



ANALYSIS REPORT

Client:	Food and Health Standards (2006) Limited	Lab No:	1846606	SPV1
Contact:	Lisa Shaw C/- Food and Health Standards (2006) Limited PO Box 7469 Christchurch 8240	Date Received:	20-Sep-2017	
		Date Reported:	29-Sep-2017	
		Quote No:	87133	
		Order No:		
		Client Reference:		
		Submitted By:	Lisa Shaw	

Sample Type: Aqueous

Sample Name:	Blythe - 134 Blyth Road 20-Sep-2017 9:40 am	Kaiwara - Eggleston oad 20-Sep-2017 10:20 am	Parnassus - Leader Road 20-Sep-2017 10:55 am	Waipara - Mckenzie's Road 20-Sep-2017 8:41 am	Peaks - 110 Costellos Road 20-Sep-2017 1:50 pm
Lab Number:	1846606.1	1846606.2	1846606.3	1846606.4	1846606.5
Individual Tests					
Monochloramine	g/m ³	< 0.05	< 0.05	< 0.05	< 0.05
Halogenated Acetic Acids in Water by GC-MS					
Bromochloroacetic acid	g/m ³	< 0.0005	0.0008	0.0006	0.0006
Dibromoacetic acid	g/m ³	< 0.0005	< 0.0005	< 0.0005	0.0012
Dichloroacetic acid	g/m ³	0.0016	0.0068	0.0006	< 0.0005
Monobromoacetic acid	g/m ³	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Monochloroacetic acid	g/m ³	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroacetic acid	g/m ³	0.0014	0.0073	< 0.0010	< 0.0010
Total HAA	g/m ³	< 0.010	0.015	< 0.010	< 0.010
Sum of HAA DWSNZ MAV ratios		< 0.3	< 0.3	< 0.3	< 0.3
Halogenated Volatile Disinfection By-Products in Water by GCMS					
Bromochloroacetonitrile	g/m ³	< 0.00014	< 0.00014	0.00018	0.00024
Bromodichloromethane	g/m ³	0.00086	0.00139	0.00089	0.00092
Bromoform (tribromomethane)	g/m ³	< 0.00007	< 0.00007	0.00012	0.0025
Carbon tetrachloride	g/m ³	< 0.0007	< 0.0007	< 0.0007	< 0.0007
Chloroform (Trichloromethane)	g/m ³	< 0.007	< 0.007	< 0.007	< 0.007
Chloropicrin	g/m ³	0.0004	0.0004	< 0.0003	< 0.0003
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Dibromoacetonitrile	g/m ³	< 0.0003	< 0.0003	< 0.0003	0.0007
Dibromochloromethane	g/m ³	0.00019	0.00011	0.00061	0.0025
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003	< 0.0003	< 0.0003	< 0.0003
1,1-Dichloro-2-propanone	g/m ³	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Dichloroacetonitrile	g/m ³	0.0003	0.0009	< 0.0003	< 0.0003
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.00014	< 0.00014	< 0.00014	< 0.00014
1,1,1-Trichloro-2-propanone	g/m ³	< 0.0003	0.0008	< 0.0003	< 0.0003
Trichloroacetonitrile	g/m ³	< 0.0003	< 0.0003	< 0.0003	< 0.0003
1,1,1-Trichloroethane	g/m ³	< 0.00014	< 0.00014	< 0.00014	< 0.00014
Trichloroethene (trichloroethylene)	g/m ³	< 0.00007	< 0.00007	< 0.00007	< 0.00007
Total Trihalomethanes (THM)	g/m ³	< 0.007	0.008	< 0.007	< 0.007
Chloroform MAV ratio		< 0.018	< 0.018	< 0.018	< 0.018
Bromodichloromethane MAV ratio		0.014	0.023	0.015	0.015
Dibromochloromethane MAV ratio		0.001	< 0.001	0.004	0.017
Bromoform MAV ratio		< 0.001	< 0.001	0.001	0.025
Sum of THM MAV ratios (NZ DW Stds)		0.020	0.041	0.022	0.058
Sum of Haloacetonitriles MAV ratios (NZ DW Stds)		0.016	0.047	< 0.016	< 0.016



Sample Type: Aqueous						
Sample Name:	Blythe - 134 Blyth Road 20-Sep-2017 9:40 am	Kaiwara - Eggleston oad 20-Sep-2017 10:20 am	Parnassus - Leader Road 20-Sep-2017 10:55 am	Waipara - Mckenzie's Road 20-Sep-2017 8:41 am	Peaks - 110 Costellos Road 20-Sep-2017 1:50 pm	
Lab Number:	1846606.1	1846606.2	1846606.3	1846606.4	1846606.5	
Sample Name:	Leithfield Beach - Lucas Drive 20-Sep-2017 3:06 pm	Balmoral - Long Plantation Rd 20-Sep-2017 1:21 pm	Waiau Rural - Inland d 20-Sep-2017 11:35 am			
Lab Number:	1846606.6	1846606.7	1846606.8			
Individual Tests						
Monochloramine	g/m ³	< 0.05	< 0.05	< 0.05	-	-
Halogenated Acetic Acids in Water by GC-MS						
Bromochloroacetic acid	g/m ³	< 0.0005	0.0007	0.0005	-	-
Dibromoacetic acid	g/m ³	< 0.0005	< 0.0005	< 0.0005	-	-
Dichloroacetic acid	g/m ³	< 0.0005	0.022	0.0011	-	-
Monobromoacetic acid	g/m ³	< 0.0005	< 0.0005	< 0.0005	-	-
Monochloroacetic acid	g/m ³	< 0.005	< 0.005	< 0.005	-	-
Trichloroacetic acid	g/m ³	< 0.0010	0.0133	< 0.0010	-	-
Total HAA	g/m ³	< 0.010	0.036	< 0.010	-	-
Sum of HAA DWSNZ MAV ratios		< 0.3	0.5	< 0.3	-	-
Halogenated Volatile Disinfection By-Products in Water by GCMS						
Bromochloroacetonitrile	g/m ³	< 0.00014	< 0.00014	0.00020	-	-
Bromodichloromethane	g/m ³	0.00009	0.00133	0.00095	-	-
Bromoform (tribromomethane)	g/m ³	0.0023	< 0.00007	< 0.00007	-	-
Carbon tetrachloride	g/m ³	< 0.0007	< 0.0007	< 0.0007	-	-
Chloroform (Trichloromethane)	g/m ³	< 0.007	0.026	< 0.007	-	-
Chloropicrin	g/m ³	< 0.0003	0.0004	< 0.0003	-	-
1,2-Dibromo-3-chloropropane	g/m ³	< 0.0003	< 0.0003	< 0.0003	-	-
Dibromoacetonitrile	g/m ³	0.0003	< 0.0003	< 0.0003	-	-
Dibromochloromethane	g/m ³	0.00044	< 0.00007	0.00039	-	-
1,2-Dibromoethane (ethylene dibromide, EDB)	g/m ³	< 0.0003	< 0.0003	< 0.0003	-	-
1,1-Dichloro-2-propanone	g/m ³	< 0.0003	0.0011	< 0.0003	-	-
Dichloroacetonitrile	g/m ³	< 0.0003	0.0006	< 0.0003	-	-
Tetrachloroethene (tetrachloroethylene)	g/m ³	< 0.00014	< 0.00014	< 0.00014	-	-
1,1,1-Trichloro-2-propanone	g/m ³	< 0.0003	0.0017	< 0.0003	-	-
Trichloroacetonitrile	g/m ³	< 0.0003	< 0.0003	< 0.0003	-	-
1,1,1-Trichloroethane	g/m ³	< 0.00014	< 0.00014	< 0.00014	-	-
Trichloroethene (trichloroethylene)	g/m ³	< 0.00007	< 0.00007	< 0.00007	-	-
Total Trihalomethanes (THM)	g/m ³	< 0.007	0.028	< 0.007	-	-
Chloroform MAV ratio		< 0.018	0.066	< 0.018	-	-
Bromodichloromethane MAV ratio		0.001	0.022	0.016	-	-
Dibromochloromethane MAV ratio		0.003	< 0.001	0.003	-	-
Bromoform MAV ratio		0.023	< 0.001	< 0.001	-	-
Sum of THM MAV ratios (NZ DW Stds)		0.027	0.088	0.023	-	-
Sum of Haloacetonitriles MAV ratios (NZ DW Stds)		< 0.016	0.030	< 0.016	-	-

SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Halogenated Acetic Acids in Water by GC-MS*	Solvent extraction, methylation, GC-MS SIM analysis Analysis performed at 1 Clyde Street, Hamilton	-	1-8
Halogenated Volatile Disinfection By-Products in Water by GCMS	Solvent extraction, GC-MS SIM analysis Analysis performed at 1 Clyde Street, Hamilton	-	1-8
Monochloramine	Colorimetric. APHA 4500-Cl G 22 nd ed. 2012.	0.05 g/m ³	1-8

Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Sum of HAA DWSNZ MAV ratios	Calculated as the sum of the individual haloacetic acids specified in DWSNZ (monochloroacetic acid, dichloroacetic acid and trichloroacetic acid) to their respective Maximum Allowable Values (MAVs). Analysis performed at 1 Clyde Street, Hamilton. Drinking-water Standards for New Zealand 2005 (Revised 2008), Section 8.2.1.1.	0.001	1-8
Sum of Haloacetonitriles MAV ratios (NZ DW Stds)	Calculated as the sum of the individual haloacetonitriles specified in DWSNZ (dibromoacetonitrile & dichloroacetonitrile) to their respective Maximum Allowable Values (MAVs). Analysis performed at 1 Clyde Street, Hamilton.	0	1-8

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

This report must not be reproduced, except in full, without the written consent of the signatory.



Ara Heron BSc (Tech)
Client Services Manager - Environmental