30 October 2024

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

RE: Surveillance Network Program September 2024 Monthly Report for Water Licence W2022L2-0001

Mr. Mantla,

Arctic Canadian Diamond Company Ltd, subsidiary of Burgundy Diamond Mines (Burgundy) is pleased to submit the SNP Report as Per Part "B" of the Surveillance Network Program (SNP) for the Water Licence W2022L2-0001, please find enclosed the SNP Monthly Report for September 2024.

We trust this report is clear and informative. If you have any questions or comments, please contact the undersigned at jonah.kelly@burgundydiamonds.com or 1.867.880.4400 ext. 2157.

Sincerely,

Jonah Kelly
Environment Team Leader, Operations
Burgundy Diamond Mines

Lab Report Enclosures: C469930, C471594, C471599, C471593, C473831, C473837, C473844, C473839, C476623, C479153

CC: *William Liu – Manager, Environmental Reporting & Permitting – william.liu@burgundydiamonds.com*
Richard Ehlert – Team Leader, Environment Operations – richard.ehlert@burgundydiamonds.com
Regulatory Inbox – regulatory@burgundydiamonds.com

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Sampling Summary for Licence W2022L2-0001

In accordance with the requirements of Water Licence W2022L2-0001, there were 24 water samples collected for the current reporting month. Refer to Figure 1 – Surveillance Network Program Monitoring Stations for locations of all Ekati sampling stations.

Job Lab Number	Sample ID	Collection Date	Comments
C469930	0008-Sa10	4-Sep-24	
C469930	0008-Sa3	4-Sep-24	
C469930	0008-Sa9b	4-Sep-24	
C471594	0008-121-FB	6-Sep-24	Field blank
C471594	0008-494-TB	6-Sep-24	Trip blank
C471594	0008-Sa2	6-Sep-24	
C471599	0008-Sa10	9-Sep-24	
C471599	0008-Sa3	9-Sep-24	
C471599	0008-Sa9b	9-Sep-24	
C471593	1616-46b	8-Sep-24	
C471573	0008-Sa3_Discharge	11-Sep-24	Bioassay sample, partial results available
C473831	0008-Sa10	11-Sep-24	
C473831	0008-Sa3	11-Sep-24	
C473831	0008-Sa9b	11-Sep-24	
C473837	1616-46a	15-Sep-24	
C473844	0008-121-FB	15-Sep-24	Field blank
C473844	0008-494-TB	15-Sep-24	Trip blank
C473844	0008-Sa2	15-Sep-24	
C473839	0008-Pi6	15-Sep-24	
C476623	0008-121-FB	24-Sep-24	Field blank
C476623	0008-Sa2	24-Sep-24	
C479153	1616-12	28-Sep-24	
C479153	1616-290	28-Sep-24	Duplicate for 1616-12
C479153	1616-494-TB	28-Sep-24	Trip blank

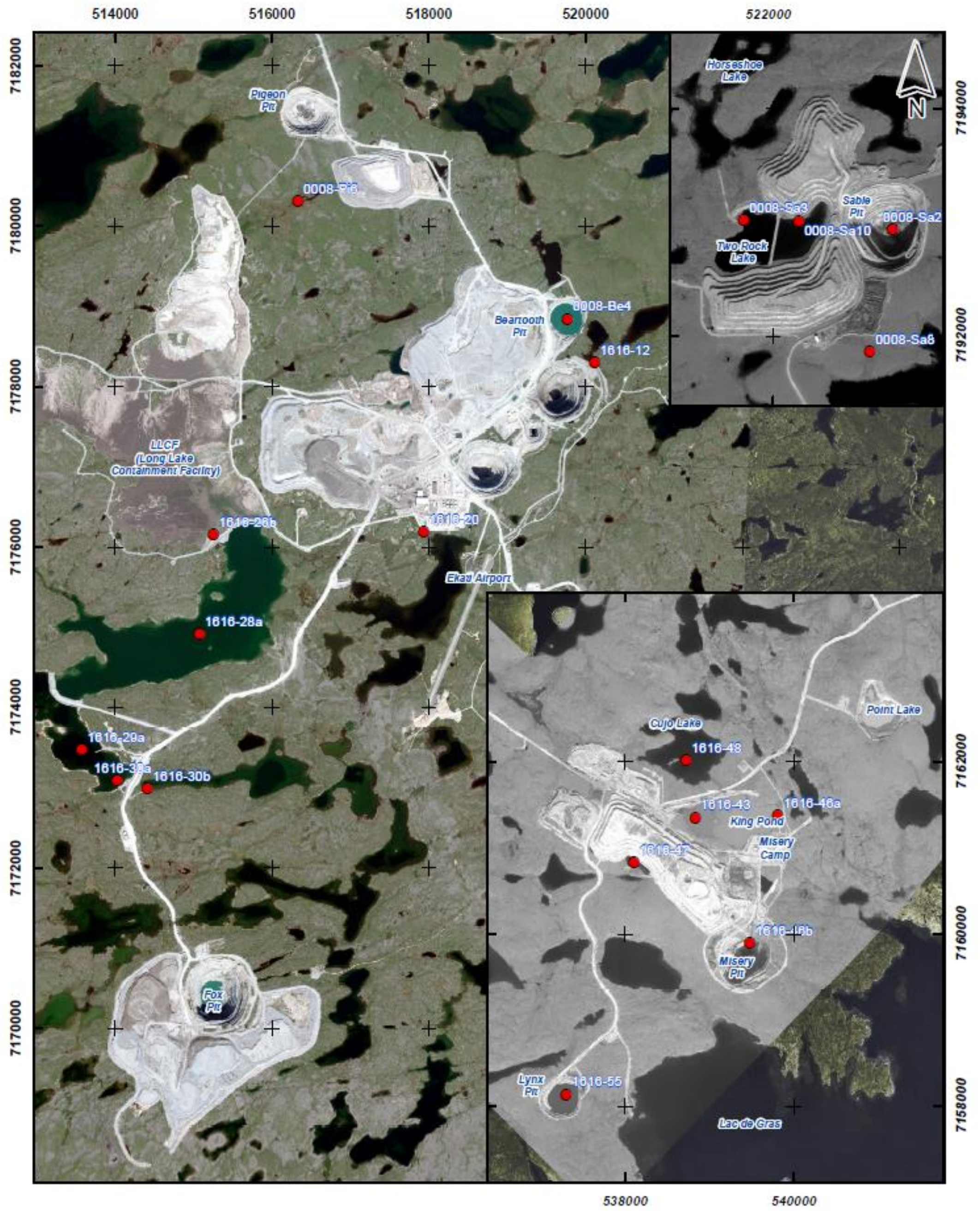

Figure 1. W2022L2-0001 Surveillance Network Monitoring Stations

1:40,000 to 60,000
Imagery acquired JUL2019/AUG2021 insets

Part B. Flow and Volume Measurement Requirements

B(2) Volume in cubic metres of freshwater obtained from Lakes.

Lake Name	Current Month (m^3)	Year to Date (m^3)
Grizzly Lake	7,130	60,430
Lac de Gras	0	52,240
Little Lake	0	0
Falcon Lake	0	12,880
Thinner Lake	0	0
Lac de Sauvage	0	0
Ursula Lake	0	0
Upper Exeter Lakes	0	0

B(3) Lake Level Elevation During Open Water

Lake Name	Lake Elevation (masl)
Grizzly Lake	467.92
Little Lake	449.11
Upper/North Panda Lake	460.53
Falcon Lake	469.56
Thinner Lake	451.66
Cell E LLCF	448.31
King Pond	444.85
Lac du Sauvage	416.38
Lac de Gras	416.23
Ursula Lake	462.87*
Upper Exeter Lake	443.58*

*Survey not completed in September 2024. August 2024 values used.

B(4) Source and Volume of Recycled Water Used

Plant	Source	Current Month (m^3)	Year to Date (m^3)
Process	LLCF	399,434	4,053,234

B(5) Volume of Water or Waste Deposit to Containment Facilities

Location	Current Month (m^3)	Year to Date (m^3)
Into Long Lake Containment Facility		
Process Plant Liquids	182,158	996,556
Process Plant Solids	37,994	254,354
Minewater	0	0
Other	877	3,234
Into Beartooth Pit		
Minewater	0	0
Other	0	0
Into Koala Pit		

Process Plant Liquids	42,968	2,494,238
Process Plant Solids	8,962	722,843
Into Panda Pit		
Process Plant Liquids	369,673	1,422,098
Process Plant Solids	77,106	343,528
Into Two Rock Sedimentation Pond		
Minewater	20,400	33,440
Other	110	226
Into King Pond Settling Facility		
Minewater	423,429	772,749
Other	0	0
Into Lynx Pit		
Minewater	17,220	357,139
Other	0	0

B(6) Volume of Water or Waste Discharged from Containment Facilities

Location	Current Month (m^3)	Year to Date (m^3)
From LLCF		
To Leslie Lake	0	0
For Road Watering	0	0
From King Pond		
To Cujo Lake	0	465,685
For Road Watering	0	80
From Two Rock Sedimentation Pond		
To Horseshoe Lake	90,930	268,101
For Road Watering	0	36,320
Fox Berm Pond		
To South Fox Lake	0	0
For Road Watering	0	0

B(7) Quantities of Minewater Pumped from each Open Pit and Underground Mine

	Destination									
	LLCF (m^3)		**Two Rock (m^3)**		**King Pond (m^3)**		**Lynx Pit (m^3)**		**Beartooth (m^3)**	
Origin	Month	YTD	Month	YTD	Month	YTD	Month	YTD	Month	YTD
Pigeon Pit										
Sable Pit			20,400	33,440						
Beartooth Pit										
Misery UG					48,045	89,823				
Panda Pit										
Koala Pit										
Misery Sumps							180	118,454		
Point Lake					375,384	460,078	17,040	238,685		
Total	**0**	**0**	**20,400**	**33,440**	**423,429**	**549,901**	**17,220**	**357,139**	**0**	**0**

B(8) and (9) Quantity of Sewage Effluent Discharged and Sewage Solids Removed from the Sewage Treatment Plant (STP)

From STP	Current Month (m^3)	Year to Date (m^3)
Sewage Solids	30	274
Sewage Effluent	9,215	55,388

B(10) Quantity of Sewage Delivered to STP from Sable Development

Location Name	Current Month (m^3)	Year to Date (m^3)
Sable Development	1.50	13.70

Part C. Other Monitoring Requirements

C(1) Precipitation Data from Koala Met Station

Month	Precipitation (mm)
September	43.5
Year to Date (mm)	141.9

C(4) Quantity of Ore Produced

Material (tonnes)	Current Month	Year to Date
Processed Ore	342,093	3,151,149

Note: quantity reported represents all operating open pit and underground mines.

C(5a) Quantity of Waste Rock and Coarse Kimberlite Produced

Material (tonnes)	Current Month	Year to Date
Waste Rock Produced	774,918	5,073,506
Coarse Processed Kimberlite	91,642	871,573

Note: quantities of coarse processed kimberlite and waste rock reported represents all operating open pits and underground mines.

C(5b) Waste Rock Disposal Locations

Origin	Destination	Waste Rock Produced	Year To Date
Misery Underground	Misery WRSA	3,230	83,209
Point Lake	Point Lake WRSA	541,720	1,920,104
Point Lake	Point Lake OVBSP	198,903	671,839
Sable Pit	Sable West WRSA	0	118,044
Sable Pit	Sable South WRSA	0	41,102
Sable Pit	Sable South WRSA Ext	31,065	1,403,736
Sable Pit	Sable South Pad	0	50,022
Sable Pit	Sable East WRSA	0	785,450
Total		**991,305**	**5,073,506**

Note: all values are in metric tonnes. Waste Rock Storage Area (WRSA) & Overburden Stockpile (OVBSP).

Appendix A – Field Parameters

Date/ Time	Station Point	Air Temperature °C	Depth of Sample m	pH	Specific Conductivity µs/cm	Water Colour	Water Temperature	Weather	Wind Direction Degrees	Wind Speed km/hr
4-Sep-24/12:22	0008-Sa10	6.0	0	7.60	452.8	Colourless	10.9	Overcast	297	15.42
4-Sep-24/11:55	0008-Sa3	6.0	0	7.53	178.6	Colourless	9.7	Overcast	297	15.42
4-Sep-24/10:48	0008-Sa9b	6.0	0	7.51	70.9	Colourless	8.6	Partly Cloudy	297	15.42
6-Sep-24/10:55	0008-Sa2	13.1	0	10.95	1,977	Tea Stained	5.8	Sunny	266	8.6
9-Sep-24/17:07	0008-Sa10	12.7	0	7.45	468.5	Colourless	10.1	overcast, windy	293	27.4
9-Sep-24/17:01	0008-Sa3	12.7	0	7.34	210.4	Colourless	10.0	overcast, windy	293	28.4
9-Sep-24/16:08	0008-Sa9b	13.4	0	6.96	70.5	Colourless	9.9	overcast, windy	296	16.5
8-Sep-24/10:50	1616-46b		0	8.28	3,085	Colourless	20.6			
11-Sep-24/8:50	0008-Sa3_Discharge	5.6	0	7.76	216.7	Colourless	8.9	Partly Cloudy	312	12.6
11-Sep-24/12:41	0008-Sa10	7.8	0	7.73	467.6	Colourless	9.7	Overcast	297	25.7
11-Sep-24/12:55	0008-Sa3	7.6	0	7.84	215.9	Colourless	8.7	Overcast	297	19.1
11-Sep-24/13:53	0008-Sa9b	8.7	0	7.54	70	Colourless	7.5	Overcast	323	14
15-Sep-24/9:55	1616-46a	9.4	0	7.66	163.7	Colourless	9.7	cloudy/rainy	333	6.4
15-Sep-24/10:50	0008-Sa2	9.6	0	10.96	3,486	Heavily Tea Stained	7.9	overcast/sprinkling	15	5.6
15-Sep-24/13:18	0008-Pi6	9.8	0	7.42	494.5	Lightly Tea Stained	10.4	overcast/sprinkling	21	4.3
24-Sep-24/10:50	0008-Sa2	2.3	0	9.93	1,778	Cloudy	2.4	Rainy	76	6.8
28-Sep-24/13:55	1616-12	3.4	0	7.19	71.8	Colourless	4.7	sunny, windy	267	35.2
28-Sep-24/14:07	1616-290	4.3	0	7.19	71.8	Colourless	4.7	sunny, windy	268	40.2

Appendix B – Analytical Results

Analytical Results against W2022L2-0001 EQCs

		Station Point	**0008-Sa3**	**0008-Sa3**	**0008-Sa3**
		Date Sampled	4-Sep-2024	9-Sep-2024	11-Sep-2024
		BV Job No.	C469930	C471599	C473831
	Maximum Average Concentration	**Maximum Concentration Any Grab Sample**			
Ammonia (N)	4	8	0.033	0.033	0.029
Aluminum (Al)	1	2	0.010	0.15	0.017
Arsenic (As)	0.05	0.1	0.00043	0.00039	0.00047
Copper (Cu)	0.02	0.04	<0.0010	<0.0010	<0.0010
Cadmium (Cd)	0.0015	0.003	<0.000020	<0.000020	<0.000020
Chromium (Cr)	0.02	0.04	<0.0010	<0.0010	<0.0010
Lead (Pb)	0.01	0.02	<0.00020	0.00031	<0.00020
Zinc (Zn)	0.03	0.06	<0.0030	<0.0030	<0.0030
Nickel (Ni)	0.05	0.1	0.0027	0.0038	0.0057
Nitrite (N)	1	2	0.0061	0.0071	0.0050
Nitrate (N)	20	40	1.9	2.3	2.5
Solids	15	25	<1.0	1.8	<1.0
Turbidity	10	15	0.12	1.6	<1.0
Phosphorus (P)	0.2	0.4	0.0024	0.0091	0.0025
pH	6-9		6.43	6.72	6.14
Hardness (CaCO3)			75.5	80.6	80.1

Appendix C – Bioassay

Your P.O. #: 6404002992
Your C.O.C. #: 102217

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/18
Report #: R3574191
Version: 2 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C471573
Received: 2024/09/12, 09:30

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Daphnia magna LC50 Multi-Concentration (1)	1	N/A	2024/09/13	EENVSOP-00154	EPS 1 RM14 2nd ed m
Ecotox Report Attachment (2)	1	2024/10/10	2024/10/10		
Rainbow Trout LC50 Multi-Concentration (1)	1	N/A	2024/09/15	EENVSOP-00160	EPS 1 RM13 2nd ed m

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 Edmonton Environmental, 4326 76 Avenue NW , Edmonton, AB, T6B 2H8
(2) This test was performed by Bureau Veritas Vancouver, 4606 Canada Way , Burnaby, BC, V5G 1K5

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your C.O.C. #: 102217

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/18
Report #: R3574191
Version: 2 - Partial

CERTIFICATE OF ANALYSIS – PARTIAL RESULTS

BUREAU VERITAS JOB #: C471573
Received: 2024/09/12, 09:30

Encryption Key AUTHORIZED REPORT RAPPORT AUTORISÉ Bureau Veritas 18 Oct 2024 19:51:44

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

==
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		CVF783	
Sampling Date			
	UNITS	**0008-SA3-DISCHARGE**	**QC Batch**
Daphnia Magna			
LC50	% vol/vol	ATTACHED	B515539
Ecotox			
No Parameter	N/A	ATTACHED	B560301

TOXICOLOGY (WATER)

Bureau Veritas ID		CVF783	
Sampling Date		2024/09/11	
COC Number		102217	
	UNITS	**0008-SA3-DISCHARGE**	**QC Batch**
Rainbow Trout			
LC50	% vol/vol	ATTACHED	B517532

GENERAL COMMENTS

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

Package 1	8.2°C
Package 2	8.8°C
Package 3	4.8°C
Package 4	5.5°C
Package 5	8.0°C
Package 6	5.1°C
Package 7	5.7°C
Package 8	5.5°C
Package 9	6.0°C

Results relate only to the items tested.

VALIDATION SIGNATURE PAGE

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

Marie-Eve O'Toole, Scientist, Scientist

Natasha Lloyd, Team Lead

Tami Horvath, Analyst 1

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

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

BURGUNDY DIAMOND MINES

BUREAU VERITAS 1828

CHAIN OF CUSTODY FORM

COC# 102217
SO# 61984

MCAL-2024-09-923
C471573

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

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	Bioassay Ceriodaphnia	Bioassay Daphnia Magna LC50	Bioassay Pseudo.K.S	Bioassay Rainbow Trout LC50	pH Field (pH)	Water Temp (°C)
FOR LAB USE ONLY	0008-Sa3_Discharge	EKA 2002 0008	11-Sep-2024		Water		Y	Y	Y	Y	7.76	8.9

Special Instructions (Billing details, QC reporting etc):
To monitor the quality of effluent leaving Two Rock Sedimentation Pond prior to Discharge entering the Receiving Environment.
Frequency: First week of discharge & last week of discharge
Parameters: Acute and chronic toxicity tests
Sent results to Tania.robitaille@burgundydiamonds.com, Landon.Murphy@burgundydiamonds.com & compliance.team@burgundydiamonds.com

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	Date 11-Sep-24 Time 7:30	SEAN EM [signature]	Date 2024/09/12 Time 09:30
	Date Time		Date Time

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

ACTR

C471573
2024/09/12 09:30

COR FCD-00265 / 5
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BUREAU VERITAS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

COOLER ID	CUSTODY SEAL PRESENT (YES / NO)	CUSTODY SEAL INTACT (YES / NO)	ICE PRESENT (YES)	TEMP 1	TEMP 2	TEMP 3
TROUT	NO ✓	NO ✓	✓	7.9	8.3	6.4
TROUT	NO ✓	NO ✓	✓	9.8	8.8	7.7
TROUT	NO ✓	NO ✓	✓	6.6	3.9	3.9
TROUT	NO ✓	NO ✓	✓	5.5	5.5	5.5
	NO ✓	NO ✓	✓	8.0	8.0	8.0
	NO ✓	NO ✓	✓	3.9	3.9	7.6
	NO ✓	NO ✓	✓	6.6	6.6	3.9
	NO ✓	NO ✓	✓	5.5	5.5	5.5
	NO ✓	NO ✓	✓	6.0	6.0	6.0

BV JOB#:

COOLER ID	CUSTODY SEAL PRESENT (YES / NO)	CUSTODY SEAL INTACT (YES / NO)	ICE PRESENT	TEMP 1	TEMP 2	TEMP 3

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	SEAN ENZ	2024/09/12	09:30

RESULTS OF *DAPHNIA MAGNA* LC50 MULTI-CONCENTRATION

Client : 13553 Arctic Canadian Diamond Company Ltd
Client Project Name & Number:

Job Number: C471573
Sample Number: CVF783-04

Test Result:

48 hrs LC50 % vol/vol (95% CL): >100% (N/A) Statistical Method: Visual

Sample Name : 0008-SA3-DISCHARGE

Description:	Clear, colourless			Sample Matrix :	Water
				Sample Prior to Analysis:	
Sample Collected:	N/A	Sampling Method :	N/A	pH:	7.7
Sample Collected By:	N/A	Site Collection:	EKA 2002 1008	Temperature :	18 °C
Sample Received:	Sep 12, 2024 09:30 AM	Volume Received:	1 L	Dissolved Oxygen:	123.0 %
Analysis Start :	Sep 13, 2024 11:42 AM	Avg Temp Arrival:	6 °C	Sample Conductance:	208 µS/cm
End :	Sep 15, 2024 12:30 PM	Storage:	2-6°C	Hardness:	60 mg $CaCO_3$/L

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hr	48 hrs	48 hrs
0	20	8.3	365	8.3	0	0	0	0	19	8.3	381	7.7
6.25	20	8.4	359	8.3	0	0	0	0	19	8.3	381	7.7
12.5	20	8.4	350	8.3	0	0	0	0	20	8.4	362	7.9
25	20	8.4	330	8.4	0	0	0	0	20	8.4	355	8.0
50	20	8.3	291	8.7	0	0	0	0	20	8.5	334	8.0
100	20	8.3	213	9.0	0	0	0	0	19	8.3	306	8.0

Concentration	Mortality (#)	Mortality (%)	Immobility (#)	Immobility (%)
% vol/vol	48 hrs	48 hrs	48 hrs	48 hrs
0	0	0	0	0
6.25	0	0	0	0
12.5	0	0	0	0
25	0	0	0	0
50	0	0	0	0
100	0	0	0	0

Comments : None

Culture/Control/Dilution Water: City of Edmonton dechlorinated tap water
Hardness: 160 mg/L $CaCO_3$ Other parameters available on request.

Test Conditions Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel :	10	Pre-aeration Time :	30 min	Rate of Pre-aeration :	25-50 mL/(min*L)
Total # of Organisms Used :	60	Test Temperature :	20 ± 2 °C	Test Hardness Adjusted :	No
Test Volume :	150 mL	Vessel Volume :	200 mL	Test pH Adjusted:	No
Loading Density :	15.0 mL/Daphnia	Photoperiod :	16:8 (light: dark)		

Test Organism : *Daphnia magna* Source : In House Culture

Age at Test Initiation :	<24 hrs	Average Brood Size :	22.1
Culture Photoperiod :	16:8 (light: dark)	% Mortality within 7 days :	5.1
Culture Temperature :	20 ± 2 °C	Time To First Brood :	8 Days

Culture Diet: Culture is fed algae: 800-1800uL; YCT: 200-800uL Daily. New cultures weekly, 63 daphnids distributed into 6 culture vessels and 3 reproductive vessels.

RESULTS OF *DAPHNIA MAGNA* LC50 MULTI-CONCENTRATION

Client :	13553	Arctic Canadian Diamond Company Ltd	Job Number:	C471573
Client Project Name & Number:			Sample Number:	CVF783-04

Reference chemical:	Sodium Chloride	Test Date:	Sep 04, 2024
Test Endpoint 48 hrs LC50 (95% confidence interval) :	6.17 (5.50, 6.93)g/L	Statistical Method :	Untrimmed Spearman-Kärber
Historical Mean LC50 (warning limits) :	6.13 (4.93, 7.61) g/L	Concentration : 0,1.71,2.56,3.82,5.7,8.5 g/L	

Test Method	EPS 1/RM/14
Method Deviations:	None

Note: The results contained in this report refer only to the testing of the sample submitted. Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation, including the toxicity parameters reported herein. The conductivity, dissolved oxygen and pH data contained within the toxicity report are provided for information purposes and are not individually accredited parameters.This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Cara Shurgot, Maninder Brar, Svetlana Sofrenovic

Verified By : Tami Horvath, Analyst 1

Date: Sep 21, 2024 10:24 AM

RESULTS OF RAINBOW TROUT LC50 MULTI-CONCENTRATION

Client : 13553 Arctic Canadian Diamond Company Ltd Job Number: C471573

Client Project Name & Number:

Test Result:

96 hrs LC50 % vol/vol (95% CL): >100% (N/A) Statistical Method: Visual

Sample Name :	0008-SA3-DISCHARGE			Sample Matrix :	Water
Description:	pale yellow, clear			Sample Number:	CVF783-01
Sample Collected:	Sep 11, 2024	Sampling Method :	N/A	Site Collection:	EKA 2002 1008
Sample Collected By:	N/A	Volume Received:	40 L	Avg Temp Arrival:	6 °C Storage: 2-6°C
Sample Received:	Sep 12, 2024 09:30 AM	pH:	7.2	Dissolved Oxygen:	99.0 %
Analysis Start :	Sep 15, 2024 11:20 AM	Temperature :	14 °C	Sample Conductance:	212 µS/cm

Concentration	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	Start	Start	Start	Start	24 hrs	24 hrs	24 hrs	24 hrs	48 hrs	48 hrs	48 hrs	48 hrs
0	14	7.9	373	9.5	0	0	0	0	0	0	0	0
6.25	14	7.8	365	9.4	0	0	0	0	0	0	0	0
12.5	14	7.9	356	9.4	0	0	0	0	0	0	0	0
25	14	7.9	342	9.4	0	0	0	0	0	0	0	0
50	14	7.7	297	9.5	0	0	0	0	0	0	0	0
100	14	7.2	213	9.4	0	0	0	0	0	0	0	0

Concentration	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)	Temperature (°C)	pH (pH)	Conductivity (uS/cm)	Dissolved Oxygen (mg/L)	Mortality (#)	Mortality (%)	Atypical Behaviour (#)	Atypical Behaviour (%)
% vol/vol	72 hrs	72 hrs	72 hrs	72 hrs	96 hrs	96 hr	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs	96 hrs
0	0	0	0	0	14	7.7	375	9.6	0	0	0	0
6.25	0	0	0	0	14	7.8	363	9.4	0	0	0	0
12.5	0	0	0	0	14	7.7	355	9.2	0	0	0	0
25	0	0	0	0	14	7.7	340	9.0	0	0	0	0
50	0	0	0	0	14	7.2	290	7.7	0	0	0	0
100	0	0	0	0	14	7.3	218	9.2	0	0	0	0

Comments : None

Culture/Control/Dilution Water City of Edmonton dechlorinated tap water

Hardness: 180 mg/L $CaCO_3$ Other parameters available on request.

Test Conditions Test concentration : 0,6.25,12.5,25,50,100 (% vol/vol)

Organisms per Vessel :	10	Test Temperature :	15 ± 1 °C	Solution Depth :	>15 cm
Total # of Organisms Used :	60	Pre-aeration Time :	30 min.	Rate of Aeration	6.5±1 mL/(min*L)
Test Volume :	20 L	Vessel Volume :	38L	Test pH Adjusted:	No
Loading Density :	0.4 g/L	Photoperiod :	16:8 (light: dark)		

Test Organism : Rainbow Trout *(Oncorhynchus mykiss)* Source : LSL Trout Hatchery

Culture Temperature :	15 ± 2 °C	Weight (Mean) +- SD :	0.7 ± 0.2 g	Length (Mean) +- SD :	4.11 ± 0.25 cm
Culture Water Renewal :	≥ 1.0 L/min/kg fish	Weight (Range) :	0.4 – 1.0 g	Length (Range) :	3.60 – 4.40 cm
Culture Photoperiod :	16:8 (light: dark)			% Mortality within 7 days :	0%
Feeding rate and frequency :	daily: 1-5% biomass of trout.			Acclimation Time:	>14 days

Reference chemical:	Phenol	Test Date:	Aug 27, 2024
Test Endpoint 96 hrs LC50 (95% confidence interval) :	<7.59 (<7.59, 8.19)mg/L	Statistical Method :	Probit
Historical Mean LC50 (warning limits) :	8.05 (4.86, 13.3) mg/L	Concentration :	0,7.59,9.15,11,13.3,16 mg/L

RESULTS OF RAINBOW TROUT LC50 MULTI-CONCENTRATION

Client :	13553	Arctic Canadian Diamond Company Ltd	Job Number:	C471573
Client Project Name & Number:			Sample Number:	CVF783-01

Test Method EPS 1/RM/13

Method Deviations : None

Note: The results contained in this report refer only to the testing of the sample submitted. Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation, including the toxicity parameters reported herein. The conductivity, dissolved oxygen and pH data contained within the toxicity report are provided for information purposes and are not individually accredited parameters. This report may not be reproduced, except in its entirety, without the written approval of the laboratory.

Analyst : Cara Shurgot, Joey Pilgrim, Maninder Brar, Svetlana Sofrenovic

Natasha Lloyd

Verified By : Natasha Lloyd, Team Lead

Date: Sep 26, 2024 09:55 AM

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Toll Free 800 665 8566
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SUBLETHAL TOXICITY TEST ON:

0008-SA3_DISCHARGE

SAMPLING DATE:

SEPTEMBER 11, 2024

Prepared for:

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

Prepared by:

Ecotoxicology Group
Bureau Veritas

Job No.: C471573
October 2024

Summary of Test Results for Samples from Arctic Canadian Diamond Company
Sample Date: September 11, 2024
Job C471573

Sample: 0008-SA3_DISCHARGE

Test		**IC25 or LC25 (%v/v)**
P. subcapitata:	Cell yield	>90.9 (N/A, N/A)

The results contained in this report refer only to the testing of the sample submitted. Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation, including the toxicity parameters reported herein. The hardness, conductivity, dissolved oxygen, and pH data contained within the toxicity report are provided for information purposes and are not individually accredited parameters. This report may not be reproduced, except in its entirety, without written approval of the laboratory.

Pseudokirchneriella subcapitata Test Data Summary

Client Name/Location	Arctic Canadian Diamond Company / Calgary, AB
Testing Lab/Location	Bureau Veritas / Burnaby, BC
Collection Approach	1 sample
Effluent Sample	
Name of Samples	0008-SA3_DISCHARGE
Information on labelling/coding	Submissions logged under Job # C471573. See Certificate of Analysis for details.
Sample collection date (y/m/d)	2024/Sep/11
Date (y/m/d) of sample receipt at lab	2024/Sep/12 @ 09:30
Test Organisms	
Species	*Pseudokirchneriella subcapitata*
Strain number and origin of culture	Strain CPCC #37 was obtained from the Canadian Phycological Culture Centre
Age of culture used to provide inoculum, at start of test	3 days old
Culture in logarithmic growth phase?	See attached growth curve
Inoculum prepared less than 2-3 hrs before microplate incubation?	Yes, at 11:04
Initial cell density of inoculum	10,546 cells/mL
Appearance, behaviour, or treatment of known-age culture before use	See “Data Summary” data sheet
Test Conditions & Facilities	
Test method	EPS 1/RM/25, 2nd Edition, March 2007 BBY2SOP-00006 - *Pseudokirchneriella subcapitata* 72H Growth Inhibition Test
Date & time test(s) started	2024/Sep/13 @ 11:58
Date & time test(s) ended	2024/Sep/16 @ 11:04
Persons performing test(s)	P. Fang, N. Shergill, M. Thompson
Mean test temperature	25°C
Procedure/rate/duration of aeration of sample(s) before test	No aeration of the sample
pH adjustment	No pH adjustments

pH of aqueous sample(s) before preparation and use in toxicity test	See “Data Summary” data sheet
pH of sample before any dilution at start of test	See “Data Summary” data sheet
pH from two controls at start & end of test	See “Data Summary” data sheet
Procedure for sample filtration	10 mL sub-sample was filtered through a pre-conditioned 0.45 µm pore diameter filter
Type & source of control/dilution water	Reconstituted water
Type & quantity of chemicals added to control/dilution H_2O	$NaHCO_3$, $CaSO_4$, $MgSO_4$, and KCl in the ratio of 1.6:0.8:1.0:0.07
# and conc. of test solutions	See Cell Counts sheet
# of replicates per conc.	See Cell Counts sheet
Absorbance not used	Cell counts done by Nexcelom Cellometer® Auto X4HM cell counter
Culture/test incubators & apparatus	Conviron Environmental Chamber – Costar Microplate- w/96 u-shaped wells
Microplate final volume	220 µL / well (200 µL sample, 10 µL enrichment media, and 10 µL algal inoculum)
Light intensity & quality	Full spectrum fluorescent lights, 3758-4068 lux
Composition of growth medium	As per Table 1 in EPS 1/RM/25
Test observations and/or deviations from test method and standard practices	There was nothing unusual about the test, no deviations from the test method, and no problems with the test.
Results	Results contained in this report refer only to the testing of samples as submitted.
Date cells counted (y/m/d)	2024/Sep/16
Cell counts in each replicate	See Cell Counts sheet
Any findings of growth stimulation at any concentration?	Yes, significant growth stimulation was found in the 11.364% up to the 90.91% v/v concentrations. See Dunnett Multiple Comparison Test in CETIS.
Name and citation of program(s) and methods used for calculating statistical endpoint(s)	CETIS v2.1.2.3: Linear Interpolation (ICPIN)
Weighting techniques applied?	N/A
Residuals Analysis	N/A
Outliers?	None

QA	
Did the test pass the test validity criteria: • Homogeneity in the control (CV is ≤20%) • No trend or gradient in the control • Increase by a factor of >16 in the control	Yes, • % CV: 17% • Trend in the control: No • Algal cells increased by: 42.79
Ref tox test IC50 (95% CL) (mg Zn/L) and duration of test	0.0496; 2SD: (0.0378, 0.0583) duration was ~72 hrs
Ref tox test historic mean & 2SD range (mg Zn/L)	0.0432; 2SD: (0.0266, 0.0704)
Invalid Ref tox test?	No
Date of ref tox test (y/m/d)	2024/Sep/13
Conditions of ref tox test	Same as test conditions

CETIS Analytical Report

Alga Growth Inhibition Test — **Bureau Veritas**

Analysis ID:	12-4054-2077	**Endpoint:**	Cell Yield	**CETIS Version:**	CETISv2.1.2
Analyzed:	17 Sep-24 11:43	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:		**MD5 Hash:**	1363F30760F85C2FABEC192939D27406	**Editor ID:**	

Batch ID:	09-9070-8288	**Test Type:**	Cell Growth	**Analyst:**	P. Fang
Start Date:	13 Sep-24 11:58	**Protocol:**	EC/EPS 1/RM/25	**Diluent:**	Algal Culture Media
Ending Date:	16 Sep-24 11:04	**Species:**	Pseudokirchneriella subcapitata	**Brine:**	Not Applicable
Test Length:	71h	**Taxon:**	Chlorophyta	**Source:**	Canadian Phycological Cult **Age:**

Sample ID:	11-2391-0564	**Code:**	C471573	**Project:**	2-11-0691
Sample Date:	11 Sep-24	**Material:**	Water	**Source:**	Arctic Canadian Diamond
Receipt Date:	12 Sep-24 09:30	**CAS (PC):**		**Station:**	0008-SA3-Discharge
Sample Age:	60h	**Client:**	Arctic Canadian Diamond Company		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C <> T	5.682	11.364	8.036	17.6	14.45	33.78%

Dunnett Multiple Comparison Test

Control	vs	Conc-%	df	Test Stat	Critical	MSD	P-Type	P-Value	Decision(α:5%)
Lab Control 1		1.42	9	1.483	2.919	14.45	CDF	0.6136	Non-Significant Effect
		2.841	9	2.736	2.919	14.45	CDF	0.0737	Non-Significant Effect
		5.682	9	2.426	2.919	14.45	CDF	0.1377	Non-Significant Effect
		11.364*	9	3.802	2.919	14.45	CDF	0.0068	Significant Effect
		22.728*	9	5.162	2.919	14.45	CDF	0.0003	Significant Effect
		45.455*	9	10.73	2.919	14.45	CDF	<1.0E-05	Significant Effect
		90.91*	9	12.69	2.919	14.45	CDF	<1.0E-05	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Outlier	Grubbs Extreme Value Test	1.923	2.893	1.0000	No Outliers Detected
Control Trend	Mann-Kendall Trend Test	0.1788	0.05	0.1788	Non-Significant Control Trend

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	12892.6	1841.81	7	34.43	<1.0E-05	Significant Effect
Error	1123.48	53.4989	21			
Total	14016.1		28			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	6.899	18.48	0.4394	Equal Variances
Distribution	Shapiro-Wilk W Normality Test	0.9482	0.9004	0.1645	Normal Distribution

Cell Yield Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	N1	8	42.79	36.61	48.97	43.2	33.1	51.55	2.614	17.28%	0.00%
1.42		3	50.13	22.69	77.58	52.95	37.95	59.5	6.378	22.04%	-17.17%
2.841		3	56.33	49.44	63.23	57.6	53.15	58.25	1.603	4.93%	-31.66%
5.682		3	54.8	39.75	69.85	54.05	49.15	61.2	3.499	11.06%	-28.07%
11.364		3	61.62	36.83	86.4	63.05	51	70.8	5.761	16.19%	-44.01%
22.728		3	68.35	51.66	85.04	68.95	61.35	74.75	3.88	9.83%	-59.74%
45.455		3	95.93	77.2	114.7	98.95	87.35	101.5	4.354	7.86%	-124.21%
90.91		3	105.6	101.8	109.4	105	104.5	107.4	0.8786	1.44%	-146.84%

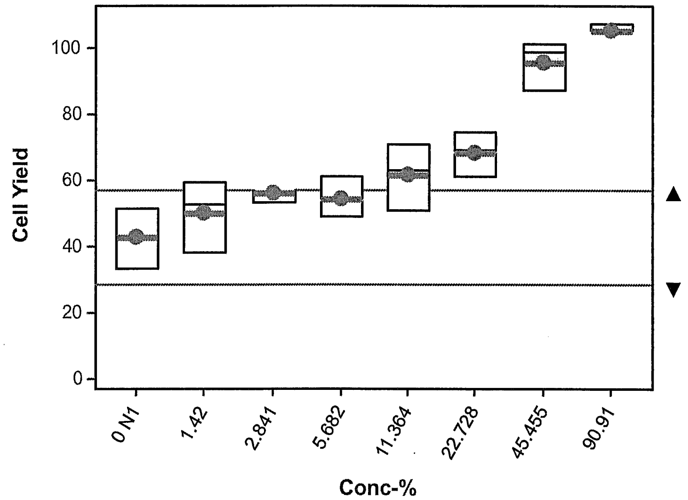
Alga Growth Inhibition Test | **Bureau Veritas**

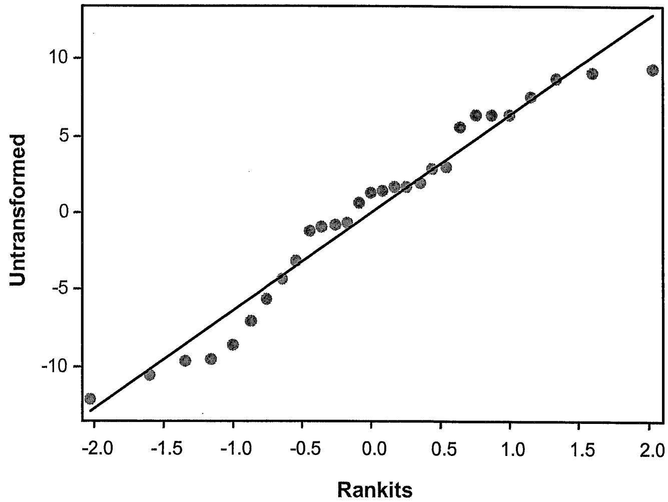
Analysis ID:	12-4054-2077	**Endpoint:**	Cell Yield	**CETIS Version:**	CETISv2.1.2
Analyzed:	17 Sep-24 11:43	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:		**MD5 Hash:**	1363F30760F85C2FABEC192939D27406	**Editor ID:**	

Cell Yield Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N1	51.55	50.35	33.1	49.2	38.45	41.85	44.55	33.25
1.42		37.95	59.5	52.95					
2.841		57.6	53.15	58.25					
5.682		49.15	61.2	54.05					
11.364		70.8	63.05	51					
22.728		61.35	74.75	68.95					
45.455		87.35	101.5	98.95					
90.91		104.5	105	107.4					

Graphics





Analyst: dm 2024 Sept17 QA: MH 2024 Oct08

Alga Growth Inhibition Test — **Bureau Veritas**

Analysis ID:	04-3163-5335	**Endpoint:**	Cell Yield	**CETIS Version:**	CETISv2.1.2
Analyzed:	17 Sep-24 11:43	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:		**MD5 Hash:**	1363F30760F85C2FABEC192939D27406	**Editor ID:**	

Batch ID:	09-9070-8288	**Test Type:**	Cell Growth	**Analyst:**	P. Fang
Start Date:	13 Sep-24 11:58	**Protocol:**	EC/EPS 1/RM/25	**Diluent:**	Algal Culture Media
Ending Date:	16 Sep-24 11:04	**Species:**	Pseudokirchneriella subcapitata	**Brine:**	Not Applicable
Test Length:	71h	**Taxon:**	Chlorophyta	**Source:**	Canadian Phycological Cult **Age:**

Sample ID:	11-2391-0564	**Code:**	C471573	**Project:**	2-11-0691
Sample Date:	11 Sep-24	**Material:**	Water	**Source:**	Arctic Canadian Diamond
Receipt Date:	12 Sep-24 09:30	**CAS (PC):**		**Station:**	0008-SA3-Discharge
Sample Age:	60h	**Client:**	Arctic Canadian Diamond Company		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X+1)	Linear	1989861	200	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	Tox Units	95% LCL	95% UCL
IC15	>90.91	---	---	<1.1	---	---
IC20	>90.91	---	---	<1.1	---	---
IC25	>90.91	---	---	<1.1	---	---
IC40	>90.91	---	---	<1.1	---	---
IC50	>90.91	---	---	<1.1	---	---

Cell Yield Summary

			Calculated Variate						Isotonic Variate	
Conc-%	Code	Count	Mean	Median	Min	Max	CV%	%Effect	Mean	%Effect
)	N1	8	42.79	43.2	33.1	51.55	17.28%	0.00%	66.95	0.00%
1.42		3	50.13	52.95	37.95	59.5	22.04%	-17.17%	66.95	0.00%
2.841		3	56.33	57.6	53.15	58.25	4.93%	-31.66%	66.95	0.00%
5.682		3	54.8	54.05	49.15	61.2	11.06%	-28.07%	66.95	0.00%
11.364		3	61.62	63.05	51	70.8	16.19%	-44.01%	66.95	0.00%
22.728		3	68.35	68.95	61.35	74.75	9.83%	-59.74%	66.95	0.00%
45.455		3	95.93	98.95	87.35	101.5	7.86%	-124.21%	66.95	0.00%
90.91		3	105.6	105	104.5	107.4	1.44%	-146.84%	66.95	0.00%

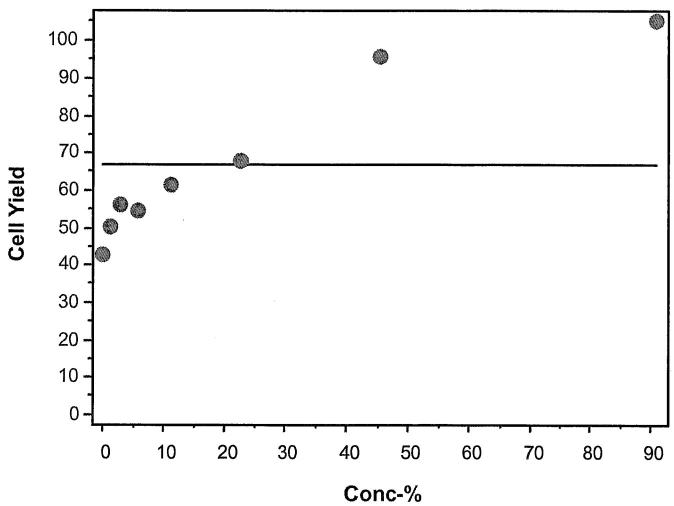
Cell Yield Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N1	51.55	50.35	33.1	49.2	38.45	41.85	44.55	33.25
1.42		37.95	59.5	52.95					
2.841		57.6	53.15	58.25					
5.682		49.15	61.2	54.05					
11.364		70.8	63.05	51					
22.728		61.35	74.75	68.95					
45.455		87.35	101.5	98.95					
90.91		104.5	105	107.4					

Alga Growth Inhibition Test | **Bureau Veritas**

Analysis ID:	04-3163-5335	**Endpoint:**	Cell Yield	**CETIS Version:**	CETISv2.1.2
Analyzed:	17 Sep-24 11:43	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:		**MD5 Hash:**	1363F30760F85C2FABEC192939D27406	**Editor ID:**	

Graphics



Client Name: Arctic Canadian Diamond Company
Sample ID: 0008-SA3-DISCHARGE
Date Sampled: 2024 Sept 11
Job / Sample #: C471573 / CVF783
Date & Time Started: 2024 Sept 13 @ 11:58
Date & Time Ended: 2024 Sept 16 @ 11:04
Analyst(s): P. Fang
Instrument ID: BBY2-0549, BBY2-0006

Conc. (% v/v)	Well	Counts (*10^4 Cells/mL)		Cell Yield (*10^4 Cells/mL)	Mean Cell Yield (*10^4 Cells/mL)	Standard Deviation	%CV
		1	2				
Lab Control	D2	43.6	61.5	51.55	42.79	7.39	17
Lab Control	D3	47.1	55.6	50.35			
Lab Control	D4	36.6	31.6	33.10			
Lab Control	D5	37.8	62.6	49.20			
Lab Control	D8	40.4	38.5	38.45			
Lab Control	D9	45.8	39.9	41.85			
Lab Control	D10	41.4	49.7	44.55			
Lab Control	D11	30.7	37.8	33.25			
1.420	C8	41.4	36.5	37.95	50.13	11.05	22
1.420	E8	60.6	60.4	59.50			
1.420	F8	45.6	62.3	52.95			
2.841	C7	61.7	55.5	57.60	56.33	2.78	5
2.841	E7	41.2	67.1	53.15			
2.841	F7	43.6	74.9	58.25			
5.682	C6	58.6	41.7	49.15	54.80	6.06	11
5.682	E6	57.1	67.3	61.20			
5.682	F6	47.8	62.3	54.05			
11.364	C5	62.9	80.7	70.80	61.62	9.98	16
11.364	E5	59.5	68.6	63.05			
11.364	F5	49.5	54.5	51.00			
22.728	C4	54.8	69.9	61.35	68.35	6.72	10
22.728	E4	74.4	77.1	74.75			
22.728	F4	66.6	73.3	68.95			
45.455	C3	70.7	106.0	87.35	95.93	7.54	8
45.455	E3	102.0	103.0	101.50			
45.455	F3	102.0	97.9	98.95			
90.91	C2	106.0	105.0	104.50	105.62	1.52	1
90.91	E2	103.0	109.0	105.00			
90.91	F2	126.0	90.7	107.35			

Proofed: mt 2024 Oct 08

Client Name: Arctic Canadian Diamond Company

Job / Sample #: C471573 / CVF783

Date Sampled: 2024 Sept 11

Sample ID: 0008-SA3-DISCHARGE

Date Received: 2024 Sept 12

Culture Date: 2024 Sept 10 A

Date & Time Started: 2024 Sept 13 @ 11:58

Culture Description: green

Date & Time Ended: 2024 Sept 16 @ 11:04

Light Intensity at Surface (lux): 3758 - 4068

Analyst(s): P. Fang NSnergill M.Thompson

Instrument ID(s): BBY2-0549, BBY2-0550, BBY2-0006, BBY2-0128, BBY2-0111, BBY2-0077, BBY2-0042

Reagent Water Preparation:

Date of reconstituted water prep: 2024 Sept 03

Hardness (~20 mg/L $CaCO_3$): 20

Volume prepared: 150 mL reconstituted water to 1L DI water

Analyst: Pz

Temperature (°C):

Day 0: 24 Day 1: 24 Day 2: 25 Day 3: 25

Sample Water Quality

Initial pH: 7.7 Initial Temp (°C): 24.4 Sample Description: clear, colourless

Initial Filtered pH (well B2): 7.8

Final Filtered pH (well B2): 8.8

Control Water Quality

Initial Filtered pH (well D6): 7.7

Final Filtered pH (well D7): 7.6

Determination of Initial Cell Concentration of Inoculum:

Prepared inoculum final concentration (**X**): 23.2 (*10^4 cells/mL)

Time of inoculum prep: 11:04

Therefore, (**Xi**) 2320 cells were initially put into each test well and the initial cell density was (**Xd**) 10546 cells/mL.

To calculate # cells initially put into each test well:

Xi = [(0.5 * X) * 0.02] = [(0.5 * 23.2x10^4) * 0.02] = 2320 cells

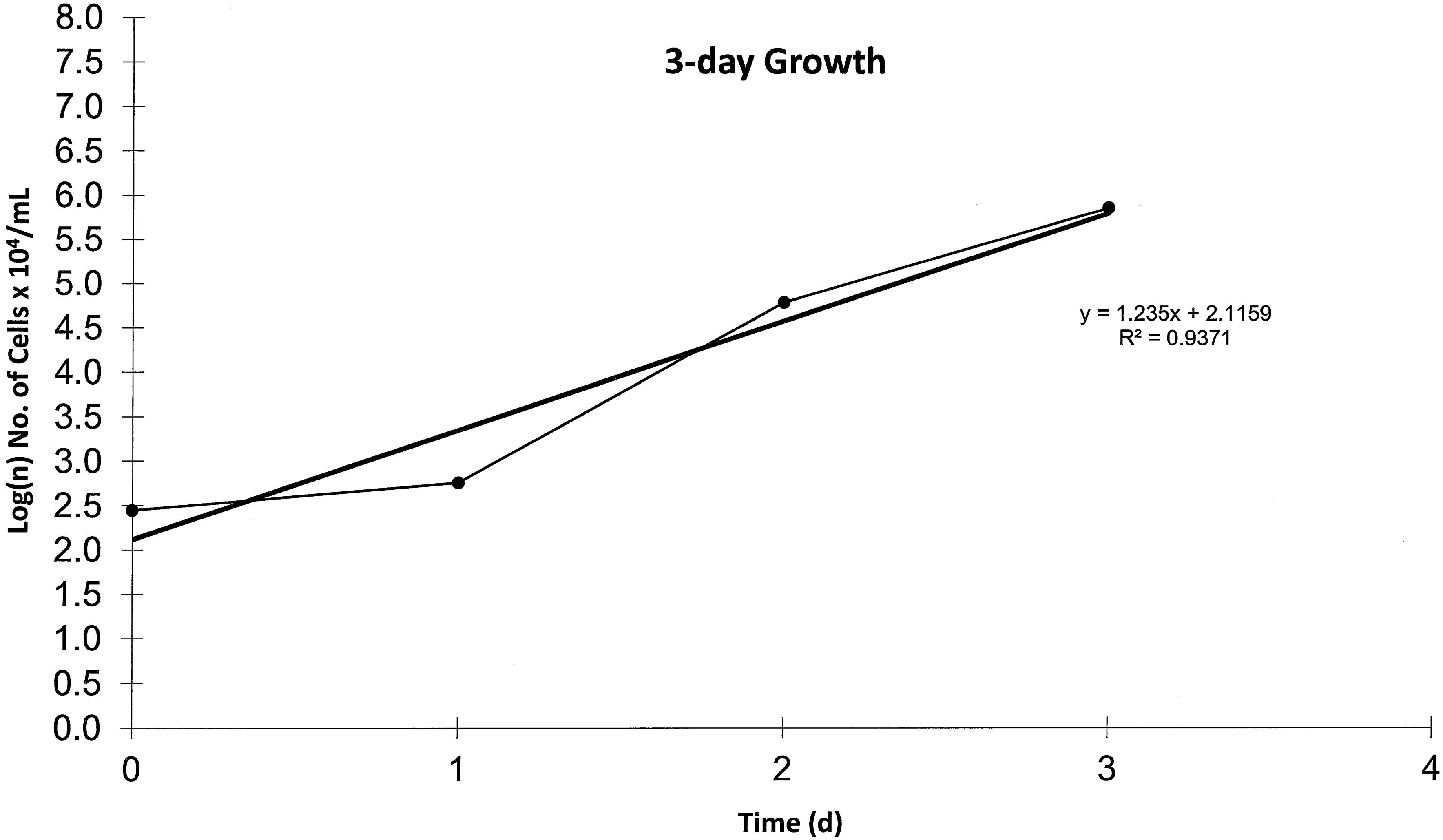
To calculate the initial cell density:

Xd = [(Xi) * (1000/220)] = [(2320) * (4.5455)] = 10546 cells/mL

Observations during Test (Y/N):

Date	Algal Growth	Condensation	Rotated Plates	Analyst
2024 Sept 14	Y	Y	Y	Pz
2024 Sept 15	Y	Y	Y	NSG
2024 Sept 16	Y	Y		Pz

Pseudokirchneriella subcapitata **Growth Curve using CP240703; Date: 2024/Jul/09**
EC~4000lux, 24°C, 0.5ml culture to 50 mL nutrient medium



Lab Report Enclosures

Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102187

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/20
Report #: R3559155
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C469930
Received: 2024/09/06, 12:50

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2024/09/10	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	3	N/A	2024/09/11	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	3	N/A	2024/09/09	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	3	N/A	2024/09/11	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	3	N/A	2024/09/11	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	3	N/A	2024/09/18	BBY WI-00033	Auto Calc
Mercury (Total) by CV	3	2024/09/13	2024/09/14	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	3	2024/09/17	2024/09/18	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	3	2024/09/17	2024/09/18	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	3	N/A	2024/09/09	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	3	N/A	2024/09/12		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	3	N/A	2024/09/11	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	3	N/A	2024/09/11	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	3	N/A	2024/09/06	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	3	N/A	2024/09/08	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	3	N/A	2024/09/12	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	1	N/A	2024/09/12	AB SOP-00026	SM 24 4110 B m
Sulphate (SO4) by IC	2	N/A	2024/09/09	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	3	N/A	2024/09/10		Auto Calc
Temperature (Field)	3	N/A	2024/09/06	Field Test	Field Test
Carbon (Inorganic)	3	N/A	2024/09/10	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	3	N/A	2024/09/12	BBY WI-00033	Auto Calc
Nitrogen (Total)	3	2024/09/09	2024/09/09	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	3	N/A	2024/09/09	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Total	3	2024/09/09	2024/09/10	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	3	2024/09/10	2024/09/10	AB SOP-00061	SM 24 2540 D m
Turbidity	3	N/A	2024/09/07	CAL SOP-00081	SM 24 2130 B m
Ion Balance (5)	3	N/A	2024/09/18		
Total Dissolved Solids (Calculated) (5)	3	N/A	2024/09/18		

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102187

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/20
Report #: R3559155
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C469930
Received: 2024/09/06, 12:50
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) "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
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102187

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Calgary, AB
CANADA T2P 1T1

Report Date: 2024/09/20
Report #: R3559155
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C469930
Received: 2024/09/06, 12:50

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
20 Sep 2024 12:09:49

Please direct all questions regarding this Certificate of Analysis to:
Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (403) 291-3077
==
This report has been generated and distributed using a secure automated process.
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.

Bureau Veritas Job #: C469930
Report Date: 2024/09/20

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

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CUW396			CUW397			CUW398		
Sampling Date		2024/09/04 12:22			2024/09/04 11:55			2024/09/04 10:48		
COC Number		102187			102187			102187		
	UNITS	**008-SA10**	**RDL**	**QC Batch**	**008-SA3**	**RDL**	**QC Batch**	**008-SA9B**	**RDL**	**QC Batch**
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	169	0.50	B505910	75.5	0.50	B505910	21.9	0.50	B505910
Calculated Ion Balance (% Difference)	%	2.1		B506410	2.6		B506410	8.4		B506410
Nitrate plus Nitrite (N)	mg/L	16	0.011	B506354	1.9	0.0022	B506354	0.12	0.0022	B506354
Calculated Total Dissolved Solids	mg/L	310	1.8	B506412	120	0.95	B506412	40	0.95	B506412
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.43	0.20	B505387	0.25	0.040	B505387	0.36	0.020	B505387
Field Parameters										
Field pH	pH	7.60	N/A	ONSITE	7.53	N/A	ONSITE	7.51	N/A	ONSITE
Field Temperature (Fd)	deg. C	10.9	N/A	ONSITE	9.7	N/A	ONSITE	8.6	N/A	ONSITE
Misc. Inorganics										
Fluoride (F)	mg/L	0.190	0.010	B509143	0.231	0.010	B509143	0.075	0.010	B509143
pH	pH	6.23	N/A	B509139	6.43	N/A	B509139	6.15	N/A	B509139
Reactive Silica	mg/L	0.72	0.050	B512918	0.49	0.050	B512918	0.30	0.050	B512918
Acidity (pH 4.5)	mg/L	<1.0	1.0	B509151	<1.0	1.0	B509151	<1.0	1.0	B509151
Alkalinity (Total as CaCO3)	mg/L	26.4	0.50	B509137	38.5	0.50	B509137	23.0	0.50	B509137
Total Organic Carbon (C)	mg/L	2.5	0.20	B508764	2.7	0.20	B508764	4.1	0.20	B508764
Acidity (pH 8.3)	mg/L	1.4	1.0	B509151	<1.0	1.0	B509151	<1.0	1.0	B509151
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	B509137	<0.50	0.50	B509137	<0.50	0.50	B509137
Bicarbonate (HCO3)	mg/L	32.2	0.50	B509137	47.0	0.50	B509137	28.0	0.50	B509137
Carbonate (CO3)	mg/L	<0.50	0.50	B509137	<0.50	0.50	B509137	<0.50	0.50	B509137
Hydroxide (OH)	mg/L	<0.50	0.50	B509137	<0.50	0.50	B509137	<0.50	0.50	B509137
Total Suspended Solids	mg/L	<1.0	1.0	B509475	<1.0	1.0	B509475	<1.0	1.0	B509475
Anions										
Orthophosphate (P)	mg/L	<0.0010	0.0010	B507675	<0.0010	0.0010	B507675	<0.0010	0.0010	B507675
Chloride (Cl)	mg/L	9.2	0.50	B508543	4.0	0.50	B508543	0.91	0.50	B508543
Dissolved-Low Level Sulphate (SO4)	mg/L	120	1.5	B508538	42	0.30	B508538	12	0.30	B508673
Nutrients										
Total Carbon (C)	mg/L	8.2	0.50	B506400	10	0.50	B506400	7.4	0.50	B506400
Total Inorganic Carbon (C)	mg/L	5.7	1.0	B510426	7.7	1.0	B510426	3.5	1.0	B510426
Total Phosphorus (P)	mg/L	0.0057	0.0020	B508669	0.0024	0.0020	B508669	0.0043	0.0020	B508669
Total Ammonia (N)	mg/L	0.048	0.0050	B508156	0.033	0.0050	B508166	0.013	0.0050	B508166
Nitrite (N)	mg/L	0.066	0.0050	B508007	0.0061	0.0010	B508007	0.0012	0.0010	B508007

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C469930
Report Date: 2024/09/20

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

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CUW396			CUW397			CUW398		
Sampling Date		2024/09/04 12:22			2024/09/04 11:55			2024/09/04 10:48		
COC Number		102187			102187			102187		
	UNITS	**008-SA10**	**RDL**	**QC Batch**	**008-SA3**	**RDL**	**QC Batch**	**008-SA9B**	**RDL**	**QC Batch**
Nitrate (N)	mg/L	16	0.010	B508007	1.9	0.0020	B508007	0.12	0.0020	B508007
Total Nitrogen (N)	mg/L	17	0.20	B507929	2.2	0.040	B507929	0.48	0.020	B507929
Physical Properties										
Conductivity	uS/cm	452	1.0	B509142	197	1.0	B509142	66.5	1.0	B509142
Physical Properties										
Turbidity - NTU	NTU	0.99	0.10	B507219	0.12	0.10	B507219	0.12	0.10	B507219
RDL = Reportable Detection Limit										

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CUW396	CUW397	CUW398		
Sampling Date		2024/09/04 12:22	2024/09/04 11:55	2024/09/04 10:48		
COC Number		102187	102187	102187		
	UNITS	**008-SA10**	**008-SA3**	**008-SA9B**	**RDL**	**QC Batch**
Elements						
Total Mercury (Hg)	mg/L	<0.0000019	<0.0000019	<0.0000019	0.0000019	B515966
RDL = Reportable Detection Limit						

Bureau Veritas Job #: C469930
Report Date: 2024/09/20

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

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CUW396	CUW397	CUW398		
Sampling Date		2024/09/04 12:22	2024/09/04 11:55	2024/09/04 10:48		
COC Number		102187	102187	102187		
	UNITS	**008-SA10**	**008-SA3**	**008-SA9B**	**RDL**	**QC Batch**
Elements						
Total Aluminum (Al)	mg/L	0.032	0.010	0.0077	0.0030	B524566
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	<0.00060	0.00060	B524566
Total Arsenic (As)	mg/L	0.00027	0.00043	0.00026	0.00020	B524566
Total Barium (Ba)	mg/L	0.094	0.026	<0.010	0.010	B524570
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B524566
Total Boron (B)	mg/L	0.022	<0.020	0.18	0.020	B524570
Total Cadmium (Cd)	mg/L	<0.000020	<0.000020	<0.000020	0.000020	B524566
Total Calcium (Ca)	mg/L	27	13	3.4	0.30	B524570
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B524566
Total Cobalt (Co)	mg/L	<0.00030	<0.00030	<0.00030	0.00030	B524566
Total Copper (Cu)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B524566
Total Iron (Fe)	mg/L	<0.070	0.073	0.11	0.070	B524570
Total Lead (Pb)	mg/L	<0.00020	<0.00020	0.00025	0.00020	B524566
Total Lithium (Li)	mg/L	<0.020	<0.020	<0.020	0.020	B524570
Total Magnesium (Mg)	mg/L	25	11	3.3	0.20	B524570
Total Manganese (Mn)	mg/L	0.0067	0.026	0.011	0.0040	B524570
Total Molybdenum (Mo)	mg/L	0.042	0.0050	0.00039	0.00020	B524566
Total Nickel (Ni)	mg/L	0.024	0.0027	0.0012	0.00050	B524566
Total Potassium (K)	mg/L	21	7.2	2.2	0.30	B524570
Total Selenium (Se)	mg/L	0.00035	<0.00020	<0.00020	0.00020	B524566
Total Silicon (Si)	mg/L	<0.50	<0.50	<0.50	0.50	B524570
Total Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	B524566
Total Sodium (Na)	mg/L	18	7.3	3.2	0.50	B524570
Total Strontium (Sr)	mg/L	0.31	0.11	0.026	0.020	B524570
Total Sulphur (S)	mg/L	38	14	4.3	0.20	B524570
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	B524566
Total Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B524566
Total Titanium (Ti)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B524566
Total Uranium (U)	mg/L	0.0037	0.0019	<0.00010	0.00010	B524566
Total Vanadium (V)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B524566
Total Zinc (Zn)	mg/L	<0.0030	<0.0030	<0.0030	0.0030	B524566
RDL = Reportable Detection Limit						

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GENERAL COMMENTS

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

Package 1	8.5°C
Package 2	8.1°C
Package 3	6.7°C
Package 4	5.2°C
Package 5	2.4°C
Package 6	5.2°C
Package 7	3.5°C
Package 8	3.8°C
Package 9	4.3°C
Package 10	2.3°C
Package 11	4.3°C

Sample CUW396 [008-SA10] : 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 CUW397 [008-SA3] : 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 CUW398 [008-SA9B] : 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 was analyzed past method specified hold time for Carbon (Inorganic).

Results relate only to the items tested.

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Bureau Veritas Job #: C469930
Report Date: 2024/09/20

QUALITY ASSURANCE REPORT

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

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B507219	Turbidity - NTU	2024/09/07			101	80 - 120	<0.10	NTU	2.0	20		
B507675	Orthophosphate (P)	2024/09/08	90	80 - 120	100	80 - 120	<0.0010	mg/L	5.8	20		
B507929	Total Nitrogen (N)	2024/09/09	101	80 - 120	100	80 - 120	<0.020	mg/L	1.3	20	101	80 - 120
B508007	Nitrate (N)	2024/09/11	105	80 - 120	98	80 - 120	<0.0020	mg/L	NC	20		
B508007	Nitrite (N)	2024/09/11	105	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B508156	Total Ammonia (N)	2024/09/09	105	80 - 120	103	80 - 120	<0.0050	mg/L	NC	20		
B508166	Total Ammonia (N)	2024/09/09	105	80 - 120	103	80 - 120	<0.0050	mg/L	2.7	20		
B508538	Dissolved-Low Level Sulphate (SO4)	2024/09/12	NC	80 - 120	98	80 - 120	<0.050	mg/L	0.026	20		
B508543	Chloride (Cl)	2024/09/09	108	80 - 120	104	80 - 120	<0.50	mg/L	NC	20		
B508669	Total Phosphorus (P)	2024/09/10	100	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20	86	80 - 120
B508673	Dissolved-Low Level Sulphate (SO4)	2024/09/12	NC	80 - 120	99	80 - 120	<0.050	mg/L	0.53	20		
B508764	Total Organic Carbon (C)	2024/09/09	103	75 - 125	104	80 - 120	<0.20	mg/L	1.0	20		
B509137	Alkalinity (PP as CaCO3)	2024/09/11					<0.50	mg/L				
B509137	Alkalinity (Total as CaCO3)	2024/09/11			97	80 - 120	<0.50	mg/L				
B509137	Bicarbonate (HCO3)	2024/09/11					<0.50	mg/L				
B509137	Carbonate (CO3)	2024/09/11					<0.50	mg/L				
B509137	Hydroxide (OH)	2024/09/11					<0.50	mg/L				
B509139	pH	2024/09/11			100	97 - 103						
B509142	Conductivity	2024/09/11			101	90 - 110	<1.0	uS/cm	0.56	20		
B509143	Fluoride (F)	2024/09/11	105	80 - 120	104	80 - 120	<0.010	mg/L	NC	20		
B509151	Acidity (pH 4.5)	2024/09/10					<1.0	mg/L	NC	20		
B509151	Acidity (pH 8.3)	2024/09/10			98	80 - 120	<1.0	mg/L	NC	20		
B509475	Total Suspended Solids	2024/09/10	NC	80 - 120	87	80 - 120	<1.0	mg/L	8.2	20		
B510426	Total Inorganic Carbon (C)	2024/09/10	95	80 - 120	105	80 - 120	<1.0	mg/L	NC	20		
B512918	Reactive Silica	2024/09/12	103	80 - 120	106	80 - 120	<0.050	mg/L	5.0	20		
B515966	Total Mercury (Hg)	2024/09/14	107	80 - 120	106	80 - 120	<0.0000019	mg/L	NC	20		
B524566	Total Aluminum (Al)	2024/09/18	107	80 - 120	108	80 - 120	<0.0030	mg/L	19	20		
B524566	Total Antimony (Sb)	2024/09/18	103	80 - 120	104	80 - 120	<0.00060	mg/L	NC	20		
B524566	Total Arsenic (As)	2024/09/18	108	80 - 120	109	80 - 120	<0.00020	mg/L	NC	20		
B524566	Total Beryllium (Be)	2024/09/18	102	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B524566	Total Cadmium (Cd)	2024/09/18	107	80 - 120	107	80 - 120	<0.000020	mg/L				
B524566	Total Chromium (Cr)	2024/09/18	105	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20		
B524566	Total Cobalt (Co)	2024/09/18	105	80 - 120	108	80 - 120	<0.00030	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B524566	Total Copper (Cu)	2024/09/18	107	80 - 120	108	80 - 120	<0.0010	mg/L	NC	20		
B524566	Total Lead (Pb)	2024/09/18	103	80 - 120	106	80 - 120	<0.00020	mg/L	NC	20		
B524566	Total Molybdenum (Mo)	2024/09/18	108	80 - 120	107	80 - 120	<0.00020	mg/L	NC	20		
B524566	Total Nickel (Ni)	2024/09/18	105	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20		
B524566	Total Selenium (Se)	2024/09/18	107	80 - 120	107	80 - 120	<0.00020	mg/L	NC	20		
B524566	Total Silver (Ag)	2024/09/18	106	80 - 120	107	80 - 120	<0.00010	mg/L	NC	20		
B524566	Total Thallium (Tl)	2024/09/18	101	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20		
B524566	Total Tin (Sn)	2024/09/18	104	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20		
B524566	Total Titanium (Ti)	2024/09/18	104	80 - 120	106	80 - 120	<0.0010	mg/L	NC	20		
B524566	Total Uranium (U)	2024/09/18	106	80 - 120	108	80 - 120	<0.00010	mg/L	20	20		
B524566	Total Vanadium (V)	2024/09/18	108	80 - 120	109	80 - 120	<0.0010	mg/L	NC	20		
B524566	Total Zinc (Zn)	2024/09/18	106	80 - 120	107	80 - 120	<0.0030	mg/L	NC	20		
B524570	Total Barium (Ba)	2024/09/18	97	80 - 120	107	80 - 120	<0.010	mg/L	1.1	20		
B524570	Total Boron (B)	2024/09/18	NC	80 - 120	105	80 - 120	<0.020	mg/L	NC	20		
B524570	Total Calcium (Ca)	2024/09/18	NC	80 - 120	106	80 - 120	<0.30	mg/L	1.2	20		
B524570	Total Iron (Fe)	2024/09/18	NC	80 - 120	112	80 - 120	<0.070	mg/L	18	20		
B524570	Total Lithium (Li)	2024/09/18	102	80 - 120	106	80 - 120	<0.020	mg/L	NC	20		
B524570	Total Magnesium (Mg)	2024/09/18	NC	80 - 120	109	80 - 120	<0.20	mg/L	1.8	20		
B524570	Total Manganese (Mn)	2024/09/18	NC	80 - 120	108	80 - 120	<0.0040	mg/L	NC	20		
B524570	Total Potassium (K)	2024/09/18	NC	80 - 120	107	80 - 120	<0.30	mg/L	8.0	20		
B524570	Total Silicon (Si)	2024/09/18	105	80 - 120	101	80 - 120	<0.50	mg/L	0.16	20		
B524570	Total Sodium (Na)	2024/09/18	NC	80 - 120	109	80 - 120	<0.50	mg/L	6.3	20		
B524570	Total Strontium (Sr)	2024/09/18	NC	80 - 120	102	80 - 120	<0.020	mg/L	0.34	20		
B524570	Total Sulphur (S)	2024/09/18	110	80 - 120	102	80 - 120	<0.20	mg/L	0.29	20		

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

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

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

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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

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C469930
2024/09/06 12:50

COR FCD-00265 / 5
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BUREAU VERITAS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

BV JOB#:

COOLER ID	CUSTODY SEAL PRESENT YES	CUSTODY SEAL PRESENT NO	INTACT YES	INTACT NO	ICE PRESENT YES	ICE PRESENT NO	TEMP 1	TEMP 2	TEMP 3
		✓		✓	✓		8.4	8.1	9.0
		✓		✓	✓		8.0	8.4	8.0
		✓		✓	✓		7.0	7.1	6.0
		✓		✓	✓		5.4	3.9	6.4
		✓		✓	✓		0.3	0.9	5.9
		✓		✓	✓		4.6	5.1	5.9
		✓		✓	✓		3.3	3.4	3.7
		✓		✓	✓		3.8	3.8	3.9
		✓		✓	✓		4.1	4.3	4.4
		✓		✓	✓		2.1	2.3	2.4
		✓		✓	✓		4.4	4.1	4.2

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	Shaira Cura	2024/09/06	12:50

C469930
2024/09/06 12:50

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

BUREAU VERITAS 1828

COC# 102187

SO# 62836

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
✓	0008-Sa10	EKA 2002 0008	04-Sep-2024	12:22	Water	SNP	Y	Y	Y	7.60	10.9
✓	0008-Sa3	EKA 2002 0008	04-Sep-2024	11:55	Water	SNP	Y	Y	Y	7.53	9.7
✓	0008-Sa9b	EKA 2002 0008	04-Sep-2024	10:48	Water	SNP	Y	Y	Y	7.51	8.6

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

FOR LAB USE ONLY

MCAL-2024-09-436

Special Instructions (Billing details, QC reporting etc):
Frequency: On the first day of Discharge, weekly during periods of Discharge, and on the final day of Discharge.
Parameters: TSS, major ion, physical parameters, total metals and nutrients.
*** Sample :0008-Sa3, 0008-Sa9b with Profil, 0008-Sa10***
Sent results to Tania.robitaille@burgundydiamonds.com, Landon.Murphy@burgundydiamonds.com & compliance.team@burgundydiamonds.com

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	Date 05-Sep-24 Time 8:00	Shaira Cura	Date 2024/09/06 Time 12:50
Relinquished by:	Date Time	Received by:	Date Time

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

Your P.O. #: 6404002992
Your Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102224

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/26
Report #: R3562330
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471593
Received: 2024/09/12, 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 CaCO3)	1	N/A	2024/09/13	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/09/17	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	1	N/A	2024/09/13	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	1	N/A	2024/09/17	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	1	N/A	2024/09/17	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	1	N/A	2024/09/24	BBY WI-00033	Auto Calc
Mercury (Total) by CV	1	2024/09/18	2024/09/19	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	1	2024/09/23	2024/09/24	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	1	2024/09/23	2024/09/24	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	1	N/A	2024/09/16	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	1	N/A	2024/09/18		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/09/14	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	1	N/A	2024/09/17	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/09/12	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	1	N/A	2024/09/13	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	1	N/A	2024/09/19	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	1	N/A	2024/09/14	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	1	N/A	2024/09/24		Auto Calc
Temperature (Field)	1	N/A	2024/09/12	Field Test	Field Test
Carbon (Inorganic)	1	N/A	2024/09/16	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/09/18	BBY WI-00033	Auto Calc
Nitrogen (Total)	1	2024/09/16	2024/09/16	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	1	N/A	2024/09/24	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Dissolved (5)	1	2024/09/25	2024/09/25	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/09/16	2024/09/16	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	1	2024/09/13	2024/09/14	AB SOP-00061	SM 24 2540 D m
Turbidity	1	N/A	2024/09/13	CAL SOP-00081	SM 24 2130 B m
Ion Balance (6)	1	N/A	2024/09/24		
Total Dissolved Solids (Calculated) (6)	1	N/A	2024/09/24		

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102224

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/26
Report #: R3562330
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471593
Received: 2024/09/12, 09:30
Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, 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) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(6) Calculation was conducted as per client request using CAL PDF-00333.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102224

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/26
Report #: R3562330
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471593
Received: 2024/09/12, 09:30

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
26 Sep 2024 10:13:38

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 Job #: C471593
Report Date: 2024/09/26

Arctic Canadian Diamond Company Ltd
Client Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVF847		
Sampling Date		2024/09/08 10:50		
COC Number		102224		
	UNITS	**1616-46B**	**RDL**	**QC Batch**
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	255	0.50	B513367
Calculated Ion Balance (% Difference)	%	3.0		B513876
Nitrate plus Nitrite (N)	mg/L	87	0.022	B513868
Calculated Total Dissolved Solids	mg/L	2200	4.0	B513877
Total Total Kjeldahl Nitrogen (Calc)	mg/L	12	2.0	B513312
Field Parameters				
Field pH	pH	8.28	N/A	ONSITE
Field Temperature (Fd)	deg. C	20.6	N/A	ONSITE
Misc. Inorganics				
Fluoride (F)	mg/L	0.375	0.010	B516193
pH	pH	8.09	N/A	B516188
Reactive Silica	mg/L	9.8	0.050	B527773
Acidity (pH 4.5)	mg/L	<1.0	1.0	B516170
Alkalinity (Total as CaCO3)	mg/L	95.3	0.50	B516181
Total Organic Carbon (C)	mg/L	3.3	0.20	B535029
Acidity (pH 8.3)	mg/L	3.4	1.0	B516170
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	B516181
Bicarbonate (HCO3)	mg/L	116	0.50	B516181
Carbonate (CO3)	mg/L	<0.50	0.50	B516181
Hydroxide (OH)	mg/L	<0.50	0.50	B516181
Total Suspended Solids	mg/L	160 (1)	1.9	B516313
Anions				
Orthophosphate (P)	mg/L	0.0078	0.0010	B516122
Chloride (Cl)	mg/L	180	2.5	B516145
Dissolved-Low Level Sulphate (SO4)	mg/L	910	3.0	B515243
Nutrients				
Total Carbon (C)	mg/L	26	0.50	B513875
Total Inorganic Carbon (C)	mg/L	23	1.0	B518120
Dissolved Phosphorus (P)	mg/L	0.0024	0.0020	B536969
Total Phosphorus (P)	mg/L	0.10	0.0020	B518020

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limit raised based on sample volume used for analysis.

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVF847		
Sampling Date		2024/09/08 10:50		
COC Number		102224		
	UNITS	1616-46B	RDL	QC Batch
Total Ammonia (N)	mg/L	11	0.050	B517912
Nitrite (N)	mg/L	6.5	0.010	B514432
Nitrate (N)	mg/L	80	0.020	B514432
Total Nitrogen (N)	mg/L	99 (1)	2.0	B517870
Physical Properties				
Conductivity	uS/cm	3420	1.0	B516189
Physical Properties				
Turbidity - NTU	NTU	110	0.10	B515622

RDL = Reportable Detection Limit

(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C471593
Report Date: 2024/09/26

Arctic Canadian Diamond Company Ltd
Client Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CVF847		
Sampling Date		2024/09/08 10:50		
COC Number		102224		
	UNITS	**1616-46B**	**RDL**	**QC Batch**
Elements				
Total Mercury (Hg)	mg/L	0.0000024	0.0000019	B526954
RDL = Reportable Detection Limit				

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CVF847		
Sampling Date		2024/09/08 10:50		
COC Number		102224		
	UNITS	1616-46B	RDL	QC Batch
Elements				
Total Aluminum (Al)	mg/L	2.5	0.0030	B532937
Total Antimony (Sb)	mg/L	0.0053	0.00060	B532937
Total Arsenic (As)	mg/L	0.0061	0.00020	B532937
Total Barium (Ba)	mg/L	0.11	0.010	B532939
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B532937
Total Boron (B)	mg/L	0.33	0.020	B532939
Total Cadmium (Cd)	mg/L	0.000080	0.000020	B532937
Total Calcium (Ca)	mg/L	42	0.30	B532939
Total Chromium (Cr)	mg/L	0.018	0.0010	B532937
Total Cobalt (Co)	mg/L	0.0049	0.00030	B532937
Total Copper (Cu)	mg/L	0.0049	0.0010	B532937
Total Iron (Fe)	mg/L	4.7	0.060	B532939
Total Lead (Pb)	mg/L	0.0021	0.00020	B532937
Total Lithium (Li)	mg/L	0.041	0.020	B532939
Total Magnesium (Mg)	mg/L	36	0.20	B532939
Total Manganese (Mn)	mg/L	0.064	0.0040	B532939
Total Molybdenum (Mo)	mg/L	0.54	0.00020	B532937
Total Nickel (Ni)	mg/L	0.086	0.00050	B532937
Total Potassium (K)	mg/L	220	0.30	B532939
Total Selenium (Se)	mg/L	0.0037	0.00020	B532937
Total Silicon (Si)	mg/L	18	0.50	B532939
Total Silver (Ag)	mg/L	<0.00010	0.00010	B532937
Total Sodium (Na)	mg/L	430	0.50	B532939
Total Strontium (Sr)	mg/L	1.4	0.020	B532939
Total Sulphur (S)	mg/L	250	0.20	B532939
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B532937
Total Tin (Sn)	mg/L	<0.0010	0.0010	B532937
Total Titanium (Ti)	mg/L	0.13	0.0010	B532937
Total Uranium (U)	mg/L	0.030	0.00010	B532937
Total Vanadium (V)	mg/L	0.0085	0.0010	B532937
Total Zinc (Zn)	mg/L	0.077	0.0030	B532937
RDL = Reportable Detection Limit				

GENERAL COMMENTS

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

Package 1	8.2°C
Package 2	8.8°C
Package 3	4.8°C
Package 4	5.5°C
Package 5	8.0°C
Package 6	5.1°C
Package 7	5.7°C
Package 8	5.5°C
Package 9	6.0°C

Sample CVF847 [1616-46B] : 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. Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B514432	Nitrate (N)	2024/09/12	100	80 - 120	98	80 - 120	<0.0020	mg/L	9.9	20		
B514432	Nitrite (N)	2024/09/12	100	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B515243	Dissolved-Low Level Sulphate (SO4)	2024/09/13	111	80 - 120	105	80 - 120	<0.050	mg/L	2.2	20		
B515622	Turbidity - NTU	2024/09/13			101	80 - 120	<0.10	NTU	12	20		
B516122	Orthophosphate (P)	2024/09/13	100	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B516145	Chloride (Cl)	2024/09/13	103	80 - 120	99	80 - 120	<0.50	mg/L	NC	20		
B516170	Acidity (pH 4.5)	2024/09/13					<1.0	mg/L	NC	20		
B516170	Acidity (pH 8.3)	2024/09/13			97	80 - 120	<1.0	mg/L	NC	20		
B516181	Alkalinity (PP as CaCO3)	2024/09/16					<0.50	mg/L	NC	20		
B516181	Alkalinity (Total as CaCO3)	2024/09/16			95	80 - 120	0.67, RDL=0.50 (1)	mg/L	0.24	20		
B516181	Bicarbonate (HCO3)	2024/09/16					0.82, RDL=0.50	mg/L	0.24	20		
B516181	Carbonate (CO3)	2024/09/16					<0.50	mg/L	NC	20		
B516181	Hydroxide (OH)	2024/09/16					<0.50	mg/L	NC	20		
B516188	pH	2024/09/16			100	97 - 103			0.23	N/A		
B516189	Conductivity	2024/09/16			101	90 - 110	<1.0	uS/cm	0.60	20		
B516193	Fluoride (F)	2024/09/16	101	80 - 120	97	80 - 120	<0.010	mg/L	0.48	20		
B516313	Total Suspended Solids	2024/09/14	91	80 - 120	97	80 - 120	<1.0	mg/L	7.5	20		
B517870	Total Nitrogen (N)	2024/09/16	109	80 - 120	106	80 - 120	<0.020	mg/L	NC	20	102	80 - 120
B517912	Total Ammonia (N)	2024/09/16	106	80 - 120	103	80 - 120	<0.0050	mg/L	9.6	20		
B518020	Total Phosphorus (P)	2024/09/16	102	80 - 120	97	80 - 120	<0.0020	mg/L	NC	20	89	80 - 120
B518120	Total Inorganic Carbon (C)	2024/09/16	102	80 - 120	103	80 - 120	<1.0	mg/L				
B526954	Total Mercury (Hg)	2024/09/19	103	80 - 120	99	80 - 120	<0.0000019	mg/L	NC	20		
B527773	Reactive Silica	2024/09/19	98	80 - 120	107	80 - 120	<0.050	mg/L	NC	20		
B532937	Total Aluminum (Al)	2024/09/24	NC	80 - 120	100	80 - 120	<0.0030	mg/L	5.8	20		
B532937	Total Antimony (Sb)	2024/09/24	102	80 - 120	112	80 - 120	<0.00060	mg/L	NC	20		
B532937	Total Arsenic (As)	2024/09/24	100	80 - 120	107	80 - 120	<0.00020	mg/L	17	20		
B532937	Total Beryllium (Be)	2024/09/24	104	80 - 120	107	80 - 120	<0.0010	mg/L	NC	20		
B532937	Total Cadmium (Cd)	2024/09/24	99	80 - 120	106	80 - 120	<0.000020	mg/L				
B532937	Total Chromium (Cr)	2024/09/24	96	80 - 120	106	80 - 120	<0.0010	mg/L	NC	20		
B532937	Total Cobalt (Co)	2024/09/24	98	80 - 120	108	80 - 120	<0.00030	mg/L	NC	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B532937	Total Copper (Cu)	2024/09/24	95	80 - 120	106	80 - 120	<0.0010	mg/L	NC	20		
B532937	Total Lead (Pb)	2024/09/24	100	80 - 120	111	80 - 120	<0.00020	mg/L	NC	20		
B532937	Total Molybdenum (Mo)	2024/09/24	103	80 - 120	109	80 - 120	<0.00020	mg/L	NC	20		
B532937	Total Nickel (Ni)	2024/09/24	95	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20		
B532937	Total Selenium (Se)	2024/09/24	102	80 - 120	110	80 - 120	<0.00020	mg/L	NC	20		
B532937	Total Silver (Ag)	2024/09/24	99	80 - 120	106	80 - 120	<0.00010	mg/L	NC	20		
B532937	Total Thallium (Tl)	2024/09/24	98	80 - 120	115	80 - 120	<0.00020	mg/L	NC	20		
B532937	Total Tin (Sn)	2024/09/24	101	80 - 120	106	80 - 120	<0.0010	mg/L	NC	20		
B532937	Total Titanium (Ti)	2024/09/24	94	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20		
B532937	Total Uranium (U)	2024/09/24	98	80 - 120	108	80 - 120	<0.00010	mg/L	NC	20		
B532937	Total Vanadium (V)	2024/09/24	98	80 - 120	108	80 - 120	<0.0010	mg/L	NC	20		
B532937	Total Zinc (Zn)	2024/09/24	93	80 - 120	105	80 - 120	<0.0030	mg/L	NC	20		
B532939	Total Barium (Ba)	2024/09/24	97	80 - 120	98	80 - 120	<0.010	mg/L	0.62	20		
B532939	Total Boron (B)	2024/09/24	97	80 - 120	98	80 - 120	<0.020	mg/L	NC	20		
B532939	Total Calcium (Ca)	2024/09/24	NC	80 - 120	97	80 - 120	<0.30	mg/L	0.29	20		
B532939	Total Iron (Fe)	2024/09/24	109	80 - 120	101	80 - 120	<0.060	mg/L	3.4	20		
B532939	Total Lithium (Li)	2024/09/24	95	80 - 120	95	80 - 120	<0.020	mg/L	0.40	20		
B532939	Total Magnesium (Mg)	2024/09/24	97	80 - 120	98	80 - 120	<0.20	mg/L	0.91	20		
B532939	Total Manganese (Mn)	2024/09/24	95	80 - 120	95	80 - 120	<0.0040	mg/L	3.2	20		
B532939	Total Potassium (K)	2024/09/24	98	80 - 120	98	80 - 120	<0.30	mg/L	0.12	20		
B532939	Total Silicon (Si)	2024/09/24	100	80 - 120	96	80 - 120	<0.50	mg/L	0.85	20		
B532939	Total Sodium (Na)	2024/09/24	98	80 - 120	97	80 - 120	<0.50	mg/L	0.45	20		
B532939	Total Strontium (Sr)	2024/09/24	92	80 - 120	94	80 - 120	<0.020	mg/L	1.0	20		
B532939	Total Sulphur (S)	2024/09/24	96	80 - 120	95	80 - 120	<0.20	mg/L	3.7	20		
B535029	Total Organic Carbon (C)	2024/09/24	101	75 - 125	97	80 - 120	<0.20	mg/L	1.6	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B536969	Dissolved Phosphorus (P)	2024/09/25	97	80 - 120	102	80 - 120	<0.0010	mg/L	8.2	20	90	80 - 120

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 <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

VALIDATION SIGNATURE PAGE

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

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.

C471593
2024/09/12 09:30

COR FCD-00265 / 5
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BUREAU VERITAS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

CUSTODY SEAL	YES	NO	COOLER ID			
CUSTODY SEAL	YES	NO	COOLER ID	TROUT		
PRESENT		✓	TEMP	7.9	8.3	6.4
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID	TROUT		
PRESENT		✓	TEMP	9.8	8.8	7.7
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID	TROUT		
PRESENT		✓	TEMP	6.6	3.9	3.9
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID	TROUT		
PRESENT		✓	TEMP	5.5	5.5	5.5
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	8.0	8.0	8.0
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	3.9	3.9	7.6
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	6.6	6.6	3.9
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	5.5	5.5	5.5
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	6.0	6.0	6.0
INTACT		✓		1	2	3
ICE PRESENT	✓					
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						

BV JOB#:

CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT				1	2	3
ICE PRESENT						

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	SEAN ENZ	2024/09/12	09:30

C471593
2024/09/12 09:30

Burgundy Diamond Mines

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

BUREAU VERITAS 1828

COC# 102224

SO# 61984

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

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	Dissolved Nutrients	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
	1616-46b	EKA 2001 1616	08-Sep-2024	10:50	Water	SNP	Y	Y	Y	Y	8.28	20.6

FOR LAB USE ONLY

MCAL-2024-09-919

Special Instructions (Billing details, QC reporting etc):
To monitor the quality of water entering the KPSF/Lynx pit from Misery Underground. Sample can be canceled if the pump didn't pumped. Sample has to be taken 1 day prior sampling date, so underground tech can go sample the location.

Frequency: Monthly
Parameters: TSS, major ions, physical parameters, total metals, nutrients.

ROUTINE TAT

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	Date 11-Sep-24 Time 7:36	[signature] STANEMI	Date 2024/09/12 Time 09:30
	Date Time		Date Time

FOR LAB USE ONLY
Cooler seal intact upon receipt? ☐ Yes ☐ No ☐ N/A
Sample temperature upon receipt: Frozen? ☐ Yes ☐ No

ACTR

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

Your P.O. #: 6404002992
Your Project #: 61987
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102178

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/25
Report #: R3561645
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471594
Received: 2024/09/12, 09:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2024/09/13	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	2	N/A	2024/09/16	AB SOP-00005	SM 24 2320 B m
Alkalinity - Low Level	1	N/A	2024/09/17	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	3	N/A	2024/09/13	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	2	N/A	2024/09/16	AB SOP-00005	SM 24 2510 B m
Conductance - Low Level	1	N/A	2024/09/17	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	2	N/A	2024/09/16	AB SOP-00005	SM 24 4500-F C m
Fluoride - Low Level	1	N/A	2024/09/17	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	3	N/A	2024/09/22	BBY WI-00033	Auto Calc
Mercury (Total) by CV	1	2024/09/17	2024/09/17	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	2	2024/09/18	2024/09/19	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	2	2024/09/20	2024/09/21	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	1	2024/09/20	2024/09/22	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	3	2024/09/20	2024/09/20	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	3	N/A	2024/09/16	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	3	N/A	2024/09/19		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	3	N/A	2024/09/17	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	2	N/A	2024/09/16	AB SOP-00005	SM 24 4500-H+B m
pH @25°C (2)	1	N/A	2024/09/17	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/09/12	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	3	N/A	2024/09/13	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	3	N/A	2024/09/19	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	3	N/A	2024/09/14	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	3	N/A	2024/09/24		Auto Calc
Temperature (Field)	1	N/A	2024/09/12	Field Test	Field Test
Carbon (Inorganic)	3	N/A	2024/09/16	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	3	N/A	2024/09/19	BBY WI-00033	Auto Calc
Nitrogen (Total)	1	2024/09/15	2024/09/16	AB SOP-00093	SM 24 4500-N C m
Nitrogen (Total)	2	2024/09/16	2024/09/16	AB SOP-00093	SM 24 4500-N C m

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 61987
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102178

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/25
Report #: R3561645
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471594
Received: 2024/09/12, 09:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Carbon (Total Organic) (4)	3	N/A	2024/09/24	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Dissolved (5)	3	2024/09/16	2024/09/16	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	2	2024/09/16	2024/09/16	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/09/17	2024/09/17	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	3	2024/09/13	2024/09/13	AB SOP-00061	SM 24 2540 D m
Turbidity	3	N/A	2024/09/15	CAL SOP-00081	SM 24 2130 B m
Ion Balance (6)	3	N/A	2024/09/22		
Total Dissolved Solids (Calculated) (6)	3	N/A	2024/09/22		

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) "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.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 61987
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102178

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/25
Report #: R3561645
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471594

Received: 2024/09/12, 09:30

(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) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(6) Calculation was conducted as per client request using CAL PDF-00333.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
25 Sep 2024 12:50:43

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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Bureau Veritas Job #: C471594
Report Date: 2024/09/25

Arctic Canadian Diamond Company Ltd
Client Project #: 61987
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVF848		CVF849			CVF850		
Sampling Date		2024/09/06 10:44		2024/09/06 10:40			2024/09/06 10:55		
COC Number		102178		102178			102178		
	UNITS	**0008-121-FB**	**QC Batch**	**0008-494-TB**	**RDL**	**QC Batch**	**0008-SA2**	**RDL**	**QC Batch**
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	<0.50	B513367	<0.50	0.50	B513367	411	0.50	B513367
Calculated Ion Balance (% Difference)	%	NC	B513876	NC		B513876	4.0		B513876
Nitrate plus Nitrite (N)	mg/L	0.0040	B513868	<0.0022	0.0022	B513868	38	0.020	B513868
Calculated Total Dissolved Solids	mg/L	<0.95	B513877	<0.95	0.95	B513877	1400	3.1	B513877
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.020	B514197	<0.020	0.020	B514197	5.4	2.0	B514852
Field Parameters									
Field pH	pH						10.95	N/A	ONSITE
Field Temperature (Fd)	deg. C						5.8	N/A	ONSITE
Misc. Inorganics									
Fluoride (F)	mg/L	<0.010	B516193	<0.010	0.010	B516193	0.392	0.010	B516193
pH	pH	5.46	B516188	5.40	N/A	B516188	7.78	N/A	B516188
Reactive Silica	mg/L	<0.050	B527773	<0.050	0.050	B527773	8.9	0.050	B527773
Acidity (pH 4.5)	mg/L	<1.0	B516170	<1.0	1.0	B516170	<1.0	1.0	B516170
Alkalinity (Total as CaCO3)	mg/L	<0.50	B516181	<0.50	0.50	B516181	91.1	0.50	B516181
Total Organic Carbon (C)	mg/L	<0.20	B535029	<0.20	0.20	B535029	19 (1)	0.80	B535029
Acidity (pH 8.3)	mg/L	<1.0	B516170	<1.0	1.0	B516170	<1.0	1.0	B516170
Alkalinity (PP as CaCO3)	mg/L	<0.50	B516181	<0.50	0.50	B516181	<0.50	0.50	B516181
Bicarbonate (HCO3)	mg/L	<0.50	B516181	<0.50	0.50	B516181	111	0.50	B516181
Carbonate (CO3)	mg/L	<0.50	B516181	<0.50	0.50	B516181	<0.50	0.50	B516181
Hydroxide (OH)	mg/L	<0.50	B516181	<0.50	0.50	B516181	<0.50	0.50	B516181
Total Suspended Solids	mg/L	<1.0	B515025	<1.0	1.0	B515025	8.1	1.0	B515025
Anions									
Orthophosphate (P)	mg/L	<0.0010	B516122	<0.0010	0.0010	B516122	0.0020	0.0010	B516122
Chloride (Cl)	mg/L	<0.50	B516145	<0.50	0.50	B516145	46	0.50	B516145
Dissolved-Low Level Sulphate (SO4)	mg/L	<0.30	B515243	<0.30	0.30	B515243	730	3.0	B515243
Nutrients									
Total Carbon (C)	mg/L	<0.50	B513875	<0.50	0.50	B513875	38	0.50	B513875
Total Inorganic Carbon (C)	mg/L	<1.0	B518120	<1.0	1.0	B518120	19	1.0	B518120
Dissolved Phosphorus (P)	mg/L	<0.0020	B518015	<0.0020	0.0020	B518015	0.0047	0.0020	B518015
Total Phosphorus (P)	mg/L	<0.0020	B519876	<0.0020	0.0020	B518020	0.023	0.0020	B518020

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to sample matrix.

Bureau Veritas Job #: C471594
Report Date: 2024/09/25

Arctic Canadian Diamond Company Ltd
Client Project #: 61987
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVF848		CVF849			CVF850		
Sampling Date		2024/09/06 10:44		2024/09/06 10:40			2024/09/06 10:55		
COC Number		102178		102178			102178		
	UNITS	**0008-121-FB**	**QC Batch**	**0008-494-TB**	**RDL**	**QC Batch**	**0008-SA2**	**RDL**	**QC Batch**
Total Ammonia (N)	mg/L	<0.0050	B517913	<0.0050	0.0050	B517913	4.4	0.025	B517913
Nitrite (N)	mg/L	0.0010	B517278	0.0015	0.0010	B517278	3.2	0.0010	B517278
Nitrate (N)	mg/L	0.0030	B517278	<0.0020	0.0020	B517278	35	0.020	B517278
Total Nitrogen (N)	mg/L	<0.020 (1)	B517482	<0.020	0.020	B517870	43 (2)	2.0	B517870
Physical Properties									
Conductivity	uS/cm	1.1	B516189	1.1	1.0	B516189	2120	1.0	B516189
Physical Properties									
Turbidity - NTU	NTU	<0.10	B517669	<0.10	0.10	B517669	5.4	0.10	B517669

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.

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MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CVF848	CVF849		CVF850		
Sampling Date		2024/09/06 10:44	2024/09/06 10:40		2024/09/06 10:55		
COC Number		102178	102178		102178		
	UNITS	**0008-121-FB**	**0008-494-TB**	**QC Batch**	**0008-SA2**	**RDL**	**QC Batch**
Elements							
Total Mercury (Hg)	mg/L	<0.0000019	<0.0000019	B526954	0.0000022	0.0000019	B524044
RDL = Reportable Detection Limit							

Bureau Veritas Job #: C471594
Report Date: 2024/09/25

Arctic Canadian Diamond Company Ltd
Client Project #: 61987
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CVF848	CVF849	CVF850		
Sampling Date		2024/09/06 10:44	2024/09/06 10:40	2024/09/06 10:55		
COC Number		102178	102178	102178		
	UNITS	0008-121-FB	0008-494-TB	0008-SA2	RDL	QC Batch
Elements						
Total Aluminum (Al)	mg/L	0.0047	<0.0030	0.17	0.0030	B530138
Total Antimony (Sb)	mg/L	<0.00060	<0.00060	0.0030	0.00060	B530138
Total Arsenic (As)	mg/L	<0.00020	<0.00020	0.0032	0.00020	B530138
Total Barium (Ba)	mg/L	<0.010	<0.010	0.074	0.010	B530144
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B530138
Total Boron (B)	mg/L	<0.020	<0.020	0.099	0.020	B530144
Total Cadmium (Cd)	mg/L	<0.000020	<0.000020	0.00016	0.000020	B530138
Total Calcium (Ca)	mg/L	<0.30	<0.30	44	0.30	B530144
Total Chromium (Cr)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B530138
Total Cobalt (Co)	mg/L	<0.00030	<0.00030	0.0074	0.00030	B530138
Total Copper (Cu)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B530138
Total Iron (Fe)	mg/L	<0.060	<0.060	0.21	0.060	B530144
Total Lead (Pb)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	B530138
Total Lithium (Li)	mg/L	<0.020	<0.020	0.052	0.020	B530144
Total Magnesium (Mg)	mg/L	<0.20	<0.20	73	0.20	B530144
Total Manganese (Mn)	mg/L	<0.0040	<0.0040	0.22	0.0040	B530144
Total Molybdenum (Mo)	mg/L	<0.00020	<0.00020	0.41	0.00020	B530138
Total Nickel (Ni)	mg/L	<0.00050	<0.00050	0.23	0.00050	B530138
Total Potassium (K)	mg/L	<0.30	<0.30	170	0.30	B530144
Total Selenium (Se)	mg/L	<0.00020	<0.00020	0.0018	0.00020	B530138
Total Silicon (Si)	mg/L	<0.50	<0.50	5.0	0.50	B530144
Total Silver (Ag)	mg/L	<0.00010	<0.00010	<0.00010	0.00010	B530138
Total Sodium (Na)	mg/L	<0.50	<0.50	150	0.50	B530144
Total Strontium (Sr)	mg/L	<0.020	<0.020	0.48	0.020	B530144
Total Sulphur (S)	mg/L	<0.20	<0.20	230	0.20	B530144
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	<0.00020	0.00020	B530138
Total Tin (Sn)	mg/L	<0.0010	<0.0010	<0.0010	0.0010	B530138
Total Titanium (Ti)	mg/L	<0.0010	<0.0010	0.0032	0.0010	B530138
Total Uranium (U)	mg/L	<0.00010	<0.00010	0.14	0.00010	B530138
Total Vanadium (V)	mg/L	<0.0010	<0.0010	0.011	0.0010	B530138
Total Zinc (Zn)	mg/L	<0.0030	<0.0030	0.014	0.0030	B530138
RDL = Reportable Detection Limit						

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GENERAL COMMENTS

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

Package 1	8.2°C
Package 2	8.8°C
Package 3	4.8°C
Package 4	5.5°C
Package 5	8.0°C
Package 6	5.1°C
Package 7	5.7°C
Package 8	5.5°C
Package 9	6.0°C

Sample CVF848 [0008-121-FB] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

Sample CVF849 [0008-494-TB] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

Sample CVF850 [0008-SA2] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

RESULTS OF CHEMICAL ANALYSES OF WATER Comments

Sample CVF848 [0008-121-FB] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample CVF849 [0008-494-TB] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample CVF850 [0008-SA2] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.

Results relate only to the items tested.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B515025	Total Suspended Solids	2024/09/13	97	80 - 120	92	80 - 120	<1.0	mg/L	NC	20		
B515243	Dissolved-Low Level Sulphate (SO4)	2024/09/13	111	80 - 120	105	80 - 120	<0.050	mg/L	2.2	20		
B516122	Orthophosphate (P)	2024/09/13	100	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B516145	Chloride (Cl)	2024/09/13	103	80 - 120	99	80 - 120	<0.50	mg/L	NC	20		
B516170	Acidity (pH 4.5)	2024/09/13					<1.0	mg/L	NC	20		
B516170	Acidity (pH 8.3)	2024/09/13			97	80 - 120	<1.0	mg/L	NC	20		
B516181	Alkalinity (PP as CaCO3)	2024/09/16					<0.50	mg/L	NC	20		
B516181	Alkalinity (Total as CaCO3)	2024/09/16			95	80 - 120	0.67, RDL=0.50 (1)	mg/L	0.24	20		
B516181	Bicarbonate (HCO3)	2024/09/16					0.82, RDL=0.50	mg/L	0.24	20		
B516181	Carbonate (CO3)	2024/09/16					<0.50	mg/L	NC	20		
B516181	Hydroxide (OH)	2024/09/16					<0.50	mg/L	NC	20		
B516188	pH	2024/09/16			100	97 - 103			0.23	N/A		
B516189	Conductivity	2024/09/16			101	90 - 110	<1.0	uS/cm	0.60	20		
B516193	Fluoride (F)	2024/09/16	101	80 - 120	97	80 - 120	<0.010	mg/L	0.48	20		
B517278	Nitrate (N)	2024/09/17	100	80 - 120	99	80 - 120	<0.0020	mg/L	25 (2)	20		
B517278	Nitrite (N)	2024/09/17	100	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B517482	Total Nitrogen (N)	2024/09/16	101	80 - 120	98	80 - 120	<0.020	mg/L	NC	20	99	80 - 120
B517669	Turbidity - NTU	2024/09/15			100	80 - 120	<0.10	NTU	NC	20		
B517870	Total Nitrogen (N)	2024/09/16	109	80 - 120	106	80 - 120	<0.020	mg/L	NC	20	102	80 - 120
B517913	Total Ammonia (N)	2024/09/16	107	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20		
B518015	Dissolved Phosphorus (P)	2024/09/16	105	80 - 120	98	80 - 120	<0.0010	mg/L	4.3	20	87	80 - 120
B518020	Total Phosphorus (P)	2024/09/16	102	80 - 120	97	80 - 120	<0.0020	mg/L	NC	20	89	80 - 120
B518120	Total Inorganic Carbon (C)	2024/09/16	102	80 - 120	103	80 - 120	<1.0	mg/L				
B519876	Total Phosphorus (P)	2024/09/17	98	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20	91	80 - 120
B524044	Total Mercury (Hg)	2024/09/17	98	80 - 120	98	80 - 120	<0.0000019	mg/L	NC	20		
B526954	Total Mercury (Hg)	2024/09/19	103	80 - 120	99	80 - 120	<0.0000019	mg/L	NC	20		
B527773	Reactive Silica	2024/09/19	98	80 - 120	107	80 - 120	<0.050	mg/L	NC	20		
B530138	Total Aluminum (Al)	2024/09/20	NC	80 - 120	97	80 - 120	<0.0030	mg/L	3.3	20		
B530138	Total Antimony (Sb)	2024/09/20	35 (3)	80 - 120	94	80 - 120	<0.00060	mg/L	NC	20		
B530138	Total Arsenic (As)	2024/09/20	93	80 - 120	92	80 - 120	<0.00020	mg/L	16	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B530138	Total Beryllium (Be)	2024/09/20	93	80 - 120	87	80 - 120	<0.0010	mg/L	NC	20		
B530138	Total Cadmium (Cd)	2024/09/20	96	80 - 120	93	80 - 120	<0.000020	mg/L				
B530138	Total Chromium (Cr)	2024/09/20	104	80 - 120	92	80 - 120	<0.0010	mg/L	7.2	20		
B530138	Total Cobalt (Co)	2024/09/20	91	80 - 120	91	80 - 120	<0.00030	mg/L	2.2	20		
B530138	Total Copper (Cu)	2024/09/20	70 (3)	80 - 120	89	80 - 120	<0.0010	mg/L	NC	20		
B530138	Total Lead (Pb)	2024/09/20	89	80 - 120	93	80 - 120	<0.00020	mg/L	3.8	20		
B530138	Total Molybdenum (Mo)	2024/09/20	83	80 - 120	96	80 - 120	<0.00020	mg/L	1.2	20		
B530138	Total Nickel (Ni)	2024/09/20	90	80 - 120	90	80 - 120	<0.00050	mg/L	3.9	20		
B530138	Total Selenium (Se)	2024/09/20	89	80 - 120	91	80 - 120	<0.00020	mg/L	13	20		
B530138	Total Silver (Ag)	2024/09/20	95	80 - 120	94	80 - 120	<0.00010	mg/L	NC	20		
B530138	Total Thallium (Tl)	2024/09/20	65 (3)	80 - 120	92	80 - 120	<0.00020	mg/L	NC	20		
B530138	Total Tin (Sn)	2024/09/20	76 (3)	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
B530138	Total Titanium (Ti)	2024/09/20	NC	80 - 120	90	80 - 120	<0.0010	mg/L	0.44	20		
B530138	Total Uranium (U)	2024/09/20	84	80 - 120	91	80 - 120	<0.00010	mg/L	3.1	20		
B530138	Total Vanadium (V)	2024/09/20	109	80 - 120	92	80 - 120	<0.0010	mg/L	3.6	20		
B530138	Total Zinc (Zn)	2024/09/20	NC	80 - 120	88	80 - 120	<0.0030	mg/L	7.5	20		
B530144	Total Barium (Ba)	2024/09/21	102	80 - 120	99	80 - 120	<0.010	mg/L	0.81	20		
B530144	Total Boron (B)	2024/09/21	105	80 - 120	103	80 - 120	<0.020	mg/L	14	20		
B530144	Total Calcium (Ca)	2024/09/21	100	80 - 120	94	80 - 120	<0.30	mg/L	1.6	20		
B530144	Total Iron (Fe)	2024/09/21	104	80 - 120	109	80 - 120	<0.060	mg/L	3.9	20		
B530144	Total Lithium (Li)	2024/09/21	100	80 - 120	96	80 - 120	<0.020	mg/L	NC	20		
B530144	Total Magnesium (Mg)	2024/09/21	99	80 - 120	96	80 - 120	<0.20	mg/L	1.3	20		
B530144	Total Manganese (Mn)	2024/09/21	108	80 - 120	104	80 - 120	<0.0040	mg/L	3.4	20		
B530144	Total Potassium (K)	2024/09/21	98	80 - 120	94	80 - 120	<0.30	mg/L	0.83	20		
B530144	Total Silicon (Si)	2024/09/21	103	80 - 120	100	80 - 120	<0.50	mg/L	2.2	20		
B530144	Total Sodium (Na)	2024/09/21	NC	80 - 120	93	80 - 120	<0.50	mg/L	1.5	20		
B530144	Total Strontium (Sr)	2024/09/21	98	80 - 120	95	80 - 120	<0.020	mg/L	0.58	20		
B530144	Total Sulphur (S)	2024/09/21	NC	80 - 120	99	80 - 120	<0.20	mg/L	1.0	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B535029	Total Organic Carbon (C)	2024/09/24	101	75 - 125	97	80 - 120	<0.20	mg/L	1.6	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 <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

(2) Duplicate exceeds acceptance criteria due to sample non homogeneity. Reanalysis yields similar results.

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

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

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C471594
2024/09/12 09:30

CHAIN OF CUSTODY FORM

COC# 102178

SO# 61987

BUREAU VERITAS

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

BURGUNDY DIAMOND MINES

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

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	DI Lot Number	Dissolved Nutrients	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
	0008-121-FB	EKA 2002 0008	06-Sep-2024	10:44	Water	SNP	Y	Y	Y	Y	Y		
	0008-494-TB	EKA 2002 0008	06-Sep-2024	10:40	Water	SNP	Y	Y	Y	Y	Y		
	0008-Sa2	EKA 2002 0008	06-Sep-2024	10:55	Water	SNP		Y	Y	Y	Y	10.95	5.8

FOR LAB USE ONLY

MCAL-2024-09-921

Special Instructions (Billing details, QC reporting etc):
To monitor the quality of water entering the Two Rock Sedimentation Pond.

Frequency: Weekly during discharge.
Parameters: TSS, physical parameters, major ions, total metals and nutrients

Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date 11-Sep-24 Time 7:30	Received by: SEAN EM	Date 2024/09/12 Time 09:30
Relinquished by:	Date Time	Received by:	Date Time

FOR LAB USE ONLY

Cooler seal intact upon receipt? ☐ Yes ☐ No ☐ N/A

Sample temperature upon receipt: Frozen? ☐ Yes ☐ No

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

ACTR

C471594
2024/09/12 09:30

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BUREAU VERITAS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

COOLER ID	CUSTODY SEAL PRESENT YES	CUSTODY SEAL PRESENT NO	CUSTODY SEAL INTACT YES	CUSTODY SEAL INTACT NO	ICE PRESENT YES	ICE PRESENT NO	TEMP 1	TEMP 2	TEMP 3
TROUT		✓		✓	✓		7.9	8.3	6.4
TROUT		✓		✓	✓		9.8	8.8	7.7
TROUT		✓		✓	✓		6.6	3.9	3.9
TROUT		✓		✓	✓		5.5	5.5	5.5
		✓		✓	✓		8.0	8.0	8.0
		✓		✓	✓		3.9	3.9	7.6
		✓		✓	✓		6.6	6.6	3.9
		✓		✓	✓		5.5	5.5	5.5
		✓		✓	✓		6.0	6.0	6.0

BV JOB#:

COOLER ID	CUSTODY SEAL PRESENT YES	CUSTODY SEAL PRESENT NO	CUSTODY SEAL INTACT YES	CUSTODY SEAL INTACT NO	ICE PRESENT YES	ICE PRESENT NO	TEMP 1	TEMP 2	TEMP 3

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	SEAN ENZ	2024/09/12	09:30

Your P.O. #: 6404002992
Your Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102228

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/19
Report #: R3558852
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471599
Received: 2024/09/12, 09:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2024/09/13	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	3	N/A	2024/09/17	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	3	N/A	2024/09/12	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	3	N/A	2024/09/17	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	3	N/A	2024/09/17	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	3	N/A	2024/09/18	BBY WI-00033	Auto Calc
Mercury (Total) by CV	2	2024/09/17	2024/09/17	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	1	2024/09/18	2024/09/18	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	3	2024/09/18	2024/09/18	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	3	2024/09/18	2024/09/18	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	3	N/A	2024/09/16	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	2	N/A	2024/09/18		Auto Calc
Nitrate + Nitrite-N (calculated) Low Lev	1	N/A	2024/09/19		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	3	N/A	2024/09/12	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	3	N/A	2024/09/17	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	3	N/A	2024/09/12	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	3	N/A	2024/09/12	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	3	N/A	2024/09/12	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	3	N/A	2024/09/13	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	3	N/A	2024/09/17		Auto Calc
Temperature (Field)	3	N/A	2024/09/12	Field Test	Field Test
Carbon (Inorganic)	2	N/A	2024/09/16	CAL SOP-00076	Modified AE 2411
Carbon (Inorganic)	1	N/A	2024/09/19	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	2	N/A	2024/09/18	BBY WI-00033	Auto Calc
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/09/19	BBY WI-00033	Auto Calc
Nitrogen (Total)	3	2024/09/14	2024/09/16	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	3	N/A	2024/09/17	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Total	3	2024/09/14	2024/09/16	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	3	2024/09/14	2024/09/15	AB SOP-00061	SM 24 2540 D m
Turbidity	3	N/A	2024/09/12	CAL SOP-00081	SM 24 2130 B m

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102228

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/19
Report #: R3558852
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471599
Received: 2024/09/12, 09:30

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Ion Balance (5)	3	N/A	2024/09/18		
Total Dissolved Solids (Calculated) (5)	3	N/A	2024/09/18		

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) "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.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102228

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/19
Report #: R3558852
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C471599
Received: 2024/09/12, 09:30

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
19 Sep 2024 17:24:56

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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This report has been generated and distributed using a secure automated process.
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.

Bureau Veritas Job #: C471599
Report Date: 2024/09/19

Arctic Canadian Diamond Company Ltd
Client Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVF864			CVF865			CVF866		
Sampling Date		2024/09/09 17:07			2024/09/09 17:01			2024/09/09 16:08		
COC Number		102228			102228			102228		
	UNITS	**0008-SA10**	**RDL**	**QC Batch**	**0008-SA3**	**RDL**	**QC Batch**	**0008-SA9B**	**RDL**	**QC Batch**
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	150	0.50	B513367	80.6	0.50	B513367	21.9	0.50	B513367
Calculated Ion Balance (% Difference)	%	7.4		B513876	3.4		B513876	12		B513876
Nitrate plus Nitrite (N)	mg/L	16	0.010	B513868	2.3	0.0022	B513868	0.12	0.0022	B513868
Calculated Total Dissolved Solids	mg/L	320	3.1	B513877	140	0.95	B513877	42	0.95	B513877
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.69	0.20	B513312	0.41	0.10	B513312	0.42	0.020	B513312
Field Parameters										
Field pH	pH	7.45	N/A	ONSITE	7.34	N/A	ONSITE	6.96	N/A	ONSITE
Field Temperature (Fd)	deg. C	10.1	N/A	ONSITE	10.0	N/A	ONSITE	9.9	N/A	ONSITE
Misc. Inorganics										
Fluoride (F)	mg/L	0.192	0.010	B516193	0.225	0.010	B516193	0.079	0.010	B516193
pH	pH	6.64	N/A	B516188	6.72	N/A	B516188	6.49	N/A	B516188
Reactive Silica	mg/L	0.84	0.050	B514075	0.55	0.050	B514075	0.25	0.050	B514075
Acidity (pH 4.5)	mg/L	<1.0	1.0	B515652	<1.0	1.0	B515652	<1.0	1.0	B515652
Alkalinity (Total as CaCO3)	mg/L	29.6	0.50	B516181	47.3	0.50	B516181	22.7	0.50	B516181
Total Organic Carbon (C)	mg/L	2.3	0.20	B519938	2.8	0.20	B519938	3.8	0.20	B519938
Acidity (pH 8.3)	mg/L	<1.0	1.0	B515652	<1.0	1.0	B515652	<1.0	1.0	B515652
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	B516181	<0.50	0.50	B516181	<0.50	0.50	B516181
Bicarbonate (HCO3)	mg/L	36.1	0.50	B516181	57.7	0.50	B516181	27.7	0.50	B516181
Carbonate (CO3)	mg/L	<0.50	0.50	B516181	<0.50	0.50	B516181	<0.50	0.50	B516181
Hydroxide (OH)	mg/L	<0.50	0.50	B516181	<0.50	0.50	B516181	<0.50	0.50	B516181
Total Suspended Solids	mg/L	<1.0	1.0	B516876	1.8	1.0	B516876	1.4	0.97	B516876
Anions										
Orthophosphate (P)	mg/L	<0.0010	0.0010	B513665	<0.0010	0.0010	B513665	<0.0010	0.0010	B513665
Chloride (Cl)	mg/L	9.7	0.50	B513521	3.9	0.50	B513521	1.4	0.50	B513521
Dissolved-Low Level Sulphate (SO4)	mg/L	140	3.0	B515243	52	0.30	B515243	15	0.30	B515243
Nutrients										
Total Carbon (C)	mg/L	8.7	0.50	B513875	11	0.50	B513875	8.3	0.50	B513875
Total Inorganic Carbon (C)	mg/L	6.4	1.0	B518120	8.5	1.0	B528445	4.4	1.0	B518120
Total Phosphorus (P)	mg/L	<0.0020	0.0020	B517228	0.0091	0.0020	B517228	0.0048	0.0020	B517228
Total Ammonia (N)	mg/L	0.070	0.0050	B517912	0.033	0.0050	B517913	0.30	0.0050	B517912
Nitrite (N)	mg/L	0.085	0.0010	B514432	0.0071	0.0010	B514432	0.0010	0.0010	B514432

RDL = Reportable Detection Limit
N/A = Not Applicable

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVF864			CVF865			CVF866		
Sampling Date		2024/09/09 17:07			2024/09/09 17:01			2024/09/09 16:08		
COC Number		102228			102228			102228		
	UNITS	**0008-SA10**	**RDL**	**QC Batch**	**0008-SA3**	**RDL**	**QC Batch**	**0008-SA9B**	**RDL**	**QC Batch**
Nitrate (N)	mg/L	16	0.010	B514432	2.3	0.0020	B514432	0.12	0.0020	B514432
Total Nitrogen (N)	mg/L	17 (1)	0.20	B516905	2.7	0.10	B516905	0.54	0.020	B516905
Physical Properties										
Conductivity	uS/cm	510	1.0	B516189	226	1.0	B516189	76.4	1.0	B516189
Physical Properties										
Turbidity - NTU	NTU	0.12	0.10	B514066	1.6	0.10	B514066	1.2	0.10	B514066

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		CVF864	CVF865		CVF866		
Sampling Date		2024/09/09 17:07	2024/09/09 17:01		2024/09/09 16:08		
COC Number		102228	102228		102228		
	UNITS	**0008-SA10**	**0008-SA3**	**QC Batch**	**0008-SA9B**	**RDL**	**QC Batch**
Elements							
Total Mercury (Hg)	mg/L	<0.0000019	<0.0000019	B524044	<0.0000019	0.0000019	B526163
RDL = Reportable Detection Limit							

Bureau Veritas Job #: C471599
Report Date: 2024/09/19

Arctic Canadian Diamond Company Ltd
Client Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CVF864		CVF865		CVF866		
Sampling Date		2024/09/09 17:07		2024/09/09 17:01		2024/09/09 16:08		
COC Number		102228		102228		102228		
	UNITS	**0008-SA10**	**QC Batch**	**0008-SA3**	**QC Batch**	**0008-SA9B**	**RDL**	**QC Batch**
Elements								
Total Aluminum (Al)	mg/L	0.029	B526013	0.15	B525705	0.013	0.0030	B526013
Total Antimony (Sb)	mg/L	<0.00060	B526013	<0.00060	B525705	<0.00060	0.00060	B526013
Total Arsenic (As)	mg/L	0.00034	B526013	0.00039	B525705	0.00038	0.00020	B526013
Total Barium (Ba)	mg/L	0.086	B526018	0.032	B525714	<0.010	0.010	B526018
Total Beryllium (Be)	mg/L	<0.0010	B526013	<0.0010	B525705	<0.0010	0.0010	B526013
Total Boron (B)	mg/L	<0.020	B526018	0.025	B525714	<0.020	0.020	B526018
Total Cadmium (Cd)	mg/L	<0.000020	B526013	<0.000020	B525705	<0.000020	0.000020	B526013
Total Calcium (Ca)	mg/L	23	B526018	13	B525714	3.4	0.30	B526018
Total Chromium (Cr)	mg/L	<0.0010	B526013	<0.0010	B525705	<0.0010	0.0010	B526013
Total Cobalt (Co)	mg/L	<0.00030	B526013	<0.00030	B525705	<0.00030	0.00030	B526013
Total Copper (Cu)	mg/L	<0.0010	B526013	<0.0010	B525705	<0.0010	0.0010	B526013
Total Iron (Fe)	mg/L	<0.060	B526018	0.33	B525714	0.088	0.060	B526018
Total Lead (Pb)	mg/L	<0.00020	B526013	0.00031	B525705	0.00022	0.00020	B526013
Total Lithium (Li)	mg/L	<0.020	B526018	<0.020	B525714	<0.020	0.020	B526018
Total Magnesium (Mg)	mg/L	22	B526018	12	B525714	3.3	0.20	B526018
Total Manganese (Mn)	mg/L	0.0062	B526018	0.024	B525714	0.0090	0.0040	B526018
Total Molybdenum (Mo)	mg/L	0.046	B526013	0.0052	B525705	0.00063	0.00020	B526013
Total Nickel (Ni)	mg/L	0.023	B526013	0.0038	B525705	0.00080	0.00050	B526013
Total Potassium (K)	mg/L	20	B526018	7.8	B525714	2.2	0.30	B526018
Total Selenium (Se)	mg/L	0.00033	B526013	<0.00020	B525705	<0.00020	0.00020	B526013
Total Silicon (Si)	mg/L	<0.50	B526018	0.79	B525714	<0.50	0.50	B526018
Total Silver (Ag)	mg/L	<0.00010	B526013	<0.00010	B525705	<0.00010	0.00010	B526013
Total Sodium (Na)	mg/L	18	B526018	7.6	B525714	2.6	0.50	B526018
Total Strontium (Sr)	mg/L	0.30	B526018	0.12	B525714	0.026	0.020	B526018
Total Sulphur (S)	mg/L	36	B526018	16	B525714	4.2	0.20	B526018
Total Thallium (Tl)	mg/L	<0.00020	B526013	<0.00020	B525705	<0.00020	0.00020	B526013
Total Tin (Sn)	mg/L	<0.0010	B526013	<0.0010	B525705	<0.0010	0.0010	B526013
Total Titanium (Ti)	mg/L	0.0015	B526013	0.013	B525705	<0.0010	0.0010	B526013
Total Uranium (U)	mg/L	0.0041	B526013	0.0017	B525705	<0.00010	0.00010	B526013
Total Vanadium (V)	mg/L	<0.0010	B526013	<0.0010	B525705	<0.0010	0.0010	B526013
Total Zinc (Zn)	mg/L	<0.0030	B526013	<0.0030	B525705	<0.0030	0.0030	B526013

RDL = Reportable Detection Limit

GENERAL COMMENTS

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

Package 1	8.2°C
Package 2	8.8°C
Package 3	4.8°C
Package 4	5.5°C
Package 5	8.0°C
Package 6	5.1°C
Package 7	5.7°C
Package 8	5.5°C
Package 9	6.0°C

Results relate only to the items tested.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B513521	Chloride (Cl)	2024/09/12	101	80 - 120	100	80 - 120	<0.50	mg/L				
B513665	Orthophosphate (P)	2024/09/12	99	80 - 120	100	80 - 120	0.0010, RDL=0.0010 (1)	mg/L	NC	20		
B514066	Turbidity - NTU	2024/09/12			100	80 - 120	<0.10	NTU	2.5	20		
B514075	Reactive Silica	2024/09/12	NC	80 - 120	105	80 - 120	<0.050	mg/L	0.91	20		
B514432	Nitrate (N)	2024/09/12	100	80 - 120	98	80 - 120	<0.0020	mg/L	9.9	20		
B514432	Nitrite (N)	2024/09/12	100	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B515243	Dissolved-Low Level Sulphate (SO4)	2024/09/13	111	80 - 120	105	80 - 120	<0.050	mg/L	2.2	20		
B515652	Acidity (pH 4.5)	2024/09/13					<1.0	mg/L	NC	20		
B515652	Acidity (pH 8.3)	2024/09/13			97	80 - 120	<1.0	mg/L	NC	20		
B516181	Alkalinity (PP as CaCO3)	2024/09/16					<0.50	mg/L	NC	20		
B516181	Alkalinity (Total as CaCO3)	2024/09/16			95	80 - 120	0.67, RDL=0.50 (1)	mg/L	0.24	20		
B516181	Bicarbonate (HCO3)	2024/09/16					0.82, RDL=0.50	mg/L	0.24	20		
B516181	Carbonate (CO3)	2024/09/16					<0.50	mg/L	NC	20		
B516181	Hydroxide (OH)	2024/09/16					<0.50	mg/L	NC	20		
B516188	pH	2024/09/16			100	97 - 103			0.23	N/A		
B516189	Conductivity	2024/09/16			101	90 - 110	<1.0	uS/cm	0.60	20		
B516193	Fluoride (F)	2024/09/16	101	80 - 120	97	80 - 120	<0.010	mg/L	0.48	20		
B516876	Total Suspended Solids	2024/09/15	106	80 - 120	88	80 - 120	<0.99	mg/L	NC	20		
B516905	Total Nitrogen (N)	2024/09/16	102	80 - 120	108	80 - 120	<0.020	mg/L	2.7	20	115	80 - 120
B517228	Total Phosphorus (P)	2024/09/16	102	80 - 120	98	80 - 120	<0.0010	mg/L	5.5	20	90	80 - 120
B517912	Total Ammonia (N)	2024/09/16	106	80 - 120	103	80 - 120	<0.0050	mg/L	9.6	20		
B517913	Total Ammonia (N)	2024/09/16	107	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20		
B518120	Total Inorganic Carbon (C)	2024/09/16	102	80 - 120	103	80 - 120	<1.0	mg/L				
B519938	Total Organic Carbon (C)	2024/09/17	104	75 - 125	106	80 - 120	<0.20	mg/L	1.0	20		
B524044	Total Mercury (Hg)	2024/09/17	98	80 - 120	98	80 - 120	<0.0000019	mg/L	NC	20		
B525705	Total Aluminum (Al)	2024/09/18	117	80 - 120	108	80 - 120	<0.0030	mg/L	1.8	20		
B525705	Total Antimony (Sb)	2024/09/18	99	80 - 120	103	80 - 120	<0.00060	mg/L	NC	20		
B525705	Total Arsenic (As)	2024/09/18	105	80 - 120	104	80 - 120	<0.00020	mg/L	0.063	20		
B525705	Total Beryllium (Be)	2024/09/18	100	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B525705	Total Cadmium (Cd)	2024/09/18	104	80 - 120	102	80 - 120	<0.000020	mg/L	9.2	20		
B525705	Total Chromium (Cr)	2024/09/18	102	80 - 120	103	80 - 120	<0.0010	mg/L	3.0	20		
B525705	Total Cobalt (Co)	2024/09/18	101	80 - 120	103	80 - 120	<0.00030	mg/L	2.3	20		
B525705	Total Copper (Cu)	2024/09/18	101	80 - 120	103	80 - 120	<0.0010	mg/L	6.5	20		
B525705	Total Lead (Pb)	2024/09/18	100	80 - 120	103	80 - 120	<0.00020	mg/L	NC	20		
B525705	Total Molybdenum (Mo)	2024/09/18	104	80 - 120	103	80 - 120	<0.00020	mg/L	2.4	20		
B525705	Total Nickel (Ni)	2024/09/18	100	80 - 120	102	80 - 120	<0.00050	mg/L	5.5	20		
B525705	Total Selenium (Se)	2024/09/18	105	80 - 120	107	80 - 120	<0.00020	mg/L	NC	20		
B525705	Total Silver (Ag)	2024/09/18	102	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20		
B525705	Total Thallium (Tl)	2024/09/18	98	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20		
B525705	Total Tin (Sn)	2024/09/18	102	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
B525705	Total Titanium (Ti)	2024/09/18	103	80 - 120	103	80 - 120	<0.0010	mg/L	2.2	20		
B525705	Total Uranium (U)	2024/09/18	103	80 - 120	103	80 - 120	<0.00010	mg/L	2.6	20		
B525705	Total Vanadium (V)	2024/09/18	103	80 - 120	105	80 - 120	<0.0010	mg/L	2.7	20		
B525705	Total Zinc (Zn)	2024/09/18	102	80 - 120	104	80 - 120	<0.0030	mg/L	17	20		
B525714	Total Barium (Ba)	2024/09/18	105	80 - 120	109	80 - 120	<0.010	mg/L	3.4	20		
B525714	Total Boron (B)	2024/09/18	104	80 - 120	107	80 - 120	<0.020	mg/L	4.3	20		
B525714	Total Calcium (Ca)	2024/09/18	NC	80 - 120	105	80 - 120	<0.30	mg/L	3.0	20		
B525714	Total Iron (Fe)	2024/09/18	NC	80 - 120	114	80 - 120	<0.060	mg/L	1.9	20		
B525714	Total Lithium (Li)	2024/09/18	104	80 - 120	104	80 - 120	<0.020	mg/L	NC	20		
B525714	Total Magnesium (Mg)	2024/09/18	NC	80 - 120	108	80 - 120	<0.20	mg/L	3.4	20		
B525714	Total Manganese (Mn)	2024/09/18	110	80 - 120	111	80 - 120	<0.0040	mg/L	2.7	20		
B525714	Total Potassium (K)	2024/09/18	105	80 - 120	106	80 - 120	<0.30	mg/L	3.3	20		
B525714	Total Silicon (Si)	2024/09/18	NC	80 - 120	105	80 - 120	<0.50	mg/L	2.7	20		
B525714	Total Sodium (Na)	2024/09/18	NC	80 - 120	108	80 - 120	<0.50	mg/L	3.5	20		
B525714	Total Strontium (Sr)	2024/09/18	99	80 - 120	103	80 - 120	<0.020	mg/L	3.7	20		
B525714	Total Sulphur (S)	2024/09/18	NC	80 - 120	105	80 - 120	<0.20	mg/L	4.9	20		
B526013	Total Aluminum (Al)	2024/09/18	NC	80 - 120	118	80 - 120	<0.0030	mg/L	1.6	20		
B526013	Total Antimony (Sb)	2024/09/18	100	80 - 120	109	80 - 120	<0.00060	mg/L	NC	20		
B526013	Total Arsenic (As)	2024/09/18	103	80 - 120	115	80 - 120	<0.00020	mg/L	NC	20		
B526013	Total Beryllium (Be)	2024/09/18	101	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20		
B526013	Total Cadmium (Cd)	2024/09/18	104	80 - 120	111	80 - 120	<0.000020	mg/L				

Bureau Veritas Job #: C471599
Report Date: 2024/09/19

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd
Client Project #: 61984
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B526013	Total Chromium (Cr)	2024/09/18	100	80 - 120	112	80 - 120	<0.0010	mg/L	7.7	20		
B526013	Total Cobalt (Co)	2024/09/18	98	80 - 120	112	80 - 120	<0.00030	mg/L	NC	20		
B526013	Total Copper (Cu)	2024/09/18	98	80 - 120	113	80 - 120	<0.0010	mg/L	NC	20		
B526013	Total Lead (Pb)	2024/09/18	100	80 - 120	112	80 - 120	<0.00020	mg/L	NC	20		
B526013	Total Molybdenum (Mo)	2024/09/18	107	80 - 120	112	80 - 120	<0.00020	mg/L	NC	20		
B526013	Total Nickel (Ni)	2024/09/18	98	80 - 120	111	80 - 120	<0.00050	mg/L	11	20		
B526013	Total Selenium (Se)	2024/09/18	100	80 - 120	109	80 - 120	<0.00020	mg/L	NC	20		
B526013	Total Silver (Ag)	2024/09/18	102	80 - 120	110	80 - 120	<0.00010	mg/L	3.2	20		
B526013	Total Thallium (Tl)	2024/09/18	98	80 - 120	109	80 - 120	<0.00020	mg/L	NC	20		
B526013	Total Tin (Sn)	2024/09/18	106	80 - 120	111	80 - 120	<0.0010	mg/L	2.7	20		
B526013	Total Titanium (Ti)	2024/09/18	96	80 - 120	116	80 - 120	<0.0010	mg/L	NC	20		
B526013	Total Uranium (U)	2024/09/18	102	80 - 120	115	80 - 120	<0.00010	mg/L	NC	20		
B526013	Total Vanadium (V)	2024/09/18	103	80 - 120	114	80 - 120	<0.0010	mg/L	NC	20		
B526013	Total Zinc (Zn)	2024/09/18	99	80 - 120	112	80 - 120	<0.0030	mg/L	17	20		
B526018	Total Barium (Ba)	2024/09/18	105	80 - 120	104	80 - 120	<0.010	mg/L	NC	20		
B526018	Total Boron (B)	2024/09/18	105	80 - 120	102	80 - 120	<0.020	mg/L	NC	20		
B526018	Total Calcium (Ca)	2024/09/18	NC	80 - 120	95	80 - 120	<0.30	mg/L	1.8	20		
B526018	Total Iron (Fe)	2024/09/18	NC	80 - 120	106	80 - 120	<0.060	mg/L	4.0	20		
B526018	Total Lithium (Li)	2024/09/18	94	80 - 120	91	80 - 120	<0.020	mg/L	NC	20		
B526018	Total Magnesium (Mg)	2024/09/18	NC	80 - 120	99	80 - 120	<0.20	mg/L	NC	20		
B526018	Total Manganese (Mn)	2024/09/18	107	80 - 120	103	80 - 120	<0.0040	mg/L	2.9	20		
B526018	Total Potassium (K)	2024/09/18	93	80 - 120	95	80 - 120	<0.30	mg/L	NC	20		
B526018	Total Silicon (Si)	2024/09/18	NC	80 - 120	94	80 - 120	<0.50	mg/L	NC	20		
B526018	Total Sodium (Na)	2024/09/18	96	80 - 120	95	80 - 120	<0.50	mg/L	NC	20		
B526018	Total Strontium (Sr)	2024/09/18	103	80 - 120	98	80 - 120	<0.020	mg/L	NC	20		
B526018	Total Sulphur (S)	2024/09/18	NC	80 - 120	95	80 - 120	<0.20	mg/L	1.6	20		
B526163	Total Mercury (Hg)	2024/09/18	101	80 - 120	98	80 - 120	<0.0000019	mg/L	NC	20		

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B528445	Total Inorganic Carbon (C)	2024/09/19	105	80 - 120	110	80 - 120	<1.0	mg/L	3.5	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 <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

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

Burgundy Diamond Mines

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

BUREAU VERITAS 1828

COC# 102228

SO# 61984

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
	0008-Sa10	EKA 2002 0008	09-Sep-2024	17:07	Water	SNP	Y	Y	Y	7.45	10.1
	0008-Sa3	EKA 2002 0008	09-Sep-2024	17:01	Water	SNP	Y	Y	Y	7.34	10.0
	0008-Sa9b	EKA 2002 0008	09-Sep-2024	16:08	Water	SNP	Y	Y	Y	6.96	9.9

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

SAMPLE INFORMATION — FOR LAB USE ONLY

MCAL-2024-09-924

Special Instructions (Billing details, QC reporting etc):
Frequency: On the first day of Discharge, weekly during periods of Discharge, and on the final day of Discharge.
Parameters: TSS, major ion, physical parameters, total metals and nutrients.
*** Sample :0008-Sa3, 0008-Sa9b with Profil, 0008-Sa10***
Sent results to Tania.robitaille@burgundydiamonds.com, Landon.Murphy@burgundydiamonds.com & compliance.team@burgundydiamonds.com

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	Date 11-Sep-24 Time 7:30	SEAN EM	Date 2024/09/12 Time 09:30
	Date Time		Date Time

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

ACTR

C471599
2024/09/12 09:30

COR FCD-00265 / 5
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ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

CUSTODY SEAL	YES	NO	COOLER ID	TEMP 1	TEMP 2	TEMP 3
PRESENT		✓	TROUT	7.9	8.3	6.4
INTACT		✓				
ICE PRESENT	✓					
PRESENT		✓	TROUT	9.8	8.8	7.7
INTACT		✓				
ICE PRESENT	✓					
PRESENT		✓	TROUT	6.6	3.9	3.9
INTACT		✓				
ICE PRESENT	✓					
PRESENT		✓	TROUT	5.5	5.5	5.5
INTACT		✓				
ICE PRESENT	✓					
PRESENT		✓		8.0	8.0	8.0
INTACT		✓				
ICE PRESENT	✓					
PRESENT		✓		3.9	3.9	7.6
INTACT		✓				
ICE PRESENT	✓					
PRESENT		✓		6.6	6.6	3.9
INTACT		✓				
ICE PRESENT	✓					
PRESENT		✓		5.5	5.5	5.5
INTACT		✓				
ICE PRESENT	✓					
PRESENT		✓		6.0	6.0	6.0
INTACT		✓				
ICE PRESENT	✓					
PRESENT						
INTACT						
ICE PRESENT						

BV JOB#:

CUSTODY SEAL	YES	NO	COOLER ID	TEMP 1	TEMP 2	TEMP 3
PRESENT						
INTACT						
ICE PRESENT						
PRESENT						
INTACT						
ICE PRESENT						
PRESENT						
INTACT						
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RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	SEAN ENZ	2024/09/12	09:30

Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102248

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/01
Report #: R3564876
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473831
Received: 2024/09/18, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2024/09/24	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	2	N/A	2024/09/20	AB SOP-00005	SM 24 2320 B m
Alkalinity - Low Level	1	N/A	2024/09/25	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	3	N/A	2024/09/19	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	2	N/A	2024/09/20	AB SOP-00005	SM 24 2510 B m
Conductance - Low Level	1	N/A	2024/09/25	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	2	N/A	2024/09/20	AB SOP-00005	SM 24 4500-F C m
Fluoride - Low Level	1	N/A	2024/09/25	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	1	N/A	2024/09/27	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (1)	1	N/A	2024/09/29	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (1)	1	N/A	2024/09/30	BBY WI-00033	Auto Calc
Mercury (Total) by CV	3	2024/09/20	2024/09/23	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	2	2024/09/27	2024/09/27	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	1	2024/09/27	2024/09/28	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	3	2024/09/27	2024/09/27	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	3	N/A	2024/09/19	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	3	N/A	2024/09/20		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	2	N/A	2024/09/19	AB SOP-00023	SM 24 4110 B m
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/09/26	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	2	N/A	2024/09/20	AB SOP-00005	SM 24 4500-H+B m
pH @25°C (2)	1	N/A	2024/09/25	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	3	N/A	2024/09/18	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	3	N/A	2024/09/19	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	3	N/A	2024/09/19	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	3	N/A	2024/09/21	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	3	N/A	2024/09/25		Auto Calc
Temperature (Field)	3	N/A	2024/09/18	Field Test	Field Test
Carbon (Inorganic)	3	N/A	2024/09/24	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	3	N/A	2024/09/23	BBY WI-00033	Auto Calc

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102248

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/01
Report #: R3564876
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473831
Received: 2024/09/18, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Nitrogen (Total)	3	2024/09/20	2024/09/23	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	3	N/A	2024/09/24	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Total	3	2024/09/20	2024/09/20	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	3	2024/09/18	2024/09/19	AB SOP-00061	SM 24 2540 D m
Turbidity	3	N/A	2024/09/19	CAL SOP-00081	SM 24 2130 B m
Ion Balance (5)	1	N/A	2024/09/27		
Ion Balance (5)	1	N/A	2024/09/29		
Ion Balance (5)	1	N/A	2024/09/30		
Total Dissolved Solids (Calculated) (5)	1	N/A	2024/09/27		
Total Dissolved Solids (Calculated) (5)	1	N/A	2024/09/29		
Total Dissolved Solids (Calculated) (5)	1	N/A	2024/09/30		

Remarks:

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

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Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102248

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/01
Report #: R3564876
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473831
Received: 2024/09/18, 15:00

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.

Encryption Key AUTHORIZED REPORT RAPPORT AUTORISÉ Bureau Veritas 01 Oct 2024 18:12:05

Please direct all questions regarding this Certificate of Analysis to:
Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (403) 291-3077
==
This report has been generated and distributed using a secure automated process.
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.

Bureau Veritas Job #: C473831
Report Date: 2024/10/01

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

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVT090			CVT091			CVT092		
Sampling Date		2024/09/11 12:41			2024/09/11 12:55			2024/09/11 13:53		
COC Number		102248			102248			102248		
	UNITS	0008-SA10	RDL	QC Batch	0008-SA3	RDL	QC Batch	0008-SA9B	RDL	QC Batch
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	150	0.50	B525801	80.1	0.50	B525801	24.9	0.50	B525801
Calculated Ion Balance (% Difference)	%	9.9		B527024	1.1		B527024	1.7		B527024
Nitrate plus Nitrite (N)	mg/L	16	0.020	B527011	2.5	0.0022	B527011	0.14	0.0022	B527011
Calculated Total Dissolved Solids	mg/L	330	1.8	B527025	130	0.95	B527025	39	0.95	B527025
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.30	0.30	B526814	0.12	0.075	B526814	0.37	0.020	B526814
Field Parameters										
Field pH	pH	7.73	N/A	ONSITE	7.84	N/A	ONSITE	7.54	N/A	ONSITE
Field Temperature (Fd)	deg. C	9.7	N/A	ONSITE	8.7	N/A	ONSITE	7.5	N/A	ONSITE
Misc. Inorganics										
Fluoride (F)	mg/L	0.091	0.010	B528098	0.239	0.010	B528098	0.077	0.010	B534955
pH	pH	6.01	N/A	B528094	6.14	N/A	B528094	6.63	N/A	B534942
Reactive Silica	mg/L	0.78	0.050	B527802	0.56	0.050	B527802	0.25	0.050	B527806
Acidity (pH 4.5)	mg/L	<1.0	1.0	B533576	<1.0	1.0	B533576	<1.0	1.0	B533576
Alkalinity (Total as CaCO3)	mg/L	25.5	0.50	B528003	38.9	0.50	B528003	17.1	0.50	B534939
Total Organic Carbon (C)	mg/L	2.1	0.20	B535029	2.5	0.20	B535029	3.7	0.20	B535029
Acidity (pH 8.3)	mg/L	9.0	1.0	B533576	2.2	1.0	B533576	1.6	1.0	B533576
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	B528003	<0.50	0.50	B528003	<0.50	0.50	B534939
Bicarbonate (HCO3)	mg/L	31.1	0.50	B528003	47.4	0.50	B528003	20.8	0.50	B534939
Carbonate (CO3)	mg/L	<0.50	0.50	B528003	<0.50	0.50	B528003	<0.50	0.50	B534939
Hydroxide (OH)	mg/L	<0.50	0.50	B528003	<0.50	0.50	B528003	<0.50	0.50	B534939
Total Suspended Solids	mg/L	<0.99	0.99	B526314	<1.0	1.0	B526314	1.7	1.0	B526314
Anions										
Orthophosphate (P)	mg/L	<0.0010	0.0010	B527884	<0.0010	0.0010	B527884	<0.0010	0.0010	B527884
Chloride (Cl)	mg/L	8.7	0.50	B527582	3.8	0.50	B527582	1.1	0.50	B527582
Dissolved-Low Level Sulphate (SO4)	mg/L	150	1.5	B531360	53	0.30	B531360	14	0.30	B531360
Nutrients										
Total Carbon (C)	mg/L	7.2	0.50	B527019	11	0.50	B527019	6.6	0.50	B527019
Total Inorganic Carbon (C)	mg/L	5.0	1.0	B534811	8.2	1.0	B534410	2.9	1.0	B534410
Total Phosphorus (P)	mg/L	<0.0020	0.0020	B529522	0.0025	0.0020	B529522	0.0064	0.0020	B529522
Total Ammonia (N)	mg/L	0.053	0.0050	B527700	0.029	0.0050	B527700	<0.0050	0.0050	B527700
Nitrite (N)	mg/L	0.072	0.0010	B528001	0.0050	0.0010	B538252	<0.0010	0.0010	B528001

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C473831
Report Date: 2024/10/01

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

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVT090			CVT091			CVT092		
Sampling Date		2024/09/11 12:41			2024/09/11 12:55			2024/09/11 13:53		
COC Number		102248			102248			102248		
	UNITS	**0008-SA10**	**RDL**	**QC Batch**	**0008-SA3**	**RDL**	**QC Batch**	**0008-SA9B**	**RDL**	**QC Batch**
Nitrate (N)	mg/L	16	0.020	B528001	2.5	0.0020	B538252	0.14	0.0020	B538252
Total Nitrogen (N)	mg/L	17 (1)	0.20	B529885	2.8	0.040	B529885	0.54	0.020	B529885
Physical Properties										
Conductivity	uS/cm	465	1.0	B528046	212	1.0	B528046	72.5	1.0	B534950
Physical Properties										
Turbidity - NTU	NTU	<0.10	0.10	B528193	<0.10	0.10	B528193	1.0	0.10	B528193

RDL = Reportable Detection Limit
(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C473831
Report Date: 2024/10/01

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

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CVT090	CVT091	CVT092		
Sampling Date		2024/09/11 12:41	2024/09/11 12:55	2024/09/11 13:53		
COC Number		102248	102248	102248		
	UNITS	**0008-SA10**	**0008-SA3**	**0008-SA9B**	**RDL**	**QC Batch**
Elements						
Total Mercury (Hg)	mg/L	<0.0000019	<0.0000019	<0.0000019	0.0000019	B529872
RDL = Reportable Detection Limit						

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CVT090		CVT091		CVT092		
Sampling Date		2024/09/11 12:41		2024/09/11 12:55		2024/09/11 13:53		
COC Number		102248		102248		102248		
	UNITS	0008-SA10	QC Batch	0008-SA3	QC Batch	0008-SA9B	RDL	QC Batch
Elements								
Total Aluminum (Al)	mg/L	0.019	B539832	0.017	B540075	0.0092	0.0030	B539731
Total Antimony (Sb)	mg/L	<0.00060	B539832	<0.00060	B540075	<0.00060	0.00060	B539731
Total Arsenic (As)	mg/L	0.00035	B539832	0.00047	B540075	0.00032	0.00020	B539731
Total Barium (Ba)	mg/L	0.089	B539849	0.026	B540078	<0.010	0.010	B539733
Total Beryllium (Be)	mg/L	<0.0010	B539832	<0.0010	B540075	<0.0010	0.0010	B539731
Total Boron (B)	mg/L	0.023	B539849	<0.020	B540078	<0.020	0.020	B539733
Total Cadmium (Cd)	mg/L	0.000026	B539832	<0.000020	B540075	<0.000020	0.000020	B539731
Total Calcium (Ca)	mg/L	22	B539849	13	B540078	3.9	0.30	B539733
Total Chromium (Cr)	mg/L	<0.0010	B539832	<0.0010	B540075	<0.0010	0.0010	B539731
Total Cobalt (Co)	mg/L	<0.00030	B539832	0.00033	B540075	<0.00030	0.00030	B539731
Total Copper (Cu)	mg/L	<0.0010	B539832	<0.0010	B540075	<0.0010	0.0010	B539731
Total Iron (Fe)	mg/L	<0.060	B539849	0.090	B540078	0.089	0.060	B539733
Total Lead (Pb)	mg/L	0.0089	B539832	<0.00020	B540075	<0.00020	0.00020	B539731
Total Lithium (Li)	mg/L	<0.020	B539849	<0.020	B540078	<0.020	0.020	B539733
Total Magnesium (Mg)	mg/L	23	B539849	11	B540078	3.7	0.20	B539733
Total Manganese (Mn)	mg/L	0.0041	B539849	0.019	B540078	0.0071	0.0040	B539733
Total Molybdenum (Mo)	mg/L	0.044	B539832	0.030	B540075	0.00046	0.00020	B539731
Total Nickel (Ni)	mg/L	0.021	B539832	0.0057	B540075	<0.00050	0.00050	B539731
Total Potassium (K)	mg/L	19	B539849	7.9	B540078	2.6	0.30	B539733
Total Selenium (Se)	mg/L	0.00032	B539832	<0.00020	B540075	<0.00020	0.00020	B539731
Total Silicon (Si)	mg/L	<0.50	B539849	<0.50	B540078	<0.50	0.50	B539733
Total Silver (Ag)	mg/L	<0.00010	B539832	<0.00010	B540075	<0.00010	0.00010	B539731
Total Sodium (Na)	mg/L	15	B539849	7.5	B540078	2.9	0.50	B539733
Total Strontium (Sr)	mg/L	0.32	B539849	0.12	B540078	0.028	0.020	B539733
Total Sulphur (S)	mg/L	37	B539849	16	B540078	4.3	0.20	B539733
Total Thallium (Tl)	mg/L	<0.00020	B539832	<0.00020	B540075	<0.00020	0.00020	B539731
Total Tin (Sn)	mg/L	<0.0010	B539832	<0.0010	B540075	<0.0010	0.0010	B539731
Total Titanium (Ti)	mg/L	<0.0010	B539832	<0.0010	B540075	<0.0010	0.0010	B539731
Total Uranium (U)	mg/L	0.0042	B539832	0.0022	B540075	0.00010	0.00010	B539731
Total Vanadium (V)	mg/L	<0.0010	B539832	<0.0010	B540075	<0.0010	0.0010	B539731
Total Zinc (Zn)	mg/L	<0.0030	B539832	<0.0030	B540075	<0.0030	0.0030	B539731
RDL = Reportable Detection Limit								

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GENERAL COMMENTS

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

Package 1	6.0°C
Package 2	4.9°C
Package 3	5.6°C
Package 4	4.8°C
Package 5	5.4°C
Package 6	6.7°C
Package 7	5.3°C
Package 8	4.9°C
Package 9	5.5°C
Package 10	4.9°C
Package 11	4.0°C
Package 12	4.5°C
Package 13	6.9°C
Package 14	6.1°C
Package 15	4.3°C

Sample CVT090 [0008-SA10] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water (LL). Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

Sample CVT091 [0008-SA3] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water (LL). Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

Sample CVT092 [0008-SA9B] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water (LL). Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

RESULTS OF CHEMICAL ANALYSES OF WATER Comments

Sample CVT090 [0008-SA10] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample CVT091 [0008-SA3] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample CVT092 [0008-SA9B] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample CVT092, Nitrogen (Nitrite - Nitrate) Low Level: Test repeated.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B526314	Total Suspended Solids	2024/09/18	103	80 - 120	98	80 - 120	<1.0	mg/L	NC	20		
B527582	Chloride (Cl)	2024/09/19	100	80 - 120	95	80 - 120	<0.50	mg/L				
B527700	Total Ammonia (N)	2024/09/19	104	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20		
B527802	Reactive Silica	2024/09/19	98	80 - 120	108	80 - 120	<0.050	mg/L	2.5	20		
B527806	Reactive Silica	2024/09/19	80	80 - 120	104	80 - 120	<0.050	mg/L	0.92	20		
B527884	Orthophosphate (P)	2024/09/19	111	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B528001	Nitrate (N)	2024/09/19	98	80 - 120	99	80 - 120	<0.0020	mg/L	0.28	20		
B528001	Nitrite (N)	2024/09/19	NC	80 - 120	99	80 - 120	<0.0010	mg/L	0.13	20		
B528003	Alkalinity (PP as CaCO3)	2024/09/20					<0.50	mg/L	NC	20		
B528003	Alkalinity (Total as CaCO3)	2024/09/20			98	80 - 120	<0.50	mg/L	0.71	20		
B528003	Bicarbonate (HCO3)	2024/09/20					<0.50	mg/L	0.71	20		
B528003	Carbonate (CO3)	2024/09/20					<0.50	mg/L	NC	20		
B528003	Hydroxide (OH)	2024/09/20					<0.50	mg/L	NC	20		
B528046	Conductivity	2024/09/20			102	90 - 110	<1.0	uS/cm	0.36	20		
B528094	pH	2024/09/20			100	97 - 103			0.81	N/A		
B528098	Fluoride (F)	2024/09/20	104	80 - 120	99	80 - 120	0.012, RDL=0.010 (1)	mg/L	4.6	20		
B528193	Turbidity - NTU	2024/09/19			101	80 - 120	<0.10	NTU	NC	20		
B529522	Total Phosphorus (P)	2024/09/20	101	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20	89	80 - 120
B529872	Total Mercury (Hg)	2024/09/23	106	80 - 120	98	80 - 120	<0.0000019	mg/L	NC	20		
B529885	Total Nitrogen (N)	2024/09/23	108	80 - 120	108	80 - 120	<0.020	mg/L	NC	20	105	80 - 120
B531360	Dissolved-Low Level Sulphate (SO4)	2024/09/21	NC	80 - 120	108	80 - 120	<0.050	mg/L	2.6	20		
B533576	Acidity (pH 4.5)	2024/09/24					<1.0	mg/L	NC	20		
B533576	Acidity (pH 8.3)	2024/09/24			97	80 - 120	<1.0	mg/L	11	20		
B534410	Total Inorganic Carbon (C)	2024/09/24	103	80 - 120	109	80 - 120	<1.0	mg/L	0.92	20		
B534811	Total Inorganic Carbon (C)	2024/09/24	NC	80 - 120	107	80 - 120	<1.0	mg/L	0.33	20		
B534939	Alkalinity (PP as CaCO3)	2024/09/25					<0.50	mg/L	NC	20		
B534939	Alkalinity (Total as CaCO3)	2024/09/25			101	80 - 120	0.90, RDL=0.50 (1)	mg/L	2.8	20		
B534939	Bicarbonate (HCO3)	2024/09/25					1.09, RDL=0.50	mg/L	2.8	20		
B534939	Carbonate (CO3)	2024/09/25					<0.50	mg/L	NC	20		
B534939	Hydroxide (OH)	2024/09/25					<0.50	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B534942	pH	2024/09/25			101	97 - 103			1.4	N/A		
B534950	Conductivity	2024/09/25			102	90 - 110	<1.0	uS/cm	0.38	20		
B534955	Fluoride (F)	2024/09/25	99	80 - 120	96	80 - 120	<0.010	mg/L	2.4	20		
B535029	Total Organic Carbon (C)	2024/09/24	101	75 - 125	97	80 - 120	<0.20	mg/L	1.6	20		
B538252	Nitrate (N)	2024/09/26	100	80 - 120	99	80 - 120	<0.0020	mg/L	NC	20		
B538252	Nitrite (N)	2024/09/26	100	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Aluminum (Al)	2024/09/27	NC	80 - 120	125 (2)	80 - 120	<0.0030	mg/L	NC	20		
B539731	Total Antimony (Sb)	2024/09/27	99	80 - 120	93	80 - 120	<0.00060	mg/L	NC	20		
B539731	Total Arsenic (As)	2024/09/27	86	80 - 120	84	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Beryllium (Be)	2024/09/27	101	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Cadmium (Cd)	2024/09/27	93	80 - 120	90	80 - 120	<0.000020	mg/L	NC	20		
B539731	Total Chromium (Cr)	2024/09/27	95	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Cobalt (Co)	2024/09/27	93	80 - 120	98	80 - 120	<0.00030	mg/L	NC	20		
B539731	Total Copper (Cu)	2024/09/27	88	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Lead (Pb)	2024/09/27	92	80 - 120	96	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Molybdenum (Mo)	2024/09/27	110	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Nickel (Ni)	2024/09/27	90	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
B539731	Total Selenium (Se)	2024/09/27	80	80 - 120	82	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Silver (Ag)	2024/09/27	94	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20		
B539731	Total Thallium (Tl)	2024/09/27	95	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Tin (Sn)	2024/09/27	108	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Titanium (Ti)	2024/09/27	98	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Uranium (U)	2024/09/27	100	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20		
B539731	Total Vanadium (V)	2024/09/27	100	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Zinc (Zn)	2024/09/27	79 (2)	80 - 120	80	80 - 120	<0.0030	mg/L	NC	20		
B539733	Total Barium (Ba)	2024/09/27	103	80 - 120	101	80 - 120	<0.010	mg/L	NC	20		
B539733	Total Boron (B)	2024/09/27	98	80 - 120	93	80 - 120	<0.020	mg/L	NC	20		
B539733	Total Calcium (Ca)	2024/09/27	NC	80 - 120	104	80 - 120	<0.30	mg/L	NC	20		
B539733	Total Iron (Fe)	2024/09/27	100	80 - 120	101	80 - 120	<0.060	mg/L	NC	20		
B539733	Total Lithium (Li)	2024/09/27	99	80 - 120	97	80 - 120	<0.020	mg/L	NC	20		
B539733	Total Magnesium (Mg)	2024/09/27	108	80 - 120	106	80 - 120	<0.20	mg/L	NC	20		
B539733	Total Manganese (Mn)	2024/09/27	95	80 - 120	95	80 - 120	<0.0040	mg/L	NC	20		
B539733	Total Potassium (K)	2024/09/27	106	80 - 120	103	80 - 120	<0.30	mg/L	NC	20		

Bureau Veritas Job #: C473831
Report Date: 2024/10/01

QUALITY ASSURANCE REPORT(CONT'D)

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

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B539733	Total Silicon (Si)	2024/09/27	100	80 - 120	100	80 - 120	<0.50	mg/L	NC	20		
B539733	Total Sodium (Na)	2024/09/27	99	80 - 120	99	80 - 120	<0.50	mg/L	NC	20		
B539733	Total Strontium (Sr)	2024/09/27	103	80 - 120	100	80 - 120	<0.020	mg/L	NC	20		
B539733	Total Sulphur (S)	2024/09/27	97	80 - 120	97	80 - 120	<0.20	mg/L	NC	20		
B539832	Total Aluminum (Al)	2024/09/27	100	80 - 120	101	80 - 120	<0.0030	mg/L	1.3	20		
B539832	Total Antimony (Sb)	2024/09/27	99	80 - 120	101	80 - 120	<0.00060	mg/L	NC	20		
B539832	Total Arsenic (As)	2024/09/27	99	80 - 120	99	80 - 120	<0.00020	mg/L	14	20		
B539832	Total Beryllium (Be)	2024/09/27	98	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Cadmium (Cd)	2024/09/27	99	80 - 120	99	80 - 120	<0.000020	mg/L				
B539832	Total Chromium (Cr)	2024/09/27	94	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Cobalt (Co)	2024/09/27	95	80 - 120	95	80 - 120	<0.00030	mg/L	NC	20		
B539832	Total Copper (Cu)	2024/09/27	94	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Lead (Pb)	2024/09/27	93	80 - 120	95	80 - 120	<0.00020	mg/L	NC	20		
B539832	Total Molybdenum (Mo)	2024/09/27	100	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20		
B539832	Total Nickel (Ni)	2024/09/27	94	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20		
B539832	Total Selenium (Se)	2024/09/27	99	80 - 120	100	80 - 120	<0.00020	mg/L	6.3	20		
B539832	Total Silver (Ag)	2024/09/27	97	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
B539832	Total Thallium (Tl)	2024/09/27	92	80 - 120	93	80 - 120	<0.00020	mg/L	NC	20		
B539832	Total Tin (Sn)	2024/09/27	100	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Titanium (Ti)	2024/09/27	95	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Uranium (U)	2024/09/27	99	80 - 120	99	80 - 120	<0.00010	mg/L	3.0	20		
B539832	Total Vanadium (V)	2024/09/27	97	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Zinc (Zn)	2024/09/27	96	80 - 120	96	80 - 120	<0.0030	mg/L	NC	20		
B539849	Total Barium (Ba)	2024/09/27	108	80 - 120	107	80 - 120	<0.010	mg/L	1.2	20		
B539849	Total Boron (B)	2024/09/27	98	80 - 120	97	80 - 120	<0.020	mg/L	9.5	20		
B539849	Total Calcium (Ca)	2024/09/27	96	80 - 120	91	80 - 120	<0.30	mg/L	2.0	20		
B539849	Total Iron (Fe)	2024/09/27	114	80 - 120	110	80 - 120	<0.060	mg/L	NC	20		
B539849	Total Lithium (Li)	2024/09/27	89	80 - 120	87	80 - 120	<0.020	mg/L	NC	20		
B539849	Total Magnesium (Mg)	2024/09/27	105	80 - 120	103	80 - 120	<0.20	mg/L	2.3	20		
B539849	Total Manganese (Mn)	2024/09/27	108	80 - 120	105	80 - 120	<0.0040	mg/L	NC	20		
B539849	Total Potassium (K)	2024/09/27	95	80 - 120	91	80 - 120	<0.30	mg/L	1.3	20		
B539849	Total Silicon (Si)	2024/09/27	103	80 - 120	101	80 - 120	<0.50	mg/L	0.60	20		
B539849	Total Sodium (Na)	2024/09/27	91	80 - 120	88	80 - 120	<0.50	mg/L	2.4	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B539849	Total Strontium (Sr)	2024/09/27	108	80 - 120	107	80 - 120	<0.020	mg/L	0.98	20		
B539849	Total Sulphur (S)	2024/09/27	106	80 - 120	101	80 - 120	<0.20	mg/L	1.1	20		
B540075	Total Aluminum (Al)	2024/09/27	214 (2)	80 - 120	123 (2)	80 - 120	<0.0030	mg/L	3.7	20		
B540075	Total Antimony (Sb)	2024/09/27	101	80 - 120	101	80 - 120	<0.00060	mg/L	NC	20		
B540075	Total Arsenic (As)	2024/09/27	89	80 - 120	89	80 - 120	<0.00020	mg/L	14	20		
B540075	Total Beryllium (Be)	2024/09/27	106	80 - 120	106	80 - 120	<0.0010	mg/L	3.5	20		
B540075	Total Cadmium (Cd)	2024/09/27	93	80 - 120	91	80 - 120	<0.000020	mg/L				
B540075	Total Chromium (Cr)	2024/09/27	98	80 - 120	98	80 - 120	<0.0010	mg/L	11	20		
B540075	Total Cobalt (Co)	2024/09/27	97	80 - 120	98	80 - 120	<0.00030	mg/L	5.2	20		
B540075	Total Copper (Cu)	2024/09/27	93	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B540075	Total Lead (Pb)	2024/09/27	97	80 - 120	97	80 - 120	<0.00020	mg/L	NC	20		
B540075	Total Molybdenum (Mo)	2024/09/27	105	80 - 120	100	80 - 120	<0.00020	mg/L	5.5	20		
B540075	Total Nickel (Ni)	2024/09/27	95	80 - 120	95	80 - 120	<0.00050	mg/L	6.4	20		
B540075	Total Selenium (Se)	2024/09/27	83	80 - 120	83	80 - 120	<0.00020	mg/L	12	20		
B540075	Total Silver (Ag)	2024/09/27	98	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
B540075	Total Thallium (Tl)	2024/09/27	100	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20		
B540075	Total Tin (Sn)	2024/09/27	103	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B540075	Total Titanium (Ti)	2024/09/27	99	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B540075	Total Uranium (U)	2024/09/27	101	80 - 120	100	80 - 120	<0.00010	mg/L	5.8	20		
B540075	Total Vanadium (V)	2024/09/27	101	80 - 120	100	80 - 120	<0.0010	mg/L	4.2	20		
B540075	Total Zinc (Zn)	2024/09/27	83	80 - 120	82	80 - 120	<0.0030	mg/L	6.0	20		
B540078	Total Barium (Ba)	2024/09/28	103	80 - 120	104	80 - 120	<0.010	mg/L	0.30	20		
B540078	Total Boron (B)	2024/09/28	99	80 - 120	102	80 - 120	<0.020	mg/L	5.5	20		
B540078	Total Calcium (Ca)	2024/09/28	NC	80 - 120	104	80 - 120	<0.30	mg/L	6.0	20		
B540078	Total Iron (Fe)	2024/09/28	NC	80 - 120	112	80 - 120	<0.060	mg/L	6.3	20		
B540078	Total Lithium (Li)	2024/09/28	107	80 - 120	105	80 - 120	<0.020	mg/L	13	20		
B540078	Total Magnesium (Mg)	2024/09/28	NC	80 - 120	105	80 - 120	<0.20	mg/L	5.7	20		
B540078	Total Manganese (Mn)	2024/09/28	NC	80 - 120	110	80 - 120	<0.0040	mg/L	6.3	20		
B540078	Total Potassium (K)	2024/09/28	104	80 - 120	104	80 - 120	<0.30	mg/L	7.7	20		
B540078	Total Silicon (Si)	2024/09/28	107	80 - 120	106	80 - 120	<0.50	mg/L	4.0	20		
B540078	Total Sodium (Na)	2024/09/28	NC	80 - 120	104	80 - 120	<0.50	mg/L	6.6	20		
B540078	Total Strontium (Sr)	2024/09/28	NC	80 - 120	99	80 - 120	<0.020	mg/L	4.7	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B540078	Total Sulphur (S)	2024/09/28	NC	80 - 120	108	80 - 120	<0.20	mg/L	6.9	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 <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x 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.

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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

C473831
2024/09/18 15:00

BUREAU VERITAS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

CUSTODY SEAL PRESENT YES	CUSTODY SEAL PRESENT NO	INTACT YES	INTACT NO	ICE PRESENT YES	ICE PRESENT NO	COOLER ID	TEMP 1	TEMP 2	TEMP 3
	✓		✓	✓			6.2	6.6	5.2
	✓		✓	✓			4.2	5.2	5.3
	✓		✓	✓			4.8	5.0	7.0
	✓		✓	✓			5.5	4.5	4.4
	✓		✓	✓			4.6	5.1	6.4
	✓		✓	✓			7.1	5.9	7.0
	✓		✓	✓			5.1	5.2	5.7
	✓		✓	✓			4.7	4.9	5.2
	✓		✓	✓			5.4	5.5	5.5
	✓		✓	✓			4.3	4.4	6.0

BV JOB#:

CUSTODY SEAL PRESENT YES	CUSTODY SEAL PRESENT NO	INTACT YES	INTACT NO	ICE PRESENT YES	ICE PRESENT NO	COOLER ID	TEMP 1	TEMP 2	TEMP 3
	✓		✓	✓			3.0	4.6	4.4
	✓		✓	✓			3.1	4.4	5.9
	✓		✓	✓			7.7	7.4	5.6
	✓		✓	✓			5.6	5.9	6.8
	✓		✓	✓			5.3	3.7	3.9

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	Ekta Patel	2024/09/18	15:00

C473831
2024/09/18 15:00

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

COC# 102248
SO# 57210

BUREAU VERITAS 1828

For Lab Use	SAMPLE INFORMATION						ANALYSIS REQUESTED — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below				
	Sample Point	Station Type	Date	Time	Matrix	Type	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
	0008-Sa10	EKA 2002 0008	11-Sep-2024	12:41	Water	SNP	Y	Y	Y	7.73	9.7
	0008-Sa3	EKA 2002 0008	11-Sep-2024	12:55	Water	SNP	Y	Y	Y	7.84	8.7
	0008-Sa9b	EKA 2002 0008	11-Sep-2024	13:53	Water	SNP	Y	Y	Y	7.54	7.5

FOR LAB USE ONLY

MCAL-2024-09-1571

Special Instructions (Billing details, QC reporting etc):
Frequency: On the first day of Discharge, weekly during periods of Discharge, and on the final day of Discharge.
Parameters: TSS, major ion, physical parameters, total metals and nutrients.
*** Sample :0008-Sa3, 0008-Sa9b with Profil, 0008-Sa10***
Sent results to Tania.robitaille@burgundydiamonds.com, Landon.Murphy@burgundydiamonds.com & compliance.team@burgundydiamonds.com

Relinquished by:	Date / Time	Received by:	Date / Time
A Arott	Date 18SEP24 Time 0730	Ekta Patel	Date 2024/09/18 Time 15:00
	Date Time		Date Time

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

See ACTR.

Your P.O. #: 6404002992
Your Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102219

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/25
Report #: R3561982
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473837
Received: 2024/09/18, 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 CaCO3)	1	N/A	2024/09/24	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	1	N/A	2024/09/19	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	1	N/A	2024/09/24	BBY WI-00033	Auto Calc
Mercury (Total) by CV	1	2024/09/19	2024/09/20	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	1	2024/09/23	2024/09/24	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	1	2024/09/23	2024/09/25	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	1	N/A	2024/09/19	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	1	N/A	2024/09/20		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/09/19	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	1	N/A	2024/09/20	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/09/18	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	1	N/A	2024/09/19	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	1	N/A	2024/09/19	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	1	N/A	2024/09/21	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	1	N/A	2024/09/25		Auto Calc
Temperature (Field)	1	N/A	2024/09/18	Field Test	Field Test
Carbon (Inorganic)	1	N/A	2024/09/25	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/09/24	BBY WI-00033	Auto Calc
Nitrogen (Total)	1	2024/09/20	2024/09/24	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	1	N/A	2024/09/22	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Dissolved (5)	1	2024/09/22	2024/09/24	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/09/20	2024/09/20	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	1	2024/09/20	2024/09/20	AB SOP-00061	SM 24 2540 D m
Turbidity	1	N/A	2024/09/18	CAL SOP-00081	SM 24 2130 B m
Ion Balance (6)	1	N/A	2024/09/24		
Total Dissolved Solids (Calculated) (6)	1	N/A	2024/09/24		

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Your P.O. #: 6404002992
Your Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102219

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/25
Report #: R3561982
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473837
Received: 2024/09/18, 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.
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) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(6) Calculation was conducted as per client request using CAL PDF-00333.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102219

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/25
Report #: R3561982
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473837
Received: 2024/09/18, 15:00

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
25 Sep 2024 16:54:11

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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This report has been generated and distributed using a secure automated process.
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Bureau Veritas Job #: C473837
Report Date: 2024/09/25

Arctic Canadian Diamond Company Ltd
Client Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVT104		
Sampling Date		2024/09/15 09:55		
COC Number		102219		
	UNITS	1616-46A	RDL	QC Batch
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	71.8	0.50	B525801
Calculated Ion Balance (% Difference)	%	3.2		B527024
Nitrate plus Nitrite (N)	mg/L	0.043	0.0022	B527011
Calculated Total Dissolved Solids	mg/L	96	0.95	B527025
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.38	0.20	B526814
Field Parameters				
Field pH	pH	7.66	N/A	ONSITE
Field Temperature (Fd)	deg. C	9.7	N/A	ONSITE
Misc. Inorganics				
Fluoride (F)	mg/L	0.061	0.010	B528098
pH	pH	6.12	N/A	B528094
Reactive Silica	mg/L	2.4	0.050	B527802
Acidity (pH 4.5)	mg/L	<1.0	1.0	B533576
Alkalinity (Total as CaCO3)	mg/L	36.9	0.50	B528003
Total Organic Carbon (C)	mg/L	7.9	0.20	B529455
Acidity (pH 8.3)	mg/L	2.8	1.0	B533576
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	B528003
Bicarbonate (HCO3)	mg/L	45.0	0.50	B528003
Carbonate (CO3)	mg/L	<0.50	0.50	B528003
Hydroxide (OH)	mg/L	<0.50	0.50	B528003
Total Suspended Solids	mg/L	1.2	1.0	B529209
Anions				
Orthophosphate (P)	mg/L	<0.0010	0.0010	B527884
Chloride (Cl)	mg/L	0.73	0.50	B527582
Dissolved-Low Level Sulphate (SO4)	mg/L	44	0.30	B531360
Nutrients				
Total Carbon (C)	mg/L	17	0.50	B527019
Total Inorganic Carbon (C)	mg/L	9.5	1.0	B534410
Dissolved Phosphorus (P)	mg/L	0.0027	0.0020	B531841
Total Phosphorus (P)	mg/L	0.0064	0.0020	B529522
Total Ammonia (N)	mg/L	0.015	0.0050	B527700

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVT104		
Sampling Date		2024/09/15 09:55		
COC Number		102219		
	UNITS	**1616-46A**	**RDL**	**QC Batch**
Nitrite (N)	mg/L	<0.0010	0.0010	B528001
Nitrate (N)	mg/L	0.043	0.0020	B528001
Total Nitrogen (N)	mg/L	0.43 (1)	0.20	B534234
Physical Properties				
Conductivity	uS/cm	161	1.0	B528046
Physical Properties				
Turbidity - NTU	NTU	2.3	0.10	B526760

RDL = Reportable Detection Limit

(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

BUREAU VERITAS

Bureau Veritas Job #: C473837
Report Date: 2024/09/25

Arctic Canadian Diamond Company Ltd
Client Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CVT104		
Sampling Date		2024/09/15 09:55		
COC Number		102219		
	UNITS	**1616-46A**	**RDL**	**QC Batch**
Elements				
Total Mercury (Hg)	mg/L	<0.0000019	0.0000019	B528690
RDL = Reportable Detection Limit				

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C473837
Report Date: 2024/09/25

Arctic Canadian Diamond Company Ltd
Client Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CVT104		
Sampling Date		2024/09/15 09:55		
COC Number		102219		
	UNITS	1616-46A	RDL	QC Batch
Elements				
Total Aluminum (Al)	mg/L	0.061	0.0030	B532935
Total Antimony (Sb)	mg/L	<0.00060	0.00060	B532935
Total Arsenic (As)	mg/L	0.0017	0.00020	B532935
Total Barium (Ba)	mg/L	0.014	0.010	B532936
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B532935
Total Boron (B)	mg/L	<0.020	0.020	B532936
Total Cadmium (Cd)	mg/L	<0.000020	0.000020	B532935
Total Calcium (Ca)	mg/L	13	0.30	B532936
Total Chromium (Cr)	mg/L	<0.0010	0.0010	B532935
Total Cobalt (Co)	mg/L	<0.00030	0.00030	B532935
Total Copper (Cu)	mg/L	0.0067	0.0010	B532935
Total Iron (Fe)	mg/L	0.10	0.070	B532936
Total Lead (Pb)	mg/L	<0.00020	0.00020	B532935
Total Lithium (Li)	mg/L	0.026	0.020	B532936
Total Magnesium (Mg)	mg/L	9.7	0.20	B532936
Total Manganese (Mn)	mg/L	0.023	0.0040	B532936
Total Molybdenum (Mo)	mg/L	0.0012	0.00020	B532935
Total Nickel (Ni)	mg/L	0.014	0.00050	B532935
Total Potassium (K)	mg/L	2.9	0.30	B532936
Total Selenium (Se)	mg/L	<0.00020	0.00020	B532935
Total Silicon (Si)	mg/L	1.1	0.50	B532936
Total Silver (Ag)	mg/L	<0.00010	0.00010	B532935
Total Sodium (Na)	mg/L	1.5	0.50	B532936
Total Strontium (Sr)	mg/L	0.066	0.020	B532936
Total Sulphur (S)	mg/L	13	0.20	B532936
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B532935
Total Tin (Sn)	mg/L	<0.0010	0.0010	B532935
Total Titanium (Ti)	mg/L	0.0016	0.0010	B532935
Total Uranium (U)	mg/L	0.0011	0.00010	B532935
Total Vanadium (V)	mg/L	<0.0010	0.0010	B532935
Total Zinc (Zn)	mg/L	<0.0030	0.0030	B532935
RDL = Reportable Detection Limit				

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GENERAL COMMENTS

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

Package 1	6.0°C
Package 2	4.9°C
Package 3	5.6°C
Package 4	4.8°C
Package 5	5.4°C
Package 6	6.7°C
Package 7	5.3°C
Package 8	4.9°C
Package 9	5.5°C
Package 10	4.9°C
Package 11	4.0°C
Package 12	4.5°C
Package 13	6.9°C
Package 14	6.1°C
Package 15	4.3°C

Sample CVT104 [1616-46A] : NO2 (N); NO2 (N) + NO3 (N) in Water (LL) 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.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B526760	Turbidity - NTU	2024/09/18			99	80 - 120	<0.10	NTU	13	20		
B527582	Chloride (Cl)	2024/09/19	100	80 - 120	95	80 - 120	<0.50	mg/L				
B527700	Total Ammonia (N)	2024/09/19	104	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20		
B527802	Reactive Silica	2024/09/19	98	80 - 120	108	80 - 120	<0.050	mg/L	2.5	20		
B527884	Orthophosphate (P)	2024/09/19	111	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B528001	Nitrate (N)	2024/09/19	98	80 - 120	99	80 - 120	<0.0020	mg/L	0.28	20		
B528001	Nitrite (N)	2024/09/19	NC	80 - 120	99	80 - 120	<0.0010	mg/L	0.13	20		
B528003	Alkalinity (PP as CaCO3)	2024/09/20					<0.50	mg/L	NC	20		
B528003	Alkalinity (Total as CaCO3)	2024/09/20			98	80 - 120	<0.50	mg/L	0.71	20		
B528003	Bicarbonate (HCO3)	2024/09/20					<0.50	mg/L	0.71	20		
B528003	Carbonate (CO3)	2024/09/20					<0.50	mg/L	NC	20		
B528003	Hydroxide (OH)	2024/09/20					<0.50	mg/L	NC	20		
B528046	Conductivity	2024/09/20			102	90 - 110	<1.0	uS/cm	0.36	20		
B528094	pH	2024/09/20			100	97 - 103			0.81	N/A		
B528098	Fluoride (F)	2024/09/20	104	80 - 120	99	80 - 120	0.012, RDL=0.010 (1)	mg/L	4.6	20		
B528690	Total Mercury (Hg)	2024/09/20	104	80 - 120	99	80 - 120	<0.0000019	mg/L	NC	20		
B529209	Total Suspended Solids	2024/09/20	NC	80 - 120	92	80 - 120	<0.97	mg/L	1.1	20		
B529455	Total Organic Carbon (C)	2024/09/22	104	75 - 125	109	80 - 120	<0.20	mg/L				
B529522	Total Phosphorus (P)	2024/09/20	101	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20	89	80 - 120
B531360	Dissolved-Low Level Sulphate (SO4)	2024/09/21	NC	80 - 120	108	80 - 120	<0.050	mg/L	2.6	20		
B531841	Dissolved Phosphorus (P)	2024/09/24	110	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20	92	80 - 120
B532935	Total Aluminum (Al)	2024/09/25	93	80 - 120	95	80 - 120	<0.0030	mg/L	0.34	20		
B532935	Total Antimony (Sb)	2024/09/25	104	80 - 120	102	80 - 120	<0.00060	mg/L	NC	20		
B532935	Total Arsenic (As)	2024/09/25	102	80 - 120	97	80 - 120	<0.00020	mg/L	6.6	20		
B532935	Total Beryllium (Be)	2024/09/25	91	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
B532935	Total Cadmium (Cd)	2024/09/25	101	80 - 120	97	80 - 120	<0.000020	mg/L				
B532935	Total Chromium (Cr)	2024/09/25	96	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20		
B532935	Total Cobalt (Co)	2024/09/25	94	80 - 120	91	80 - 120	<0.00030	mg/L	4.2	20		
B532935	Total Copper (Cu)	2024/09/25	92	80 - 120	90	80 - 120	<0.0010	mg/L	3.8	20		
B532935	Total Lead (Pb)	2024/09/25	90	80 - 120	87	80 - 120	<0.00020	mg/L	3.8	20		
B532935	Total Molybdenum (Mo)	2024/09/25	102	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B532935	Total Nickel (Ni)	2024/09/25	93	80 - 120	89	80 - 120	<0.00050	mg/L	13	20		
B532935	Total Selenium (Se)	2024/09/25	98	80 - 120	94	80 - 120	<0.00020	mg/L	NC	20		
B532935	Total Silver (Ag)	2024/09/25	98	80 - 120	93	80 - 120	<0.00010	mg/L	NC	20		
B532935	Total Thallium (Tl)	2024/09/25	89	80 - 120	86	80 - 120	<0.00020	mg/L	NC	20		
B532935	Total Tin (Sn)	2024/09/25	104	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B532935	Total Titanium (Ti)	2024/09/25	101	80 - 120	94	80 - 120	<0.0010	mg/L	4.2	20		
B532935	Total Uranium (U)	2024/09/25	97	80 - 120	91	80 - 120	<0.00010	mg/L	NC	20		
B532935	Total Vanadium (V)	2024/09/25	98	80 - 120	94	80 - 120	<0.0010	mg/L	12	20		
B532935	Total Zinc (Zn)	2024/09/25	96	80 - 120	92	80 - 120	<0.0030	mg/L	17	20		
B532936	Total Barium (Ba)	2024/09/24	98	80 - 120	98	80 - 120	<0.010	mg/L	NC	20		
B532936	Total Boron (B)	2024/09/24	99	80 - 120	97	80 - 120	<0.020	mg/L	NC	20		
B532936	Total Calcium (Ca)	2024/09/24	99	80 - 120	98	80 - 120	<0.30	mg/L	1.0	20		
B532936	Total Iron (Fe)	2024/09/24	103	80 - 120	105	80 - 120	<0.070	mg/L	2.6	20		
B532936	Total Lithium (Li)	2024/09/24	96	80 - 120	97	80 - 120	<0.020	mg/L	NC	20		
B532936	Total Magnesium (Mg)	2024/09/24	102	80 - 120	101	80 - 120	<0.20	mg/L	0.031	20		
B532936	Total Manganese (Mn)	2024/09/24	99	80 - 120	99	80 - 120	<0.0040	mg/L	0.97	20		
B532936	Total Potassium (K)	2024/09/24	98	80 - 120	98	80 - 120	<0.30	mg/L	NC	20		
B532936	Total Silicon (Si)	2024/09/24	99	80 - 120	98	80 - 120	<0.50	mg/L	2.7	20		
B532936	Total Sodium (Na)	2024/09/24	98	80 - 120	97	80 - 120	<0.50	mg/L	3.4	20		
B532936	Total Strontium (Sr)	2024/09/24	96	80 - 120	96	80 - 120	<0.020	mg/L	NC	20		
B532936	Total Sulphur (S)	2024/09/24	101	80 - 120	99	80 - 120	<0.20	mg/L	0.58	20		
B533576	Acidity (pH 4.5)	2024/09/24					<1.0	mg/L	NC	20		
B533576	Acidity (pH 8.3)	2024/09/24			97	80 - 120	<1.0	mg/L	11	20		
B534234	Total Nitrogen (N)	2024/09/24	110	80 - 120	104	80 - 120	<0.020	mg/L	3.3	20	104	80 - 120

Bureau Veritas Job #: C473837
Report Date: 2024/09/25

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd
Client Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B534410	Total Inorganic Carbon (C)	2024/09/24	103	80 - 120	109	80 - 120	<1.0	mg/L	0.92	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 <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

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

BUREAU VERITAS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

BV JOB#:

CUSTODY SEAL	YES	NO	COOLER ID	TEMP 1	TEMP 2	TEMP 3	CUSTODY SEAL	YES	NO	COOLER ID	TEMP 1	TEMP 2	TEMP 3
PRESENT		✓		6.2	6.6	5.2	PRESENT		✓		3.0	4.6	4.4
INTACT		✓					INTACT		✓				
ICE PRESENT	✓						ICE PRESENT	✓					
PRESENT		✓		4.2	5.2	5.3	PRESENT		✓		3.1	4.4	5.9
INTACT		✓					INTACT		✓				
ICE PRESENT	✓						ICE PRESENT	✓					
PRESENT		✓		4.8	5.0	7.0	PRESENT		✓		7.7	7.4	5.6
INTACT		✓					INTACT		✓				
ICE PRESENT	✓						ICE PRESENT	✓					
PRESENT		✓		5.5	4.5	4.4	PRESENT		✓		5.6	5.9	6.8
INTACT		✓					INTACT		✓				
ICE PRESENT	✓						ICE PRESENT	✓					
PRESENT		✓		4.6	5.1	6.4	PRESENT		✓		5.3	3.7	3.9
INTACT		✓					INTACT		✓				
ICE PRESENT	✓						ICE PRESENT	✓					
PRESENT		✓		7.1	5.9	7.0	PRESENT						
INTACT		✓					INTACT						
ICE PRESENT	✓						ICE PRESENT						
PRESENT		✓		5.1	5.2	5.7	PRESENT						
INTACT		✓					INTACT						
ICE PRESENT	✓						ICE PRESENT						
PRESENT		✓		4.7	4.9	5.2	PRESENT						
INTACT		✓					INTACT						
ICE PRESENT	✓						ICE PRESENT						
PRESENT		✓		5.4	5.5	5.5	PRESENT						
INTACT		✓					INTACT						
ICE PRESENT	✓						ICE PRESENT						
PRESENT		✓		4.3	4.4	6.0	PRESENT						
INTACT		✓					INTACT						
ICE PRESENT	✓						ICE PRESENT						

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	Ekta Patel	2024/09/18	15:00

Burgundy Diamond Mines

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

BUREAU VERITAS 1828

COC# 102219

SO# 57210

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	Dissolved Nutrients	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
	1616-46a	EKA 2001 1616	15-Sep-2024	09:55	Water	SNP	Y	Y	Y	Y	7.66	9.7

SAMPLE INFORMATION / ANALYSIS REQUESTED — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

FOR LAB USE ONLY

MCAL-2024-09-1568

C473837

Special Instructions (Billing details, QC reporting etc):
To monitor the quality of water entering the KPSP from Misery Pit.

Location: End of pumping pipe at KPSF

Frequency: Monthly during pumping
Parameters: TSS, major ions, physical parameters, total metals, nutrients.

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	Date 18SEP24 Time 0730	[signature]	Date 2024/09/18 Time 15:00
	Date Time		Date Time

FOR LAB USE ONLY

Cooler seal intact upon receipt? ☐ Yes ☐ No ☐ N/A

Sample temperature upon receipt: Frozen? ☐ Yes ☐ No

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

See ACTR!

Your P.O. #: 6404002992
Your Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102265

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/29
Report #: R3563796
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473839
Received: 2024/09/18, 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 CaCO3)	1	N/A	2024/09/24	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	1	N/A	2024/09/19	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	1	N/A	2024/09/26	BBY WI-00033	Auto Calc
Mercury (Total) by CV	1	2024/09/20	2024/09/23	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	1	2024/09/26	2024/09/26	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	1	2024/09/26	2024/09/27	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	1	N/A	2024/09/19	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	1	N/A	2024/09/20		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/09/19	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	1	N/A	2024/09/20	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/09/18	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	1	N/A	2024/09/19	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	1	N/A	2024/09/19	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	1	N/A	2024/09/21	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	1	N/A	2024/09/25		Auto Calc
Temperature (Field)	1	N/A	2024/09/18	Field Test	Field Test
Carbon (Inorganic)	1	N/A	2024/09/24	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	1	N/A	2024/09/23	BBY WI-00033	Auto Calc
Nitrogen (Total)	1	2024/09/20	2024/09/23	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	1	N/A	2024/09/24	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Dissolved (5)	1	2024/09/22	2024/09/24	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/09/20	2024/09/20	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	1	2024/09/20	2024/09/20	AB SOP-00061	SM 24 2540 D m
Turbidity	1	N/A	2024/09/19	CAL SOP-00081	SM 24 2130 B m
Ion Balance (6)	1	N/A	2024/09/26		
Total Dissolved Solids (Calculated) (6)	1	N/A	2024/09/26		

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Your P.O. #: 6404002992
Your Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102265

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/29
Report #: R3563796
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473839
Received: 2024/09/18, 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.
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) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(6) Calculation was conducted as per client request using CAL PDF-00333.

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Your P.O. #: 6404002992
Your Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102265

Attention: COMPLIANCE TEAM

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

Report Date: 2024/09/29
Report #: R3563796
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473839
Received: 2024/09/18, 15:00

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
29 Sep 2024 18:47:20

Please direct all questions regarding this Certificate of Analysis to:
Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (403) 291-3077
==
This report has been generated and distributed using a secure automated process.
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.

Bureau Veritas Job #: C473839
Report Date: 2024/09/29

Arctic Canadian Diamond Company Ltd
Client Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVT139		
Sampling Date		2024/09/15 13:18		
COC Number		102265		
	UNITS	**0008-PI6**	**RDL**	**QC Batch**
Calculated Parameters				
Total Hardness (CaCO3)	mg/L	202	0.50	B525801
Calculated Ion Balance (% Difference)	%	11		B527024
Nitrate plus Nitrite (N)	mg/L	1.8	0.0022	B527011
Calculated Total Dissolved Solids	mg/L	340	1.8	B527025
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.64	0.040	B526814
Field Parameters				
Field pH	pH	7.42	N/A	ONSITE
Field Temperature (Fd)	deg. C	10.4	N/A	ONSITE
Misc. Inorganics				
Fluoride (F)	mg/L	0.065	0.010	B528098
pH	pH	6.14	N/A	B528094
Reactive Silica	mg/L	3.4	0.050	B527802
Acidity (pH 4.5)	mg/L	<1.0	1.0	B533576
Alkalinity (Total as CaCO3)	mg/L	39.4	0.50	B528003
Total Organic Carbon (C)	mg/L	7.7	0.20	B535029
Acidity (pH 8.3)	mg/L	6.1	1.0	B533576
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	B528003
Bicarbonate (HCO3)	mg/L	48.1	0.50	B528003
Carbonate (CO3)	mg/L	<0.50	0.50	B528003
Hydroxide (OH)	mg/L	<0.50	0.50	B528003
Total Suspended Solids	mg/L	<1.0	1.0	B529209
Anions				
Orthophosphate (P)	mg/L	<0.0010	0.0010	B527884
Chloride (Cl)	mg/L	2.0	0.50	B527582
Dissolved-Low Level Sulphate (SO4)	mg/L	230	1.5	B531360
Nutrients				
Total Carbon (C)	mg/L	15	0.50	B527019
Total Inorganic Carbon (C)	mg/L	7.5	1.0	B534811
Dissolved Phosphorus (P)	mg/L	0.0036	0.0020	B531841
Total Phosphorus (P)	mg/L	0.011	0.0020	B529522
Total Ammonia (N)	mg/L	0.13	0.0050	B527700

RDL = Reportable Detection Limit
N/A = Not Applicable

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RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVT139		
Sampling Date		2024/09/15 13:18		
COC Number		102265		
	UNITS	**0008-PI6**	**RDL**	**QC Batch**
Nitrite (N)	mg/L	0.017	0.0010	B528001
Nitrate (N)	mg/L	1.8	0.0020	B528001
Total Nitrogen (N)	mg/L	2.6	0.040	B529885
Physical Properties				
Conductivity	uS/cm	508	1.0	B528046
Physical Properties				
Turbidity - NTU	NTU	1.5	0.10	B528193
RDL = Reportable Detection Limit				

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CVT139		
Sampling Date		2024/09/15 13:18		
COC Number		102265		
	UNITS	**0008-PI6**	**RDL**	**QC Batch**
Elements				
Total Mercury (Hg)	mg/L	<0.0000019	0.0000019	B529872
RDL = Reportable Detection Limit				

Bureau Veritas Job #: C473839
Report Date: 2024/09/29

Arctic Canadian Diamond Company Ltd
Client Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CVT139		
Sampling Date		2024/09/15 13:18		
COC Number		102265		
	UNITS	0008-PI6	RDL	QC Batch
Elements				
Total Aluminum (Al)	mg/L	0.12	0.0030	B537822
Total Antimony (Sb)	mg/L	<0.00060	0.00060	B537822
Total Arsenic (As)	mg/L	0.00047	0.00020	B537822
Total Barium (Ba)	mg/L	0.054	0.010	B537826
Total Beryllium (Be)	mg/L	<0.0010	0.0010	B537822
Total Boron (B)	mg/L	0.027	0.020	B537826
Total Cadmium (Cd)	mg/L	0.00012	0.000020	B537822
Total Calcium (Ca)	mg/L	34	0.30	B537826
Total Chromium (Cr)	mg/L	<0.0010	0.0010	B537822
Total Cobalt (Co)	mg/L	0.021	0.00030	B537822
Total Copper (Cu)	mg/L	0.0099	0.0010	B537822
Total Iron (Fe)	mg/L	0.18	0.060	B537826
Total Lead (Pb)	mg/L	<0.00020	0.00020	B537822
Total Lithium (Li)	mg/L	0.048	0.020	B537826
Total Magnesium (Mg)	mg/L	28	0.20	B537826
Total Manganese (Mn)	mg/L	0.15	0.0040	B537826
Total Molybdenum (Mo)	mg/L	0.0019	0.00020	B537822
Total Nickel (Ni)	mg/L	0.25	0.00050	B537822
Total Potassium (K)	mg/L	10	0.30	B537826
Total Selenium (Se)	mg/L	0.00069	0.00020	B537822
Total Silicon (Si)	mg/L	1.5	0.50	B537826
Total Silver (Ag)	mg/L	<0.00010	0.00010	B537822
Total Sodium (Na)	mg/L	6.3	0.50	B537826
Total Strontium (Sr)	mg/L	0.28	0.020	B537826
Total Sulphur (S)	mg/L	61	0.20	B537826
Total Thallium (Tl)	mg/L	<0.00020	0.00020	B537822
Total Tin (Sn)	mg/L	0.0016	0.0010	B537822
Total Titanium (Ti)	mg/L	0.0028	0.0010	B537822
Total Uranium (U)	mg/L	0.0015	0.00010	B537822
Total Vanadium (V)	mg/L	0.0010	0.0010	B537822
Total Zinc (Zn)	mg/L	0.076	0.0030	B537822
RDL = Reportable Detection Limit				

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GENERAL COMMENTS

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

Package 1	6.0°C
Package 2	4.9°C
Package 3	5.6°C
Package 4	4.8°C
Package 5	5.4°C
Package 6	6.7°C
Package 7	5.3°C
Package 8	4.9°C
Package 9	5.5°C
Package 10	4.9°C
Package 11	4.0°C
Package 12	4.5°C
Package 13	6.9°C
Package 14	6.1°C
Package 15	4.3°C

Sample CVT139 [0008-PI6] : Turbidity completed within five days of sampling. Data is satisfactory for compliance purposes. NO2 (N); NO2 (N) + NO3 (N) in Water (LL) 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.

Results relate only to the items tested.

Bureau Veritas Job #: C473839
Report Date: 2024/09/29

QUALITY ASSURANCE REPORT

Arctic Canadian Diamond Company Ltd
Client Project #: 57210
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B527582	Chloride (Cl)	2024/09/19	100	80 - 120	95	80 - 120	<0.50	mg/L				
B527700	Total Ammonia (N)	2024/09/19	104	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20		
B527802	Reactive Silica	2024/09/19	98	80 - 120	108	80 - 120	<0.050	mg/L	2.5	20		
B527884	Orthophosphate (P)	2024/09/19	111	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B528001	Nitrate (N)	2024/09/19	98	80 - 120	99	80 - 120	<0.0020	mg/L	0.28	20		
B528001	Nitrite (N)	2024/09/19	NC	80 - 120	99	80 - 120	<0.0010	mg/L	0.13	20		
B528003	Alkalinity (PP as CaCO3)	2024/09/20					<0.50	mg/L	NC	20		
B528003	Alkalinity (Total as CaCO3)	2024/09/20			98	80 - 120	<0.50	mg/L	0.71	20		
B528003	Bicarbonate (HCO3)	2024/09/20					<0.50	mg/L	0.71	20		
B528003	Carbonate (CO3)	2024/09/20					<0.50	mg/L	NC	20		
B528003	Hydroxide (OH)	2024/09/20					<0.50	mg/L	NC	20		
B528046	Conductivity	2024/09/20			102	90 - 110	<1.0	uS/cm	0.36	20		
B528094	pH	2024/09/20			100	97 - 103			0.81	N/A		
B528098	Fluoride (F)	2024/09/20	104	80 - 120	99	80 - 120	0.012, RDL=0.010 (1)	mg/L	4.6	20		
B528193	Turbidity - NTU	2024/09/19			101	80 - 120	<0.10	NTU	NC	20		
B529209	Total Suspended Solids	2024/09/20	NC	80 - 120	92	80 - 120	<0.97	mg/L	1.1	20		
B529522	Total Phosphorus (P)	2024/09/20	101	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20	89	80 - 120
B529872	Total Mercury (Hg)	2024/09/23	106	80 - 120	98	80 - 120	<0.0000019	mg/L	NC	20		
B529885	Total Nitrogen (N)	2024/09/23	108	80 - 120	108	80 - 120	<0.020	mg/L	NC	20	105	80 - 120
B531360	Dissolved-Low Level Sulphate (SO4)	2024/09/21	NC	80 - 120	108	80 - 120	<0.050	mg/L	2.6	20		
B531841	Dissolved Phosphorus (P)	2024/09/24	110	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20	92	80 - 120
B533576	Acidity (pH 4.5)	2024/09/24					<1.0	mg/L	NC	20		
B533576	Acidity (pH 8.3)	2024/09/24			97	80 - 120	<1.0	mg/L	11	20		
B534811	Total Inorganic Carbon (C)	2024/09/24	NC	80 - 120	107	80 - 120	<1.0	mg/L	0.33	20		
B535029	Total Organic Carbon (C)	2024/09/24	101	75 - 125	97	80 - 120	<0.20	mg/L	1.6	20		
B537822	Total Aluminum (Al)	2024/09/27	113	80 - 120	105	80 - 120	<0.0030	mg/L	9.1	20		
B537822	Total Antimony (Sb)	2024/09/27	98	80 - 120	103	80 - 120	<0.00060	mg/L	NC	20		
B537822	Total Arsenic (As)	2024/09/27	100	80 - 120	100	80 - 120	<0.00020	mg/L	16	20		
B537822	Total Beryllium (Be)	2024/09/27	105	80 - 120	105	80 - 120	<0.0010	mg/L	NC	20		
B537822	Total Cadmium (Cd)	2024/09/27	97	80 - 120	100	80 - 120	<0.000020	mg/L	6.5	20		
B537822	Total Chromium (Cr)	2024/09/27	100	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B537822	Total Cobalt (Co)	2024/09/27	101	80 - 120	102	80 - 120	<0.00030	mg/L	8.2	20		
B537822	Total Copper (Cu)	2024/09/27	101	80 - 120	102	80 - 120	<0.0010	mg/L	12	20		
B537822	Total Lead (Pb)	2024/09/27	99	80 - 120	102	80 - 120	<0.00020	mg/L	NC	20		
B537822	Total Molybdenum (Mo)	2024/09/27	101	80 - 120	105	80 - 120	<0.00020	mg/L	14	20		
B537822	Total Nickel (Ni)	2024/09/27	101	80 - 120	101	80 - 120	<0.00050	mg/L	9.0	20		
B537822	Total Selenium (Se)	2024/09/27	98	80 - 120	99	80 - 120	<0.00020	mg/L	9.0	20		
B537822	Total Silver (Ag)	2024/09/27	99	80 - 120	102	80 - 120	<0.00010	mg/L	NC	20		
B537822	Total Thallium (Tl)	2024/09/27	98	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20		
B537822	Total Tin (Sn)	2024/09/27	99	80 - 120	103	80 - 120	<0.0010	mg/L	NC	20		
B537822	Total Titanium (Ti)	2024/09/27	101	80 - 120	101	80 - 120	<0.0010	mg/L	NC	20		
B537822	Total Uranium (U)	2024/09/27	107	80 - 120	106	80 - 120	<0.00010	mg/L	10	20		
B537822	Total Vanadium (V)	2024/09/27	102	80 - 120	102	80 - 120	<0.0010	mg/L	0.60	20		
B537822	Total Zinc (Zn)	2024/09/27	96	80 - 120	96	80 - 120	<0.0030	mg/L	7.1	20		
B537826	Total Barium (Ba)	2024/09/26	101	80 - 120	95	80 - 120	<0.010	mg/L	0.69	20		
B537826	Total Boron (B)	2024/09/26	107	80 - 120	97	80 - 120	<0.020	mg/L	5.8	20		
B537826	Total Calcium (Ca)	2024/09/26	NC	80 - 120	91	80 - 120	<0.30	mg/L	1.7	20		
B537826	Total Iron (Fe)	2024/09/26	118	80 - 120	91	80 - 120	<0.060	mg/L	2.6	20		
B537826	Total Lithium (Li)	2024/09/26	91	80 - 120	87	80 - 120	<0.020	mg/L	NC	20		
B537826	Total Magnesium (Mg)	2024/09/26	96	80 - 120	87	80 - 120	<0.20	mg/L	2.5	20		
B537826	Total Manganese (Mn)	2024/09/26	107	80 - 120	94	80 - 120	<0.0040	mg/L	3.4	20		
B537826	Total Potassium (K)	2024/09/26	97	80 - 120	93	80 - 120	<0.30	mg/L	0.92	20		
B537826	Total Silicon (Si)	2024/09/26	113	80 - 120	89	80 - 120	<0.50	mg/L	3.1	20		
B537826	Total Sodium (Na)	2024/09/26	93	80 - 120	89	80 - 120	<0.50	mg/L	1.4	20		
B537826	Total Strontium (Sr)	2024/09/26	98	80 - 120	92	80 - 120	<0.020	mg/L	2.8	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B537826	Total Sulphur (S)	2024/09/26	101	80 - 120	90	80 - 120	<0.20	mg/L	2.7	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 <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

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

C473839
2024/09/18 15:00

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BUREAU VERITAS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

BV JOB#:

CUSTODY SEAL PRESENT (YES/NO)	CUSTODY SEAL INTACT (YES/NO)	ICE PRESENT (YES/NO)	COOLER ID	TEMP 1	TEMP 2	TEMP 3
NO ✓	NO ✓	YES ✓		6.2	6.6	5.2
NO ✓	NO ✓	YES ✓		4.2	5.2	5.3
NO ✓	NO ✓	YES ✓		4.8	5.0	7.0
NO ✓	NO ✓	YES ✓		5.5	4.5	4.4
NO ✓	NO ✓	YES ✓		4.6	5.1	6.4
NO ✓	NO ✓	YES ✓		7.1	5.9	7.0
NO ✓	NO ✓	YES ✓		5.1	5.2	5.7
NO ✓	NO ✓	YES ✓		4.7	4.9	5.2
NO ✓	NO ✓	YES ✓		5.4	5.5	5.5
NO ✓	NO ✓	YES ✓		4.3	4.4	6.0
NO ✓	NO ✓	YES ✓		3.0	4.6	4.4
NO ✓	NO ✓	YES ✓		3.1	4.4	5.9
NO ✓	NO ✓	YES ✓		7.7	7.4	5.6
NO ✓	NO ✓	YES ✓		5.6	5.9	6.8
NO ✓	NO ✓	YES ✓		5.3	3.7	3.9

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	Ekta Patel	2024/09/18	15:00

C473839
2024/09/18 15:00

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

BUREAU VERITAS 1828

COC# 102265

SO# 57210

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

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	Dissolved Nutrients	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
	0008-Pi6	EKA 2002 0008	15-Sep-2024	13:18		SNP	Y	Y	Y	Y	7.42	10.4

FOR LAB USE ONLY

MCAL-2024-09-1574

Special Instructions (Billing details, QC reporting etc):
To monitor the quality of water leaving the Pigeon Waste Rock drainage area and to detect potential contamination from the Waste Rock Storage Areas.

Frequency: Once each year before fall freeze-up
Parameters: TSS, major ions, physical parameters, total metals and nutrients

Relinquished by:	Date / Time	Received by:	Date / Time
A Scott	Date 18SEP24 Time 0730	Ekta Patel	Date 2024/09/18 Time 15:00
Relinquished by:	Date Time	Received by:	Date Time

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

Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102270

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/02
Report #: R3565585
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473844
Received: 2024/09/18, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2024/09/24	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/10/02	AB SOP-00005	SM 24 2320 B m
Alkalinity - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 2320 B m
Alkalinity - Low Level	1	N/A	2024/09/25	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	3	N/A	2024/09/19	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 2510 B m
Conductance - Low Level	2	N/A	2024/09/25	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	1	N/A	2024/09/20	AB SOP-00005	SM 24 4500-F C m
Fluoride - Low Level	2	N/A	2024/09/25	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	2	N/A	2024/09/29	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (1)	1	N/A	2024/09/30	BBY WI-00033	Auto Calc
Mercury (Total) by CV	3	2024/09/20	2024/09/23	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	2	2024/09/27	2024/09/27	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	1	2024/09/27	2024/09/28	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	3	2024/09/27	2024/09/27	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	3	N/A	2024/09/19	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	3	N/A	2024/09/20		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/10/02	AB SOP-00023	SM 24 4110 B m
Nitrogen (Nitrite - Nitrate) Low Level	2	N/A	2024/09/19	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	1	N/A	2024/09/20	AB SOP-00005	SM 24 4500-H+B m
pH @25°C (2)	2	N/A	2024/09/25	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/09/18	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	3	N/A	2024/09/19	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	3	N/A	2024/09/19	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	3	N/A	2024/09/21	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	3	N/A	2024/09/25		Auto Calc
Temperature (Field)	1	N/A	2024/09/18	Field Test	Field Test
Carbon (Inorganic)	3	N/A	2024/09/24	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	3	N/A	2024/09/23	BBY WI-00033	Auto Calc

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102270

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/02
Report #: R3565585
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473844
Received: 2024/09/18, 15:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Nitrogen (Total)	3	2024/09/20	2024/09/23	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	3	N/A	2024/09/24	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Dissolved (5)	3	2024/09/22	2024/09/24	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	3	2024/09/20	2024/09/20	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	3	2024/09/20	2024/09/20	AB SOP-00061	SM 24 2540 D m
Turbidity	3	N/A	2024/09/18	CAL SOP-00081	SM 24 2130 B m
Ion Balance (6)	2	N/A	2024/09/29		
Ion Balance (6)	1	N/A	2024/09/30		
Total Dissolved Solids (Calculated) (6)	2	N/A	2024/09/29		
Total Dissolved Solids (Calculated) (6)	1	N/A	2024/09/30		

Remarks:

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

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102270

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/02
Report #: R3565585
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C473844

Received: 2024/09/18, 15:00

(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) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(6) Calculation was conducted as per client request using CAL PDF-00333.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
02 Oct 2024 16:14:17

Please direct all questions regarding this Certificate of Analysis to:
Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bureauveritas.com
Phone# (403) 291-3077
==
This report has been generated and distributed using a secure automated process.
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.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVT147		CVT148			CVT149		
Sampling Date		2024/09/15 10:46		2024/09/15 10:50			2024/09/15 10:50		
COC Number		102270		102270			102270		
	UNITS	**0008-121-FB**	**QC Batch**	**0008-494-TB**	**RDL**	**QC Batch**	**0008-SA2**	**RDL**	**QC Batch**
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	<0.50	B525801	<0.50	0.50	B525801	11.7	0.50	B525801
Calculated Ion Balance (% Difference)	%	NC	B527024	NC		B527024	3.4		B527024
Nitrate plus Nitrite (N)	mg/L	0.0034	B527011	<0.0022	0.0022	B527011	74	0.020	B527011
Calculated Total Dissolved Solids	mg/L	<0.95	B527025	<0.95	0.95	B527025	2100	3.1	B527025
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.020	B526814	<0.020	0.020	B526814	21	2.0	B526814
Field Parameters									
Field pH	pH						10.96	N/A	ONSITE
Field Temperature (Fd)	deg. C						7.9	N/A	ONSITE
Misc. Inorganics									
Fluoride (F)	mg/L	<0.010	B528098	<0.010	0.010	B534955	0.252	0.010	B534955
pH	pH	5.21	B528094	5.50	N/A	B534942	9.76	N/A	B534942
Reactive Silica	mg/L	<0.050	B527802	<0.050	0.050	B527802	3.4	0.050	B527806
Acidity (pH 4.5)	mg/L	<1.0	B533576	<1.0	1.0	B533576	<1.0	1.0	B533576
Alkalinity (Total as CaCO3)	mg/L	<0.50	B528003	<0.50	0.50	B546569	168	0.50	B534939
Total Organic Carbon (C)	mg/L	<0.20	B535029	<0.20	0.20	B535029	43 (1)	0.80	B535029
Acidity (pH 8.3)	mg/L	<1.0	B533576	<1.0	1.0	B533576	<1.0	1.0	B533576
Alkalinity (PP as CaCO3)	mg/L	<0.50	B528003	<0.50	0.50	B546569	53.8	0.50	B534939
Bicarbonate (HCO3)	mg/L	<0.50	B528003	<0.50	0.50	B546569	73.9	0.50	B534939
Carbonate (CO3)	mg/L	<0.50	B528003	<0.50	0.50	B546569	64.6	0.50	B534939
Hydroxide (OH)	mg/L	<0.50	B528003	<0.50	0.50	B546569	<0.50	0.50	B534939
Total Suspended Solids	mg/L	<1.0	B529209	<1.0	1.0	B529209	1.3	0.99	B529209
Anions									
Orthophosphate (P)	mg/L	<0.0010	B527884	<0.0010	0.0010	B527884	0.016	0.0010	B527884
Chloride (Cl)	mg/L	<0.50	B527582	<0.50	0.50	B527582	69	0.50	B527582
Dissolved-Low Level Sulphate (SO4)	mg/L	<0.30	B531360	<0.30	0.30	B531360	850	3.0	B531360
Nutrients									
Total Carbon (C)	mg/L	<0.50	B527019	<0.50	0.50	B527019	66	0.50	B527019
Total Inorganic Carbon (C)	mg/L	<1.0	B534410	<1.0	1.0	B534410	22	1.0	B534811
Dissolved Phosphorus (P)	mg/L	<0.0020	B531841	<0.0020	0.0020	B531841	0.028	0.0020	B531841
Total Phosphorus (P)	mg/L	<0.0020	B529522	<0.0020	0.0020	B529522	0.033	0.0020	B529522

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limits raised due to sample matrix.

Bureau Veritas Job #: C473844
Report Date: 2024/10/02

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

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CVT147		CVT148			CVT149		
Sampling Date		2024/09/15 10:46		2024/09/15 10:50			2024/09/15 10:50		
COC Number		102270		102270			102270		
	UNITS	**0008-121-FB**	**QC Batch**	**0008-494-TB**	**RDL**	**QC Batch**	**0008-SA2**	**RDL**	**QC Batch**
Total Ammonia (N)	mg/L	<0.0050	B527700	<0.0050	0.0050	B527700	5.6	0.025	B527700
Nitrite (N)	mg/L	<0.0010	B528001	<0.0010	0.0010	B541778	1.2	0.0010	B528001
Nitrate (N)	mg/L	0.0034	B528001	<0.0020	0.0020	B541778	72	0.020	B528001
Total Nitrogen (N)	mg/L	<0.020 (1)	B529885	<0.020 (1)	0.020	B529885	93 (2)	2.0	B529885
Physical Properties									
Conductivity	uS/cm	1.0	B528046	<1.0	1.0	B534950	2940	1.0	B534950
Physical Properties									
Turbidity - NTU	NTU	<0.10	B526760	<0.10	0.10	B526760	9.9	0.10	B526760

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		CVT147	CVT148	CVT149		
Sampling Date		2024/09/15 10:46	2024/09/15 10:50	2024/09/15 10:50		
COC Number		102270	102270	102270		
	UNITS	**0008-121-FB**	**0008-494-TB**	**0008-SA2**	**RDL**	**QC Batch**
Elements						
Total Mercury (Hg)	mg/L	<0.0000019	<0.0000019	0.0000052	0.0000019	B529872
RDL = Reportable Detection Limit						

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CVT147		CVT148		CVT149		
Sampling Date		2024/09/15 10:46		2024/09/15 10:50		2024/09/15 10:50		
COC Number		102270		102270		102270		
	UNITS	**0008-121-FB**	**QC Batch**	**0008-494-TB**	**QC Batch**	**0008-SA2**	**RDL**	**QC Batch**
Elements								
Total Aluminum (Al)	mg/L	<0.0030	B539731	<0.0030	B540075	0.18	0.0030	B539832
Total Antimony (Sb)	mg/L	<0.00060	B539731	<0.00060	B540075	0.0021	0.00060	B539832
Total Arsenic (As)	mg/L	<0.00020	B539731	<0.00020	B540075	0.0058	0.00020	B539832
Total Barium (Ba)	mg/L	<0.010	B539733	<0.010	B540078	0.072	0.010	B539849
Total Beryllium (Be)	mg/L	<0.0010	B539731	<0.0010	B540075	<0.0010	0.0010	B539832
Total Boron (B)	mg/L	<0.020	B539733	<0.020	B540078	0.096	0.020	B539849
Total Cadmium (Cd)	mg/L	<0.000020	B539731	<0.000020	B540075	0.00011	0.000020	B539832
Total Calcium (Ca)	mg/L	<0.30	B539733	<0.30	B540078	1.3	0.30	B539849
Total Chromium (Cr)	mg/L	<0.0010	B539731	<0.0010	B540075	0.0022	0.0010	B539832
Total Cobalt (Co)	mg/L	<0.00030	B539731	<0.00030	B540075	0.00099	0.00030	B539832
Total Copper (Cu)	mg/L	<0.0010	B539731	<0.0010	B540075	<0.0010	0.0010	B539832
Total Iron (Fe)	mg/L	<0.060	B539733	<0.060	B540078	0.57	0.060	B539849
Total Lead (Pb)	mg/L	<0.00020	B539731	<0.00020	B540075	<0.00020	0.00020	B539832
Total Lithium (Li)	mg/L	<0.020	B539733	<0.020	B540078	<0.020	0.020	B539849
Total Magnesium (Mg)	mg/L	<0.20	B539733	<0.20	B540078	2.0	0.20	B539849
Total Manganese (Mn)	mg/L	<0.0040	B539733	<0.0040	B540078	0.0089	0.0040	B539849
Total Molybdenum (Mo)	mg/L	<0.00020	B539731	<0.00020	B540075	0.40	0.00020	B539832
Total Nickel (Ni)	mg/L	<0.00050	B539731	<0.00050	B540075	0.015	0.00050	B539832
Total Potassium (K)	mg/L	<0.30	B539733	<0.30	B540078	270	0.30	B539849
Total Selenium (Se)	mg/L	<0.00020	B539731	<0.00020	B540075	0.0032	0.00020	B539832
Total Silicon (Si)	mg/L	<0.50	B539733	<0.50	B540078	3.6	0.50	B539849
Total Silver (Ag)	mg/L	<0.00010	B539731	<0.00010	B540075	<0.00010	0.00010	B539832
Total Sodium (Na)	mg/L	<0.50	B539733	<0.50	B540078	430	0.50	B539849
Total Strontium (Sr)	mg/L	<0.020	B539733	<0.020	B540078	0.14	0.020	B539849
Total Sulphur (S)	mg/L	<0.20	B539733	<0.20	B540078	260	0.20	B539849
Total Thallium (Tl)	mg/L	<0.00020	B539731	<0.00020	B540075	<0.00020	0.00020	B539832
Total Tin (Sn)	mg/L	<0.0010	B539731	<0.0010	B540075	<0.0010	0.0010	B539832
Total Titanium (Ti)	mg/L	<0.0010	B539731	<0.0010	B540075	0.0089	0.0010	B539832
Total Uranium (U)	mg/L	<0.00010	B539731	<0.00010	B540075	0.00023	0.00010	B539832
Total Vanadium (V)	mg/L	<0.0010	B539731	<0.0010	B540075	0.0077	0.0010	B539832
Total Zinc (Zn)	mg/L	<0.0030	B539731	<0.0030	B540075	<0.0030	0.0030	B539832
RDL = Reportable Detection Limit								

GENERAL COMMENTS

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

Package 1	6.0°C
Package 2	4.9°C
Package 3	5.6°C
Package 4	4.8°C
Package 5	5.4°C
Package 6	6.7°C
Package 7	5.3°C
Package 8	4.9°C
Package 9	5.5°C
Package 10	4.9°C
Package 11	4.0°C
Package 12	4.5°C
Package 13	6.9°C
Package 14	6.1°C
Package 15	4.3°C

Sample CVT147 [0008-121-FB] : NO2 (N); NO2 (N) + NO3 (N) in Water (LL) 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 CVT148 [0008-494-TB] : NO2 (N); NO2 (N) + NO3 (N) in Water (LL) 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. Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

Sample CVT149 [0008-SA2] : NO2 (N); NO2 (N) + NO3 (N) in Water (LL) 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.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B526760	Turbidity - NTU	2024/09/18			99	80 - 120	<0.10	NTU	13	20		
B527582	Chloride (Cl)	2024/09/19	100	80 - 120	95	80 - 120	<0.50	mg/L				
B527700	Total Ammonia (N)	2024/09/19	104	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20		
B527802	Reactive Silica	2024/09/19	98	80 - 120	108	80 - 120	<0.050	mg/L	2.5	20		
B527806	Reactive Silica	2024/09/19	80	80 - 120	104	80 - 120	<0.050	mg/L	0.92	20		
B527884	Orthophosphate (P)	2024/09/19	111	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B528001	Nitrate (N)	2024/09/19	98	80 - 120	99	80 - 120	<0.0020	mg/L	0.28	20		
B528001	Nitrite (N)	2024/09/19	NC	80 - 120	99	80 - 120	<0.0010	mg/L	0.13	20		
B528003	Alkalinity (PP as CaCO3)	2024/09/20					<0.50	mg/L	NC	20		
B528003	Alkalinity (Total as CaCO3)	2024/09/20			98	80 - 120	<0.50	mg/L	0.71	20		
B528003	Bicarbonate (HCO3)	2024/09/20					<0.50	mg/L	0.71	20		
B528003	Carbonate (CO3)	2024/09/20					<0.50	mg/L	NC	20		
B528003	Hydroxide (OH)	2024/09/20					<0.50	mg/L	NC	20		
B528046	Conductivity	2024/09/20			102	90 - 110	<1.0	uS/cm	0.36	20		
B528094	pH	2024/09/20			100	97 - 103			0.81	N/A		
B528098	Fluoride (F)	2024/09/20	104	80 - 120	99	80 - 120	0.012, RDL=0.010 (1)	mg/L	4.6	20		
B529209	Total Suspended Solids	2024/09/20	NC	80 - 120	92	80 - 120	<0.97	mg/L	1.1	20		
B529522	Total Phosphorus (P)	2024/09/20	101	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20	89	80 - 120
B529872	Total Mercury (Hg)	2024/09/23	106	80 - 120	98	80 - 120	<0.0000019	mg/L	NC	20		
B529885	Total Nitrogen (N)	2024/09/23	108	80 - 120	108	80 - 120	<0.020	mg/L	NC	20	105	80 - 120
B531360	Dissolved-Low Level Sulphate (SO4)	2024/09/21	NC	80 - 120	108	80 - 120	<0.050	mg/L	2.6	20		
B531841	Dissolved Phosphorus (P)	2024/09/24	110	80 - 120	102	80 - 120	<0.0010	mg/L	NC	20	92	80 - 120
B533576	Acidity (pH 4.5)	2024/09/24					<1.0	mg/L	NC	20		
B533576	Acidity (pH 8.3)	2024/09/24			97	80 - 120	<1.0	mg/L	11	20		
B534410	Total Inorganic Carbon (C)	2024/09/24	103	80 - 120	109	80 - 120	<1.0	mg/L	0.92	20		
B534811	Total Inorganic Carbon (C)	2024/09/24	NC	80 - 120	107	80 - 120	<1.0	mg/L	0.33	20		
B534939	Alkalinity (PP as CaCO3)	2024/09/25					<0.50	mg/L	NC	20		
B534939	Alkalinity (Total as CaCO3)	2024/09/25			101	80 - 120	0.90, RDL=0.50 (1)	mg/L	2.8	20		
B534939	Bicarbonate (HCO3)	2024/09/25					1.09, RDL=0.50	mg/L	2.8	20		
B534939	Carbonate (CO3)	2024/09/25					<0.50	mg/L	NC	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B534939	Hydroxide (OH)	2024/09/25					<0.50	mg/L	NC	20		
B534942	pH	2024/09/25			101	97 - 103			1.4	N/A		
B534950	Conductivity	2024/09/25			102	90 - 110	<1.0	uS/cm	0.38	20		
B534955	Fluoride (F)	2024/09/25	99	80 - 120	96	80 - 120	<0.010	mg/L	2.4	20		
B535029	Total Organic Carbon (C)	2024/09/24	101	75 - 125	97	80 - 120	<0.20	mg/L	1.6	20		
B539731	Total Aluminum (Al)	2024/09/27	NC	80 - 120	125 (2)	80 - 120	<0.0030	mg/L	NC	20		
B539731	Total Antimony (Sb)	2024/09/27	99	80 - 120	93	80 - 120	<0.00060	mg/L	NC	20		
B539731	Total Arsenic (As)	2024/09/27	86	80 - 120	84	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Beryllium (Be)	2024/09/27	101	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Cadmium (Cd)	2024/09/27	93	80 - 120	90	80 - 120	<0.000020	mg/L	NC	20		
B539731	Total Chromium (Cr)	2024/09/27	95	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Cobalt (Co)	2024/09/27	93	80 - 120	98	80 - 120	<0.00030	mg/L	NC	20		
B539731	Total Copper (Cu)	2024/09/27	88	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Lead (Pb)	2024/09/27	92	80 - 120	96	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Molybdenum (Mo)	2024/09/27	110	80 - 120	99	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Nickel (Ni)	2024/09/27	90	80 - 120	96	80 - 120	<0.00050	mg/L	NC	20		
B539731	Total Selenium (Se)	2024/09/27	80	80 - 120	82	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Silver (Ag)	2024/09/27	94	80 - 120	97	80 - 120	<0.00010	mg/L	NC	20		
B539731	Total Thallium (Tl)	2024/09/27	95	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20		
B539731	Total Tin (Sn)	2024/09/27	108	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Titanium (Ti)	2024/09/27	98	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Uranium (U)	2024/09/27	100	80 - 120	100	80 - 120	<0.00010	mg/L	NC	20		
B539731	Total Vanadium (V)	2024/09/27	100	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B539731	Total Zinc (Zn)	2024/09/27	79 (2)	80 - 120	80	80 - 120	<0.0030	mg/L	NC	20		
B539733	Total Barium (Ba)	2024/09/27	103	80 - 120	101	80 - 120	<0.010	mg/L	NC	20		
B539733	Total Boron (B)	2024/09/27	98	80 - 120	93	80 - 120	<0.020	mg/L	NC	20		
B539733	Total Calcium (Ca)	2024/09/27	NC	80 - 120	104	80 - 120	<0.30	mg/L	NC	20		
B539733	Total Iron (Fe)	2024/09/27	100	80 - 120	101	80 - 120	<0.060	mg/L	NC	20		
B539733	Total Lithium (Li)	2024/09/27	99	80 - 120	97	80 - 120	<0.020	mg/L	NC	20		
B539733	Total Magnesium (Mg)	2024/09/27	108	80 - 120	106	80 - 120	<0.20	mg/L	NC	20		
B539733	Total Manganese (Mn)	2024/09/27	95	80 - 120	95	80 - 120	<0.0040	mg/L	NC	20		
B539733	Total Potassium (K)	2024/09/27	106	80 - 120	103	80 - 120	<0.30	mg/L	NC	20		
B539733	Total Silicon (Si)	2024/09/27	100	80 - 120	100	80 - 120	<0.50	mg/L	NC	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B539733	Total Sodium (Na)	2024/09/27	99	80 - 120	99	80 - 120	<0.50	mg/L	NC	20		
B539733	Total Strontium (Sr)	2024/09/27	103	80 - 120	100	80 - 120	<0.020	mg/L	NC	20		
B539733	Total Sulphur (S)	2024/09/27	97	80 - 120	97	80 - 120	<0.20	mg/L	NC	20		
B539832	Total Aluminum (Al)	2024/09/27	100	80 - 120	101	80 - 120	<0.0030	mg/L	1.3	20		
B539832	Total Antimony (Sb)	2024/09/27	99	80 - 120	101	80 - 120	<0.00060	mg/L	NC	20		
B539832	Total Arsenic (As)	2024/09/27	99	80 - 120	99	80 - 120	<0.00020	mg/L	14	20		
B539832	Total Beryllium (Be)	2024/09/27	98	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Cadmium (Cd)	2024/09/27	99	80 - 120	99	80 - 120	<0.000020	mg/L				
B539832	Total Chromium (Cr)	2024/09/27	94	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Cobalt (Co)	2024/09/27	95	80 - 120	95	80 - 120	<0.00030	mg/L	NC	20		
B539832	Total Copper (Cu)	2024/09/27	94	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Lead (Pb)	2024/09/27	93	80 - 120	95	80 - 120	<0.00020	mg/L	NC	20		
B539832	Total Molybdenum (Mo)	2024/09/27	100	80 - 120	98	80 - 120	<0.00020	mg/L	NC	20		
B539832	Total Nickel (Ni)	2024/09/27	94	80 - 120	95	80 - 120	<0.00050	mg/L	NC	20		
B539832	Total Selenium (Se)	2024/09/27	99	80 - 120	100	80 - 120	<0.00020	mg/L	6.3	20		
B539832	Total Silver (Ag)	2024/09/27	97	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
B539832	Total Thallium (Tl)	2024/09/27	92	80 - 120	93	80 - 120	<0.00020	mg/L	NC	20		
B539832	Total Tin (Sn)	2024/09/27	100	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Titanium (Ti)	2024/09/27	95	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Uranium (U)	2024/09/27	99	80 - 120	99	80 - 120	<0.00010	mg/L	3.0	20		
B539832	Total Vanadium (V)	2024/09/27	97	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B539832	Total Zinc (Zn)	2024/09/27	96	80 - 120	96	80 - 120	<0.0030	mg/L	NC	20		
B539849	Total Barium (Ba)	2024/09/27	108	80 - 120	107	80 - 120	<0.010	mg/L	1.2	20		
B539849	Total Boron (B)	2024/09/27	98	80 - 120	97	80 - 120	<0.020	mg/L	9.5	20		
B539849	Total Calcium (Ca)	2024/09/27	96	80 - 120	91	80 - 120	<0.30	mg/L	2.0	20		
B539849	Total Iron (Fe)	2024/09/27	114	80 - 120	110	80 - 120	<0.060	mg/L	NC	20		
B539849	Total Lithium (Li)	2024/09/27	89	80 - 120	87	80 - 120	<0.020	mg/L	NC	20		
B539849	Total Magnesium (Mg)	2024/09/27	105	80 - 120	103	80 - 120	<0.20	mg/L	2.3	20		
B539849	Total Manganese (Mn)	2024/09/27	108	80 - 120	105	80 - 120	<0.0040	mg/L	NC	20		
B539849	Total Potassium (K)	2024/09/27	95	80 - 120	91	80 - 120	<0.30	mg/L	1.3	20		
B539849	Total Silicon (Si)	2024/09/27	103	80 - 120	101	80 - 120	<0.50	mg/L	0.60	20		
B539849	Total Sodium (Na)	2024/09/27	91	80 - 120	88	80 - 120	<0.50	mg/L	2.4	20		
B539849	Total Strontium (Sr)	2024/09/27	108	80 - 120	107	80 - 120	<0.020	mg/L	0.98	20		

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Bureau Veritas Job #: C473844
Report Date: 2024/10/02

QUALITY ASSURANCE REPORT(CONT'D)

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

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B539849	Total Sulphur (S)	2024/09/27	106	80 - 120	101	80 - 120	<0.20	mg/L	1.1	20		
B540075	Total Aluminum (Al)	2024/09/27	214 (2)	80 - 120	123 (2)	80 - 120	<0.0030	mg/L	3.7	20		
B540075	Total Antimony (Sb)	2024/09/27	101	80 - 120	101	80 - 120	<0.00060	mg/L	NC	20		
B540075	Total Arsenic (As)	2024/09/27	89	80 - 120	89	80 - 120	<0.00020	mg/L	14	20		
B540075	Total Beryllium (Be)	2024/09/27	106	80 - 120	106	80 - 120	<0.0010	mg/L	3.5	20		
B540075	Total Cadmium (Cd)	2024/09/27	93	80 - 120	91	80 - 120	<0.000020	mg/L				
B540075	Total Chromium (Cr)	2024/09/27	98	80 - 120	98	80 - 120	<0.0010	mg/L	11	20		
B540075	Total Cobalt (Co)	2024/09/27	97	80 - 120	98	80 - 120	<0.00030	mg/L	5.2	20		
B540075	Total Copper (Cu)	2024/09/27	93	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B540075	Total Lead (Pb)	2024/09/27	97	80 - 120	97	80 - 120	<0.00020	mg/L	NC	20		
B540075	Total Molybdenum (Mo)	2024/09/27	105	80 - 120	100	80 - 120	<0.00020	mg/L	5.5	20		
B540075	Total Nickel (Ni)	2024/09/27	95	80 - 120	95	80 - 120	<0.00050	mg/L	6.4	20		
B540075	Total Selenium (Se)	2024/09/27	83	80 - 120	83	80 - 120	<0.00020	mg/L	12	20		
B540075	Total Silver (Ag)	2024/09/27	98	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
B540075	Total Thallium (Tl)	2024/09/27	100	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20		
B540075	Total Tin (Sn)	2024/09/27	103	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B540075	Total Titanium (Ti)	2024/09/27	99	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B540075	Total Uranium (U)	2024/09/27	101	80 - 120	100	80 - 120	<0.00010	mg/L	5.8	20		
B540075	Total Vanadium (V)	2024/09/27	101	80 - 120	100	80 - 120	<0.0010	mg/L	4.2	20		
B540075	Total Zinc (Zn)	2024/09/27	83	80 - 120	82	80 - 120	<0.0030	mg/L	6.0	20		
B540078	Total Barium (Ba)	2024/09/28	103	80 - 120	104	80 - 120	<0.010	mg/L	0.30	20		
B540078	Total Boron (B)	2024/09/28	99	80 - 120	102	80 - 120	<0.020	mg/L	5.5	20		
B540078	Total Calcium (Ca)	2024/09/28	NC	80 - 120	104	80 - 120	<0.30	mg/L	6.0	20		
B540078	Total Iron (Fe)	2024/09/28	NC	80 - 120	112	80 - 120	<0.060	mg/L	6.3	20		
B540078	Total Lithium (Li)	2024/09/28	107	80 - 120	105	80 - 120	<0.020	mg/L	13	20		
B540078	Total Magnesium (Mg)	2024/09/28	NC	80 - 120	105	80 - 120	<0.20	mg/L	5.7	20		
B540078	Total Manganese (Mn)	2024/09/28	NC	80 - 120	110	80 - 120	<0.0040	mg/L	6.3	20		
B540078	Total Potassium (K)	2024/09/28	104	80 - 120	104	80 - 120	<0.30	mg/L	7.7	20		
B540078	Total Silicon (Si)	2024/09/28	107	80 - 120	106	80 - 120	<0.50	mg/L	4.0	20		
B540078	Total Sodium (Na)	2024/09/28	NC	80 - 120	104	80 - 120	<0.50	mg/L	6.6	20		
B540078	Total Strontium (Sr)	2024/09/28	NC	80 - 120	99	80 - 120	<0.020	mg/L	4.7	20		
B540078	Total Sulphur (S)	2024/09/28	NC	80 - 120	108	80 - 120	<0.20	mg/L	6.9	20		
B541778	Nitrate (N)	2024/09/29	99	80 - 120	99	80 - 120	<0.0020	mg/L	1.9	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B541778	Nitrite (N)	2024/09/29	100	80 - 120	100	80 - 120	<0.0010	mg/L	1.9	20		
B546569	Alkalinity (PP as CaCO3)	2024/10/02					<0.50	mg/L	NC	20		
B546569	Alkalinity (Total as CaCO3)	2024/10/02			98	80 - 120	0.67, RDL=0.50 (1)	mg/L	2.3	20		
B546569	Bicarbonate (HCO3)	2024/10/02					0.82, RDL=0.50	mg/L	2.3	20		
B546569	Carbonate (CO3)	2024/10/02					<0.50	mg/L	NC	20		
B546569	Hydroxide (OH)	2024/10/02					<0.50	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 <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x 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.

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

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.

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ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

BV JOB#:

Custody Seal Present (YES / NO)	Custody Seal Intact (YES / NO)	Ice Present	Cooler ID	Temp 1	Temp 2	Temp 3
NO ✓	NO ✓	YES ✓		6.2	6.6	5.2
NO ✓	NO ✓	YES ✓		4.2	5.2	5.3
NO ✓	NO ✓	YES ✓		4.8	5.0	7.0
NO ✓	NO ✓	YES ✓		5.5	4.5	4.4
NO ✓	NO ✓	YES ✓		4.6	5.1	6.4
NO ✓	NO ✓	YES ✓		7.1	5.9	7.0
NO ✓	NO ✓	YES ✓		5.1	5.2	5.7
NO ✓	NO ✓	YES ✓		4.7	4.9	5.2
NO ✓	NO ✓	YES ✓		5.4	5.5	5.5
NO ✓	NO ✓	YES ✓		4.3	4.4	6.0

Custody Seal Present (YES / NO)	Custody Seal Intact (YES / NO)	Ice Present	Cooler ID	Temp 1	Temp 2	Temp 3
NO ✓	NO ✓	YES ✓		3.0	4.6	4.4
NO ✓	NO ✓	YES ✓		3.1	4.4	5.9
NO ✓	NO ✓	YES ✓		7.7	7.4	5.6
NO ✓	NO ✓	YES ✓		5.6	5.9	6.8
NO ✓	NO ✓	YES ✓		5.3	3.7	3.9

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	Ekta Patel	2024/09/18	15:00

C473844
2024/09/18 15:00

Burgundy Diamond Mines

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

BUREAU VERITAS 1828

COC# 102270

SO# 57210

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	DI Lot Number	Dissolved Nutrients	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
	0008-121-FB	EKA 2002 0008	15-Sep-2024	10:46	Water	SNP	Y	Y	Y	Y	Y		
	0008-494-TB	EKA 2002 0008	15-Sep-2024	10:50	Water	SNP	Y	Y	Y	Y	Y		
	0008-Sa2	EKA 2002 0008	15-Sep-2024	10:50	Water	SNP		Y	Y	Y	Y	10.96	7.9

SAMPLE INFORMATION — ANALYSIS REQUESTED: Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

FOR LAB USE ONLY

MCAL-2024-09-1572

Special Instructions (Billing details, QC reporting etc):
To monitor the quality of water entering the Two Rock Sedimentation Pond.

Frequency: Weekly during discharge.
Parameters: TSS, physical parameters, major ions, total metals and nutrients

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	Date 18SEP24 Time 0730	Ekta Patel	Date 2024/09/18 Time 15:00
	Date Time		Date Time

FOR LAB USE ONLY

Cooler seal intact upon receipt? ☐ Yes ☐ No ☐ N/A

Sample temperature upon receipt: Frozen? ☐ Yes ☐ No

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

See ACTR.

Your P.O. #: 6404002992
Your Project #: 61990
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102339

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/09
Report #: R3569227
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C476623
Received: 2024/09/26, 09:50

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	2	N/A	2024/09/27	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	1	N/A	2024/09/27	AB SOP-00005	SM 24 2320 B m
Alkalinity - Low Level	1	N/A	2024/09/29	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	2	N/A	2024/09/27	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	1	N/A	2024/09/27	AB SOP-00005	SM 24 2510 B m
Conductance - Low Level	1	N/A	2024/09/29	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	2	N/A	2024/09/29	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	2	N/A	2024/10/06	BBY WI-00033	Auto Calc
Mercury (Total) by CV	2	2024/09/30	2024/10/01	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Total	2	2024/10/02	2024/10/04	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Total	2	2024/10/02	2024/10/04	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	2	N/A	2024/09/27	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	2	N/A	2024/09/30		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	2	N/A	2024/09/27	AB SOP-00023	SM 24 4110 B m
pH @25°C (2)	1	N/A	2024/09/27	AB SOP-00005	SM 24 4500-H+B m
pH @25°C (2)	1	N/A	2024/09/29	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	1	N/A	2024/09/26	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (3)	2	N/A	2024/09/27	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	2	N/A	2024/10/03	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	1	N/A	2024/10/03	AB SOP-00026	SM 24 4110 B m
Sulphate (SO4) by IC	1	N/A	2024/09/30	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	2	N/A	2024/10/09		Auto Calc
Temperature (Field)	1	N/A	2024/09/26	Field Test	Field Test
Carbon (Inorganic)	2	N/A	2024/10/04	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	2	N/A	2024/10/02	BBY WI-00033	Auto Calc
Nitrogen (Total)	2	2024/09/28	2024/10/01	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (4)	2	N/A	2024/10/08	AB SOP-00087	MMCW 119 1996 m
Total Phosphorus Low Level Dissolved (5)	2	2024/09/28	2024/09/30	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/09/30	2024/10/01	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	1	2024/09/30	2024/09/30	AB SOP-00024	SM 24 4500-P A,B,F m

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

BUREAU VERITAS

Your P.O. #: 6404002992
Your Project #: 61990
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102339

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/09
Report #: R3569227
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C476623
Received: 2024/09/26, 09:50

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Suspended Solids (NFR)	2	2024/09/30	2024/09/30	AB SOP-00061	SM 24 2540 D m
Turbidity	2	N/A	2024/09/26	CAL SOP-00081	SM 24 2130 B m
Ion Balance (6)	2	N/A	2024/10/06		
Total Dissolved Solids (Calculated) (6)	2	N/A	2024/10/06		

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) "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) Dissolved Phosphorus > Total Phosphorus Imbalance: When applicable, Dissolved Phosphorus and Total Phosphorus results were reviewed and data quality meets acceptable levels unless otherwise noted.
(6) Calculation was conducted as per client request using CAL PDF-00333.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 61990
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102339

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/09
Report #: R3569227
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C476623
Received: 2024/09/26, 09:50

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
09 Oct 2024 13:50:16

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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This report has been generated and distributed using a secure automated process.
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.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

BUREAU VERITAS

Bureau Veritas Job #: C476623
Report Date: 2024/10/09

Arctic Canadian Diamond Company Ltd
Client Project #: 61990
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CWL197			CWL198		
Sampling Date		2024/09/24 11:00			2024/09/24 10:50		
COC Number		102339			102339		
	UNITS	**0008-121-FB**	**RDL**	**QC Batch**	**0008-SA2**	**RDL**	**QC Batch**
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	<0.50	0.50	B537845	261	0.50	B537845
Calculated Ion Balance (% Difference)	%	NC		B538812	21		B538812
Nitrate plus Nitrite (N)	mg/L	0.0039	0.0022	B538795	24	0.010	B538795
Calculated Total Dissolved Solids	mg/L	<0.95	0.95	B538813	1100	3.1	B538813
Total Total Kjeldahl Nitrogen (Calc)	mg/L	<0.020	0.020	B537773	8.4	2.0	B537773
Field Parameters							
Field pH	pH				9.93	N/A	ONSITE
Field Temperature (Fd)	deg. C				2.4	N/A	ONSITE
Misc. Inorganics							
Fluoride (F)	mg/L	<0.010	0.010	B541333	0.348	0.010	B541333
pH	pH	5.29	N/A	B541329	9.38	N/A	B541329
Reactive Silica	mg/L	<0.050	0.050	B548502	6.3	0.050	B548502
Acidity (pH 4.5)	mg/L	<1.0	1.0	B540460	<1.0	1.0	B540460
Alkalinity (Total as CaCO3)	mg/L	0.72	0.50	B541328	123	0.50	B541328
Total Organic Carbon (C)	mg/L	<0.20	0.20	B556140	84	0.80	B556140
Acidity (pH 8.3)	mg/L	<1.0	1.0	B540460	<1.0	1.0	B540460
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	B541328	16.8	0.50	B541328
Bicarbonate (HCO3)	mg/L	0.88	0.50	B541328	109	0.50	B541328
Carbonate (CO3)	mg/L	<0.50	0.50	B541328	20.1	0.50	B541328
Hydroxide (OH)	mg/L	<0.50	0.50	B541328	<0.50	0.50	B541328
Total Suspended Solids	mg/L	<1.0	1.0	B542888	79 (1)	1.5	B542888
Anions							
Orthophosphate (P)	mg/L	<0.0010	0.0010	B540083	<0.0010	0.0010	B540083
Chloride (Cl)	mg/L	<0.50	0.50	B539986	67	0.50	B539986
Dissolved-Low Level Sulphate (SO4)	mg/L	<0.30	0.30	B543645	340	3.0	B543645
Nutrients							
Total Carbon (C)	mg/L	<0.50	0.50	B538806	99	0.50	B538806
Total Inorganic Carbon (C)	mg/L	<1.0	1.0	B550473	15	1.0	B550473
Dissolved Phosphorus (P)	mg/L	<0.0020	0.0020	B541936	0.0067	0.0020	B541936
Total Phosphorus (P)	mg/L	<0.0020	0.0020	B543191	0.076	0.0020	B543189

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Detection limit raised based on sample volume used for analysis.

Bureau Veritas Job #: C476623
Report Date: 2024/10/09

Arctic Canadian Diamond Company Ltd
Client Project #: 61990
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CWL197			CWL198		
Sampling Date		2024/09/24 11:00			2024/09/24 10:50		
COC Number		102339			102339		
	UNITS	**0008-121-FB**	**RDL**	**QC Batch**	**0008-SA2**	**RDL**	**QC Batch**
Total Ammonia (N)	mg/L	<0.0050	0.0050	B539867	4.7	0.025	B539867
Nitrite (N)	mg/L	<0.0010	0.0010	B540406	1.7	0.0010	B540406
Nitrate (N)	mg/L	0.0039	0.0020	B540406	22	0.010	B540406
Total Nitrogen (N)	mg/L	<0.020 (1)	0.020	B541520	32 (2)	2.0	B541520
Physical Properties							
Conductivity	uS/cm	<1.0	1.0	B541331	1900	1.0	B541331
Physical Properties							
Turbidity - NTU	NTU	<0.10	0.10	B539251	70	0.10	B539251

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.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CWL197		CWL198		
Sampling Date		2024/09/24 11:00		2024/09/24 10:50		
COC Number		102339		102339		
	UNITS	**0008-121-FB**	**RDL**	**0008-SA2**	**RDL**	**QC Batch**
Elements						
Total Mercury (Hg)	mg/L	<0.0000019	0.0000019	<0.000019 (1)	0.000019	B543314

RDL = Reportable Detection Limit

(1) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Bureau Veritas Job #: C476623
Report Date: 2024/10/09

Arctic Canadian Diamond Company Ltd
Client Project #: 61990
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CWL197	CWL198		
Sampling Date		2024/09/24 11:00	2024/09/24 10:50		
COC Number		102339	102339		
	UNITS	**0008-121-FB**	**0008-SA2**	**RDL**	**QC Batch**
Elements					
Total Aluminum (Al)	mg/L	0.0068	1.9	0.0030	B547051
Total Antimony (Sb)	mg/L	<0.00060	0.0019	0.00060	B547051
Total Arsenic (As)	mg/L	<0.00020	0.0031	0.00020	B547051
Total Barium (Ba)	mg/L	<0.010	0.15	0.010	B547038
Total Beryllium (Be)	mg/L	<0.0010	<0.0010	0.0010	B547051
Total Boron (B)	mg/L	<0.020	0.080	0.020	B547038
Total Cadmium (Cd)	mg/L	<0.000020	0.00011	0.000020	B547051
Total Calcium (Ca)	mg/L	<0.30	32	0.30	B547038
Total Chromium (Cr)	mg/L	<0.0010	0.019	0.0010	B547051
Total Cobalt (Co)	mg/L	<0.00030	0.0078	0.00030	B547051
Total Copper (Cu)	mg/L	<0.0010	0.0089	0.0010	B547051
Total Iron (Fe)	mg/L	<0.060	4.6	0.060	B547038
Total Lead (Pb)	mg/L	<0.00020	0.00072	0.00020	B547051
Total Lithium (Li)	mg/L	<0.020	0.027	0.020	B547038
Total Magnesium (Mg)	mg/L	<0.20	44	0.20	B547038
Total Manganese (Mn)	mg/L	<0.0040	0.13	0.0040	B547038
Total Molybdenum (Mo)	mg/L	<0.00020	0.30	0.00020	B547051
Total Nickel (Ni)	mg/L	<0.00050	0.17	0.00050	B547051
Total Potassium (K)	mg/L	<0.30	180	0.30	B547038
Total Selenium (Se)	mg/L	<0.00020	0.0017	0.00020	B547051
Total Silicon (Si)	mg/L	<0.50	17	0.50	B547038
Total Silver (Ag)	mg/L	<0.00010	<0.00010	0.00010	B547051
Total Sodium (Na)	mg/L	<0.50	230	0.50	B547038
Total Strontium (Sr)	mg/L	<0.020	0.38	0.020	B547038
Total Sulphur (S)	mg/L	<0.20	190	0.20	B547038
Total Thallium (Tl)	mg/L	<0.00020	<0.00020	0.00020	B547051
Total Tin (Sn)	mg/L	0.0015	<0.0010	0.0010	B547051
Total Titanium (Ti)	mg/L	<0.0010	0.073	0.0010	B547051
Total Uranium (U)	mg/L	<0.00010	0.066	0.00010	B547051
Total Vanadium (V)	mg/L	<0.0010	0.029	0.0010	B547051
Total Zinc (Zn)	mg/L	<0.0030	0.033	0.0030	B547051
RDL = Reportable Detection Limit					

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GENERAL COMMENTS

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

Package 1	7.2°C
Package 2	6.2°C
Package 3	6.1°C
Package 4	5.3°C
Package 5	6.2°C
Package 6	5.0°C
Package 7	5.2°C
Package 8	7.4°C

Results relate only to the items tested.

BUREAU VERITAS

Bureau Veritas Job #: C476623
Report Date: 2024/10/09

QUALITY ASSURANCE REPORT

Arctic Canadian Diamond Company Ltd
Client Project #: 61990
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B539251	Turbidity - NTU	2024/09/26			100	80 - 120	<0.10	NTU	0.48	20		
B539867	Total Ammonia (N)	2024/09/27	110	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20		
B539986	Chloride (Cl)	2024/09/27	NC	80 - 120	98	80 - 120	<0.50	mg/L	0.41	20		
B540083	Orthophosphate (P)	2024/09/27	99	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B540406	Nitrate (N)	2024/09/27	99	80 - 120	100	80 - 120	<0.0020	mg/L	0.42	20		
B540406	Nitrite (N)	2024/09/27	NC	80 - 120	101	80 - 120	<0.0010	mg/L	0.028	20		
B540460	Acidity (pH 4.5)	2024/09/27					<1.0	mg/L	NC	20		
B540460	Acidity (pH 8.3)	2024/09/27			99	80 - 120	<1.0	mg/L	NC	20		
B541328	Alkalinity (PP as CaCO3)	2024/09/28					<0.50	mg/L	NC	20		
B541328	Alkalinity (Total as CaCO3)	2024/09/28			99	80 - 120	<0.50	mg/L	3.6	20		
B541328	Bicarbonate (HCO3)	2024/09/28					<0.50	mg/L	3.6	20		
B541328	Carbonate (CO3)	2024/09/28					<0.50	mg/L	NC	20		
B541328	Hydroxide (OH)	2024/09/28					<0.50	mg/L	NC	20		
B541329	pH	2024/09/28			100	97 - 103			1.4	N/A		
B541331	Conductivity	2024/09/28			102	90 - 110	<1.0	uS/cm	1.2	20		
B541333	Fluoride (F)	2024/09/29	103	80 - 120	102	80 - 120	<0.010	mg/L	3.9	20		
B541520	Total Nitrogen (N)	2024/10/01	111	80 - 120	105	80 - 120	<0.020	mg/L	NC	20	103	80 - 120
B541936	Dissolved Phosphorus (P)	2024/09/30	95	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20	90	80 - 120
B542888	Total Suspended Solids	2024/09/30	99	80 - 120	97	80 - 120	<1.0	mg/L	0.99	20		
B543189	Total Phosphorus (P)	2024/09/30	100	80 - 120	96	80 - 120	<0.0010	mg/L	7.0	20	88	80 - 120
B543191	Total Phosphorus (P)	2024/10/01	94	80 - 120	95	80 - 120	<0.0010	mg/L	2.9	20	90	80 - 120
B543314	Total Mercury (Hg)	2024/10/01	103	80 - 120	104	80 - 120	<0.0000019	mg/L	NC	20		
B543645	Dissolved-Low Level Sulphate (SO4)	2024/10/03	95	80 - 120	99	80 - 120	<0.050	mg/L	NC	20		
B547038	Total Barium (Ba)	2024/10/04	100	80 - 120	101	80 - 120	<0.010	mg/L	1.1	20		
B547038	Total Boron (B)	2024/10/04	97	80 - 120	98	80 - 120	<0.020	mg/L	0.059	20		
B547038	Total Calcium (Ca)	2024/10/04	NC	80 - 120	103	80 - 120	<0.30	mg/L	0.23	20		
B547038	Total Iron (Fe)	2024/10/04	NC	80 - 120	110	80 - 120	<0.060	mg/L	1.0	20		
B547038	Total Lithium (Li)	2024/10/04	104	80 - 120	103	80 - 120	<0.020	mg/L	0.10	20		
B547038	Total Magnesium (Mg)	2024/10/04	102	80 - 120	102	80 - 120	<0.20	mg/L	0.040	20		
B547038	Total Manganese (Mn)	2024/10/04	NC	80 - 120	109	80 - 120	<0.0040	mg/L	1.2	20		
B547038	Total Potassium (K)	2024/10/04	105	80 - 120	104	80 - 120	<0.30	mg/L	0.35	20		
B547038	Total Silicon (Si)	2024/10/04	NC	80 - 120	99	80 - 120	<0.50	mg/L	0.58	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B547038	Total Sodium (Na)	2024/10/04	NC	80 - 120	102	80 - 120	<0.50	mg/L	0.30	20		
B547038	Total Strontium (Sr)	2024/10/04	94	80 - 120	98	80 - 120	<0.020	mg/L	0.35	20		
B547038	Total Sulphur (S)	2024/10/04	NC	80 - 120	98	80 - 120	<0.20	mg/L	0.0051	20		
B547051	Total Aluminum (Al)	2024/10/05	101	80 - 120	109	80 - 120	<0.0030	mg/L	1.2	20		
B547051	Total Antimony (Sb)	2024/10/05	94	80 - 120	93	80 - 120	<0.00060	mg/L	NC	20		
B547051	Total Arsenic (As)	2024/10/05	94	80 - 120	93	80 - 120	<0.00020	mg/L	1.8	20		
B547051	Total Beryllium (Be)	2024/10/05	99	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B547051	Total Cadmium (Cd)	2024/10/05	94	80 - 120	92	80 - 120	<0.000020	mg/L				
B547051	Total Chromium (Cr)	2024/10/05	99	80 - 120	98	80 - 120	<0.0010	mg/L	8.2	20		
B547051	Total Cobalt (Co)	2024/10/05	97	80 - 120	98	80 - 120	<0.00030	mg/L	1.4	20		
B547051	Total Copper (Cu)	2024/10/05	94	80 - 120	96	80 - 120	<0.0010	mg/L	8.4	20		
B547051	Total Lead (Pb)	2024/10/05	91	80 - 120	93	80 - 120	<0.00020	mg/L	2.7	20		
B547051	Total Molybdenum (Mo)	2024/10/05	104	80 - 120	97	80 - 120	<0.00020	mg/L	8.7	20		
B547051	Total Nickel (Ni)	2024/10/05	95	80 - 120	97	80 - 120	<0.00050	mg/L	4.3	20		
B547051	Total Selenium (Se)	2024/10/05	85	80 - 120	84	80 - 120	<0.00020	mg/L	NC	20		
B547051	Total Silver (Ag)	2024/10/05	94	80 - 120	94	80 - 120	<0.00010	mg/L	NC	20		
B547051	Total Thallium (Tl)	2024/10/05	90	80 - 120	91	80 - 120	<0.00020	mg/L	NC	20		
B547051	Total Tin (Sn)	2024/10/05	104	80 - 120	99	80 - 120	<0.0010	mg/L	3.6	20		
B547051	Total Titanium (Ti)	2024/10/05	101	80 - 120	99	80 - 120	<0.0010	mg/L	2.7	20		
B547051	Total Uranium (U)	2024/10/05	99	80 - 120	98	80 - 120	<0.00010	mg/L	3.2	20		
B547051	Total Vanadium (V)	2024/10/05	102	80 - 120	101	80 - 120	<0.0010	mg/L	9.2	20		
B547051	Total Zinc (Zn)	2024/10/05	86	80 - 120	88	80 - 120	<0.0030	mg/L	NC	20		
B548502	Reactive Silica	2024/10/03	117	80 - 120	100	80 - 120	<0.050	mg/L	1.9	20		
B550473	Total Inorganic Carbon (C)	2024/10/04	86	80 - 120	105	80 - 120	<1.0	mg/L	NC	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B556140	Total Organic Carbon (C)	2024/10/08	103	75 - 125	102	80 - 120	<0.20	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 <= 2x RDL).

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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

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.

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C476623
2024/09/26 09:50

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

BUREAU VERITAS 1828

COC# 102339

SO# 61990

For Lab Use	Sample Point	Station Type	Date	Time	Matrix	Type	DI Lot Number	Dissolved Nutrients	Major Ions	SNP Total Nutrients	Standard Total Metals	pH Field (pH)	Water Temp (°C)
✓	0008-121-FB	EKA 2002 0008	24-Sep-2024	11:00	Water	SNP	Y	Y	Y	Y	Y		
✓	0008-Sa2	EKA 2002 0008	24-Sep-2024	10:50	Water	SNP		Y	Y	Y	Y	9.93	2.4

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

SAMPLE INFORMATION — FOR LAB USE ONLY

MCAL-2024-09-2344

Special Instructions (Billing details, QC reporting etc):
To monitor the quality of water entering the Two Rock Sedimentation Pond.

Frequency: Weekly during discharge.
Parameters: TSS, physical parameters, major ions, total metals and nutrients

Relinquished by:	Date / Time	Received by:	Date / Time
Gavin W	Date 25-Sep-2024 Time 7:00	ATRAVERA 4/11	Date 2024/09/26 Time 09:50
Relinquished by:	Date Time	Received by:	Date Time

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

See A CTR

COR FCD-00265 / 5
Page 1 of 1

BUREAU VERITAS

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

m col

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS: ATR 2024/09/26

CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT	✓	✓	TEMP 1	2	3
INTACT	✓	✓	7.1	7.2	7.2
ICE PRESENT	✓				
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT		✓	TEMP 1	2	3
INTACT		✓	6.1	6.2	6.2
ICE PRESENT	✓				
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT		✓	TEMP 1	2	3
INTACT		✓	6.0	6.1	6.1
ICE PRESENT	✓				
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT		✓	TEMP 1	2	3
INTACT		✓	5.6	5.1	5.1
ICE PRESENT	✓				
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT		✓	TEMP 1	2	3
INTACT		✓	6.3	6.1	6.1
ICE PRESENT	✓				
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT		✓	TEMP 1	2	3
INTACT		✓	5.1	4.9	4.9
ICE PRESENT	✓				
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT		✓	TEMP 1	2	3
INTACT		✓	5.3	5.1	5.1
ICE PRESENT	✓				
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT		✓	TEMP 1	2	3
INTACT		✓	7.9	7.1	7.1
ICE PRESENT	✓				
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT			TEMP 1	2	3
INTACT					
ICE PRESENT					
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT			TEMP 1	2	3
INTACT					
ICE PRESENT					

BV JOB#:

CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT			TEMP 1	2	3
INTACT					
ICE PRESENT					
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT			TEMP 1	2	3
INTACT					
ICE PRESENT					
CUSTODY SEAL	YES	NO	COOLER ID		
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CUSTODY SEAL	YES	NO	COOLER ID		
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CUSTODY SEAL	YES	NO	COOLER ID		
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CUSTODY SEAL	YES	NO	COOLER ID		
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CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT			TEMP 1	2	3
INTACT					
ICE PRESENT					
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT			TEMP 1	2	3
INTACT					
ICE PRESENT					
CUSTODY SEAL	YES	NO	COOLER ID		
PRESENT			TEMP 1	2	3
INTACT					
ICE PRESENT					

RECEIVED BY (SIGN & PRINT)	DATE (YYYY/MM/DD)	TIME (HH:MM)
ATRAVYRA GILL	2024/09/26	09:50

Your P.O. #: 6404002992
Your Project #: 57215
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102337

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/17
Report #: R3572988
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C479153
Received: 2024/10/03, 14:10

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity pH 4.5 & pH 8.3 (as CaCO3)	3	N/A	2024/10/04	AB SOP-00005	SM 24 2310 B m
Alkalinity - Low Level	3	N/A	2024/10/07	AB SOP-00005	SM 24 2320 B m
Low level chloride/sulphate by AC	3	N/A	2024/10/04	AB SOP-00020	SM24-4500-Cl/SO4-E m
Conductance - Low Level	3	N/A	2024/10/07	AB SOP-00005	SM 24 2510 B m
Fluoride - Low Level	3	N/A	2024/10/07	AB SOP-00005	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	3	N/A	2024/10/16	BBY WI-00033	Auto Calc
Mercury (Dissolved) by CV (2)	3	2024/10/07	2024/10/08	AB SOP-00084	BCMOE BCLM Oct2013 m
Mercury (Total) by CV	3	2024/10/07	2024/10/10	AB SOP-00084	BCMOE BCLM Oct2013 m
Elements by ICP - Dissolved (2)	3	N/A	2024/10/06	AB SOP-00042	EPA 6010d R5 m
Elements by ICP - Total	3	2024/10/11	2024/10/16	AB SOP-00014 / AB SOP-00042	EPA 6010d R5 m
Elements by ICPMS - Dissolved (2)	3	N/A	2024/10/06	AB SOP-00043	EPA 6020b R2 m
Elements by ICPMS - Total	3	2024/10/11	2024/10/16	AB SOP-00014 / AB SOP-00043	EPA 6020b R2 m
Ammonia-N Low Level (Preserved)	3	N/A	2024/10/07	AB SOP-00007	SM 24 4500 NH3 A G m
Nitrate + Nitrite-N (calculated) Low Lev	3	N/A	2024/10/07		Auto Calc
Nitrogen (Nitrite - Nitrate) Low Level	2	N/A	2024/10/05	AB SOP-00023	SM 24 4110 B m
Nitrogen (Nitrite - Nitrate) Low Level	1	N/A	2024/10/08	AB SOP-00023	SM 24 4110 B m
pH @25°C (3)	3	N/A	2024/10/07	AB SOP-00005	SM 24 4500-H+B m
pH (Field)	2	N/A	2024/10/03	Field Test	Field Test
Orthophosphate LL by Automated Analyzer (4)	3	N/A	2024/10/04	AB SOP-00025	SM 24 4500-P A, F m
Silica (Reactive)	1	N/A	2024/10/10	AB SOP-00011	EPA 370.1 R1978 m
Silica (Reactive)	2	N/A	2024/10/08	AB SOP-00011	EPA 370.1 R1978 m
Sulphate (SO4) by IC	3	N/A	2024/10/05	AB SOP-00026	SM 24 4110 B m
Carbon (total) (Calc. - Org. + Inorg.)	2	N/A	2024/10/13		Auto Calc
Carbon (total) (Calc. - Org. + Inorg.)	1	N/A	2024/10/09		Auto Calc
Temperature (Field)	2	N/A	2024/10/03	Field Test	Field Test
Carbon (Inorganic)	3	N/A	2024/10/07	CAL SOP-00076	Modified AE 2411
Total Kjeldahl Nitrogen (Total)	3	N/A	2024/10/08	BBY WI-00033	Auto Calc
Nitrogen (Total)	3	2024/10/04	2024/10/07	AB SOP-00093	SM 24 4500-N C m
Carbon (Total Organic) (5)	2	N/A	2024/10/12	AB SOP-00087	MMCW 119 1996 m
Carbon (Total Organic) (5)	1	N/A	2024/10/08	AB SOP-00087	MMCW 119 1996 m

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your P.O. #: 6404002992
Your Project #: 57215
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102337

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/17
Report #: R3572988
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C479153
Received: 2024/10/03, 14:10

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Phosphorus Low Level Dissolved (6)	3	2024/10/07	2024/10/07	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total	3	2024/10/09	2024/10/09	AB SOP-00024	SM 24 4500-P A,B,F m
Total Suspended Solids (NFR)	3	2024/10/04	2024/10/05	AB SOP-00061	SM 24 2540 D m
Turbidity	3	N/A	2024/10/04	CAL SOP-00081	SM 24 2130 B m
Ion Balance (7)	3	N/A	2024/10/16		
Total Dissolved Solids (Calculated) (7)	3	N/A	2024/10/16		

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.

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Your P.O. #: 6404002992
Your Project #: 57215
Site Location: MDMER/SNP/SEEPAGE
Your C.O.C. #: 102337

Attention: COMPLIANCE TEAM

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

Report Date: 2024/10/17
Report #: R3572988
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C479153
Received: 2024/10/03, 14:10

(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.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
17 Oct 2024 13:14:31

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 Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C479153
Report Date: 2024/10/17

Arctic Canadian Diamond Company Ltd
Client Project #: 57215
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CWZ903			CWZ904			CWZ905		
Sampling Date		2024/09/28 13:55			2024/09/28 14:07			2024/09/28 15:00		
COC Number		102337			102337			102337		
	UNITS	**1616-12**	**RDL**	**QC Batch**	**1616-290**	**RDL**	**QC Batch**	**1616-494-TB**	**RDL**	**QC Batch**
Calculated Parameters										
Total Hardness (CaCO3)	mg/L	25.7	0.50	B548548	25.5	0.50	B548548	<0.50	0.50	B548548
Calculated Ion Balance (% Difference)	%	8.2		B549730	10		B549730	NC		B549730
Nitrate plus Nitrite (N)	mg/L	0.090	0.0022	B549705	0.11	0.0022	B549705	<0.0022	0.0022	B549705
Calculated Total Dissolved Solids	mg/L	38	0.95	B549735	37	0.95	B549735	<0.95	0.95	B549735
Total Total Kjeldahl Nitrogen (Calc)	mg/L	0.34	0.020	B548916	0.29	0.020	B548916	<0.020	0.020	B548916
Field Parameters										
Field pH	pH	7.19	N/A	ONSITE	7.19	N/A	ONSITE			
Field Temperature (Fd)	deg. C	4.7	N/A	ONSITE	4.7	N/A	ONSITE			
Misc. Inorganics										
Fluoride (F)	mg/L	0.027	0.010	B551788	0.020	0.010	B551788	<0.010	0.010	B551788
pH	pH	6.38	N/A	B551786	6.20	N/A	B551786	5.92	N/A	B551786
Reactive Silica	mg/L	0.73	0.050	B555779	0.74	0.050	B555779	<0.050	0.050	B559523
Acidity (pH 4.5)	mg/L	<1.0	1.0	B551405	<1.0	1.0	B551405	<1.0	1.0	B551405
Alkalinity (Total as CaCO3)	mg/L	9.02	0.50	B551784	8.10	0.50	B551784	0.95	0.50	B551784
Total Organic Carbon (C)	mg/L	5.1	0.20	B556140	5.0	0.20	B562798	<0.20	0.20	B562798
Acidity (pH 8.3)	mg/L	2.9	1.0	B551405	2.3	1.0	B551405	<1.0	1.0	B551405
Alkalinity (PP as CaCO3)	mg/L	<0.50	0.50	B551784	<0.50	0.50	B551784	<0.50	0.50	B551784
Bicarbonate (HCO3)	mg/L	11.0	0.50	B551784	9.88	0.50	B551784	1.15	0.50	B551784
Carbonate (CO3)	mg/L	<0.50	0.50	B551784	<0.50	0.50	B551784	<0.50	0.50	B551784
Hydroxide (OH)	mg/L	<0.50	0.50	B551784	<0.50	0.50	B551784	<0.50	0.50	B551784
Total Suspended Solids	mg/L	1.6	0.99	B550075	2.1	1.0	B550075	<1.0	1.0	B550075
Anions										
Orthophosphate (P)	mg/L	<0.0010	0.0010	B550960	<0.0010	0.0010	B550960	<0.0010	0.0010	B550960
Chloride (Cl)	mg/L	2.3	0.50	B550908	1.8	0.50	B551065	<0.50	0.50	B550908
Dissolved-Low Level Sulphate (SO4)	mg/L	16	0.30	B543649	16	0.30	B543649	<0.30	0.30	B543649
Nutrients										
Total Carbon (C)	mg/L	7.6	0.50	B549722	7.0	0.50	B549722	<0.50	0.50	B549722
Total Inorganic Carbon (C)	mg/L	2.5	1.0	B554060	2.0	1.0	B554060	<1.0 (1)	1.0	B554060
Dissolved Phosphorus (P)	mg/L	0.0028	0.0020	B553584	0.0027	0.0020	B553584	<0.0020	0.0020	B553584
Total Phosphorus (P)	mg/L	0.0079	0.0020	B557685	0.0065	0.0020	B557685	<0.0020	0.0020	B557685

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Matrix spike exceeds acceptance limits due to matrix interference.

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Bureau Veritas Job #: C479153
Report Date: 2024/10/17

Arctic Canadian Diamond Company Ltd
Client Project #: 57215
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID		CWZ903			CWZ904			CWZ905		
Sampling Date		2024/09/28 13:55			2024/09/28 14:07			2024/09/28 15:00		
COC Number		102337			102337			102337		
	UNITS	**1616-12**	**RDL**	**QC Batch**	**1616-290**	**RDL**	**QC Batch**	**1616-494-TB**	**RDL**	**QC Batch**
Total Ammonia (N)	mg/L	0.021	0.0050	B553627	0.019	0.0050	B553627	<0.0050	0.0050	B553627
Nitrite (N)	mg/L	<0.0010	0.0010	B555968	<0.0010	0.0010	B551767	<0.0010	0.0010	B551767
Nitrate (N)	mg/L	0.090	0.0020	B555968	0.11	0.0020	B551767	<0.0020	0.0020	B551767
Total Nitrogen (N)	mg/L	0.45	0.020	B551398	0.43	0.020	B551398	<0.020	0.020	B551401
Physical Properties										
Conductivity	uS/cm	72.1	1.0	B551787	70.5	1.0	B551787	<1.0	1.0	B551787
Physical Properties										
Turbidity - NTU	NTU	2.2	0.10	B551448	1.5	0.10	B551448	<0.10	0.10	B551448
RDL = Reportable Detection Limit										

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Bureau Veritas Job #: C479153
Report Date: 2024/10/17

Arctic Canadian Diamond Company Ltd
Client Project #: 57215
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID		CWZ903	CWZ904	CWZ905		
Sampling Date		2024/09/28 13:55	2024/09/28 14:07	2024/09/28 15:00		
COC Number		102337	102337	102337		
	UNITS	**1616-12**	**1616-290**	**1616-494-TB**	**RDL**	**QC Batch**
Elements						
Dissolved Mercury (Hg)	mg/L	<0.0000019	<0.0000019	<0.0000019	0.0000019	B554668
Total Mercury (Hg)	mg/L	<0.0000019	<0.0000019	<0.0000019	0.0000019	B554694
RDL = Reportable Detection Limit						

Bureau Veritas Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CWZ903		CWZ904		CWZ905		
Sampling Date		2024/09/28 13:55		2024/09/28 14:07		2024/09/28 15:00		
COC Number		102337		102337		102337		
	UNITS	**1616-12**	**QC Batch**	**1616-290**	**QC Batch**	**1616-494-TB**	**RDL**	**QC Batch**
Elements								
Dissolved Aluminum (Al)	mg/L	0.016	B552433	0.016	B552433	<0.0030	0.0030	B552433
Total Aluminum (Al)	mg/L	0.047	B562273	0.048	B562273	<0.0030	0.0030	B562256
Dissolved Antimony (Sb)	mg/L	<0.00060	B552433	<0.00060	B552433	<0.00060	0.00060	B552433
Total Antimony (Sb)	mg/L	<0.00060	B562273	<0.00060	B562273	<0.00060	0.00060	B562256
Dissolved Arsenic (As)	mg/L	0.00031	B552433	0.00032	B552433	<0.00020	0.00020	B552433
Total Arsenic (As)	mg/L	0.00032	B562273	0.00031	B562273	<0.00020	0.00020	B562256
Dissolved Barium (Ba)	mg/L	<0.010	B552586	<0.010	B552586	<0.010	0.010	B552586
Total Barium (Ba)	mg/L	0.010	B562263	0.010	B562263	<0.010	0.010	B562251
Dissolved Beryllium (Be)	mg/L	<0.0010	B552433	<0.0010	B552433	<0.0010	0.0010	B552433
Total Beryllium (Be)	mg/L	<0.0010	B562273	<0.0010	B562273	<0.0010	0.0010	B562256
Dissolved Boron (B)	mg/L	<0.020	B552586	<0.020	B552586	<0.020	0.020	B552586
Total Boron (B)	mg/L	<0.020	B562263	<0.020	B562263	<0.020	0.020	B562251
Dissolved Cadmium (Cd)	mg/L	<0.000020	B552433	<0.000020	B552433	<0.000020	0.000020	B552433
Total Cadmium (Cd)	mg/L	<0.000020	B562273	<0.000020	B562273	<0.000020	0.000020	B562256
Dissolved Calcium (Ca)	mg/L	3.8	B552586	3.9	B552586	<0.30	0.30	B552586
Total Calcium (Ca)	mg/L	4.4	B562263	4.4	B562263	<0.30	0.30	B562251
Dissolved Chromium (Cr)	mg/L	<0.0010	B552433	<0.0010	B552433	<0.0010	0.0010	B552433
Total Chromium (Cr)	mg/L	<0.0010	B562273	<0.0010	B562273	<0.0010	0.0010	B562256
Dissolved Cobalt (Co)	mg/L	<0.00030	B552433	<0.00030	B552433	<0.00030	0.00030	B552433
Total Cobalt (Co)	mg/L	<0.00030	B562273	<0.00030	B562273	<0.00030	0.00030	B562256
Dissolved Copper (Cu)	mg/L	0.0013	B552433	0.0013	B552433	<0.0010	0.0010	B552433
Total Copper (Cu)	mg/L	0.0020	B562273	0.0020	B562273	<0.0010	0.0010	B562256
Dissolved Iron (Fe)	mg/L	<0.060	B552586	<0.060	B552586	<0.060	0.060	B552586
Total Iron (Fe)	mg/L	0.14	B562263	0.13	B562263	<0.060	0.060	B562251
Dissolved Lead (Pb)	mg/L	<0.00020	B552433	<0.00020	B552433	<0.00020	0.00020	B552433
Total Lead (Pb)	mg/L	<0.00020	B562273	<0.00020	B562273	<0.00020	0.00020	B562256
Dissolved Lithium (Li)	mg/L	<0.020	B552586	<0.020	B552586	<0.020	0.020	B552586
Total Lithium (Li)	mg/L	<0.020	B562263	<0.020	B562263	<0.020	0.020	B562251
Dissolved Magnesium (Mg)	mg/L	3.4	B552586	3.4	B552586	<0.20	0.20	B552586
Total Magnesium (Mg)	mg/L	3.6	B562263	3.6	B562263	<0.20	0.20	B562251
Dissolved Manganese (Mn)	mg/L	0.0043	B552586	<0.0040	B552586	<0.0040	0.0040	B552586

RDL = Reportable Detection Limit

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		CWZ903		CWZ904		CWZ905		
Sampling Date		2024/09/28 13:55		2024/09/28 14:07		2024/09/28 15:00		
COC Number		102337		102337		102337		
	UNITS	**1616-12**	**QC Batch**	**1616-290**	**QC Batch**	**1616-494-TB**	**RDL**	**QC Batch**
Total Manganese (Mn)	mg/L	0.011	B562263	0.010	B562263	<0.0040	0.0040	B562251
Dissolved Molybdenum (Mo)	mg/L	0.00022	B568022	0.00048	B552433	<0.00020	0.00020	B568022
Total Molybdenum (Mo)	mg/L	<0.00020	B562273	<0.00020	B562273	<0.00020	0.00020	B562256
Dissolved Nickel (Ni)	mg/L	0.0014	B552433	0.0012	B552433	<0.00050	0.00050	B552433
Total Nickel (Ni)	mg/L	0.0015	B562273	0.0017	B562273	<0.00050	0.00050	B562256
Dissolved Potassium (K)	mg/L	1.6	B552586	1.7	B552586	<0.30	0.30	B552586
Total Potassium (K)	mg/L	1.9	B562263	1.9	B562263	<0.30	0.30	B562251
Dissolved Selenium (Se)	mg/L	<0.00020	B552433	<0.00020	B552433	<0.00020	0.00020	B552433
Total Selenium (Se)	mg/L	<0.00020	B562273	<0.00020	B562273	<0.00020	0.00020	B562256
Dissolved Silicon (Si)	mg/L	<0.50	B552586	<0.50	B552586	<0.50	0.50	B552586
Total Silicon (Si)	mg/L	0.50	B562263	0.50	B562263	<0.50	0.50	B562251
Dissolved Silver (Ag)	mg/L	<0.00010	B552433	<0.00010	B552433	<0.00010	0.00010	B552433
Total Silver (Ag)	mg/L	<0.00010	B562273	<0.00010	B562273	<0.00010	0.00010	B562256
Dissolved Sodium (Na)	mg/L	2.5	B552586	2.6	B552586	<0.50	0.50	B552586
Total Sodium (Na)	mg/L	2.8	B562263	2.8	B562263	<0.50	0.50	B562251
Dissolved Strontium (Sr)	mg/L	0.026	B552586	0.027	B552586	<0.020	0.020	B552586
Total Strontium (Sr)	mg/L	0.032	B562263	0.032	B562263	<0.020	0.020	B562251
Dissolved Sulphur (S)	mg/L	5.9	B552586	5.6	B552586	<0.20	0.20	B552586
Total Sulphur (S)	mg/L	5.5	B562263	5.5	B562263	<0.20	0.20	B562251
Dissolved Thallium (Tl)	mg/L	<0.00020	B552433	<0.00020	B552433	<0.00020	0.00020	B552433
Total Thallium (Tl)	mg/L	<0.00020	B562273	<0.00020	B562273	<0.00020	0.00020	B562256
Dissolved Tin (Sn)	mg/L	<0.0010	B552433	<0.0010	B552433	<0.0010	0.0010	B552433
Total Tin (Sn)	mg/L	<0.0010	B562273	<0.0010	B562273	<0.0010	0.0010	B562256
Dissolved Titanium (Ti)	mg/L	<0.0010	B552433	<0.0010	B552433	<0.0010	0.0010	B552433
Total Titanium (Ti)	mg/L	0.0022	B562273	0.0021	B562273	<0.0010	0.0010	B562256
Dissolved Uranium (U)	mg/L	<0.00010	B552433	<0.00010	B552433	<0.00010	0.00010	B552433
Total Uranium (U)	mg/L	<0.00010	B562273	<0.00010	B562273	<0.00010	0.00010	B562256
Dissolved Vanadium (V)	mg/L	<0.0010	B552433	<0.0010	B552433	<0.0010	0.0010	B552433
Total Vanadium (V)	mg/L	<0.0010	B562273	<0.0010	B562273	<0.0010	0.0010	B562256
Dissolved Zinc (Zn)	mg/L	<0.0030	B552433	<0.0030	B552433	<0.0030	0.0030	B552433
Total Zinc (Zn)	mg/L	<0.0030	B562273	<0.0030	B562273	<0.0030	0.0030	B562256
RDL = Reportable Detection Limit								

GENERAL COMMENTS

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

Package 1	0.6°C
Package 2	5.6°C
Package 3	0.1°C
Package 4	-0.1°C
Package 5	3.5°C
Package 6	-0.7°C
Package 7	1.7°C
Package 8	1.8°C

Sample CWZ903 [1616-12] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water (LL). Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

Sample CWZ904 [1616-290] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water (LL). Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

Sample CWZ905 [1616-494-TB] : Sample was analyzed past method specified hold time for Orthophosphate LL by Automated Analyzer. 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 Turbidity. Sample was analyzed past method specified hold time for NO2 (N); NO2 (N) + NO3 (N) in Water (LL). Sample was analyzed past method specified hold time for Nitrogen (Nitrite - Nitrate) Low Level.

RESULTS OF CHEMICAL ANALYSES OF WATER Comments

Sample CWZ903 [1616-12] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample CWZ904 [1616-290] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.
Sample CWZ905 [1616-494-TB] Orthophosphate LL by Automated Analyzer: Sample was past hold time when received from FV.

Sample CWZ903, Elements by ICPMS - Dissolved: Test repeated.
Sample CWZ905, Elements by ICPMS - Dissolved: Test repeated.

Results relate only to the items tested.

Bureau Veritas Job #: C479153
Report Date: 2024/10/17

QUALITY ASSURANCE REPORT

Arctic Canadian Diamond Company Ltd
Client Project #: 57215
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B543649	Dissolved-Low Level Sulphate (SO4)	2024/10/05	NC	80 - 120	91	80 - 120	<0.050	mg/L	0.14	20		
B550075	Total Suspended Solids	2024/10/05	83	80 - 120	90	80 - 120	<1.0	mg/L	11	20		
B550908	Chloride (Cl)	2024/10/04	NC	80 - 120	102	80 - 120	<0.50	mg/L	0.65	20		
B550960	Orthophosphate (P)	2024/10/04	95	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20		
B551065	Chloride (Cl)	2024/10/04	105	80 - 120	102	80 - 120	<0.50	mg/L	3.8	20		
B551398	Total Nitrogen (N)	2024/10/07	NC	80 - 120	110	80 - 120	<0.020	mg/L	0.20	20	105	80 - 120
B551401	Total Nitrogen (N)	2024/10/07	106	80 - 120	109	80 - 120	<0.020	mg/L	NC	20	103	80 - 120
B551405	Acidity (pH 4.5)	2024/10/04					<1.0	mg/L	NC	20		
B551405	Acidity (pH 8.3)	2024/10/04			103	80 - 120	<1.0	mg/L	1.3	20		
B551448	Turbidity - NTU	2024/10/04			101	80 - 120	<0.10	NTU	NC	20		
B551767	Nitrate (N)	2024/10/05	99	80 - 120	100	80 - 120	<0.0020	mg/L	0.033	20		
B551767	Nitrite (N)	2024/10/05	99	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B551784	Alkalinity (PP as CaCO3)	2024/10/07					<0.50	mg/L	NC	20		
B551784	Alkalinity (Total as CaCO3)	2024/10/07			97	80 - 120	<0.50	mg/L	9.1	20		
B551784	Bicarbonate (HCO3)	2024/10/07					<0.50	mg/L	9.1	20		
B551784	Carbonate (CO3)	2024/10/07					<0.50	mg/L	NC	20		
B551784	Hydroxide (OH)	2024/10/07					<0.50	mg/L	NC	20		
B551786	pH	2024/10/07			101	97 - 103			1.6	N/A		
B551787	Conductivity	2024/10/07			102	90 - 110	<1.0	uS/cm	0.83	20		
B551788	Fluoride (F)	2024/10/07	97	80 - 120	99	80 - 120	<0.010	mg/L	18	20		
B552433	Dissolved Aluminum (Al)	2024/10/05	88	80 - 120	101	80 - 120	<0.0030	mg/L	19	20		
B552433	Dissolved Antimony (Sb)	2024/10/05	88	80 - 120	97	80 - 120	<0.00060	mg/L	NC	20		
B552433	Dissolved Arsenic (As)	2024/10/05	89	80 - 120	98	80 - 120	<0.00020	mg/L	9.5	20		
B552433	Dissolved Beryllium (Be)	2024/10/05	89	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20		
B552433	Dissolved Cadmium (Cd)	2024/10/06	89	80 - 120	97	80 - 120	<0.000020	mg/L				
B552433	Dissolved Chromium (Cr)	2024/10/05	88	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B552433	Dissolved Cobalt (Co)	2024/10/05	87	80 - 120	98	80 - 120	<0.00030	mg/L	NC	20		
B552433	Dissolved Copper (Cu)	2024/10/05	84	80 - 120	95	80 - 120	<0.0010	mg/L	NC	20		
B552433	Dissolved Lead (Pb)	2024/10/05	86	80 - 120	96	80 - 120	<0.00020	mg/L	NC	20		
B552433	Dissolved Molybdenum (Mo)	2024/10/05	89	80 - 120	97	80 - 120	<0.00020	mg/L	5.0	20		
B552433	Dissolved Nickel (Ni)	2024/10/05	85	80 - 120	96	80 - 120	<0.00050	mg/L	5.0	20		
B552433	Dissolved Selenium (Se)	2024/10/05	94	80 - 120	100	80 - 120	<0.00020	mg/L	NC	20		

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Bureau Veritas Job #: C479153
Report Date: 2024/10/17

QUALITY ASSURANCE REPORT(CONT'D)

Arctic Canadian Diamond Company Ltd
Client Project #: 57215
Site Location: MDMER/SNP/SEEPAGE
Your P.O. #: 6404002992

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B552433	Dissolved Silver (Ag)	2024/10/05	86	80 - 120	96	80 - 120	<0.00010	mg/L	NC	20		
B552433	Dissolved Thallium (Tl)	2024/10/05	84	80 - 120	93	80 - 120	<0.00020	mg/L	NC	20		
B552433	Dissolved Tin (Sn)	2024/10/05	89	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
B552433	Dissolved Titanium (Ti)	2024/10/05	87	80 - 120	94	80 - 120	<0.0010	mg/L	NC	20		
B552433	Dissolved Uranium (U)	2024/10/05	86	80 - 120	96	80 - 120	<0.00010	mg/L	0.84	20		
B552433	Dissolved Vanadium (V)	2024/10/05	88	80 - 120	100	80 - 120	<0.0010	mg/L	NC	20		
B552433	Dissolved Zinc (Zn)	2024/10/05	90	80 - 120	95	80 - 120	<0.0030	mg/L	NC	20		
B552586	Dissolved Barium (Ba)	2024/10/06	87	80 - 120	95	80 - 120	<0.010	mg/L				
B552586	Dissolved Boron (B)	2024/10/06	89	80 - 120	100	80 - 120	<0.020	mg/L				
B552586	Dissolved Calcium (Ca)	2024/10/06	NC	80 - 120	94	80 - 120	<0.30	mg/L	1.8	20		
B552586	Dissolved Iron (Fe)	2024/10/06	89	80 - 120	100	80 - 120	<0.060	mg/L	6.6	20		
B552586	Dissolved Lithium (Li)	2024/10/06	94	80 - 120	85	80 - 120	<0.020	mg/L				
B552586	Dissolved Magnesium (Mg)	2024/10/06	95	80 - 120	97	80 - 120	<0.20	mg/L	0.16	20		
B552586	Dissolved Manganese (Mn)	2024/10/06	92	80 - 120	98	80 - 120	<0.0040	mg/L	1.8	20		
B552586	Dissolved Potassium (K)	2024/10/06	95	80 - 120	95	80 - 120	<0.30	mg/L	2.4	20		
B552586	Dissolved Silicon (Si)	2024/10/06	92	80 - 120	98	80 - 120	<0.50	mg/L				
B552586	Dissolved Sodium (Na)	2024/10/06	90	80 - 120	95	80 - 120	<0.50	mg/L	1.2	20		
B552586	Dissolved Strontium (Sr)	2024/10/06	82	80 - 120	94	80 - 120	<0.020	mg/L				
B552586	Dissolved Sulphur (S)	2024/10/06	NC	80 - 120	99	80 - 120	<0.20	mg/L				
B553584	Dissolved Phosphorus (P)	2024/10/07	102	80 - 120	104	80 - 120	<0.0010	mg/L	NC	20	95	80 - 120
B553627	Total Ammonia (N)	2024/10/07	103	80 - 120	107	80 - 120	<0.0050	mg/L				
B554060	Total Inorganic Carbon (C)	2024/10/07	75 (1)	80 - 120	104	80 - 120	<1.0	mg/L	NC	20		
B554668	Dissolved Mercury (Hg)	2024/10/08	98	80 - 120	103	80 - 120	<0.0000019	mg/L	NC	20		
B554694	Total Mercury (Hg)	2024/10/10	104	80 - 120	105	80 - 120	<0.0000019	mg/L	NC	20		
B555779	Reactive Silica	2024/10/08	NC	80 - 120	106	80 - 120	<0.050	mg/L	3.5	20		
B555968	Nitrate (N)	2024/10/08	NC	80 - 120	99	80 - 120	<0.0020	mg/L				
B555968	Nitrite (N)	2024/10/08	102	80 - 120	99	80 - 120	<0.0010	mg/L				
B556140	Total Organic Carbon (C)	2024/10/08	103	75 - 125	102	80 - 120	<0.20	mg/L	NC	20		
B557685	Total Phosphorus (P)	2024/10/09	99	80 - 120	96	80 - 120	<0.0010	mg/L	NC	20	92	80 - 120
B559523	Reactive Silica	2024/10/10	NC	80 - 120	107	80 - 120	<0.050	mg/L	1.9	20		
B562251	Total Barium (Ba)	2024/10/16	100	80 - 120	103	80 - 120	<0.010	mg/L	0.92	20		
B562251	Total Boron (B)	2024/10/16	95	80 - 120	96	80 - 120	<0.020	mg/L	2.0	20		

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			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B562251	Total Calcium (Ca)	2024/10/16	NC	80 - 120	104	80 - 120	<0.30	mg/L	0.25	20		
B562251	Total Iron (Fe)	2024/10/16	114	80 - 120	114	80 - 120	<0.060	mg/L	8.4	20		
B562251	Total Lithium (Li)	2024/10/16	83	80 - 120	101	80 - 120	<0.020	mg/L	0.65	20		
B562251	Total Magnesium (Mg)	2024/10/16	110	80 - 120	107	80 - 120	<0.20	mg/L	2.9	20		
B562251	Total Manganese (Mn)	2024/10/16	109	80 - 120	111	80 - 120	<0.0040	mg/L	8.8	20		
B562251	Total Potassium (K)	2024/10/16	90	80 - 120	104	80 - 120	<0.30	mg/L	1.0	20		
B562251	Total Silicon (Si)	2024/10/16	102	80 - 120	102	80 - 120	<0.50	mg/L	4.8	20		
B562251	Total Sodium (Na)	2024/10/16	NC	80 - 120	102	80 - 120	<0.50	mg/L	0.18	20		
B562251	Total Strontium (Sr)	2024/10/16	99	80 - 120	103	80 - 120	<0.020	mg/L	1.8	20		
B562251	Total Sulphur (S)	2024/10/16	NC	80 - 120	101	80 - 120	<0.20	mg/L	4.3	20		
B562256	Total Aluminum (Al)	2024/10/15	NC	80 - 120	102	80 - 120	<0.0030	mg/L	4.9	20		
B562256	Total Antimony (Sb)	2024/10/15	110	80 - 120	98	80 - 120	<0.00060	mg/L	NC	20		
B562256	Total Arsenic (As)	2024/10/15	111	80 - 120	98	80 - 120	<0.00020	mg/L	7.7	20		
B562256	Total Beryllium (Be)	2024/10/15	105	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B562256	Total Cadmium (Cd)	2024/10/15	111	80 - 120	96	80 - 120	<0.000020	mg/L				
B562256	Total Chromium (Cr)	2024/10/15	101	80 - 120	97	80 - 120	<0.0010	mg/L	NC	20		
B562256	Total Cobalt (Co)	2024/10/15	100	80 - 120	98	80 - 120	<0.00030	mg/L	4.3	20		
B562256	Total Copper (Cu)	2024/10/15	98	80 - 120	99	80 - 120	<0.0010	mg/L	3.6	20		
B562256	Total Lead (Pb)	2024/10/15	107	80 - 120	101	80 - 120	<0.00020	mg/L	NC	20		
B562256	Total Molybdenum (Mo)	2024/10/15	110	80 - 120	98	80 - 120	<0.00020	mg/L	5.2	20		
B562256	Total Nickel (Ni)	2024/10/15	99	80 - 120	97	80 - 120	<0.00050	mg/L	1.8	20		
B562256	Total Selenium (Se)	2024/10/15	115	80 - 120	96	80 - 120	<0.00020	mg/L	18	20		
B562256	Total Silver (Ag)	2024/10/15	104	80 - 120	98	80 - 120	<0.00010	mg/L	NC	20		
B562256	Total Thallium (Tl)	2024/10/15	110	80 - 120	104	80 - 120	<0.00020	mg/L	NC	20		
B562256	Total Tin (Sn)	2024/10/15	112	80 - 120	98	80 - 120	<0.0010	mg/L	NC	20		
B562256	Total Titanium (Ti)	2024/10/15	99	80 - 120	95	80 - 120	<0.0010	mg/L	3.7	20		
B562256	Total Uranium (U)	2024/10/15	107	80 - 120	100	80 - 120	<0.00010	mg/L	6.7	20		
B562256	Total Vanadium (V)	2024/10/15	104	80 - 120	98	80 - 120	<0.0010	mg/L	2.1	20		
B562256	Total Zinc (Zn)	2024/10/15	104	80 - 120	96	80 - 120	<0.0030	mg/L	5.7	20		
B562263	Total Barium (Ba)	2024/10/16	105	80 - 120	103	80 - 120	<0.010	mg/L	0.99	20		
B562263	Total Boron (B)	2024/10/16	105	80 - 120	102	80 - 120	<0.020	mg/L	NC	20		
B562263	Total Calcium (Ca)	2024/10/16	108	80 - 120	106	80 - 120	<0.30	mg/L	0.42	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B562263	Total Iron (Fe)	2024/10/16	109	80 - 120	107	80 - 120	<0.060	mg/L	1.2	20		
B562263	Total Lithium (Li)	2024/10/16	110	80 - 120	107	80 - 120	<0.020	mg/L	NC	20		
B562263	Total Magnesium (Mg)	2024/10/16	110	80 - 120	107	80 - 120	<0.20	mg/L	0.078	20		
B562263	Total Manganese (Mn)	2024/10/16	109	80 - 120	106	80 - 120	<0.0040	mg/L	0.95	20		
B562263	Total Potassium (K)	2024/10/16	109	80 - 120	107	80 - 120	<0.30	mg/L	0.35	20		
B562263	Total Silicon (Si)	2024/10/16	103	80 - 120	102	80 - 120	<0.50	mg/L	0.040	20		
B562263	Total Sodium (Na)	2024/10/16	109	80 - 120	106	80 - 120	<0.50	mg/L	0.65	20		
B562263	Total Strontium (Sr)	2024/10/16	102	80 - 120	100	80 - 120	<0.020	mg/L	0.93	20		
B562263	Total Sulphur (S)	2024/10/16	100	80 - 120	97	80 - 120	<0.20	mg/L	0.70	20		
B562273	Total Aluminum (Al)	2024/10/16	NC	80 - 120	106	80 - 120	<0.0030	mg/L	12	20		
B562273	Total Antimony (Sb)	2024/10/16	90	80 - 120	85	80 - 120	<0.00060	mg/L	NC	20		
B562273	Total Arsenic (As)	2024/10/16	85	80 - 120	83	80 - 120	<0.00020	mg/L	18	20		
B562273	Total Beryllium (Be)	2024/10/16	96	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
B562273	Total Cadmium (Cd)	2024/10/16	88	80 - 120	84	80 - 120	<0.000020	mg/L	NC	20		
B562273	Total Chromium (Cr)	2024/10/16	95	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
B562273	Total Cobalt (Co)	2024/10/16	89	80 - 120	94	80 - 120	<0.00030	mg/L	NC	20		
B562273	Total Copper (Cu)	2024/10/16	90	80 - 120	92	80 - 120	<0.0010	mg/L	19	20		
B562273	Total Lead (Pb)	2024/10/16	92	80 - 120	91	80 - 120	<0.00020	mg/L	NC	20		
B562273	Total Molybdenum (Mo)	2024/10/16	99	80 - 120	92	80 - 120	<0.00020	mg/L	NC	20		
B562273	Total Nickel (Ni)	2024/10/16	NC	80 - 120	93	80 - 120	<0.00050	mg/L	8.1	20		
B562273	Total Selenium (Se)	2024/10/16	78 (1)	80 - 120	74 (1)	80 - 120	<0.00020	mg/L	NC	20		
B562273	Total Silver (Ag)	2024/10/16	92	80 - 120	89	80 - 120	<0.00010	mg/L	NC	20		
B562273	Total Thallium (Tl)	2024/10/16	95	80 - 120	93	80 - 120	<0.00020	mg/L	NC	20		
B562273	Total Tin (Sn)	2024/10/16	97	80 - 120	91	80 - 120	<0.0010	mg/L	NC	20		
B562273	Total Titanium (Ti)	2024/10/16	95	80 - 120	92	80 - 120	<0.0010	mg/L	5.6	20		
B562273	Total Uranium (U)	2024/10/16	97	80 - 120	94	80 - 120	<0.00010	mg/L	NC	20		
B562273	Total Vanadium (V)	2024/10/16	98	80 - 120	93	80 - 120	<0.0010	mg/L	NC	20		
B562273	Total Zinc (Zn)	2024/10/16	NC	80 - 120	80	80 - 120	<0.0030	mg/L	NC	20		
B562798	Total Organic Carbon (C)	2024/10/12	92	75 - 125	99	80 - 120	<0.20	mg/L	9.1	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
B568022	Dissolved Molybdenum (Mo)	2024/10/17	94	80 - 120	95	80 - 120	<0.00020	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 <= 2x RDL).

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

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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

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.

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Burgundy Diamond Mines

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

BURGUNDY DIAMOND MINES

CHAIN OF CUSTODY FORM

BUREAU VERITAS 1828

COC# 102337

SO# 57215

For Lab Use	SAMPLE INFORMATION						ANALYSIS REQUESTED: Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below							
	Sample Point	Station Type	Date	Time	Matrix	Type	DI Lot Number	Dissolved Nutrients	Major Ions	SNP Total Nutrients	Standard Dissolved Metals	Standard Total Metals	pH Field (pH)	Water Temp (°C)
	1616-12	EKA 2001 1616	28-Sep-2024	13:55	Water	SNP		Y	Y	Y	Y	Y	7.19	4.7
	1616-290	EKA 2001 1616	28-Sep-2024	14:07	Water	SNP		Y	Y	Y	Y	Y	7.19	4.7
	1616-494-TB	EKA 2001 1616	28-Sep-2024	15:00	Water	SNP	Y	Y	Y	Y	Y	Y		

FOR LAB USE ONLY

MCAL-2024-10-369

Special Instructions (Billing details, QC reporting etc):

Frequency: Monthly during periods of flow

Parameters: TSS, Major ions, Physical parameters, Total metals and Nutrients

Relinquished by:	Date / Time	Received by:	Date / Time
A Scott	Date 03.Oct.24 Time 08:00	JL Jeff Lomon	Date 2024/10/03 Time 1410
	Date Time		Date Time

FOR LAB USE ONLY

Cooler seal intact upon receipt? ☐ Yes ☐ No ☐ N/A

Sample temperature upon receipt: Frozen? ☐ Yes ☐ No

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

SecACTR

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BUREAU VERITAS 1828

ADDITIONAL COOLER TEMPERATURE RECORD

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY #	
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COOLER OBSERVATIONS:

CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	0.5	0.7	0.7
INTACT		✓				
ICE PRESENT	✓			1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	5.6	5.6	5.6
INTACT		✓				
ICE PRESENT	✓			1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	0.1	0.1	0.1
INTACT		✓				
ICE PRESENT	✓			1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	0.1	-0.1	-0.2
INTACT		✓				
ICE PRESENT	✓			1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	3.1	3.7	3.7
INTACT		✓				
ICE PRESENT	✓			1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	-0.1	-0.9	-1.1
INTACT		✓				
ICE PRESENT	✓			1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	1.3	1.4	1.5
INTACT		✓				
ICE PRESENT	✓			1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT		✓	TEMP	1.7	1.8	1.9
INTACT		✓				
ICE PRESENT	✓			1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3

BV JOB#:

CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3
CUSTODY SEAL	YES	NO	COOLER ID			
PRESENT			TEMP			
INTACT						
ICE PRESENT				1	2	3

RECEIVED BY (SIGN & PRINT)		DATE (YYYY/MM/DD)	TIME (HH:MM)
[signature]	Jeff Lonon	2024/10/03	1410