Site Location: CITY OF COURTENAY
Your C.O.C. #: G132779

Attention: Kyle Shaw

CITY OF COURTENAY
PUBLIC WORKS
830 CLIFFE AVE
COURTENAY, BC
CANADA V9N 2J7

Report Date: 2019/08/15
Report #: R2767743
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B962090
Received: 2019/07/30, 13:57

Sample Matrix: Drinking Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hardness Total (calculated as CaCO3) (1, 3)	2	N/A	2019/08/06	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total) (1)	2	N/A	2019/08/06	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total) (1)	2	N/A	2019/08/06	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Total Trihalomethanes Calculation (1)	2	N/A	2019/08/01	BBY WI-00033	Auto Calc
VOCs, VH, F1, LH in Water by HS GC/MS (1)	2	N/A	2019/08/01	BBY8SOP-00009 / BBY8SOP-00011 / BBY8SOP-00012	BCMOE BCLM Jul 2017
Haloacetic Acids in Water (2)	2	2019/08/08	2019/08/10	ATL SOP-00129	EPA 552.2 m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

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. When sampling is not conducted by BV Labs, results relate to the supplied 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 BV Labs Vancouver
(2) This test was performed by BV Labs Bedford(From Burnaby)
(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).

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830 CLIFFE AVE
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Report Date: 2019/08/15
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CERTIFICATE OF ANALYSIS

BV LABS JOB #: B962090
Received: 2019/07/30, 13:57

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas Laboratories
15 Aug 2019 13:43:09

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bvlabs.com
Phone# (833) 282-5227

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This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: B962090
Report Date: 2019/08/15

CITY OF COURTENAY
Site Location: CITY OF COURTENAY
Sampler Initials: BB

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

BV Labs ID			WE8247	WE8248		
Sampling Date			2019/07/30 12:55	2019/07/30 13:25		
COC Number			G132779	G132779		
	UNITS	MAC	1ST STREET	ELDERBERRY CRESCENT	RDL	QC Batch
MISCELLANEOUS						
Monochloroacetic Acid	ug/L	-	<5.0	<5.0	5.0	9547960
Monobromoacetic Acid	ug/L	-	<5.0	<5.0	5.0	9547960
Dichloroacetic Acid	ug/L	-	12	14	5.0	9547960
Trichloroacetic Acid	ug/L	-	16	19	5.0	9547960
Bromochloroacetic Acid	ug/L	-	<5.0	<5.0	5.0	9547960
Dibromoacetic Acid	ug/L	-	<5.0	<5.0	5.0	9547960
Total Haloacetic Acids	ug/L	80	28	32	5.0	9547960
Surrogate Recovery (%)						
2,3-Dibromopropionic Acid	%	-	91	97		9547960

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

RDL = Reportable Detection Limit

Bureau Veritas Laboratories Courtenay: 2755B Moray Avenue V9N 8M9, Phone: (250) 338-7786. Toll free: (800) 665-8566

BV Labs Job #: B962090
Report Date: 2019/08/15

CITY OF COURTENAY
Site Location: CITY OF COURTENAY
Sampler Initials: BB

TOTAL METALS FOR DRINKING WATER (DRINKING WATER)

BV Labs ID					WE8247	WE8248		
Sampling Date					2019/07/30 12:55	2019/07/30 13:25		
COC Number					G132779	G132779		
	UNITS	MAC	AO	OG	1ST STREET	ELDERBERRY CRESCENT	RDL	QC Batch
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	-	-	-	18.1	17.9	0.50	9529709
Total Metals by ICPMS								
Total Aluminum (Al)	ug/L	-	-	100	13.3	15.7	3.0	9534059
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	0.50	9534059
Total Arsenic (As)	ug/L	10	-	-	0.11	0.11	0.10	9534059
Total Barium (Ba)	ug/L	1000	-	-	<1.0	<1.0	1.0	9534059
Total Beryllium (Be)	ug/L	-	-	-	<0.10	<0.10	0.10	9534059
Total Bismuth (Bi)	ug/L	-	-	-	<1.0	<1.0	1.0	9534059
Total Boron (B)	ug/L	5000	-	-	<50	<50	50	9534059
Total Cadmium (Cd)	ug/L	5	-	-	<0.010	<0.010	0.010	9534059
Total Chromium (Cr)	ug/L	50	-	-	1.1	1.1	1.0	9534059
Total Cobalt (Co)	ug/L	-	-	-	<0.20	<0.20	0.20	9534059
Total Copper (Cu)	ug/L	-	1000	-	54.9	9.42	0.20	9534059
Total Iron (Fe)	ug/L	-	300	-	15.0	13.9	5.0	9534059
Total Lead (Pb)	ug/L	5	-	-	0.31	<0.20	0.20	9534059
Total Manganese (Mn)	ug/L	120	20	-	<1.0	1.3	1.0	9534059
Total Mercury (Hg)	ug/L	1	-	-	<0.050	<0.050	0.050	9534059
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	<1.0	1.0	9534059
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	1.0	9534059
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	0.10	9534059
Total Silicon (Si)	ug/L	-	-	-	2100	2040	100	9534059
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	0.020	9534059
Total Strontium (Sr)	ug/L	-	-	-	8.6	8.4	1.0	9534059
Total Thallium (Tl)	ug/L	-	-	-	<0.010	<0.010	0.010	9534059
Total Tin (Sn)	ug/L	-	-	-	<5.0	<5.0	5.0	9534059
Total Titanium (Ti)	ug/L	-	-	-	<5.0	<5.0	5.0	9534059
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	0.10	9534059
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	5.0	9534059
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	<5.0	5.0	9534059
Total Zirconium (Zr)	ug/L	-	-	-	<0.10	<0.10	0.10	9534059
Total Calcium (Ca)	mg/L	-	-	-	5.89	5.79	0.050	9529714
Total Magnesium (Mg)	mg/L	-	-	-	0.812	0.826	0.050	9529714

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

RDL = Reportable Detection Limit

Bureau Veritas Laboratories Courtenay: 2755B Moray Avenue V9N 8M9, Phone: (250) 338-7786. Toll free: (800) 665-8566

BV Labs Job #: B962090
Report Date: 2019/08/15

CITY OF COURTENAY
Site Location: CITY OF COURTENAY
Sampler Initials: BB

TOTAL METALS FOR DRINKING WATER (DRINKING WATER)

BV Labs ID					WE8247	WE8248		
Sampling Date					2019/07/30 12:55	2019/07/30 13:25		
COC Number					G132779	G132779		
	UNITS	MAC	AO	OG	1ST STREET	ELDERBERRY CRESCENT	RDL	QC Batch
Total Potassium (K)	mg/L	-	-	-	<0.050	<0.050	0.050	9529714
Total Sodium (Na)	mg/L	-	200	-	0.669	0.667	0.050	9529714
Total Sulphur (S)	mg/L	-	-	-	<3.0	<3.0	3.0	9529714

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

RDL = Reportable Detection Limit

Bureau Veritas Laboratories Courtenay: 2755B Moray Avenue V9N 8M9, Phone: (250) 338-7786. Toll free: (800) 665-8566

BV Labs Job #: B962090
Report Date: 2019/08/15

CITY OF COURTENAY
Site Location: CITY OF COURTENAY
Sampler Initials: BB

TRIHALOMETHANES (THM) IN WATER

BV Labs ID			WE8247	WE8248		
Sampling Date			2019/07/30 12:55	2019/07/30 13:25		
COC Number			G132779	G132779		
	UNITS	MAC	1ST STREET	ELDERBERRY CRESCENT	RDL	QC Batch
Volatiles						
Total Trihalomethanes	ug/L	100	32	35	1.0	9529730
Bromodichloromethane	ug/L	-	1.1	1.3	1.0	9530015
Bromoform	ug/L	-	<1.0	<1.0	1.0	9530015
Chlorodibromomethane	ug/L	-	<1.0	<1.0	1.0	9530015
Chloroform	ug/L	-	31	34	1.0	9530015
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	-	102	103		9530015
4-Bromofluorobenzene (sur.)	%	-	90	90		9530015
D4-1,2-Dichloroethane (sur.)	%	-	111	114		9530015

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

RDL = Reportable Detection Limit

Bureau Veritas Laboratories Courtenay: 2755B Moray Avenue V9N 8M9, Phone: (250) 338-7786. Toll free: (800) 665-8566

GENERAL COMMENTS

Total haloacetic acids refers to the total of monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid and dibromoacetic acid.

Average temperature upon receipt >10°C
MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, February 2017and the Guideline Technical Document – Lead, March 2019.

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.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

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BV Labs Job #: B962090
Report Date: 2019/08/15

CITY OF COURTENAY
Site Location: CITY OF COURTENAY
Sampler Initials: BB

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9530015	KPA	Matrix Spike	1,4-Difluorobenzene (sur.)	2019/07/31		99	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/07/31		98	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/07/31		103	%	50 - 140
			Bromodichloromethane	2019/07/31		98	%	50 - 140
			Bromoform	2019/07/31		88	%	50 - 140
			Chlorodibromomethane	2019/07/31		97	%	50 - 140
			Chloroform	2019/07/31		93	%	50 - 140
9530015	KPA	Spiked Blank	1,4-Difluorobenzene (sur.)	2019/07/31		100	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/07/31		96	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/07/31		103	%	50 - 140
			Bromodichloromethane	2019/07/31		94	%	60 - 130
			Bromoform	2019/07/31		86	%	60 - 130
			Chlorodibromomethane	2019/07/31		96	%	60 - 130
			Chloroform	2019/07/31		90	%	60 - 130
9530015	KPA	Method Blank	1,4-Difluorobenzene (sur.)	2019/07/31		102	%	50 - 140
			4-Bromofluorobenzene (sur.)	2019/07/31		92	%	50 - 140
			D4-1,2-Dichloroethane (sur.)	2019/07/31		105	%	50 - 140
			Bromodichloromethane	2019/07/31	<1.0		ug/L	
			Bromoform	2019/07/31	<1.0		ug/L	
			Chlorodibromomethane	2019/07/31	<1.0		ug/L	
			Chloroform	2019/07/31	<1.0		ug/L	
9530015	KPA	RPD	Bromodichloromethane	2019/07/31	NC		%	30
			Bromoform	2019/07/31	NC		%	30
			Chlorodibromomethane	2019/07/31	NC		%	30
			Chloroform	2019/07/31	NC		%	30
9534059	VCN	Matrix Spike	Total Aluminum (Al)	2019/08/06		107	%	80 - 120
			Total Antimony (Sb)	2019/08/06		104	%	80 - 120
			Total Arsenic (As)	2019/08/06		103	%	80 - 120
			Total Barium (Ba)	2019/08/06		104	%	80 - 120
			Total Beryllium (Be)	2019/08/06		106	%	80 - 120
			Total Bismuth (Bi)	2019/08/06		104	%	80 - 120
			Total Boron (B)	2019/08/06		111	%	80 - 120
			Total Cadmium (Cd)	2019/08/06		104	%	80 - 120
			Total Chromium (Cr)	2019/08/06		97	%	80 - 120
			Total Cobalt (Co)	2019/08/06		97	%	80 - 120
			Total Copper (Cu)	2019/08/06		101	%	80 - 120
			Total Iron (Fe)	2019/08/06		104	%	80 - 120
			Total Lead (Pb)	2019/08/06		106	%	80 - 120
			Total Manganese (Mn)	2019/08/06		101	%	80 - 120
			Total Mercury (Hg)	2019/08/06		105	%	80 - 120
			Total Molybdenum (Mo)	2019/08/06		105	%	80 - 120
			Total Nickel (Ni)	2019/08/06		101	%	80 - 120
			Total Selenium (Se)	2019/08/06		104	%	80 - 120
			Total Silicon (Si)	2019/08/06		105	%	80 - 120
			Total Silver (Ag)	2019/08/06		104	%	80 - 120
			Total Strontium (Sr)	2019/08/06		106	%	80 - 120
			Total Thallium (Tl)	2019/08/06		104	%	80 - 120
			Total Tin (Sn)	2019/08/06		100	%	80 - 120
			Total Titanium (Ti)	2019/08/06		101	%	80 - 120
			Total Uranium (U)	2019/08/06		107	%	80 - 120
			Total Vanadium (V)	2019/08/06		98	%	80 - 120
			Total Zinc (Zn)	2019/08/06		107	%	80 - 120
			Total Zirconium (Zr)	2019/08/06		104	%	80 - 120
9534059	VCN	Spiked Blank	Total Aluminum (Al)	2019/08/06		106	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Antimony (Sb)	2019/08/06		102	%	80 - 120
			Total Arsenic (As)	2019/08/06		101	%	80 - 120
			Total Barium (Ba)	2019/08/06		103	%	80 - 120
			Total Beryllium (Be)	2019/08/06		99	%	80 - 120
			Total Bismuth (Bi)	2019/08/06		105	%	80 - 120
			Total Boron (B)	2019/08/06		104	%	80 - 120
			Total Cadmium (Cd)	2019/08/06		102	%	80 - 120
			Total Chromium (Cr)	2019/08/06		97	%	80 - 120
			Total Cobalt (Co)	2019/08/06		97	%	80 - 120
			Total Copper (Cu)	2019/08/06		99	%	80 - 120
			Total Iron (Fe)	2019/08/06		107	%	80 - 120
			Total Lead (Pb)	2019/08/06		104	%	80 - 120
			Total Manganese (Mn)	2019/08/06		99	%	80 - 120
			Total Mercury (Hg)	2019/08/06		104	%	80 - 120
			Total Molybdenum (Mo)	2019/08/06		102	%	80 - 120
			Total Nickel (Ni)	2019/08/06		101	%	80 - 120
			Total Selenium (Se)	2019/08/06		102	%	80 - 120
			Total Silicon (Si)	2019/08/06		108	%	80 - 120
			Total Silver (Ag)	2019/08/06		101	%	80 - 120
			Total Strontium (Sr)	2019/08/06		106	%	80 - 120
			Total Thallium (Tl)	2019/08/06		103	%	80 - 120
			Total Tin (Sn)	2019/08/06		103	%	80 - 120
			Total Titanium (Ti)	2019/08/06		101	%	80 - 120
			Total Uranium (U)	2019/08/06		101	%	80 - 120
			Total Vanadium (V)	2019/08/06		95	%	80 - 120
			Total Zinc (Zn)	2019/08/06		102	%	80 - 120
			Total Zirconium (Zr)	2019/08/06		103	%	80 - 120
9534059	VCN	Method Blank	Total Aluminum (Al)	2019/08/06	<3.0		ug/L	
			Total Antimony (Sb)	2019/08/06	<0.50		ug/L	
			Total Arsenic (As)	2019/08/06	<0.10		ug/L	
			Total Barium (Ba)	2019/08/06	<1.0		ug/L	
			Total Beryllium (Be)	2019/08/06	<0.10		ug/L	
			Total Bismuth (Bi)	2019/08/06	<1.0		ug/L	
			Total Boron (B)	2019/08/06	<50		ug/L	
			Total Cadmium (Cd)	2019/08/06	<0.010		ug/L	
			Total Chromium (Cr)	2019/08/06	<1.0		ug/L	
			Total Cobalt (Co)	2019/08/06	<0.20		ug/L	
			Total Copper (Cu)	2019/08/06	<0.20		ug/L	
			Total Iron (Fe)	2019/08/06	<5.0		ug/L	
			Total Lead (Pb)	2019/08/06	<0.20		ug/L	
			Total Manganese (Mn)	2019/08/06	<1.0		ug/L	
			Total Mercury (Hg)	2019/08/06	<0.050		ug/L	
			Total Molybdenum (Mo)	2019/08/06	<1.0		ug/L	
			Total Nickel (Ni)	2019/08/06	<1.0		ug/L	
			Total Selenium (Se)	2019/08/06	<0.10		ug/L	
			Total Silicon (Si)	2019/08/06	<100		ug/L	
			Total Silver (Ag)	2019/08/06	<0.020		ug/L	
			Total Strontium (Sr)	2019/08/06	<1.0		ug/L	
			Total Thallium (Tl)	2019/08/06	<0.010		ug/L	
			Total Tin (Sn)	2019/08/06	<5.0		ug/L	
			Total Titanium (Ti)	2019/08/06	<5.0		ug/L	
			Total Uranium (U)	2019/08/06	<0.10		ug/L	
			Total Vanadium (V)	2019/08/06	<5.0		ug/L	
			Total Zinc (Zn)	2019/08/06	<5.0		ug/L	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Total Zirconium (Zr)	2019/08/06	<0.10		ug/L	
9534059	VCN	RPD	Total Aluminum (Al)	2019/08/06	5.5		%	20
			Total Antimony (Sb)	2019/08/06	NC		%	20
			Total Arsenic (As)	2019/08/06	3.0		%	20
			Total Barium (Ba)	2019/08/06	NC		%	20
			Total Boron (B)	2019/08/06	NC		%	20
			Total Cadmium (Cd)	2019/08/06	NC		%	20
			Total Chromium (Cr)	2019/08/06	0.95		%	20
			Total Cobalt (Co)	2019/08/06	NC		%	20
			Total Copper (Cu)	2019/08/06	2.2		%	20
			Total Iron (Fe)	2019/08/06	4.8		%	20
			Total Lead (Pb)	2019/08/06	NC		%	20
			Total Manganese (Mn)	2019/08/06	NC		%	20
			Total Molybdenum (Mo)	2019/08/06	NC		%	20
			Total Nickel (Ni)	2019/08/06	NC		%	20
			Total Selenium (Se)	2019/08/06	NC		%	20
			Total Silicon (Si)	2019/08/06	2.1		%	20
			Total Silver (Ag)	2019/08/06	NC		%	20
			Total Uranium (U)	2019/08/06	NC		%	20
			Total Vanadium (V)	2019/08/06	NC		%	20
			Total Zinc (Zn)	2019/08/06	NC		%	20
9547960	HIN	Matrix Spike	2,3-Dibromopropionic Acid	2019/08/10		86	%	70 - 130
			2,3-Dibromopropionic Acid	2019/08/10		86	%	70 - 130
			Monochloroacetic Acid	2019/08/10		97	%	70 - 130
			Monochloroacetic Acid	2019/08/10		97	%	70 - 130
			Monobromoacetic Acid	2019/08/10		92	%	70 - 130
			Monobromoacetic Acid	2019/08/10		92	%	70 - 130
			Dichloroacetic Acid	2019/08/10		88	%	70 - 130
			Dichloroacetic Acid	2019/08/10		88	%	70 - 130
			Trichloroacetic Acid	2019/08/10		NC	%	70 - 130
			Trichloroacetic Acid	2019/08/10		NC	%	70 - 130
			Bromochloroacetic Acid	2019/08/10		94	%	70 - 130
			Bromochloroacetic Acid	2019/08/10		94	%	70 - 130
			Dibromoacetic Acid	2019/08/10		111	%	70 - 130
			Dibromoacetic Acid	2019/08/10		111	%	70 - 130
9547960	HIN	Spiked Blank	2,3-Dibromopropionic Acid	2019/08/09		86	%	70 - 130
			2,3-Dibromopropionic Acid	2019/08/09		86	%	70 - 130
			Monochloroacetic Acid	2019/08/09		101	%	70 - 130
			Monochloroacetic Acid	2019/08/09		101	%	70 - 130
			Monobromoacetic Acid	2019/08/09		93	%	70 - 130
			Monobromoacetic Acid	2019/08/09		93	%	70 - 130
			Dichloroacetic Acid	2019/08/09		89	%	70 - 130
			Dichloroacetic Acid	2019/08/09		89	%	70 - 130
			Trichloroacetic Acid	2019/08/09		72	%	70 - 130
			Trichloroacetic Acid	2019/08/09		72	%	70 - 130
			Bromochloroacetic Acid	2019/08/09		94	%	70 - 130
			Bromochloroacetic Acid	2019/08/09		94	%	70 - 130
			Dibromoacetic Acid	2019/08/09		109	%	70 - 130
			Dibromoacetic Acid	2019/08/09		109	%	70 - 130
9547960	HIN	Method Blank	2,3-Dibromopropionic Acid	2019/08/09		100	%	70 - 130
			2,3-Dibromopropionic Acid	2019/08/09		100	%	70 - 130
			Monochloroacetic Acid	2019/08/09	<5.0		ug/L	
			Monochloroacetic Acid	2019/08/09	<5.0		ug/L	
			Monobromoacetic Acid	2019/08/09	<5.0		ug/L	

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BV Labs Job #: B962090
Report Date: 2019/08/15

CITY OF COURTENAY
Site Location: CITY OF COURTENAY
Sampler Initials: BB

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Monobromoacetic Acid	2019/08/09	<5.0		ug/L	
			Dichloroacetic Acid	2019/08/09	<5.0		ug/L	
			Dichloroacetic Acid	2019/08/09	<5.0		ug/L	
			Trichloroacetic Acid	2019/08/09	<5.0		ug/L	
			Trichloroacetic Acid	2019/08/09	<5.0		ug/L	
			Bromochloroacetic Acid	2019/08/09	<5.0		ug/L	
			Bromochloroacetic Acid	2019/08/09	<5.0		ug/L	
			Dibromoacetic Acid	2019/08/09	<5.0		ug/L	
			Dibromoacetic Acid	2019/08/09	<5.0		ug/L	
			Total Haloacetic Acids	2019/08/09	<5.0		ug/L	
			Total Haloacetic Acids	2019/08/09	<5.0		ug/L	
9547960	HIN	RPD [WE8247-03]	Monochloroacetic Acid	2019/08/10	NC		%	40
			Monobromoacetic Acid	2019/08/10	NC		%	40
			Dichloroacetic Acid	2019/08/10	3.5		%	40
			Trichloroacetic Acid	2019/08/10	4.9		%	40
			Bromochloroacetic Acid	2019/08/10	NC		%	40
			Dibromoacetic Acid	2019/08/10	NC		%	40
			Total Haloacetic Acids	2019/08/10	4.2		%	40

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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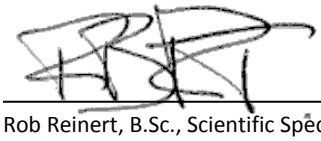
VALIDATION SIGNATURE PAGE

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

Rosemarie MacDonald, Scientific Specialist (Organics)



Rob Reinert, B.Sc., Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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CHAIN OF CUSTODY RECORD

G132779

Page 1 of 1

Invoice Information		Report Information (if differs from invoice)		Project Information		Turnaround Time (TAT) Required
Company:	CITY OF COURTENAY	Company:	City of Courtenay	Quotation		[X] 5 - 7 Days Regular (Most analyses)
Contact Name:	Kyle Shaw	Contact Name:	Kyle Shaw	P.O. #/AFE#:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:		Address:				Rush TAT (Surcharges will be applied)
	PC:		PC:	Project #:		[ ] Same Day [ ] 2 Days
Phone/Fax:	250-338-1525	Phone/Fax:	250-338-1525	Site Location:	City of Courtenay	[ ] 1 Day [ ] 3-4 Days
Email:	kshaw@courtenay.ca.	Email:	kshaw@courtenay.ca.	Site #:		Date Required:
Copies:	bbrooks@courtenay.ca.	Copies:	bbrand@courtenay.ca bbrooks@courtenay.ca.	Sampled By:	Burton Brand.	Rush Confirmation #:

Laboratory Use Only

	YES	NO	Cooler ID			
Seal Present		X				
Seal Intact			Temp	16	17	17
Cooling Media	X					

	YES	NO	Cooler ID			
Seal Present						
Seal Intact			Temp			
Cooling Media						

	YES	NO	Cooler ID			
Seal Present						
Seal Intact			Temp			
Cooling Media						

Depot Reception

Analysis Requested

Sample Identification	Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix	# of Containers	VOC / BTEXS / VPH	MTBE	BTEXS / VPH	VOC / BTEX / F1	BTEX F1	LEPH / HEPH / PAH	PAH	F2 - F4	EPH	TEH	Preserved?	Dissolved Metals	Filtered?	Preserved?	Dissolved Mercury	Filtered?	Field Preserved?	Total Metals	Field Preserved?	Total Mercury	Sulphate	Fluoride	Chloride	COD	BOD	TDS	TSS	Alkalinity	Conductivity	pH	Ammonia	Nitrate	Nitrite	HHT	###	HOLD - DO NOT ANALYZE
1 1st Street.	2019/7/30	12:55pm	H2O	6																		✓															✓	✓	
2 Elderberry Crescent	"	13:25	"	6																		✓															✓	✓	
3																																							
4																																							
5																																							
6																																							
7																																							
8																																							
9																																							
10																																							

Regulatory Criteria

- [ ] BC CSR
- [ ] YK CSR
- [ ] CCME
- [X] ~~Drinking Water~~
- [ ] BC Water Quality
- [ ] Other

Special Instructions

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 acknowledgement and acceptance of our t

Relinquished by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):
Beth Brooks	2019/07/30	13:57	Michelle MSch	2019/07/30	13:57

30-Jul-19 13:57
Customer Solutions
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