

School District 68 (Nanaimo-Ladysmith)



December 21, 2017 ISSUED FOR USE FILE: 704-ENW.VENW03140-01

Via Email: BHackwood@sd68.bc.ca; Chris.Baker@sd68.bc.ca

395 Wakesiah Road Nanaimo, BC V9R 3K6

Attention: Mr. Brian Hackwood, Maintenance Manager

Subject: Domestic Water Testing (Lead) Inventory – SD 68 Maintenance Facilities

1.0 INTRODUCTION

Tetra Tech Canada Inc. (Tetra Tech) was retained School District 68 Nanaimo-Ladysmith (SD 68) to conduct a domestic water testing inventory at SD 68 Maintenance Facilities located in SD 68. Tetra Tech understands that the BC Ministry of Education has issued a directive to protect drinking water. The directive requires that a systematic investigation of public drinking water supplies at select schools in the District be undertaken. The investigation is based on procedures set forth by the Vancouver Island Health Authority (VIHA), modified per Health Canada guidelines, to ascertain risk and mitigation.

Tetra Tech understands that the sampling schedule, collection, testing and reporting of results needs to be completed by December 22, 2017 in order to allow sufficient time for SD 68 to implement mitigation measures prior to its deadline of March 31, 2018.

Carrie McVeigh, of SD 68, provided Tetra Tech with authorization to proceed with the inventory on October 24, 2017.

2.0 METHODOLOGY

Tetra Tech completed the domestic water testing inventory program at SD 68 Maintenance Facilities on November 27th and December 11th, 2017. The 2017 sampling program was conducted as per the protocols established during the 2016 program. The methodologies employed during the field program are detailed in the following subsections.

2.1 Sampling Locations

Tetra Tech reviewed plans for the facility prior to commencing the field work to identify potential sampling locations. All sink locations in the assessed buildings were sampled. The sampling locations for SD 68 Maintenance Facilities are shown on the attached Figures 1 to 6..

2.2 Drinking Water Sampling

Sampling was conducted in the early hours of Monday, November 27th and December 11th, 2017 in order collect water samples representative of an approximate worse-case scenario of water that had remained in contact with the school's plumbing over the course of a weekend. Two samples were collected at each sample location; during



initial sampling the first was collected immediately prior to any water line flushing (0 second sample); the second collected after thirty seconds of water line flushing (30 second sample).

The process for the sequence of analysis for a sample location is as follows:

- Only the pre-flush (0 second) sample is initially submitted for laboratory analysis;
- If the analytical result exceeds the *Guidelines for Canadian Drinking Water Quality* (GCDWQ) Maximum Allowable Concentration (MAC), the 30 second sample would be submitted for further analysis; and
- If the 30 second sample analytical result exceeds the GCDWQ MAC, additional samples would be collected
 after flushing with cold water for 2 minutes and 5 minutes at a subsequent sampling event and both samples
 submitted for analysis.

Water samples were collected directly from the sample point into clean, labeled, new laboratory-supplied containers pre-charged with preservative for total lead. Sampling personnel wore new nitrile gloves prior to collecting each sample. Samples were kept in a cooler with ice after collection until being brought back to Tetra Tech's Nanaimo office, where samples not immediately submitted to the laboratory were stored in refrigerated conditions.

2.3 Analytical Testing

Maxxam is a Canadian Association for Laboratory Accreditation (CALA) accredited laboratory that is qualified to analyze the samples using British Columbia Ministry of Environment (MOE)-approved procedures. All water samples submitted were analyzed for total lead.

2.4 Quality Assurance / Quality Control

During the sampling program, Tetra Tech implemented a Quality Assurance/Quality Control (QA/QC) program to ensure the integrity of the sampling methodology and analytical testing. The QA/QC program adhered to Tetra Tech's in-house Quality Management System (QMS), which was designed to generate representative samples, minimize the potential for cross-contamination between sampling locations and samples, and reduce the potential for systematic bias.

The QA/QC program included the following tasks:

- Recording the results of field activities in the field concurrently with the activities;
- Use of clean, new sampling gloves at each sampling location;
- Placing samples into new, labeled laboratory-supplied containers;
- Transporting samples to Maxxam in chilled coolers using chain-of-custody procedures;
- Using a Canadian Association for Laboratory Accreditation (CALA) accredited laboratory that is qualified to analyze the samples using MOE-approved procedures;
- Independently verifying the sample concentrations flagged by Maxxam as being greater than Health Canada guidelines; and
- Conducting a review of this report by a qualified senior Tetra Tech professional to ensure that the report meets
 Tetra Tech technical and reporting requirements.





Laboratory Quality Assurance / Quality Control Program

Water samples were submitted to Maxxam, a CALA accredited laboratory. Laboratory testing was conducted using methods outlined in the British Columbia Environmental Laboratory Manual. Laboratory QA/QC reports are attached to the laboratory reports presented in Appendix B. Samples included in the QA/QC reports consist of laboratory batches and will include random samples from the lab report and potentially other projects to complete a batch.

The Laboratories noted any sample deficiencies, such as unacceptable headspace, broken jars or bottles, etc. As well, the laboratory measured the temperature of samples received by the laboratory in Burnaby.

3.0 ASSESSMENT STANDARDS

As per the guidance from the Vancouver Island Health Authority (VIHA), Tetra Tech compared the sample analytical results to the *Guidelines for Canadian Drinking Water Quality* (GCDWQ) published by Health Canada, February 2017. The guidelines list a Maximum Acceptable Concentration (MAC) for lead of 10 µg/L (0.010 mg/L). The MAC for lead is based on chronic effects and is intended to apply to average concentrations in water consumed for extended periods. No immediately toxic concentration for lead is listed, however exposure to lead should nevertheless be kept to a minimum.

4.0 ANALYTICAL RESULTS

A total of 15 sample locations were identified; two samples were collected at each location (i.e., 0 second sample and 30 second sample). Tetra Tech collected water 0 and 30 second samples from SD 68 Maintenance Facilities on November 27th, 2017. All 15 pre-flush (0 second) samples were submitted for laboratory analysis of total lead.

Seven of the 15 pre-flush (0 second samples) contained concentration of total lead greater than the GCDWQ MAC.

SD06	sink in Welding Shop
SD07	sink in women's washroom in Trades Shop (near Electrical)
SD08	sink in Trades Shop (near Electrical)
SD09	sink in Trades Shop (in Painting)
SD10	sink in washroom of Transportation Garage, main floor
SD11	sink in washroom of Transportation Garage, upper floor
SD12	sink in Health and Safety kitchen of Transportation Garage, upper floor

The 30 second sample for all these locations was submitted for laboratory analysis of total lead.

The 30 second sample at SD07 contained concentrations of total lead greater than the GCDWQ MAC.

Tetra Tech collected 2 minute and 5 minute flush samples from SD07 on December 11th and submitted them for laboratory analysis of total lead.

Both the 2 minute and 5 minute samples at SD07 contained total lead concentrations less than the GCDWQ MAC.

Sampling locations are shown on Figures 1 to 6. Laboratory testing results for SD 68 Maintenance Facilities are summarized in the table below. The complete laboratory certificate is provided as Appendix B.





Table 1: Laboratory Testing Results

Sample ID	Sample Date	MAC	Total Lead (µg/L)
	0 Second	Samples	
SD01-0s	11/27/2017		2.78
SD02-0s	11/27/2017		9.83
SD03-0s	11/27/2017		7.09
SD04-0s	11/27/2017		3.24
SD05-0s	11/27/2017		7.87
SD06-0s	11/27/2017		46.6
SD07-0s	11/27/2017	-	22.2
SD08-0s	11/27/2017	10 μg/L	183
SD09-0s	11/27/2017	-	38.4
SD10-0s	11/27/2017	-	23.7
SD11-0s	11/27/2017	-	177
SD12-0s	11/27/2017	-	39.4
SD13-0s	11/27/2017		1.56
SD14-0s	11/27/2017		4.48
SD15-0s	11/27/2017		6.72
	30 Second	Samples	
SD06-30s	11/27/2017		3.67
SD07-30s	11/27/2017	-	18.9
SD08-30s	11/27/2017	T	4.89
SD09-30s	11/27/2017	10 μg/L	3.22
SD10-30s	11/27/2017		2.97
SD11-30S	11/27/2017		1.91
SD12-30S	11/27/2017		5.99
	2 Minute	Sample	
SD07-2m	12/11/2017	10 μg/L	0.86
	5 Minute	•	
SD07-5m	12/11/2017	10 μg/L	0.80
Notes:	Grey Fill	Exce	eeds GCDWQ MAC

5.0 DISCUSSION AND RECOMMENDATIONS

Tetra Tech's sampling program was based upon guidance from the Ministry of Health, found in the document *Guidance on Controlling Corrosion in Drinking Water Distribution Systems* (2009). The rationale is that for each sampling point, if the pre-flush (0 second) sample (Tier 1) contained elevated lead concentrations, it could indicate that the faucet or fittings are the source of lead. If a subsequent 30 second flush sample (Tier 2) contained elevated lead concentrations, the source of the lead would likely be the piping (plumbing) leading to the faucet; whereas low lead concentrations in the 30 second sample would further indicate that the source was likely the faucet and fittings. Finally, 2 and 5 minute flush samples (if required) should be drawing water directly from the water supply piping within the building and would indicate if flushing is feasible for lowering the lead concentration in water within the building.

The Health Canada guidance recommend that Tier 2 sampling (30 second samples) take place when Tier 1 sampling identifies more than 10% of sites with lead concentrations above the MAC, and then only at the 10% of sampling sites with the highest lead concentration. Rather, Tetra Tech ran every 30 second sample for locations



where the 0 second sample was above the MAC to show that flushing was adequate to lower the lead concentration in the drinking water at each point of concern.

The guidance from the Ministry of Health recommended that samples be collected after the sampling points had been stagnant for a minimum of 8 hours but not longer than 24 hours in order to simulate the worst case daily scenario for lead in drinking water consumption. Based on guidance from VIHA, SD 68 directed Tetra Tech to collect samples Monday mornings prior to any staff or students arriving at the facilities in order to simulate a worst-case scenario for stagnant water. As such, lead concentrations reported represent what could be expected following a weekend and would likely be lower on subsequent weekday mornings.

Seven of 15 pre-flush (0 second) samples collected at SD 68 Maintenance Facilities contained concentrations of lead greater than the GCDWQ MAC. Lead concentrations at sample locations SD06, SD08, SD09, SD10, SD11 and SD12 exceeded the MAC for the 0 second samples but was below the guideline for the 30 second samples. Lead concentrations at SD07 exceeded the MAC for both 0 and 30 second samples but were below in the guideline for the 2 and 5 minute samples.

As previously noted, where lead concentrations are elevated in 0 second samples, the contributing source is likely the fixture (i.e., faucet or fittings). Where the 30 second sample is also elevated the source is likely the plumbing immediately behind the fixture. Since lead concentrations at locations SD06, SD08, SD09, SD10, SD11 and SD12 exceeded the MAC for the 0 second sample but not for the 30 second sample, there is potentially a lead source in the fixture. At SD07 the plumbing behind the fixture may also be a contributing source.

Flushing is adequate to lower the lead concentrations at all sample points in SD 68 Maintenance Facilities. Signage stating "Water Quality – First thing in the morning... Run the water for two minutes before drinking. Throughout the day... Let the water run until it is cold before drinking" should be maintained throughout the facility at each point where drinking water could be consumed.

6.0 SUMMARY AND CONCLUSIONS

Seven pre-flush (0 second) samples (SD06 through SD12) collected at SD 68 Maintenance Facilities contained concentrations of total lead greater than the GCDWQ MAC of 10µg/L (0.010 mg/L). Of those seven locations, one had a concentration of lead below the MAC in the corresponding 30 second samples. Sample SD07 had concentrations of lead exceeding the GCDWQ for both the 0 second and 30 second samples but was below for the 2 minute and 5 minute sample.

Tetra Tech recommends that SD 68 continue with its ongoing procedure of conducting a 2 minute flush at each drinking water consumption point each morning; and running taps/faucets until cold prior to consuming water. Signage stating "Water Quality – First thing in the morning... Run the water for two minutes before drinking. Throughout the day... Let the water run until it is cold before drinking" should be placed and maintained at all water consumption points.

Tetra Tech recommends that the facility be inspected on a routine basis to ensure that the above noted signage is present and in good condition at each point where drinking water could be consumed. Tetra Tech further recommends that a bulletin be provided to staff summarizing the drinking water quality results at the facility and reminding them of the above procedure. Staff should then instruct visitors in the drinking water procedure.



7.0 CLOSURE

This report has been prepared based on the scope of work and for the use of School District 68, which includes distribution as required for the purposes for which this assessment was commissioned. The assessment has been carried out in accordance with generally accepted professional practice. No other warranty is made, either express or implied. Professional judgment has been applied in developing the recommendations in this report.

This report was prepared by personnel with professional experience in investigations of this nature and who specifically conducted the investigations at this Site. Reference should be made to the 'Geoenvironmental Report – Limitations on the Use of this Document' attached in Appendix A that forms a part of this report.

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted, Tetra Tech Canada Inc.

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Biologist

Environment Practice

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/dr

Attachments:

Figure 1 - Maintenance Facilities, Stores and Offices Sample Locations

Figure 2 - Maintenance Facilities, Carpenter Shop Sample Locations

Figure 3 - Maintenance Facilities, Welding Shop Sample Locations

Figure 4 - Maintenance Facilities, Trades Shop Sample Locations

Figure 5 - Maintenance Facilities, Transportation Garage Main Floor Sample Locations

Figure 6 - Maintenance Facilities, Transportation Garage Upper Floor Sample Locations

Appendix A - Limitations on the Use of this Document

Appendix B - Laboratory Report

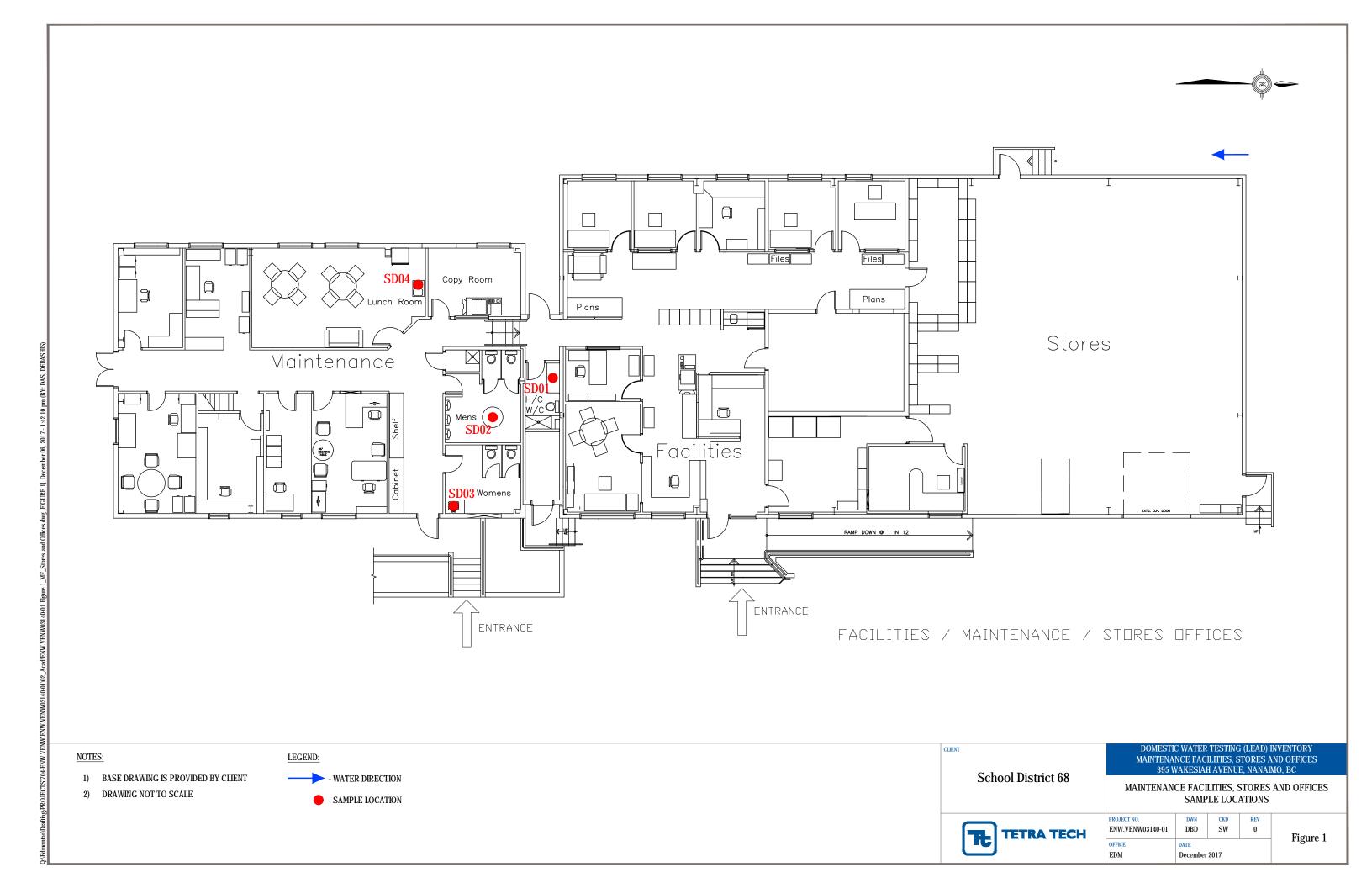


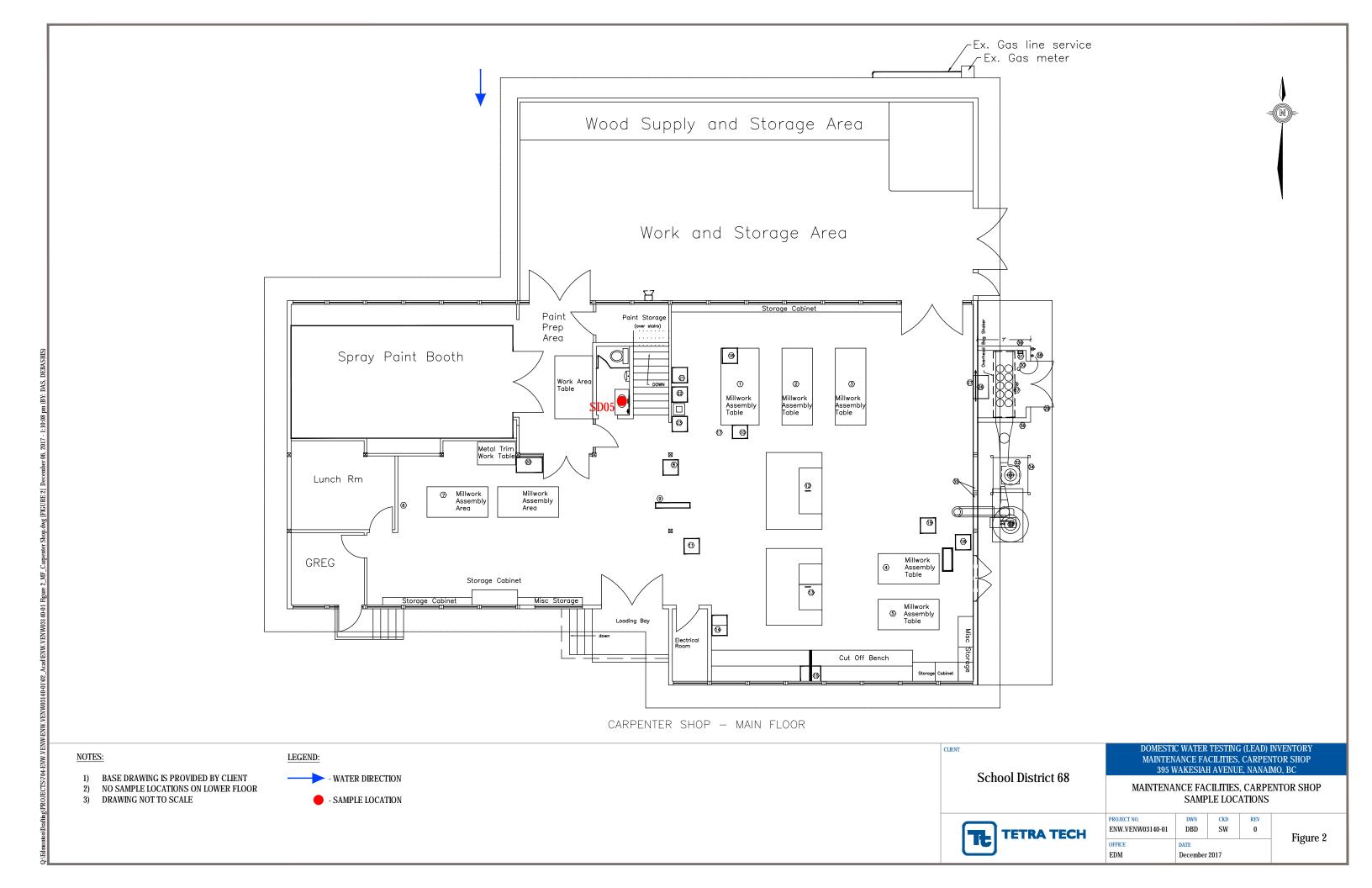


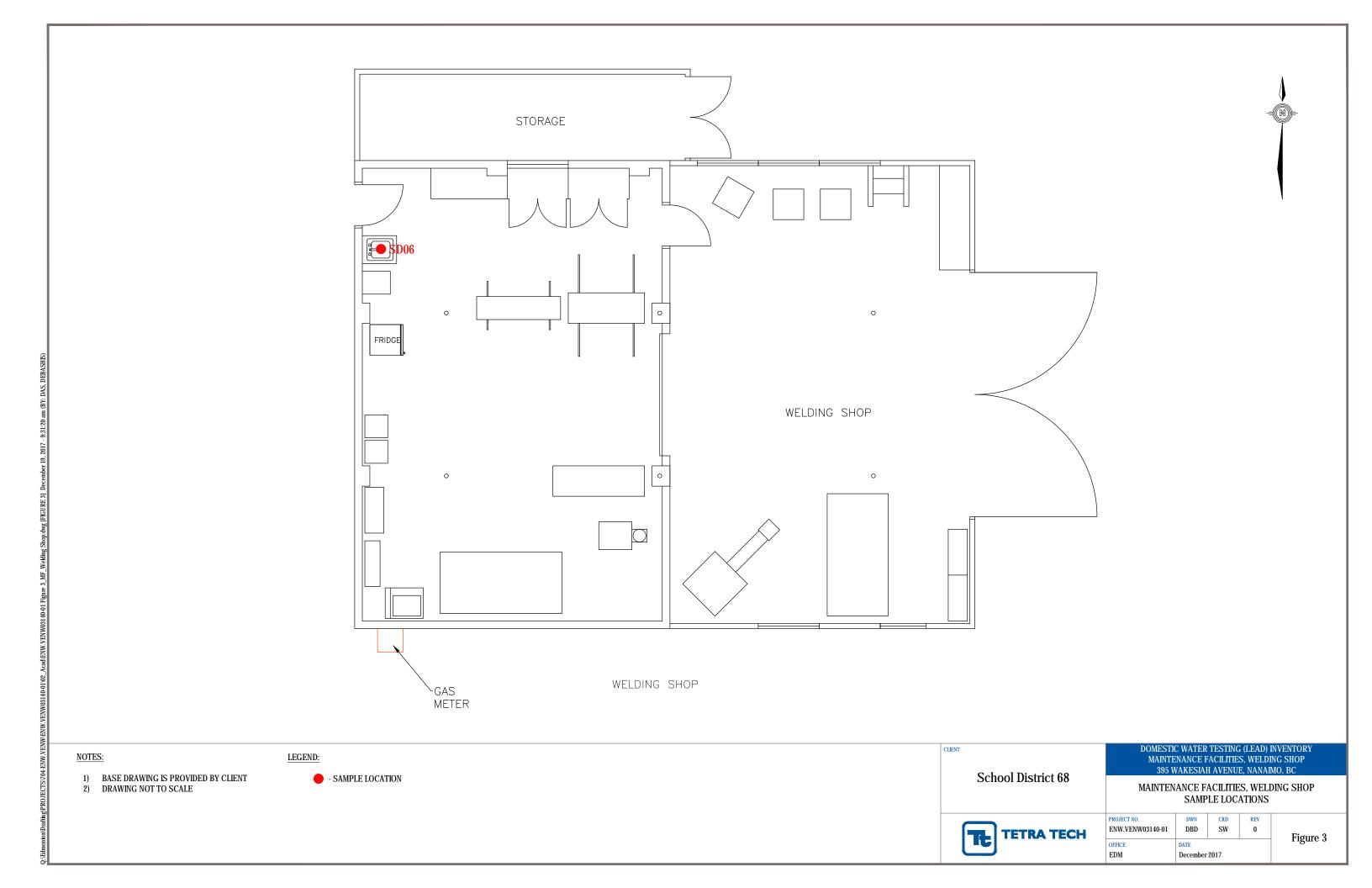
FIGURES

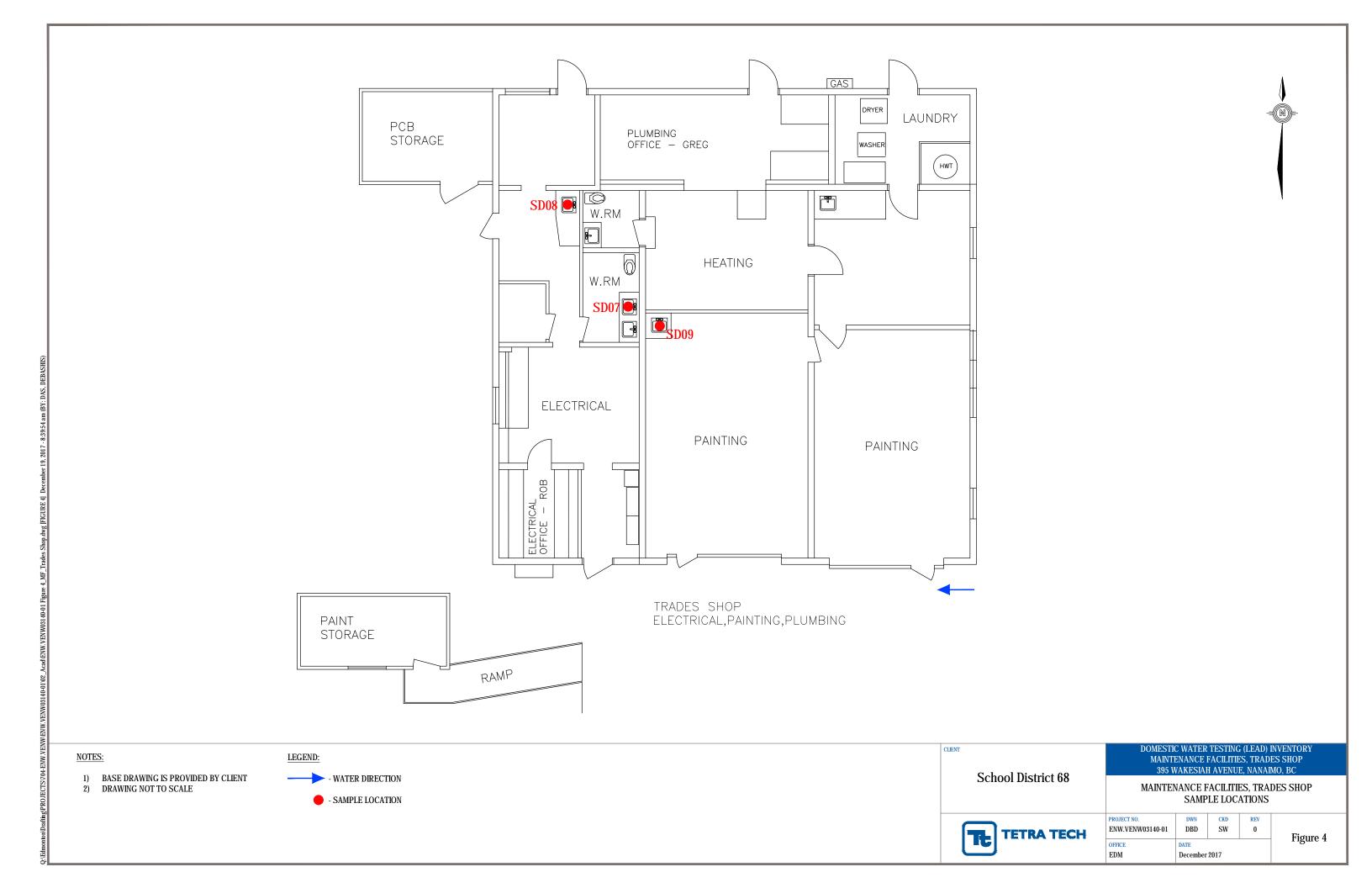
Figure 1	Maintenance Facilities, Stores and Offices Sample Locations
Figure 2	Maintenance Facilities, Carpenter Shop Sample Locations
Figure 3	Maintenance Facilities, Welding Shop Sample Locations
Figure 4	Maintenance Facilities, Trades Shop Sample Locations
Figure 5	Maintenance Facilities, Transportation Garage Main Floor Sample Locations
Figure 6	Maintenance Facilities, Transportation Garage Upper Floor Sample Locations

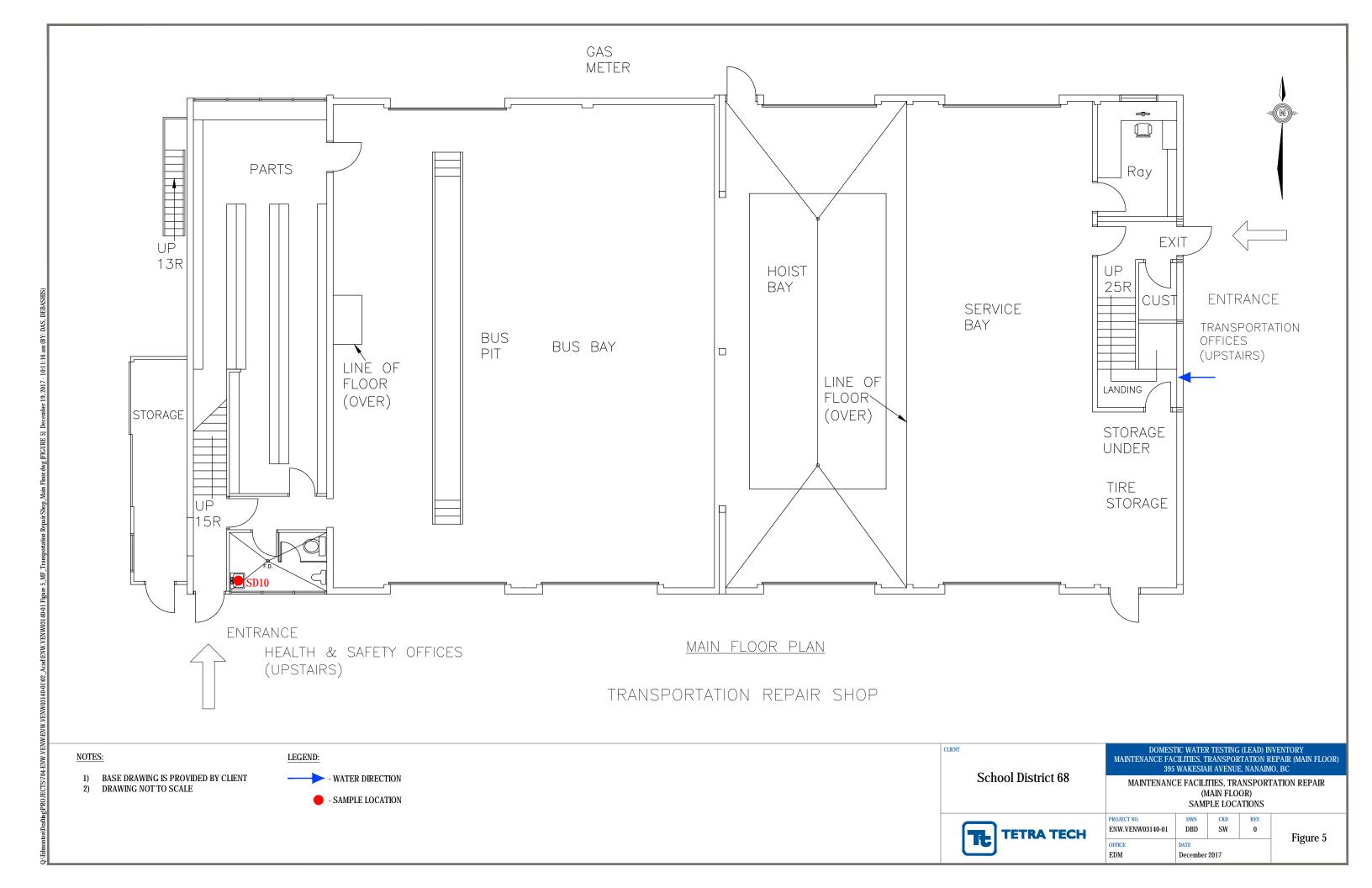


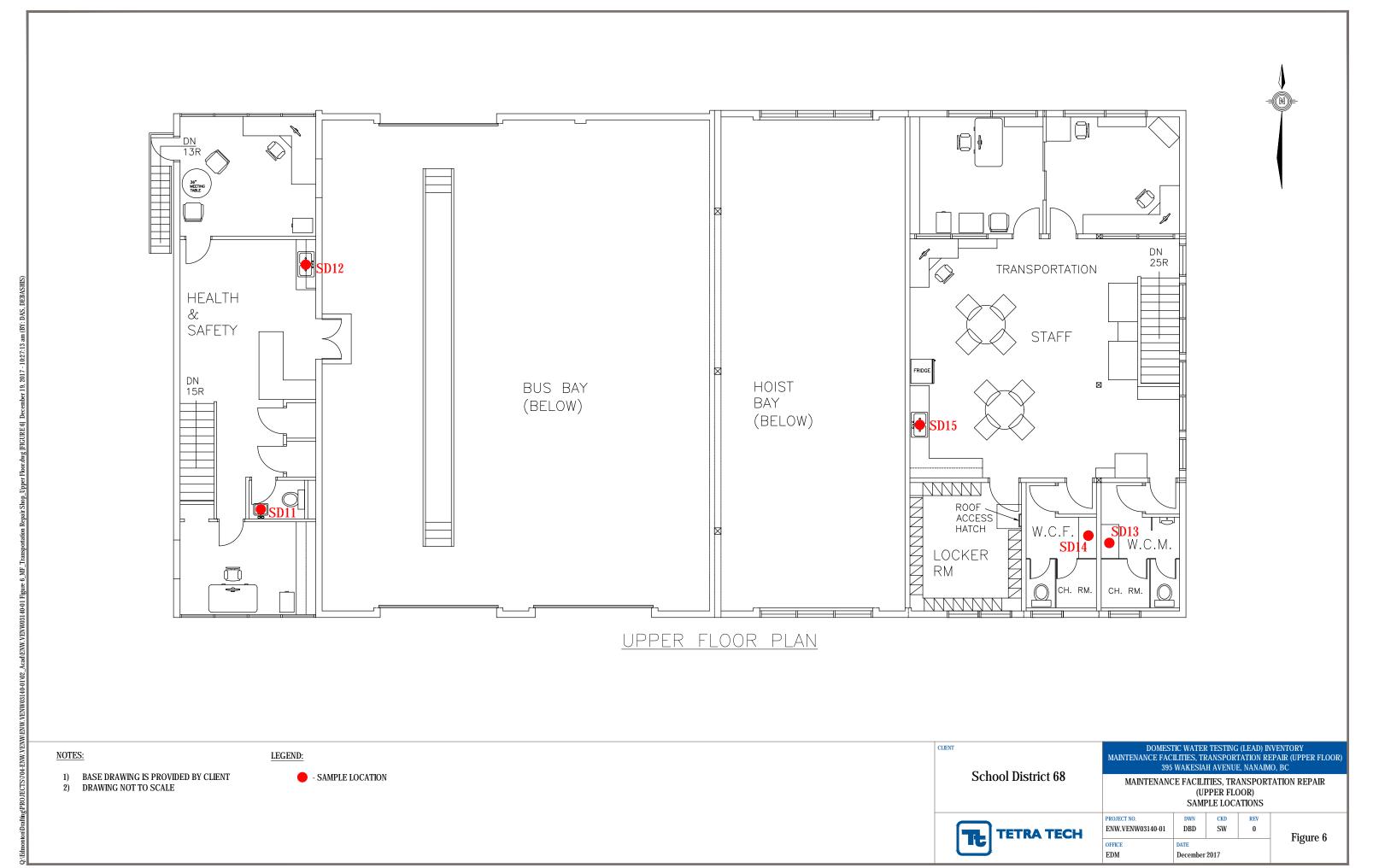














APPENDIX A

LIMITATIONS ON THE USE OF THIS DOCUMENT



LIMITATIONS ON USE OF THIS DOCUMENT

GEOENVIRONMENTAL

1.1 USE OF DOCUMENT AND OWNERSHIP

This document pertains to a specific site, a specific development, and a specific scope of work. The document may include plans, drawings, profiles and other supporting documents that collectively constitute the document (the "Professional Document").

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Where TETRA TECH submits electronic file and/or hard copy versions of the Professional Document or any drawings or other project-related documents and deliverables (collectively termed TETRA TECH's "Instruments of Professional Service"), only the signed and/or sealed versions shall be considered final. The original signed and/or sealed electronic file and/or hard copy version archived by TETRA TECH shall be deemed to be the original. TETRA TECH will archive a protected digital copy of the original signed and/or sealed version for a period of 10 years.

Both electronic file and/or hard copy versions of TETRA TECH's Instruments of Professional Service shall not, under any circumstances, be altered by any party except TETRA TECH. TETRA TECH's Instruments of Professional Service will be used only and exactly as submitted by TETRA TECH.

Electronic files submitted by TETRA TECH have been prepared and submitted using specific software and hardware systems. TETRA TECH makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

1.3 STANDARD OF CARE

Services performed by TETRA TECH for the Professional Document have been conducted in accordance with the Contract, in a manner

consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this Professional Document. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of the Professional Document

If any error or omission is detected by the Client or an Authorized Party, the error or omission must be immediately brought to the attention of TETRA TECH.

1.4 DISCLOSURE OF INFORMATION BY CLIENT

The Client acknowledges that it has fully cooperated with TETRA TECH with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The Client further acknowledges that in order for TETRA TECH to properly provide the services contracted for in the Contract, TETRA TECH has relied upon the Client with respect to both the full disclosure and accuracy of any such information.

1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

During the performance of the work and the preparation of this Professional Document, TETRA TECH may have relied on information provided by persons other than the Client.

While TETRA TECH endeavours to verify the accuracy of such information, TETRA TECH accepts no responsibility for the accuracy or the reliability of such information even where inaccurate or unreliable information impacts any recommendations, design or other deliverables and causes the Client or an Authorized Party loss or damage.

1.6 GENERAL LIMITATIONS OF DOCUMENT

This Professional Document is based solely on the conditions presented and the data available to TETRA TECH at the time the data were collected in the field or gathered from available databases.

The Client, and any Authorized Party, acknowledges that the Professional Document is based on limited data and that the conclusions, opinions, and recommendations contained in the Professional Document are the result of the application of professional judgment to such limited data.

The Professional Document is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site conditions present, or variation in assumed conditions which might form the basis of design or recommendations as outlined in this report, at or on the development proposed as of the date of the Professional Document requires a supplementary investigation and assessment.

TETRA TECH is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the Client.

1.7 NOTIFICATION OF AUTHORITIES

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by TETRA TECH in its reasonably exercised discretion.





APPENDIX B

LABORATORY REPORT





Your Project #: ENW.VENW03140-01 Your C.O.C. #: 541404-03-01

Attention:Shawneen Walker

TETRA TECH CANADA INC. #1 - 4376 BOBAN DRIVE NANAIMO, BC Canada V9T 6A7

Report Date: 2017/12/14

Report #: R2491584 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B7A9892 Received: 2017/12/12, 08:35

Sample Matrix: DRINKING WATER

Samples Received: 8

		Date	Date		
Analyses	Quantity	/ Extracted	Analyzed	Laboratory Method	Analytical Method
Elements by CRC ICPMS (total)	8	N/A	2017/12/1	4 BBY7SOP-00003,	BCLM2005,EPA6020bR2m

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.

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

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager. Letitia Prefontaine, B.Sc., Senior Project Manager

Email: LPrefontaine@maxxam.ca

Phone# (604)639-2616

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.



TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: SW

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Maxxam ID			SQ8479	SQ8480	SQ8481	SQ8482	SQ8483	SQ8484					
Sampling Date			2017/12/11	2017/12/11	2017/12/11	2017/12/11	2017/12/11	2017/12/11					
COC Number			541404-03-01	541404-03-01	541404-03-01	541404-03-01	541404-03-01	541404-03-01					
	DB14-2M	DB14-5M	RDL	QC Batch									
Total Metals by ICPMS	Total Metals by ICPMS												
Total Lead (Pb)	ug/L	10	0.64	0.93	0.86	0.80	0.66	0.92	0.20	8861363			
No Fill	No Excee	dance											
Grey	Exceeds 1 criteria policy/level												
Black	Exceeds both criteria/levels												
RDL = Reportable Detection	Limit												

Maxxam ID			SQ8485	SQ8486						
Sampling Date			2017/12/11	2017/12/11						
COC Number			541404-03-01	541404-03-01						
	UNITS	MAC	DB15-2M	DB15-5M	RDL	QC Batch				
Total Metals by ICPMS										
Total Lead (Pb)		ug/L	10	0.63	0.91	0.20	8861363			
No Fill	No Exceedar	nce								
Grey	Exceeds 1 criteria policy/level									
Black Exceeds both criteria/levels										
RDL = Reportab	le Detection L	imit								



TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: SW

GENERAL COMMENTS

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

Package 1	5.7°C

Samples received with incomplete Chain of Custody. Sampling times not provided.

MAC: 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.



QUALITY ASSURANCE REPORT

TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: SW

				Matrix	Spike	Spiked	Blank	Method B	lank	RPD)
	QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
ĺ	8861363	Total Lead (Pb)	2017/12/14	97	80 - 120	99	80 - 120	<0.20	ug/L	3.6	20

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.



TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: SW

VALIDATION SIGNATURE PAGE

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

Rob Reinert, B.Sc., Scientific Specialist

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.

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nier -				- 5		Į.	Water	1 [1			Job Spe	cific Rush TAT (if applies to entire sub	mission)		
						ŧ	Drinking							1 DAY	2 Day 3 Day Date	Required:		
04110	N PE MIET DE VI	EPT COOL (< 10°C) FRO	ON THE OF CAMELING	HATE DELECT	V TO HAVYAN	9	ā	1 1						Rush Co	nfirmation Number.			
SAMP	LES MUST BE K	THE REAL PROPERTY.		THE REAL PROPERTY.	T TO MAXXAM	Matrix S	Lead.	1 1						W of Bottle	Comm	(call lab for N) ents		
iample B	Sarcode Label	Sample (Location		Date Sampled	Time Sampled		3		_	-	-		-		Name - Name	SHE		
		WS23-	dm	17/12/11		Water	X							- 1				
		WS23-	-5m	_1														
		S007-	am															
		5007-	5m															
		DB14 -	am							. 1								
		DRIH-	5m															
		DR15-	2m															
		0015	-5m	V		1	1							V				
_		0.00	JII)		-	+ + +	+*-							v				
		1								-								
BEI INOT	JISHED BY: (Signal	turn(Print)	Date: (YY/	MM/DD) T	lerse	DECEMEN	BY: (Signature/Print)		Date: (YY/	MM/D(D)	Time	# jars used and			Lab Use Only			
		Nairer	17/12		00 800 84		SYCORA		2017/12	_	08:35	not submitted	Time Sens	tive Ter	The state of the s	stody Sesi Intact on Cooler?		
-			1.7	-	0	_	A STATE OF THE STA		1	-	1	1		0.00	8,2,7 N/A	Yes No		



Your Project #: ENW.VENW03140-01

Attention:Shawneen Walker

TETRA TECH CANADA INC. #1 - 4376 BOBAN DRIVE NANAIMO, BC Canada V9T 6A7

Your C.O.C. #: 540796-06-01, 540796-07-01, 540796-08-01, 540796-10-01, 540796-11-01, 540796-12-01

Report Date: 2017/12/05

Report #: R2486758 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B7A6034 Received: 2017/11/28, 08:55

Sample Matrix: DRINKING WATER

Samples Received: 56

		Date	Date		
Analyses	Quantity	y Extracted	Analyzed	Laboratory Method	Analytical Method
Elements by CRC ICPMS (total)	34	N/A	2017/12/02	BBY7SOP-00003,	BCLM2005,EPA6020bR2m
Elements by CRC ICPMS (total)	22	N/A	2017/12/04	BBY7SOP-00003,	BCLM2005,EPA6020bR2m

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.



Your Project #: ENW.VENW03140-01

Attention:Shawneen Walker

TETRA TECH CANADA INC. #1 - 4376 BOBAN DRIVE NANAIMO, BC Canada V9T 6A7

Your C.O.C. #: 540796-06-01, 540796-07-01, 540796-08-01, 540796-09-01, 540796-10-01, 540796-11-01, 540796-12-01

Report Date: 2017/12/05 Report #: R2486758 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B7A6034 Received: 2017/11/28, 08:55

Encryption Key

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.



TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: BB

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Maxxam ID				SO7002		SO7003	SO7004	SO7005					
iviaxxam iD				307002		307003	307004	307005					
Sampling Date				2017/11/27		2017/11/27	2017/11/27	2017/11/27					
COC Number				540796-06-01		540796-06-01	540796-06-01	540796-06-01					
		UNITS	MAC	WS01-OS	QC Batch	WS02-OS	WS03-OS	WS04-OS	RDL	QC Batch			
Total Metals by ICPMS													
Total Lead (Pb)		ug/L	10	0.79	8848411	13.0	17.1	9.66	0.20	8848362			
No Fill	No Ex	xceedan	ce		•	•	•	•	-				
Grey	Exce	Exceeds 1 criteria policy/level											
Black	Exce	eds both	criter	ia/levels									
RDL = Reportable De	tection L	.imit											

Maxxam ID			SO7006	SO7007	SO7008	SO7009		SO7010				
Sampling Date			2017/11/27	2017/11/27	2017/11/27	2017/11/27		2017/11/27				
COC Number			540796-06-01	540796-06-01	540796-06-01	540796-06-01		540796-06-01				
	UNITS	MAC	WS05-OS	WS06-OS	WS07-OS	WS08-OS	QC Batch	WS09-OS	RDL	QC Batch		
Total Metals by ICPMS	Total Metals by ICPMS											
Total Lead (Pb)	ug/L	10	9.07	3.66	22.1	0.26	8848333	3.60	0.20	8848362		
No Fill	No Exceed	lance										
Grey	Exceeds 1	Exceeds 1 criteria policy/level										
Black	Exceeds both criteria/levels											
RDL = Reportable Detecti	on Limit											

Maxxam ID			SO7011	SO7016	SO7017	SO7018		SO7019		
Sampling Date			2017/11/27	2017/11/27	2017/11/27	2017/11/27		2017/11/27		
COC Number			540796-06-01	540796-07-01	540796-07-01	540796-07-01		540796-07-01		
	UNITS	MAC	WS10-OS	WS11-OS	WS12-OS	WS13-OS	QC Batch	WS14-OS	RDL	QC Batch
Total Metals by ICPMS										
Total Lead (Pb)	ug/L	10	3.42	1.93	0.47	0.22	8848411	1.73	0.20	8848362
No Fill	No Exceed	dance								
Grey	Exceeds 1	Exceeds 1 criteria policy/level								
Black	Exceeds b	xceeds both criteria/levels								
RDL = Reportable Detect	able Detection Limit									

							ı	1	ı		1
Maxxam ID				SO7020		SO7029	SO7030		SO7031		
Sampling Date				2017/11/27		2017/11/27	2017/11/27		2017/11/27		
COC Number				540796-07-01		540796-08-01	540796-08-01		540796-08-01		
		UNITS	MAC	WS15-OS	QC Batch	WS22-OS	WS23-OS	QC Batch	WS24-OS	RDL	QC Batch
Total Metals by ICPMS											
Total Lead (Pb)		ug/L	10	0.74	8848362	3.56	20.8	8848333	1.25	0.20	8848362
No Fill	No E	xceeda	nce								
Grey	Exce	eds 1 c	riteria	policy/level							
Black	Exce	eds bo	th crite	eria/levels							
RDL = Reportable Detec	tion Lir	mit									



TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: BB

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Maxxam ID			SO7032		SO7033		SO7034	SO7035		
Sampling Date			2017/11/27		2017/11/27		2017/11/27	2017/11/27		
COC Number			540796-08-01		540796-08-01		540796-08-01	540796-08-01		
	UNIT	s MAC	WS25-OS	QC Batch	WS26-OS	QC Batch	WS27-OS	MB01-OS	RDL	QC Batch
Total Metals by ICPMS										
Total Lead (Pb)	ug/	. 10	2.12	8848411	3.70	8848362	0.92	0.77	0.20	8848411
No Fill	No Excee	dance								
Grey	Exceeds	. criteria	policy/level							
Black	Exceeds	oth crit	eria/levels							
RDL = Reportable Detect	ion Limit									



TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: BB

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Maxxam ID			SO7036	SO7037		SO7042	SO7043	SO7044				
Sampling Date			2017/11/27	2017/11/27		2017/11/27	2017/11/27	2017/11/27				
COC Number			540796-08-01	540796-08-01		540796-09-01	540796-09-01	540796-09-01				
	UNITS	UNITS MAC MB02-OS MB03-OS QC Batch MB04-OS MB05-OS MB06-OS RDL QC Batch										
Total Metals by ICPMS	oy ICPMS											
Total Lead (Pb)	ug/L	10	17.7	11.4	8848362	7.24	5.13	4.63	0.20	8848333		
No Fill	No Exceed	lance										
Grey	Exceeds 1	criteri	a policy/level									
Black	Exceeds both criteria/levels											
RDL = Reportable Detection	DL = Reportable Detection Limit											

Maxxam ID			SO7045		SO7046		SO7047		SO7048		
Sampling Date			2017/11/27		2017/11/27		2017/11/27		2017/11/27		
COC Number			540796-09-01		540796-09-01		540796-09-01		540796-09-01		
	UNITS	MAC	MB07-OS	QC Batch	MB08-OS	QC Batch	MB09-OS	QC Batch	MB10-OS	RDL	QC Batch
Total Metals by ICPMS											
Total Lead (Pb)	ug/L	10	1.94	8848362	8.92	8848333	6.20	8848362	0.32	0.20	8848411
No Fill	No Excee	dance									•
Grey	Exceeds	1 criter	ia policy/level								

Grey Exceeds 1 criteria policy/le

Black Exceeds both criteria/levels

RDL = Reportable Detection Limit

Maxxam ID			SO7049		SO7050	SO7051		SO7052		
IVIAXXAIII ID			307049		307030	307031		307032		
Sampling Date			2017/11/27		2017/11/27	2017/11/27		2017/11/27		
COC Number			540796-09-01		540796-09-01	540796-09-01		540796-10-01		
	UNI	S MAC	MB11-OS	QC Batch	MB12-OS	MB13-OS	QC Batch	MB14-OS	RDL	QC Batch
Total Metals by ICPMS										
Total Lead (Pb)	ug/	_ 10	18.9	8848411	7.70	0.37	8848362	32.4	0.20	8848333
No Fill	No Excee	dance								
Grey	Exceeds	L criteria	a policy/level							
Black	Black Exceeds both criteria/levels									
RDL = Reportable Detection Limit										

Maxxam ID				SO7053		SO7054	SO7055		SO7056		
Sampling Date				2017/11/27		2017/11/27	2017/11/27		2017/11/27		
COC Number				540796-10-01		540796-10-01	540796-10-01		540796-10-01		
	ı	UNITS	MAC	MB15-OS	QC Batch	DB01-OS	DB02-OS	QC Batch	DB03-OS	RDL	QC Batch
Total Metals by ICPMS	•	•			-		•	-	•		
Total Lead (Pb)		ug/L	10	13.7	8848333	3.23	8.49	8848362	4.75	0.20	8848411
No Fill	No E	xceeda	nce								
Grey	Exce	eds 1 c	riteria	policy/level							
Black Exceeds both criteria/levels											
RDL = Reportable Detection Limit											



TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: BB

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Maxxam ID			SO7057	SO7058		SO7059		SO7060		
Sampling Date			2017/11/27	2017/11/27		2017/11/27		2017/11/27		
COC Number			540796-10-01	540796-10-01		540796-10-01		540796-10-01		
	UNITS	MAC	DB04-OS	DB05-OS	QC Batch	DB06-OS	QC Batch	DB07-OS	RDL	QC Batch
Total Metals by ICPMS										
Total Lead (Pb)	ug/L	10	1.55	1.20	8848362	3.92	8848333	3.65	0.20	8848411
No Fill	No Exceed	ance								
Grey	Exceeds 1	criteria	policy/level							
Black	Exceeds bo	oth crit	eria/levels							
RDL = Reportable Detect	tion Limit									



TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: BB

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Maxxam ID				SO7061		SO7062	SO7063		SO7064		
Sampling Date				2017/11/27		2017/11/27	2017/11/27		2017/11/27		
COC Number				540796-10-01		540796-11-01	540796-11-01		540796-11-01		
		UNITS	MAC	DB08-OS	QC Batch	DB09-OS	DB10-OS	QC Batch	DB11-OS	RDL	QC Batch
Total Metals by ICPMS											
Total Lead (Pb)		ug/L	10	4.72	8848362	0.81	1.19	8848411	3.08	0.20	8848944
No Fill	No E	xceeda	ance								
Grey	Exce	eds 1 c	riteria	policy/level							
Black	Exceeds both criteria/levels										
RDL = Reportable Detect	tion Lii	mit									

NDL - Neportable Deter											
Maxxam ID				SO7065	SO7066		SO7067		SO7068		
Sampling Date				2017/11/27	2017/11/27		2017/11/27		2017/11/27		
COC Number				540796-11-01	540796-11-01		540796-11-01		540796-11-01		
	U	NITS	MAC	DB12-OS	DB13-OS	QC Batch	DB14-OS	QC Batch	DB15-OS	RDL	QC Batch
Total Metals by ICPMS											
Total Lead (Pb)	u	ıg/L	10	125	41.2	8848944	35.9	8848411	18.2	0.20	8848944
No Fill	No Exc	ceeda	ince								
Grey	Exceed	ds 1 c	riteria	policy/level							
Black	Exceed	ds bot	th crite	eria/levels							
RDL = Reportable Dete	- ction Limi	it									

Maxxam ID				SO7069	SO7070		SO7071	SO7072		
Sampling Date				2017/11/27	2017/11/27		2017/11/27	2017/11/27		
COC Number				540796-11-01	540796-11-01		540796-11-01	540796-12-01		
		UNITS	MAC	DB16-OS	DB17-OS	QC Batch	DB18-OS	WS28-OS	RDL	QC Batch
Total Metals by ICPM	IS									
Total Lead (Pb)		ug/L	10	19.1	7.95	8848944	0.83	9.57	0.20	8850025
No Fill	No Ex	kceedan	ce							
Grey	Excee	eds 1 cri	teria p	olicy/level						
Black	Excee	eds both	criter	ia/levels						
RDL = Reportable Det	ection L	imit								

Maxxam ID				SO7073		
Sampling Da	ite			2017/11/27		
COC Numbe	r			540796-12-01		
		UNITS	MAC	WS29-OS	RDL	QC Batch
Total Metals						
Total Lead (F	Pb)	ug/L	10	8.73	0.20	8848944
No Fill	No Exceedance	<u>;</u>				
Grey	Exceeds 1 crite	ria polic	y/leve	I		
Black	Exceeds both c	riteria/l	evels			
RDL = Report	table Detection L	imit				



TETRA TECH CANADA INC. Client Project #: ENW.VENW03140-01

Sampler Initials: BB

GENERAL COMMENTS

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

Package 1	8.7°C
Package 2	10.3°C

Samples in one of the two coolers received were over temperature (past 10 degree average).

Samples received with incomplete Chain of Custody. Sampling times not provided.

All Chain of Custodies except 540796-06-01 were received with no relinquished date, time or signature.

MAC: 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.



QUALITY ASSURANCE REPORT

TETRA TECH CANADA INC.

Client Project #: ENW.VENW03140-01

Sampler Initials: BB

			Matrix	Spike	Spiked	Blank	Method E	Blank	RPI)
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8848333	Total Lead (Pb)	2017/12/04	100	80 - 120	99	80 - 120	<0.20	ug/L	2.0	20
8848362	Total Lead (Pb)	2017/12/02	93	80 - 120	98	80 - 120	<0.20	ug/L	0.22	20
8848411	Total Lead (Pb)	2017/12/02	98	80 - 120	100	80 - 120	<0.20	ug/L	0.76	20
8848944	Total Lead (Pb)	2017/12/04	NC	80 - 120	98	80 - 120	<0.20	ug/L	3.2	20
8850025	Total Lead (Pb)	2017/12/04	99	80 - 120	98	80 - 120	<0.20	ug/L	1.6	20

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.

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)



TETRA TECH CANADA INC. Client Project #: ENW.VENW03140-01

Sampler Initials: BB

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

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.

	INVOICE TO:				Report Inform	nation	In and the second		Project Inf	ormation			Page
mpany Name	#1433 TETRA TECH CANADA INC.	A.S.	Company Nam	u .		31.11.56		Quotation#	B60578			建筑本设置学展	ottle Order #:
ntact Name	Shawneen Walker		Contact Name	Shawneen V	Valker			P.O.#	-parameter and				111819111111
tress	#1 - 4376 BOBAN DRIVE		Address					Project #	ENW.VEN	IW03140-01	I	37A6034_COC	540796
	NANAIMO BC V9T 6A7 (250) 756-2256 x Enc. (250)	750 0000	-	-				Project Name					oject Manage
ne iil	(250) 756-2256 x Fax (250) Shawneen.Walker@tetratech.com; EBA.	r 30-2000 x Lahdata@tetr	Phone a Email	Shaumeen W	Valker@tetr	FaxFR	Labdata@tetrat	Site #	8 B				Letitia Prefontair
egulatory Crit		Casouting toti	Services.	nstructions	valker@ieti	T COM, CO		Sampled By REQUESTED (PLEAS				C#540795-D6-01	
Same?	enac	_	Special	nstructions		1	ANALTSIS	REQUESTED (PLEAS	SE BE SPECIFIC)			Turnsround Time (TAT) Requir Please provide advance notice for rush p	
CSR CCME BC Wate	12.60		**************************************		N. S. Cha						(will be Stand	ar (Standard) TAT: applied if Rush TAT is not specified): ard TAT = 5-7 Working days for most tests. note: Standard TAT for certain tests such as BOD a contact your Project Manager for defails.	
	PLES MUST BE KEPT COOL (< 10°C) FROM TIME (Beroode Label Sample (Location) Identific			MAXXAM	Matrix M	Lead					1 DA	Confirmation Number: (call la	
Semple	WSO 1 - C		7-Nov-17		Wake	1			+ +				
	W50Z -0		7000-11	-	War	V			1				
	W503 -		1			1/						 	
	W504 -					1							
	WSOS.					1/							
	W506-				1 5	V			+				
97-	W507-				11	V							
- 17 - 17						V			11		_		
	W 508					V			+				
	W 508	-05				10 15.2		+	-		_		
	W509				4	V		1 1		4.			
* RELINQ					RECEIVED	BY: (Signature/Print		Date: (YY/MM/DD)	Time	# jars used and not submitted		Lab Use Only	

10,10,11 (ICE N/A)

	INVOICE TO:					Report Inform	ation				,	Project l	nformation		-		Page 2
pany Name #	#1433 TETRA TECH CANADA INC.			Company Nar	ne				W-1	Quotation#	Be	50578					Bottle Order #:
WCV Letter Lies	Shawneen Walker			Contact Name	Shawneen	Walker				P.O.#				- 13			
100	#1 - 4376 BOBAN DRIVE			Address					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Project #	EN	W.VE	NW03140-01		B7A	.6034_COC	540796
Section 1	NANAIMO BC V9T 6A7	. 750 0000	_					_		Project Name	<u> </u>		are in		-	Ember.	Project Manage
-	(250) 756-2256 x Fax: (250 Shawneen.Walker@tetratech.com; EB.	756-2686 A Labdata	W. C V. C	Phone	Chausana	Malleadhtate	Fax:	- CDA I	abdata@tetrat	Site #			00				Letitia Prefontai
-		Labuatag	gietta	Email	Service and Park Street	.vvalker@tetr	atech,cor	n, EBA.L		Sampled By			88			C#540796-07-01	New York Control of the Control of t
gulatory Criteria	ria;			Special	Instructions			_	ANALYSIS F	EQUESTED (PLEASE BE SI	PECIFIC)	_		Turnaround Time (TAT) Req	Part of the same o
CSR							1	1		1 1						Please provide advance notice for ru	sh projects
CCME							1		1 1	1 1					EL PROPERTY.	tandard) TAT:	
7.800100						-				1	1				AT GREEN, MARKET	illied if Rush TAT is not specified): AT = 5-7 Working days for most tests	
BC Water Q	Quality					2				1 1					Please note	e: Standard TAT for certain tests such as BO	D and Dioxins/Furans
Other						A) 6 pa						- 1		1	days - cont	act your Project Manager for details	
V0						Day of the second		Q		1 1		- 1		0 0	Job Speci	fic Rush TAT (if applies to entire submiss	ion)
						i i	8	13	1 1	1 1		- 1			1 DAY	2 Day 3 Day Date Requi	red:
SAMPI	LES MUST BE KEPT COOL (< 10°C) FROM TIM	E OE SAMBI IN	C INTH	DEL IVEDY TO	MAYYAM	- M	00	13		1 1					Rush Cont	firmation Number.	
			50.00		/ IIIAAAAIN		Lead	13		1 1		- 1			# of Bottles	(ca Comments	ill lab for #)
Sample Bar	arcode Label Sample (Location) Identi	fication	Date S	ampled	Time Sampled	Matrix S		_							10.000	Constance	
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* RELINOUS		J. Dine: (11		11000	1				CAJ FALE CHAN		2C L	Time	not submitted	Time Sen	utive .	Lab Use Only persiture (°C) on Receipt Custody	Seal Intact on Cooler
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10, 10,11 (KE N/A)

		INVOICE TO:				Report Info	ormation	n					Project In	nformation			TURA IN LUNCTION BAT BUT BUILD	Page -
y Name	#1433 TETRA	TECH CANADA INC.		Сопра	ny Name		0.5.				Quotation#		B60578					Bottle Order
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	#1 - 4376 BOB	The second secon		Addres	10000						Project #		ENW.VE	NW03140-01		B7A	.6034_COC	540796
1.00	NANAIMO BC		-								Project Name							Project Mana
	(250) 756-2256	TORK STORY	756-2686	X Phone				Fax:			Site #							Letitia Prefon
	Shawneen, Wal	ker@tetratech.com; EBA.	Labdata@	tetra Email	Shawnee	n.Walker@te	etratec	h.com	EBA Lat	data@tetrat	Sampled By		_				C#540796-08-01	Estina - Taron
atory Criter	ria:		1		Special Instructions					ANALYSIS	REQUESTED (PLEASE 6	BE SPECIFIC)				Turnaround Time (TAT) Red	quired:
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		INVOICE TO:				Report	nforma	tion				Project In	formation		300	INCOMENSA DA PARA DE LA COMPONIO DE	Page 40
pany Name #1	1433 TETRA	TECH CANADA INC.	8	Compa	ny Name					Quotation		B60578					Bottle Order#:
act Name SI	hawneen Wal	ker		Contac	Chair	een Walker	15			P.O. #	700				Da	MATCHER TO THE CONTRACT OF THE	
490	1 - 4376 BOB			Addres						Project #		ENW.VE	NW03140-01		BIZ	A6034_COC	540796
-	ANAIMO BC						-			Project No	ame		1		37		'roject Manage
	250) 756-2256	X Fax (25	0) 756-2686					_ Fax		Site #			100				Letitia Prefontai
Si	hawneen.Wal	ker@tetratech.com; El	3A.Labdata@	tetra Email	Shawn	een.Walker@	tetrat	ech.com; E	BA.Labdata@tet	rat Sampled I	Ву		V- 50 T			C#540796-09-01	Canada Francisco
gulatory Criteria	C.				pecial Instructions				ANALYS	IS REQUESTE	D (PLEASE	BE SPECIFIC	8			Turnaround Time (TAT) Rec	uired:
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		MB13-0) 6	· t	-		1	12			-						
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				11.910.2010.	Mense				CHERAS KAUR CH			8:55	not submitted	Time San	1.60	perature (°C) on Receipt Custody	Seal Intact on Cooler?
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10,10,11 (ICE N/A)

	INVOICE TO:			Report Informa	ition			Project In	formation			THAT IS NOT COME AND THE COURT	Page
pany Name #1433 TET	RA TECH CANADA INC.	Company N	lame			Qu	otation#	B60578					Bottle Order#
sct Name Shawneen V		Contact Ne	me Shawneen	Walker).#	8			D7 A	TANTA VIOLENT PROPERTY	
#1 - 4376 BC		Address				Pro	nject#	ENW.VE	NW03140-01		B/A	6034_COC	540796
NANAIMO B		215				Pro	ject Name				_	The state of the s	Project Manag
(250) 756-22 Sharrana	56 x Fax (250) 756-20 raiker@tetratech.com; EBA.Labda				Fax:	Site	c#				_ 1	HI FILI OCI DISENDINI DI	Letitia Prefonta
TALLING BUSINESS	alker@tetratecn.com; EBA.Labda	- Lineau	- Charles and Char	Walker@tetra	tech.com; EBA.	90	mpled By	-			3 70	C#540796-10-01	
gulatory Criteria:		Spec	al Instructions			ANALYSIS REQU	JESTED (PLEASE	BE SPECIFIC)				Turnaround Time (TAT) Req	
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		and the state of t		9	9	1 1 1		1 1		1	Rush Confi	mation Number	
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SAMPLES MUST BE I	EPT COOL (< 10°C) FROM TIME OF SAM Sample (Location) Identification	PLING UNTIL DELIVERY Date Sampled	TO MAXXAM	Matrix Wetals Field	d						Rush Confi	THE PROPERTY OF THE PARTY OF TH	li lab for #)
	and the first own to the more of the		37 1027 XX	Matux Metas Field	d							(ca	il lab for #)
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2.00.000.000.000.000.000	Sample (Location) Identification MB 14 - 05 MB 15 - 05	Date Sampled	37 1027 XX	mana =	1 Lea							(ca	Viab for #)
2.00.000.000.000.000.000	Sample (Location) Identification MB 14-05 MB 15-05 DB 01-05	Date Sampled	37 1027 XX	mana =	2 \ Cea							(ca	Vlab for #)
2.22.23.13.22.23.23.23.23.23.23	Sample (Location) Identification MB 14 - 05 MB 15 - 05 DB 01 - 05 DB 02 - 05	Date Sampled	37 1027 XX	mana =	2 \ Cea			3				(ca	ŭ lab for #)
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10, 10, 11 (ICE N/A)

	10	VVOICE TO:				Report Ir	format	ion				Project Inf	ormation			PURA IN LUCCIPARIN DIP IN	Page (e
pany Name	#1433 TETRA	TECH CANADA INC.		Company f	lame				5/6	Quotation #	3	B60578					lottle Order#:
act Name	Shawneen Walk	er		Contact Na	O.	en Walker				P.O.#							INT REFERENCES
188	#1 - 4376 BOBA	N DRIVE		Address						Project #		ENW.VEN	W03140-01		B7A	.6034_COC	540796
	NANAIMO BC V				4					Project Name							roject Manage
16	(250) 756-2256				-			_ Fax:		Site #		- 12					Letitia Prefontari
(Shawneen.Walk	er@tetratech.com; EBA.L	.abdata@te	etra Email	Shawnee	en.Walker@	tetrat	ech.com; EBA	Labdata@tetra	-I agusting of						C#540796-11-01	
guistory Cr	iteria:			Spe	cial Instructions		-		ANALYSIS	REQUESTED (PLEASE B	E SPECIFIC)				Turnaround Time (TAT) R	
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	THE RESERVE THE PARTY OF THE PA	9 12 1	Date: (YY)	MM/DDI TI		O DECO	EIVED P	Y: (Signature/Print		Date: (YY/N	I (MANDA)	Time	# jars used and	-		Lab Use Only	
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10,10,11 (ICE NA).

41.4 4.4.4.	INVOICE TO:				Report Inf	ormat	ion						Project In	formation			DOCIDED COCCOPONION BITS BEING	Page 7
ny Name #1433 T	ETRA TECH CANADA INC.		Company N	sme						-	ouotation #		B60578					Bottle Order #
Name Shawnee	Name and Address of the Owner, when the Owner,		Contact Nar	Chaman	n Walker						0.#							E A LEGICIALITA
#1 - 4376	BOBAN DRIVE		Address	200 ST-12-2-1	- Frei	L.A.					roject#		ENW.VE	NW03140-01		B7A	5034_COC	540796
***************************************	BC V9T 6A7		# # # # # # # # # # # # # # # # # # #			100					roject Name							Project Manag
(250) 756	2256 x Fax (25	0) 756-2686	X Phone				Fax			S	ine#		50.00	1.0				Letitia Prefontar
Shawnee	n.Walker@tetratech.com; EB	A.Labdata@	tetra Email	Shawnee	n.Walker@t	etrat	ech.com	; EBA.La	ibdata@	tetrat s	iampled By			3.0		,	C#540796-12-01	Comme 5.1 ends from
datory Criteria			Speci	al Instructions					ANA	YSIS RE	QUESTED (PLEASE 8	E SPECIFIC)				Turnaround Time (TAT) Req	uired:
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