



October 18, 2024

Mr. Mason Mantla Chair
Wek'èezhìi Land and Water Board
#1, 4905-48th Street
Yellowknife, NT
X1A 3S3

Jamie Steele
North Slave Regional Office
Department of Lands
Government of the Northwest Territories
#16 Yellowknife Airport
Yellowknife, NT
X1A 3T2

RE: W2022L2-0001 – Monthly Maximum Average Concentration Discharge Exceedance for Aluminum at King Pond Settling Facility Discharge to Cujo Lake in July 2024

Pursuant to Part H Condition 27(e) of Water Licence W2022L2-0001, Burgundy Diamond Mines Ltd. (Burgundy) is providing a detailed follow-up report on results that indicated Aluminum was above the Maximum Average Concentration under Part H, Condition 26(b) of the Water Licence.

Summary

In accordance with the discharge authorization, granted by the Inspector of the Government of Northwest Territories – Environment and Climate Change (GNWT-ECC), discharge from the King Pond Settling Facility (KPSF) to Cujo Lake occurred between June 24 and July 21, 2024.

During the discharge period, weekly samples were collected from the KPSF and submitted to Bureau Veritas Laboratory for analysis. As a standard practice, analytical results were generally received in two-three weeks following the sample submission. As shown in Table 1, all analytical results are below the Maximum Grab Sample Concentrations under the applicable Effluent Quality Criteria (EQC). However, the average aluminum concentrations, calculated based on four rolling weekly samples, exceeded the applicable Maximum Average Concentration of the EQC. As the analytical results of the fourth weekly sample (collected on July 15) was not received until July 31, 2024, the KPSF discharge has already been suspended, when the exceedance was detected.



Table 1: Grab and average aluminum concentrations at SNP Station 1616-43

Sample Date		24-Jun-24	2-Jul-24	8-Jul-24	15-Jul-24	21-Jul-24
Lab Reference #'s		C448014	C449839	C452418	C454205	C456083
MGC (mg/L)	0.34	0.22	0.20	0.11	0.22	0.16
MAC (mg/L)	0.17	4-week rolling average			<u>0.19</u>	<u>0.17</u>

Note:

MGC – Maximum Grab Concentration

MAC – Maximum Average Concentration

Underline – exceeding applicable Effluent Quality Criteria

Root Cause

As part of the Point Lake dewatering project, water with high suspended solid levels has been transferred into King Pond throughout the summer months in 2023. Elevated aluminum concentration is expected to be associated with the solid that remained suspended during the discharge in June and July 2024.

Immediate Actions

The planned discharge was complete on July 21, before the results of the fourth weekly samples were received on July 31. The exceedance to the Maximum Average Concentration was reported to the GNWT-ECC Inspector on August 1, 2024.

Follow Up Actions

As described in the 2023 to 2025 Aquatic Effects Monitoring Program (AEMP) Design Plan, Version 8.1, the AEMP is designed to detect changes in the receiving water and determine if changes are associated with mine-related activities through the evaluation of effects. The Aquatic Response Framework (ARF) provides a responsive mechanism to adaptively manage the aquatic environment. Any changes to the aluminum results in Cujo lake will be reported and analyzed in the 2024 AEMP Annual Report.

We trust this report is clear and informative. If you have any questions or comments, please contact the undersigned at landon.murphy@burgundydiamonds.com or (867) 880-4400 ext. 2293.

Sincerely,

Landon Murphy
Advisor – Environmental Operations
Burgundy Diamond Mines



Your P.O. #: 6404002992
Your Project #: 61982
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101832

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/08/07
Report #: R3538620
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C456083

Received: 2024/07/24, 15:20

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO ₃)	1	N/A	2024/07/26	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/08/06	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	1	N/A	2024/07/25	AB SOP-00020	SM24-4500-Cl/SO ₄ -E m
Conductance - Low Level	1	N/A	2024/08/06	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	1	N/A	2024/08/06	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2024/08/07	BBY WI-00033	Auto Calc
Mercury (Total) by CV	1	2024/07/26	2024/07/31	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	1	2024/08/06	2024/08/06	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	1	2024/08/06	2024/08/07	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	1	N/A	2024/07/25	AB SOP-00007	SM 24 4500 NH ₃ A G m
Nitrate + Nitrite-N (calculated) Low Lev	1	N/A	2024/07/26		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/07/25	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	1	N/A	2024/08/06	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/07/24	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	1	N/A	2024/07/25	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	1	N/A	2024/07/25	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO ₄) by IC	1	N/A	2024/07/30	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	1	N/A	2024/07/31		Auto Calc
Temperature (Field)	1	N/A	2024/07/24	Field Test	Field Test
Carbon (Inorganic)	1	N/A	2024/07/31	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/07/26	BBY WI-00033	Auto Calc
Nitrogen (Total)	1	2024/07/25	2024/07/26	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	1	N/A	2024/07/30	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Total	1	2024/07/26	2024/07/26	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	1	2024/07/26	2024/07/27	AB SOP-00061	SM 24 2540 D m
Turbidity	1	N/A	2024/07/25	CAL SOP-00081	SM 24 2130 B m
Ion Balance (5)	1	N/A	2024/08/07		
Total Dissolved Solids (Calculated) (5)	1	N/A	2024/08/07		

Remarks:



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Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101832

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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, EPA, APHA or the Quebec Ministry of Environment.

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) "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).
- (2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.
- (3) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
- (4) TOC present in the sample should be considered as non-purgeable TOC.
- (5) Calculation was conducted as per client request using CAL PDF-00333.



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Encryption Key



**AUTHORIZED REPORT
RAPPORT AUTORISÉ**

Bureau Veritas

07 Aug 2024 20:53:41

Please direct all questions regarding this Certificate of Analysis to:

Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (403) 291-3077

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BUREAU
VERITAS

Bureau Veritas Job #: C456083

Report Date: 2024/08/07

Arctic Canadian Diamond Company Ltd

Client Project #: 61982

Site Location: MDMR/SNP/SEEPAGE

Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CRY579		
Sampling Date		2024/07/21 14:20		
COC Number		101832		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO ₃)	mg/L	45.1	0.50	B452162
Calculated Ion Balance (% Difference)	%	2.2		B452172
Nitrate plus Nitrite (N)	mg/L	1.9	0.0022	B452166
Calculated Total Dissolved Solids	mg/L	190	0.95	B452174
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.21	0.20	B452170
Field Parameters				
Field pH	pH	8.43	N/A	ONSITE
Field Temperature (Fd)	deg. C	20.0	N/A	ONSITE
Misc. Inorganics				
Fluoride (F)	mg/L	0.099	0.010	B464787
pH	pH	6.77	N/A	B464784
Reactive Silica	mg/L	0.20	0.050	B453682
Acidity (pH 4.5)	mg/L	<1.0	1.0	B454442
Alkalinity (Total as CaCO ₃)	mg/L	53.7	0.50	B464782
Total Organic Carbon (C)	mg/L	5.9	0.20	B459026
Acidity (pH 8.3)	mg/L	1.1	1.0	B454442
Alkalinity (PP as CaCO ₃)	mg/L	<0.50	0.50	B464782
Bicarbonate (HCO ₃)	mg/L	65.6	0.50	B464782
Carbonate (CO ₃)	mg/L	<0.50	0.50	B464782
Hydroxide (OH)	mg/L	<0.50	0.50	B464782
Total Suspended Solids	mg/L	2.3	1.0	B454065
Anions				
Orthophosphate (P)	mg/L	<0.0010	0.0010	B452666
Chloride (Cl)	mg/L	17	0.50	B453736
Dissolved-Low Level Sulphate (SO ₄)	mg/L	61	0.30	B455308
Nutrients				
Total Carbon (C)	mg/L	16	0.50	B452169
Total Inorganic Carbon (C)	mg/L	10	1.0	B459784
Total Phosphorus (P)	mg/L	0.011	0.0020	B454348
Total Ammonia (N)	mg/L	0.0080	0.0050	B452585
Nitrite (N)	mg/L	0.0097	0.0010	B452653
RDL = Reportable Detection Limit N/A = Not Applicable				



RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CRY579		
Sampling Date		2024/07/21 14:20		
COC Number		101832		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Nitrate (N)	mg/L	1.9	0.0020	B452653
Total Nitrogen (N)	mg/L	2.1 (1)	0.20	B453085
Physical Properties				
Conductivity	uS/cm	300	1.0	B464786
Physical Properties				
Turbidity - NTU	NTU	3.9	0.10	B453449
RDL = Reportable Detection Limit (1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.				



MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CRY579		
Sampling Date		2024/07/21 14:20		
COC Number		101832		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch

Elements				
Total Mercury (Hg)	mg/L	<0.0000019	0.0000019	B455110
RDL = Reportable Detection Limit				



BUREAU
VERITAS

Bureau Veritas Job #: C456083
Report Date: 2024/08/07

Arctic Canadian Diamond Company Ltd
Client Project #: 61982
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CRY579		
Sampling Date		2024/07/21 14:20		
COC Number		101832		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Elements				
Total Aluminum (Al)	mg/L	0.16	0.0030	B466816
Total Antimony (Sb)	mg/L	<0.00060	0.00060	B466816
Total Arsenic (As)	mg/L	0.0015	0.00020	B466816
Total Barium (Ba)	mg/L	0.031	0.010	B466824
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B466816
Total Boron (B)	mg/L	<0.020	0.020	B466824
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	B466816
Total Calcium (Ca)	mg/L	9.5	0.30	B466824
Total Chromium (Cr)	mg/L	<0.0010	0.0010	B466816
Total Cobalt (Co)	mg/L	<0.00030	0.00030	B466816
Total Copper (Cu)	mg/L	0.0020	0.0010	B466816
Total Iron (Fe)	mg/L	0.40	0.060	B466824
Total Lead (Pb)	mg/L	<0.00020	0.00020	B466816
Total Lithium (Li)	mg/L	<0.020	0.020	B466824
Total Magnesium (Mg)	mg/L	5.2	0.20	B466824
Total Manganese (Mn)	mg/L	0.012	0.0040	B466824
Total Molybdenum (Mo)	mg/L	0.029	0.00020	B466816
Total Nickel (Ni)	mg/L	0.0066	0.00050	B466816
Total Potassium (K)	mg/L	18	0.30	B466824
Total Selenium (Se)	mg/L	<0.00020	0.00020	B466816
Total Silicon (Si)	mg/L	0.51	0.50	B466824
Total Silver (Ag)	mg/L	<0.00010	0.00010	B466816
Total Sodium (Na)	mg/L	33	0.50	B466824
Total Strontium (Sr)	mg/L	0.14	0.020	B466824
Total Sulphur (S)	mg/L	17	0.20	B466824
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B466816
Total Tin (Sn)	mg/L	<0.0010	0.0010	B466816
Total Titanium (Ti)	mg/L	0.0058	0.0010	B466816
Total Uranium (U)	mg/L	0.0027	0.00010	B466816
Total Vanadium (V)	mg/L	<0.0010	0.0010	B466816
Total Zinc (Zn)	mg/L	<0.0030	0.0030	B466816
RDL = Reportable Detection Limit				



GENERAL COMMENTS

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

Package 1	2.0°C
Package 2	2.0°C
Package 3	3.0°C
Package 4	1.3°C

Sample CRY579 [1616-43_DISCHARGE] : Turbidity completed within five days of sampling. Data is satisfactory for compliance purposes. Nitrogen (Nitrite - Nitrate) Low Level completed within five days of sampling. Data is satisfactory for compliance purposes. Sample was analyzed past method specified hold time for Alkalinity - Low Level. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Results relate only to the items tested.

BUREAU
VERITAS

Bureau Veritas Job #: C456083

Report Date: 2024/08/07

QUALITY ASSURANCE REPORT

Arctic Canadian Diamond Company Ltd

Client Project #: 61982

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B452585	Total Ammonia (N)	2024/07/25	102	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
B452653	Nitrate (N)	2024/07/25	104	80 - 120	99	80 - 120	0.0041, RDL=0.0020 (1)	mg/L	0.24	20		
B452653	Nitrite (N)	2024/07/25	99	80 - 120	94	80 - 120	<0.0010	mg/L	1.2	20		
B452666	Orthophosphate (P)	2024/07/25	103	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B453085	Total Nitrogen (N)	2024/07/26	108	80 - 120	103	80 - 120	<0.020	mg/L	1.7	20	97	80 - 120
B453449	Turbidity - NTU	2024/07/25			101	80 - 120	<0.10	NTU	1.4	20		
B453682	Reactive Silica	2024/07/25	99	80 - 120	104	80 - 120	<0.050	mg/L	9.0	20		
B453736	Chloride (Cl)	2024/07/25	102	80 - 120	100	80 - 120	<0.50	mg/L	3.3	20		
B454065	Total Suspended Solids	2024/07/27	82	80 - 120	97	80 - 120	<1.0	mg/L	6.9	20		
B454348	Total Phosphorus (P)	2024/07/26	97	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20	91	80 - 120
B454442	Acidity (pH 4.5)	2024/07/26					<1.0	mg/L	NC	20		
B454442	Acidity (pH 8.3)	2024/07/26			99	80 - 120	<1.0	mg/L	4.1	20		
B455110	Total Mercury (Hg)	2024/07/31	96	80 - 120	99	80 - 120	<0.0000019	mg/L	NC	20		
B455308	Dissolved-Low Level Sulphate (SO4)	2024/07/30	NC	80 - 120	108	80 - 120	<0.050	mg/L	0.24	20		
B459026	Total Organic Carbon (C)	2024/07/30	101	80 - 120	99	80 - 120	<0.20	mg/L	4.2	20		
B459784	Total Inorganic Carbon (C)	2024/07/31	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.68	20		
B464782	Alkalinity (PP as CaCO3)	2024/08/06					<0.50	mg/L	NC	20		
B464782	Alkalinity (Total as CaCO3)	2024/08/06			101	80 - 120	<0.50	mg/L	3.2	20		
B464782	Bicarbonate (HCO3)	2024/08/06					<0.50	mg/L	3.2	20		
B464782	Carbonate (CO3)	2024/08/06					<0.50	mg/L	NC	20		
B464782	Hydroxide (OH)	2024/08/06					<0.50	mg/L	NC	20		
B464784	pH	2024/08/06			100	97 - 103			0.12	N/A		
B464786	Conductivity	2024/08/06			102	90 - 110	<1.0	uS/cm	1.5	20		
B464787	Fluoride (F)	2024/08/06	94	80 - 120	95	80 - 120	<0.010	mg/L	NC	20		
B466816	Total Aluminum (Al)	2024/08/07	114	80 - 120	102	80 - 120	<0.0030	mg/L	6.0	20		
B466816	Total Antimony (Sb)	2024/08/07	97	80 - 120	88	80 - 120	<0.00060	mg/L	NC	20		
B466816	Total Arsenic (As)	2024/08/07	93	80 - 120	86	80 - 120	<0.00020	mg/L	8.9	20		
B466816	Total Beryllium (Be)	2024/08/07	105	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B466816	Total Cadmium (Cd)	2024/08/07	95	80 - 120	85	80 - 120	<0.000020	mg/L				
B466816	Total Chromium (Cr)	2024/08/07	101	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		



BUREAU
VERITAS

Bureau Veritas Job #: C456083

Report Date: 2024/08/07

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 61982

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B466816	Total Cobalt (Co)	2024/08/07	102	80 - 120	94	80 - 120	<0.00030	mg/L	6.7	20		
B466816	Total Copper (Cu)	2024/08/07	101	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
B466816	Total Lead (Pb)	2024/08/07	100	80 - 120	92	80 - 120	<0.00020	mg/L	3.0	20		
B466816	Total Molybdenum (Mo)	2024/08/07	103	80 - 120	92	80 - 120	<0.00020	mg/L	9.3	20		
B466816	Total Nickel (Ni)	2024/08/07	101	80 - 120	93	80 - 120	<0.00050	mg/L	11	20		
B466816	Total Selenium (Se)	2024/08/07	87	80 - 120	79 (2)	80 - 120	<0.00020	mg/L	NC	20		
B466816	Total Silver (Ag)	2024/08/07	101	80 - 120	90	80 - 120	<0.00010	mg/L	NC	20		
B466816	Total Thallium (Tl)	2024/08/07	103	80 - 120	93	80 - 120	<0.00020	mg/L	NC	20		
B466816	Total Tin (Sn)	2024/08/07	100	80 - 120	90	80 - 120	<0.0010	mg/L	NC	20		
B466816	Total Titanium (Ti)	2024/08/07	101	80 - 120	93	80 - 120	<0.0010	mg/L	7.6	20		
B466816	Total Uranium (U)	2024/08/07	105	80 - 120	93	80 - 120	<0.00010	mg/L	0.85	20		
B466816	Total Vanadium (V)	2024/08/07	102	80 - 120	94	80 - 120	<0.0010	mg/L	5.7	20		
B466816	Total Zinc (Zn)	2024/08/07	88	80 - 120	81	80 - 120	<0.0030	mg/L	2.3	20		
B466824	Total Barium (Ba)	2024/08/06	99	80 - 120	96	80 - 120	<0.010	mg/L	1.7	20		
B466824	Total Boron (B)	2024/08/06	93	80 - 120	91	80 - 120	<0.020	mg/L	8.2	20		
B466824	Total Calcium (Ca)	2024/08/06	NC	80 - 120	98	80 - 120	<0.30	mg/L	2.6	20		
B466824	Total Iron (Fe)	2024/08/06	NC	80 - 120	100	80 - 120	<0.060	mg/L	0.17	20		
B466824	Total Lithium (Li)	2024/08/06	102	80 - 120	93	80 - 120	<0.020	mg/L	0.076	20		
B466824	Total Magnesium (Mg)	2024/08/06	93	80 - 120	92	80 - 120	<0.20	mg/L	0.076	20		
B466824	Total Manganese (Mn)	2024/08/06	100	80 - 120	98	80 - 120	<0.0040	mg/L	0.051	20		
B466824	Total Potassium (K)	2024/08/06	111	80 - 120	101	80 - 120	<0.30	mg/L	3.9	20		
B466824	Total Silicon (Si)	2024/08/06	NC	80 - 120	96	80 - 120	<0.50	mg/L	0.056	20		
B466824	Total Sodium (Na)	2024/08/06	109	80 - 120	98	80 - 120	<0.50	mg/L	2.9	20		
B466824	Total Strontium (Sr)	2024/08/06	98	80 - 120	96	80 - 120	<0.020	mg/L	2.5	20		

BUREAU
VERITAS

Bureau Veritas Job #: C456083

Report Date: 2024/08/07

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 61982

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B466824	Total Sulphur (S)	2024/08/06	95	80 - 120	92	80 - 120	<0.20	mg/L	0.94	20		

N/A = Not Applicable

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

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

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)

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 $\leq 2 \times$ RDL).(1) Method blank above criteria. Data inspected. All data $<$ RDL or greater than $10 \times$ Method Blank.

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



BUREAU
VERITAS

Bureau Veritas Job #: C456083

Report Date: 2024/08/07

Arctic Canadian Diamond Company Ltd

Client Project #: 61982

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

VALIDATION SIGNATURE PAGE

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

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 Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

CHAIN OF CUSTODY

[illegible]

COOLER OBSERVATIONS:										BV JOB#:									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP	1	2	3				PRESENT			TEMP	1	2	3			
INTACT										INTACT									
ICE PRESENT										ICE PRESENT									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP	1	2	3				PRESENT			TEMP	1	2	3			
INTACT										INTACT									
ICE PRESENT										ICE PRESENT									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP	1	2	3				PRESENT			TEMP	1	2	3			
INTACT										INTACT									
ICE PRESENT										ICE PRESENT									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP	1	2	3				PRESENT			TEMP	1	2	3			
INTACT										INTACT									
ICE PRESENT										ICE PRESENT									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP	1	2	3				PRESENT			TEMP	1	2	3			
INTACT										INTACT									
ICE PRESENT										ICE PRESENT									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP	1	2	3				PRESENT			TEMP	1	2	3			
INTACT										INTACT									
ICE PRESENT										ICE PRESENT									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP	1	2	3				PRESENT			TEMP	1	2	3			
INTACT										INTACT									
ICE PRESENT										ICE PRESENT									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP	1	2	3				PRESENT			TEMP	1	2	3			
INTACT										INTACT									
ICE PRESENT										ICE PRESENT									
CUSTODY SEAL	YES	NO	COOLER ID							CUSTODY SEAL	YES	NO	COOLER ID						
PRESENT			TEMP																

RECEIVED BY (SIGN & PRINT)

DATE (YYYY/MM/DD)

TIME (HH:MM)

Charlie

KA LONG NG

2024/07/24

52

2024/07/24 15:20

COC# 101832

SO# 61982



**BUREAU
VERITAS**

Burgundy Contact: Richard Ehlert / Jonah Kelly



Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

[illegible]

Sent results to Tania.robitaille@burgundydiamonds.com,

Time

Send Analytical Results to: compliance.team@burgundydiamonds.com

see
ACTR



Your P.O. #: 6404002992
Your Project #: 62829
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101608

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/07/12
Report #: R3526852
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C448014

Received: 2024/06/27, 15:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO ₃)	1	N/A	2024/07/08	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/07/09	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	1	N/A	2024/07/02	AB SOP-00020	SM24-4500-Cl/SO ₄ -E m
Conductance - Low Level	1	N/A	2024/07/09	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	1	N/A	2024/07/09	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2024/07/09	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CV (2)	1	2024/07/03	2024/07/03	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	1	2024/07/03	2024/07/05	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (2)	1	N/A	2024/06/29	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	1	2024/07/09	2024/07/09	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (2)	1	N/A	2024/06/30	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	1	2024/07/09	2024/07/09	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	1	N/A	2024/07/02	AB SOP-00007	SM 24 4500 NH ₃ A G m
Nitrate + Nitrite-N (calculated) Low Lev	1	N/A	2024/07/04		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/06/28	AB SOP-00023	SM 24 4110 B m
pH @25°C (3)	1	N/A	2024/07/09	AB SOP-00005	SM 24 4500-H+B m
Orthophosphate LL by Automated Analyzer (4)	1	N/A	2024/06/28	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	1	N/A	2024/07/05	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO ₄) by IC	1	N/A	2024/07/08	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	1	N/A	2024/07/12		Auto Calc
Carbon (Inorganic)	1	N/A	2024/07/09	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/07/04	BBY WI-00033	Auto Calc
Nitrogen (Total)	1	2024/06/28	2024/06/29	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (5)	1	N/A	2024/07/12	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Dissolved (6)	1	2024/06/29	2024/07/02	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/06/30	2024/07/03	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	1	2024/06/29	2024/07/02	AB SOP-00061	SM 24 2540 D m
Turbidity	1	N/A	2024/06/28	CAL SOP-00081	SM 24 2130 B m
Ion Balance (7)	1	N/A	2024/07/09		
Total Dissolved Solids (Calculated) (7)	1	N/A	2024/07/10		



Your P.O. #: 6404002992
Your Project #: 62829
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101608

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/07/12
Report #: R3526852
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C448014

Received: 2024/06/27, 15:00

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, EPA, APHA or the Quebec Ministry of Environment.

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.

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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) "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).

(2) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

(3) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

(4) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.

(5) TOC present in the sample should be considered as non-purgeable TOC.

(6) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.

(7) Calculation was conducted as per client request using CAL PDF-00333.



Your P.O. #: 6404002992
Your Project #: 62829
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101608

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/07/12
Report #: R3526852
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C448014

Received: 2024/06/27, 15:00

Encryption Key



**AUTHORIZED REPORT
RAPPORT AUTORISÉ**

Bureau Veritas

12 Jul 2024 21:25:43

Please direct all questions regarding this Certificate of Analysis to:

Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (403) 291-3077

=====

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CQE930		
Sampling Date		2024/06/24 15:45		
COC Number		101608		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO ₃)	mg/L	38.8	0.50	B418673
Calculated Ion Balance (% Difference)	%	2.6		B419701
Nitrate plus Nitrite (N)	mg/L	2.7	0.0022	B419698
Calculated Total Dissolved Solids	mg/L	150	0.95	B419703
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.20	0.20	B423540
Misc. Inorganics				
Fluoride (F)	mg/L	0.061	0.010	B431384
pH	pH	7.38	N/A	B431381
Reactive Silica	mg/L	0.30	0.050	B425495
Acidity (pH 4.5)	mg/L	<1.0	1.0	B427665
Alkalinity (Total as CaCO ₃)	mg/L	33.9	0.50	B431379
Total Organic Carbon (C)	mg/L	3.3	0.20	B435064
Acidity (pH 8.3)	mg/L	2.2	1.0	B427665
Alkalinity (PP as CaCO ₃)	mg/L	<0.50	0.50	B431379
Bicarbonate (HCO ₃)	mg/L	41.4	0.50	B431379
Carbonate (CO ₃)	mg/L	<0.50	0.50	B431379
Hydroxide (OH)	mg/L	<0.50	0.50	B431379
Total Suspended Solids	mg/L	3.4	1.0	B421888
Anions				
Orthophosphate (P)	mg/L	0.0017	0.0010	B421646
Chloride (Cl)	mg/L	13	0.50	B423453
Dissolved-Low Level Sulphate (SO ₄)	mg/L	51	0.30	B430043
Nutrients				
Total Carbon (C)	mg/L	9.8	0.50	B419700
Total Inorganic Carbon (C)	mg/L	6.5	1.0	B431683
Dissolved Phosphorus (P)	mg/L	0.0028	0.0020	B421983
Total Phosphorus (P)	mg/L	0.037	0.0020	B422463
Total Ammonia (N)	mg/L	0.015	0.0050	B423088
Nitrite (N)	mg/L	0.036	0.0010	B421448
Nitrate (N)	mg/L	2.6	0.0020	B421448
Total Nitrogen (N)	mg/L	2.8	0.20	B420708
RDL = Reportable Detection Limit N/A = Not Applicable				



RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CQE930		
Sampling Date		2024/06/24 15:45		
COC Number		101608		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Physical Properties				
Conductivity	uS/cm	249	1.0	B431382
Physical Properties				
Turbidity - NTU	NTU	5.9	0.10	B420515
RDL = Reportable Detection Limit				



MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CQE930		
Sampling Date		2024/06/24 15:45		
COC Number		101608		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Elements				
Dissolved Mercury (Hg)	mg/L	<0.0000019	0.0000019	B424721
Total Mercury (Hg)	mg/L	0.0000019	0.0000019	B424655
RDL = Reportable Detection Limit				



ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CQE930		
Sampling Date		2024/06/24 15:45		
COC Number		101608		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Elements				
Dissolved Aluminum (Al)	mg/L	0.042	0.0030	B422120
Total Aluminum (Al)	mg/L	0.22	0.0030	B431318
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	B422120
Total Antimony (Sb)	mg/L	<0.00060	0.00060	B431318
Dissolved Arsenic (As)	mg/L	0.00096	0.00020	B422120
Total Arsenic (As)	mg/L	0.0012	0.00020	B431318
Dissolved Barium (Ba)	mg/L	0.038	0.010	B422200
Total Barium (Ba)	mg/L	0.037	0.010	B431321
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	B422120
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B431318
Dissolved Boron (B)	mg/L	0.021 (1)	0.020	B422200
Total Boron (B)	mg/L	0.022	0.020	B431321
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	B422120
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	B431318
Dissolved Calcium (Ca)	mg/L	7.1	0.30	B422200
Total Calcium (Ca)	mg/L	7.6	0.30	B431321
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	B422120
Total Chromium (Cr)	mg/L	<0.0010	0.0010	B431318
Dissolved Cobalt (Co)	mg/L	<0.00030	0.00030	B422120
Total Cobalt (Co)	mg/L	0.00032	0.00030	B431318
Dissolved Copper (Cu)	mg/L	0.0011	0.0010	B422120
Total Copper (Cu)	mg/L	0.0016	0.0010	B431318
Dissolved Iron (Fe)	mg/L	0.13 (1)	0.060	B422200
Total Iron (Fe)	mg/L	0.37	0.060	B431321
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	B422120
Total Lead (Pb)	mg/L	<0.00020	0.00020	B431318
Dissolved Lithium (Li)	mg/L	<0.020	0.020	B422200
Total Lithium (Li)	mg/L	<0.020	0.020	B431321
Dissolved Magnesium (Mg)	mg/L	4.6	0.20	B422200
Total Magnesium (Mg)	mg/L	4.8	0.20	B431321
RDL = Reportable Detection Limit				
(1) Matrix spike exceeds acceptance limits due to probable matrix interference.				



ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CQE930		
Sampling Date		2024/06/24 15:45		
COC Number		101608		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0040	B422200
Total Manganese (Mn)	mg/L	0.011	0.0040	B431321
Dissolved Molybdenum (Mo)	mg/L	0.023	0.00020	B422120
Total Molybdenum (Mo)	mg/L	0.023	0.00020	B431318
Dissolved Nickel (Ni)	mg/L	0.0060	0.00050	B422120
Total Nickel (Ni)	mg/L	0.0079	0.00050	B431318
Dissolved Potassium (K)	mg/L	13	0.30	B422200
Total Potassium (K)	mg/L	13	0.30	B431321
Dissolved Selenium (Se)	mg/L	<0.00020	0.00020	B422120
Total Selenium (Se)	mg/L	<0.00020	0.00020	B431318
Dissolved Silicon (Si)	mg/L	<0.50	0.50	B422200
Total Silicon (Si)	mg/L	0.79	0.50	B431321
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	B422120
Total Silver (Ag)	mg/L	<0.00010	0.00010	B431318
Dissolved Sodium (Na)	mg/L	24	0.50	B422200
Total Sodium (Na)	mg/L	25	0.50	B431321
Dissolved Strontium (Sr)	mg/L	0.13	0.020	B422200
Total Strontium (Sr)	mg/L	0.12	0.020	B431321
Dissolved Sulphur (S)	mg/L	16 (1)	0.20	B422200
Total Sulphur (S)	mg/L	15	0.20	B431321
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	B422120
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B431318
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	B422120
Total Tin (Sn)	mg/L	<0.0010	0.0010	B431318
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	B422120
Total Titanium (Ti)	mg/L	0.0092	0.0010	B431318
Dissolved Uranium (U)	mg/L	0.0014	0.00010	B422120
Total Uranium (U)	mg/L	0.0016	0.00010	B431318
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	B422120
Total Vanadium (V)	mg/L	<0.0010	0.0010	B431318
Dissolved Zinc (Zn)	mg/L	<0.0030	0.0030	B422120
RDL = Reportable Detection Limit				
(1) Matrix spike exceeds acceptance limits due to probable matrix interference.				



BUREAU
VERITAS

Bureau Veritas Job #: C448014
Report Date: 2024/07/12

Arctic Canadian Diamond Company Ltd
Client Project #: 62829
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CQE930		
Sampling Date		2024/06/24 15:45		
COC Number		101608		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Total Zinc (Zn)	mg/L	<0.0030	0.0030	B431318
RDL = Reportable Detection Limit				



GENERAL COMMENTS

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

Package 1	6.5°C
Package 2	5.9°C
Package 3	5.5°C
Package 4	5.4°C
Package 5	7.2°C
Package 6	5.0°C
Package 7	4.2°C
Package 8	5.2°C
Package 9	3.3°C
Package 10	3.0°C
Package 11	3.5°C
Package 12	4.8°C
Package 13	4.8°C
Package 14	5.8°C
Package 15	4.4°C
Package 16	5.3°C
Package 17	2.6°C
Package 18	2.8°C
Package 19	2.2°C
Package 20	4.2°C
Package 21	3.8°C
Package 22	3.8°C
Package 23	1.6°C
Package 24	0.3°C
Package 25	2.2°C

Sample CQE930 [1616-43_DISCHARGE] : Turbidity completed within five days of sampling. Data is satisfactory for compliance purposes. Nitrogen (Nitrite - Nitrate) Low Level completed within five days of sampling. Data is satisfactory for compliance purposes. Sample was analyzed past method specified hold time for Carbon (Inorganic). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Alkalinity - Low Level.

Results relate only to the items tested.

BUREAU
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Bureau Veritas Job #: C448014

Report Date: 2024/07/12

QUALITY ASSURANCE REPORT

Arctic Canadian Diamond Company Ltd

Client Project #: 62829

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B420515	Turbidity - NTU	2024/06/28			99	80 - 120	<0.10	NTU	1.9	20		
B420708	Total Nitrogen (N)	2024/06/29	104	80 - 120	108	80 - 120	<0.020	mg/L	5.4	20	102	80 - 120
B421448	Nitrate (N)	2024/06/28	NC	80 - 120	103	80 - 120	<0.0020	mg/L	0.0033	20		
B421448	Nitrite (N)	2024/06/28	100	80 - 120	98	80 - 120	<0.0010	mg/L	0.10	20		
B421646	Orthophosphate (P)	2024/06/28	96	80 - 120	109	80 - 120	0.0011, RDL=0.0010 (1)	mg/L	16	20		
B421888	Total Suspended Solids	2024/07/02	84	80 - 120	93	80 - 120	<0.99	mg/L	12	20		
B421983	Dissolved Phosphorus (P)	2024/07/02	98	80 - 120	96	80 - 120	<0.0010	mg/L	9.2	20	92	80 - 120
B422120	Dissolved Aluminum (Al)	2024/06/30	87	80 - 120	106	80 - 120	<0.0030	mg/L	4.5	20		
B422120	Dissolved Antimony (Sb)	2024/06/30	95	80 - 120	98	80 - 120	<0.00060	mg/L	NC	20		
B422120	Dissolved Arsenic (As)	2024/06/30	98	80 - 120	102	80 - 120	<0.00020	mg/L	13	20		
B422120	Dissolved Beryllium (Be)	2024/06/30	93	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B422120	Dissolved Cadmium (Cd)	2024/06/30	94	80 - 120	97	80 - 120	<0.000020	mg/L	NC	20		
B422120	Dissolved Chromium (Cr)	2024/06/30	94	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B422120	Dissolved Cobalt (Co)	2024/06/30	94	80 - 120	100	80 - 120	<0.00030	mg/L	NC	20		
B422120	Dissolved Copper (Cu)	2024/06/30	95	80 - 120	101	80 - 120	<0.0010	mg/L	9.3	20		
B422120	Dissolved Lead (Pb)	2024/06/30	95	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20		
B422120	Dissolved Molybdenum (Mo)	2024/06/30	92	80 - 120	100	80 - 120	<0.00020	mg/L	1.1	20		
B422120	Dissolved Nickel (Ni)	2024/06/30	92	80 - 120	101	80 - 120	<0.00050	mg/L	6.9	20		
B422120	Dissolved Selenium (Se)	2024/06/30	97	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20		
B422120	Dissolved Silver (Ag)	2024/06/30	93	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20		
B422120	Dissolved Thallium (Tl)	2024/06/30	95	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20		
B422120	Dissolved Tin (Sn)	2024/06/30	95	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B422120	Dissolved Titanium (Ti)	2024/06/30	95	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
B422120	Dissolved Uranium (U)	2024/06/30	94	80 - 120	101	80 - 120	<0.00010	mg/L	0.35	20		
B422120	Dissolved Vanadium (V)	2024/06/30	97	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
B422120	Dissolved Zinc (Zn)	2024/06/30	96	80 - 120	101	80 - 120	<0.0030	mg/L	NC	20		
B422200	Dissolved Barium (Ba)	2024/06/29	103	80 - 120	105	80 - 120	<0.010	mg/L	2.7	20		
B422200	Dissolved Boron (B)	2024/06/29	71 (2)	80 - 120	105	80 - 120	<0.020	mg/L	3.9	20		
B422200	Dissolved Calcium (Ca)	2024/06/29	100	80 - 120	101	80 - 120	<0.30	mg/L	1.9	20		
B422200	Dissolved Iron (Fe)	2024/06/29	75 (2)	80 - 120	117	80 - 120	<0.060	mg/L	NC	20		

BUREAU
VERITAS

Bureau Veritas Job #: C448014

Report Date: 2024/07/12

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 62829

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B422200	Dissolved Lithium (Li)	2024/06/29	95	80 - 120	99	80 - 120	<0.020	mg/L	NC	20		
B422200	Dissolved Magnesium (Mg)	2024/06/29	101	80 - 120	104	80 - 120	<0.20	mg/L	0.79	20		
B422200	Dissolved Manganese (Mn)	2024/06/29	96	80 - 120	117	80 - 120	<0.0040	mg/L	NC	20		
B422200	Dissolved Potassium (K)	2024/06/29	101	80 - 120	103	80 - 120	<0.30	mg/L	1.9	20		
B422200	Dissolved Silicon (Si)	2024/06/29	80	80 - 120	100	80 - 120	<0.50	mg/L	NC	20		
B422200	Dissolved Sodium (Na)	2024/06/29	103	80 - 120	104	80 - 120	<0.50	mg/L	1.7	20		
B422200	Dissolved Strontium (Sr)	2024/06/29	104	80 - 120	105	80 - 120	<0.020	mg/L	1.0	20		
B422200	Dissolved Sulphur (S)	2024/06/29	61 (2)	80 - 120	104	80 - 120	<0.20	mg/L	17	20		
B422463	Total Phosphorus (P)	2024/07/03	107	80 - 120	88	80 - 120	<0.0010	mg/L	NC	20	88	80 - 120
B423088	Total Ammonia (N)	2024/07/02	NC	80 - 120	101	80 - 120	<0.0050	mg/L	0.33	20		
B423453	Chloride (Cl)	2024/07/02	98	80 - 120	100	80 - 120	<0.50	mg/L				
B424655	Total Mercury (Hg)	2024/07/05	92	80 - 120	103	80 - 120	<0.0000019	mg/L	NC	20		
B424721	Dissolved Mercury (Hg)	2024/07/03	100	80 - 120	104	80 - 120	<0.0000019	mg/L	7.7	20		
B425495	Reactive Silica	2024/07/05	114	80 - 120	116	80 - 120	<0.050	mg/L	7.5	20		
B427665	Acidity (pH 4.5)	2024/07/08					<1.0	mg/L	NC	20		
B427665	Acidity (pH 8.3)	2024/07/08			99	80 - 120	1.4, RDL=1.0 (3)	mg/L	NC	20		
B430043	Dissolved-Low Level Sulphate (SO4)	2024/07/08	NC	80 - 120	99	80 - 120	<0.050	mg/L	0.0012	20		
B431318	Total Aluminum (Al)	2024/07/09	103	80 - 120	98	80 - 120	<0.0030	mg/L	5.5	20		
B431318	Total Antimony (Sb)	2024/07/09	105	80 - 120	96	80 - 120	<0.00060	mg/L	NC	20		
B431318	Total Arsenic (As)	2024/07/09	104	80 - 120	97	80 - 120	<0.00020	mg/L	15	20		
B431318	Total Beryllium (Be)	2024/07/09	102	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B431318	Total Cadmium (Cd)	2024/07/09	98	80 - 120	93	80 - 120	<0.000020	mg/L				
B431318	Total Chromium (Cr)	2024/07/09	103	80 - 120	96	80 - 120	<0.0010	mg/L	15	20		
B431318	Total Cobalt (Co)	2024/07/09	102	80 - 120	97	80 - 120	<0.00030	mg/L	9.4	20		
B431318	Total Copper (Cu)	2024/07/09	97	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B431318	Total Lead (Pb)	2024/07/09	94	80 - 120	92	80 - 120	<0.00020	mg/L	NC	20		
B431318	Total Molybdenum (Mo)	2024/07/09	109	80 - 120	95	80 - 120	<0.00020	mg/L	3.5	20		
B431318	Total Nickel (Ni)	2024/07/09	98	80 - 120	96	80 - 120	<0.00050	mg/L	16	20		
B431318	Total Selenium (Se)	2024/07/09	101	80 - 120	96	80 - 120	<0.00020	mg/L	NC	20		
B431318	Total Silver (Ag)	2024/07/09	96	80 - 120	94	80 - 120	<0.00010	mg/L	NC	20		
B431318	Total Thallium (Tl)	2024/07/09	93	80 - 120	96	80 - 120	<0.00020	mg/L	NC	20		



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VERITAS

Bureau Veritas Job #: C448014

Report Date: 2024/07/12

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 62829

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B431318	Total Tin (Sn)	2024/07/09	104	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B431318	Total Titanium (Ti)	2024/07/09	107	80 - 120	95	80 - 120	<0.0010	mg/L	2.8	20		
B431318	Total Uranium (U)	2024/07/09	104	80 - 120	94	80 - 120	<0.00010	mg/L	12	20		
B431318	Total Vanadium (V)	2024/07/09	108	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B431318	Total Zinc (Zn)	2024/07/09	98	80 - 120	95	80 - 120	<0.0030	mg/L	NC	20		
B431321	Total Barium (Ba)	2024/07/09	98	80 - 120	95	80 - 120	<0.010	mg/L	0.37	20		
B431321	Total Boron (B)	2024/07/09	96	80 - 120	95	80 - 120	<0.020	mg/L	1.2	20		
B431321	Total Calcium (Ca)	2024/07/09	103	80 - 120	100	80 - 120	<0.30	mg/L	5.6	20		
B431321	Total Iron (Fe)	2024/07/09	102	80 - 120	98	80 - 120	<0.060	mg/L	8.8	20		
B431321	Total Lithium (Li)	2024/07/09	105	80 - 120	104	80 - 120	<0.020	mg/L	7.5	20		
B431321	Total Magnesium (Mg)	2024/07/09	99	80 - 120	97	80 - 120	<0.20	mg/L	1.1	20		
B431321	Total Manganese (Mn)	2024/07/09	99	80 - 120	98	80 - 120	<0.0040	mg/L	8.7	20		
B431321	Total Potassium (K)	2024/07/09	104	80 - 120	102	80 - 120	<0.30	mg/L	5.7	20		
B431321	Total Silicon (Si)	2024/07/09	96	80 - 120	93	80 - 120	<0.50	mg/L	1.1	20		
B431321	Total Sodium (Na)	2024/07/09	101	80 - 120	100	80 - 120	<0.50	mg/L	5.6	20		
B431321	Total Strontium (Sr)	2024/07/09	95	80 - 120	93	80 - 120	<0.020	mg/L	1.1	20		
B431321	Total Sulphur (S)	2024/07/09	93	80 - 120	92	80 - 120	<0.20	mg/L	1.4	20		
B431379	Alkalinity (PP as CaCO3)	2024/07/09					<0.50	mg/L	NC	20		
B431379	Alkalinity (Total as CaCO3)	2024/07/09			100	80 - 120	<0.50	mg/L	5.0	20		
B431379	Bicarbonate (HCO3)	2024/07/09					<0.50	mg/L	5.0	20		
B431379	Carbonate (CO3)	2024/07/09					<0.50	mg/L	NC	20		
B431379	Hydroxide (OH)	2024/07/09					<0.50	mg/L	NC	20		
B431381	pH	2024/07/09			101	97 - 103			1.0	N/A		
B431382	Conductivity	2024/07/09			101	90 - 110	<1.0	uS/cm	2.6	20		
B431384	Fluoride (F)	2024/07/09	95	80 - 120	93	80 - 120	<0.010	mg/L	3.2	20		
B431683	Total Inorganic Carbon (C)	2024/07/09	NC	80 - 120	107	80 - 120	<1.0	mg/L	0.76	20		



BUREAU
VERITAS

Bureau Veritas Job #: C448014

Report Date: 2024/07/12

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 62829

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B435064	Total Organic Carbon (C)	2024/07/12	NC	80 - 120	102	80 - 120	<0.20	mg/L	0.60	20		

N/A = Not Applicable

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

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

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)

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 $\leq 2 \times \text{RDL}$).

(1) Method blank exceeds acceptance limits, $2 \times \text{RDL}$ acceptable for low level analysis

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(3) Method blank exceeds acceptance limits, $2 \times \text{RDL}$ acceptable for low acidity analysis



BUREAU
VERITAS

Bureau Veritas Job #: C448014

Report Date: 2024/07/12

Arctic Canadian Diamond Company Ltd

Client Project #: 62829

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

VALIDATION SIGNATURE PAGE

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

Ghayasuddin Khan, M.Sc., P.Chem., QP, 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 Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

MASSACHUSETTS
DEPARTMENT OF
CORRECTIONS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #		COOLER OBSERVATIONS:				BY JOB#:			
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT			TEMP 63 64 68	PRESENT			TEMP 36 36 32
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 56 58 63	PRESENT		✓	TEMP 48 48 48
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 53 54 59	PRESENT		✓	TEMP 48 48 48
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 51 53 58	PRESENT		✓	TEMP 63 63 58
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 80 67 69	PRESENT		✓	TEMP 46 44 41
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 46 41 63	PRESENT		✓	TEMP 63 55 42
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 48 43 34	PRESENT		✓	TEMP 33 26 19
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 53 54 49	PRESENT		✓	TEMP 36 30 18
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 42 41 17	PRESENT		✓	TEMP 22 22 22
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		✓	TEMP 27 29 35	PRESENT		✓	TEMP 43 43 41
Page	of	INTACT		✓	1 2 3	INTACT		✓	1 2 3
Page	of	ICE PRESENT	✓			ICE PRESENT	✓		

RECEIVED BY (SIGN & PRINT)	DATE (YYYY/MM/DD)	TIME (HH:MM)
<i>Det. Mayne</i>	204/06/27	1500



ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #		COOLER OBSERVATIONS:				BV JOB#:			
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		☒	TEMP 38 38 38	PRESENT			TEMP
Page	of	INTACT		☒	1 2 3	INTACT			1 2 3
Page	of	ICE PRESENT	☒		TEMP 38 38 38	ICE PRESENT			TEMP 1 2 3
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT			TEMP 38 38 38	PRESENT			TEMP 1 2 3
Page	of	INTACT			1 2 3	INTACT			TEMP 1 2 3
Page	of	ICE PRESENT			TEMP 1.8 1.9 1.3	ICE PRESENT			TEMP 1 2 3
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		☒	TEMP 0.4 0.3 0.3	PRESENT			TEMP 1 2 3
Page	of	INTACT		☒	1 2 3	INTACT			TEMP 1 2 3
Page	of	ICE PRESENT	☒		TEMP 1.9 2.3 2.3	ICE PRESENT			TEMP 1 2 3
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT		☒	TEMP	PRESENT			TEMP 1 2 3
Page	of	INTACT			1 2 3	INTACT			TEMP 1 2 3
Page	of	ICE PRESENT			TEMP	ICE PRESENT			TEMP 1 2 3
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT			TEMP	PRESENT			TEMP 1 2 3
Page	of	INTACT			1 2 3	INTACT			TEMP 1 2 3
Page	of	ICE PRESENT			TEMP	ICE PRESENT			TEMP 1 2 3
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT			TEMP	PRESENT			TEMP 1 2 3
Page	of	INTACT			1 2 3	INTACT			TEMP 1 2 3
Page	of	ICE PRESENT			TEMP	ICE PRESENT			TEMP 1 2 3
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT			TEMP	PRESENT			TEMP 1 2 3
Page	of	INTACT			1 2 3	INTACT			TEMP 1 2 3
Page	of	ICE PRESENT			TEMP	ICE PRESENT			TEMP 1 2 3
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT			TEMP	PRESENT			TEMP 1 2 3
Page	of	INTACT			1 2 3	INTACT			TEMP 1 2 3
Page	of	ICE PRESENT			TEMP	ICE PRESENT			TEMP 1 2 3
Page	of	CUSTODY SEAL	YES	NO	COOLER ID	CUSTODY SEAL	YES	NO	COOLER ID
Page	of	PRESENT			TEMP	PRESENT			TEMP 1 2 3
Page	of	INTACT			1 2 3	INTACT			TEMP 1 2 3
Page	of	ICE PRESENT			TEMP	ICE PRESENT			TEMP 1 2 3

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Margie Lunter

DATE (YYYY/MM/DD)

2024/06/27

TIME (HH:MM)

1500

COC# 101608
SO# 62829



**BUREAU
VERITAS**

900 - 606 4 Street SW, Calgary, Alberta, Canada T2P 1T1
Tel: 867-880-4400 ext 2157
Burgundy Contact: Richard Ehler / Jonah Kelly



BURGUNDY
DIAMOND MINES

[illegible]

Sent results to Tania.robitaille@burgundydiamonds.com,

Relinquished by: <i>Ethel</i>	Date <i>27 Jun -24</i> Time <i>6:30</i>	Received by: <i>Mayorie Carter</i>	Date <i>06/28/2023</i> Time <i>1:50</i>
Relinquished by:	Date Time	Received by:	Date Time

FOR LAB USE ONLY			
Cooler seal intact upon receipt?		Sample temperature upon receipt:	
☐ Yes	☒ No	☐ N/A	Frozen? ☐ Yes ☐ No
Send Analytical Results to: compliance.team@burgundydiamonds.com			

Ans: yes



Your P.O. #: 6404002992
Your Project #: 62082
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101626

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/08/02
Report #: R3537008
Version: 5 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C449839

Received: 2024/07/04, 12:30

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO ₃)	1	N/A	2024/07/08	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/07/06	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	1	N/A	2024/07/05	AB SOP-00020	SM24-4500-Cl/SO ₄ -E m
Conductance - Low Level	1	N/A	2024/07/06	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	1	N/A	2024/07/06	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO ₃) (2)	1	N/A	2024/07/05	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CV (3)	1	2024/07/05	2024/07/05	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	1	2024/07/05	2024/07/05	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (3)	1	N/A	2024/07/04	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	1	2024/07/05	2024/07/05	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (3)	1	N/A	2024/07/04	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	1	2024/07/05	2024/07/05	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Un-Ionized Ammonia (NH ₃) as N	1	N/A	2024/08/02		Auto Calc
Ammonia-N Low Level (Preserved)	1	N/A	2024/07/08	AB SOP-00007	SM 24 4500 NH ₃ A G m
Nitrate + Nitrite-N (calculated) Low Lev	1	N/A	2024/07/08		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/07/05	AB SOP-00023	SM 24 4110 B m
pH @25°C (4)	1	N/A	2024/07/06	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/07/04	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (5)	1	N/A	2024/07/05	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	1	N/A	2024/07/05	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO ₄) by IC	1	N/A	2024/07/08	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	1	N/A	2024/07/08		Auto Calc
Temperature (Field)	1	N/A	2024/07/04	Field Test	Field Test
Carbon (Inorganic)	1	N/A	2024/07/08	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/07/08	BBY WI-00033	Auto Calc
Nitrogen (Total)	1	2024/07/06	2024/07/08	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (6)	1	N/A	2024/07/08	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Dissolved (7)	1	2024/07/08	2024/07/08	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/07/06	2024/07/08	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	1	2024/07/06	2024/07/07	AB SOP-00061	SM 24 2540 D m



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Attention: COMPLIANCE TEAM

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900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/08/02
Report #: R3537008
Version: 5 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C449839

Received: 2024/07/04, 12:30

Sample Matrix: Water
Samples Received: 1

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Turbidity	1	N/A	2024/07/04	CAL SOP-00081	SM 24 2130 B m
Ion Balance (8)	1	N/A	2024/07/06		
Total Dissolved Solids (Calculated) (8)	1	N/A	2024/07/09		
Radium Isotopes by Alpha Spectrometry (1, 9)	1	N/A	2024/07/15	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry

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, EPA, APHA or the Quebec Ministry of Environment.

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 Kitimat, 6790 Kitimat Rd., Unit 4, Mississauga, Ontario, L5N 5L9

(2) "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).

(3) Dissolved > Total Imbalance: When applicable, Dissolved and Total results were reviewed and data quality meets acceptable levels unless otherwise noted.

(4) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

(5) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets



Your P.O. #: 6404002992
Your Project #: 62082
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Your C.O.C. #: 101626

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900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/08/02
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CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C449839

Received: 2024/07/04, 12:30

acceptable levels unless otherwise noted.

(6) TOC present in the sample should be considered as non-purgeable TOC.

(7) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.

(8) Calculation was conducted as per client request using CAL PDF-00333.

(9) Radium-226 results have not been corrected for blanks.

Encryption Key

Geraldyn Gouthro
Key Account Specialist
02 Aug 2024 14:59:50

Please direct all questions regarding this Certificate of Analysis to:

Geraldyn Gouthro, Key Account Specialist

Email: geraldyn.gouthro@bureauveritas.com

Phone# (403) 291-3077

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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 Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.



RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CQ0547		
Sampling Date		2024/07/02 12:58		
COC Number		101626		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
RADIONUCLIDE				
Radium 226	Bq/l	<0.010	0.010	B440882
Calculated Parameters				
Total Hardness (CaCO ₃)	mg/L	41.5	0.50	B426139
Calculated Ion Balance (% Difference)	%	0.68		B426911
Nitrate plus Nitrite (N)	mg/L	2.9	0.0022	B426895
Calculated Total Dissolved Solids	mg/L	150	0.95	B426912
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.52	0.20	B428145
Un-Ionized Ammonia	mg/L	<0.00050	0.00050	B464470
Field Parameters				
Field pH	pH	8.13	N/A	ONSITE
Field Temperature (Fd)	deg. C	17.9	N/A	ONSITE
Misc. Inorganics				
Fluoride (F)	mg/L	0.069	0.010	B427637
pH	pH	7.40	N/A	B427635
Reactive Silica	mg/L	<0.050	0.050	B425495
Acidity (pH 4.5)	mg/L	<1.0	1.0	B427665
Alkalinity (Total as CaCO ₃)	mg/L	34.1	0.50	B427606
Total Organic Carbon (C)	mg/L	3.3	0.20	B430440
Acidity (pH 8.3)	mg/L	1.7	1.0	B427665
Alkalinity (PP as CaCO ₃)	mg/L	<0.50	0.50	B427606
Bicarbonate (HCO ₃)	mg/L	41.6	0.50	B427606
Carbonate (CO ₃)	mg/L	<0.50	0.50	B427606
Hydroxide (OH)	mg/L	<0.50	0.50	B427606
Total Suspended Solids	mg/L	3.0	1.0	B428891
Anions				
Orthophosphate (P)	mg/L	<0.0010	0.0010	B427791
Chloride (Cl)	mg/L	13	0.50	B428849
Dissolved-Low Level Sulphate (SO ₄)	mg/L	53	0.30	B430043
Nutrients				
Total Carbon (C)	mg/L	11	0.50	B426907
Total Inorganic Carbon (C)	mg/L	7.8	1.0	B430274
RDL = Reportable Detection Limit N/A = Not Applicable				



RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CQ0547		
Sampling Date		2024/07/02 12:58		
COC Number		101626		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Dissolved Phosphorus (P)	mg/L	0.0046	0.0020	B429947
Total Phosphorus (P)	mg/L	0.011	0.0020	B429144
Total Ammonia (N)	mg/L	0.0080	0.0050	B429903
Nitrite (N)	mg/L	0.030	0.0010	B428457
Nitrate (N)	mg/L	2.8	0.0020	B428457
Total Nitrogen (N)	mg/L	3.4 (1)	0.20	B428951
Physical Properties				
Conductivity	uS/cm	259	1.0	B427636
Physical Properties				
Turbidity - NTU	NTU	5.8	0.10	B426859
RDL = Reportable Detection Limit				
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.				



MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CQ0547		
Sampling Date		2024/07/02 12:58		
COC Number		101626		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Elements				
Dissolved Mercury (Hg)	mg/L	<0.0000019	0.0000019	B428057
Total Mercury (Hg)	mg/L	<0.0000019	0.0000019	B428054
RDL = Reportable Detection Limit				



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Bureau Veritas Job #: C449839
Report Date: 2024/08/02

Arctic Canadian Diamond Company Ltd
Client Project #: 62082
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CQ0547		
Sampling Date		2024/07/02 12:58		
COC Number		101626		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Elements				
Dissolved Aluminum (Al)	mg/L	0.026	0.0030	B426999
Total Aluminum (Al)	mg/L	0.20	0.0030	B427638
Dissolved Antimony (Sb)	mg/L	<0.00060	0.00060	B426999
Total Antimony (Sb)	mg/L	<0.00060	0.00060	B427638
Dissolved Arsenic (As)	mg/L	0.00097	0.00020	B426999
Total Arsenic (As)	mg/L	0.0015	0.00020	B427638
Dissolved Barium (Ba)	mg/L	0.036	0.010	B427073
Total Barium (Ba)	mg/L	0.044	0.010	B427641
Dissolved Beryllium (Be)	mg/L	<0.0010	0.0010	B426999
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B427638
Dissolved Boron (B)	mg/L	<0.020	0.020	B427073
Total Boron (B)	mg/L	0.022	0.020	B427641
Dissolved Cadmium (Cd)	mg/L	<0.000020	0.000020	B426999
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	B427638
Dissolved Calcium (Ca)	mg/L	7.9	0.30	B427073
Total Calcium (Ca)	mg/L	8.0	0.30	B427641
Dissolved Chromium (Cr)	mg/L	<0.0010	0.0010	B426999
Total Chromium (Cr)	mg/L	<0.0010	0.0010	B427638
Dissolved Cobalt (Co)	mg/L	<0.00030	0.00030	B426999
Total Cobalt (Co)	mg/L	0.00033	0.00030	B427638
Dissolved Copper (Cu)	mg/L	0.0011	0.0010	B426999
Total Copper (Cu)	mg/L	0.0018	0.0010	B427638
Dissolved Iron (Fe)	mg/L	0.090	0.060	B427073
Total Iron (Fe)	mg/L	0.30	0.060	B427641
Dissolved Lead (Pb)	mg/L	<0.00020	0.00020	B426999
Total Lead (Pb)	mg/L	0.00038	0.00020	B427638
Dissolved Lithium (Li)	mg/L	<0.020	0.020	B427073
Total Lithium (Li)	mg/L	<0.020	0.020	B427641
Dissolved Magnesium (Mg)	mg/L	5.1	0.20	B427073
Total Magnesium (Mg)	mg/L	5.2	0.20	B427641
Dissolved Manganese (Mn)	mg/L	<0.0040	0.0040	B427073
RDL = Reportable Detection Limit				



BUREAU
VERITAS

Bureau Veritas Job #: C449839

Report Date: 2024/08/02

Arctic Canadian Diamond Company Ltd

Client Project #: 62082

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CQ0547		
Sampling Date		2024/07/02 12:58		
COC Number		101626		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Total Manganese (Mn)	mg/L	0.016	0.0040	B427641
Dissolved Molybdenum (Mo)	mg/L	0.023	0.00020	B426999
Total Molybdenum (Mo)	mg/L	0.027	0.00020	B427638
Dissolved Nickel (Ni)	mg/L	0.0059	0.00050	B426999
Total Nickel (Ni)	mg/L	0.0091	0.00050	B427638
Dissolved Potassium (K)	mg/L	14	0.30	B427073
Total Potassium (K)	mg/L	14	0.30	B427641
Dissolved Selenium (Se)	mg/L	0.00020	0.00020	B426999
Total Selenium (Se)	mg/L	0.00043	0.00020	B427638
Dissolved Silicon (Si)	mg/L	<0.50	0.50	B427073
Total Silicon (Si)	mg/L	0.66	0.50	B427641
Dissolved Silver (Ag)	mg/L	<0.00010	0.00010	B426999
Total Silver (Ag)	mg/L	<0.00010	0.00010	B427638
Dissolved Sodium (Na)	mg/L	25	0.50	B427073
Total Sodium (Na)	mg/L	26	0.50	B427641
Dissolved Strontium (Sr)	mg/L	0.12	0.020	B427073
Total Strontium (Sr)	mg/L	0.14	0.020	B427641
Dissolved Sulphur (S)	mg/L	18	0.20	B427073
Total Sulphur (S)	mg/L	18	0.20	B427641
Dissolved Thallium (Tl)	mg/L	<0.00020	0.00020	B426999
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B427638
Dissolved Tin (Sn)	mg/L	<0.0010	0.0010	B426999
Total Tin (Sn)	mg/L	<0.0010	0.0010	B427638
Dissolved Titanium (Ti)	mg/L	<0.0010	0.0010	B426999
Total Titanium (Ti)	mg/L	0.0073	0.0010	B427638
Dissolved Uranium (U)	mg/L	0.0016	0.00010	B426999
Total Uranium (U)	mg/L	0.0019	0.00010	B427638
Dissolved Vanadium (V)	mg/L	<0.0010	0.0010	B426999
Total Vanadium (V)	mg/L	<0.0010	0.0010	B427638
Dissolved Zinc (Zn)	mg/L	<0.0030	0.0030	B426999
Total Zinc (Zn)	mg/L	<0.0030	0.0030	B427638
RDL = Reportable Detection Limit				



GENERAL COMMENTS

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

Package 1	9.1°C
Package 2	9.5°C

V2: Radium added as per request on 2024/07/08

V5: Un-ionized ammonia added as per request on 2024/08/02

Results relate only to the items tested.

BUREAU
VERITAS

Bureau Veritas Job #: C449839

Report Date: 2024/08/02

QUALITY ASSURANCE REPORT

Arctic Canadian Diamond Company Ltd

Client Project #: 62082

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B425495	Reactive Silica	2024/07/05	114	80 - 120	116	80 - 120	<0.050	mg/L	7.5	20		
B426859	Turbidity - NTU	2024/07/04			101	80 - 120	<0.10	NTU	0.65	20		
B426999	Dissolved Aluminum (Al)	2024/07/04	86	80 - 120	88	80 - 120	<0.0030	mg/L	NC	20		
B426999	Dissolved Antimony (Sb)	2024/07/04	85	80 - 120	83	80 - 120	<0.00060	mg/L	NC	20		
B426999	Dissolved Arsenic (As)	2024/07/04	94	80 - 120	89	80 - 120	<0.00020	mg/L	1.1	20		
B426999	Dissolved Beryllium (Be)	2024/07/04	94	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B426999	Dissolved Cadmium (Cd)	2024/07/04	89	80 - 120	86	80 - 120	<0.000020	mg/L	NC	20		
B426999	Dissolved Chromium (Cr)	2024/07/04	93	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B426999	Dissolved Cobalt (Co)	2024/07/04	93	80 - 120	96	80 - 120	<0.00030	mg/L	NC	20		
B426999	Dissolved Copper (Cu)	2024/07/04	92	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B426999	Dissolved Lead (Pb)	2024/07/04	92	80 - 120	94	80 - 120	<0.00020	mg/L	2.2	20		
B426999	Dissolved Molybdenum (Mo)	2024/07/04	94	80 - 120	92	80 - 120	<0.00020	mg/L	2.5	20		
B426999	Dissolved Nickel (Ni)	2024/07/04	92	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20		
B426999	Dissolved Selenium (Se)	2024/07/04	96	80 - 120	88	80 - 120	<0.00020	mg/L	NC	20		
B426999	Dissolved Silver (Ag)	2024/07/04	89	80 - 120	89	80 - 120	<0.00010	mg/L	NC	20		
B426999	Dissolved Thallium (Tl)	2024/07/04	91	80 - 120	92	80 - 120	<0.00020	mg/L	NC	20		
B426999	Dissolved Tin (Sn)	2024/07/04	92	80 - 120	89	80 - 120	<0.0010	mg/L	NC	20		
B426999	Dissolved Titanium (Ti)	2024/07/04	92	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B426999	Dissolved Uranium (U)	2024/07/04	91	80 - 120	93	80 - 120	<0.00010	mg/L	6.1	20		
B426999	Dissolved Vanadium (V)	2024/07/04	95	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
B426999	Dissolved Zinc (Zn)	2024/07/04	88	80 - 120	84	80 - 120	<0.0030	mg/L	9.7	20		
B427073	Dissolved Barium (Ba)	2024/07/05	99	80 - 120	97	80 - 120	<0.010	mg/L	0.68	20		
B427073	Dissolved Boron (B)	2024/07/05	96	80 - 120	92	80 - 120	<0.020	mg/L	1.8	20		
B427073	Dissolved Calcium (Ca)	2024/07/05	NC	80 - 120	98	80 - 120	<0.30	mg/L	0.47	20		
B427073	Dissolved Iron (Fe)	2024/07/05	108	80 - 120	107	80 - 120	<0.060	mg/L	0.20	20		
B427073	Dissolved Lithium (Li)	2024/07/05	94	80 - 120	90	80 - 120	<0.020	mg/L	6.0	20		
B427073	Dissolved Magnesium (Mg)	2024/07/05	103	80 - 120	101	80 - 120	<0.20	mg/L	0.16	20		
B427073	Dissolved Manganese (Mn)	2024/07/05	109	80 - 120	105	80 - 120	<0.0040	mg/L	0.49	20		
B427073	Dissolved Potassium (K)	2024/07/05	102	80 - 120	98	80 - 120	<0.30	mg/L	0.30	20		
B427073	Dissolved Silicon (Si)	2024/07/05	NC	80 - 120	98	80 - 120	<0.50	mg/L	0.30	20		
B427073	Dissolved Sodium (Na)	2024/07/05	98	80 - 120	97	80 - 120	<0.50	mg/L	0.41	20		
B427073	Dissolved Strontium (Sr)	2024/07/05	94	80 - 120	93	80 - 120	<0.020	mg/L	1.6	20		

BUREAU
VERITAS

Bureau Veritas Job #: C449839

Report Date: 2024/08/02

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 62082

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B427073	Dissolved Sulphur (S)	2024/07/05	108	80 - 120	105	80 - 120	<0.20	mg/L	0.032	20		
B427606	Alkalinity (PP as CaCO ₃)	2024/07/06					<0.50	mg/L	0.57	20		
B427606	Alkalinity (Total as CaCO ₃)	2024/07/06			97	80 - 120	<0.50	mg/L	0.31	20		
B427606	Bicarbonate (HCO ₃)	2024/07/06					<0.50	mg/L	NC	20		
B427606	Carbonate (CO ₃)	2024/07/06					<0.50	mg/L	9.5	20		
B427606	Hydroxide (OH)	2024/07/06					<0.50	mg/L	0.85	20		
B427635	pH	2024/07/06			100	97 - 103			0.014	N/A		
B427636	Conductivity	2024/07/06			100	90 - 110	<1.0	uS/cm	0.15	20		
B427637	Fluoride (F)	2024/07/06	93	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
B427638	Total Aluminum (Al)	2024/07/05	89	80 - 120	93	80 - 120	<0.0030	mg/L	15	20		
B427638	Total Antimony (Sb)	2024/07/05	97	80 - 120	93	80 - 120	<0.00060	mg/L	7.1	20		
B427638	Total Arsenic (As)	2024/07/05	104	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20		
B427638	Total Beryllium (Be)	2024/07/05	94	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20		
B427638	Total Cadmium (Cd)	2024/07/05	97	80 - 120	93	80 - 120	<0.000020	mg/L	4.4	20		
B427638	Total Chromium (Cr)	2024/07/05	101	80 - 120	97	80 - 120	<0.0010	mg/L	17	20		
B427638	Total Cobalt (Co)	2024/07/05	102	80 - 120	97	80 - 120	<0.00030	mg/L	5.4	20		
B427638	Total Copper (Cu)	2024/07/05	102	80 - 120	98	80 - 120	<0.0010	mg/L	5.8	20		
B427638	Total Lead (Pb)	2024/07/05	98	80 - 120	94	80 - 120	<0.00020	mg/L	8.0	20		
B427638	Total Molybdenum (Mo)	2024/07/05	97	80 - 120	93	80 - 120	<0.00020	mg/L	11	20		
B427638	Total Nickel (Ni)	2024/07/05	99	80 - 120	96	80 - 120	<0.00050	mg/L	2.7	20		
B427638	Total Selenium (Se)	2024/07/05	101	80 - 120	97	80 - 120	<0.00020	mg/L	7.6	20		
B427638	Total Silver (Ag)	2024/07/05	96	80 - 120	93	80 - 120	<0.00010	mg/L	NC	20		
B427638	Total Thallium (Tl)	2024/07/05	96	80 - 120	92	80 - 120	<0.00020	mg/L	NC	20		
B427638	Total Tin (Sn)	2024/07/05	98	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
B427638	Total Titanium (Ti)	2024/07/05	99	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
B427638	Total Uranium (U)	2024/07/05	102	80 - 120	98	80 - 120	<0.00010	mg/L	0.65	20		
B427638	Total Vanadium (V)	2024/07/05	103	80 - 120	97	80 - 120	<0.0010	mg/L	7.9	20		
B427638	Total Zinc (Zn)	2024/07/05	103	80 - 120	98	80 - 120	<0.0030	mg/L	14	20		
B427641	Total Barium (Ba)	2024/07/05	109	80 - 120	108	80 - 120	<0.010	mg/L	7.7	20		
B427641	Total Boron (B)	2024/07/05	109	80 - 120	108	80 - 120	<0.020	mg/L	4.4	20		
B427641	Total Calcium (Ca)	2024/07/05	104	80 - 120	101	80 - 120	<0.30	mg/L	5.0	20		
B427641	Total Iron (Fe)	2024/07/05	103	80 - 120	106	80 - 120	<0.060	mg/L	5.6	20		



BUREAU
VERITAS

Bureau Veritas Job #: C449839

Report Date: 2024/08/02

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 62082

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B427641	Total Lithium (Li)	2024/07/05	102	80 - 120	100	80 - 120	<0.020	mg/L	NC	20		
B427641	Total Magnesium (Mg)	2024/07/05	107	80 - 120	105	80 - 120	<0.20	mg/L	4.7	20		
B427641	Total Manganese (Mn)	2024/07/05	104	80 - 120	107	80 - 120	<0.0040	mg/L	5.1	20		
B427641	Total Potassium (K)	2024/07/05	104	80 - 120	102	80 - 120	<0.30	mg/L	4.3	20		
B427641	Total Silicon (Si)	2024/07/05	104	80 - 120	102	80 - 120	<0.50	mg/L	6.2	20		
B427641	Total Sodium (Na)	2024/07/05	102	80 - 120	100	80 - 120	<0.50	mg/L	4.8	20		
B427641	Total Strontium (Sr)	2024/07/05	107	80 - 120	105	80 - 120	<0.020	mg/L	3.6	20		
B427641	Total Sulphur (S)	2024/07/05	105	80 - 120	102	80 - 120	<0.20	mg/L	5.0	20		
B427665	Acidity (pH 4.5)	2024/07/08					<1.0	mg/L	NC	20		
B427665	Acidity (pH 8.3)	2024/07/08			99	80 - 120	1.4, RDL=1.0 (1)	mg/L	NC	20		
B427791	Orthophosphate (P)	2024/07/05	110	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20		
B428054	Total Mercury (Hg)	2024/07/05	95	80 - 120	99	80 - 120	<0.0000019	mg/L	NC	20		
B428057	Dissolved Mercury (Hg)	2024/07/05	90	80 - 120	99	80 - 120	<0.0000019	mg/L	NC	20		
B428457	Nitrate (N)	2024/07/05	106	80 - 120	104	80 - 120	<0.0020	mg/L	0.32	20		
B428457	Nitrite (N)	2024/07/05	104	80 - 120	97	80 - 120	<0.0010	mg/L	0.88	20		
B428849	Chloride (Cl)	2024/07/05	NC	80 - 120	104	80 - 120	<0.50	mg/L	0.50	20		
B428891	Total Suspended Solids	2024/07/07	98	80 - 120	96	80 - 120	<1.0	mg/L	17	20		
B428951	Total Nitrogen (N)	2024/07/08	91	80 - 120	108	80 - 120	<0.020	mg/L	1.9	20	103	80 - 120
B429144	Total Phosphorus (P)	2024/07/08	98	80 - 120	95	80 - 120	<0.0010	mg/L	9.6	20	92	80 - 120
B429903	Total Ammonia (N)	2024/07/08	100	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
B429947	Dissolved Phosphorus (P)	2024/07/08	99	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20	92	80 - 120
B430043	Dissolved-Low Level Sulphate (SO4)	2024/07/08	NC	80 - 120	99	80 - 120	<0.050	mg/L	0.0012	20		
B430274	Total Inorganic Carbon (C)	2024/07/08	110	80 - 120	109	80 - 120	<1.0	mg/L	7.3	20		
B430440	Total Organic Carbon (C)	2024/07/08	110	80 - 120	100	80 - 120	<0.20	mg/L	4.8	20		



BUREAU
VERITAS

Bureau Veritas Job #: C449839

Report Date: 2024/08/02

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 62082

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B440882	Radium 226	2024/07/15			100	85 - 115	<0.010	Bq/l				

N/A = Not Applicable

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

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

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)

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 $\leq 2 \times \text{RDL}$).

(1) Method blank exceeds acceptance limits, $2 \times \text{RDL}$ acceptable for low acidity analysis



BUREAU
VERITAS

Bureau Veritas Job #: C449839

Report Date: 2024/08/02

Arctic Canadian Diamond Company Ltd

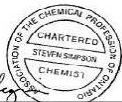
Client Project #: 62082

Site Location: MDMR/SNP/SEEPAGE

Your P.O. #: 6404002992

VALIDATION SIGNATURE PAGE

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



Steven Simpson, Lab Director

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Sandy Yuan, M.Sc., QP, Scientific Specialist

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 Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

RUSH

COC# 101626

SO# 62082



**BUREAU
VERITAS**

900 - 606 4 Street SW, Calgary, Alberta, Canada T2P 1T1
Tel: 867-880-4400 ext 2157

BURGUNDY
 DIAMOND MINES

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

Dissolved Nutrients	Major Ions	SNP Total Nutrients	Standard Dissolved Metals	Standard Total Metals	pH Field (pH)	Water Temp (°C)
Y	Y	Y	Y	Y	8.13	17.9



MCAL-2024-07-212

Sent results to Tania.robaille@burgundydiamonds.com,

Time

Send Analytical Results to: compliance.team@burgundydiamonds.com

8.9, 9.4, 8.9 CM-N

9.8, 8.9, 9.9



Your P.O. #: 6404002992
 Your Project #: 62083
 Site Location: MDMER/SNP/SEEPAGE
 Your C.O.C. #: 101724

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
 900, 606 4 Street SW
 Calgary, AB
 CANADA T2P 1T1

Report Date: 2024/07/24
 Report #: R3531491
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C452418

Received: 2024/07/12, 09:30

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO ₃)	1	N/A	2024/07/17	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/07/20	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	1	N/A	2024/07/15	AB SOP-00020	SM24-4500-Cl/SO ₄ -E m
Conductance - Low Level	1	N/A	2024/07/20	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	1	N/A	2024/07/20	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO ₃) (1)	1	N/A	2024/07/23	BBY WI-00033	Auto Calc
Mercury (Total) by CV	1	2024/07/18	2024/07/20	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	1	2024/07/22	2024/07/22	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	1	2024/07/22	2024/07/22	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	1	N/A	2024/07/13	AB SOP-00007	SM 24 4500 NH ₃ A G m
Nitrate + Nitrite-N (calculated) Low Lev	1	N/A	2024/07/16		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/07/16	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	1	N/A	2024/07/20	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/07/12	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	1	N/A	2024/07/12	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	1	N/A	2024/07/18	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO ₄) by IC	1	N/A	2024/07/22	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	1	N/A	2024/07/23		Auto Calc
Temperature (Field)	1	N/A	2024/07/12	Field Test	Field Test
Carbon (Inorganic)	1	N/A	2024/07/19	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/07/16	BBY WI-00033	Auto Calc
Nitrogen (Total)	1	2024/07/14	2024/07/15	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	1	N/A	2024/07/23	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Total	1	2024/07/13	2024/07/15	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	1	2024/07/13	2024/07/13	AB SOP-00061	SM 24 2540 D m
Turbidity	1	N/A	2024/07/13	CAL SOP-00081	SM 24 2130 B m
Ion Balance (5)	1	N/A	2024/07/23		
Total Dissolved Solids (Calculated) (5)	1	N/A	2024/07/23		

Remarks:



Your P.O. #: 6404002992
Your Project #: 62083
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101724

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/07/24

Report #: R3531491

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C452418

Received: 2024/07/12, 09:30

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, EPA, APHA or the Quebec Ministry of Environment.

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.

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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) "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).

(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

(3) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.

(4) TOC present in the sample should be considered as non-purgeable TOC.

(5) Calculation was conducted as per client request using CAL PDF-00333.



Your P.O. #: 6404002992
Your Project #: 62083
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101724

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/07/24
Report #: R3531491
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C452418

Received: 2024/07/12, 09:30

Encryption Key



**AUTHORIZED REPORT
RAPPORT AUTORISÉ**

Bureau Veritas

24 Jul 2024 13:31:38

Please direct all questions regarding this Certificate of Analysis to:
Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (403) 291-3077

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BUREAU
VERITAS

Bureau Veritas Job #: C452418
Report Date: 2024/07/24

Arctic Canadian Diamond Company Ltd
Client Project #: 62083
Site Location: MDMR/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CRC546		
Sampling Date		2024/07/08 10:44		
COC Number		101724		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO ₃)	mg/L	41.1	0.50	B436269
Calculated Ion Balance (% Difference)	%	4.6		B436577
Nitrate plus Nitrite (N)	mg/L	2.4	0.0022	B436558
Calculated Total Dissolved Solids	mg/L	160	0.95	B436578
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.27	0.20	B436290
Field Parameters				
Field pH	pH	8.02	N/A	ONSITE
Field Temperature (Fd)	deg. C	14.5	N/A	ONSITE
Misc. Inorganics				
Fluoride (F)	mg/L	0.087	0.010	B445200
pH	pH	7.31	N/A	B445195
Reactive Silica	mg/L	0.27	0.050	B443622
Acidity (pH 4.5)	mg/L	<1.0	1.0	B442484
Alkalinity (Total as CaCO ₃)	mg/L	38.6	0.50	B445192
Total Organic Carbon (C)	mg/L	3.5	0.20	B448915
Acidity (pH 8.3)	mg/L	1.2	1.0	B442484
Alkalinity (PP as CaCO ₃)	mg/L	<0.50	0.50	B445192
Bicarbonate (HCO ₃)	mg/L	47.1	0.50	B445192
Carbonate (CO ₃)	mg/L	<0.50	0.50	B445192
Hydroxide (OH)	mg/L	<0.50	0.50	B445192
Total Suspended Solids	mg/L	1.9	1.0	B437550
Anions				
Orthophosphate (P)	mg/L	<0.0010	0.0010	B436861
Chloride (Cl)	mg/L	12	0.50	B438859
Dissolved-Low Level Sulphate (SO ₄)	mg/L	58	0.30	B447640
Nutrients				
Total Carbon (C)	mg/L	11	0.50	B436565
Total Inorganic Carbon (C)	mg/L	7.2	1.0	B444080
Total Phosphorus (P)	mg/L	0.012	0.0020	B437555
Total Ammonia (N)	mg/L	0.0090	0.0050	B437614
Nitrite (N)	mg/L	0.020	0.0010	B438853
RDL = Reportable Detection Limit N/A = Not Applicable				



RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CRC546		
Sampling Date		2024/07/08 10:44		
COC Number		101724		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Nitrate (N)	mg/L	2.4	0.0020	B438853
Total Nitrogen (N)	mg/L	2.7 (1)	0.20	B438044
Physical Properties				
Conductivity	uS/cm	266	1.0	B445197
Physical Properties				
Turbidity - NTU	NTU	4.3	0.10	B437566
RDL = Reportable Detection Limit (1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.				



BUREAU
VERITAS

Bureau Veritas Job #: C452418
Report Date: 2024/07/24

Arctic Canadian Diamond Company Ltd
Client Project #: 62083
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CRC546		
Sampling Date		2024/07/08 10:44		
COC Number		101724		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Elements				
Total Mercury (Hg)	mg/L	<0.0000019	0.0000019	B443393
RDL = Reportable Detection Limit				



BUREAU
VERITAS

Bureau Veritas Job #: C452418
Report Date: 2024/07/24

Arctic Canadian Diamond Company Ltd
Client Project #: 62083
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CRC546		
Sampling Date		2024/07/08 10:44		
COC Number		101724		
	UNITS	1616-43_DISCHARGE	RDL	QC Batch
Elements				
Total Aluminum (Al)	mg/L	0.11	0.0030	B447311
Total Antimony (Sb)	mg/L	<0.00060	0.00060	B447311
Total Arsenic (As)	mg/L	0.0013	0.00020	B447311
Total Barium (Ba)	mg/L	0.039	0.010	B447316
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B447311
Total Boron (B)	mg/L	<0.020	0.020	B447316
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	B447311
Total Calcium (Ca)	mg/L	7.7	0.30	B447316
Total Chromium (Cr)	mg/L	<0.0010	0.0010	B447311
Total Cobalt (Co)	mg/L	<0.00030	0.00030	B447311
Total Copper (Cu)	mg/L	0.0017	0.0010	B447311
Total Iron (Fe)	mg/L	0.37	0.060	B447316
Total Lead (Pb)	mg/L	0.00031	0.00020	B447311
Total Lithium (Li)	mg/L	<0.020	0.020	B447316
Total Magnesium (Mg)	mg/L	5.3	0.20	B447316
Total Manganese (Mn)	mg/L	0.014	0.0040	B447316
Total Molybdenum (Mo)	mg/L	0.023	0.00020	B447311
Total Nickel (Ni)	mg/L	0.0078	0.00050	B447311
Total Potassium (K)	mg/L	14	0.30	B447316
Total Selenium (Se)	mg/L	<0.00020	0.00020	B447311
Total Silicon (Si)	mg/L	<0.50	0.50	B447316
Total Silver (Ag)	mg/L	<0.00010	0.00010	B447311
Total Sodium (Na)	mg/L	25	0.50	B447316
Total Strontium (Sr)	mg/L	0.13	0.020	B447316
Total Sulphur (S)	mg/L	16	0.20	B447316
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B447311
Total Tin (Sn)	mg/L	<0.0010	0.0010	B447311
Total Titanium (Ti)	mg/L	0.0053	0.0010	B447311
Total Uranium (U)	mg/L	0.0016	0.00010	B447311
Total Vanadium (V)	mg/L	<0.0010	0.0010	B447311
Total Zinc (Zn)	mg/L	<0.0030	0.0030	B447311
RDL = Reportable Detection Limit				



GENERAL COMMENTS

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

Package 1	9.3°C
Package 2	9.9°C
Package 3	4.2°C
Package 4	8.3°C
Package 5	6.1°C
Package 6	7.6°C
Package 7	9.4°C
Package 8	8.0°C

Sample CRC546 [1616-43_DISCHARGE] : Turbidity completed within five days of sampling. Data is satisfactory for compliance purposes. Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Results relate only to the items tested.

BUREAU
VERITAS

Bureau Veritas Job #: C452418

Report Date: 2024/07/24

QUALITY ASSURANCE REPORT

Arctic Canadian Diamond Company Ltd

Client Project #: 62083

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B436861	Orthophosphate (P)	2024/07/12	96	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20		
B437550	Total Suspended Solids	2024/07/13	97	80 - 120	101	80 - 120	<1.0	mg/L	4.7	20		
B437555	Total Phosphorus (P)	2024/07/15	96	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20	86	80 - 120
B437566	Turbidity - NTU	2024/07/13			100	80 - 120	<0.10	NTU	1.0	20		
B437614	Total Ammonia (N)	2024/07/13	103	80 - 120	106	80 - 120	<0.0050	mg/L	0	20		
B438044	Total Nitrogen (N)	2024/07/15	107	80 - 120	104	80 - 120	<0.020	mg/L	NC	20	104	80 - 120
B438853	Nitrate (N)	2024/07/16	107	80 - 120	103	80 - 120	<0.0020	mg/L	0.22	20		
B438853	Nitrite (N)	2024/07/16	105	80 - 120	100	80 - 120	<0.0010	mg/L	5.1	20		
B438859	Chloride (Cl)	2024/07/15	100	80 - 120	96	80 - 120	<0.50	mg/L				
B442484	Acidity (pH 4.5)	2024/07/17					<1.0	mg/L	NC	20		
B442484	Acidity (pH 8.3)	2024/07/17			101	80 - 120	1.1, RDL=1.0 (1)	mg/L	NC	20		
B443393	Total Mercury (Hg)	2024/07/20	100	80 - 120	102	80 - 120	<0.0000019	mg/L	NC	20		
B443622	Reactive Silica	2024/07/18	106	80 - 120	110	80 - 120	<0.050	mg/L	0.65	20		
B444080	Total Inorganic Carbon (C)	2024/07/19	104	80 - 120	105	80 - 120	<1.0	mg/L	0.72	20		
B445192	Alkalinity (PP as CaCO3)	2024/07/20					<0.50	mg/L	NC	20		
B445192	Alkalinity (Total as CaCO3)	2024/07/20			98	80 - 120	<0.50	mg/L	2.8	20		
B445192	Bicarbonate (HCO3)	2024/07/20					<0.50	mg/L	2.8	20		
B445192	Carbonate (CO3)	2024/07/20					<0.50	mg/L	NC	20		
B445192	Hydroxide (OH)	2024/07/20					<0.50	mg/L	NC	20		
B445195	pH	2024/07/20			100	97 - 103			1.1	N/A		
B445197	Conductivity	2024/07/20			101	90 - 110	<1.0	uS/cm	0.16	20		
B445200	Fluoride (F)	2024/07/20	93	80 - 120	97	80 - 120	<0.010	mg/L	13	20		
B447311	Total Aluminum (Al)	2024/07/22	NC	80 - 120	89	80 - 120	<0.0030	mg/L	4.4	20		
B447311	Total Antimony (Sb)	2024/07/22	96	80 - 120	98	80 - 120	<0.00060	mg/L	NC	20		
B447311	Total Arsenic (As)	2024/07/22	102	80 - 120	95	80 - 120	<0.00020	mg/L	1.3	20		
B447311	Total Beryllium (Be)	2024/07/22	100	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20		
B447311	Total Cadmium (Cd)	2024/07/22	101	80 - 120	93	80 - 120	<0.000020	mg/L				
B447311	Total Chromium (Cr)	2024/07/22	95	80 - 120	91	80 - 120	<0.0010	mg/L	NC	20		
B447311	Total Cobalt (Co)	2024/07/22	96	80 - 120	93	80 - 120	<0.00030	mg/L	20	20		
B447311	Total Copper (Cu)	2024/07/22	95	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
B447311	Total Lead (Pb)	2024/07/22	95	80 - 120	91	80 - 120	<0.00020	mg/L	NC	20		



**BUREAU
VERITAS**

Bureau Veritas Job #: C452418

Report Date: 2024/07/24

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 62083

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B447311	Total Molybdenum (Mo)	2024/07/22	100	80 - 120	97	80 - 120	<0.00020	mg/L	7.9	20		
B447311	Total Nickel (Ni)	2024/07/22	96	80 - 120	94	80 - 120	<0.00050	mg/L	4.7	20		
B447311	Total Selenium (Se)	2024/07/22	100	80 - 120	94	80 - 120	<0.00020	mg/L	NC	20		
B447311	Total Silver (Ag)	2024/07/22	98	80 - 120	91	80 - 120	<0.00010	mg/L	NC	20		
B447311	Total Thallium (Tl)	2024/07/22	101	80 - 120	93	80 - 120	<0.00020	mg/L	NC	20		
B447311	Total Tin (Sn)	2024/07/22	100	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B447311	Total Titanium (Ti)	2024/07/22	95	80 - 120	99	80 - 120	<0.0010	mg/L	49 (2)	20		
B447311	Total Uranium (U)	2024/07/22	101	80 - 120	92	80 - 120	<0.00010	mg/L	NC	20		
B447311	Total Vanadium (V)	2024/07/22	98	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
B447311	Total Zinc (Zn)	2024/07/22	95	80 - 120	94	80 - 120	<0.0030	mg/L	NC	20		
B447316	Total Barium (Ba)	2024/07/22	95	80 - 120	93	80 - 120	<0.010	mg/L	0.63	20		
B447316	Total Boron (B)	2024/07/22	94	80 - 120	91	80 - 120	<0.020	mg/L	0.91	20		
B447316	Total Calcium (Ca)	2024/07/22	NC	80 - 120	87	80 - 120	<0.30	mg/L	0.27	20		
B447316	Total Iron (Fe)	2024/07/22	NC	80 - 120	96	80 - 120	<0.060	mg/L	3.2	20		
B447316	Total Lithium (Li)	2024/07/22	84	80 - 120	84	80 - 120	<0.020	mg/L	1.3	20		
B447316	Total Magnesium (Mg)	2024/07/22	NC	80 - 120	94	80 - 120	<0.20	mg/L	0.0061	20		
B447316	Total Manganese (Mn)	2024/07/22	NC	80 - 120	94	80 - 120	<0.0040	mg/L	2.5	20		
B447316	Total Potassium (K)	2024/07/22	96	80 - 120	93	80 - 120	<0.30	mg/L	0.56	20		
B447316	Total Silicon (Si)	2024/07/22	NC	80 - 120	90	80 - 120	<0.50	mg/L	0.43	20		
B447316	Total Sodium (Na)	2024/07/22	NC	80 - 120	92	80 - 120	<0.50	mg/L	0.75	20		
B447316	Total Strontium (Sr)	2024/07/22	92	80 - 120	91	80 - 120	<0.020	mg/L	1.6	20		
B447316	Total Sulphur (S)	2024/07/22	91	80 - 120	87	80 - 120	<0.20	mg/L	11	20		
B447640	Dissolved-Low Level Sulphate (SO4)	2024/07/22	NC	80 - 120	106	80 - 120	<0.050	mg/L	0.47	20		



BUREAU
VERITAS

Bureau Veritas Job #: C452418

Report Date: 2024/07/24

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Client Project #: 62083

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B448915	Total Organic Carbon (C)	2024/07/23	106	80 - 120	100	80 - 120	<0.20	mg/L	4.4	20		

N/A = Not Applicable

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

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

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)

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 $\leq 2 \times \text{RDL}$).

(1) Method blank exceeds acceptance limits, $2 \times \text{RDL}$ acceptable for acidity analysis

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



BUREAU
VERITAS

Bureau Veritas Job #: C452418

Report Date: 2024/07/24

Arctic Canadian Diamond Company Ltd

Client Project #: 62083

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

VALIDATION SIGNATURE PAGE

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

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Sandy Yuan, M.Sc., QP, Scientific Specialist

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

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COC# 101724
SO# 62083



900 - 606 4 Street SW, Calgary, Alberta, Canada T2P 1T1
Tel: 867-880-4400 ext 2157
Burgundy Contact: Richard Ehlert / Jonah Kelly



Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

[illegible]

Sent results to Tania.robitaille@burgundydiamonds.com,

Time

Send Analytical Results to: compliance.team@burgundydiamonds.com



Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101703

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/07/31
Report #: R3535987
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C454205

Received: 2024/07/18, 10:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO ₃)	3	N/A	2024/07/22	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	3	N/A	2024/07/26	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	3	N/A	2024/07/22	AB SOP-00020	SM24-4500-Cl/SO ₄ -E m
Conductance - Low Level	3	N/A	2024/07/26	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	3	N/A	2024/07/26	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO ₃) (1)	3	N/A	2024/07/29	BBY WI-00033	Auto Calc
Mercury (Total) by CV	3	2024/07/20	2024/07/24	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	1	2024/07/26	2024/07/28	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	2	2024/07/28	2024/07/28	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	1	2024/07/26	2024/07/28	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	2	2024/07/28	2024/07/28	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	3	N/A	2024/07/20	AB SOP-00007	SM 24 4500 NH ₃ A G m
Nitrate + Nitrite-N (calculated) Low Lev	3	N/A	2024/07/22		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	2	N/A	2024/07/19	AB SOP-00023	SM 24 4110 B m
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/07/30	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	3	N/A	2024/07/26	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	2	N/A	2024/07/18	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	3	N/A	2024/07/19	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	3	N/A	2024/07/25	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO ₄) by IC	3	N/A	2024/07/22	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	3	N/A	2024/07/23		Auto Calc
Temperature (Field)	2	N/A	2024/07/18	Field Test	Field Test
Carbon (Inorganic)	3	N/A	2024/07/23	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	2	N/A	2024/07/25	BBY WI-00033	Auto Calc
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/07/26	BBY WI-00033	Auto Calc
Nitrogen (Total)	2	2024/07/25	2024/07/25	AB SOP-00093	SM 24 4500-N C m
Nitrogen (Total)	1	2024/07/26	2024/07/26	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	3	N/A	2024/07/23	AB SOP-00087	MMCW 119 1996 m



Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101703

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/07/31
Report #: R3535987
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C454205

Received: 2024/07/18, 10:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Total Phosphorus Low Level Total	2	2024/07/25	2024/07/26	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/07/27	2024/07/29	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	3	2024/07/20	2024/07/22	AB SOP-00061	SM 24 2540 D m
Turbidity	3	N/A	2024/07/18	CAL SOP-00081	SM 24 2130 B m
Ion Balance (5)	3	N/A	2024/07/29		
Total Dissolved Solids (Calculated) (5)	3	N/A	2024/07/29		

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, EPA, APHA or the Quebec Ministry of Environment.

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.

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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) "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).

(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

(3) Orthophosphate > Total Phosphorus Imbalance: When applicable, Orthophosphate, Total Phosphorus and dissolved Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.

(4) TOC present in the sample should be considered as non-purgeable TOC.



Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 101703

Attention: COMPLIANCE TEAM

Arctic Canadian Diamond Company Ltd
900, 606 4 Street SW
Calgary, AB
CANADA T2P 1T1

Report Date: 2024/07/31
Report #: R3535987
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C454205

Received: 2024/07/18, 10:30

(5) Calculation was conducted as per client request using CAL PDF-00333.

Encryption Key



**AUTHORIZED REPORT
RAPPORT AUTORISÉ**

Bureau Veritas

31 Jul 2024 21:08:54

Please direct all questions regarding this Certificate of Analysis to:

Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (403) 291-3077

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BUREAU
VERITAS

Bureau Veritas Job #: C454205

Report Date: 2024/07/31

Arctic Canadian Diamond Company Ltd

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CRM366			CRM367		CRM368		
Sampling Date		2024/07/15 11:41			2024/07/15 11:18		2024/07/15 11:30		
COC Number		101703			101703		101703		
	UNITS	1616-121	RDL	QC Batch	1616-43_DISCHARGE	QC Batch	1616-434	RDL	QC Batch
Calculated Parameters									
Total Hardness (CaCO ₃)	mg/L	<0.50	0.50	B443298	44.8	B443298	50.2	0.50	B443298
Calculated Ion Balance (% Difference)	%	NC		B443710	6.2	B443710	0.22		B443710
Nitrate plus Nitrite (N)	mg/L	<0.0022	0.0022	B443706	2.0	B443706	2.1	0.0022	B443706
Calculated Total Dissolved Solids	mg/L	<0.95	0.95	B443712	170	B443712	170	0.95	B443712
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.020	0.020	B443563	0.25	B443563	0.58	0.20	B443563
Field Parameters									
Field pH	pH				8.69	ONSITE	8.69	N/A	ONSITE
Field Temperature (Fd)	deg. C				18.5	ONSITE	18.5	N/A	ONSITE
Misc. Inorganics									
Fluoride (F)	mg/L	<0.010	0.010	B455725	0.092	B455725	0.095	0.010	B455725
pH	pH	5.59	N/A	B455722	7.42	B455722	7.43	N/A	B455722
Reactive Silica	mg/L	<0.050	0.050	B452671	0.35	B452671	0.36	0.050	B452671
Acidity (pH 4.5)	mg/L	<1.0	1.0	B447454	<1.0	B447454	<1.0	1.0	B447454
Alkalinity (Total as CaCO ₃)	mg/L	<0.50	0.50	B455720	44.0	B455720	43.2	0.50	B455720
Total Organic Carbon (C)	mg/L	<0.20	0.20	B448915	4.1	B448915	4.1	0.20	B448915
Acidity (pH 8.3)	mg/L	<1.0	1.0	B447454	1.2	B447454	1.2	1.0	B447454
Alkalinity (PP as CaCO ₃)	mg/L	<0.50	0.50	B455720	<0.50	B455720	<0.50	0.50	B455720
Bicarbonate (HCO ₃)	mg/L	<0.50	0.50	B455720	53.7	B455720	52.8	0.50	B455720
Carbonate (CO ₃)	mg/L	<0.50	0.50	B455720	<0.50	B455720	<0.50	0.50	B455720
Hydroxide (OH)	mg/L	<0.50	0.50	B455720	<0.50	B455720	<0.50	0.50	B455720
Total Suspended Solids	mg/L	<1.0	1.0	B446292	4.4	B446292	5.6	1.0	B446292
Anions									
Orthophosphate (P)	mg/L	<0.0010	0.0010	B445982	0.0011	B445982	0.0011	0.0010	B445982
Chloride (Cl)	mg/L	<0.50	0.50	B447887	14	B447887	14	0.50	B447887
Dissolved-Low Level Sulphate (SO ₄)	mg/L	<0.30	0.30	B447640	61	B447640	61	0.30	B447640
Nutrients									
Total Carbon (C)	mg/L	<0.50	0.50	B443709	13	B443709	13	0.50	B443709
Total Inorganic Carbon (C)	mg/L	<1.0	1.0	B449230	8.4	B449230	8.6	1.0	B449230
Total Phosphorus (P)	mg/L	<0.0020	0.0020	B452475	0.015	B456188	0.013	0.0020	B452475
Total Ammonia (N)	mg/L	<0.0050	0.0050	B445251	0.019	B445251	0.018	0.0050	B445251
Nitrite (N)	mg/L	<0.0010	0.0010	B455482	0.015	B446154	0.020	0.0010	B446154
RDL = Reportable Detection Limit									
N/A = Not Applicable									



RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CRM366			CRM367		CRM368		
Sampling Date		2024/07/15 11:41			2024/07/15 11:18		2024/07/15 11:30		
COC Number		101703			101703		101703		
	UNITS	1616-121	RDL	QC Batch	1616-43_DISCHARGE	QC Batch	1616-434	RDL	QC Batch
Nitrate (N)	mg/L	<0.0020	0.0020	B455482	2.0	B446154	2.0	0.0020	B446154
Total Nitrogen (N)	mg/L	<0.020 (1)	0.020	B452658	2.3 (2)	B454193	2.6 (2)	0.20	B452658
Physical Properties									
Conductivity	uS/cm	<1.0	1.0	B455723	278	B455723	277	1.0	B455723
Physical Properties									
Turbidity - NTU	NTU	<0.10	0.10	B444493	5.4	B444493	5.6	0.10	B444493
RDL = Reportable Detection Limit									
(1) Nitrogen < Nitrate: Both values fall within the method uncertainty for duplicates and are likely equivalent.									
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.									



MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CRM366	CRM367	CRM368		
Sampling Date		2024/07/15 11:41	2024/07/15 11:18	2024/07/15 11:30		
COC Number		101703	101703	101703		
	UNITS	1616-121	1616-43_DISCHARGE	1616-434	RDL	QC Batch
Elements						
Total Mercury (Hg)	mg/L	<0.0000019	<0.0000019	<0.0000019	0.0000019	B446484
RDL = Reportable Detection Limit						



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Bureau Veritas Job #: C454205

Report Date: 2024/07/31

Arctic Canadian Diamond Company Ltd

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CRM366			CRM367		
Sampling Date		2024/07/15 11:41			2024/07/15 11:18		
COC Number		101703			101703		
	UNITS	1616-121	RDL	QC Batch	1616-43_DISCHARGE	RDL	QC Batch

Elements							
Total Aluminum (Al)	mg/L	<0.0030	0.0030	B456772	0.22	0.0030	B454423
Total Antimony (Sb)	mg/L	<0.00060	0.00060	B456772	<0.00060	0.00060	B454423
Total Arsenic (As)	mg/L	<0.00020	0.00020	B456772	0.0017	0.00020	B454423
Total Barium (Ba)	mg/L	<0.010	0.010	B456768	0.038	0.010	B454426
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B456772	<0.0010	0.0010	B454423
Total Boron (B)	mg/L	<0.020	0.020	B456768	0.027	0.020	B454426
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	B456772	0.000020	0.000020	B454423
Total Calcium (Ca)	mg/L	<0.30	0.30	B456768	8.4	0.30	B454426
Total Chromium (Cr)	mg/L	<0.0010	0.0010	B456772	<0.0010	0.0010	B454423
Total Cobalt (Co)	mg/L	<0.00030	0.00030	B456772	0.00036	0.00030	B454423
Total Copper (Cu)	mg/L	<0.0010	0.0010	B456772	0.0020	0.0010	B454423
Total Iron (Fe)	mg/L	<0.070	0.070	B456768	0.37	0.064	B454426
Total Lead (Pb)	mg/L	<0.00020	0.00020	B456772	<0.00020	0.00020	B454423
Total Lithium (Li)	mg/L	<0.020	0.020	B456768	<0.020	0.020	B454426
Total Magnesium (Mg)	mg/L	<0.20	0.20	B456768	5.8	0.20	B454426
Total Manganese (Mn)	mg/L	<0.0040	0.0040	B456768	0.015	0.0040	B454426
Total Molybdenum (Mo)	mg/L	<0.00020	0.00020	B456772	0.036	0.00020	B454423
Total Nickel (Ni)	mg/L	<0.00050	0.00050	B456772	0.011	0.00050	B454423
Total Potassium (K)	mg/L	<0.30	0.30	B456768	14	0.30	B454426
Total Selenium (Se)	mg/L	<0.00020	0.00020	B456772	0.00030	0.00020	B454423
Total Silicon (Si)	mg/L	<0.50	0.50	B456768	0.65	0.50	B454426
Total Silver (Ag)	mg/L	<0.00010	0.00010	B456772	<0.00010	0.00010	B454423
Total Sodium (Na)	mg/L	<0.50	0.50	B456768	26	0.50	B454426
Total Strontium (Sr)	mg/L	<0.020	0.020	B456768	0.12	0.020	B454426
Total Sulphur (S)	mg/L	<0.20	0.20	B456768	17	0.20	B454426
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B456772	<0.00020	0.00020	B454423
Total Tin (Sn)	mg/L	<0.0010	0.0010	B456772	<0.0010	0.0010	B454423
Total Titanium (Ti)	mg/L	<0.0010	0.0010	B456772	0.0096	0.0010	B454423
Total Uranium (U)	mg/L	<0.00010	0.00010	B456772	0.0028	0.00010	B454423
Total Vanadium (V)	mg/L	<0.0010	0.0010	B456772	<0.0010	0.0010	B454423
Total Zinc (Zn)	mg/L	<0.0030	0.0030	B456772	<0.0030	0.0030	B454423

RDL = Reportable Detection Limit



ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CRM368		
Sampling Date		2024/07/15 11:30		
COC Number		101703		
	UNITS	1616-434	RDL	QC Batch
Elements				
Total Aluminum (Al)	mg/L	0.25	0.0030	B456772
Total Antimony (Sb)	mg/L	<0.00060	0.00060	B456772
Total Arsenic (As)	mg/L	0.0020	0.00020	B456772
Total Barium (Ba)	mg/L	0.043	0.010	B456768
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B456772
Total Boron (B)	mg/L	0.031	0.020	B456768
Total Cadmium (Cd)	mg/L	0.000049	0.000020	B456772
Total Calcium (Ca)	mg/L	9.5	0.30	B456768
Total Chromium (Cr)	mg/L	0.0011	0.0010	B456772
Total Cobalt (Co)	mg/L	0.00042	0.00030	B456772
Total Copper (Cu)	mg/L	0.0030	0.0010	B456772
Total Iron (Fe)	mg/L	0.47	0.070	B456768
Total Lead (Pb)	mg/L	<0.00020	0.00020	B456772
Total Lithium (Li)	mg/L	<0.020	0.020	B456768
Total Magnesium (Mg)	mg/L	6.5	0.20	B456768
Total Manganese (Mn)	mg/L	0.017	0.0040	B456768
Total Molybdenum (Mo)	mg/L	0.11	0.00020	B456772
Total Nickel (Ni)	mg/L	0.012	0.00050	B456772
Total Potassium (K)	mg/L	16	0.30	B456768
Total Selenium (Se)	mg/L	0.00030	0.00020	B456772
Total Silicon (Si)	mg/L	0.84	0.50	B456768
Total Silver (Ag)	mg/L	<0.00010	0.00010	B456772
Total Sodium (Na)	mg/L	29	0.50	B456768
Total Strontium (Sr)	mg/L	0.14	0.020	B456768
Total Sulphur (S)	mg/L	19	0.20	B456768
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B456772
Total Tin (Sn)	mg/L	<0.0010	0.0010	B456772
Total Titanium (Ti)	mg/L	0.014	0.0010	B456772
Total Uranium (U)	mg/L	0.0029	0.00010	B456772
Total Vanadium (V)	mg/L	0.0010	0.0010	B456772
Total Zinc (Zn)	mg/L	<0.0030	0.0030	B456772
RDL = Reportable Detection Limit				



GENERAL COMMENTS

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

Package 1	9.5°C
Package 2	8.9°C
Package 3	10.0°C
Package 4	6.3°C
Package 5	8.0°C
Package 6	6.6°C
Package 7	7.8°C
Package 8	7.9°C
Package 9	7.3°C
Package 10	8.6°C
Package 11	7.3°C
Package 12	8.3°C
Package 13	2.9°C
Package 14	6.7°C
Package 15	8.6°C
Package 16	7.9°C
Package 17	8.8°C
Package 18	8.7°C
Package 19	8.2°C
Package 20	5.0°C
Package 21	9.5°C
Package 22	6.4°C
Package 23	4.9°C
Package 24	7.8°C
Package 25	8.0°C
Package 26	7.7°C
Package 27	6.8°C
Package 28	6.3°C
Package 29	8.4°C
Package 30	4.5°C
Package 31	6.2°C

Sample CRM366 [1616-121] : Nitrogen (Nitrite - Nitrate) Low Level completed within five days of sampling. Data is satisfactory for compliance purposes. Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample CRM367 [1616-43_DISCHARGE] : Nitrogen (Nitrite - Nitrate) Low Level completed within five days of sampling. Data is satisfactory for compliance purposes.

Sample CRM368 [1616-434] : Nitrogen (Nitrite - Nitrate) Low Level completed within five days of sampling. Data is satisfactory for compliance purposes.

Results relate only to the items tested.



**BUREAU
VERITAS**

Bureau Veritas Job #: C454205
Report Date: 2024/07/31

Arctic Canadian Diamond Company Ltd
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

BUREAU
VERITAS

Bureau Veritas Job #: C454205

Report Date: 2024/07/31

QUALITY ASSURANCE REPORT

Arctic Canadian Diamond Company Ltd

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B444493	Turbidity - NTU	2024/07/18			100	80 - 120	<0.10	NTU	NC	20		
B445251	Total Ammonia (N)	2024/07/20	103	80 - 120	101	80 - 120	<0.0050	mg/L	NC	20		
B445982	Orthophosphate (P)	2024/07/19	90	80 - 120	100	80 - 120	<0.0010	mg/L				
B446154	Nitrate (N)	2024/07/19	106	80 - 120	103	80 - 120	<0.0020	mg/L	NC	20		
B446154	Nitrite (N)	2024/07/19	103	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
B446292	Total Suspended Solids	2024/07/22	100	80 - 120	100	80 - 120	<0.99	mg/L	6.5	20		
B446484	Total Mercury (Hg)	2024/07/24	100	80 - 120	102	80 - 120	<0.0000019	mg/L	NC	20		
B447454	Acidity (pH 4.5)	2024/07/22					<1.0	mg/L	NC	20		
B447454	Acidity (pH 8.3)	2024/07/22			98	80 - 120	<1.0	mg/L	NC	20		
B447640	Dissolved-Low Level Sulphate (SO4)	2024/07/22	NC	80 - 120	106	80 - 120	<0.050	mg/L	0.47	20		
B447887	Chloride (Cl)	2024/07/22	104	80 - 120	102	80 - 120	<0.50	mg/L	NC	20		
B448915	Total Organic Carbon (C)	2024/07/23	106	80 - 120	100	80 - 120	<0.20	mg/L	4.4	20		
B449230	Total Inorganic Carbon (C)	2024/07/23	102	80 - 120	104	80 - 120	<1.0	mg/L	9.4	20		
B452475	Total Phosphorus (P)	2024/07/26	112	80 - 120	101	80 - 120	<0.0010	mg/L	7.8	20	91	80 - 120
B452658	Total Nitrogen (N)	2024/07/25	109	80 - 120	104	80 - 120	<0.020	mg/L	4.3	20	105	80 - 120
B452671	Reactive Silica	2024/07/25	NC	80 - 120	104	80 - 120	<0.050	mg/L	6.2	20		
B454193	Total Nitrogen (N)	2024/07/26	112	80 - 120	103	80 - 120	<0.020	mg/L	6.1	20	103	80 - 120
B454423	Total Aluminum (Al)	2024/07/28	97	80 - 120	92	80 - 120	<0.0030	mg/L	NC	20		
B454423	Total Antimony (Sb)	2024/07/28	102	80 - 120	102	80 - 120	<0.00060	mg/L	NC	20		
B454423	Total Arsenic (As)	2024/07/28	102	80 - 120	98	80 - 120	<0.00020	mg/L	10	20		
B454423	Total Beryllium (Be)	2024/07/28	99	80 - 120	85	80 - 120	<0.0010	mg/L	NC	20		
B454423	Total Cadmium (Cd)	2024/07/28	98	80 - 120	102	80 - 120	<0.000020	mg/L				
B454423	Total Chromium (Cr)	2024/07/28	100	80 - 120	95	80 - 120	<0.0010	mg/L	4.5	20		
B454423	Total Cobalt (Co)	2024/07/28	99	80 - 120	96	80 - 120	<0.00030	mg/L	NC	20		
B454423	Total Copper (Cu)	2024/07/28	99	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
B454423	Total Lead (Pb)	2024/07/28	99	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20		
B454423	Total Molybdenum (Mo)	2024/07/28	101	80 - 120	101	80 - 120	<0.00020	mg/L	75 (1)	20		
B454423	Total Nickel (Ni)	2024/07/28	99	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
B454423	Total Selenium (Se)	2024/07/28	98	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20		
B454423	Total Silver (Ag)	2024/07/28	98	80 - 120	99	80 - 120	<0.00010	mg/L	NC	20		
B454423	Total Thallium (Tl)	2024/07/28	101	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20		
B454423	Total Tin (Sn)	2024/07/28	99	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20		
B454423	Total Titanium (Ti)	2024/07/28	96	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20		

BUREAU
VERITAS

Bureau Veritas Job #: C454205

Report Date: 2024/07/31

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B454423	Total Uranium (U)	2024/07/28	103	80 - 120	101	80 - 120	<0.00010	mg/L	NC	20		
B454423	Total Vanadium (V)	2024/07/28	100	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B454423	Total Zinc (Zn)	2024/07/28	99	80 - 120	100	80 - 120	<0.0030	mg/L	13	20		
B454426	Total Barium (Ba)	2024/07/29	97	80 - 120	98	80 - 120	<0.010	mg/L	3.1	20		
B454426	Total Boron (B)	2024/07/29	92	80 - 120	94	80 - 120	<0.020	mg/L	2.8	20		
B454426	Total Calcium (Ca)	2024/07/29	NC	80 - 120	98	80 - 120	<0.30	mg/L	1.5	20		
B454426	Total Iron (Fe)	2024/07/29	NC	80 - 120	104	80 - 120	<0.064	mg/L	2.0	20		
B454426	Total Lithium (Li)	2024/07/29	95	80 - 120	100	80 - 120	<0.020	mg/L	8.3	20		
B454426	Total Magnesium (Mg)	2024/07/29	NC	80 - 120	104	80 - 120	<0.20	mg/L	1.2	20		
B454426	Total Manganese (Mn)	2024/07/29	98	80 - 120	98	80 - 120	<0.0040	mg/L	2.0	20		
B454426	Total Potassium (K)	2024/07/29	NC	80 - 120	100	80 - 120	<0.30	mg/L	1.9	20		
B454426	Total Silicon (Si)	2024/07/29	NC	80 - 120	101	80 - 120	<0.50	mg/L	NC	20		
B454426	Total Sodium (Na)	2024/07/29	NC	80 - 120	99	80 - 120	<0.50	mg/L	3.3	20		
B454426	Total Strontium (Sr)	2024/07/29	91	80 - 120	94	80 - 120	<0.020	mg/L	1.7	20		
B454426	Total Sulphur (S)	2024/07/29	NC	80 - 120	96	80 - 120	<0.20	mg/L	3.4	20		
B455482	Nitrate (N)	2024/07/26	103	80 - 120	98	80 - 120	<0.0020	mg/L	NC	20		
B455482	Nitrite (N)	2024/07/26	96	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
B455720	Alkalinity (PP as CaCO3)	2024/07/26					<0.50	mg/L	NC	20		
B455720	Alkalinity (Total as CaCO3)	2024/07/26			98	80 - 120	<0.50	mg/L	1.8	20		
B455720	Bicarbonate (HCO3)	2024/07/26					<0.50	mg/L	1.8	20		
B455720	Carbonate (CO3)	2024/07/26					<0.50	mg/L	NC	20		
B455720	Hydroxide (OH)	2024/07/26					<0.50	mg/L	NC	20		
B455722	pH	2024/07/26			100	97 - 103			1.0	N/A		
B455723	Conductivity	2024/07/26			100	90 - 110	<1.0	uS/cm	0.48	20		
B455725	Fluoride (F)	2024/07/26	95	80 - 120	93	80 - 120	<0.010	mg/L	1.0	20		
B456188	Total Phosphorus (P)	2024/07/29	97	80 - 120	95	80 - 120	<0.0010	mg/L	14	20	92	80 - 120
B456768	Total Barium (Ba)	2024/07/28	96	80 - 120	96	80 - 120	<0.010	mg/L	NC	20		
B456768	Total Boron (B)	2024/07/28	93	80 - 120	93	80 - 120	<0.020	mg/L	NC	20		
B456768	Total Calcium (Ca)	2024/07/28	97	80 - 120	97	80 - 120	<0.30	mg/L	1.1	20		
B456768	Total Iron (Fe)	2024/07/28	103	80 - 120	102	80 - 120	<0.070	mg/L	3.2	20		
B456768	Total Lithium (Li)	2024/07/28	99	80 - 120	98	80 - 120	<0.020	mg/L	NC	20		
B456768	Total Magnesium (Mg)	2024/07/28	102	80 - 120	101	80 - 120	<0.20	mg/L	0.22	20		
B456768	Total Manganese (Mn)	2024/07/28	98	80 - 120	97	80 - 120	<0.0040	mg/L	0.78	20		



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Bureau Veritas Job #: C454205

Report Date: 2024/07/31

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B456768	Total Potassium (K)	2024/07/28	99	80 - 120	98	80 - 120	<0.30	mg/L	5.8	20		
B456768	Total Silicon (Si)	2024/07/28	102	80 - 120	101	80 - 120	<0.50	mg/L	NC	20		
B456768	Total Sodium (Na)	2024/07/28	96	80 - 120	98	80 - 120	<0.50	mg/L	0.089	20		
B456768	Total Strontium (Sr)	2024/07/28	92	80 - 120	92	80 - 120	<0.020	mg/L	NC	20		
B456768	Total Sulphur (S)	2024/07/28	97	80 - 120	97	80 - 120	<0.20	mg/L	2.9	20		
B456772	Total Aluminum (Al)	2024/07/28	99	80 - 120	104	80 - 120	<0.0030	mg/L	NC	20		
B456772	Total Antimony (Sb)	2024/07/28	102	80 - 120	115	80 - 120	<0.00060	mg/L	NC	20		
B456772	Total Arsenic (As)	2024/07/28	100	80 - 120	109	80 - 120	<0.00020	mg/L	4.7	20		
B456772	Total Beryllium (Be)	2024/07/28	100	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B456772	Total Cadmium (Cd)	2024/07/28	96	80 - 120	114	80 - 120	<0.000020	mg/L	NC	20		
B456772	Total Chromium (Cr)	2024/07/28	99	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20		
B456772	Total Cobalt (Co)	2024/07/28	100	80 - 120	106	80 - 120	<0.00030	mg/L	NC	20		
B456772	Total Copper (Cu)	2024/07/28	98	80 - 120	106	80 - 120	<0.0010	mg/L	8.4	20		
B456772	Total Lead (Pb)	2024/07/28	99	80 - 120	115	80 - 120	<0.00020	mg/L	NC	20		
B456772	Total Molybdenum (Mo)	2024/07/28	99	80 - 120	112	80 - 120	<0.00020	mg/L	3.6	20		
B456772	Total Nickel (Ni)	2024/07/28	98	80 - 120	106	80 - 120	<0.00050	mg/L	12	20		
B456772	Total Selenium (Se)	2024/07/28	98	80 - 120	111	80 - 120	<0.00020	mg/L	NC	20		
B456772	Total Silver (Ag)	2024/07/28	96	80 - 120	110	80 - 120	<0.00010	mg/L	NC	20		
B456772	Total Thallium (Tl)	2024/07/28	101	80 - 120	118	80 - 120	<0.00020	mg/L	NC	20		
B456772	Total Tin (Sn)	2024/07/28	97	80 - 120	115	80 - 120	<0.0010	mg/L	NC	20		
B456772	Total Titanium (Ti)	2024/07/28	98	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20		
B456772	Total Uranium (U)	2024/07/28	103	80 - 120	113	80 - 120	<0.00010	mg/L	8.0	20		
B456772	Total Vanadium (V)	2024/07/28	102	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20		



BUREAU
VERITAS

Bureau Veritas Job #: C454205

Report Date: 2024/07/31

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B456772	Total Zinc (Zn)	2024/07/28	95	80 - 120	110	80 - 120	<0.0030	mg/L	NC	20		

N/A = Not Applicable

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

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

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)

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 $\leq 2 \times \text{RDL}$).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



BUREAU
VERITAS

Bureau Veritas Job #: C454205

Report Date: 2024/07/31

Arctic Canadian Diamond Company Ltd

Site Location: MDMER/SNP/SEEPAGE

Your P.O. #: 6404002992

VALIDATION SIGNATURE PAGE

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

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 Scott Cantwell, General Manager responsible for Alberta Environmental laboratory operations.

SO# 61046

Burgundy Contact: Richard Ehlert / Jonah Kelly



BURGUNDY
DIAMOND MINES

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