

Your C.O.C. #: 545772-01-01

**Attention: Donna Michiel**

Mill Bay Water District  
PO Box 58  
875 Deloume Road  
Mill Bay, BC  
Canada V0R 2P0

**Report Date: 2018/02/15**

Report #: R2515330

Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B806905**

**Received: 2018/01/29, 14:40**

Sample Matrix: DRINKING WATER

# Samples Received: 3

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Formic, Acetic, Propionic & Butyric Acid (1)	1	N/A	2018/01/31	CAL SOP-00063	Dionex #031181 R07 m
Alkalinity - Water	3	2018/02/15	2018/02/15	BBY6SOP-00026	SM 22 2320 B m
Chloride by Automated Colourimetry	3	N/A	2018/02/01	BBY6SOP-00011	SM 22 4500-Cl- E m
True Colour (Single Wavelength) (2)	3	N/A	2018/02/01	VIC SOP-00010	SM 22 2120 C m
Fluoride	3	N/A	2018/02/01	BBY6SOP-00048	SM 22 4500-F C m
Iron Bacteria (2)	3	N/A	2018/01/30	VIC SOP-00114	SM 22 9240 m
Sulphide (as H <sub>2</sub> S) Calculation - total	3	N/A	2018/02/05	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO <sub>3</sub> ) (3)	3	N/A	2018/02/02	BBY WI-00033	Auto Calc
Mercury (Total) by CVAF	3	2018/02/01	2018/02/01	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Heterotropic Plate Count Water Mem. Filt (2)	3	N/A	2018/01/30	BBY4 SOP-00003	Based on SM-9215
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2018/02/02	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	3	N/A	2018/02/02	BBY7SOP-00003,	EPA 6020b R2 m
Nitrogen (Total)	3	2018/02/02	2018/02/02	BBY6SOP-00016	SM 22 4500-N C m
Ammonia-N (Preserved)	3	N/A	2018/02/02	BBY6SOP-00009	EPA 350.1 m
Nitrate + Nitrite (N)	3	N/A	2018/02/01	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrite (N) by CFA	3	N/A	2018/02/01	BBY6SOP-00010	SM 22 4500-NO3- I m
Nitrogen - Nitrate (as N)	3	N/A	2018/02/02	BBY WI-00033	Auto Calc
Nitrogen (Organic) (Cal. TKN, NH <sub>4</sub> ,N/N)	3	N/A	2018/02/05	BBY WI-00033	Auto Calc
pH Water (4)	3	2018/02/15	2018/02/15	BBY6SOP-00026	SM 22 4500-H+ B m
Phenoxyalkyl acid Pesticides (1)	1	2018/02/01	2018/02/02	CAL SOP-00094	EPA 8151 R1 m
Sat. pH and Langelier Index (@ 4.4C)	3	N/A	2018/02/15	BBY WI-00033	Auto Calc
Sat. pH and Langelier Index (@ 60C)	3	N/A	2018/02/15	BBY WI-00033	Auto Calc
Sulphate by Automated Colourimetry	3	N/A	2018/02/01	BBY6SOP-00017	SM 22 4500-SO42- E m
Sulphate Reducing Bacteria (2)	3	N/A	2018/01/30	VIC SOP-00114	SM 22 9240 m
Sulphide - total	3	N/A	2018/02/02	BBY6SOP-00006	SM 22 4500-S2- D m
Total Dissolved Solids (Filt. Residue) (2)	3	N/A	2018/02/06	VIC SOP-00008	Based on SM 2540C
Total Coliform & E.Coli by MF-Chromocult (2)	3	N/A	2018/01/30	VIC SOP 00112	Based on SM-9222
Carbon (Total Organic) (5)	3	N/A	2018/02/01	BBY6SOP-00003	SM 22 5310 C m
Turbidity (2)	3	N/A	2018/02/01	VIC SOP-00011	SM 22 2130B m

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**Report Date: 2018/02/15**

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**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B806905**

**Received: 2018/01/29, 14:40**

**Remarks:**

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Maxxam Calgary Environmental
- (2) This test was performed by Maxxam Victoria
- (3) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (4) The BC-MOE and APHA Standard Method require pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the BC-MOE/APHA Standard Method holding time.
- (5) TOC present in the sample should be considered as non-purgeable TOC.

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

BC Env Customer Service, BC Environmental Customer Service

Email: Enviro.CS.BC@maxxam.ca

Phone# (604) 734 7276

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B806905  
Report Date: 2018/02/15

Mill Bay Water District

**VIHA POTABILITY WITH MICRO AND CV HG (DRINKING WATER)**

<b>Maxxam ID</b>					SW5421		SW5422		
<b>Sampling Date</b>					2018/01/29 11:13		2018/01/29 12:39		
<b>COC Number</b>					545772-01-01		545772-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>AO</b>	<b>OG</b>	<b>1-WS-10 DISTRIBUTION</b>	<b>RDL</b>	<b>WELL 786</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Total Hardness (CaCO3)	mg/L	-	-	-	104	0.50	139	0.50	8896874
Total Organic Nitrogen (N)	mg/L	-	-	-	<0.020	0.020	<0.10	0.10	8897250

**Misc. Inorganics**

Total Organic Carbon (C)	mg/L	-	-	-	1.73	0.50	<0.50	0.50	8900119
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**MISCELLANEOUS**

True Colour	Col. Unit	-	15	-	8	5	<5	5	8900876
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**Nutrients**

Total Ammonia (N)	mg/L	-	-	-	0.022	0.020	<0.020	0.020	8901670
Total Nitrogen (N)	mg/L	-	-	-	1.44	0.020	2.71 (1)	0.10	8901250

**Physical Properties**

Total Dissolved Solids	mg/L	-	500	-	164	10	179	10	8900193
Turbidity	NTU	see remark	see remark	see remark	<0.1	0.1	<0.1	0.1	8900892

**Elements**

Total Mercury (Hg)	ug/L	1	-	-	<0.010	0.010	<0.010	0.010	8899890
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**Total Metals by ICPMS**

Total Aluminum (Al)	ug/L	-	-	100	10.3	3.0	3.1	3.0	8898774
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50	<0.50	0.50	8898774
Total Arsenic (As)	ug/L	10	-	-	0.28	0.10	<0.10	0.10	8898774
Total Barium (Ba)	ug/L	1000	-	-	9.3	1.0	9.2	1.0	8898774
Total Beryllium (Be)	ug/L	-	-	-	<0.10	0.10	<0.10	0.10	8898774
Total Bismuth (Bi)	ug/L	-	-	-	<1.0	1.0	<1.0	1.0	8898774
Total Boron (B)	ug/L	5000	-	-	<50	50	<50	50	8898774
Total Cadmium (Cd)	ug/L	5	-	-	<0.010	0.010	0.015	0.010	8898774
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0	<1.0	1.0	8898774
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20	<0.20	0.20	8898774
Total Copper (Cu)	ug/L	-	1000	-	49.3	0.20	7.89	0.20	8898774
Total Iron (Fe)	ug/L	-	300	-	23.0	5.0	<5.0	5.0	8898774
Total Lead (Pb)	ug/L	10	-	-	0.76	0.20	1.11	0.20	8898774
Total Manganese (Mn)	ug/L	-	50	-	31.8	1.0	<1.0	1.0	8898774
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0	<1.0	1.0	8898774
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0	<1.0	1.0	8898774
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10	<0.10	0.10	8898774
Total Silicon (Si)	ug/L	-	-	-	10500	100	14000	100	8898774

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B806905  
Report Date: 2018/02/15

Mill Bay Water District

**VIHA POTABILITY WITH MICRO AND CV HG (DRINKING WATER)**

Maxxam ID					SW5421		SW5422		
Sampling Date					2018/01/29 11:13		2018/01/29 12:39		
COC Number					545772-01-01		545772-01-01		
	UNITS	MAC	AO	OG	1-WS-10 DISTRIBUTION	RDL	WELL 786	RDL	QC Batch
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020	<0.020	0.020	8898774
Total Strontium (Sr)	ug/L	-	-	-	223	1.0	102	1.0	8898774
Total Thallium (Tl)	ug/L	-	-	-	<0.010	0.010	<0.010	0.010	8898774
Total Tin (Sn)	ug/L	-	-	-	<5.0	5.0	<5.0	5.0	8898774
Total Titanium (Ti)	ug/L	-	-	-	<5.0	5.0	<5.0	5.0	8898774
Total Uranium (U)	ug/L	20	-	-	0.51	0.10	<0.10	0.10	8898774
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0	<5.0	5.0	8898774
Total Zinc (Zn)	ug/L	-	5000	-	7.5	5.0	27.4	5.0	8898774
Total Zirconium (Zr)	ug/L	-	-	-	<0.10	0.10	<0.10	0.10	8898774
Total Calcium (Ca)	mg/L	-	-	-	28.7	0.050	35.0	0.050	8897130
Total Magnesium (Mg)	mg/L	-	-	-	7.93	0.050	12.6	0.050	8897130
Total Potassium (K)	mg/L	-	-	-	0.514	0.050	0.651	0.050	8897130
Total Sodium (Na)	mg/L	-	200	-	16.1	0.050	6.70	0.050	8897130
Total Sulphur (S)	mg/L	-	-	-	3.7	3.0	3.4	3.0	8897130
<b>Microbiological Param.</b>									
Heterotrophic Plate Count	CFU/mL	-	-	-	<1	1	<1	1	8901149
Iron Bacteria	CFU/mL	-	-	-	<25	25	<25	25	8904810
Sulphate reducing bacteria	CFU/mL	-	-	-	<75	75	<75	75	8904807
Total Coliforms	CFU/100mL	0	-	-	0	N/A	0	N/A	8899206
E. coli	CFU/100mL	0	-	-	0	N/A	0	N/A	8899206
<b>Calculated Parameters</b>									
Langelier Index (@ 4.4C)	N/A	-	-	-	-0.418	N/A	-0.457	N/A	8897252
Langelier Index (@ 60C)	N/A	-	-	-	0.623	N/A	0.584	N/A	8897253
Saturation pH (@ 4.4C)	N/A	-	-	-	8.41	N/A	8.29	N/A	8897252
Saturation pH (@ 60C)	N/A	-	-	-	7.37	N/A	7.25	N/A	8897253
<b>MISCELLANEOUS</b>									
Total Sulphide	mg/L	-	0.05	-	0.0131	0.0050	0.0061	0.0050	8900586
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
N/A = Not Applicable									

Maxxam Job #: B806905  
Report Date: 2018/02/15

Mill Bay Water District

**VIHA POTABILITY WITH MICRO AND CV HG (DRINKING WATER)**

Maxxam ID					SW5423		
Sampling Date					2018/01/29 13:25		
COC Number					545772-01-01		
	UNITS	MAC	AO	OG	3-WS-40 DISTRIBUTION	RDL	QC Batch
<b>Calculated Parameters</b>							
Total Hardness (CaCO <sub>3</sub> )	mg/L	-	-	-	138	0.50	8896874
Total Organic Nitrogen (N)	mg/L	-	-	-	<0.020	0.020	8897250
<b>Misc. Inorganics</b>							
Total Organic Carbon (C)	mg/L	-	-	-	<0.50	0.50	8900119
<b>MISCELLANEOUS</b>							
True Colour	Col. Unit	-	15	-	<5	5	8900876
<b>Nutrients</b>							
Total Ammonia (N)	mg/L	-	-	-	<0.020	0.020	8901670
Total Nitrogen (N)	mg/L	-	-	-	0.070	0.020	8901250
<b>Physical Properties</b>							
Total Dissolved Solids	mg/L	-	500	-	228	10	8900193
Turbidity	NTU	see remark	see remark	see remark	0.1	0.1	8900892
<b>Elements</b>							
Total Mercury (Hg)	ug/L	1	-	-	<0.010	0.010	8899890
<b>Total Metals by ICPMS</b>							
Total Aluminum (Al)	ug/L	-	-	100	<3.0	3.0	8898774
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50	8898774
Total Arsenic (As)	ug/L	10	-	-	1.98	0.10	8898774
Total Barium (Ba)	ug/L	1000	-	-	10.8	1.0	8898774
Total Beryllium (Be)	ug/L	-	-	-	<0.10	0.10	8898774
Total Bismuth (Bi)	ug/L	-	-	-	<1.0	1.0	8898774
Total Boron (B)	ug/L	5000	-	-	<50	50	8898774
Total Cadmium (Cd)	ug/L	5	-	-	<0.010	0.010	8898774
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0	8898774
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20	8898774
Total Copper (Cu)	ug/L	-	1000	-	2.07	0.20	8898774
Total Iron (Fe)	ug/L	-	300	-	13.4	5.0	8898774
Total Lead (Pb)	ug/L	10	-	-	1.51	0.20	8898774
Total Manganese (Mn)	ug/L	-	50	-	33.6	1.0	8898774
Total Molybdenum (Mo)	ug/L	-	-	-	9.5	1.0	8898774
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0	8898774
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10	8898774
Total Silicon (Si)	ug/L	-	-	-	8580	100	8898774
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020	8898774
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							

**VIHA POTABILITY WITH MICRO AND CV HG (DRINKING WATER)**

Maxxam ID					SW5423		
Sampling Date					2018/01/29 13:25		
COC Number					545772-01-01		
	UNITS	MAC	AO	OG	3-WS-40 DISTRIBUTION	RDL	QC Batch
Total Strontium (Sr)	ug/L	-	-	-	330	1.0	8898774
Total Thallium (Tl)	ug/L	-	-	-	<0.010	0.010	8898774
Total Tin (Sn)	ug/L	-	-	-	<5.0	5.0	8898774
Total Titanium (Ti)	ug/L	-	-	-	<5.0	5.0	8898774
Total Uranium (U)	ug/L	20	-	-	5.11	0.10	8898774
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0	8898774
Total Zinc (Zn)	ug/L	-	5000	-	8.4	5.0	8898774
Total Zirconium (Zr)	ug/L	-	-	-	<0.10	0.10	8898774
Total Calcium (Ca)	mg/L	-	-	-	41.3	0.050	8897130
Total Magnesium (Mg)	mg/L	-	-	-	8.52	0.050	8897130
Total Potassium (K)	mg/L	-	-	-	0.372	0.050	8897130
Total Sodium (Na)	mg/L	-	200	-	13.1	0.050	8897130
Total Sulphur (S)	mg/L	-	-	-	20.3	3.0	8897130
<b>Microbiological Param.</b>							
Heterotrophic Plate Count	CFU/mL	-	-	-	<1	1	8901149
Iron Bacteria	CFU/mL	-	-	-	SEE NOTE (1)	25	8904810
Sulphate reducing bacteria	CFU/mL	-	-	-	<75	75	8904807
Total Coliforms	CFU/100mL	0	-	-	0	N/A	8899206
E. coli	CFU/100mL	0	-	-	0	N/A	8899206
<b>Calculated Parameters</b>							
Langelier Index (@ 4.4C)	N/A	-	-	-	-0.269	N/A	8897252
Langelier Index (@ 60C)	N/A	-	-	-	0.771	N/A	8897253
Saturation pH (@ 4.4C)	N/A	-	-	-	8.31	N/A	8897252
Saturation pH (@ 60C)	N/A	-	-	-	7.27	N/A	8897253
<b>MISCELLANEOUS</b>							
Total Sulphide	mg/L	-	0.05	-	0.0078	0.0050	8900586
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							
N/A = Not Applicable							
(1) A range of 500-2200 CFU/mL is given.							

Maxxam Job #: B806905  
Report Date: 2018/02/15

Mill Bay Water District

**RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER**

Maxxam ID				SW5421			SW5422		
Sampling Date				2018/01/29 11:13			2018/01/29 12:39		
COC Number				545772-01-01			545772-01-01		
	UNITS	MAC	AO	1-WS-10 DISTRIBUTION	RDL	QC Batch	WELL 786	RDL	QC Batch
<b>ANIONS</b>									
Nitrite (N)	mg/L	1	-	<0.0050	0.0050	8901061	<0.0050	0.0050	8901061
<b>Calculated Parameters</b>									
Nitrate (N)	mg/L	10	-	1.47	0.020	8897133	3.09	0.10	8897133
<b>Misc. Inorganics</b>									
Fluoride (F)	mg/L	1.5	-	0.074	0.020	8900624	0.038	0.020	8900624
Alkalinity (Total as CaCO3)	mg/L	-	-	112	1.0	8911978	124	1.0	8911978
Alkalinity (PP as CaCO3)	mg/L	-	-	<1.0	1.0	8911978	<1.0	1.0	8911978
Bicarbonate (HCO3)	mg/L	-	-	137	1.0	8911978	151	1.0	8911978
Carbonate (CO3)	mg/L	-	-	<1.0	1.0	8911978	<1.0	1.0	8911978
Hydroxide (OH)	mg/L	-	-	<1.0	1.0	8911978	<1.0	1.0	8911978
<b>Anions</b>									
Dissolved Sulphate (SO4)	mg/L	-	500	10.0	1.0	8900940	9.8	1.0	8900940
Dissolved Chloride (Cl)	mg/L	-	250	9.8	1.0	8900938	8.1	1.0	8900938
<b>Nutrients</b>									
Nitrate plus Nitrite (N)	mg/L	-	-	1.47	0.020	8901058	3.09 (1)	0.10	8901058
<b>Organic Acids</b>									
Formic Acid	mg/L	-	-				<0.50	0.50	8899030
Acetic Acid	mg/L	-	-				<0.50	0.50	8899030
Propionic Acid	mg/L	-	-				<0.50	0.50	8899030
<b>Physical Properties</b>									
pH	pH	-	7.0:10.5	7.99		8911974	7.83		8911974
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.									

Maxxam Job #: B806905  
Report Date: 2018/02/15

Mill Bay Water District

**RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER**

<b>Maxxam ID</b>				SW5423		
<b>Sampling Date</b>				2018/01/29 13:25		
<b>COC Number</b>				545772-01-01		
	<b>UNITS</b>	<b>MAC</b>	<b>AO</b>	<b>3-WS-40 DISTRIBUTION</b>	<b>RDL</b>	<b>QC Batch</b>
<b>ANIONS</b>						
Nitrite (N)	mg/L	1	-	<0.0050	0.0050	8901061
<b>Calculated Parameters</b>						
Nitrate (N)	mg/L	10	-	0.055	0.020	8897133
<b>Misc. Inorganics</b>						
Fluoride (F)	mg/L	1.5	-	0.089	0.020	8900624
Alkalinity (Total as CaCO3)	mg/L	-	-	103	1.0	8911978
Alkalinity (PP as CaCO3)	mg/L	-	-	<1.0	1.0	8911978
Bicarbonate (HCO3)	mg/L	-	-	125	1.0	8911978
Carbonate (CO3)	mg/L	-	-	<1.0	1.0	8911978
Hydroxide (OH)	mg/L	-	-	<1.0	1.0	8911978
<b>Anions</b>						
Dissolved Sulphate (SO4)	mg/L	-	500	55.4	1.0	8900940
Dissolved Chloride (Cl)	mg/L	-	250	5.7	1.0	8900938
<b>Nutrients</b>						
Nitrate plus Nitrite (N)	mg/L	-	-	0.055	0.020	8901058
<b>Physical Properties</b>						
pH	pH	-	7.0:10.5	8.04		8911974
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						



**PHENOXYALKYL ACID PESTICIDES/HERBICIDES (DRINKING WATER)**

Maxxam ID				SW5422		
Sampling Date				2018/01/29 12:39		
COC Number				545772-01-01		
	UNITS	MAC	AO	WELL 786	RDL	QC Batch
<b>Phenoxyalkyl acid Pest.</b>						
3,5-dichlorobenzoic acid	ug/L	-	-	<0.080	0.080	8899666
Dicamba	ug/L	120	-	<0.0050	0.0050	8899666
MCP	ug/L	-	-	<0.080	0.080	8899666
MCPA	ug/L	100	-	<0.020	0.020	8899666
Dichlorprop	ug/L	-	-	<0.080	0.080	8899666
Bromoxynil	ug/L	5	-	<0.020	0.020	8899666
2,4-D	ug/L	100	-	<0.050	0.050	8899666
Pentachlorophenol	ug/L	60	30	<0.080	0.080	8899666
2,4,5-TP	ug/L	-	-	<0.080	0.080	8899666
2,4,5-T	ug/L	-	-	<0.080	0.080	8899666
Chloramben	ug/L	-	-	<0.080	0.080	8899666
Dinoseb (DNBP)	ug/L	-	-	<0.020	0.020	8899666
Bentazon	ug/L	-	-	<0.080	0.080	8899666
2,4-DB	ug/L	-	-	<0.080	0.080	8899666
Picloram	ug/L	190	-	<0.080	0.080	8899666
Diclofop-methyl	ug/L	9	-	<0.080	0.080	8899666
<b>Surrogate Recovery (%)</b>						
2,4-Dichlorophenyl Acetic Acid	%	-	-	100		8899666
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						

Maxxam Job #: B806905  
Report Date: 2018/02/15

Mill Bay Water District

**MISCELLANEOUS (DRINKING WATER)**

Maxxam ID			SW5421	SW5422	SW5423		
Sampling Date			2018/01/29 11:13	2018/01/29 12:39	2018/01/29 13:25		
COC Number			545772-01-01	545772-01-01	545772-01-01		
	UNITS	AO	1-WS-10 DISTRIBUTION	WELL 786	3-WS-40 DISTRIBUTION	RDL	QC Batch
<b>Calculated Parameters</b>							
Total Sulphide (as H <sub>2</sub> S)	mg/L	0.05	0.014	0.0060	0.0080	0.0053	8896949
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							

**GENERAL COMMENTS**

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.7°C
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Sample SW5421 [1-WS-10 DISTRIBUTION] : Sample analyzed past recommended hold time for Total dissolved Solids. Sample analyzed past method specified hold time for Alkalinity - Water. {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample SW5422 [WELL 786] : Sample analyzed past recommended hold time for Total dissolved Solids. Sample analyzed past method specified hold time for Alkalinity - Water. {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

Sample SW5423 [3-WS-40 DISTRIBUTION] : Sample analyzed past method specified hold time for Alkalinity - Water. {Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.}

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, February 2017.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)  
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

**Turbidity Guidelines:**

1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.

**Results relate only to the items tested.**

Maxxam Job #: B806905  
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**QUALITY ASSURANCE REPORT**

Mill Bay Water District

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8899666	2,4-Dichlorophenyl Acetic Acid	2018/02/02			93	50 - 130	94	%		
8898774	Total Aluminum (Al)	2018/02/02	102	80 - 120	110	80 - 120	<3.0	ug/L		
8898774	Total Antimony (Sb)	2018/02/02	95	80 - 120	102	80 - 120	<0.50	ug/L		
8898774	Total Arsenic (As)	2018/02/02	96	80 - 120	97	80 - 120	<0.10	ug/L		
8898774	Total Barium (Ba)	2018/02/02	95	80 - 120	102	80 - 120	<1.0	ug/L		
8898774	Total Beryllium (Be)	2018/02/02	93	80 - 120	101	80 - 120	<0.10	ug/L		
8898774	Total Bismuth (Bi)	2018/02/02	94	80 - 120	103	80 - 120	<1.0	ug/L		
8898774	Total Boron (B)	2018/02/02	88	80 - 120	97	80 - 120	<50	ug/L		
8898774	Total Cadmium (Cd)	2018/02/02	94	80 - 120	101	80 - 120	<0.010	ug/L		
8898774	Total Chromium (Cr)	2018/02/02	94	80 - 120	97	80 - 120	<1.0	ug/L		
8898774	Total Cobalt (Co)	2018/02/02	91	80 - 120	94	80 - 120	<0.20	ug/L		
8898774	Total Copper (Cu)	2018/02/02	NC	80 - 120	95	80 - 120	<0.20	ug/L		
8898774	Total Iron (Fe)	2018/02/02	96	80 - 120	100	80 - 120	<5.0	ug/L		
8898774	Total Lead (Pb)	2018/02/02	93	80 - 120	102	80 - 120	<0.20	ug/L	1.5	20
8898774	Total Manganese (Mn)	2018/02/02	93	80 - 120	97	80 - 120	<1.0	ug/L		
8898774	Total Molybdenum (Mo)	2018/02/02	96	80 - 120	103	80 - 120	<1.0	ug/L		
8898774	Total Nickel (Ni)	2018/02/02	95	80 - 120	96	80 - 120	<1.0	ug/L		
8898774	Total Selenium (Se)	2018/02/02	92	80 - 120	105	80 - 120	<0.10	ug/L		
8898774	Total Silicon (Si)	2018/02/02	97	80 - 120	115	80 - 120	<100	ug/L		
8898774	Total Silver (Ag)	2018/02/02	94	80 - 120	101	80 - 120	<0.020	ug/L		
8898774	Total Strontium (Sr)	2018/02/02	91	80 - 120	96	80 - 120	<1.0	ug/L		
8898774	Total Thallium (Tl)	2018/02/02	96	80 - 120	102	80 - 120	<0.010	ug/L		
8898774	Total Tin (Sn)	2018/02/02	NC	80 - 120	98	80 - 120	<5.0	ug/L		
8898774	Total Titanium (Ti)	2018/02/02	98	80 - 120	98	80 - 120	<5.0	ug/L		
8898774	Total Uranium (U)	2018/02/02	98	80 - 120	103	80 - 120	<0.10	ug/L		
8898774	Total Vanadium (V)	2018/02/02	95	80 - 120	97	80 - 120	<5.0	ug/L		
8898774	Total Zinc (Zn)	2018/02/02	92	80 - 120	98	80 - 120	<5.0	ug/L		
8898774	Total Zirconium (Zr)	2018/02/02	92	80 - 120	95	80 - 120	<0.10	ug/L		
8899030	Acetic Acid	2018/01/31	112	80 - 120	111	80 - 120	<0.50	mg/L	NC	20
8899030	Formic Acid	2018/01/31	115	80 - 120	108	80 - 120	<0.50	mg/L	NC	20
8899030	Propionic Acid	2018/01/31	103	80 - 120	107	80 - 120	<0.50	mg/L	NC	20
8899206	E. coli	2018/01/30							NC	N/A

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**QUALITY ASSURANCE REPORT(CONT'D)**

Mill Bay Water District

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8899206	Total Coliforms	2018/01/30							NC	N/A
8899666	2,4,5-T	2018/02/02			103	50 - 130	<0.080	ug/L		
8899666	2,4,5-TP	2018/02/02			103	50 - 130	<0.080	ug/L		
8899666	2,4-D	2018/02/02			87	50 - 130	<0.050	ug/L		
8899666	2,4-DB	2018/02/02			111	50 - 130	<0.080	ug/L		
8899666	3,5-dichlorobenzoic acid	2018/02/02			91	50 - 130	<0.080	ug/L		
8899666	Bentazon	2018/02/02			102	50 - 130	<0.080	ug/L		
8899666	Bromoxynil	2018/02/02			87	50 - 130	<0.020	ug/L		
8899666	Chloramben	2018/02/02			53	30 - 130	<0.080	ug/L		
8899666	Dicamba	2018/02/02			77	50 - 130	<0.0050	ug/L		
8899666	Dichlorprop	2018/02/02			86	50 - 130	<0.080	ug/L		
8899666	Diclofop-methyl	2018/02/02			89	50 - 130	<0.080	ug/L		
8899666	Dinoseb (DNBP)	2018/02/02			78	30 - 130	<0.020	ug/L		
8899666	MCPA	2018/02/02			67	50 - 130	<0.020	ug/L		
8899666	MCPP	2018/02/02			87	50 - 130	<0.080	ug/L		
8899666	Pentachlorophenol	2018/02/02			88	50 - 130	<0.080	ug/L		
8899666	Picloram	2018/02/02			48	30 - 130	<0.080	ug/L		
8899890	Total Mercury (Hg)	2018/02/01	96	80 - 120	95	80 - 120	<0.010	ug/L	NC	20
8900119	Total Organic Carbon (C)	2018/02/01	106	80 - 120	111	80 - 120	<0.50	mg/L	NC	20
8900193	Total Dissolved Solids	2018/02/06			103	80 - 120	<10	mg/L	9.6	20
8900586	Total Sulphide	2018/02/02	109	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20
8900624	Fluoride (F)	2018/02/01	106	80 - 120	108	80 - 120	<0.020	mg/L	0	20
8900876	True Colour	2018/02/01			108	80 - 120	<5	Col. Unit	NC	10
8900892	Turbidity	2018/02/01			96	80 - 120	<0.1	NTU	NC	20
8900938	Dissolved Chloride (Cl)	2018/02/01	118	80 - 120	102	80 - 120	<1.0	mg/L	0.58	20
8900940	Dissolved Sulphate (SO4)	2018/02/01			102	80 - 120	<1.0	mg/L		
8901058	Nitrate plus Nitrite (N)	2018/02/01	107	80 - 120	103	80 - 120	<0.020	mg/L	1.9	25
8901061	Nitrite (N)	2018/02/01	102	80 - 120	95	80 - 120	<0.0050	mg/L	NC	20
8901149	Heterotrophic Plate Count	2018/01/30							NC	N/A
8901250	Total Nitrogen (N)	2018/02/02	NC	80 - 120	92	80 - 120	<0.020	mg/L	0.61	20
8901670	Total Ammonia (N)	2018/02/02	91	80 - 120	113	80 - 120	<0.020	mg/L	0	20
8904807	Sulphate reducing bacteria	2018/01/30							NC	N/A

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**QUALITY ASSURANCE REPORT(CONT'D)**

Mill Bay Water District

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8911974	pH	2018/02/15			101	97 - 103			0.41	20
8911978	Alkalinity (PP as CaCO3)	2018/02/15					<1.0	mg/L	NC	20
8911978	Alkalinity (Total as CaCO3)	2018/02/15	99	80 - 120	99	80 - 120	<1.0	mg/L	1.9	20
8911978	Bicarbonate (HCO3)	2018/02/15					<1.0	mg/L	1.9	20
8911978	Carbonate (CO3)	2018/02/15					<1.0	mg/L	NC	20
8911978	Hydroxide (OH)	2018/02/15					<1.0	mg/L	NC	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)


NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Report Date: 2018/02/15

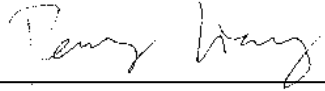
Mill Bay Water District

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist



Harry (Peng) Liang, Senior Analyst



Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Maxxam Analytica International Corporation o/a Maxxam Analytica  
 Unit 1 - 460 Tennyson Place, Victoria, British Columbia Canada V8Z 6S8 Tel: (250) 385 6112 Toll-free: 800-563-6286 Fax: (250) 382 8364 www.maxxam.ca

Chain Of Custody Record

<b>INVOICE TO:</b>		<b>Report Information</b>		<b>Project Information</b>		<b>Laboratory Use Only</b>	
Company Name	#5953 Mill Bay Water District	Company Name	Donna Michiel	Quotation #	B50994	Maxxam Job #	Bottle Order #:
Contact Name	Accounts Payable-Donna Michiel	Contact Name	Donna Michiel	P.O. #			
Address	PO Box 58 875 Deloume Road Mill Bay BC V0R 2P0	Address		Project #			545772
Phone	(250) 743-9023 x Fax: (250) 743-9065 x	Phone		Project Name		Chain Of Custody Record	Project Manager
Email	mbwd@shaw.ca	Email	mbwd@shaw.ca	Site #			BC Env Customer Service
				Sampled By		C#545772-01-01	

Regulatory Criteria:	Special Instructions	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)				Turnaround Time (TAT) Required:	
<input type="checkbox"/> CSR		Metals Field Filtered? (Y/N)	VIHA PACKAGE WITH MICRO + HG	Phenoxyalkyl Acid Pesticides	Propionic Acid	Please provide advance notice for rush projects	
<input type="checkbox"/> CCME						Regular (Standard) TAT:	
<input checked="" type="checkbox"/> BC Water Quality						(will be applied if Rush TAT is not specified) <input checked="" type="checkbox"/>	
<input type="checkbox"/> Other _____						Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details	
						Job Specific Rush TAT (if applies to entire submission)	
						1 DAY <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> Date Required: _____ <input type="checkbox"/>	
						Rush Confirmation Number: _____ (call lab for #)	

**SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM**

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered? (Y/N)	VIHA PACKAGE WITH MICRO + HG	Phenoxyalkyl Acid Pesticides	Propionic Acid					# of Bottles	Comments
1	1-WS-10 Distribution	Jan 29/18	11:13	DW	✓	✓							7	} IN USE
2	Well 786	Jan 29/18	12:39	DW	✓	✓	✓	✓					9	
3	3-WS-40 Distribution	Jan 29/18	13:25	DW	✓	✓							7	
4														
5														
6														
7														
8														
9														
10														



RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# Jars used and not submitted	Time Sensitive	Temperature (°C) on Receipt	Outlets Seal Intact on Cooler?
<i>[Signature]</i>			<i>[Signature]</i>	2018/01/28	14:10	0	<input type="checkbox"/>	10, 9, 10	<input type="checkbox"/> Yes <input type="checkbox"/> No

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.  
 \* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.





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Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#5953 Mill Bay Water District	Company Name		Quotation #	B50994	Maxxam Job #	
Contact Name	Accounts Payable-Donna Michiel	Contact Name	Donna Michiel	P.O. #			
Address	PO Box 58 875 Deloume Road Mill Bay BC V0R 2P0	Address		Project #			
Phone	(250) 743-9023 x	Phone		Project Name		Chain Of Custody Record	Project Manager
Fax	(250) 743-9065 x	Fax		Site #			
Email	mbwd@shaw.ca	Email	mbwd@shaw.ca	Sampled By			

Regulatory Criteria:	Special Instructions	ANALYSIS REQUESTED (PLEASE BE SPECIFIC):				Turnaround Time (TAT) Required:	
<input type="checkbox"/> CSR <input type="checkbox"/> CCME <input checked="" type="checkbox"/> BC Water Quality <input type="checkbox"/> Other _____		Metal Field Filtered ? (Y/N)	VIHA PACKAGE WITH MICRO + HG	Phenoxyalkyl Acid Pesticides	Propionic Acid		Please provide advance notice for rush projects Regular (Standard) TAT: (will be applied if Rush TAT is not specified): <input checked="" type="checkbox"/> Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details. Job Specific Rush TAT (if applies to entire submission) 1 DAY <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> Date Required: _____ <input type="checkbox"/> Rush Confirmation Number: _____ (call lab for #)

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM																					
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix																	
1	1-WS-10 Distribution	Jan 29/18	11:13	DW	✓	✓															
2	well 786	Jan 29/18	12:39	DW	✓	✓	✓	✓													
3	3-10s-40 Distribution	Jan 29/18	13:25	DW	✓	✓															
4																					
5																					
6																					
7																					
8																					
9																					
10																					



RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
<i>[Signature]</i>			<i>[Signature]</i>	2018/01/29	14:10	0	<input type="checkbox"/>	17.9.10	<input type="checkbox"/> Yes <input type="checkbox"/> No

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.  
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