



Rainy River District School Board
ATTN: Travis Enge
RE: MINE CENTRE
522 2ND ST EAST
FORT FRANCES ON P9A 1N4

Date Received: 02-NOV-17
Report Date: 06-NOV-17 12:45 (MT)
Version: FINAL

Client Phone: 807-275-6762

Certificate of Analysis

Lab Work Order #: L2017426
Project P.O. #: MINE CENTRE
Job Reference: 260015002
C of C Numbers:
Legal Site Desc:

Christina Shepherd
Account Manager

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ADDRESS: 1081 Barton Street, Thunder Bay, ON P7B 5N3 Canada | Phone: +1 807 623 6463 | Fax: +1 807 623 7598
ALS CANADA LTD Part of the ALS Group An ALS Limited Company



ANALYTICAL GUIDELINE REPORT

260015002

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits							
Grouping	Analyte						#1	#2						
L2017426-1	-R1 1 MECHANICAL RM RAW Sampled By: CG on 01-NOV-17 @ 07:05 Matrix: RAW WATER						#1	#2						
Bacteriological Tests														
	Escherichia Coli	0		0	MPN/100m L	02-NOV-17	0							
	Total Coliforms	0		0	MPN/100m L	02-NOV-17	0							
L2017426-2	-D1 2 KINDERGARTEN RM DIST Sampled By: CG on 01-NOV-17 @ 07:15 Matrix: DISTRIBUTION						#1	#2						
Bacteriological Tests														
	Escherichia Coli	0		0	MPN/100m L	02-NOV-17	0							
	Heterotrophic Plate Count	4		0	CFU/mL	02-NOV-17								
	Total Coliforms	0		0	MPN/100m L	02-NOV-17	0							
L2017426-3	-E1 3 MECHANICAL RM VALVE 26 TREATED SOURCE Sampled By: CG on 01-NOV-17 @ 07:10 Matrix: TREATED WATER						#1	#2						
Anions and Nutrients														
	Nitrate and Nitrite as N	<0.040		0.040	mg/L	06-NOV-17	10.0							
	Nitrate (as N)	<0.020		0.020	mg/L	05-NOV-17	10							
	Nitrite (as N)	<0.010		0.010	mg/L	05-NOV-17	1							

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Drinking Water Regulation (ODWQS) JAN.1,2017 = [Suite] - ON-DW-STANDARD+GUIDELINES

#1: Schedule 1 (Microbiological) and 2 (Chemical) Standards (JAN,2017)

#2: Ontario DW Aesthetic and Operational Guidelines

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
ETL-N2N3-TB	Water	Calculate from NO2 + NO3	Calculation
HPC-PP-TB	Water	Heterotrophic Plate Count by Pour Plate	APHA 9215B (modified)
Heterotrophic Plate Count in aqueous matrices are analyzed using aerobic incubation and pour plate method and incubated for 48 hours.			
HPC-PP-TB	Water	Heterotrophic Plate Count by Pour Plate	APHA 9215D (modified)
Heterotrophic Plate Count in aqueous matrices are analyzed using aerobic incubation and pour plate method and incubated for 48 hours.			
NO2-DW-IC-TB	Water	Nitrite in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-DW-IC-TB	Water	Nitrate in Water by IC	EPA 300.1 (mod)
Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.			
TC,EC-QT51-TB	Water	Total Coliform and E.coli	APHA 9223 B
This analysis is carried out using procedures adapted from APHA Method 9223 "Enzyme Substrate Coliform Test". E. coli and Total Coliform are determined simultaneously. The sample is mixed with a mixture of hydrolyzable substrates and then sealed in a multi-well packet. The packet is incubated for 18 or 24 hours and then the number of wells exhibiting a positive response are counted. The final result is obtained by comparing the positive responses to a probability table.			
TC,EC-QT97-TB	Water	Total Coliform and E.coli	APHA 9223 B
This analysis is carried out using procedures adapted from APHA Method 9223 "Enzyme Substrate Coliform Test". E. coli and Total Coliform are determined simultaneously. The sample is mixed with a mixture of hydrolyzable substrates and then sealed in a multi-well packet. The packet is incubated for 18 or 24 hours and then the number of wells exhibiting a positive response are counted. The final result is obtained by comparing the positive responses to a probability table.			

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA		

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.



Quality Control Report

Workorder: L2017426

Report Date: 06-NOV-17

Page 1 of 2

Client: Rainy River District School Board
 RE: MINE CENTRE 522 2ND ST EAST
 FORT FRANCES ON P9A 1N4

Contact: Travis Enge

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HPC-PP-TB								
	Water							
Batch	R3874457							
WG2655549-2	DUP	L2017426-2						
Heterotrophic Plate Count		4	5		CFU/mL	22	65	02-NOV-17
WG2655549-1	MB							
Heterotrophic Plate Count			0		CFU/mL		1	02-NOV-17
NO2-DW-IC-TB								
	Water							
Batch	R3874758							
WG2657125-2	LCS							
Nitrite (as N)			101.4		%		90-110	05-NOV-17
WG2657125-1	MB							
Nitrite (as N)			<0.010		mg/L		0.01	05-NOV-17
NO3-DW-IC-TB								
	Water							
Batch	R3874758							
WG2657125-2	LCS							
Nitrate (as N)			99.4		%		90-110	05-NOV-17
WG2657125-1	MB							
Nitrate (as N)			<0.020		mg/L		0.02	05-NOV-17
TC,EC-QT51-TB								
	Water							
Batch	R3873593							
WG2655606-1	MB							
Total Coliforms			0		MPN/100mL		1	02-NOV-17
Escherichia Coli			0		MPN/100mL		1	02-NOV-17
TC,EC-QT97-TB								
	Water							
Batch	R3873655							
WG2655609-2	DUP	L2017426-1						
Total Coliforms		0	0		MPN/100mL	0.0	65	02-NOV-17
Escherichia Coli		0	0		MPN/100mL	0.0	65	02-NOV-17
WG2655609-1	MB							
Total Coliforms			0		MPN/100mL		1	02-NOV-17
Escherichia Coli			0		MPN/100mL		1	02-NOV-17

Quality Control Report

Workorder: L2017426

Report Date: 06-NOV-17

Client: Rainy River District School Board
RE: MINE CENTRE 522 2ND ST EAST
FORT FRANCES ON P9A 1N4

Page 2 of 2

Contact: Travis Enge

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



L2017426-COFC

DRINKING WATER CHAIN OF CUSTODY

ALS Thunder Bay, 1081 Barton Street Thunder Bay, ON P7E 5N3
Ph: 807 623 6463 Fax: 807 623 7598 Toll Free: 1 800 668 9878

PLEASE CIRCLE APPLICABLE REGULATION:

Reg 170/03 Reg 318/08 319/08 Reg 243 C of A

Is this a re-sample from an adverse water quality incident? Yes No

WORKS NAME CT TAAVIS ENGE	WORKS PHONE 506-275-4979 WORKS FAX 506-275-4911 ADMIN 506-275-5018 AFTER HOURS PHONE Peter 507-275-4162 TAAVIS 507-276-4733	ANALYSES REQUESTED													FOR LAB USE ONLY														
		Please indicate test for each sample by Checkmark in the box below													SUBMISSION NO L2017426	COLLECTED BY KW	DATE Nov 2/17												
WORKS ADDRESS physical 4123 Mine Centre Rd. Box 123 Mine Centre ON, POW 1H0	REPORTING ADDRESS 522 Second St. East, Fort Frances ON P9A 1N4	HEALTH UNIT PHONE/FAX 807 468 3147 807 468 3914	Requested Service (Circle One)										Total Coliform, E. coli (TC/EC)	Het. Plate Count (HPC)	Nitrate, Nitrite	THM (Max. Res. Time)	Sched 23 Inorganics	Sched 24 Organics	Sodium	Fluoride	Turbidity	Lead	Alkalinity	Other:	Field pH	TEMPERATURE AT RECEIPT (C)	pH 2	Volume (L)	Time Check
WORKS/TOWNS/SDWS NUMBER 260015002	EMAIL sheena.hello2@mail.crdsb.com peter.gardman@mail.crdsb.com	HEALTH UNIT PHONE/FAX 807 468 3147 807 468 3914	Reg	En (50%)	Emergency (100%)	Regulated Sample Type * (R, T, D, P, PS, PF)																							
SAMPLE DESCRIPTION (This description will appear on the report)		Chlorine Residual (mg/l)	Sample Date	Sample Time																									
#1 Mechanical Rm RAW		N/A	NOV 1/17	7:05AM	R	X																							
#2 Kindergarten Rm. Dist.		N/A	NOV 1/17	7:15AM	D	X	X																						
#3 Mechanical Rm VALVE #26 Treated Source		N/A	NOV 1/17	7:10AM	T			X																					

* Sample Type Legend: R - Raw Water T - Treated Source D - Distribution Sample P - Plumbing PS - Plumbing Standing PF - Plumbing Flushed

SAMPLED BY (PRINT) C. Gustafson	SAMPLED BY (SIGNATURE) <i>C. Gustafson</i>	DATE/TIME RECEIVED AT LAB NOV. 2/2017 3:29	Other Comments/Cautions (Please identify known or suspected hazards)	CHECK TO LIST ON REPORT Chlorine Residuals
SUBMITTED TO (LAB BY (PRINT)) C. Gustafson	SUBMITTED TO (LAB BY (SIGNATURE)) <i>C. Gustafson</i>	RECEIVED AT LAB BY BP		Field (pH)



Rainy River District School Board
ATTN: Travis Enge
RE: MINE CENTRE
522 2ND ST EAST
FORT FRANCES ON P9A 1N4

Date Received: 16-NOV-17
Report Date: 21-NOV-17 11:43 (MT)
Version: FINAL REV. 2

Client Phone: 807-275-6762

Certificate of Analysis

Lab Work Order #: L2023272
Project P.O. #: MINE CENTRE
Job Reference: 260015002
C of C Numbers:
Legal Site Desc:

Christina Shepherd
Account Manager

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ANALYTICAL GUIDELINE REPORT

260015002

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits							
Grouping	Analyte						#1	#2						
L2023272-2 -D1 1 KINDERGARDEN RM. DIST.														
Sampled By: CG on 15-NOV-17 @ 07:30														
Matrix: DISTRIBUTION														
Bacteriological Tests														
Escherichia Coli		0		0	MPN/100m L	16-NOV-17	0							
Heterotrophic Plate Count		27		0	CFU/mL	16-NOV-17								
Total Coliforms		0		0	MPN/100m L	16-NOV-17	0							

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Drinking Water Regulation (ODWQS) JAN.1,2017 = [Suite] - ON-DW-STANDARD+GUIDELINES

#1: Schedule 1 (Microbiological) and 2 (Chemical) Standards (JAN,2017)

#2: Ontario DW Aesthetic and Operational Guidelines

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
HPC-PP-TB	Water	Heterotrophic Plate Count by Pour Plate	APHA 9215B (modified)
		Heterotrophic Plate Count in aqueous matrices are analyzed using aerobic incubation and pour plate method and incubated for 48 hours.	
HPC-PP-TB	Water	Heterotrophic Plate Count by Pour Plate	APHA 9215D (modified)
		Heterotrophic Plate Count in aqueous matrices are analyzed using aerobic incubation and pour plate method and incubated for 48 hours.	
TC,EC-QT51-TB	Water	Total Coliform and E.coli	APHA 9223 B

This analysis is carried out using procedures adapted from APHA Method 9223 "Enzyme Substrate Coliform Test". E. coli and Total Coliform are determined simultaneously. The sample is mixed with a mixture of hydrolyzable substrates and then sealed in a multi-well packet. The packet is incubated for 18 or 24 hours and then the number of wells exhibiting a positive response are counted. The final result is obtained by comparing the positive responses to a probability table.

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Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA		

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mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

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Quality Control Report

Workorder: L2023272

Report Date: 21-NOV-17

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Client: Rainy River District School Board
RE: MINE CENTRE 522 2ND ST EAST
FORT FRANCES ON P9A 1N4

Contact: Travis Enge

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HPC-PP-TB								
	Water							
Batch	R3887786							
WG2665469-2	DUP	L2023272-2						
Heterotrophic Plate Count		27	34		CFU/mL	23	65	16-NOV-17
WG2665469-1	MB							
Heterotrophic Plate Count			0		CFU/mL		1	16-NOV-17
TC,EC-QT51-TB								
	Water							
Batch	R3886897							
WG2665382-1	MB							
Total Coliforms			0		MPN/100mL		1	16-NOV-17
Escherichia Coli			0		MPN/100mL		1	16-NOV-17

Quality Control Report

Workorder: L2023272

Report Date: 21-NOV-17

Client: Rainy River District School Board
RE: MINE CENTRE 522 2ND ST EAST
FORT FRANCES ON P9A 1N4

Page 2 of 2

Contact: Travis Enge

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



L2023272-COFC

ALS Thunder Bay, 1081 Barton Street, Thunder Bay, ON P7R 5N3
Ph: 807-623-6463 Fax: 807-623-7598 Toll-Free 1-800-668-9878

DRINKING WATER CHAIN OF CUSTODY

PLEASE CIRCLE APPLICABLE REGULATION:

Reg 170/03

Reg 318/08 319/08

Reg 243

C of A

Is this a resample from an adverse water quality incident? Yes No

WORKS NAME RRDSB - Mine Centre School	WORKS PHONE School: 807-599-2843 Sherri: 807-275-4979		ANALYSES REQUESTED Please indicate test for each sample by Checkmark in the box below														FOR LAB USE ONLY							
CLIENT CONTACT NAME Travis Enge	WORKS FAX School: 807-599-9911 Admin: 807-274-5078		Total Coliform/E. coli (TC/EC)	Reg	Requested Service (Circle One) Pri (50%) Emerg (100%)	Regulated Sample Type * (R,T,D,P, PS,PF)	Sample Date	Sample Time	Heq. Plate Count (HPC)	Nitrate/Nitrite	THM (Max. Res. Time)	Sched 23 Inorganics	Sched 24 Organics	Sodium	Fluoride	Turbidity	Lead	Alkalinity	Other:	Field pH	SUBMISSION NO. L2023272			
WORKS ADDRESS(physical) 123 Mine Centre Road, Mine Centre, ON, PDW 1H0		AFTER HOURS PHONE Peter: 807-275-6762 Travis: 807-276-4733																			LOGGED BY LS			
REPORTING ADDRESS 522 Second St. E., Fort Frances, ON, P9A 1N4		HEALTH UNIT NWDHU																			DATE 11/16/17			
WORKS/DWIS/SDWS NUMBER 260015002		HEALTH UNIT Kenora: 807-468-3147/807-468-3914 PHONE/FAX Fort Frances: 807-274-9827/807-274-0779																			TIME 14:00			
EMAIL: sherri.belluz@mail.rrdsb.com peter.gardiman@mail.rrdsb.com						TEMPERATURE AT RECEIPT (C) 10.9			pH <2	Volume tL	Time Check													
SAMPLE DESCRIPTION (This description will appear on the report)																								
#1 Kindergarten Rm. Dist.		N/A		NOV 15/17 7:30 AM		D		XX																
SAMPLED BY (PRINT): C. Gustafson		SAMPLED BY (SIGNATURE): 		DATE/TIME RECEIVED AT LAB: NOV. 16 1:15		Other Comments/Cautions (Please identify known or suspected hazards)														CHECK TO LIST ON REPORT				
SUBMITTED TO LAB BY (PRINT): C. Gustafson		SUBMITTED TO LAB BY (SIGNATURE): 		RECEIVED AT LAB BY: BA																Chlorine Residual(s)				
																				Field pH(s)				