



Your P.O. #: 2090010577
 Your Project #: 12580857
 Site#: Bissett Lake
 Site Location: HRM Lake Project
 Your C.O.C. #: 945751-01-01

Attention: Courtney Gilbert

GHD Limited
 110-120 Western parkway
 Bedford, NS
 Canada B4B 0V2

Report Date: 2023/08/31
 Report #: R7791931
 Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3O4431

Received: 2023/08/14, 14:29

Sample Matrix: Water
 # Samples Received: 3

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Chloride	2	N/A	2023/08/29	ATL SOP 00014	SM 24 4500-Cl- E m
E.coli in water (CFU/100mL)	2	N/A	2023/08/14	ATL SOP 00097	MOE E3371 R4
Total Phosphorus Low Level Total (1)	3	2023/08/24	2023/08/25	AB SOP-00024	SM 24 4500-P A,B,F m
Chlorophyll A (Sub from Bedford) (2)	3	2023/08/29	2023/08/30		

Remarks:

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

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas 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.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas 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 Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas 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 Bureau Veritas, 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 Bureau Veritas Calgary, 4000-19th Street North-East, Calgary, AB, T2E 6P8

(2) This test was performed by Dalhousie University, 1355 Oxford Street Dept of Oceanography Rm 2605, Halifax, NS, B3H 4R2



Your P.O. #: 2090010577
Your Project #: 12580857
Site#: Bissett Lake
Site Location: HRM Lake Project
Your C.O.C. #: 945751-01-01

Attention: Courtney Gilbert

GHD Limited
110-120 Western parkway
Bedford, NS
Canada B4B 0V2

Report Date: 2023/08/31
Report #: R7791931
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3O4431

Received: 2023/08/14, 14:29

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Preeti Kapadia, Project Manager
Email: Preeti.Kapadia@bureauveritas.com
Phone# (902)420-0203 Ext:252

=====

Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Suzanne Rogers, General Manager responsible for Nova Scotia Environmental laboratory operations.



BUREAU
VERITAS

Bureau Veritas Job #: C3O4431
Report Date: 2023/08/31

GHD Limited
Client Project #: 12580857
Site Location: HRM Lake Project
Your P.O. #: 2090010577

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		WRG788			WRG789			WRG790		
Sampling Date		2023/08/14 13:15			2023/08/14 13:20			2023/08/14 13:45		
COC Number		945751-01-01			945751-01-01			945751-01-01		
	UNITS	SAN(B)-D	RDL	QC Batch	SAN(B)-S	RDL	QC Batch	SAN(B)-OUT	RDL	QC Batch
Inorganics										
Dissolved Chloride (Cl-)	mg/L	42	1.0	8881565				19	1.0	8881565
Total Phosphorus (P)	mg/L	0.0087	0.0010	8878798	0.0088	0.0010	8878798	0.0093	0.0010	8878798
Subcontracted Analysis										
Subcontract Parameter	N/A	ATTACHED	N/A	8887161	ATTACHED	N/A	8887161	ATTACHED	N/A	8887161
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										



BUREAU
VERITAS

Bureau Veritas Job #: C3O4431
Report Date: 2023/08/31

GHD Limited
Client Project #: 12580857
Site Location: HRM Lake Project
Your P.O. #: 2090010577

MICROBIOLOGY (WATER)

Bureau Veritas ID		WRG789	WRG790		
Sampling Date		2023/08/14 13:20	2023/08/14 13:45		
COC Number		945751-01-01	945751-01-01		
	UNITS	SAN(B)-S	SAN(B)-OUT	RDL	QC Batch
Microbiological					
Escherichia coli	CFU/100mL	8.0	8.0	2.0	8851093
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					



BUREAU
VERITAS

Bureau Veritas Job #: C3O4431
Report Date: 2023/08/31

GHD Limited
Client Project #: 12580857
Site Location: HRM Lake Project
Your P.O. #: 2090010577

GENERAL COMMENTS

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

Package 1	15.0°C
-----------	--------

Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C3O4431
Report Date: 2023/08/31

GHD Limited
Client Project #: 12580857
Site Location: HRM Lake Project
Your P.O. #: 2090010577

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8851093	ZRA	Method Blank	Escherichia coli	2023/08/14	ND, RDL=1.0		CFU/100mL	
8878798	éBB	Matrix Spike	Total Phosphorus (P)	2023/08/25		117	%	80 - 120
			Total Phosphorus (P)	2023/08/25		117	%	80 - 120
8878798	éBB	QC Standard	Total Phosphorus (P)	2023/08/25		89	%	80 - 120
			Total Phosphorus (P)	2023/08/25		89	%	80 - 120
8878798	éBB	Spiked Blank	Total Phosphorus (P)	2023/08/25		112	%	80 - 120
			Total Phosphorus (P)	2023/08/25		112	%	80 - 120
8878798	éBB	Method Blank	Total Phosphorus (P)	2023/08/25	ND, RDL=0.0010		mg/L	
			Total Phosphorus (P)	2023/08/25	ND, RDL=0.0010		mg/L	
8881565	HGV	Matrix Spike	Dissolved Chloride (Cl-)	2023/08/29		NC	%	80 - 120
8881565	HGV	Spiked Blank	Dissolved Chloride (Cl-)	2023/08/29		93	%	80 - 120
8881565	HGV	Method Blank	Dissolved Chloride (Cl-)	2023/08/29	ND, RDL=1.0		mg/L	
8881565	HGV	RPD	Dissolved Chloride (Cl-)	2023/08/29	0.98		%	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.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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)



BUREAU
VERITAS

Bureau Veritas Job #: C3O4431
Report Date: 2023/08/31

GHD Limited
Client Project #: 12580857
Site Location: HRM Lake Project
Your P.O. #: 2090010577

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Janah Rhyno, Scientific Specialist

Meagan Adams, Senior Analyst

Mike MacGillivray, Scientific Specialist (Inorganics)

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by {0}, {1} responsible for {2} {3} laboratory operations.