.59	0.52	0.65	0.54
Nitrite and Nitrate as N	mg/L	-	0.34	0.59	0.52	0.65	0.54
Sulfide as S2	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1
Monocyclic Aromatic Hydrocarbons							
Benzene	µg/L	**1**	<1	<1	<1	<1	<1
Toluene	µg/L	**800**	<2	<2	<2	<2	<2
Ethylbenzene	µg/L	**300**	<2	<2	<2	<2	<2
meta- & para-Xylene	µg/L	**600**	<2	<2	<2	<2	<2

Styrene	µg/L	**30**	<5	<5	<5	<5	<5
ortho-Xylene	µg/L	**600**	<2	<2	<2	<2	<2
Isopropylbenzene	µg/L	-	<5	<5	<5	<5	<5
n-Propylbenzene	µg/L	-	<5	<5	<5	<5	<5
1.3.5-Trimethylbenzene	µg/L	-	<5	<5	<5	<5	<5
sec-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
1.2.4-Trimethylbenzene	µg/L	-	<5	<5	<5	<5	<5
tert-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
p-Isopropyltoluene	µg/L	-	<5	<5	<5	<5	<5
n-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
Vinyl Acetate	µg/L	-	<50	<50	<50	<50	<50
2-Butanone (MEK)	µg/L	-	<50	<50	<50	<50	<50
4-Methyl-2-pentanone (MIBK)	µg/L	-	<50	<50	<50	<50	<50
2-Hexanone (MBK)	µg/L	-	<50	<50	<50	<50	<50
Carbon disulfide	µg/L	-	<5	<5	<5	<5	<5
2.2-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
1.2-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
cis-1.3-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
trans-1.3-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
1.2-Dibromoethane (EDB)	µg/L	-	<5	<5	<5	<5	<5
Halogenated Aliphatic Compounds							
Dichlorodifluoromethane	µg/L	-	<50	<50	<50	<50	<50
Chloromethane	µg/L	-	<50	<50	<50	<50	<50
Vinyl chloride	µg/L	**0.3**	<50	<50	<50	<50	<50
Bromomethane	µg/L	-	<50	<50	<50	<50	<50
Chloroethane	µg/L	-	<50	<50	<50	<50	<50
Trichlorofluoromethane	µg/L	-	<50	<50	<50	<50	<50
1.1-Dichloroethene	µg/L	**30**	<5	<5	<5	<5	<5
Iodomethane	µg/L	-	<5	<5	<5	<5	<5
trans-1.2-Dichloroethene	µg/L	**60**	<5	<5	<5	<5	<5
1.1-Dichloroethane	µg/L	-	<5	<5	<5	<5	<5
cis-1.2-Dichloroethene	µg/L	**60**	<5	<5	<5	<5	<5
1.1.1-Trichloroethane	µg/L	-	<5	<5	<5	<5	<5
1.1-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/L	**3**	<5	<5	<5	<5	<5
1.2-Dichloroethane	µg/L	**3**	<5	<5	<5	<5	<5
Trichloroethene	µg/L	-	<5	<5	<5	<5	<5
Dibromomethane	µg/L	-	<5	<5	<5	<5	<5
1.1.2-Trichloroethane	µg/L	-	<5	<5	<5	<5	<5
1.3-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5

Tetrachloroethene	µg/L	**50**	<5	<5	<5	<5	<5
1.1.1.2-Tetrachloroethane	µg/L	-	<5	<5	<5	<5	<5
trans-1.4-Dichloro-2-butene	µg/L	-	<5	<5	<5	<5	<5
cis-1.4-Dichloro-2-butene	µg/L	-	<5	<5	<5	<5	<5
1.1.2.2-Tetrachloroethane	µg/L	-	<5	<5	<5	<5	<5
1.2.3-Trichloropropane	µg/L	-	<5	<5	<5	<5	<5
Pentachloroethane	µg/L	-	<5	<5	<5	<5	<5
1.2-Dibromo-3-chloropropane	µg/L	-	<5	<5	<5	<5	<5
Hexachlorobutadiene	µg/L	**0.7**	<5	<5	<5	<5	<5
Halogenated Aromatic Compounds							
Chlorobenzene	µg/L	**300**	<5	<5	<5	<5	<5
Bromobenzene	µg/L	-	<5	<5	<5	<5	<5
2-Chlorotoluene	µg/L	-	<5	<5	<5	<5	<5
4-Chlorotoluene	µg/L	-	<5	<5	<5	<5	<5
1.3-Dichlorobenzene	µg/L	-	<5	<5	<5	<5	<5
1.4-Dichlorobenzene	µg/L	**40**	<5	<5	<5	<5	<5
1.2-Dichlorobenzene	µg/L	**1500**	<5	<5	<5	<5	<5
1.2.4-Trichlorobenzene	µg/L	**30**	<5	<5	<5	<5	<5
1.2.3-Trichlorobenzene	µg/L	**30**	<5	<5	<5	<5	<5
Trihalomethanes							
Chloroform	µg/L	**250**	20	18	25	18	20
Bromodichloromethane	µg/L	**250**	19	<5	30	<5	13
Dibromochloromethane	µg/L	**250**	16	<5	24	<5	<5
Bromoform	µg/L	**250**	5	<5	6	<5	<5
*Note: the concentration of trihalomethanes, either individually **or in total**, must not exceed 250 µg/L*							
Naphthalene	µg/L	-	<5	<5	<5	<5	<5
VOC Surrogates							
1.2-Dichloroethane-D4	%	-	101	102	106	104	103
Toluene-D8	%	-	97.9	100	91.8	98.5	104
4-Bromofluorobenzene	%	-	101	98.2	95.4	99.5	101
Total Petroleum Hydrocarbons							
C6 - C9 Fraction	µg/L	-	<20	<20	20	<20	<20
C10 - C14 Fraction	µg/L	-	<50	<50	<50	<50	<50
C15 - C28 Fraction	µg/L	-	<100	<100	<100	<100	<100

C29 - C36 Fraction	µg/L	-	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)	µg/L	-	<50	<50	<50	<50	<50
Heterotrophic Plate Count (22°C)	CFU/mL	-	34	~3	<1	~5	~1
Heterotrophic Plate Count (36°C)	CFU/mL	-	230	~6	~2	66	~7
Faecal Coliforms	CFU/100 mL	**nil**	<1	<1	<1	<1	<1
Escherichia coli	CFU/100 mL	**nil**	<1	<1	<1	<1	<1
Coliforms	CFU/100 mL	**nil**	<1	14	35	1	~2

June 2020

Analyte	Unit	Australian Drinking Water Quality Health Guidelines	BMT Kitchen	NPO Ground Floor	Port West	Reclaim	Ops Base Tea Room
pH	pH Unit	6.5-8.5 (aesthetic) No health guideline	7.95	8.06	8	8.16	8.11
TDS	mg/L	-	274	277	274	285	283
Colour (True)	PCU	-	2	2	2	2	2
Turbidity	NTU	-	1.2	0.4	0.4	0.2	0.5
Total Hardness as CaCO3	mg/L	-	127	132	129	139	134
Hydroxide Alkalinity as CaCO3	mg/L	-	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	mg/L	-	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	mg/L	-	97	98	97	106	102
Total Alkalinity as CaCO3	mg/L	-	97	98	97	106	102
Sulfate as SO4	mg/L	500	28	28	28	33	28
Chloride	mg/L	250 (aesthetic) No health guideline	72	72	73	72	74
Dissolved Major Cations							
Calcium	mg/L	-	26	28	27	31	29
Magnesium	mg/L	-	15	15	15	15	15
Sodium	mg/L	-	44	45	45	47	45
Potassium	mg/L	-	4	4	4	4	4
Dissolved Metals							
Aluminium	mg/L	-	0.03	0.04	0.04	0.11	0.04
Antimony	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	**0.01**	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	**2**	0.035	0.034	0.034	0.044	0.033
Cadmium	mg/L	**0.002**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	**2**	0.095	0.111	0.081	0.009	0.058
Lead	mg/L	**0.01**	<0.001	<0.001	<0.001	<0.001	<0.001

Manganese	mg/L	**0.5**	0.004	<0.001	<0.001	<0.001	<0.001
Molybdenum	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	**0.02**	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium	mg/L	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	**0.1**	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	-	0.126	0.009	0.018	0.008	<0.005
Boron	mg/L	**4**	<0.05	<0.05	<0.05	<0.05	<0.05
Iron	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05
Total Metals							
Aluminium	mg/L	-	0.09	0.05	0.05	0.11	0.04
Antimony	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	mg/L	**0.01**	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	**2**	0.04	0.038	0.039	0.048	0.037
Cadmium	mg/L	**0.002**	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	**2**	0.107	0.11	0.069	0.006	0.052
Lead	mg/L	**0.01**	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/L	**0.5**	0.008	<0.001	0.001	<0.001	<0.001
Molybdenum	mg/L	**0.05**	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	mg/L	**0.02**	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium	mg/L	**0.01**	<0.01	<0.01	<0.01	<0.01	<0.01
Silver	mg/L	**0.1**	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	-	0.163	0.008	0.018	0.007	<0.005
Boron	mg/L	**4**	<0.05	<0.05	<0.05	<0.05	<0.05
Iron	mg/L	-	0.13	<0.05	<0.05	<0.05	0.05
Mercury	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total Cyanide	mg/L		<0.004	<0.004	<0.004	<0.004	<0.004
Fluoride	mg/L	**1.5**	0.8	0.8	0.8	0.8	0.8
Ammonia	mg/L	-	0.26	0.02	0.02	0.02	<0.01
Nitrite	mg/L	**3**	0.03	0.21	0.05	<0.01	<0.01
Nitrate	mg/L	**50**	0.17	0.25	0.43	0.59	0.5
Nitrite and Nitrate as N	mg/L	-	0.2	0.46	0.48	0.59	0.5
Sulfide as S2	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1
Monocyclic Aromatic Hydrocarbons							
Benzene	µg/L	**1**	<1	<1	<1	<1	<1
Toluene	µg/L	**800**	<2	<2	<2	<2	<2
Ethylbenzene	µg/L	**300**	<2	<2	<2	<2	<2
meta- & para-Xylene	µg/L	**600**	<2	<2	<2	<2	<2

Styrene	µg/L	**30**	<5	<5	<5	<5	<5
ortho-Xylene	µg/L	**600**	<2	<2	<2	<2	<2
Isopropylbenzene	µg/L	-	<5	<5	<5	<5	<5
n-Propylbenzene	µg/L	-	<5	<5	<5	<5	<5
1.3.5-Trimethylbenzene	µg/L	-	<5	<5	<5	<5	<5
sec-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
1.2.4-Trimethylbenzene	µg/L	-	<5	<5	<5	<5	<5
tert-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
p-Isopropyltoluene	µg/L	-	<5	<5	<5	<5	<5
n-Butylbenzene	µg/L	-	<5	<5	<5	<5	<5
Vinyl Acetate	µg/L	-	<50	<50	<50	<50	<50
2-Butanone (MEK)	µg/L	-	<50	<50	<50	<50	<50
4-Methyl-2-pentanone (MIBK)	µg/L	-	<50	<50	<50	<50	<50
2-Hexanone (MBK)	µg/L	-	<50	<50	<50	<50	<50
Carbon disulfide	µg/L	-	<5	<5	<5	<5	<5
2.2-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
1.2-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5
cis-1.3-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
trans-1.3-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
1.2-Dibromoethane (EDB)	µg/L	-	<5	<5	<5	<5	<5
Halogenated Aliphatic Compounds							
Dichlorodifluoromethane	µg/L	-	<50	<50	<50	<50	<50
Chloromethane	µg/L	-	<50	<50	<50	<50	<50
Vinyl chloride	µg/L	**0.3**	<50	<50	<50	<50	<50
Bromomethane	µg/L	-	<50	<50	<50	<50	<50
Chloroethane	µg/L	-	<50	<50	<50	<50	<50
Trichlorofluoromethane	µg/L	-	<50	<50	<50	<50	<50
1.1-Dichloroethene	µg/L	**30**	<5	<5	<5	<5	<5
Iodomethane	µg/L	-	<5	<5	<5	<5	<5
trans-1.2-Dichloroethene	µg/L	**60**	<5	<5	<5	<5	<5
1.1-Dichloroethane	µg/L	-	<5	<5	<5	<5	<5
cis-1.2-Dichloroethene	µg/L	**60**	<5	<5	<5	<5	<5
1.1.1-Trichloroethane	µg/L	-	<5	<5	<5	<5	<5
1.1-Dichloropropylene	µg/L	-	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/L	**3**	<5	<5	<5	<5	<5
1.2-Dichloroethane	µg/L	**3**	<5	<5	<5	<5	<5
Trichloroethene	µg/L	-	<5	<5	<5	<5	<5
Dibromomethane	µg/L	-	<5	<5	<5	<5	<5
1.1.2-Trichloroethane	µg/L	-	<5	<5	<5	<5	<5
1.3-Dichloropropane	µg/L	-	<5	<5	<5	<5	<5

Tetrachloroethene	µg/L	**50**	<5	<5	<5	<5	<5
1.1.1.2-Tetrachloroethane	µg/L	-	<5	<5	<5	<5	<5
trans-1.4-Dichloro-2-butene	µg/L	-	<5	<5	<5	<5	<5
cis-1.4-Dichloro-2-butene	µg/L	-	<5	<5	<5	<5	<5
1.1.2.2-Tetrachloroethane	µg/L	-	<5	<5	<5	<5	<5
1.2.3-Trichloropropane	µg/L	-	<5	<5	<5	<5	<5
Pentachloroethane	µg/L	-	<5	<5	<5	<5	<5
1.2-Dibromo-3-chloropropane	µg/L	-	<5	<5	<5	<5	<5
Hexachlorobutadiene	µg/L	**0.7**	<5	<5	<5	<5	<5
Halogenated Aromatic Compounds							
Chlorobenzene	µg/L	**300**	<5	<5	<5	<5	<5
Bromobenzene	µg/L	-	<5	<5	<5	<5	<5
2-Chlorotoluene	µg/L	-	<5	<5	<5	<5	<5
4-Chlorotoluene	µg/L	-	<5	<5	<5	<5	<5
1.3-Dichlorobenzene	µg/L	-	<5	<5	<5	<5	<5
1.4-Dichlorobenzene	µg/L	**40**	<5	<5	<5	<5	<5
1.2-Dichlorobenzene	µg/L	**1500**	<5	<5	<5	<5	<5
1.2.4-Trichlorobenzene	µg/L	**30**	<5	<5	<5	<5	<5
1.2.3-Trichlorobenzene	µg/L	**30**	<5	<5	<5	<5	<5
Trihalomethanes							
Chloroform	µg/L	**250**	14	14	15	14	13
Bromodichloromethane	µg/L	**250**	23	20	22	<5	12
Dibromochloromethane	µg/L	**250**	29	24	25	<5	6
Bromoform	µg/L	**250**	8	7	7	<5	<5
*Note: the concentration of trihalomethanes, either individually **or in total**, must not exceed 250 µg/L*							
Naphthalene	µg/L	-	<5	<5	<5	<5	<5
VOC Surrogates							
1.2-Dichloroethane-D4	%	-	100	98.1	99.8	98.6	99.6
Toluene-D8	%	-	98.4	98.6	97.3	100	99.2
4-Bromofluorobenzene	%	-	93.5	94.6	94.2	96.6	94.6
Total Petroleum Hydrocarbons							
C6 - C9 Fraction	µg/L	-	30	30	30	<20	<20
C10 - C14 Fraction	µg/L	-	<50	<50	<50	<50	<50
C15 - C28 Fraction	µg/L	-	<100	<100	<100	<100	<100

C29 - C36 Fraction	µg/L	-	<50	<50	<50	<50	<50
C10 - C36 Fraction (sum)	µg/L	-	<50	<50	<50	<50	<50
Heterotrophic Plate Count (22°C)	CFU/mL	-	56	210	19	490	~8
Heterotrophic Plate Count (36°C)	CFU/mL	-	17	180	20	400	~8
Faecal Coliforms	CFU/100 mL	**nil**	<1	<1	<1	<1	<1
Escherichia coli	CFU/100 mL	**nil**	<1	<1	<1	<1	<1
Coliforms	CFU/100 mL	**nil**	<1	10	<1	<1	<1