

CITY OF IQALUIT

WATER LICENCE 3AM-IQA1626
2018 ANNUAL WATER LICENCE REPORT

MARCH 29, 2019



City of Iqaluit 2018 Annual Water Licence Report Executive Summary

Under Water Licence 3AM-IQA1626 (the Licence), the City of Iqaluit (the City):

- Extracts water from Lake Geraldine for municipal use,
- Discharges Landfill run-off from the West 40 Landfill, and
- Discharges wastewater from the West 40 Wastewater Treatment Plant and backup Sewage Lagoon.

This Licence was issued by the Nunavut Water Board (NWB) in 2016 and expires on June 16, 2026. In compliance with requirements of Schedule B of the Licence, this Annual Water Licence Report summarizes the activities conducted by the City in 2018.

Monitoring Program

New monitoring conditions were provided as a part of the new Type ‘A’ Water Licence issued in 2016. The City has developed an updated monitoring program to meet these conditions.

Water Supply

In 2018, the City estimates that it used 1,190,700 m³ of water from the Lake Geraldine, which is slightly over the allowable quantity of water as specified under the Licence (1,100,000 m³). This can be attributed to the following factors:

1. Increase water demand in all municipal sectors (public, recreation, etc.)
2. Water main breaks and leaks
3. Northmart Fire
4. Annual Hydrant Inspection

In November 2015, a Dam Safety Inspection (DSI) was completed for the Lake Geraldine Dam. A Dam Safety Management Plan (DSM) is required every five (5) years. The City is currently in their fifth year and as part of their Capital Projects, the DSM is scheduled to be completed by the end of 2019. The Lake Geraldine Underwater Repair project is scheduled for tender and completion by the end of Summer 2019.

In 2018, the City received approval from the NWB to amend its water licence 3AM-IQA1626 to allow supplementation of its drinking water supply by withdrawing water from the Apex River. The project was undertaken in response to an emergency, as indicated by the Minister of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) in letters to the Nunavut Impact Review Board (NIRB) and Nunavut Planning Commission (NPC), and the NWB on August 10, 2018, thus invoking the provisions of section 152 of the Nunavut Planning and Project Assessment Act (NUPPAA). The emergency supplementation project was completed on October 4, 2018. A total of 193,074 cubic metres of water was withdrawn from the Apex River and transferred to the Lake Geraldine water reservoir. A final report titled “*Iqaluit Emergency Water Supply Project: Apex River Supplementary Pumping – DFO Authorization Monitoring Requirements*” (Nunami Stantec 2019) was issued to NIRB and NPC on January 28, 2019, and DFO and CIRNAC on February 21, 2019.

As part of the long-term strategy for supplementing water for the Lake Geraldine water reservoir, the City continued to assess the potential of the Sylvia Grinnell River to meet supplemental needs at a concept design stage. The report will investigate two (2) intake options, which were shortlisted from a previous assessment report. A recommendation will be provided based on technical, constructability, and financial feasibility. The report is slated for completion in March 2019. Similarly, the City began investigating Unnamed Lake as another option following a public engagement session in September 2018 with the Hunters and Trappers Association (HTA). Temporary pressure transducers were installed to begin initial data collection, with further work anticipated in 2019 to facilitate in the water balance assessment of Unnamed, to verify its long-term viability.

In 2017, the City of Iqaluit began developing a drinking water management plan to ensure the City is using the available drinking water as efficiently as possible while also potentially reducing the overall water demand. The management plan is currently scheduled for completion by the end 2019.

Wastewater Treatment

Detailed design of the Wastewater Treatment Plant Upgrade/Expansion was completed in 2016; however, the cost estimate was significantly over budget. A Value Engineering session was completed in 2017 and a re-design of the Plant commenced. The Wastewater Treatment Plant Upgrade/Expansion is currently ongoing in 2019. The commissioning of the Waste Water Treatment plan is scheduled for March 2019.

Solid Waste Management

The City continues to manage its solid waste at the West 40 Landfill, which is nearing its capacity. Landfill run-off continues to be managed through on-site detention ponds and an off-site retention pond. Furthermore, the City is currently undertaking a Waste Optimization Study. The study is to provide recommendations to optimize the City's current collection process and provide a more efficient and cost-effective operation for both the short- and long-term future. The Study is scheduled to be completed by April 2019.

In August 2018, the City of Iqaluit received approval funding for a new solid waste facility, landfill and waste transfer station. The project is currently in the design phase and is expected to be completed in October 2020.

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Water Licence No. 3AM-IQA0611
2018 Annual Report
 City of Iqaluit

In June 2016, the City of Iqaluit (City) was issued Water Licence number 3AM-IQA1626 (the Licence) by the Nunavut Water Board. This licence was issued for a ten-year period concluding in June 2026. A requirement of the Licence is an annual report due March 31 of each year summarizing activities governed by the Licence for the previous calendar year. In accordance with Schedule B of the Water Licence, this Annual Water Licence Report summarizes the activities conducted by the City of Iqaluit in 2018.

A. The monthly and annual quantities in cubic metres of fresh water withdrawn from the Lake Geraldine Reservoir (Monitoring Station No. IQA-01).

Table 1 summarizes the estimated monthly and annual quantities of water drawn from Lake Geraldine, the City of Iqaluit's raw water source. The total water usage for 2018 was 1,190,700 m³, which slightly exceeds the maximum allowable usage of 1,100,000 m³.

Records for water taking from Lake Geraldine that were not available on certain days in the year, were based on the average's using the usage of the previous and following day.

**Table 1. Raw Water Drawn
from Lake Geraldine Reservoir (2018)**

Month	Volume (m³)
January	109,300
February	100,800
March	118,400
April	117,000
May	127,100
June	127,500
July	106,900
August	80,800
September	72,000
October	72,600
November	83,150
December	75,150
Total 2018	1,190,700

B. The monthly and annual quantities in cubic metres of any discharges from the Wastewater Treatment Facilities (Monitoring Stations No. IQA-02, IQA-04, IQA-08).

Table 2 summarizes the monthly and annual quantities of discharge from the City of Iqaluit's Wastewater Treatment Plant (WWTP) in 2018.

Table 2. Discharge from the Wastewater Treatment Plant (2018)

Month	Volume (m³)
January	87,233
February	85,433
March	88,452
April	86,210
May	88,623
June	87,643
July	N/A
August	N/A
September	N/A
October	N/A
November	N/A
December	N/A
Total 2018	523,594.00

During periods when the WWTP was shut down for maintenance, raw sewage was diverted to the backup sewage lagoon. The knife gate valve that diverts the sewage to the sewage lagoon is not equipped with a monitoring device; therefore, there were no measurements taken to determine the amount of discharge for the days that the WWTP was not operational. As a result, the amount of discharge for the duration of each shutdown was calculated using average daily discharge rates. The average daily total was determined by averaging the totals from two days before and two days after the shutdown. The dates of each shutdown can be found in Section G.

In January, May-June of 2018, repairs and maintenance were required on the Salsnes Filter or other areas. This resulted in the City diverting sewage to the sewage lagoon for 28 days while the City made the necessary repairs.

Between January 09-28, an emergency lagoon decanting to the Koojesse Inlet took place. The Salsness filter had mechanical issues. As required by the license, samples were taken to monitor the sludge being decanted from the lagoon. The approximate quantity of discharge was 21,000 m³.

During the period of May 28 to June 04, a scheduled lagoon decanting to the Koojesse Inlet took place. The Salsness filter needed to be replaced. As required by the license, samples were taken to monitor the liquid being decanted from the lagoon.

C. Reports generated from Dam Safety Inspections and Dam Safety Reviews and proposed actions to address issues identified and/or updates on continuing actions to address issues.

To address outstanding recommendations related to the Lake Geraldine Dam, the City is currently undertaking the following:

Lake Geraldine Dam Safety

The City is currently developing a Dam Safety Management Plan, which includes:

- Development of an Operation, Management and Surveillance (OMS) Manual;
- Completion of a 2018 Dam Safety Review;
- Completion of a Risk Assessment; and,
- Finalization of an Emergency Preparedness Plan that was initiated in 2012.
- Installation of automated monitoring equipment
- Implementing a pore-water pressure monitoring program
- Exercising and testing of the valves within the valve chamber are recommended as part of preventative measures
- Perform underwater repairs to localized areas of concrete and all sealant joints

This Dam Safety Management Plan is expected to be completed by the end of 2019.

Lake Geraldine Dam Repairs

A Lake Geraldine Dam Repair Project was tendered in late summer 2016. The work was not able to be completed as the tendering process was delayed. The above-water line work was completed during the 2017 construction season. This included:

1. Installation of additional (new) rip-rap material within the spillway channel.
2. Installation of additional (new) rip-rap material on the east elevation of the center berm.
3. Installation of new granular fill and re-grading of the north and south access.
4. Installation of new granular fill and re-grading of the top of the berms.
5. Crack injection repair, concrete dam.
6. Concrete repair, above and below the water line.

A separate project to repair the below-water line facilities was tendered and to be completed for the summer construction season of 2018, however, due to funding constraints as well as the Lake Geraldine Reservoir Emergency situation the work is to be completed in the summer of 2019. Concentric Associates International Incorporated has reviewed pictures of the dam and informed the City of Iqaluit that the underwater dam repairs can be postponed until 2019.

D. The monthly and annual quantities in cubic metres of sludge removed from the Wastewater Treatment Facility.

Table 3 summarizes the estimated monthly and annual quantities of sewage sludge removed from the City of Iqaluit's WWTP and deposited at a designated area in the West 40 Landfill.

Table 3. Sewage Sludge Removed from the Wastewater Treatment Facility and Deposited at the West 40 Landfill (2018)

Month	Total (m³)
January	17.0
February	47.6
March	53.0
April	51.0
May	45.9
June	44.2
July	N/A
August	N/A
September	N/A
October	N/A
November	N/A
December	N/A
Total 2018	258.7

The sludge that is removed by the Salsnes Filter in the WWTP falls into a trailer in a room below the primary treatment room. The trailer that is used to catch the sludge from the Salsnes Filter has 3.4 cubic meters of storage and is approximately 100% full each time it is unloaded. The trailer is unloaded at the West 40 Landfill every second day including weekends and holidays. The difference in volume from month to month is due to two different factors: 1) every month doesn't have the same number of days, and 2) during the shutdowns there is no sludge produced because the raw sewage was diverted to the lagoon.

E. The monthly and annual quantities of wastes disposed of at the West 40 Landfill.

Table 4 summarizes the estimated monthly and annual quantities of waste disposed of at the West 40 Landfill.

Table 4. Waste disposed of at the West 40 Landfill (2018)

Month	Total (m³)
January	1,382
February	1,248
March	1,377
April	1,382
May	1,377
June	1,382
July	1,377
August	1,382

September	1,434
October	1,269
November	1,599
December	1,322
Total 2018	16,531

F. A summary report which includes all data and information generated under the Monitoring Program, including the QA/QC program, in electronic and printed formats acceptable to the Board.

In 2018, the City implemented a more rigorous testing procedure as required by the water license and continues this into 2019. The monitoring results are provided in Appendix A.

Table 5. Summary of 2018 Sampling Conducted

Date	Station	Test	Sample Name	Lab Sample ID
9-Jan-18	IQA-01	A	Test A – WTP	B18-01434-2
9-Jan-18	IQA-01	F	Wastewater Influent	B18-01435-1
23-Jan-18	IQA-02	F	Sewage Lagoon Decant	B18-02365-1
24-Jan-18	IQA-02	F	Sewage Lagoon Decant	B18-02446-1
29-Jan-18	IQA-02	F	Sewage Lagoon Decant	B18-02877-1
22-Feb-18	IQA-02	F	WWTP – IN/EFF	B18-05598-1
2-Mar-18	IQA-01	A	Test A – WTP	B18-05595-2
2-Mar-18	IQA-02	F	WWTP – IN/EFF	B18-05599-1
8-Mar-18	IQA-05	B	Test B – WWTP	B18-06700-1
8-Mar-18	IQA-04	C	Test C – WWTP EFF	B18-06701-1
15-Mar-18	IQA-02	F	WWTP – IN/EFF	B18-06703-2
22-Mar-18	IQA-06	D	Test D – WWTP LS	B18-07383-1
22-Mar-18	IQA-02	F	WWTP – IN/EFF	B18-07384-2
29-Mar-18	IQA-02	F	WWTP – IN/EFF	B18-08721-2
5-Apr-18	IQA-02	F	WWTP – IN/EFF	B18-08722-2
17-Apr-18	IQA-02	F	WWTP – IN/EFF	B18-09938-2
3-May-18	IQA-01	A	Test A – WTP	B18-11875-1
3-May-18	IQA-04	C	Test C – WWTP EFF	B18-11877-1
3-May-18	IQA-02	F	WWTP – IN/EFF	B18-12991-1
4-May-18	IQA-06	D	Test D – WWTP LS	B18-11879-1
28-May-18	IQA-02	F	Sewage Lagoon Decant	B18-15166-1
31-May-18	IQA-02	F	Sewage Lagoon Decant	B18-15291-1
4-Jun-18	IQA-02	F	Sewage Lagoon Decant	B18-15627-1

16-Jul-18	IQA-02	F	Sewage Lagoon Decant	B18-21252-1
27-Jul-18	IQA-02	F	Sewage Lagoon Sample	B18-22321-1
27-Jul-18	IQA-02	F	Sewage Lagoon Discharge	B18-22323-2
2-Aug-18	IQA-02	F	Sewage Lagoon Decant	B18-23373-2
7-Aug-18	IQA-02	F	Sewage Lagoon Decant	B18-23562-2
18-Aug-18	IQA-02	F	Sewage Lagoon Decant	B18-24879-1
11-Sep-18	IQA-01	A	Test A – WTP	B18-27757-2
26-Sep-18	IQA-01	A	Test A – WTP	B18-30663-2
26-Sep-18	IQA-02	F	Sewage Lagoon Decant	B18-30662-1
3-Oct-18	IQA-01	A	Test A – WTP	B18-30688-2
3-Oct-18	IQA-02	F	Sewage Lagoon Decant	B18-30687-2
29-Oct-18	IQA-02	F	Sewage Lagoon Decant	B18-33545-1
8-Nov-18	IQA-01	A	Test A – WTP	B18-34766-3
8-Nov-18	IQA-02	F	Sewage Lagoon Decant	B18-34769-1
5-Dec-18	IQA-01	A	Test A – WTP	B18-37375-2
5-Dec-18	IQA-02	F	Sewage Lagoon Decant	B18-37378-1

G. A summary of all construction activities carried out for the facilities.

There were no construction activities conducted with respect to the water licence in 2018.

H. A summary of any modifications and/or major maintenance work carried out at the facilities and any associated structures.

Wastewater Treatment Plant

The following maintenance work was carried out at the WWTP in 2018:

January 09-29: Salsness Filter was replaced.

May 28-June 04: Salsness Filter was replaced as well general maintenance repairs were carried out.

July-December: Wastewater Treatment Plant Upgrade/Expansion Project.

During the above listed maintenance work, and upgrades, the WWTP was shut down and the sewage was diverted to the sewage lagoon.

Water Treatment Plant

The following maintenance work was carried out at the Water Treatment Plant (WTP) in 2018.

- Replacement of process valves.
- Replacement of Air Scour Blower
- PLC Issue analysis
- SCADA Upgrades
- Chimney Replacement above WTP boilers.

I. A progress report and revisions (if applicable) to any studies requested by the Board that relate to waste management, water use, or reclamation and a brief description of any future studies planned by the Licensee including, a non-technical executive summary for the general public, translated into Inuktitut.

Environmental DNA Sampling Program for Arctic Char in the Lake Geraldine Reservoir, Iqaluit, NU

Nunami Stantec was retained to complete an Environmental DNA Sampling Program to provide additional evidence to assess fish presence in Lake Geraldine. Environmental DNA (eDNA) is DNA shed by organisms into the environment through skin cells, mucus cells, gamete (eggs and sperm) production and feces. The analysis conducted did not detect the presence of Arctic char DNA in the samples from Lake Geraldine or its tributaries. Findings reflect results obtained from a 2017 eDNA sampling program, alongside conventional sampling completed in 2016.

Water Withdrawal and Flow Analysis – Sylvia Grinnell River

Nunami Stantec continued to assess the potential of the Sylvia Grinnell River to meet the City's water supplementation needs. The results of a preliminary flow assessment of the Sylvia Grinnell River concluded that all three supplementation scenarios (identified by Golder Associates in 2013) could be met during every year of the historic flow record in compliance with DFO guidance. Estimated withdrawal rates range from 0.60 to 8.81% of available flow, depending on the supplementation scenarios.

Water Withdrawal and Flow Analysis – Unnamed Lake

The City retained Nunami Stantec to assess the potential of Unnamed Lake to meet the City's water supplementation needs. No information is presently available on Unnamed Lake in order to verify its long-term viability for water supply. The work entails the installation of a temporary hydrometric station to verify water level data and will consider a bathymetric assessment in the Spring 2019. Once sufficient data is collected, the results can be compiled and assessed to confirm if Unnamed Lake can provide the necessary water resupply. Results from the assessment are expected in Q4-2019.

Options Evaluation / Concept Design for Raw Water Supplementation – Sylvia Grinnell River

In August 2018, the City retained Nunami Stantec to investigate two (2) options shortlisted from a 2017 Nunami Stantec report identifying intake site options for water withdrawal from Sylvia Grinnell to the Lake Geraldine water reservoir. The report will provide concept level analysis and design in order to confirm technical, constructability and financial feasibility. The work falls under the long-term water supply program for the Lake Geraldine Water Reservoir. Completion of the concept design report is expected in Q1-2019.

Lake Geraldine Reservoir Storage – Desktop Review and Assessment

The City retained Nunami Stantec to assess the storage capacity of Lake Geraldine, while considering the current and future water demand requirements based on expected population growth in the City of Iqaluit. The desktop study highlights the current situation regarding water supply to Lake Geraldine, water storage and withdrawal capabilities of the reservoir, and water demand from the City, and provides a problem definition leading to the water deficit in summer/fall 2018. Nunami's analysis shows that, aside from a supplementary water source required to provide additional flows during the summer and fall to fill the reservoir to capacity, supplementary water storage is necessary to provide a stable supply of drinking water to meet the City's needs throughout the winter months. Assuming the 2017 water demand rates and 2017 population numbers, and minimal to no inflows to the reservoir during the winter months, the City currently has a margin of approximately 25% to 30% on the volume of storage contained in the Lake Geraldine reservoir, and will likely need to identify additional storage for the upcoming winter season, and for a sustainable long-term water supply.

Drinking Water Management Plan

The City of Iqaluit continued to initiate a Drinking Water Management Plan, as part of the original mandate to identify means of improve water usage, conversation awareness, and efficiencies. The work will not impact the supplementary water supply requirement but will provide overall reductions in the water demand. This drinking water management plan is still ongoing into 2019.

J. Any revisions required, in the form of addenda, to Plans, Manuals and Reports approved under the Licence.

There are no revisions to the approved Contingency Plans and Operation and Maintenance Manuals.

K. A list and description, including volumes and Spill Report Line Identification Numbers, of all un-authorized discharges, spills and summaries of follow-up action taken.

Table 6 provides a summary of all spills and un-authorized discharges that occurred in 2018, including volumes, Spill Report Line Identification Number (if

available) and summaries of the follow-up actions taken. Copies of the spill reports can be found in Appendix B.

L. A summary of any closure and reclamation work undertaken and an outline of any work anticipated for the next year, including any changes to implementation and scheduling.

In 2018, no closure and reclamation work were undertaken. No closure or reclamation work is anticipated for 2019.

M. A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector.

No actions were taken to address the concerns and deficiencies listed in the previous inspection reports.

N. A brief update on the implementation plan of all facilities within the scope of this Licence including projected implementation and status of the Upgraded Wastewater Treatment Plant.

Wastewater Treatment Plant Upgrade

The City issued an RFP for detailed design in 2016 and Nunami-Stantec proceeded with the design effort. Following completion of the design in 2017, the cost estimate was significantly over budget. A Value Engineering session was undertaken in July 2017 to bring the scope of the project within budget. Re-design was commenced in late 2017 and completed in early 2018. The project went to tender in April 2018 and was awarded in May 2018. Construction began in June 2018 and is expected to be completed in January 2020. The commissioning of the Waste Water Treatment Plant is scheduled for March 2019.

O. A summary of any studies, reports and plans requested by the Board that related to waste disposal, water use, or reclamation and a brief description of any future studies planned.

See Section I above.

P. Any other details on the use of water or waste disposal requested by the Board by November 1st of the year being reported.

There were no requests made by the Board after November 1, 2018.

Table 6: 2018 Spill Reports

Spill I.D. No.	Date	Location	Spilled	Volume	Cause	Follow up Actions
N/A	15/2/18	Discharge Stn.	Sewage	Unknown	Overflow	Flow diverted from station to Lagoon to avoid further spill
18-079	18/2/18	House 525	Sewage	Unknown	collapsed Sewer Line	Scheduled Weekly Blasting
18-068	24/2/18	Discharge Stn.	Sewage	Unknown	Overflow	Flow diverted from station to Lagoon to avoid further spill
18-067	27/2/18	Discharge Stn.	Sewage	Unknown	Overflow	Diversion to the Lagoon. Service Contract to fix PLC
18-080	3/3/18	Lift Station #1	Sewage	Unknown	Wet well plugged	Dismantle Pump and Removed rugs
18-081	4/3/18	Lift Station #1	Sewage	Unknown	Wet Well overflow	Called Electrician to fix the PLC issue
18-082	9/3/18	Lift Station #1	Sewage	Unknown	Wet Well overflow	Called Electrician to fix the PLC issue
18-133	18/3/18	House 215	Sewage	Unknown	Heavy in grease	Scheduled Weekly Blasting
18-134	18/3/18	House 128/ MH 65	Sewage	Unknown	Collapsed Line	Scheduled Weekly Blasting
18-035	21/3/18	House 128/ MH 65	Sewage	Unknown	Collapsed Line	Scheduled Weekly Blasting
18-123	23/3/18	House 405/ MH81	Sewage	Unknown	Collapsed Line	Replaced Collapsed Line
18-106	23/3/18	H 409/ MH81	Sewage	Unknown	Overflow MH	Maned MH until pipe was replaced
18-124	24/3/18	House 405/ MH81	Sewage	Unknown	Frozen Line	Replaced Collapsed Line
18-125	2/4/18	House 409/ MH81	Sewage	Unknown	Frozen Line	Replaced Collapsed Line
18-132	24/4/18	MH 90	Sewage	Unknown	Frozen Line	Scheduled Weekly Blasting
N/A	16-10-18	Lagoon	Sewage	Unknown	Clogged pipe	Pipe was cleared. City discussed issue with Contractor and Consultant.

Appendix A – Monitoring Results

C.O.C.: ---

REPORT No. B18-01434

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Jan-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 29-Jan-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-01434-1	B18-01434-2		
			Date Collected	09-Jan-18	09-Jan-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	17-Jan-18/O		16	
Hardness (as CaCO ₃)	mg/L	1	SM 3120	17-Jan-18/O	16		
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	16-Jan-18/O	15		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	16-Jan-18/O	15		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	16-Jan-18/O	< 5		
Hydroxide	mg/L	5	EPA 310.2	16-Jan-18/O	< 5		
Acidity (as CaCO ₃)	mg/L	5	Subcontract	25-Jan-18	< 5 ¹		
pH @25°C	pH Units		SM 4500H	16-Jan-18/O	7.07		
Conductivity @25°C	µmho/cm	1	SM 2510B	16-Jan-18/O	57		
TDS (Calc. from Cond.)	mg/L	1	Calc.	17-Jan-18	29		
Total Suspended Solids	mg/L	3	SM 2540D	18-Jan-18/O	< 3		
Turbidity	NTU	0.1	SM 2130	16-Jan-18/O	0.4		
REDOX potential	mV		Subcontract	25-Jan-18	277 ¹		
Chloride	mg/L	0.5	SM4110C	16-Jan-18/O	3.1		
Sulphate	mg/L	1	SM4110C	16-Jan-18/O	1		
Aluminum	mg/L	0.01	SM 3120	17-Jan-18/O	< 0.01		
Aluminum	mg/L	0.01	SM 3120	17-Jan-18/O		< 0.01	
Antimony	mg/L	0.0001	EPA 200.8	16-Jan-18/O	< 0.0001		
Antimony	mg/L	0.0001	EPA 200.8	17-Jan-18/O		< 0.0001	
Arsenic	mg/L	0.0001	EPA 200.8	16-Jan-18/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	17-Jan-18/O		< 0.0001	
Barium	mg/L	0.001	SM 3120	17-Jan-18/O	0.002		
Barium	mg/L	0.001	SM 3120	17-Jan-18/O		0.002	
Beryllium	mg/L	0.002	SM 3120	17-Jan-18/O	< 0.002		
Beryllium	mg/L	0.002	SM 3120	17-Jan-18/O		< 0.002	
Cadmium	mg/L	0.000014	EPA 200.8	16-Jan-18/O	< 0.000014		
Cadmium	mg/L	0.000014	EPA 200.8	17-Jan-18/O		< 0.000014	

NOTE: Several parameters acceptable holding times exceeded upon arrival at lab (e.g. Fecal Coliform, pH, Turbidity)



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-01434

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Jan-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 29-Jan-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-01434-1	B18-01434-2		
			Date Collected	09-Jan-18	09-Jan-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Chromium	mg/L	0.002	SM 3120	17-Jan-18/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	17-Jan-18/O		< 0.002	
Cobalt	mg/L	0.005	SM 3120	17-Jan-18/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	17-Jan-18/O		< 0.005	
Copper	mg/L	0.002	SM 3120	17-Jan-18/O	0.167		
Copper	mg/L	0.002	SM 3120	17-Jan-18/O		0.167	
Iron	mg/L	0.005	SM 3120	17-Jan-18/O	0.033		
Iron	mg/L	0.005	SM 3120	17-Jan-18/O		0.041	
Lead	mg/L	0.00002	EPA 200.8	16-Jan-18/O	0.00038		
Lead	mg/L	0.00002	EPA 200.8	17-Jan-18/O		0.00028	
Lithium	mg/L	0.01	SM 3120	17-Jan-18/O	< 0.01		
Lithium	mg/L	0.01	SM 3120	17-Jan-18/O		< 0.01	
Manganese	mg/L	0.001	SM 3120	17-Jan-18/O	0.003		
Manganese	mg/L	0.001	SM 3120	17-Jan-18/O		0.003	
Mercury	mg/L	0.00002	SM 3112 B	17-Jan-18/O	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	17-Jan-18/O	< 0.01		
Molybdenum	mg/L	0.01	SM 3120	17-Jan-18/O		< 0.01	
Nickel	mg/L	0.01	SM 3120	17-Jan-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	17-Jan-18/O		< 0.01	
Selenium	mg/L	0.001	EPA 200.8	16-Jan-18/O	< 0.001		
Selenium	mg/L	0.001	EPA 200.8	17-Jan-18/O		< 0.001	
Silver	mg/L	0.00002	EPA 200.8	16-Jan-18/O	< 0.00002		
Silver	mg/L	0.00002	EPA 200.8	17-Jan-18/O		< 0.00002	
Strontium	mg/L	0.001	SM 3120	17-Jan-18/O	0.012		
Strontium	mg/L	0.001	SM 3120	17-Jan-18/O		0.012	
Thallium	mg/L	0.00005	EPA 200.8	16-Jan-18/O	< 0.00005		
Thallium	mg/L	0.00005	EPA 200.8	17-Jan-18/O		< 0.00005	

NOTE: Several parameters acceptable holding times exceeded upon arrival at lab (e.g. Fecal Coliform, pH, Turbidity)



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-01434

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Jan-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 29-Jan-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-01434-1	B18-01434-2		
			Date Collected	09-Jan-18	09-Jan-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Tin	mg/L	0.05	SM 3120	17-Jan-18/O	< 0.05		
Tin	mg/L	0.05	SM 3120	17-Jan-18/O		< 0.05	
Titanium	mg/L	0.005	SM 3120	17-Jan-18/O	< 0.005		
Titanium	mg/L	0.005	SM 3120	17-Jan-18/O		< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	16-Jan-18/O	< 0.00005		
Uranium	mg/L	0.00005	EPA 200.8	17-Jan-18/O		< 0.00005	
Vanadium	mg/L	0.005	SM 3120	17-Jan-18/O	< 0.005		
Vanadium	mg/L	0.005	SM 3120	17-Jan-18/O		< 0.005	
Zinc	mg/L	0.005	SM 3120	17-Jan-18/O	0.022		
Zinc	mg/L	0.005	SM 3120	17-Jan-18/O		0.022	
Total Organic Carbon	mg/L	0.2	EPA 415.1	16-Jan-18/O	1.4		
TIC	mg/L	0.5	EPA 415.1	16-Jan-18/O	4.2		
Fecal Coliform	cfu/100mL	1	MOE E3371	16-Jan-18/O	0		
Langelier Index(25°C)	S.I.		Calc.	17-Jan-18/O	-2.38		

1 subcontracted to Testmark Labs.

NOTE: Several parameters acceptable holding times exceeded upon arrival at lab (e.g. Fecal Coliform, pH, Turbidity)



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-01435

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Jan-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 22-Jan-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent			
			Sample I.D.	B18-01435-1			
			Date Collected	09-Jan-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	17-Jan-18/O	175		
pH @25°C	pH Units		SM 4500H	16-Jan-18/O	7.33		
Conductivity @25°C	µmho/cm	1	SM 2510B	16-Jan-18/O	428		
Total Suspended Solids	mg/L	3	SM 2540D	18-Jan-18/O	256		
Nitrite (N)	mg/L	0.1	SM4110C	17-Jan-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	17-Jan-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	17-Jan-18/O	35.7		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	17-Jan-18/O	4.22		
Phosphorus-Total	mg/L	0.01	MOEE 3367	18-Jan-18/O	6.72		
Aluminum	mg/L	0.01	SM 3120	17-Jan-18/O	0.29		
Antimony	mg/L	0.0005	EPA 200.8	17-Jan-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	17-Jan-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	17-Jan-18/O	0.023		
Beryllium	mg/L	0.002	SM 3120	17-Jan-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	17-Jan-18/O	0.000195		
Chromium	mg/L	0.002	SM 3120	17-Jan-18/O	0.003		
Cobalt	mg/L	0.005	SM 3120	17-Jan-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	17-Jan-18/O	0.346		
Iron	mg/L	0.005	SM 3120	17-Jan-18/O	0.526		
Lead	mg/L	0.0001	EPA 200.8	17-Jan-18/O	0.0038		
Lithium	mg/L	0.01	SM 3120	17-Jan-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	17-Jan-18/O	0.040		
Mercury	mg/L	0.00002	SM 3112 B	17-Jan-18/O	0.00003		
Molybdenum	mg/L	0.01	SM 3120	17-Jan-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	17-Jan-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	17-Jan-18/O	< 0.005		
Silver	mg/L	0.0001	EPA 200.8	17-Jan-18/O	0.0003		



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-01435

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Jan-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 22-Jan-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent			
			Sample I.D.	B18-01435-1			
			Date Collected	09-Jan-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	17-Jan-18/O	0.063		
Tin	mg/L	0.05	SM 3120	17-Jan-18/O	< 0.05		
Thallium	mg/L	0.0003	EPA 200.8	17-Jan-18/O	< 0.0003		
Titanium	mg/L	0.005	SM 3120	17-Jan-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	17-Jan-18/O	0.0003		
Vanadium	mg/L	0.005	SM 3120	17-Jan-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	17-Jan-18/O	0.169		
Total Coliform	cfu/100mL	1	MOE E3371	16-Jan-18/O	41000000		
Fecal Coliform	cfu/100mL	1	MOE E3371	16-Jan-18/O	2900000		

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Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-02365

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 25-Jan-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 01-Feb-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Sewage Lagoon Decant			
			Sample I.D.	B18-02365-1			
			Date Collected	23-Jan-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	26-Jan-18/O	119		
Total Suspended Solids	mg/L	3	SM 2540D	26-Jan-18/O	34		
Conductivity @25°C	µmho/cm	1	SM 2510B	25-Jan-18/O	457		
pH @25°C	pH Units		SM 4500H	25-Jan-18/O	7.42		
Nitrite (N)	mg/L	0.1	SM4110C	25-Jan-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	25-Jan-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	25-Jan-18/O	32.0		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	25-Jan-18/O	2.96		
Phosphorus-Total	mg/L	0.01	E3199A.1	01-Feb-18/K	3.70		
Aluminum	mg/L	0.01	SM 3120	26-Jan-18/O	0.12		
Antimony	mg/L	0.0005	EPA 200.8	29-Jan-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	29-Jan-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	26-Jan-18/O	0.014		
Beryllium	mg/L	0.002	SM 3120	26-Jan-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	29-Jan-18/O	0.000245		
Chromium	mg/L	0.002	SM 3120	26-Jan-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	26-Jan-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	26-Jan-18/O	0.222		
Iron	mg/L	0.005	SM 3120	26-Jan-18/O	0.499		
Lead	mg/L	0.0001	EPA 200.8	29-Jan-18/O	0.0016		
Lithium	mg/L	0.01	SM 3120	26-Jan-18/O	0.01		
Manganese	mg/L	0.001	SM 3120	26-Jan-18/O	0.047		
Mercury	mg/L	0.00002	SM 3112 B	30-Jan-18/O	0.00002		
Molybdenum	mg/L	0.01	SM 3120	26-Jan-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	26-Jan-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	29-Jan-18/O	< 0.005		



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-02365

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 25-Jan-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 01-Feb-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		Sewage Lagoon Decant			
			Sample I.D.		B18-02365-1			
			Date Collected		23-Jan-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Silver	mg/L	0.0001	EPA 200.8	29-Jan-18/O	< 0.0001			
Strontium	mg/L	0.001	SM 3120	26-Jan-18/O	0.055			
Thallium	mg/L	0.0003	EPA 200.8	29-Jan-18/O	< 0.0003			
Tin	mg/L	0.05	SM 3120	26-Jan-18/O	< 0.05			
Titanium	mg/L	0.005	SM 3120	26-Jan-18/O	0.005			
Uranium	mg/L	0.0003	EPA 200.8	29-Jan-18/O	< 0.0003			
Vanadium	mg/L	0.005	SM 3120	26-Jan-18/O	< 0.005			
Zinc	mg/L	0.005	SM 3120	26-Jan-18/O	0.151			
Total Coliform	cfu/100mL	1	MOE E3371	25-Jan-18/O	21000000			
Fecal Coliform	cfu/100mL	1	MOE E3371	25-Jan-18/O	1300000			

R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-02446

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 26-Jan-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 02-Feb-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-02446-1	B18-02446-2		
			Date Collected	24-Jan-18	24-Jan-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	26-Jan-18/O	237	202	
Total Suspended Solids	mg/L	3	SM 2540D	30-Jan-18/O	244	208	
Conductivity @25°C	µmho/cm	1	SM 2510B	26-Jan-18/O	446	434	
pH @25°C	pH Units		SM 4500H	26-Jan-18/O	7.68	7.75	
Nitrite (N)	mg/L	0.1	SM4110C	26-Jan-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	26-Jan-18/O	< 0.1	0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	29-Jan-18/O	36.4	36.6	
o-Phosphate (P)	mg/L	0.002	MOEE 3366	29-Jan-18/O	3.92	3.89	
Phosphorus-Total	mg/L	0.01	E3199A.1	01-Feb-18/K	7.16	6.75	
Aluminum	mg/L	0.01	SM 3120	29-Jan-18/O	0.27	0.23	
Antimony	mg/L	0.0005	EPA 200.8	29-Jan-18/O	< 0.0005	< 0.0005	
Arsenic	mg/L	0.0005	EPA 200.8	29-Jan-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	29-Jan-18/O	0.021	0.019	
Beryllium	mg/L	0.002	SM 3120	29-Jan-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.000070	EPA 200.8	29-Jan-18/O	0.000215	0.000200	
Chromium	mg/L	0.002	SM 3120	29-Jan-18/O	< 0.002	0.002	
Cobalt	mg/L	0.005	SM 3120	29-Jan-18/O	< 0.005	< 0.005	
Copper	mg/L	0.002	SM 3120	29-Jan-18/O	0.405	0.381	
Iron	mg/L	0.005	SM 3120	29-Jan-18/O	0.368	0.351	
Lead	mg/L	0.0001	EPA 200.8	29-Jan-18/O	0.0037	0.0022	
Lithium	mg/L	0.01	SM 3120	29-Jan-18/O	< 0.01	< 0.01	
Manganese	mg/L	0.001	SM 3120	29-Jan-18/O	0.034	0.030	
Mercury	mg/L	0.00002	SM 3112 B	30-Jan-18/O	0.00027	0.00007	
Molybdenum	mg/L	0.01	SM 3120	29-Jan-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	29-Jan-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.005	EPA 200.8	29-Jan-18/O	< 0.005	< 0.005	
Silver	mg/L	0.0001	EPA 200.8	29-Jan-18/O	0.0001	0.0004	



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 26-Jan-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 02-Feb-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-02446-1	B18-02446-2		
			Date Collected	24-Jan-18	24-Jan-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	29-Jan-18/O	0.064	0.058	
Thallium	mg/L	0.0003	EPA 200.8	29-Jan-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	29-Jan-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	29-Jan-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.0003	EPA 200.8	29-Jan-18/O	< 0.0003	0.0003	
Vanadium	mg/L	0.005	SM 3120	29-Jan-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	29-Jan-18/O	0.167	0.152	
Total Coliform	cfu/100mL	1	MOE E3371	26-Jan-18/O	38000000	35000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	26-Jan-18/O	3500000	4500000	

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-02877

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 31-Jan-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 07-Feb-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Lagoon Decant			
			Sample I.D.	B18-02877-1			
			Date Collected	29-Jan-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	02-Feb-18/O	92		
Total Suspended Solids	mg/L	3	SM 2540D	02-Feb-18/O	32		
Conductivity @25°C	µmho/cm	1	SM 2510B	31-Jan-18/O	587		
pH @25°C	pH Units		SM 4500H	31-Jan-18/O	7.39		
Nitrite (N)	mg/L	0.1	SM4110C	31-Jan-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	31-Jan-18/O	0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	01-Feb-18/O	43.8		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	01-Feb-18/O	4.33		
Phosphorus-Total	mg/L	0.01	E3199A.1	02-Feb-18/K	5.43		
Aluminum	mg/L	0.01	SM 3120	01-Feb-18/O	0.13		
Antimony	mg/L	0.0005	EPA 200.8	01-Feb-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	01-Feb-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	01-Feb-18/O	0.016		
Beryllium	mg/L	0.002	SM 3120	01-Feb-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	01-Feb-18/O	0.000095		
Chromium	mg/L	0.002	SM 3120	01-Feb-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	01-Feb-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	01-Feb-18/O	0.261		
Iron	mg/L	0.005	SM 3120	01-Feb-18/O	0.897		
Lead	mg/L	0.0001	EPA 200.8	01-Feb-18/O	0.0016		
Lithium	mg/L	0.01	SM 3120	01-Feb-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	01-Feb-18/O	0.072		
Mercury	mg/L	0.00002	SM 3112 B	01-Feb-18/O	0.00004		
Molybdenum	mg/L	0.01	SM 3120	01-Feb-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	01-Feb-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	01-Feb-18/O	< 0.005		



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-02877

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 31-Jan-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 07-Feb-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Lagoon Decant			
			Sample I.D.	B18-02877-1			
			Date Collected	29-Jan-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	01-Feb-18/O	< 0.0001		
Strontium	mg/L	0.001	SM 3120	01-Feb-18/O	0.061		
Thallium	mg/L	0.0003	EPA 200.8	01-Feb-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	01-Feb-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	01-Feb-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	01-Feb-18/O	< 0.0003		
Vanadium	mg/L	0.005	SM 3120	01-Feb-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	01-Feb-18/O	0.089		
Total Coliform	cfu/100mL	1	MOE E3371	31-Jan-18/O	4900000		
Fecal Coliform	cfu/100mL	1	MOE E3371	31-Jan-18/O	610000		

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G63452

REPORT No. B18-05595

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Mar-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 13-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-05595-1	B18-05595-2		
			Date Collected	02-Mar-18	02-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	07-Mar-18/O	19		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	07-Mar-18/O		18	
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	07-Mar-18/O	13		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	07-Mar-18/O	13		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	07-Mar-18/O	< 5		
Hydroxide	mg/L	5	EPA 310.2	07-Mar-18/O	< 5		
Acidity (as CaCO ₃)	mg/L	5	Subcontract	13-Mar-18	< 5 ¹		
pH @25°C	pH Units		SM 4500H	07-Mar-18/O	7.06		
Conductivity @25°C	µmho/cm	1	SM 2510B	06-Mar-18/O	43		
Turbidity	NTU	0.1	SM2130B	09-Mar-18/K	0.3		
Total Suspended Solids	mg/L	3	SM 2540D	07-Mar-18/O	9		
REDOX potential	mV		Subcontract	13-Mar-18	398 ¹		
Chloride	mg/L	0.5	SM4110C	06-Mar-18/O	2.7		
Sulphate	mg/L	1	SM4110C	06-Mar-18/O	2		
Aluminum	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01		
Aluminum	mg/L	0.01	SM 3120	07-Mar-18/O		< 0.01	
Antimony	mg/L	0.0001	EPA 200.8	09-Mar-18/O	< 0.0001		
Antimony	mg/L	0.0001	EPA 200.8	08-Mar-18/O		0.0004	
Arsenic	mg/L	0.0001	EPA 200.8	09-Mar-18/O	0.0003		
Arsenic	mg/L	0.0001	EPA 200.8	08-Mar-18/O		0.0003	
Barium	mg/L	0.001	SM 3120	07-Mar-18/O	0.002		
Barium	mg/L	0.001	SM 3120	07-Mar-18/O		0.002	
Beryllium	mg/L	0.002	SM 3120	07-Mar-18/O	< 0.002		
Beryllium	mg/L	0.002	SM 3120	07-Mar-18/O		< 0.002	
Cadmium	mg/L	0.000014	EPA 200.8	09-Mar-18/O	< 0.000014		
Cadmium	mg/L	0.000014	EPA 200.8	08-Mar-18/O		0.000017	
Chromium	mg/L	0.002	SM 3120	07-Mar-18/O	< 0.002		

NOTE: Fecal Coliform passed holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G63452

REPORT No. B18-05595

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Mar-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 13-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-05595-1	B18-05595-2		
			Date Collected	02-Mar-18	02-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Chromium	mg/L	0.002	SM 3120	07-Mar-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	07-Mar-18/O	0.031		
Copper	mg/L	0.002	SM 3120	07-Mar-18/O	0.033		
Iron	mg/L	0.005	SM 3120	07-Mar-18/O	0.016		
Iron	mg/L	0.005	SM 3120	07-Mar-18/O	0.017		
Lead	mg/L	0.00002	EPA 200.8	09-Mar-18/O	0.00014		
Lead	mg/L	0.00002	EPA 200.8	08-Mar-18/O	0.00014		
Lithium	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01		
Lithium	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	07-Mar-18/O	0.002		
Manganese	mg/L	0.001	SM 3120	07-Mar-18/O	0.002		
Mercury	mg/L	0.00002	SM 3112 B	07-Mar-18/O	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01		
Molybdenum	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01		
Selenium	mg/L	0.001	EPA 200.8	09-Mar-18/O	< 0.001		
Selenium	mg/L	0.001	EPA 200.8	08-Mar-18/O	< 0.001		
Silver	mg/L	0.00002	EPA 200.8	09-Mar-18/O	< 0.00002		
Silver	mg/L	0.00002	EPA 200.8	08-Mar-18/O	< 0.00002		
Strontium	mg/L	0.001	SM 3120	07-Mar-18/O	0.014		
Strontium	mg/L	0.001	SM 3120	07-Mar-18/O	0.016		
Thallium	mg/L	0.00005	EPA 200.8	09-Mar-18/O	< 0.00005		
Thallium	mg/L	0.00005	EPA 200.8	08-Mar-18/O	< 0.00005		
Tin	mg/L	0.05	SM 3120	07-Mar-18/O	< 0.05		

NOTE: Fecal Coliform passed holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G63452

REPORT No. B18-05595

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Mar-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 13-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-05595-1	B18-05595-2		
			Date Collected	02-Mar-18	02-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Tin	mg/L	0.05	SM 3120	07-Mar-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005		
Titanium	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005		
Uranium	mg/L	0.00005	EPA 200.8	09-Mar-18/O	< 0.00005		
Uranium	mg/L	0.00005	EPA 200.8	08-Mar-18/O	< 0.00005		
Vanadium	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005		
Vanadium	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	07-Mar-18/O	0.007		
Zinc	mg/L	0.005	SM 3120	07-Mar-18/O	0.007		
Total Organic Carbon	mg/L	0.2	EPA 415.1	06-Mar-18/O	1.8		
TIC	mg/L	0.5	EPA 415.1	06-Mar-18/O	3.38		
Fecal Coliform	cfu/100mL	1	MOE E3371	06-Mar-18/O	0		
Langelier Index(25°C)	S.I.		Calc.	07-Mar-18/O	-2.37		

1. subcontracted to Testmark Labs.

NOTE: Fecal Coliform passed holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-05598

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 06-Mar-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 13-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-05598-1	B18-05598-2		
			Date Collected	22-Feb-18	22-Feb-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	08-Mar-18/O	189	82	
Total Suspended Solids	mg/L	3	SM 2540D	07-Mar-18/O	144	64	
Conductivity @25°C	µmho/cm	1	SM 2510B	06-Mar-18/O	430	395	
pH @25°C	pH Units		SM 4500H	07-Mar-18/O	7.38	7.33	
Nitrite (N)	mg/L	0.1	SM4110C	06-Mar-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	06-Mar-18/O	< 0.1	< 0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	06-Mar-18/O	30.8	27.3	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	06-Mar-18/O	3.59	2.75	
Phosphorus-Total	mg/L	0.01	E3199A.1	08-Mar-18/K	4.94	0.43	
Aluminum	mg/L	0.01	SM 3120	07-Mar-18/O	0.38	0.31	
Antimony	mg/L	0.0005	EPA 200.8	09-Mar-18/O	0.0006	< 0.0005	
Arsenic	mg/L	0.0005	EPA 200.8	09-Mar-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	07-Mar-18/O	0.016	0.018	
Beryllium	mg/L	0.002	SM 3120	07-Mar-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.000070	EPA 200.8	09-Mar-18/O	0.000230	0.000170	
Chromium	mg/L	0.002	SM 3120	07-Mar-18/O	< 0.002	< 0.002	
Cobalt	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005	0.009	
Copper	mg/L	0.002	SM 3120	07-Mar-18/O	0.305	0.275	
Iron	mg/L	0.005	SM 3120	07-Mar-18/O	0.425	0.293	
Lead	mg/L	0.0001	EPA 200.8	09-Mar-18/O	0.0030	0.0019	
Lithium	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01	< 0.01	
Manganese	mg/L	0.001	SM 3120	07-Mar-18/O	0.029	0.028	
Mercury	mg/L	0.00002	SM 3112 B	07-Mar-18/O	0.00005	0.00003	
Molybdenum	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.005	EPA 200.8	09-Mar-18/O	< 0.005	< 0.005	
Silver	mg/L	0.0001	EPA 200.8	09-Mar-18/O	0.0001	0.0001	

NOTE: Acceptable Holding Time for Bacteria Exceeded Upon Arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-05598

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Mar-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 13-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-05598-1	B18-05598-2		
			Date Collected	22-Feb-18	22-Feb-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	07-Mar-18/O	0.053	0.058	
Thallium	mg/L	0.0003	EPA 200.8	09-Mar-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	07-Mar-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.0003	EPA 200.8	09-Mar-18/O	< 0.0003	0.0003	
Vanadium	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	07-Mar-18/O	0.135	0.116	
Total Coliform	cfu/100mL	1	MOE E3371	06-Mar-18/O	38000000	5400000	
Fecal Coliform	cfu/100mL	1	MOE E3371	06-Mar-18/O	550000	28000	

NOTE: Accetable Holding Time for Bacteria Exceeded Upon Arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-05599

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 06-Mar-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 13-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		Test F Influent	Test F Effluent		
			Sample I.D.		B18-05599-1	B18-05599-2		
			Date Collected		02-Mar-18	02-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
BOD	mg/L	3	SM 5210B	08-Mar-18/O	240	185		
Total Suspended Solids	mg/L	3	SM 2540D	07-Mar-18/O	232	124		
Conductivity @25°C	µmho/cm	1	SM 2510B	06-Mar-18/O	653	524		
pH @25°C	pH Units		SM 4500H	07-Mar-18/O	7.55	7.53		
Nitrite (N)	mg/L	0.1	SM4110C	06-Mar-18/O	< 0.1	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	06-Mar-18/O	< 0.1	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	06-Mar-18/O	52.3	39.3		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	06-Mar-18/O	5.34	4.04		
Phosphorus-Total	mg/L	0.01	E3199A.1	08-Mar-18/K	8.28	6.55		
Aluminum	mg/L	0.01	SM 3120	07-Mar-18/O	0.75	0.44		
Antimony	mg/L	0.0005	EPA 200.8	09-Mar-18/O	< 0.0005	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	09-Mar-18/O	< 0.0005	< 0.0005		
Barium	mg/L	0.001	SM 3120	07-Mar-18/O	0.018	0.017		
Beryllium	mg/L	0.002	SM 3120	07-Mar-18/O	< 0.002	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	09-Mar-18/O	0.000220	0.000230		
Chromium	mg/L	0.002	SM 3120	07-Mar-18/O	< 0.002	< 0.002		
Cobalt	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005	0.007		
Copper	mg/L	0.002	SM 3120	07-Mar-18/O	0.333	0.282		
Iron	mg/L	0.005	SM 3120	07-Mar-18/O	0.415	0.304		
Lead	mg/L	0.0001	EPA 200.8	09-Mar-18/O	0.0025	0.0024		
Lithium	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01	< 0.01		
Manganese	mg/L	0.001	SM 3120	07-Mar-18/O	0.030	0.028		
Mercury	mg/L	0.00002	SM 3112 B	07-Mar-18/O	0.00005	0.00005		
Molybdenum	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01	< 0.01		
Nickel	mg/L	0.01	SM 3120	07-Mar-18/O	< 0.01	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	09-Mar-18/O	< 0.005	< 0.005		
Silver	mg/L	0.0001	EPA 200.8	09-Mar-18/O	< 0.0001	< 0.0001		

NOTE: Acceptable Holding Time for Bacteria Exceeded Upon Arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-05599

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Mar-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 13-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-05599-1	B18-05599-2		
			Date Collected	02-Mar-18	02-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	07-Mar-18/O	0.056	0.057	
Thallium	mg/L	0.0003	EPA 200.8	09-Mar-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	07-Mar-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	07-Mar-18/O	0.007	0.006	
Uranium	mg/L	0.0003	EPA 200.8	09-Mar-18/O	0.0003	0.0003	
Vanadium	mg/L	0.005	SM 3120	07-Mar-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	07-Mar-18/O	0.183	0.135	
Total Coliform	cfu/100mL	1	MOE E3371	06-Mar-18/O	69000000	7900000	
Fecal Coliform	cfu/100mL	1	MOE E3371	06-Mar-18/O	2900000	240000	

NOTE: Acceptable Holding Time for Bacteria Exceeded Upon Arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G63451

REPORT No. B18-06700

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Mar-18

JOB/PROJECT NO.: Test B

DATE REPORTED: 26-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test B - WWTP Inf.			
			Sample I.D.	B18-06700-1			
			Date Collected	08-Mar-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	19-Mar-18/O	223		
Total Suspended Solids	mg/L	3	SM 2540D	19-Mar-18/O	188		
Conductivity @25°C	µmho/cm	1	SM 2510B	19-Mar-18/O	477		
pH @25°C	pH Units		SM 4500H	19-Mar-18/O	7.50		
Nitrite (N)	mg/L	0.1	SM4110C	16-Mar-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	16-Mar-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	20-Mar-18/O	41.3		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	20-Mar-18/O	4.36		
Phosphorus-Total	mg/L	0.01	E3199A.1	19-Mar-18/K	6.38		
Aluminum	mg/L	0.01	SM 3120	19-Mar-18/O	0.28		
Antimony	mg/L	0.0005	EPA 200.8	19-Mar-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	19-Mar-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	19-Mar-18/O	0.016		
Beryllium	mg/L	0.002	SM 3120	19-Mar-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	19-Mar-18/O	0.000135		
Chromium	mg/L	0.002	SM 3120	19-Mar-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	19-Mar-18/O	0.307		
Iron	mg/L	0.005	SM 3120	19-Mar-18/O	0.319		
Lead	mg/L	0.0001	EPA 200.8	19-Mar-18/O	0.0024		
Lithium	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	19-Mar-18/O	0.025		
Mercury	mg/L	0.00002	SM 3112 B	20-Mar-18/O	0.00007		
Molybdenum	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	19-Mar-18/O	< 0.005		
Silver	mg/L	0.0001	EPA 200.8	19-Mar-18/O	< 0.0001		



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G63451

REPORT No. B18-06700

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Mar-18

JOB/PROJECT NO.: Test B

DATE REPORTED: 26-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test B - WWTP Inf.			
			Sample I.D.	B18-06700-1			
			Date Collected	08-Mar-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	19-Mar-18/O	0.055		
Thallium	mg/L	0.0003	EPA 200.8	19-Mar-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	19-Mar-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	19-Mar-18/O	< 0.0003		
Vanadium	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	19-Mar-18/O	0.148		
Total Coliform	cfu/100mL	1	MOE E3371	16-Mar-18/O	66000000		
Fecal Coliform	cfu/100mL	1	MOE E3371	16-Mar-18/O	570000		

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G63451

REPORT No. B18-06701

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Mar-18

JOB/PROJECT NO.: Test C

DATE REPORTED: 26-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test C			
			Sample I.D.	B18-06701-1			
			Date Collected	08-Mar-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	19-Mar-18/O	182		
Total Suspended Solids	mg/L	3	SM 2540D	19-Mar-18/O	168		
Conductivity @25°C	µmho/cm	1	SM 2510B	19-Mar-18/O	437		
pH @25°C	pH Units		SM 4500H	19-Mar-18/O	7.49		
Nitrite (N)	mg/L	0.1	SM4110C	16-Mar-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	16-Mar-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	20-Mar-18/O	39.1		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	20-Mar-18/O	3.99		
Phosphorus-Total	mg/L	0.01	E3199A.1	19-Mar-18/K	5.98		
Aluminum	mg/L	0.01	SM 3120	19-Mar-18/O	0.30		
Antimony	mg/L	0.0005	EPA 200.8	19-Mar-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	19-Mar-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	19-Mar-18/O	0.018		
Beryllium	mg/L	0.002	SM 3120	19-Mar-18/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	19-Mar-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	19-Mar-18/O	0.318		
Iron	mg/L	0.005	SM 3120	19-Mar-18/O	0.365		
Lithium	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	19-Mar-18/O	0.027		
Mercury	mg/L	0.00002	SM 3112 B	20-Mar-18/O	0.00003		
Molybdenum	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	19-Mar-18/O	< 0.005		
Strontium	mg/L	0.001	SM 3120	19-Mar-18/O	0.059		
Thallium	mg/L	0.0003	EPA 200.8	19-Mar-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	19-Mar-18/O	< 0.05		



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G63451

REPORT No. B18-06701

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Mar-18

JOB/PROJECT NO.: Test C

DATE REPORTED: 26-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test C			
			Sample I.D.	B18-06701-1			
			Date Collected	08-Mar-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Titanium	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	19-Mar-18/O	< 0.0003		
Vanadium	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	19-Mar-18/O	0.185		
Total Coliform	cfu/100mL	1	MOE E3371	16-Mar-18/O	46000000		
Fecal Coliform	cfu/100mL	1	MOE E3371	16-Mar-18/O	650000		

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-06703

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Mar-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 28-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F - Influent	Test F - Effluent		
			Sample I.D.	B18-06703-1	B18-06703-2		
			Date Collected	15-Mar-18	15-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	19-Mar-18/O	322	300	
Total Suspended Solids	mg/L	3	SM 2540D	19-Mar-18/O	284	324	
Conductivity @25°C	µmho/cm	1	SM 2510B	19-Mar-18/O	570	515	
pH @25°C	pH Units		SM 4500H	19-Mar-18/O	7.74	7.79	
Nitrite (N)	mg/L	0.1	SM4110C	16-Mar-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	16-Mar-18/O	0.1	< 0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	20-Mar-18/O	49.9	47.3	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	20-Mar-18/O	5.29	4.93	
Phosphorus-Total	mg/L	0.01	E3199A.1	19-Mar-18/K	9.32	8.46	
Aluminum	mg/L	0.01	SM 3120	19-Mar-18/O	0.31	0.28	
Antimony	mg/L	0.0005	EPA 200.8	19-Mar-18/O	< 0.0005	< 0.0005	
Arsenic	mg/L	0.0005	EPA 200.8	19-Mar-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	19-Mar-18/O	0.020	0.017	
Beryllium	mg/L	0.002	SM 3120	19-Mar-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.000070	EPA 200.8	19-Mar-18/O	0.000195	0.000195	
Chromium	mg/L	0.002	SM 3120	19-Mar-18/O	< 0.002	< 0.002	
Cobalt	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005	< 0.005	
Copper	mg/L	0.002	SM 3120	19-Mar-18/O	0.367	0.371	
Iron	mg/L	0.005	SM 3120	19-Mar-18/O	0.490	0.564	
Lead	mg/L	0.0001	EPA 200.8	19-Mar-18/O	0.0023	0.0022	
Lithium	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01	< 0.01	
Manganese	mg/L	0.001	SM 3120	19-Mar-18/O	0.030	0.028	
Mercury	mg/L	0.00002	SM 3112 B	27-Mar-18/O	0.00008	0.00027	
Molybdenum	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	19-Mar-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.005	EPA 200.8	19-Mar-18/O	< 0.005	< 0.005	
Silver	mg/L	0.0001	EPA 200.8	19-Mar-18/O	< 0.0001	< 0.0001	



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-06703

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 16-Mar-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 28-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F - Influent	Test F - Effluent		
			Sample I.D.	B18-06703-1	B18-06703-2		
			Date Collected	15-Mar-18	15-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	19-Mar-18/O	0.061	0.053	
Thallium	mg/L	0.0003	EPA 200.8	19-Mar-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	19-Mar-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.0003	EPA 200.8	19-Mar-18/O	< 0.0003	< 0.0003	
Vanadium	mg/L	0.005	SM 3120	19-Mar-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	19-Mar-18/O	0.204	0.176	
Total Coliform	cfu/100mL	1	MOE E3371	16-Mar-18/O	106000000	52000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	16-Mar-18/O	1200000	3700000	

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G63690

REPORT No. B18-07384

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 23-Mar-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 02-Apr-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F - Influent	Test F - Effluent		
			Sample I.D.	B18-07384-1	B18-07384-2		
			Date Collected	22-Mar-18	22-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	26-Mar-18/O	134	150	
Total Suspended Solids	mg/L	3	SM 2540D	26-Mar-18/O	156	160	
Conductivity @25°C	µmho/cm	1	SM 2510B	26-Mar-18/O	325	323	
pH @25°C	pH Units		SM 4500H	26-Mar-18/O	7.59	7.55	
Nitrite (N)	mg/L	0.1	SM4110C	23-Mar-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	23-Mar-18/O	< 0.1	< 0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	27-Mar-18/O	20.0	20.1	
o-Phosphate (P)	mg/L	0.002	MOEE 3366	27-Mar-18/O	1.87	1.82	
Phosphorus-Total	mg/L	0.01	E3199A.1	26-Mar-18/K	3.82	4.37	
Aluminum	mg/L	0.01	SM 3120	26-Mar-18/O	0.21	0.23	
Antimony	mg/L	0.0001	EPA 200.8	26-Mar-18/O	< 0.0005	< 0.0005	
Arsenic	mg/L	0.0001	EPA 200.8	26-Mar-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	26-Mar-18/O	0.019	0.019	
Beryllium	mg/L	0.002	SM 3120	26-Mar-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.00014	EPA 200.8	26-Mar-18/O	0.000150	0.000135	
Chromium	mg/L	0.002	SM 3120	26-Mar-18/O	< 0.002	< 0.002	
Cobalt	mg/L	0.005	SM 3120	26-Mar-18/O	0.009	0.007	
Copper	mg/L	0.002	SM 3120	26-Mar-18/O	0.263	0.255	
Iron	mg/L	0.005	SM 3120	26-Mar-18/O	0.261	0.280	
Lead	mg/L	0.00002	EPA 200.8	26-Mar-18/O	0.00221	0.00202	
Lithium	mg/L	0.01	SM 3120	26-Mar-18/O	0.04	< 0.01	
Manganese	mg/L	0.001	SM 3120	26-Mar-18/O	0.021	0.022	
Mercury	mg/L	0.00002	SM 3112 B	27-Mar-18/O	0.00003	0.00004	
Molybdenum	mg/L	0.01	SM 3120	26-Mar-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	26-Mar-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.001	EPA 200.8	26-Mar-18/O	< 0.005	< 0.005	
Silver	mg/L	0.00002	EPA 200.8	26-Mar-18/O	< 0.0001	< 0.0001	

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Tahir Yapici Ph.D

Lab Supervisor

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G63690

REPORT No. B18-07384

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 23-Mar-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 02-Apr-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F - Influent	Test F - Effluent		
			Sample I.D.	B18-07384-1	B18-07384-2		
			Date Collected	22-Mar-18	22-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	26-Mar-18/O	0.057	0.058	
Thallium	mg/L	0.00005	EPA 200.8	26-Mar-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	26-Mar-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	26-Mar-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	26-Mar-18/O	< 0.0003	< 0.0003	
Vanadium	mg/L	0.005	SM 3120	26-Mar-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	26-Mar-18/O	0.132	0.143	
Total Coliform	cfu/100mL	1	MOE E3371	23-Mar-18/O	59000000	45000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	23-Mar-18/O	3800000	2700000	

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Tahir Yapici Ph.D

Lab Supervisor

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-08721

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Apr-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 11-Apr-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-08721-1	B18-08721-2		
			Date Collected	29-Mar-18	29-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	06-Apr-18/O	147	117	
Total Suspended Solids	mg/L	3	SM 2540D	09-Apr-18/O	168	66	
Conductivity @25°C	µmho/cm	1	SM 2510B	10-Apr-18/O	391	386	
pH @25°C	pH Units		SM 4500H	10-Apr-18/O	7.22	7.30	
Nitrite (N)	mg/L	0.1	SM4110C	06-Apr-18/O	0.4	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	06-Apr-18/O	0.2	< 0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	10-Apr-18/O	32.0	31.3	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	10-Apr-18/O	3.08	2.95	
Phosphorus-Total	mg/L	0.01	E3199A.1	09-Apr-18/K	5.22	4.75	
Aluminum	mg/L	0.01	SM 3120	09-Apr-18/O	0.81	0.16	
Antimony	mg/L	0.0001	EPA 200.8	09-Apr-18/O	< 0.0005	< 0.0005	
Arsenic	mg/L	0.0001	EPA 200.8	09-Apr-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	09-Apr-18/O	0.016	0.011	
Beryllium	mg/L	0.002	SM 3120	09-Apr-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.00014	EPA 200.8	09-Apr-18/O	0.000185	0.000175	
Chromium	mg/L	0.002	SM 3120	09-Apr-18/O	0.002	< 0.002	
Cobalt	mg/L	0.005	SM 3120	09-Apr-18/O	< 0.005	0.005	
Copper	mg/L	0.002	SM 3120	09-Apr-18/O	0.291	0.246	
Iron	mg/L	0.005	SM 3120	09-Apr-18/O	0.738	0.313	
Lead	mg/L	0.00002	EPA 200.8	09-Apr-18/O	0.00314	0.00194	
Lithium	mg/L	0.01	SM 3120	09-Apr-18/O	< 0.01	< 0.01	
Manganese	mg/L	0.001	SM 3120	09-Apr-18/O	0.026	0.018	
Mercury	mg/L	0.00002	SM 3112 B	10-Apr-18/O	0.00006	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	09-Apr-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	09-Apr-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.001	EPA 200.8	09-Apr-18/O	< 0.005	< 0.005	
Silver	mg/L	0.00002	EPA 200.8	09-Apr-18/O	< 0.0001	< 0.0001	

NOTE: Holding times for Total & Fecal Coliform exceeded upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-08721

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Apr-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 11-Apr-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-08721-1	B18-08721-2		
			Date Collected	29-Mar-18	29-Mar-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	09-Apr-18/O	0.054	0.040	
Thallium	mg/L	0.00005	EPA 200.8	09-Apr-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	09-Apr-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	09-Apr-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	09-Apr-18/O	< 0.0003	< 0.0003	
Vanadium	mg/L	0.005	SM 3120	09-Apr-18/O	0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	09-Apr-18/O	0.164	0.107	
Total Coliform	cfu/100mL	1	MOE E3371	06-Apr-18/O	86000000	67000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	06-Apr-18/O	2900000	2400000	

NOTE: Holding times for Total & Fecal Coliform exceeded upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-08722

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Apr-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 11-Apr-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-08722-1	B18-08722-2		
			Date Collected	05-Apr-18	05-Apr-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	06-Apr-18/O	219	198	
Total Suspended Solids	mg/L	3	SM 2540D	09-Apr-18/O	168	98	
Conductivity @25°C	µmho/cm	1	SM 2510B	10-Apr-18/O	435	567	
pH @25°C	pH Units		SM 4500H	10-Apr-18/O	7.40	7.46	
Nitrite (N)	mg/L	0.1	SM4110C	06-Apr-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	06-Apr-18/O	< 0.1	< 0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	10-Apr-18/O	32.2	45.5	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	10-Apr-18/O	2.94	4.38	
Phosphorus-Total	mg/L	0.01	E3199A.1	10-Apr-18/K	5.36	6.17	
Aluminum	mg/L	0.01	SM 3120	09-Apr-18/O	0.25	0.23	
Antimony	mg/L	0.0001	EPA 200.8	09-Apr-18/O	< 0.0005	< 0.0005	
Arsenic	mg/L	0.0001	EPA 200.8	09-Apr-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	09-Apr-18/O	0.016	0.017	
Beryllium	mg/L	0.002	SM 3120	09-Apr-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.00014	EPA 200.8	09-Apr-18/O	0.000200	0.000245	
Chromium	mg/L	0.002	SM 3120	09-Apr-18/O	< 0.002	< 0.002	
Cobalt	mg/L	0.005	SM 3120	09-Apr-18/O	< 0.005	< 0.005	
Copper	mg/L	0.002	SM 3120	09-Apr-18/O	0.259	0.227	
Iron	mg/L	0.005	SM 3120	09-Apr-18/O	0.255	0.214	
Lead	mg/L	0.00002	EPA 200.8	09-Apr-18/O	0.00267	0.00219	
Lithium	mg/L	0.01	SM 3120	09-Apr-18/O	< 0.01	< 0.01	
Manganese	mg/L	0.001	SM 3120	09-Apr-18/O	0.022	0.022	
Mercury	mg/L	0.00002	SM 3112 B	10-Apr-18/O	0.00002	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	09-Apr-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	09-Apr-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.001	EPA 200.8	09-Apr-18/O	< 0.005	< 0.005	
Silver	mg/L	0.00002	EPA 200.8	09-Apr-18/O	0.00013	0.00012	



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-08722

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Apr-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 11-Apr-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-08722-1	B18-08722-2		
			Date Collected	05-Apr-18	05-Apr-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	09-Apr-18/O	0.051	0.058	
Thallium	mg/L	0.00005	EPA 200.8	09-Apr-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	09-Apr-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	09-Apr-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	09-Apr-18/O	< 0.0003	< 0.0003	
Vanadium	mg/L	0.005	SM 3120	09-Apr-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	09-Apr-18/O	0.114	0.121	
Total Coliform	cfu/100mL	1	MOE E3371	06-Apr-18/O	46000000	38000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	06-Apr-18/O	4200000	3800000	

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-09938

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 18-Apr-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 24-Apr-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-09938-1	B18-09938-2		
			Date Collected	17-Apr-18	17-Apr-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	19-Apr-18/O	424	203	
Total Suspended Solids	mg/L	3	SM 2540D	19-Apr-18/O	38	216	
Conductivity @25°C	µmho/cm	1	SM 2510B	19-Apr-18/O	548	489	
pH @25°C	pH Units		SM 4500H	19-Apr-18/O	7.52	7.48	
Nitrite (N)	mg/L	0.1	SM4110C	18-Apr-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	18-Apr-18/O	< 0.1	< 0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	24-Apr-18/O	39.8	35.0	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	24-Apr-18/O	3.67	3.43	
Phosphorus-Total	mg/L	0.01	E3199A.1	20-Apr-18/K	7.05	5.73	
Aluminum	mg/L	0.01	SM 3120	19-Apr-18/O	0.50	0.34	
Antimony	mg/L	0.0001	EPA 200.8	18-Apr-18/O	0.0009	0.0005	
Arsenic	mg/L	0.0001	EPA 200.8	18-Apr-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	19-Apr-18/O	0.018	0.015	
Beryllium	mg/L	0.002	SM 3120	19-Apr-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.00014	EPA 200.8	18-Apr-18/O	0.000122	0.000100	
Chromium	mg/L	0.002	SM 3120	19-Apr-18/O	< 0.002	< 0.002	
Cobalt	mg/L	0.005	SM 3120	19-Apr-18/O	< 0.005	< 0.005	
Copper	mg/L	0.002	SM 3120	19-Apr-18/O	0.257	0.246	
Iron	mg/L	0.005	SM 3120	19-Apr-18/O	0.584	0.351	
Lead	mg/L	0.00002	EPA 200.8	18-Apr-18/O	0.00236	0.00152	
Lithium	mg/L	0.01	SM 3120	19-Apr-18/O	0.02	0.02	
Manganese	mg/L	0.001	SM 3120	19-Apr-18/O	0.033	0.024	
Mercury	mg/L	0.00002	SM 3112 B	19-Apr-18/O	0.00007	0.00002	
Molybdenum	mg/L	0.01	SM 3120	19-Apr-18/O	< 0.01	0.02	
Nickel	mg/L	0.01	SM 3120	19-Apr-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.001	EPA 200.8	18-Apr-18/O	< 0.005	< 0.005	
Silver	mg/L	0.00002	EPA 200.8	18-Apr-18/O	0.00019	< 0.0001	



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-09938

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 18-Apr-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 24-Apr-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Effluent		
			Sample I.D.	B18-09938-1	B18-09938-2		
			Date Collected	17-Apr-18	17-Apr-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	19-Apr-18/O	0.058	0.052	
Thallium	mg/L	0.00005	EPA 200.8	18-Apr-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	19-Apr-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	19-Apr-18/O	0.005	< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	18-Apr-18/O	< 0.0003	< 0.0003	
Vanadium	mg/L	0.005	SM 3120	19-Apr-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	19-Apr-18/O	0.153	0.111	
Total Coliform	cfu/100mL	1	MOE E3371	18-Apr-18/O	40000000	72000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	18-Apr-18/O	12300000	760000	

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-11875

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-May-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 14-May-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP - Test A	WTP - Test A (Total)		
			Sample I.D.	B18-11875-1	B18-11875-2		
			Date Collected	03-May-18	03-May-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	07-May-18/O	19		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	10-May-18/O		19	
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	09-May-18/O	15		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	09-May-18/O	15		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	09-May-18/O	< 5		
Hydroxide	mg/L	5	EPA 310.2	09-May-18/O	< 5		
Acidity (as CaCO ₃)	mg/L	5	Subcontract	10-May-18	< 5 ¹		
pH @25°C	pH Units		SM 4500H	09-May-18/O	7.37		
Conductivity @25°C	µmho/cm	1	SM 2510B	09-May-18/O	48		
TDS(ion sum calc.)	mg/L	1	Calc.	10-May-18/O	23		
Total Suspended Solids	mg/L	3	SM 2540D	08-May-18/O	< 3		
Turbidity	NTU	0.1	SM 2130	04-May-18/O	0.4		
REDOX potential	mV		Subcontract	10-May-18	212 ¹		
Chloride	mg/L	0.5	SM4110C	04-May-18/O	3.4		
Sulphate	mg/L	1	SM4110C	04-May-18/O	2		
Aluminum	mg/L	0.01	SM 3120	07-May-18/O	< 0.01		
Aluminum	mg/L	0.01	SM 3120	10-May-18/O		< 0.01	
Antimony	mg/L	0.0001	EPA 200.8	07-May-18/O	< 0.0001		
Antimony	mg/L	0.0001	EPA 200.8	10-May-18/O		< 0.0001	
Arsenic	mg/L	0.0001	EPA 200.8	07-May-18/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	10-May-18/O		0.0002	
Barium	mg/L	0.001	SM 3120	07-May-18/O	0.002		
Barium	mg/L	0.001	SM 3120	10-May-18/O		0.002	
Beryllium	mg/L	0.002	SM 3120	07-May-18/O	< 0.002		
Beryllium	mg/L	0.002	SM 3120	10-May-18/O		< 0.002	
Cadmium	mg/L	0.000015	EPA 200.8	07-May-18/O	< 0.000015		
Cadmium	mg/L	0.000015	EPA 200.8	10-May-18/O		< 0.000015	



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-11875

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-May-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 14-May-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP - Test A	WTP - Test A (Total)		
			Sample I.D.	B18-11875-1	B18-11875-2		
			Date Collected	03-May-18	03-May-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Chromium	mg/L	0.002	SM 3120	07-May-18/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	10-May-18/O		< 0.002	
Cobalt	mg/L	0.005	SM 3120	07-May-18/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	10-May-18/O		< 0.005	
Copper	mg/L	0.002	SM 3120	07-May-18/O	0.089		
Copper	mg/L	0.002	SM 3120	10-May-18/O		0.107	
Iron	mg/L	0.005	SM 3120	07-May-18/O	0.018		
Iron	mg/L	0.005	SM 3120	10-May-18/O		0.021	
Lead	mg/L	0.00002	EPA 200.8	07-May-18/O	0.00031		
Lead	mg/L	0.00002	EPA 200.8	10-May-18/O		0.00031	
Lithium	mg/L	0.01	SM 3120	07-May-18/O	< 0.01		
Lithium	mg/L	0.01	SM 3120	10-May-18/O		< 0.01	
Manganese	mg/L	0.001	SM 3120	07-May-18/O	0.001		
Manganese	mg/L	0.001	SM 3120	10-May-18/O		0.001	
Mercury	mg/L	0.00002	SM 3112 B	11-May-18/O	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	07-May-18/O	< 0.01		
Molybdenum	mg/L	0.01	SM 3120	10-May-18/O		< 0.01	
Nickel	mg/L	0.01	SM 3120	07-May-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	10-May-18/O		< 0.01	
Selenium	mg/L	0.001	EPA 200.8	07-May-18/O	< 0.001		
Selenium	mg/L	0.001	EPA 200.8	10-May-18/O		< 0.001	
Silver	mg/L	0.0001	EPA 200.8	07-May-18/O	< 0.0001		
Silver	mg/L	0.0001	EPA 200.8	10-May-18/O		< 0.0001	
Strontium	mg/L	0.001	SM 3120	07-May-18/O	0.014		
Strontium	mg/L	0.001	SM 3120	10-May-18/O		0.014	
Thallium	mg/L	0.00005	EPA 200.8	07-May-18/O	< 0.00005		
Thallium	mg/L	0.00005	EPA 200.8	10-May-18/O		< 0.00005	



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-11875

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 04-May-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 14-May-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP - Test A	WTP - Test A (Total)		
			Sample I.D.	B18-11875-1	B18-11875-2		
			Date Collected	03-May-18	03-May-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Tin	mg/L	0.05	SM 3120	07-May-18/O	< 0.05		
Tin	mg/L	0.05	SM 3120	10-May-18/O		< 0.05	
Titanium	mg/L	0.005	SM 3120	07-May-18/O	< 0.005		
Titanium	mg/L	0.005	SM 3120	10-May-18/O		0.011	
Uranium	mg/L	0.00005	EPA 200.8	07-May-18/O	< 0.00005		
Uranium	mg/L	0.00005	EPA 200.8	10-May-18/O		< 0.00005	
Vanadium	mg/L	0.005	SM 3120	07-May-18/O	< 0.005		
Vanadium	mg/L	0.005	SM 3120	10-May-18/O		< 0.005	
Zinc	mg/L	0.005	SM 3120	07-May-18/O	0.022		
Zinc	mg/L	0.005	SM 3120	10-May-18/O		0.022	
Total Organic Carbon	mg/L	0.2	EPA 415.1	11-May-18/O	1.8		
TIC	mg/L	0.5	EPA 415.1	11-May-18/O	3.1		
Fecal Coliform	cfu/100mL	1	MOE E3371	04-May-18/O	0		
Langelier Index(25°C)	S.I.		Calc.	10-May-18/O	-1.99		

1 subcontracted to Testmark Labs.



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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-11877

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-May-18

JOB/PROJECT NO.: Test C

DATE REPORTED: 14-May-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		WWTP Effluent (Test C)			
			Sample I.D.		B18-11877-1			
			Date Collected		03-May-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
BOD	mg/L	3	SM 5210B	07-May-18/O	61			
Total Suspended Solids	mg/L	3	SM 2540D	08-May-18/O	76			
Conductivity @25°C	µmho/cm	1	SM 2510B	09-May-18/O	363			
pH @25°C	pH Units		SM 4500H	09-May-18/O	7.34			
Nitrite (N)	mg/L	0.1	SM4110C	07-May-18/O	< 0.1			
Nitrate (N)	mg/L	0.1	SM4110C	07-May-18/O	< 0.1			
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	08-May-18/O	24.5			
o-Phosphate (P)	mg/L	0.01	MOEE 3366	08-May-18/O	2.16			
Phosphorus-Total	mg/L	0.01	E3199A.1	09-May-18/K	4.13			
Aluminum	mg/L	0.01	SM 3120	10-May-18/O	0.22			
Antimony	mg/L	0.0005	EPA 200.8	08-May-18/O	< 0.0005			
Arsenic	mg/L	0.0005	EPA 200.8	08-May-18/O	0.0010			
Barium	mg/L	0.001	SM 3120	10-May-18/O	0.019			
Beryllium	mg/L	0.002	SM 3120	10-May-18/O	< 0.002			
Cadmium	mg/L	0.000070	EPA 200.8	08-May-18/O	0.000180			
Chromium	mg/L	0.002	SM 3120	10-May-18/O	< 0.002			
Cobalt	mg/L	0.005	SM 3120	10-May-18/O	0.010			
Copper	mg/L	0.002	SM 3120	10-May-18/O	0.245			
Iron	mg/L	0.005	SM 3120	10-May-18/O	0.304			
Lead	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0024			
Lithium	mg/L	0.01	SM 3120	10-May-18/O	< 0.01			
Manganese	mg/L	0.001	SM 3120	10-May-18/O	0.024			
Mercury	mg/L	0.00002	SM 3112 B	11-May-18/O	0.00003			
Molybdenum	mg/L	0.01	SM 3120	10-May-18/O	< 0.01			
Nickel	mg/L	0.01	SM 3120	10-May-18/O	< 0.01			
Selenium	mg/L	0.005	EPA 200.8	08-May-18/O	< 0.005			



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-11877

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-May-18

JOB/PROJECT NO.: Test C

DATE REPORTED: 14-May-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	WWTP Effluent (Test C)			
			Sample I.D.	B18-11877-1			
			Date Collected	03-May-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	08-May-18/O	0.0002		
Strontium	mg/L	0.001	SM 3120	10-May-18/O	0.063		
Thallium	mg/L	0.0003	EPA 200.8	08-May-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	10-May-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	10-May-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	08-May-18/O	0.0003		
Vanadium	mg/L	0.005	SM 3120	10-May-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	10-May-18/O	0.115		
Total Coliform	cfu/100mL	1	MOE E3371	03-May-18/O	55000000		
Fecal Coliform	cfu/100mL	1	MOE E3371	04-May-18/O	6100000		

R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-12991

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 15-May-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 22-May-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Influent WWTP	Effluent WWTP		
			Sample I.D.	B18-12991-1	B18-12991-2		
			Date Collected	10-May-18	10-May-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	17-May-18/O	87	83	
Total Suspended Solids	mg/L	3	SM 2540D	16-May-18/O	104	108	
Conductivity @25°C	µmho/cm	1	SM 2510B	17-May-18/O	436	434	
pH @25°C	pH Units		SM 4500H	17-May-18/O	7.58	7.61	
Nitrite (N)	mg/L	0.1	SM4110C	17-May-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	17-May-18/O	< 0.1	< 0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	15-May-18/O	34.1	35.7	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	15-May-18/O	3.47	3.53	
Phosphorus-Total	mg/L	0.01	E3199A.1	17-May-18/K	6.14	5.95	
Aluminum	mg/L	0.01	SM 3120	22-May-18/O	0.19	0.21	
Antimony	mg/L	0.0005	EPA 200.8	15-May-18/O	< 0.0005	< 0.0005	
Arsenic	mg/L	0.0005	EPA 200.8	15-May-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	22-May-18/O	0.022	0.023	
Beryllium	mg/L	0.002	SM 3120	22-May-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.000070	EPA 200.8	15-May-18/O	0.000140	0.000195	
Chromium	mg/L	0.002	SM 3120	22-May-18/O	0.002	< 0.002	
Cobalt	mg/L	0.005	SM 3120	22-May-18/O	< 0.005	< 0.005	
Copper	mg/L	0.002	SM 3120	22-May-18/O	0.341	0.343	
Iron	mg/L	0.005	SM 3120	22-May-18/O	0.342	0.327	
Lead	mg/L	0.0001	EPA 200.8	15-May-18/O	0.0019	0.0024	
Lithium	mg/L	0.01	SM 3120	22-May-18/O	< 0.01	< 0.01	
Manganese	mg/L	0.001	SM 3120	22-May-18/O	0.027	0.027	
Mercury	mg/L	0.00002	SM 3112 B	18-May-18/O	0.00005	0.00005	
Molybdenum	mg/L	0.01	SM 3120	22-May-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	22-May-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.005	EPA 200.8	15-May-18/O	< 0.005	< 0.005	
Silver	mg/L	0.0001	EPA 200.8	15-May-18/O	< 0.0001	< 0.0001	

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-12991

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 15-May-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 22-May-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Influent WWTP	Effluent WWTP		
			Sample I.D.	B18-12991-1	B18-12991-2		
			Date Collected	10-May-18	10-May-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	22-May-18/O	0.066	0.068	
Thallium	mg/L	0.0003	EPA 200.8	15-May-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	22-May-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	22-May-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.0003	EPA 200.8	15-May-18/O	< 0.0003	< 0.0003	
Vanadium	mg/L	0.005	SM 3120	22-May-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	22-May-18/O	0.127	0.132	
Total Coliform	cfu/100mL	1	MOE E3371	15-May-18/O	290000000	69000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	15-May-18/O	2300000	2600000	

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-15166

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 31-May-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 13-Jun-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Effluent - Lagoon Decant			
			Sample I.D.	B18-15166-1			
			Date Collected	28-May-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	01-Jun-18/O	216		
Total Suspended Solids	mg/L	3	SM 2540D	04-Jun-18/O	48		
Conductivity @25°C	µmho/cm	1	SM 2510B	06-Jun-18/O	883		
pH @25°C	pH Units		SM 4500H	07-Jun-18/O	7.13		
Nitrite (N)	mg/L	0.1	SM4110C	04-Jun-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	04-Jun-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	05-Jun-18/O	66.9		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	05-Jun-18/O	6.62		
Phosphorus-Total	mg/L	0.01	E3199A.1	06-Jun-18/K	8.20		
Aluminum	mg/L	0.01	SM 3120	11-Jun-18/O	0.21		
Antimony	mg/L	0.0005	EPA 200.8	04-Jun-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	04-Jun-18/O	0.0013		
Barium	mg/L	0.001	SM 3120	11-Jun-18/O	0.021		
Beryllium	mg/L	0.002	SM 3120	11-Jun-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	04-Jun-18/O	0.000120		
Chromium	mg/L	0.002	SM 3120	11-Jun-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	11-Jun-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	11-Jun-18/O	0.268		
Iron	mg/L	0.005	SM 3120	11-Jun-18/O	1.84		
Lead	mg/L	0.0001	EPA 200.8	04-Jun-18/O	0.0017		
Lithium	mg/L	0.01	SM 3120	11-Jun-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	11-Jun-18/O	0.160		
Mercury	mg/L	0.00002	SM 3112 B	13-Jun-18/O	0.00002		
Molybdenum	mg/L	0.01	SM 3120	11-Jun-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	11-Jun-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	04-Jun-18/O	< 0.005		

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-15166

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 31-May-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 13-Jun-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Effluent - Lagoon Decant			
			Sample I.D.	B18-15166-1			
			Date Collected	28-May-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	04-Jun-18/O	< 0.0001		
Strontium	mg/L	0.001	SM 3120	11-Jun-18/O	0.080		
Thallium	mg/L	0.0003	EPA 200.8	04-Jun-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	11-Jun-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	11-Jun-18/O	0.005		
Uranium	mg/L	0.0003	EPA 200.8	04-Jun-18/O	< 0.0003		
Vanadium	mg/L	0.005	SM 3120	11-Jun-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	11-Jun-18/O	0.126		
Total Coliform	cfu/100mL	1	MOE E3371	31-May-18/O	21000000		
Fecal Coliform	cfu/100mL	1	MOE E3371	31-May-18/O	27000		

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-15291

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 01-Jun-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 14-Jun-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Effluent Decant Lagoon			
			Sample I.D.	B18-15291-1			
			Date Collected	31-May-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	04-Jun-18/O	136		
Total Suspended Solids	mg/L	3	SM 2540D	04-Jun-18/O	600		
Conductivity @25°C	µmho/cm	1	SM 2510B	07-Jun-18/O	1500		
pH @25°C	pH Units		SM 4500H	07-Jun-18/O	7.22		
Nitrite (N)	mg/L	0.1	SM4110C	05-Jun-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	05-Jun-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	05-Jun-18/O	30.7		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	05-Jun-18/O	2.68		
Phosphorus-Total	mg/L	0.01	E3199A.1	06-Jun-18/K	0.56		
Aluminum	mg/L	0.01	SM 3120	13-Jun-18/O	0.24		
Antimony	mg/L	0.0005	EPA 200.8	04-Jun-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	04-Jun-18/O	0.0022		
Barium	mg/L	0.001	SM 3120	13-Jun-18/O	0.015		
Beryllium	mg/L	0.002	SM 3120	13-Jun-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	04-Jun-18/O	0.000100		
Chromium	mg/L	0.002	SM 3120	13-Jun-18/O	0.003		
Cobalt	mg/L	0.005	SM 3120	13-Jun-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	13-Jun-18/O	0.304		
Iron	mg/L	0.005	SM 3120	13-Jun-18/O	0.438		
Lead	mg/L	0.0001	EPA 200.8	04-Jun-18/O	0.0017		
Lithium	mg/L	0.01	SM 3120	13-Jun-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	13-Jun-18/O	0.028		
Mercury	mg/L	0.00002	SM 3112 B	13-Jun-18/O	0.00002		
Molybdenum	mg/L	0.01	SM 3120	13-Jun-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	13-Jun-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	04-Jun-18/O	< 0.005		



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-15291

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 01-Jun-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 14-Jun-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		Effluent Decant Lagoon			
			Sample I.D.		B18-15291-1			
			Date Collected		31-May-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
Silver	mg/L	0.0001	EPA 200.8	04-Jun-18/O	0.0002			
Strontium	mg/L	0.001	SM 3120	13-Jun-18/O	0.162			
Thallium	mg/L	0.0003	EPA 200.8	04-Jun-18/O	< 0.0003			
Tin	mg/L	0.05	SM 3120	13-Jun-18/O	< 0.05			
Titanium	mg/L	0.005	SM 3120	13-Jun-18/O	< 0.005			
Uranium	mg/L	0.0003	EPA 200.8	04-Jun-18/O	< 0.0003			
Vanadium	mg/L	0.005	SM 3120	13-Jun-18/O	< 0.005			
Zinc	mg/L	0.005	SM 3120	13-Jun-18/O	0.121			
Total Coliform	cfu/100mL	1	MOE E3371	01-Jun-18/O	45000000			
Fecal Coliform	cfu/100mL	1	MOE E3371	01-Jun-18/O	3400000			

R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-15627

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 05-Jun-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 14-Jun-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Effluent Lagoon Decant			
			Sample I.D.	B18-15627-1			
			Date Collected	04-Jun-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	07-Jun-18/O	57		
Total Suspended Solids	mg/L	3	SM 2540D	06-Jun-18/O	19		
Conductivity @25°C	µmho/cm	1	SM 2510B	08-Jun-18/O	337		
pH @25°C	pH Units		SM 4500H	08-Jun-18/O	7.32		
Nitrite (N)	mg/L	0.1	SM4110C	06-Jun-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	06-Jun-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	13-Jun-18/O	23.5		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	13-Jun-18/O	2.19		
Phosphorus-Total	mg/L	0.01	E3199A.1	07-Jun-18/K	3.32		
Aluminum	mg/L	0.01	SM 3120	13-Jun-18/O	0.08		
Antimony	mg/L	0.0005	EPA 200.8	07-Jun-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	07-Jun-18/O	0.0010		
Barium	mg/L	0.001	SM 3120	13-Jun-18/O	0.011		
Beryllium	mg/L	0.002	SM 3120	13-Jun-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	07-Jun-18/O	0.000100		
Chromium	mg/L	0.002	SM 3120	13-Jun-18/O	0.002		
Cobalt	mg/L	0.005	SM 3120	13-Jun-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	13-Jun-18/O	0.136		
Iron	mg/L	0.005	SM 3120	13-Jun-18/O	0.588		
Lead	mg/L	0.0001	EPA 200.8	07-Jun-18/O	0.0012		
Lithium	mg/L	0.01	SM 3120	13-Jun-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	13-Jun-18/O	0.052		
Mercury	mg/L	0.00002	SM 3112 B	14-Jun-18/O	< 0.00002		
Molybdenum	mg/L	0.01	SM 3120	13-Jun-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	13-Jun-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	07-Jun-18/O	< 0.005		



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-15627

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 05-Jun-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 14-Jun-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Effluent Lagoon Decant			
			Sample I.D.	B18-15627-1			
			Date Collected	04-Jun-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	07-Jun-18/O	< 0.0001		
Strontium	mg/L	0.001	SM 3120	13-Jun-18/O	0.047		
Thallium	mg/L	0.0003	EPA 200.8	07-Jun-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	13-Jun-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	13-Jun-18/O	0.005		
Uranium	mg/L	0.0003	EPA 200.8	07-Jun-18/O	< 0.0003		
Vanadium	mg/L	0.005	SM 3120	13-Jun-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	13-Jun-18/O	0.068		
Total Coliform	cfu/100mL	1	MOE E3371	05-Jun-18/O	2000000		
Fecal Coliform	cfu/100mL	1	MOE E3371	05-Jun-18/O	10000		

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-21252

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 19-Jul-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 25-Jul-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F			
			Sample I.D.	B18-21252-1			
			Date Collected	16-Jul-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	20-Jul-18/O	23		
Total Suspended Solids	mg/L	3	SM 2540D	23-Jul-18/O	45		
Conductivity @25°C	µmho/cm	1	SM 2510B	20-Jul-18/O	239		
pH @25°C	pH Units		SM 4500H	20-Jul-18/O	7.68		
Nitrite (N)	mg/L	0.1	SM4110C	21-Jul-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	21-Jul-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	25-Jul-18/O	13.4		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	25-Jul-18/O	1.08		
Phosphorus-Total	mg/L	0.01	E3199A.1	20-Jul-18/K	2.08		
Aluminum	mg/L	0.01	SM 3120	20-Jul-18/O	0.06		
Antimony	mg/L	0.0005	EPA 200.8	23-Jul-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	23-Jul-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	20-Jul-18/O	0.014		
Beryllium	mg/L	0.002	SM 3120	20-Jul-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	23-Jul-18/O	0.000098		
Chromium	mg/L	0.002	SM 3120	20-Jul-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	20-Jul-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	20-Jul-18/O	0.061		
Iron	mg/L	0.005	SM 3120	20-Jul-18/O	1.06		
Lead	mg/L	0.0001	EPA 200.8	23-Jul-18/O	0.0008		
Lithium	mg/L	0.01	SM 3120	20-Jul-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	20-Jul-18/O	0.099		
Mercury	mg/L	0.00002	SM 3112 B	20-Jul-18/O	< 0.00002		
Molybdenum	mg/L	0.01	SM 3120	20-Jul-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	20-Jul-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	23-Jul-18/O	< 0.005		
Silver	mg/L	0.0001	EPA 200.8	23-Jul-18/O	< 0.0001		

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-21252

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 19-Jul-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 25-Jul-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F			
			Sample I.D.	B18-21252-1			
			Date Collected	16-Jul-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	20-Jul-18/O	0.053		
Thallium	mg/L	0.0003	EPA 200.8	23-Jul-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	20-Jul-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	20-Jul-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	23-Jul-18/O	< 0.0003		
Vanadium	mg/L	0.005	SM 3120	20-Jul-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	20-Jul-18/O	0.048		
Total Coliform	cfu/100mL	1	MOE E3371	19-Jul-18/O	60000		
Fecal Coliform	cfu/100mL	1	MOE E3371	19-Jul-18/O	10000		

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-22321

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 30-Jul-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 08-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Lagoon Sample			
			Sample I.D.	B18-22321-1			
			Date Collected	27-Jul-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	30-Jul-18/O	21		
Total Suspended Solids	mg/L	3	SM 2540D	01-Aug-18/O	52		
Conductivity @25°C	µmho/cm	1	SM 2510B	30-Jul-18/O	233		
pH @25°C	pH Units		SM 4500H	30-Jul-18/O	7.49		
Nitrite (N)	mg/L	0.1	SM4110C	01-Aug-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	01-Aug-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	01-Aug-18/O	9.52		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	01-Aug-18/O	0.86		
Phosphorus-Total	mg/L	0.01	E3199A.1	31-Jul-18/K	1.57		
Aluminum	mg/L	0.01	SM 3120	31-Jul-18/O	0.15		
Antimony	mg/L	0.0005	EPA 200.8	30-Jul-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	30-Jul-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	31-Jul-18/O	0.015		
Beryllium	mg/L	0.002	SM 3120	31-Jul-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	30-Jul-18/O	0.000104		
Chromium	mg/L	0.002	SM 3120	31-Jul-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	31-Jul-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	31-Jul-18/O	0.046		
Iron	mg/L	0.005	SM 3120	31-Jul-18/O	1.61		
Lead	mg/L	0.0001	EPA 200.8	30-Jul-18/O	0.0012		
Lithium	mg/L	0.01	SM 3120	31-Jul-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	31-Jul-18/O	0.115		
Mercury	mg/L	0.00002	SM 3112 B	01-Aug-18/O	< 0.00002		
Molybdenum	mg/L	0.01	SM 3120	31-Jul-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	31-Jul-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	30-Jul-18/O	< 0.005		
Silver	mg/L	0.0001	EPA 200.8	30-Jul-18/O	< 0.0001		

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-22321

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 30-Jul-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 08-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Lagoon Sample			
			Sample I.D.	B18-22321-1			
			Date Collected	27-Jul-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	31-Jul-18/O	0.057		
Thallium	mg/L	0.0003	EPA 200.8	30-Jul-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	31-Jul-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	31-Jul-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	30-Jul-18/O	< 0.0003		
Vanadium	mg/L	0.005	SM 3120	31-Jul-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	31-Jul-18/O	0.051		
Total Coliform	cfu/100mL	1	MOE E3371	30-Jul-18/O	20000		
Fecal Coliform	cfu/100mL	1	MOE E3371	30-Jul-18/O	< 10		

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-22323

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 30-Jul-18

JOB/PROJECT NO.: 110126045 - Iqaluit WWTP

DATE REPORTED: 08-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F - Influent	Test F - Discharge		
			Sample I.D.	B18-22323-1	B18-22323-2		
			Date Collected	27-Jul-18	27-Jul-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	30-Jul-18/O	134	24	
Total Suspended Solids	mg/L	3	SM 2540D	01-Aug-18/O	124	58	
Conductivity @25°C	µmho/cm	1	SM 2510B	30-Jul-18/O	329	225	
pH @25°C	pH Units		SM 4500H	30-Jul-18/O	7.28	7.69	
Nitrite (N)	mg/L	0.1	SM4110C	01-Aug-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	01-Aug-18/O	< 0.1	< 0.1	
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	01-Aug-18/O	15.2	8.46	
o-Phosphate (P)	mg/L	0.01	MOEE 3366	01-Aug-18/O	1.09	0.79	
Phosphorus-Total	mg/L	0.01	E3199A.1	31-Jul-18/K	3.13	1.60	
Aluminum	mg/L	0.01	SM 3120	31-Jul-18/O	0.18	0.13	
Antimony	mg/L	0.0005	EPA 200.8	30-Jul-18/O	< 0.0005	< 0.0005	
Arsenic	mg/L	0.0005	EPA 200.8	30-Jul-18/O	0.0006	< 0.0005	
Barium	mg/L	0.001	SM 3120	31-Jul-18/O	0.017	0.015	
Beryllium	mg/L	0.002	SM 3120	31-Jul-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.000070	EPA 200.8	30-Jul-18/O	0.000198	0.000090	
Chromium	mg/L	0.002	SM 3120	31-Jul-18/O	< 0.002	< 0.002	
Cobalt	mg/L	0.005	SM 3120	31-Jul-18/O	< 0.005	< 0.005	
Copper	mg/L	0.002	SM 3120	31-Jul-18/O	0.220	0.046	
Iron	mg/L	0.005	SM 3120	31-Jul-18/O	0.416	1.56	
Lead	mg/L	0.0001	EPA 200.8	30-Jul-18/O	0.0023	0.0011	
Lithium	mg/L	0.01	SM 3120	31-Jul-18/O	< 0.01	< 0.01	
Manganese	mg/L	0.001	SM 3120	31-Jul-18/O	0.066	0.111	
Mercury	mg/L	0.00002	SM 3112 B	02-Aug-18/O	0.00003	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	31-Jul-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	31-Jul-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.005	EPA 200.8	30-Jul-18/O	< 0.005	< 0.005	
Silver	mg/L	0.0001	EPA 200.8	30-Jul-18/O	< 0.0001	< 0.0001	

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-22323

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 30-Jul-18

JOB/PROJECT NO.: 110126045 - Iqaluit WWTP

DATE REPORTED: 08-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F - Influent	Test F - Discharge		
			Sample I.D.	B18-22323-1	B18-22323-2		
			Date Collected	27-Jul-18	27-Jul-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	31-Jul-18/O	0.066	0.056	
Thallium	mg/L	0.0003	EPA 200.8	30-Jul-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	31-Jul-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	31-Jul-18/O	0.005	< 0.005	
Uranium	mg/L	0.0003	EPA 200.8	30-Jul-18/O	< 0.0003	< 0.0003	
Vanadium	mg/L	0.005	SM 3120	31-Jul-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	31-Jul-18/O	0.411	0.037	
Total Coliform	cfu/100mL	1	MOE E3371	30-Jul-18/O	5300000	20000	
Fecal Coliform	cfu/100mL	1	MOE E3371	30-Jul-18/O	860000	30	

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-23373

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 07-Aug-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 14-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		Test F Influent	Test F Discharge		
			Sample I.D.		B18-23373-1	B18-23373-2		
			Date Collected		02-Aug-18	02-Aug-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
BOD	mg/L	3	SM 5210B	09-Aug-18/O	59	33		
Total Suspended Solids	mg/L	3	SM 2540D	09-Aug-18/O	148	64		
Conductivity @25°C	µmho/cm	1	SM 2510B	08-Aug-18/O	358	307		
pH @25°C	pH Units		SM 4500H	08-Aug-18/O	7.00	7.43		
Nitrite (N)	mg/L	0.1	SM4110C	08-Aug-18/O	< 0.1	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	08-Aug-18/O	< 0.1	< 0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	09-Aug-18/O	19.4	12.9		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	09-Aug-18/O	1.25	0.83		
Phosphorus-Total	mg/L	0.01	E3199A.1	10-Aug-18/K	3.78	2.15		
Aluminum	mg/L	0.01	SM 3120	09-Aug-18/O	0.27	0.11		
Antimony	mg/L	0.0001	EPA 200.8	08-Aug-18/O	0.0010	0.0005		
Arsenic	mg/L	0.0001	EPA 200.8	08-Aug-18/O	< 0.0005	< 0.0005		
Barium	mg/L	0.001	SM 3120	09-Aug-18/O	0.024	0.017		
Beryllium	mg/L	0.002	SM 3120	09-Aug-18/O	< 0.002	< 0.002		
Cadmium	mg/L	0.00015	EPA 200.8	08-Aug-18/O	0.000161	0.000085		
Chromium	mg/L	0.002	SM 3120	09-Aug-18/O	< 0.002	< 0.002		
Cobalt	mg/L	0.005	SM 3120	09-Aug-18/O	< 0.005	< 0.005		
Copper	mg/L	0.002	SM 3120	09-Aug-18/O	0.258	0.093		
Iron	mg/L	0.005	SM 3120	09-Aug-18/O	0.591	1.22		
Lead	mg/L	0.00002	EPA 200.8	08-Aug-18/O	0.00273	0.00086		
Lithium	mg/L	0.01	SM 3120	09-Aug-18/O	< 0.01	< 0.01		
Manganese	mg/L	0.001	SM 3120	09-Aug-18/O	0.077	0.113		
Mercury	mg/L	0.00002	SM 3112 B	13-Aug-18/O	0.00003	< 0.00002		
Molybdenum	mg/L	0.01	SM 3120	09-Aug-18/O	< 0.01	< 0.01		
Nickel	mg/L	0.01	SM 3120	09-Aug-18/O	< 0.01	< 0.01		
Selenium	mg/L	0.001	EPA 200.8	08-Aug-18/O	< 0.005	< 0.005		
Silver	mg/L	0.0001	EPA 200.8	08-Aug-18/O	< 0.0001	< 0.0001		

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-23373

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 07-Aug-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 14-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Discharge		
			Sample I.D.	B18-23373-1	B18-23373-2		
			Date Collected	02-Aug-18	02-Aug-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	09-Aug-18/O	0.069	0.074	
Thallium	mg/L	0.00005	EPA 200.8	08-Aug-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	09-Aug-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	09-Aug-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	08-Aug-18/O	< 0.0003	< 0.0003	
Vanadium	mg/L	0.005	SM 3120	09-Aug-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	09-Aug-18/O	0.795	0.056	
Total Coliform	cfu/100mL	1	MOE E3371	08-Aug-18/O	1860000	940000	
Fecal Coliform	cfu/100mL	1	MOE E3371	08-Aug-18/O	1020000	41000	

NOTE: Total & Fecal Coliform passed acceptable holding times upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-23562

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 09-Aug-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 16-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		Test F Influent	Test F Discharge		
			Sample I.D.		B18-23562-1	B18-23562-2		
			Date Collected		07-Aug-18	07-Aug-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
BOD	mg/L	3	SM 5210B	10-Aug-18/O	60	173		
Total Suspended Solids	mg/L	3	SM 2540D	10-Aug-18/O	72	176		
Conductivity @25°C	µmho/cm	1	SM 2510B	09-Aug-18/O	320	421		
pH @25°C	pH Units		SM 4500H	09-Aug-18/O	8.02	7.10		
Nitrite (N)	mg/L	0.1	SM4110C	09-Aug-18/O	< 0.1	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	09-Aug-18/O	< 0.1	0.1		
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	09-Aug-18/O	11.8	21.0		
o-Phosphate (P)	mg/L	0.01	MOEE 3366	09-Aug-18/O	0.76	1.89		
Phosphorus-Total	mg/L	0.01	E3199A.1	13-Aug-18/K	2.36	3.77		
Aluminum	mg/L	0.01	SM 3120	13-Aug-18/O	0.09	0.24		
Antimony	mg/L	0.0001	EPA 200.8	09-Aug-18/O	< 0.0005	< 0.0005		
Arsenic	mg/L	0.0001	EPA 200.8	09-Aug-18/O	< 0.0005	< 0.0005		
Barium	mg/L	0.001	SM 3120	13-Aug-18/O	0.014	0.019		
Beryllium	mg/L	0.002	SM 3120	13-Aug-18/O	< 0.002	< 0.002		
Cadmium	mg/L	0.00015	EPA 200.8	09-Aug-18/O	0.000129	0.000234		
Chromium	mg/L	0.002	SM 3120	13-Aug-18/O	< 0.002	< 0.002		
Cobalt	mg/L	0.005	SM 3120	13-Aug-18/O	< 0.005	< 0.005		
Copper	mg/L	0.002	SM 3120	13-Aug-18/O	0.107	0.225		
Iron	mg/L	0.005	SM 3120	13-Aug-18/O	0.855	0.896		
Lead	mg/L	0.00002	EPA 200.8	09-Aug-18/O	0.00121	0.00335		
Lithium	mg/L	0.01	SM 3120	13-Aug-18/O	< 0.01	< 0.01		
Manganese	mg/L	0.001	SM 3120	13-Aug-18/O	0.101	0.130		
Mercury	mg/L	0.00002	SM 3112 B	14-Aug-18/O	< 0.00002	0.00012		
Molybdenum	mg/L	0.01	SM 3120	13-Aug-18/O	< 0.01	< 0.01		
Nickel	mg/L	0.01	SM 3120	13-Aug-18/O	< 0.01	< 0.01		
Selenium	mg/L	0.001	EPA 200.8	09-Aug-18/O	< 0.005	< 0.005		
Silver	mg/L	0.0001	EPA 200.8	09-Aug-18/O	< 0.0001	0.0001		



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-23562

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 09-Aug-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 16-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Influent	Test F Discharge		
			Sample I.D.	B18-23562-1	B18-23562-2		
			Date Collected	07-Aug-18	07-Aug-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Strontium	mg/L	0.001	SM 3120	13-Aug-18/O	0.065	0.066	
Thallium	mg/L	0.00005	EPA 200.8	09-Aug-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	13-Aug-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	13-Aug-18/O	< 0.005	0.005	
Uranium	mg/L	0.00005	EPA 200.8	09-Aug-18/O	0.00036	0.00045	
Vanadium	mg/L	0.005	SM 3120	13-Aug-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	13-Aug-18/O	0.050	0.123	
Total Coliform	cfu/100mL	1	MOE E3371	09-Aug-18/O	28000000 ¹	12000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	09-Aug-18/O	3100000	1900000	

¹ duplicate = 20000000 cfu/100 ml

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G72049

REPORT No. B18-24879

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 21-Aug-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 30-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		Sewer Lagoon Decant			
			Sample I.D.		B18-24879-1			
			Date Collected		18-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
BOD	mg/L	3	SM 5210B	22-Aug-18/O	41			
Total Suspended Solids	mg/L	3	SM 2540D	22-Aug-18/O	69			
Conductivity @25°C	µmho/cm	1	SM 2510B	21-Aug-18/O	351			
pH @25°C	pH Units		SM 4500H	21-Aug-18/O	7.35			
Nitrite (N)	mg/L	0.1	SM4110C	21-Aug-18/O	< 0.1			
Nitrate (N)	mg/L	0.1	SM4110C	21-Aug-18/O	< 0.1			
Ammonia (N)-Total	mg/L	0.01	MOEE 3364	22-Aug-18/O	15.7			
o-Phosphate (P)	mg/L	0.01	MOEE 3366	22-Aug-18/O	0.95			
Phosphorus-Total	mg/L	0.01	E3199A.1	24-Aug-18/K	4.12			
Aluminum	mg/L	0.01	SM 3120	28-Aug-18/O	0.08			
Antimony	mg/L	0.0001	EPA 200.8	22-Aug-18/O	< 0.0005			
Arsenic	mg/L	0.0001	EPA 200.8	22-Aug-18/O	< 0.0005			
Barium	mg/L	0.001	SM 3120	28-Aug-18/O	0.017			
Beryllium	mg/L	0.002	SM 3120	28-Aug-18/O	< 0.002			
Cadmium	mg/L	0.000015	EPA 200.8	22-Aug-18/O	0.000387			
Chromium	mg/L	0.002	SM 3120	28-Aug-18/O	0.011			
Cobalt	mg/L	0.005	SM 3120	28-Aug-18/O	< 0.005			
Copper	mg/L	0.002	SM 3120	28-Aug-18/O	0.109			
Iron	mg/L	0.005	SM 3120	28-Aug-18/O	0.654			
Lead	mg/L	0.00002	EPA 200.8	22-Aug-18/O	0.00236			
Lithium	mg/L	0.01	SM 3120	28-Aug-18/O	< 0.01			
Manganese	mg/L	0.001	SM 3120	28-Aug-18/O	0.136			
Mercury	mg/L	0.00002	SM 3112 B	24-Aug-18/O	< 0.00002			
Molybdenum	mg/L	0.01	SM 3120	28-Aug-18/O	< 0.01			
Nickel	mg/L	0.01	SM 3120	28-Aug-18/O	0.02			
Selenium	mg/L	0.001	EPA 200.8	22-Aug-18/O	< 0.005			

NOTE: Bacteria passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G72049

REPORT No. B18-24879

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 21-Aug-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 30-Aug-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Sewer Lagoon Decant			
			Sample I.D.	B18-24879-1			
			Date Collected	18-Aug-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	22-Aug-18/O	< 0.0001		
Strontium	mg/L	0.001	SM 3120	28-Aug-18/O	0.077		
Thallium	mg/L	0.00005	EPA 200.8	22-Aug-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	28-Aug-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	28-Aug-18/O	< 0.005		
Uranium	mg/L	0.00005	EPA 200.8	22-Aug-18/O	0.00041		
Vanadium	mg/L	0.005	SM 3120	28-Aug-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	28-Aug-18/O	0.148		
Total Coliform	cfu/100mL	1	MOE E3371	21-Aug-18/O	560000		
Fecal Coliform	cfu/100mL	1	MOE E3371	21-Aug-18/O	16000		

NOTE: Bacteria passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: DW 27757

REPORT No. B18-27757

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 12-Sep-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 10-Oct-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-27757-1	B18-27757-2		
			Date Collected	11-Sep-18	12-Sep-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	13-Sep-18/O	13		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	17-Sep-18/O		13	
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	12-Sep-18/O	6		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	12-Sep-18/O	6		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	12-Sep-18/O	< 5		
Hydroxide	mg/L	5	EPA 310.2	12-Sep-18/O	< 5		
Acidity (as CaCO ₃)	mg/L	5	Subcontract	21-Sep-18	< 5 ¹		
pH @25°C	pH Units		SM 4500H	12-Sep-18/O	6.89		
Conductivity @25°C	µmho/cm	1	SM 2510B	12-Sep-18/O	34		
TDS(ion sum calc.)	mg/L	1	Calc.	13-Sep-18/O	14		
Total Suspended Solids	mg/L	3	SM 2540D	13-Sep-18/O	< 3		
Turbidity	NTU	0.1	SM 2130	17-Sep-18/O	0.2		
REDOX potential	mV		Subcontract	21-Sep-18	275 ¹		
Chloride	mg/L	0.5	SM4110C	12-Sep-18/O	2.8		
Sulphate	mg/L	1	SM4110C	12-Sep-18/O	1		
Aluminum	mg/L	0.01	SM 3120	13-Sep-18/O	0.01		
Aluminum	mg/L	0.01	SM 3120	17-Sep-18/O		0.02	
Antimony	mg/L	0.0001	EPA 200.8	19-Sep-18/O	< 0.0001		
Antimony	mg/L	0.0001	EPA 200.8	14-Sep-18/O		< 0.0001	
Arsenic	mg/L	0.0001	EPA 200.8	19-Sep-18/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	14-Sep-18/O		< 0.0001	
Barium	mg/L	0.001	SM 3120	13-Sep-18/O	0.001		
Barium	mg/L	0.001	SM 3120	17-Sep-18/O		0.001	
Beryllium	mg/L	0.002	SM 3120	13-Sep-18/O	< 0.002		
Beryllium	mg/L	0.002	SM 3120	17-Sep-18/O		< 0.002	
Cadmium	mg/L	0.000015	EPA 200.8	19-Sep-18/O	< 0.000015		
Cadmium	mg/L	0.000015	EPA 200.8	14-Sep-18/O		< 0.000015	



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: DW 27757

REPORT No. B18-27757

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 12-Sep-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 10-Oct-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-27757-1	B18-27757-2		
			Date Collected	11-Sep-18	12-Sep-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Chromium	mg/L	0.002	SM 3120	13-Sep-18/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	17-Sep-18/O		< 0.002	
Cobalt	mg/L	0.005	SM 3120	13-Sep-18/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	17-Sep-18/O		< 0.005	
Copper	mg/L	0.002	SM 3120	13-Sep-18/O	0.101		
Copper	mg/L	0.002	SM 3120	17-Sep-18/O		0.117	
Iron	mg/L	0.005	SM 3120	13-Sep-18/O	0.020		
Iron	mg/L	0.005	SM 3120	17-Sep-18/O		0.022	
Lead	mg/L	0.00002	EPA 200.8	19-Sep-18/O	0.00046		
Lead	mg/L	0.00002	EPA 200.8	14-Sep-18/O		0.00046	
Lithium	mg/L	0.01	SM 3120	13-Sep-18/O	< 0.01		
Lithium	mg/L	0.01	SM 3120	17-Sep-18/O		< 0.01	
Manganese	mg/L	0.001	SM 3120	13-Sep-18/O	0.002		
Manganese	mg/L	0.001	SM 3120	17-Sep-18/O		0.002	
Mercury	mg/L	0.00002	SM 3112 B	17-Sep-18/O	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	13-Sep-18/O	< 0.01		
Molybdenum	mg/L	0.01	SM 3120	17-Sep-18/O		0.02	
Nickel	mg/L	0.01	SM 3120	13-Sep-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	17-Sep-18/O		< 0.01	
Selenium	mg/L	0.001	EPA 200.8	19-Sep-18/O	< 0.001		
Selenium	mg/L	0.001	EPA 200.8	14-Sep-18/O		< 0.001	
Silver	mg/L	0.0001	EPA 200.8	19-Sep-18/O	< 0.0001		
Silver	mg/L	0.0001	EPA 200.8	14-Sep-18/O		< 0.0001	
Strontium	mg/L	0.001	SM 3120	13-Sep-18/O	0.009		
Strontium	mg/L	0.001	SM 3120	17-Sep-18/O		0.010	
Thallium	mg/L	0.00005	EPA 200.8	19-Sep-18/O	< 0.00005		
Thallium	mg/L	0.00005	EPA 200.8	14-Sep-18/O		< 0.00005	



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 27757

REPORT No. B18-27757

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 12-Sep-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 10-Oct-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-27757-1	B18-27757-2		
			Date Collected	11-Sep-18	12-Sep-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Tin	mg/L	0.05	SM 3120	13-Sep-18/O	< 0.05		
Tin	mg/L	0.05	SM 3120	17-Sep-18/O		< 0.05	
Titanium	mg/L	0.005	SM 3120	13-Sep-18/O	< 0.005		
Titanium	mg/L	0.005	SM 3120	17-Sep-18/O		< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	19-Sep-18/O	< 0.00005		
Uranium	mg/L	0.00005	EPA 200.8	14-Sep-18/O		< 0.00005	
Vanadium	mg/L	0.005	SM 3120	13-Sep-18/O	< 0.005		
Vanadium	mg/L	0.005	SM 3120	17-Sep-18/O		< 0.005	
Zinc	mg/L	0.005	SM 3120	13-Sep-18/O	0.009		
Zinc	mg/L	0.005	SM 3120	17-Sep-18/O		0.011	
Total Organic Carbon	mg/L	0.2	EPA 415.1	13-Sep-18/O	1.7		
TIC	mg/L	0.5	EPA 415.1	28-Sep-18/O	1.86		
Fecal Coliform	cfu/100mL	1	MOE E3371	12-Sep-18/O	0		
Anion Sum	meq/L		Calc.	13-Sep-18/O	0.294		
Cation Sum	meq/L		Calc.	13-Sep-18/O	0.285		
% Difference	%		Calc.	13-Sep-18/O	1.55		
Ion Ratio	AS/CS		Calc.	13-Sep-18/O	1.03		
Sodium Adsorption Ratio	-		Calc.	13-Sep-18/O	0.0874		
Conductivity (calc.)	µmho/cm		Calc.	13-Sep-18/O	29		
EC(calc.)/EC(actual)	-		Calc.	13-Sep-18/O	0.844		
TDS(calc.)/EC(actual)	-		Calc.	13-Sep-18/O	0.423		
Langelier Index(25°C)	S.I.		Calc.	13-Sep-18/O	-3.08		

1. subcontracted to Testmark Labs.



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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C.O.C.: G71723

REPORT No. B18-30662

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 18-Oct-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		Lagoon Influent	Lagoon Effluent		
			Sample I.D.		B18-30662-1	B18-30662-2		
			Date Collected		26-Sep-18	26-Sep-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
BOD	mg/L	3	SM 5210B	11-Oct-18/O	297	36		
Total Suspended Solids	mg/L	3	SM2540D	10-Oct-18/K	130	35		
Conductivity @25°C	µmho/cm	1	SM 2510B	10-Oct-18/O	501	553		
pH @25°C	pH Units		SM 4500H	10-Oct-18/O	6.56	6.93		
Nitrite (N)	mg/L	0.1	SM4110C	10-Oct-18/O	< 0.1	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	10-Oct-18/O	< 0.1	< 0.1		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	10-Oct-18/K	22.2	30.4		
o-Phosphate (P)	mg/L	0.01	PE4500-S	11-Oct-18/K	3.57	3.29		
Phosphorus-Total	mg/L	0.01	E3199A.1	10-Oct-18/K	5.29	4.44		
Aluminum	mg/L	0.01	SM 3120	11-Oct-18/O	0.43	0.15		
Antimony	mg/L	0.0005	EPA 200.8	10-Oct-18/O	< 0.0005	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	10-Oct-18/O	< 0.0005	< 0.0005		
Barium	mg/L	0.001	SM 3120	11-Oct-18/O	0.026	0.022		
Beryllium	mg/L	0.002	SM 3120	11-Oct-18/O	< 0.002	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	10-Oct-18/O	0.000127	0.000147		
Chromium	mg/L	0.002	SM 3120	11-Oct-18/O	0.002	0.002		
Cobalt	mg/L	0.005	SM 3120	11-Oct-18/O	< 0.005	< 0.005		
Copper	mg/L	0.002	SM 3120	11-Oct-18/O	0.406	0.294		
Iron	mg/L	0.005	SM 3120	11-Oct-18/O	0.548	0.721		
Lead	mg/L	0.0001	EPA 200.8	10-Oct-18/O	0.0026	0.0020		
Lithium	mg/L	0.01	SM 3120	11-Oct-18/O	< 0.01	< 0.01		
Manganese	mg/L	0.001	SM 3120	11-Oct-18/O	0.127	0.149		
Mercury	mg/L	0.00002	SM 3112 B	17-Oct-18/O	0.00002	< 0.00002		
Molybdenum	mg/L	0.01	SM 3120	11-Oct-18/O	0.01	< 0.01		
Nickel	mg/L	0.01	SM 3120	11-Oct-18/O	< 0.01	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	10-Oct-18/O	< 0.005	< 0.005		

NOTE: Bacteria passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G71723

REPORT No. B18-30662

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 18-Oct-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Lagoon Influent	Lagoon Effluent		
			Sample I.D.	B18-30662-1	B18-30662-2		
			Date Collected	26-Sep-18	26-Sep-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	10-Oct-18/O	0.0001	< 0.0001	
Strontium	mg/L	0.001	SM 3120	11-Oct-18/O	0.096	0.091	
Thallium	mg/L	0.0003	EPA 200.8	10-Oct-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	11-Oct-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	11-Oct-18/O	< 0.005	< 0.005	
Uranium	mg/L	0.0003	EPA 200.8	10-Oct-18/O	0.0004	0.0005	
Vanadium	mg/L	0.005	SM 3120	11-Oct-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	11-Oct-18/O	0.143	0.096	
Total Coliform	cfu/100mL	1	MOE E3371	05-Oct-18/O	98000000	86000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	05-Oct-18/O	10600000	5300000	

NOTE: Bacteria passed acceptable holding time upon arrival at Lab.



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 091421

REPORT No. B18-30663

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 20-Nov-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP - Test A	WTP - Test A (Total)		
			Sample I.D.	B18-30663-1	B18-30663-2		
			Date Collected	26-Sep-18	26-Sep-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	09-Oct-18/O	11		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	11-Oct-18/O		14	
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	10-Oct-18/O	6		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	10-Oct-18/O	6		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	10-Oct-18/O	< 5		
Hydroxide	mg/L	5	EPA 310.2	10-Oct-18/O	< 5		
Acidity (as CaCO ₃)	mg/L	5	Subcontract	15-Oct-18	< 5 ¹		
pH @25°C	pH Units		SM 4500H	10-Oct-18/O	6.85		
Conductivity @25°C	µmho/cm	1	SM 2510B	10-Oct-18/O	34		
TDS(ion sum calc.)	mg/L	1	Calc.	11-Oct-18/O	15		
Total Suspended Solids	mg/L	3	SM2540D	10-Oct-18/K	< 3		
Turbidity	NTU	0.1	SM 2130	05-Oct-18/O	0.1		
REDOX potential	mV		Subcontract	15-Oct-18	292 ¹		
Chloride	mg/L	0.5	SM4110C	05-Oct-18/O	3.2		
Sulphate	mg/L	1	SM4110C	05-Oct-18/O	2		
Aluminum	mg/L	0.01	SM 3120	09-Oct-18/O	< 0.01		
Aluminum	mg/L	0.01	SM 3120	11-Oct-18/O		< 0.01	
Antimony	mg/L	0.0001	EPA 200.8	11-Oct-18/O	< 0.0001		
Antimony	mg/L	0.0001	EPA 200.8	10-Oct-18/O		< 0.0001	
Arsenic	mg/L	0.0001	EPA 200.8	11-Oct-18/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	10-Oct-18/O		< 0.0001	
Barium	mg/L	0.001	SM 3120	09-Oct-18/O	0.001		
Barium	mg/L	0.001	SM 3120	11-Oct-18/O		0.001	
Beryllium	mg/L	0.002	SM 3120	09-Oct-18/O	< 0.002		
Beryllium	mg/L	0.002	SM 3120	11-Oct-18/O		< 0.002	
Cadmium	mg/L	0.000015	EPA 200.8	11-Oct-18/O	< 0.000015		
Cadmium	mg/L	0.000015	EPA 200.8	10-Oct-18/O		< 0.000015	



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 091421

REPORT No. B18-30663

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 20-Nov-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP - Test A	WTP - Test A (Total)		
			Sample I.D.	B18-30663-1	B18-30663-2		
			Date Collected	26-Sep-18	26-Sep-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Chromium	mg/L	0.002	SM 3120	09-Oct-18/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	11-Oct-18/O		< 0.002	
Cobalt	mg/L	0.005	SM 3120	09-Oct-18/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	11-Oct-18/O		< 0.005	
Copper	mg/L	0.002	SM 3120	09-Oct-18/O	0.022		
Copper	mg/L	0.002	SM 3120	11-Oct-18/O		0.045	
Iron	mg/L	0.005	SM 3120	09-Oct-18/O	0.010		
Iron	mg/L	0.005	SM 3120	11-Oct-18/O		0.019	
Lead	mg/L	0.00002	EPA 200.8	11-Oct-18/O	0.00007		
Lead	mg/L	0.00002	EPA 200.8	10-Oct-18/O		0.00010	
Lithium	mg/L	0.01	SM 3120	09-Oct-18/O	< 0.01		
Lithium	mg/L	0.01	SM 3120	11-Oct-18/O		< 0.01	
Manganese	mg/L	0.001	SM 3120	09-Oct-18/O	0.003		
Manganese	mg/L	0.001	SM 3120	11-Oct-18/O		0.004	
Mercury	mg/L	0.00002	SM 3112 B	17-Oct-18/O	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	09-Oct-18/O	< 0.01		
Molybdenum	mg/L	0.01	SM 3120	11-Oct-18/O		< 0.01	
Nickel	mg/L	0.01	SM 3120	09-Oct-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	11-Oct-18/O		< 0.01	
Selenium	mg/L	0.001	EPA 200.8	11-Oct-18/O	< 0.001		
Selenium	mg/L	0.001	EPA 200.8	10-Oct-18/O		< 0.001	
Silver	mg/L	0.0001	EPA 200.8	11-Oct-18/O	< 0.0001		
Silver	mg/L	0.0001	EPA 200.8	10-Oct-18/O		< 0.0001	
Strontium	mg/L	0.001	SM 3120	09-Oct-18/O	0.008		
Strontium	mg/L	0.001	SM 3120	11-Oct-18/O		0.010	
Thallium	mg/L	0.00005	EPA 200.8	11-Oct-18/O	< 0.00005		
Thallium	mg/L	0.00005	EPA 200.8	10-Oct-18/O		< 0.00005	



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 091421

REPORT No. B18-30663

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 20-Nov-18

P.O. NUMBER: 460

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP - Test A	WTP - Test A (Total)		
			Sample I.D.	B18-30663-1	B18-30663-2		
			Date Collected	26-Sep-18	26-Sep-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Tin	mg/L	0.05	SM 3120	09-Oct-18/O	< 0.05		
Tin	mg/L	0.05	SM 3120	11-Oct-18/O		< 0.05	
Titanium	mg/L	0.005	SM 3120	09-Oct-18/O	< 0.005		
Titanium	mg/L	0.005	SM 3120	11-Oct-18/O		< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	11-Oct-18/O	< 0.00005		
Uranium	mg/L	0.00005	EPA 200.8	10-Oct-18/O		< 0.00005	
Vanadium	mg/L	0.005	SM 3120	09-Oct-18/O	< 0.005		
Vanadium	mg/L	0.005	SM 3120	11-Oct-18/O		< 0.005	
Zinc	mg/L	0.005	SM 3120	09-Oct-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	11-Oct-18/O		< 0.005	
Total Organic Carbon	mg/L	0.2	EPA 415.1	09-Oct-18/O	1.5		
TIC	mg/L	0.5	EPA 415.1	09-Oct-18/O	1.9		
Fecal Coliform	cfu/100mL	1	MOE E3371	05-Oct-18/O	< 2		
Anion Sum	meq/L		Calc.	11-Oct-18/O	0.319		
Cation Sum	meq/L		Calc.	11-Oct-18/O	0.247		
% Difference	%		Calc.	11-Oct-18/O	12.7		
Ion Ratio	AS/CS		Calc.	11-Oct-18/O	1.29		
Sodium Adsorption Ratio	-		Calc.	11-Oct-18/O	0.0929		
Conductivity (calc.)	µmho/cm		Calc.	11-Oct-18/O	28.8		
EC(calc.)/EC(actual)	-		Calc.	11-Oct-18/O	0.838		
TDS(calc.)/EC(actual)	-		Calc.	11-Oct-18/O	0.429		
Langelier Index(25°C)	S.I.		Calc.	11-Oct-18/O	-3.16		

1 Subcontracted to Testmark Labs

R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G091422

REPORT No. B18-30687

Report To:

City of Iqaluit Do Not Release

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 18-Oct-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Effluent	Test F Influent		
			Sample I.D.	B18-30687-1	B18-30687-2		
			Date Collected	03-Oct-18	03-Oct-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD	mg/L	3	SM 5210B	11-Oct-18/O	87	245	
Total Suspended Solids	mg/L	3	SM2540D	11-Oct-18/K	42	256	
Conductivity @25°C	µmho/cm	1	SM 2510B	10-Oct-18/O	529	557	
pH @25°C	pH Units		SM 4500H	10-Oct-18/O	7.13	7.05	
Nitrite (N)	mg/L	0.1	SM4110C	10-Oct-18/O	< 0.1	< 0.1	
Nitrate (N)	mg/L	0.1	SM4110C	10-Oct-18/O	< 0.1	< 0.1	
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	10-Oct-18/K	33.5	31.3	
o-Phosphate (P)	mg/L	0.01	PE4500-S	11-Oct-18/K	3.50	5.89	
Phosphorus-Total	mg/L	0.01	E3199A.1	10-Oct-18/K	4.42	7.75	
Aluminum	mg/L	0.01	SM 3120	11-Oct-18/O	0.16	0.46	
Antimony	mg/L	0.0005	EPA 200.8	10-Oct-18/O	< 0.0005	< 0.0005	
Arsenic	mg/L	0.0005	EPA 200.8	10-Oct-18/O	< 0.0005	< 0.0005	
Barium	mg/L	0.001	SM 3120	11-Oct-18/O	0.025	0.026	
Beryllium	mg/L	0.002	SM 3120	11-Oct-18/O	< 0.002	< 0.002	
Cadmium	mg/L	0.000070	EPA 200.8	10-Oct-18/O	0.000145	0.000298	
Chromium	mg/L	0.002	SM 3120	11-Oct-18/O	0.003	0.002	
Cobalt	mg/L	0.005	SM 3120	11-Oct-18/O	< 0.005	< 0.005	
Copper	mg/L	0.002	SM 3120	11-Oct-18/O	0.328	0.423	
Iron	mg/L	0.005	SM 3120	11-Oct-18/O	0.733	0.681	
Lead	mg/L	0.0001	EPA 200.8	10-Oct-18/O	0.0019	0.0040	
Lithium	mg/L	0.01	SM 3120	11-Oct-18/O	< 0.01	< 0.01	
Manganese	mg/L	0.001	SM 3120	11-Oct-18/O	0.142	0.134	
Mercury	mg/L	0.00002	SM 3112 B	17-Oct-18/O	0.00008	0.00023	
Molybdenum	mg/L	0.01	SM 3120	11-Oct-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	11-Oct-18/O	< 0.01	< 0.01	
Selenium	mg/L	0.005	EPA 200.8	10-Oct-18/O	< 0.005	< 0.005	



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G091422

REPORT No. B18-30687

Report To:

City of Iqaluit Do Not Release

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 18-Oct-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Effluent	Test F Influent		
			Sample I.D.	B18-30687-1	B18-30687-2		
			Date Collected	03-Oct-18	03-Oct-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	10-Oct-18/O	0.0001	0.0003	
Strontium	mg/L	0.001	SM 3120	11-Oct-18/O	0.097	0.089	
Thallium	mg/L	0.0003	EPA 200.8	10-Oct-18/O	< 0.0003	< 0.0003	
Tin	mg/L	0.05	SM 3120	11-Oct-18/O	< 0.05	< 0.05	
Titanium	mg/L	0.005	SM 3120	11-Oct-18/O	< 0.005	0.010	
Uranium	mg/L	0.0003	EPA 200.8	10-Oct-18/O	0.0005	0.0006	
Vanadium	mg/L	0.005	SM 3120	11-Oct-18/O	< 0.005	< 0.005	
Zinc	mg/L	0.005	SM 3120	11-Oct-18/O	0.103	0.184	
Total Coliform	cfu/100mL	1	MOE E3371	05-Oct-18/O	59000000	77000000	
Fecal Coliform	cfu/100mL	1	MOE E3371	05-Oct-18/O	10100000	13800000	

R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 091422

REPORT No. B18-30688

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 20-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-30688-1	B18-30688-2		
			Date Collected	03-Oct-18	03-Oct-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	09-Oct-18/O	12		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	11-Oct-18/O		13	
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	10-Oct-18/O	7		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	10-Oct-18/O	7		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	10-Oct-18/O	< 5		
Hydroxide	mg/L	5	EPA 310.2	10-Oct-18/O	< 5		
Acidity (as CaCO ₃)	mg/L	5	Subcontract	15-Oct-18	< 5 ¹		
pH @25°C	pH Units		SM 4500H	10-Oct-18/O	6.78		
Conductivity @25°C	µmho/cm	1	SM 2510B	10-Oct-18/O	34		
TDS(ion sum calc.)	mg/L	1	Calc.	11-Oct-18/O	15		
Total Suspended Solids	mg/L	3	SM2540D	11-Oct-18/K	< 3		
Turbidity	NTU	0.1	SM 2130	09-Oct-18/O	0.1		
REDOX potential	mV		Subcontract	15-Oct-18	285 ¹		
Chloride	mg/L	0.5	SM4110C	05-Oct-18/O	3.2		
Sulphate	mg/L	1	SM4110C	05-Oct-18/O	2		
Aluminum	mg/L	0.01	SM 3120	09-Oct-18/O	< 0.01		
Aluminum	mg/L	0.01	SM 3120	11-Oct-18/O		0.02	
Antimony	mg/L	0.0001	EPA 200.8	11-Oct-18/O	< 0.0001		
Antimony	mg/L	0.0001	EPA 200.8	10-Oct-18/O		< 0.0001	
Arsenic	mg/L	0.0001	EPA 200.8	11-Oct-18/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	10-Oct-18/O		< 0.0001	
Barium	mg/L	0.001	SM 3120	09-Oct-18/O	0.001		
Barium	mg/L	0.001	SM 3120	11-Oct-18/O		0.001	
Beryllium	mg/L	0.002	SM 3120	09-Oct-18/O	< 0.002		
Beryllium	mg/L	0.002	SM 3120	11-Oct-18/O		< 0.002	
Cadmium	mg/L	0.000015	EPA 200.8	11-Oct-18/O	< 0.000015		
Cadmium	mg/L	0.000015	EPA 200.8	10-Oct-18/O		< 0.000015	



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 091422

REPORT No. B18-30688

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 20-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-30688-1	B18-30688-2		
			Date Collected	03-Oct-18	03-Oct-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Chromium	mg/L	0.002	SM 3120	09-Oct-18/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	11-Oct-18/O		< 0.002	
Cobalt	mg/L	0.005	SM 3120	09-Oct-18/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	11-Oct-18/O		< 0.005	
Copper	mg/L	0.002	SM 3120	09-Oct-18/O	0.038		
Copper	mg/L	0.002	SM 3120	11-Oct-18/O		0.049	
Iron	mg/L	0.005	SM 3120	09-Oct-18/O	0.012		
Iron	mg/L	0.005	SM 3120	11-Oct-18/O		0.027	
Lead	mg/L	0.00002	EPA 200.8	11-Oct-18/O	0.00012		
Lead	mg/L	0.00002	EPA 200.8	10-Oct-18/O		0.00012	
Lithium	mg/L	0.01	SM 3120	09-Oct-18/O	< 0.01		
Lithium	mg/L	0.01	SM 3120	11-Oct-18/O		< 0.01	
Manganese	mg/L	0.001	SM 3120	09-Oct-18/O	0.004		
Manganese	mg/L	0.001	SM 3120	11-Oct-18/O		0.005	
Mercury	mg/L	0.00002	SM 3112 B	17-Oct-18/O	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	09-Oct-18/O	< 0.01		
Molybdenum	mg/L	0.01	SM 3120	11-Oct-18/O		< 0.01	
Nickel	mg/L	0.01	SM 3120	09-Oct-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	11-Oct-18/O		< 0.01	
Selenium	mg/L	0.001	EPA 200.8	11-Oct-18/O	< 0.001		
Selenium	mg/L	0.001	EPA 200.8	10-Oct-18/O		< 0.001	
Silver	mg/L	0.0001	EPA 200.8	11-Oct-18/O	< 0.0001		
Silver	mg/L	0.0001	EPA 200.8	10-Oct-18/O		< 0.0001	
Strontium	mg/L	0.001	SM 3120	09-Oct-18/O	0.009		
Strontium	mg/L	0.001	SM 3120	11-Oct-18/O		0.009	
Thallium	mg/L	0.00005	EPA 200.8	11-Oct-18/O	< 0.00005		
Thallium	mg/L	0.00005	EPA 200.8	10-Oct-18/O		< 0.00005	



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 091422

REPORT No. B18-30688

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 04-Oct-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 20-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-30688-1	B18-30688-2		
			Date Collected	03-Oct-18	03-Oct-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Tin	mg/L	0.05	SM 3120	09-Oct-18/O	< 0.05		
Tin	mg/L	0.05	SM 3120	11-Oct-18/O		< 0.05	
Titanium	mg/L	0.005	SM 3120	09-Oct-18/O	< 0.005		
Titanium	mg/L	0.005	SM 3120	11-Oct-18/O		< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	11-Oct-18/O	< 0.00005		
Uranium	mg/L	0.00005	EPA 200.8	10-Oct-18/O		< 0.00005	
Vanadium	mg/L	0.005	SM 3120	09-Oct-18/O	< 0.005		
Vanadium	mg/L	0.005	SM 3120	11-Oct-18/O		< 0.005	
Zinc	mg/L	0.005	SM 3120	09-Oct-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	11-Oct-18/O		< 0.005	
Total Organic Carbon	mg/L	0.2	EPA 415.1	09-Oct-18/O	1.5		
TIC	mg/L	0.5	EPA 415.1	09-Oct-18/O	2.2		
Fecal Coliform	cfu/100mL	1	MOE E3371	05-Oct-18/O	0		
Anion Sum	meq/L		Calc.	11-Oct-18/O	0.325		
Cation Sum	meq/L		Calc.	11-Oct-18/O	0.273		
% Difference	%		Calc.	11-Oct-18/O	8.70		
Ion Ratio	AS/CS		Calc.	11-Oct-18/O	1.19		
Sodium Adsorption Ratio	-		Calc.	11-Oct-18/O	0.0836		
Conductivity (calc.)	µmho/cm		Calc.	11-Oct-18/O	30.8		
EC(calc.)/EC(actual)	-		Calc.	11-Oct-18/O	0.905		
TDS(calc.)/EC(actual)	-		Calc.	11-Oct-18/O	0.456		
Langelier Index(25°C)	S.I.		Calc.	11-Oct-18/O	-3.13		

1 Subcontracted to Testmark Labs



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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C.O.C.: ---

REPORT No. B18-33545

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 30-Oct-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 12-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.		Lagoon Effluent			
			Sample I.D.		B18-33545-1			
			Date Collected		29-Oct-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed				
BOD(5 day)	mg/L	3	SM 5210B	01-Nov-18/K	141			
Total Suspended Solids	mg/L	3	SM2540D	01-Nov-18/K	65			
Conductivity @25°C	µmho/cm	1	SM 2510B	01-Nov-18/O	539			
pH @25°C	pH Units		SM 4500H	01-Nov-18/O	7.31			
Nitrite (N)	mg/L	0.1	SM4110C	04-Nov-18/O	< 0.1			
Nitrate (N)	mg/L	0.1	SM4110C	04-Nov-18/O	< 0.1			
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	01-Nov-18/K	36.0			
o-Phosphate (P)	mg/L	0.01	PE4500-S	01-Nov-18/K	3.94			
Phosphorus-Total	mg/L	0.01	E3199A.1	01-Nov-18/K	4.72			
Aluminum	mg/L	0.01	SM 3120	08-Nov-18/O	0.18			
Antimony	mg/L	0.0005	EPA 200.8	31-Oct-18/O	< 0.0005			
Arsenic	mg/L	0.0005	EPA 200.8	31-Oct-18/O	< 0.0005			
Barium	mg/L	0.001	SM 3120	08-Nov-18/O	0.017			
Beryllium	mg/L	0.002	SM 3120	08-Nov-18/O	< 0.002			
Cadmium	mg/L	0.000070	EPA 200.8	31-Oct-18/O	0.000216			
Chromium	mg/L	0.002	SM 3120	08-Nov-18/O	< 0.002			
Cobalt	mg/L	0.005	SM 3120	08-Nov-18/O	< 0.005			
Copper	mg/L	0.002	SM 3120	08-Nov-18/O	0.299			
Iron	mg/L	0.005	SM 3120	08-Nov-18/O	0.837			
Lead	mg/L	0.0001	EPA 200.8	31-Oct-18/O	0.0024			
Lithium	mg/L	0.01	SM 3120	08-Nov-18/O	< 0.01			
Manganese	mg/L	0.001	SM 3120	08-Nov-18/O	0.120			
Mercury	mg/L	0.00002	SM 3112 B	05-Nov-18/O	< 0.00002			
Molybdenum	mg/L	0.01	SM 3120	08-Nov-18/O	< 0.01			
Nickel	mg/L	0.01	SM 3120	08-Nov-18/O	< 0.01			
Selenium	mg/L	0.005	EPA 200.8	31-Oct-18/O	< 0.005			



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: ---

REPORT No. B18-33545

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Pat Wolfe

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 30-Oct-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 12-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Lagoon Effluent			
			Sample I.D.	B18-33545-1			
			Date Collected	29-Oct-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	31-Oct-18/O	0.0023		
Strontium	mg/L	0.001	SM 3120	08-Nov-18/O	0.079		
Thallium	mg/L	0.0003	EPA 200.8	31-Oct-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	08-Nov-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	08-Nov-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	31-Oct-18/O	0.0010		
Vanadium	mg/L	0.005	SM 3120	08-Nov-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	08-Nov-18/O	0.103		
Total Coliform	cfu/100mL	1	MOE E3371	30-Oct-18/O	27000000		
Fecal Coliform	cfu/100mL	1	MOE E3371	30-Oct-18/O	2100000		

R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G71724

REPORT No. B18-34766

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 09-Nov-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 28-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	Test A WTP	Test A WTP (Total)	Test A Distribution	Test A Distribution (Total)
			Sample I.D.	B18-34766-1	B18-34766-2	B18-34766-3	B18-34766-4
			Date Collected	08-Nov-18	08-Nov-18	08-Nov-18	08-Nov-18
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	14-Nov-18/O	15		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	19-Nov-18/O		36	36
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	12-Nov-18/O	7		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	12-Nov-18/O	7		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	12-Nov-18/O	< 5		< 5
Hydroxide	mg/L	5	EPA 310.2	12-Nov-18/O	< 5		< 5
Acidity (as CaCO ₃)	mg/L	5	Subcontract	15-Nov-18	< 5 ¹		5 ¹
pH @25°C	pH Units		SM 4500H	12-Nov-18/O	6.91		6.90
Conductivity @25°C	µmho/cm	1	SM 2510B	12-Nov-18/O	37		38
TDS(ion sum calc.)	mg/L	1	Calc.	14-Nov-18/O	17		17
Total Suspended Solids	mg/L	3	SM2540D	13-Nov-18/K	< 3		3
Turbidity	NTU	0.1	SM 2130	15-Nov-18/O	0.5		0.5
REDOX potential	mV		Subcontract	15-Nov-18	801		604
Chloride	mg/L	0.5	SM4110C	09-Nov-18/O	2.9		3.0
Sulphate	mg/L	1	SM4110C	09-Nov-18/O	2		2
Aluminum	mg/L	0.01	SM 3120	14-Nov-18/O	0.01		0.02
Aluminum	mg/L	0.01	SM 3120	19-Nov-18/O		0.04	0.04
Antimony	mg/L	0.0001	EPA 200.8	09-Nov-18/O	< 0.0001		< 0.0001
Antimony	mg/L	0.0001	EPA 200.8	12-Nov-18/O		0.0002	< 0.0001
Arsenic	mg/L	0.0001	EPA 200.8	09-Nov-18/O	< 0.0001		< 0.0001
Arsenic	mg/L	0.0001	EPA 200.8	12-Nov-18/O		< 0.0001	< 0.0001
Barium	mg/L	0.001	SM 3120	14-Nov-18/O	0.001		0.002
Barium	mg/L	0.001	SM 3120	19-Nov-18/O		< 0.001	< 0.001
Beryllium	mg/L	0.002	SM 3120	14-Nov-18/O	< 0.002		< 0.002
Beryllium	mg/L	0.002	SM 3120	19-Nov-18/O		0.016	0.015
Cadmium	mg/L	0.000015	EPA 200.8	09-Nov-18/O	< 0.000015		< 0.000015



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G71724

REPORT No. B18-34766

Report To:

City of Iqaluit

PO Box 460,

Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane

Ottawa Ontario K1V 7P1

Tel: 613-526-0123

Fax: 613-526-1244

DATE RECEIVED: 09-Nov-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 28-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	Test A WTP	Test A WTP (Total)	Test A Distribution	Test A Distribution (Total)
			Sample I.D.	B18-34766-1	B18-34766-2	B18-34766-3	B18-34766-4
			Date Collected	08-Nov-18	08-Nov-18	08-Nov-18	08-Nov-18
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Cadmium	mg/L	0.000015	EPA 200.8	12-Nov-18/O	< 0.000015		< 0.000015
Chromium	mg/L	0.002	SM 3120	14-Nov-18/O	< 0.002	< 0.002	
Chromium	mg/L	0.002	SM 3120	19-Nov-18/O	< 0.002		< 0.002
Cobalt	mg/L	0.005	SM 3120	14-Nov-18/O	< 0.005	< 0.005	
Cobalt	mg/L	0.005	SM 3120	19-Nov-18/O	< 0.005		< 0.005
Copper	mg/L	0.002	SM 3120	14-Nov-18/O	0.060	1.53	
Copper	mg/L	0.002	SM 3120	19-Nov-18/O		0.075	1.53
Iron	mg/L	0.005	SM 3120	14-Nov-18/O	0.019	0.042	
Iron	mg/L	0.005	SM 3120	19-Nov-18/O		0.088	0.126
Lead	mg/L	0.00002	EPA 200.8	09-Nov-18/O	0.00017	0.00198	
Lead	mg/L	0.00002	EPA 200.8	12-Nov-18/O		0.00017	0.00220
Lithium	mg/L	0.01	SM 3120	14-Nov-18/O	< 0.01	< 0.01	
Lithium	mg/L	0.01	SM 3120	19-Nov-18/O	< 0.01		< 0.01
Manganese	mg/L	0.001	SM 3120	14-Nov-18/O	0.004	0.004	
Manganese	mg/L	0.001	SM 3120	19-Nov-18/O		0.007	0.008
Mercury	mg/L	0.00002	SM 3112 B	19-Nov-18/O	< 0.00002	< 0.00002	< 0.00002
Molybdenum	mg/L	0.01	SM 3120	14-Nov-18/O	< 0.01	< 0.01	
Molybdenum	mg/L	0.01	SM 3120	19-Nov-18/O		< 0.01	< 0.01
Nickel	mg/L	0.01	SM 3120	14-Nov-18/O	< 0.01	< 0.01	
Nickel	mg/L	0.01	SM 3120	19-Nov-18/O		< 0.01	< 0.01
Selenium	mg/L	0.001	EPA 200.8	09-Nov-18/O	< 0.001	< 0.001	
Selenium	mg/L	0.001	EPA 200.8	12-Nov-18/O		< 0.001	< 0.001
Silver	mg/L	0.0001	EPA 200.8	09-Nov-18/O	< 0.0001	< 0.0001	
Silver	mg/L	0.0001	EPA 200.8	12-Nov-18/O		< 0.0001	< 0.0001
Strontium	mg/L	0.001	SM 3120	14-Nov-18/O	0.011	0.011	
Strontium	mg/L	0.001	SM 3120	19-Nov-18/O		0.058	0.057



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G71724

REPORT No. B18-34766

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 09-Nov-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 28-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	Test A WTP	Test A WTP (Total)	Test A Distribution	Test A Distribution (Total)
			Sample I.D.	B18-34766-1	B18-34766-2	B18-34766-3	B18-34766-4
			Date Collected	08-Nov-18	08-Nov-18	08-Nov-18	08-Nov-18
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Thallium	mg/L	0.00005	EPA 200.8	09-Nov-18/O	< 0.00005		< 0.00005
Thallium	mg/L	0.00005	EPA 200.8	12-Nov-18/O		< 0.00005	< 0.00005
Tin	mg/L	0.05	SM 3120	14-Nov-18/O	< 0.05		< 0.05
Tin	mg/L	0.05	SM 3120	19-Nov-18/O		< 0.05	< 0.05
Titanium	mg/L	0.005	SM 3120	14-Nov-18/O	< 0.005		< 0.005
Titanium	mg/L	0.005	SM 3120	19-Nov-18/O		< 0.005	< 0.005
Uranium	mg/L	0.00005	EPA 200.8	09-Nov-18/O	< 0.00005		< 0.00005
Uranium	mg/L	0.00005	EPA 200.8	12-Nov-18/O		< 0.00005	< 0.00005
Vanadium	mg/L	0.005	SM 3120	14-Nov-18/O	< 0.005		< 0.005
Vanadium	mg/L	0.005	SM 3120	19-Nov-18/O		< 0.005	< 0.005
Zinc	mg/L	0.005	SM 3120	14-Nov-18/O	0.006		0.011
Zinc	mg/L	0.005	SM 3120	19-Nov-18/O		0.016	0.024
Total Organic Carbon	mg/L	0.2	EPA 415.1	12-Nov-18/O	1.6		1.6
TIC	mg/L	0.5	EPA 415.1	12-Nov-18/O	2.17		2.17
Fecal Coliform	cfu/100mL	1	MOE E3371	09-Nov-18/O	0		0
Anion Sum	meq/L		Calc.	14-Nov-18/O	0.329		0.339
Cation Sum	meq/L		Calc.	14-Nov-18/O	0.345		0.344
% Difference	%		Calc.	14-Nov-18/O	2.34		0.756
Ion Ratio	AS/CS		Calc.	14-Nov-18/O	0.954		0.985
Sodium Adsorption Ratio	-		Calc.	14-Nov-18/O	0.0850		0.0870
Conductivity (calc.)	µmho/cm		Calc.	14-Nov-18/O	34		35
EC(calc.)/EC(actual)	-		Calc.	14-Nov-18/O	0.913		0.911
TDS(calc.)/EC(actual)	-		Calc.	14-Nov-18/O	0.450		0.452
Langelier Index(25°C)	S.I.		Calc.	14-Nov-18/O	-2.91		-2.91

1 Subcontracted to Testmark Labs



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: G71725

REPORT No. B18-34769

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 09-Nov-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 20-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Effluent			
			Sample I.D.	B18-34769-1			
			Date Collected	08-Nov-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD(5 day)	mg/L	3	SM 5210B	12-Nov-18/K	163		
Total Suspended Solids	mg/L	3	SM2540D	13-Nov-18/K	52		
Conductivity @25°C	µmho/cm	1	SM 2510B	13-Nov-18/O	499		
pH @25°C	pH Units		SM 4500H	13-Nov-18/O	7.29		
Nitrite (N)	mg/L	0.1	SM4110C	13-Nov-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	13-Nov-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	15-Nov-18/K	52.2		
o-Phosphate (P)	mg/L	0.01	PE4500-S	13-Nov-18/K	2.25		
Phosphorus-Total	mg/L	0.01	E3199A.1	12-Nov-18/K	4.48		
Aluminum	mg/L	0.01	SM 3120	19-Nov-18/O	0.20		
Antimony	mg/L	0.0005	EPA 200.8	12-Nov-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	12-Nov-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	19-Nov-18/O	0.078		
Beryllium	mg/L	0.002	SM 3120	19-Nov-18/O	0.018		
Cadmium	mg/L	0.000070	EPA 200.8	12-Nov-18/O	0.000116		
Chromium	mg/L	0.002	SM 3120	19-Nov-18/O	0.002		
Cobalt	mg/L	0.005	SM 3120	19-Nov-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	19-Nov-18/O	0.293		
Iron	mg/L	0.005	SM 3120	19-Nov-18/O	1.11		
Lead	mg/L	0.0001	EPA 200.8	12-Nov-18/O	0.0019		
Lithium	mg/L	0.01	SM 3120	19-Nov-18/O	< 0.01		
Manganese	mg/L	0.001	SM 3120	19-Nov-18/O	0.121		
Mercury	mg/L	0.00002	SM 3112 B	19-Nov-18/O	< 0.00002		
Molybdenum	mg/L	0.01	SM 3120	19-Nov-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	19-Nov-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	12-Nov-18/O	< 0.005		



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: G71725

REPORT No. B18-34769

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 09-Nov-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 20-Nov-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Test F Effluent			
			Sample I.D.	B18-34769-1			
			Date Collected	08-Nov-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	12-Nov-18/O	< 0.0001		
Strontium	mg/L	0.001	SM 3120	19-Nov-18/O	0.073		
Thallium	mg/L	0.0003	EPA 200.8	12-Nov-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	19-Nov-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	19-Nov-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	12-Nov-18/O	0.0006		
Vanadium	mg/L	0.005	SM 3120	19-Nov-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	19-Nov-18/O	0.106		
Total Coliform	cfu/100mL	1	MOE E3371	09-Nov-18/O	64000000		
Fecal Coliform	cfu/100mL	1	MOE E3371	09-Nov-18/O	4200000		

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 37375

REPORT No. B18-37375

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Dec-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 19-Dec-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-37375-1	B18-37375-2		
			Date Collected	05-Dec-18	05-Dec-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Hardness (as CaCO ₃)	mg/L	1	SM 3120	12-Dec-18/O	15		
Hardness (as CaCO ₃)	mg/L	1	SM 3120	07-Dec-18/O		17	
Alkalinity(CaCO ₃) to pH4.5	mg/L	5	SM 2320B	06-Dec-18/O	8		
Bicarbonate(as CaCO ₃)	mg/L	5	SM 2320B	06-Dec-18/O	8		
Carbonate (as CaCO ₃)	mg/L	5	SM 2320B	06-Dec-18/O	< 5		
Hydroxide	mg/L	5	EPA 310.2	06-Dec-18/O	< 5		
Acidity (as CaCO ₃)	mg/L	5	Subcontract	14-Dec-18	< 5 ¹		
pH @25°C	pH Units		SM 4500H	06-Dec-18/O	6.92		
Conductivity @25°C	µmho/cm	1	SM 2510B	06-Dec-18/O	39		
TDS(ion sum calc.)	mg/L	1	Calc.	12-Dec-18/O	17		
Total Suspended Solids	mg/L	3	SM2540D	11-Dec-18/K	< 3		
Turbidity	NTU	0.1	SM 2130	10-Dec-18/O	0.5		
REDOX potential	mV		Subcontract	14-Dec-18	772 ¹		
Chloride	mg/L	0.5	SM4110C	06-Dec-18/O	3.0		
Sulphate	mg/L	1	SM4110C	06-Dec-18/O	2		
Aluminum	mg/L	0.01	SM 3120	12-Dec-18/O	< 0.01		
Aluminum	mg/L	0.01	SM 3120	07-Dec-18/O		< 0.01	
Arsenic	mg/L	0.0001	EPA 200.8	10-Dec-18/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	10-Dec-18/O		< 0.0001	
Antimony	mg/L	0.0001	EPA 200.8	10-Dec-18/O	< 0.0001		
Antimony	mg/L	0.0001	EPA 200.8	10-Dec-18/O		0.0001	
Barium	mg/L	0.001	SM 3120	12-Dec-18/O	< 0.001		
Barium	mg/L	0.001	SM 3120	07-Dec-18/O		0.003	
Beryllium	mg/L	0.002	SM 3120	12-Dec-18/O	< 0.002		
Beryllium	mg/L	0.002	SM 3120	07-Dec-18/O		< 0.002	
Cadmium	mg/L	0.000015	EPA 200.8	10-Dec-18/O	< 0.000015		
Cadmium	mg/L	0.000015	EPA 200.8	10-Dec-18/O		< 0.000015	



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 37375

REPORT No. B18-37375

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Dec-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 19-Dec-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-37375-1	B18-37375-2		
			Date Collected	05-Dec-18	05-Dec-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Chromium	mg/L	0.002	SM 3120	12-Dec-18/O	< 0.002		
Chromium	mg/L	0.002	SM 3120	07-Dec-18/O		< 0.002	
Cobalt	mg/L	0.005	SM 3120	12-Dec-18/O	< 0.005		
Cobalt	mg/L	0.005	SM 3120	07-Dec-18/O		< 0.005	
Copper	mg/L	0.002	SM 3120	12-Dec-18/O	0.032		
Copper	mg/L	0.002	SM 3120	07-Dec-18/O		0.052	
Iron	mg/L	0.005	SM 3120	12-Dec-18/O	0.011		
Iron	mg/L	0.005	SM 3120	07-Dec-18/O		0.031	
Lead	mg/L	0.00002	EPA 200.8	10-Dec-18/O	0.00014		
Lead	mg/L	0.00002	EPA 200.8	10-Dec-18/O		0.00014	
Lithium	mg/L	0.01	SM 3120	12-Dec-18/O	< 0.01		
Lithium	mg/L	0.01	SM 3120	07-Dec-18/O		< 0.01	
Manganese	mg/L	0.001	SM 3120	12-Dec-18/O	0.002		
Manganese	mg/L	0.001	SM 3120	07-Dec-18/O		0.004	
Mercury	mg/L	0.00002	SM 3112 B	10-Dec-18/O	< 0.00002	< 0.00002	
Molybdenum	mg/L	0.01	SM 3120	12-Dec-18/O	< 0.01		
Molybdenum	mg/L	0.01	SM 3120	07-Dec-18/O		< 0.01	
Nickel	mg/L	0.01	SM 3120	12-Dec-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	07-Dec-18/O		< 0.01	
Selenium	mg/L	0.001	EPA 200.8	10-Dec-18/O	< 0.001		
Selenium	mg/L	0.001	EPA 200.8	10-Dec-18/O		< 0.001	
Silver	mg/L	0.0001	EPA 200.8	10-Dec-18/O	< 0.0001		
Silver	mg/L	0.0001	EPA 200.8	10-Dec-18/O		< 0.0001	
Strontium	mg/L	0.001	SM 3120	12-Dec-18/O	0.010		
Strontium	mg/L	0.001	SM 3120	07-Dec-18/O		0.012	
Thallium	mg/L	0.00005	EPA 200.8	10-Dec-18/O	< 0.00005		
Thallium	mg/L	0.00005	EPA 200.8	10-Dec-18/O		< 0.00005	



R.L. = Reporting Limit

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

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C.O.C.: DW 37375

REPORT No. B18-37375

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Dec-18

JOB/PROJECT NO.: Test A (WTP)

DATE REPORTED: 19-Dec-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO.

			Client I.D.	WTP Test A	WTP Test A (Total)		
			Sample I.D.	B18-37375-1	B18-37375-2		
			Date Collected	05-Dec-18	05-Dec-18		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Tin	mg/L	0.05	SM 3120	12-Dec-18/O	< 0.05		
Tin	mg/L	0.05	SM 3120	07-Dec-18/O		< 0.05	
Titanium	mg/L	0.005	SM 3120	12-Dec-18/O	< 0.005		
Titanium	mg/L	0.005	SM 3120	07-Dec-18/O		< 0.005	
Uranium	mg/L	0.00005	EPA 200.8	10-Dec-18/O	< 0.00005		
Uranium	mg/L	0.00005	EPA 200.8	10-Dec-18/O		< 0.00005	
Vanadium	mg/L	0.005	SM 3120	12-Dec-18/O	< 0.005		
Vanadium	mg/L	0.005	SM 3120	07-Dec-18/O		< 0.005	
Zinc	mg/L	0.005	SM 3120	12-Dec-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	07-Dec-18/O		0.024	
Total Organic Carbon	mg/L	0.2	EPA 415.1	10-Dec-18/O	2.1		
TIC	mg/L	0.5	EPA 415.1	10-Dec-18/O	2.48		
Fecal Coliform	cfu/100mL	1	MOE E3371	06-Dec-18/O	0		
Anion Sum	meq/L		Calc.	12-Dec-18/O	0.334		
Cation Sum	meq/L		Calc.	12-Dec-18/O	0.338		
% Difference	%		Calc.	12-Dec-18/O	0.535		
Ion Ratio	AS/CS		Calc.	12-Dec-18/O	0.989		
Sodium Adsorption Ratio	-		Calc.	12-Dec-18/O	0.0904		
Conductivity (calc.)	µmho/cm		Calc.	12-Dec-18/O	35.0		
EC(calc.)/EC(actual)	-		Calc.	12-Dec-18/O	0.898		
TDS(calc.)/EC(actual)	-		Calc.	12-Dec-18/O	0.439		
Langelier Index(25°C)	S.I.		Calc.	12-Dec-18/O	-2.85		

1. Subcontracted to Testmark Labs



Greg Clarkin, BSc., C. Chem
Lab Manager - Ottawa District

R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-37378

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Dec-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 12-Dec-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Lagoon Effluent			
			Sample I.D.	B18-37378-1			
			Date Collected	05-Dec-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
BOD(5 day)	mg/L	3	SM 5210B	07-Dec-18/K	176		
Total Suspended Solids	mg/L	3	SM2540D	11-Dec-18/K	25		
Conductivity @25°C	µmho/cm	1	SM 2510B	06-Dec-18/O	481		
pH @25°C	pH Units		SM 4500H	06-Dec-18/O	7.31		
Nitrite (N)	mg/L	0.1	SM4110C	06-Dec-18/O	< 0.1		
Nitrate (N)	mg/L	0.1	SM4110C	06-Dec-18/O	< 0.1		
Ammonia (N)-Total	mg/L	0.01	SM4500-NH3-H	10-Dec-18/K	35.1		
o-Phosphate (P)	mg/L	0.01	PE4500-S	10-Dec-18/K	3.68		
Phosphorus-Total	mg/L	0.01	E3199A.1	07-Dec-18/K	4.55		
Aluminum	mg/L	0.01	SM 3120	07-Dec-18/O	0.15		
Antimony	mg/L	0.0005	EPA 200.8	10-Dec-18/O	< 0.0005		
Arsenic	mg/L	0.0005	EPA 200.8	10-Dec-18/O	< 0.0005		
Barium	mg/L	0.001	SM 3120	07-Dec-18/O	0.005		
Beryllium	mg/L	0.002	SM 3120	07-Dec-18/O	< 0.002		
Cadmium	mg/L	0.000070	EPA 200.8	10-Dec-18/O	0.000139		
Chromium	mg/L	0.002	SM 3120	07-Dec-18/O	< 0.002		
Cobalt	mg/L	0.005	SM 3120	07-Dec-18/O	< 0.005		
Copper	mg/L	0.002	SM 3120	07-Dec-18/O	0.362		
Iron	mg/L	0.005	SM 3120	07-Dec-18/O	0.554		
Lead	mg/L	0.0001	EPA 200.8	10-Dec-18/O	0.0021		
Lithium	mg/L	0.01	SM 3120	07-Dec-18/O	0.03		
Manganese	mg/L	0.001	SM 3120	07-Dec-18/O	0.062		
Mercury	mg/L	0.00002	SM 3112 B	10-Dec-18/O	< 0.00002		
Molybdenum	mg/L	0.01	SM 3120	07-Dec-18/O	< 0.01		
Nickel	mg/L	0.01	SM 3120	07-Dec-18/O	< 0.01		
Selenium	mg/L	0.005	EPA 200.8	10-Dec-18/O	< 0.005		



R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

C.O.C.: ---

REPORT No. B18-37378

Report To:

City of Iqaluit

PO Box 460,
Iqaluit NU X0A 0H0

Attention: Maria Karveli

Caduceon Environmental Laboratories

2378 Holly Lane
Ottawa Ontario K1V 7P1
Tel: 613-526-0123
Fax: 613-526-1244

DATE RECEIVED: 06-Dec-18

JOB/PROJECT NO.: Test F

DATE REPORTED: 12-Dec-18

P.O. NUMBER:

SAMPLE MATRIX: Waste Water

WATERWORKS NO.

			Client I.D.	Lagoon Effluent			
			Sample I.D.	B18-37378-1			
			Date Collected	05-Dec-18			
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Silver	mg/L	0.0001	EPA 200.8	10-Dec-18/O	< 0.0001		
Strontium	mg/L	0.001	SM 3120	07-Dec-18/O	0.024		
Thallium	mg/L	0.0003	EPA 200.8	10-Dec-18/O	< 0.0003		
Tin	mg/L	0.05	SM 3120	07-Dec-18/O	< 0.05		
Titanium	mg/L	0.005	SM 3120	07-Dec-18/O	< 0.005		
Uranium	mg/L	0.0003	EPA 200.8	10-Dec-18/O	0.0005		
Vanadium	mg/L	0.005	SM 3120	07-Dec-18/O	< 0.005		
Zinc	mg/L	0.005	SM 3120	07-Dec-18/O	0.123		
Total Coliform	cfu/100mL	1	MOE E3371	06-Dec-18/O	10200000		
Fecal Coliform	cfu/100mL	1	MOE E3371	06-Dec-18/O	2600000		

R.L. = Reporting Limit

Test methods are modified from specified reference method unless indicated by an *

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Greg Clarkin , BSc., C. Chem
Lab Manager - Ottawa District

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Appendix B – Spill Reports

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-12-2018		REPORT TIME 9:00am		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	OCCURRENCE DATE: MONTH - DAY - YEAR 02-18-2018		OCCURRENCE TIME 3:00pm-6:00pm			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION House 525			REGION		
				☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE			LONGITUDE		
	DEGREES	MINUTES	SECONDS	DEGREES	MINUTES	SECONDS
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460 IQALUIT NU X0A 0H0			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE Partial Collapse in sewer		SPILL CAUSE warming of the weather		AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS					
	FROZEN PIPE CAUSED SEWAGE TO EXIT FROM TOP OF DUMP STATION IT WAS IMMEDIATELY REMOVED WITH FRONT END LOADER AND DUMPED TO LAGOON.LESS THAN 1 BUCKET IN QUANTITY					
L	REPORTED TO SPILL LINE BY MIKE HATFIELD		POSITION MGR UTILIDOR		EMPLOYER CITY OF IQALUIT	
					LOCATION CALLING FROM 1554D	
					TELEPHONE 8679795632	
M	ANY ALTERNATE CONTACT JOE BROWN		POSITION SUPERINTENDANT		EMPLOYER CITY OF IQALUIT	
					ALTERNATE CONTACT 1554D	
					ALTERNATE TELEPHONE 9798675631	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY		POSITION		EMPLOYER	
			STATION OPERATOR		LOCATION CALLED YELLOWKNIFE, NT	
						REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC				SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-02-2018		REPORT TIME 1:25 PM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR 02-24-2018		OCCURRENCE TIME 3:00 PM			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION SEWER DUMP STN BY LAGOON				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460, IQALUIT, NU, X0A 0H0			
G	ANY CONTRACTOR INVOLVED N/A		CONTRACTOR ADDRESS OR OFFICE LOCATION N/A			
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE OVER FLOW DUMP STN		SPILL CAUSE PCL PROGRAM DOWN		AREA OF CONTAMINATION IN SQUARE METRES UNKNOWN (RATHER SMALL)	
J	FACTORS AFFECTING SPILL OR RECOVERY OPERATING LIMITATIONS		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS THE AFTERNOON OF SATURDAY, FEBRUARY 24, 2018, THERE WAS AN OVERFLOW AT THE DUMP STATION AND HAS BEEN PROMPTLY ATTENDED. IN THE MEAN TIME, SEWER FLOW WAS DIVERTED FROM THE STATION TO AN ALTERNATE ROUTE (DIVERSION TO LAGOON) TO AVOID FURTHER SPILL. TODAY THERE IS A FUTHER INVESTIGATION TO DETERMINE THE WAY TO DEAL WITH THE NUMBER OF PLC PROBLEMS WE HAVE. THE CITY HAS PUT IN PLACE A PLAN TO BRING STANTEC IN IQALUIT TO RECOGNIZE THE PROBLEM AND SUGEST THE COURSE OF ACTION. THE QUANTITY SPILLED WAS LESS THAN 100 LITRES.					
L	REPORTED TO SPILL LINE BY MARIA KARVELI	POSITION W.T. OPERATOR	EMPLOYER CITY OF IQALUIT	LOCATION CALLING FROM BLDG 2425	TELEPHONE 867-222-4612	
M	ANY ALTERNATE CONTACT MATTHEW HAMP	POSITION DRCTR PUBLIC WOR	EMPLOYER CITY OF IQALUIT	ALTERNATE CONTACT LOCATION CITY HALL	ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EOC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC				SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR MARCH 02 2018	REPORT TIME 2:30 PM	☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR FEBRUARY 27 2018	OCCURRENCE TIME 9:30 AM		
C	LAND USE PERMIT NUMBER (IF APPLICABLE)		WATER LICENCE NUMBER (IF APPLICABLE)	
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION SEWER DUMP STN BY LAGOON		REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES MINUTES SECONDS		LONGITUDE DEGREES MINUTES SECONDS	
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460 IQALUIT NU XOA 0H0		
G	ANY CONTRACTOR INVOLVED N/A	CONTRACTOR ADDRESS OR OFFICE LOCATION N/A		
H	PRODUCT SPILLED SEWAGE	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE OVER FLOW DUMP STN	SPILL CAUSE PLC PROGRAM DOWN	AREA OF CONTAMINATION IN SQUARE METRES SMALL UNKNOWN	
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	

K ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS

THE MORNING OF TUESDAY, FEBRUARY 27, 2018, THERE WAS AN OVERFLOW AT THE DUMP STATION AND HAS BEEN PROMPTLY ATTENDED. IN THE MEAN TIME, SEWER FLOW WAS DIVERTED FROM THE STATION TO AN ALTERNATE ROUTE (DIVERSION TO LAGOON) TO AVOID FURTHER SPILL. TODAY THERE IS A FUTHER INVESTIGATION TO DETERMINE THE WAY TO DEAL WITH THE NUMBER OF PLC PROBLEMS WE HAVE. THE CITY HAS PUT IN PLACE A PLAN TO BRING STANTEC IN IQALUIT, TO RECOGNIZE THE PROBLEM AND SUGEST THE COURSE OF ACTION. THE QUANTITY SPILLED WAS LESS THAN 100 LITRES.

L	REPORTED TO SPILL LINE BY MARIA KARVELI	POSITION WT OPERATOR	EMPLOYER CITY OF IQALUIT	LOCATION CALLING FROM BLDG 2425	TELEPHONE 8679795636
M	ANY ALTERNATE CONTACT MATTHEW HAMP	POSITION DIRECTOR	EMPLOYER CITY OF IQALUIT	ALTERNATE CONTACT LOCATION CITY HALL	ALTERNATE TELEPHONE 8679795653

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC			SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS	
LEAD AGENCY					
FIRST SUPPORT AGENCY					
SECOND SUPPORT AGENCY					
THIRD SUPPORT AGENCY					



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-12-2018		REPORT TIME 9:00 AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-03-2018		OCCURRENCE TIME 9:00-10:00 PM			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Lift Station #1				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME City of Iqaluit		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460 IQALUIT NU X0A 0H0			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED Sewage		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES Unknown		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE Wet Well		SPILL CAUSE Remove rugs		AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS ON SATURDAY EVENING WE HAD TO CLEAN THE PUMP OF RUGS. THIS IS A USUAL PROCEDURE IF RUGS BLOCK THE PUMPING AND THE FLOW OF WATER. PLC COULD HAVE ALARMED US EARLIER BUT IT DID NOT					
L	REPORTED TO SPILL LINE BY Maria Karveli	POSITION Utilidor	EMPLOYER City of Iqaluit	LOCATION CALLING FROM 1554D	TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT Matthew Hamp	POSITION Director of Engineer	EMPLOYER City of Iqaluit	ALTERNATE CONTACT 1554D LOCATION	ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC			SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED	
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-12-2018		REPORT TIME 08:15am		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
	B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-04-2018		OCCURRENCE TIME 9:00pm		
C		LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)	
	D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Lift Station #1			REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN	
E		LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS	
	F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460 IQALUIT NU X0A 0H0		
G		ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION		
	H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN		U.N. NUMBER
I		SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER
	J	SPILL SOURCE Sewer		SPILL CAUSE Clean rags		AREA OF CONTAMINATION IN SQUARE METRES
K		FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT
	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS FROZEN PIPE CAUSED SEWAGE TO EXIT FROM TOP OF DUMP STATION IT WAS IMMEDIATELY REMOVED WITH FRONT END LOADER AND DUMPED TO LAGOON. LESS THAN 1 BUCKET IN QUANTITY					
L	REPORTED TO SPILL LINE BY MIKE HATFIELD		POSITION MGR UTILIDOR		EMPLOYER CITY OF IQALUIT	
	LOCATION CALLING FROM 1554D		TELEPHONE 8679795632			
M	ANY ALTERNATE CONTACT JOE BROWN		POSITION SUPERINTENDANT		EMPLOYER CITY OF IQALUIT	
	ALTERNATE CONTACT 1554D LOCATION		ALTERNATE TELEPHONE 9798675631			
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER	
	LOCATION CALLED YELLOWKNIFE, NT		REPORT LINE NUMBER (867) 920-8130			
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC				SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-12-2018		REPORT TIME 9:00 AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____	
B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-09-2018		OCCURRENCE TIME 9:00 AM					
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)				
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION Lift Station #1				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN			
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS				
F	RESPONSIBLE PARTY OR VESSEL NAME City of Iqaluit		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460 IQALUIT NU X0A 0H0					
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION					
H	PRODUCT SPILLED Sewage		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES Unknown			U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES			U.N. NUMBER		
I	SPILL SOURCE Wet Well Overflow		SPILL CAUSE PLC ISSUE			AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED			HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS ON FRIDAY MARCH 09,2018, THERE WAS A SPILL IN THE LIFT STATION #1 THE PLC FROZE AND IT DID NOT ALARM FOR AN OVERFLOW. WE HAVE A TEAM OF SPECIALISTS TO COME TO IQALUIT ON APRIL 02, 2018, TO DIAGNOSE THE PROBLEM WITH OUR PLC PROGRAM, RECOMEND A SOLUTION AND FIX THE ISSUE							
L	REPORTED TO SPILL LINE BY Maria Karveli		POSITION Utilidor		EMPLOYER City of Iqaluit		LOCATION CALLING FROM 1554D	
							TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT Matthew Hamp		POSITION Director of Engineer		EMPLOYER City of Iqaluit		ALTERNATE CONTACT 1554D LOCATION	
							ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY								
N	RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER		LOCATION CALLED YELLOWKNIFE, NT	
							REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC					SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED	
AGENCY		CONTACT NAME			CONTACT TIME		REMARKS	
LEAD AGENCY								
FIRST SUPPORT AGENCY								
SECOND SUPPORT AGENCY								
THIRD SUPPORT AGENCY								



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-26-18		REPORT TIME 9:00AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____	
B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-18-18		OCCURRENCE TIME 3:00AM					
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)				
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION AROUND HOUSE 215				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN			
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS				
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460, IQALUIT, NU, X0A 0H0					
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION					
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN			U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES			U.N. NUMBER		
I	SPILL SOURCE SEWAGE		SPILL CAUSE GREASE			AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED			HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS ON FRIDAY MARCH 18 AT 3:00 PM THE SEWER TRUCKS INFORMED UTILIDOR FOR A SPILL AROUND THE HOUSE 215 (AROUND SNACK RESTAURANT). UTILIDOR DIAGNOSED THE PROBLEM AS AN OVERFLOW IN SEWER, DUE TO EXCESIVE GREASE.							
L	REPORTED TO SPILL LINE BY MARIA KARVELI		POSITION UTILIDOR		EMPLOYER CITY OF IQALUIT		LOCATION CALLING FROM 1554D	
							TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT MATTHEW HAMP		POSITION DIRECTOR of PW		EMPLOYER CITY OF IQALUIT		ALTERNATE CONTACT 1554D LOCATION	
							ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY								
N	RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER		LOCATION CALLED YELLOWKNIFE, NT	
							REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC					SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED	
AGENCY		CONTACT NAME			CONTACT TIME		REMARKS	
LEAD AGENCY								
FIRST SUPPORT AGENCY								
SECOND SUPPORT AGENCY								
THIRD SUPPORT AGENCY								



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

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REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-26-18		REPORT TIME 8:30AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-18-18		OCCURRENCE TIME 10:30PM			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION AROUND HOUSE 128				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460, IQALUIT, NU, XOA 0H0			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE MH 65		SPILL CAUSE COLLAPSED PIPE		AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS ON FRIDAY MARCH 18 AT 10:30AM THE SEWER TRUCKS INFORMED UTILIDOR FOR A SPILL AROUND THE HOUSE128. UTILIDOR DIAGNOSED THE PROBLEM AS A COLLAPSED SEWER PIPE. THIS IS VERY USUAL PHENOMENON IN THE NORTH DUE TO WARMING OF THE GROUND					
L	REPORTED TO SPILL LINE BY MARIA KARVELI	POSITION UTILIDOR	EMPLOYER CITY OF IQALUIT	LOCATION CALLING FROM 1554D	TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT MATTHEW HAMP	POSITION DIRECTOR of PW	EMPLOYER CITY OF IQALUIT	ALTERNATE CONTACT 1554D LOCATION	ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC				SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-26-18		REPORT TIME 9:30AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-21-18		OCCURRENCE TIME 9:00AM			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION MH 65 AROUND HOUSE 128				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460, IQALUIT, NU, X0A 0H0			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE SEWER LINE		SPILL CAUSE COLAPSED PIPE		AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS ON WED MARCH 21 AT 9:30AM THE SEWER TRUCKS INFORMED UTILIDOR FOR A SPILL AROUND THE HOUSE128. UTILIDOR DIAGNOSED THE PROBLEM AS A COLLAPSED SEWER PIPE THAT HAD BEEN FROZEN IN AN AREA AS A MITIGATION TO MULTIPLE SPILLS IN THE AREA WE DECIDED TO DO BLASTING EVERY SECOND DAY IN THE AREA					
L	REPORTED TO SPILL LINE BY MARIA KARVELI	POSITION UTILIDOR	EMPLOYER CITY OF IQALUIT	LOCATION CALLING FROM 1554D	TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT MATTHEW HAMP	POSITION DIRECTOR of PW	EMPLOYER CITY OF IQALUIT	ALTERNATE CONTACT 1554D LOCATION	ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC				SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

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FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-26-18		REPORT TIME 10:00AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-23-18		OCCURRENCE TIME 9:00AM				
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION AROUND HOUSE 405			REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN			
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS			
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460, IQALUIT, NU, X0A 0H0				
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION				
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN		U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER		
I	SPILL SOURCE Hs 405		SPILL CAUSE COLLAPSED PIPE		AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS ON FRIDAY MARCH 23 AT 9:00AM THE SEWER TRUCKS INFORMED UTILIDOR FOR A SPILL AROUND THE HOUSE405. UTILIDOR DIAGNOSED THE PROBLEM AS A COLLAPSED SEWER PIPE.						
L	REPORTED TO SPILL LINE BY MARIA KARVELI		POSITION UTILIDOR		EMPLOYER CITY OF IQALUIT		LOCATION CALLING FROM 1554D
M	ANY ALTERNATE CONTACT MATTHEW HAMP		POSITION DIRECTOR of PW		EMPLOYER CITY OF IQALUIT		ALTERNATE CONTACT 1554D LOCATION ALTERNATE TELEPHONE 867-979-5653
REPORT LINE USE ONLY							
N	RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER		LOCATION CALLED YELLOWKNIFE, NT REPORT LINE NUMBER (867) 920-8130
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC					SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS	
LEAD AGENCY							
FIRST SUPPORT AGENCY							
SECOND SUPPORT AGENCY							
THIRD SUPPORT AGENCY							



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

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EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-27-18		REPORT TIME 10:00AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-23-18		OCCURRENCE TIME 10:00AM			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION HOUSE 409				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN	
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE SEWER MAIN		SPILL CAUSE OVERFLOW SEWER		AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS On Friday March 23rd, a sewage spill occurred in and around house 409. Due to weather fluctuations, a partial to complete sewage line collapse occurred between MH100 and MH99 which created an overflow situation around MH 99 and into House 409. A damaged valve near Joamie School caused an excess of water in the sewer line which increased the volume of the spill. The sewage around the MH will be scrapped up and removed to the sewage lagoon. The house will be remediated by a licensed contractor including removing any damaged drywall, and flooring. The line will be blasted daily until the collapsed line can be replaced.					
L	REPORTED TO SPILL LINE BY MARIA KARVELI	POSITION UTILIDOR	EMPLOYER CITY OF IQALUIT	LOCATION CALLING FROM 1554D	TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT MATTHEW HAMP	POSITION DIRECTOR of PW	EMPLOYER CITY OF IQALUIT	ALTERNATE CONTACT 1554D LOCATION	ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC			SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED	
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

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EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 03-26-18		REPORT TIME 10:00AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____
B	OCCURRENCE DATE: MONTH - DAY - YEAR 03-24-18		OCCURRENCE TIME 11:00AM			
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION AROUND HOUSE 405			REGION ☒ NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460, IQALUIT, NU, X0A 0H0			
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION			
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN		U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER	
I	SPILL SOURCE AROUND Hs 405		SPILL CAUSE COLLAPSED PIPE FROZE		AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS ON SATURDAY MARCH 24 AT 10:00AM THE SEWER TRUCKS INFORMED UTILIDOR FOR A SPILL AROUND THE HOUSE 405. UTILIDOR DIAGNOSED THE PROBLEM AS A COLLAPSED SEWER PIPE THAT HAD BEEN FROZEN IN AN AREA AS A MITIGATION TO MULTIPLE SPILLS IN THE AREA WE DECIDED TO DO BLASTING EVERY SECOND DAY IN THE AREA					
L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE	
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE	
REPORT LINE USE ONLY						
N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC			SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED	
AGENCY		CONTACT NAME		CONTACT TIME		REMARKS
LEAD AGENCY						
FIRST SUPPORT AGENCY						
SECOND SUPPORT AGENCY						
THIRD SUPPORT AGENCY						



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

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FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 04-5-18		REPORT TIME 10:00AM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____			
B	OCCURRENCE DATE: MONTH - DAY - YEAR 04-2-18		OCCURRENCE TIME 10:00AM							
C	LAND USE PERMIT NUMBER (IF APPLICABLE)				WATER LICENCE NUMBER (IF APPLICABLE)					
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION HOUSE 409 (MH89), Close to MH(91)				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN					
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS						
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460							
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION							
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN			U.N. NUMBER				
	SECOND PRODUCT SPILLED (IF APPLICABLE)					U.N. NUMBER				
I	SPILL SOURCE SEWER MAIN		SPILL CAUSE OVERFLOW SEWER			AREA OF CONTAMINATION IN SQUARE METRES				
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED			HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT				
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS Following the Friday March 23rd and 24th spill, a sewage spill occurred again in and around house 409. Due to weather fluctuations and a definite collapse The sewage around the MH has been scrapped up and removed to the sewage lagoon, by BBS Construction We thought we could contain the overflow by blasting the line daily until the collapsed line can be replaced, however, it was not enough and we had to use a pump to eliviate the MH overflow and direct the water to MH91, bypassing the houses 405, 407, and 409. Presently, Nunavut Excavation is fixing the problem and Arctic Tower is doing the last clean up and remediation									
L	REPORTED TO SPILL LINE BY MARIA KARVELI		POSITION Superintendant Act.		EMPLOYER CITY OF IQALUIT		LOCATION CALLING FROM 1554D		TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT MATTHEW HAMP		POSITION DIRECTOR of PW		EMPLOYER CITY OF IQALUIT		ALTERNATE CONTACT 1554D LOCATION		ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY										
N	RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER		LOCATION CALLED YELLOWKNIFE, NT		REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC					SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN			FILE STATUS ☐ OPEN ☐ CLOSED		
AGENCY		CONTACT NAME			CONTACT TIME		REMARKS			
LEAD AGENCY										
FIRST SUPPORT AGENCY										
SECOND SUPPORT AGENCY										
THIRD SUPPORT AGENCY										



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 04-24-2018		REPORT TIME 10:47 am		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____	
B	OCCURRENCE DATE: MONTH - DAY - YEAR 04-24-2018		OCCURRENCE TIME 8:00 am					
C	LAND USE PERMIT NUMBER (IF APPLICABLE)				WATER LICENCE NUMBER (IF APPLICABLE)			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION MH 90				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN			
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS				
F	RESPONSIBLE PARTY OR VESSEL NAME City of Iqaluit		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460					
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION					
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN			U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE)					U.N. NUMBER		
I	SPILL SOURCE SEWER MAIN		SPILL CAUSE OVERFLOW			AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED			HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS ON TUESDAY, APRIL 24, 2018 AROUND 8:00 AM UTILIDOR INFORMED ABOUT A SEWER SPILL AROUND THE MH 90. THIS SPOT IS A DEAD SPOT FOR THE CIRCULATION SYSTEM AND IT WAS BLOCKED. AN OVERFLOW WAS PRODUCED AND WE BLASTED THE LINE ALREADY.							
L	REPORTED TO SPILL LINE BY Maria Karveli		POSITION Superintendent Act.		EMPLOYER City of Iqaluit		LOCATION CALLING FROM 1554D	
							TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT Matthew Hamp		POSITION Director of PW		EMPLOYER City of Iqaluit		ALTERNATE CONTACT 1554D LOCATION	
							ALTERNATE TELEPHONE	
REPORT LINE USE ONLY								
N	RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER		LOCATION CALLED YELLOWKNIFE, NT	
							REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC					SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED	
AGENCY		CONTACT NAME			CONTACT TIME		REMARKS	
LEAD AGENCY								
FIRST SUPPORT AGENCY								
SECOND SUPPORT AGENCY								
THIRD SUPPORT AGENCY								



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH - DAY - YEAR 17-10-2018		REPORT TIME 1:00 PM		☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT		REPORT NUMBER _____	
B	OCCURRENCE DATE: MONTH - DAY - YEAR 16-10-2018		OCCURRENCE TIME 10:00 PM					
C	LAND USE PERMIT NUMBER (IF APPLICABLE)				WATER LICENCE NUMBER (IF APPLICABLE)			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION				REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN			
E	LATITUDE DEGREES MINUTES SECONDS			LONGITUDE DEGREES MINUTES SECONDS				
F	RESPONSIBLE PARTY OR VESSEL NAME CITY OF IQALUIT		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION PO BOX 460, IQALUIT, NU, X0A 0H0					
G	ANY CONTRACTOR INVOLVED KUDLIK		CONTRACTOR ADDRESS OR OFFICE LOCATION					
H	PRODUCT SPILLED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN			U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE) TREATED SEWAGE		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES UNKNOWN			U.N. NUMBER		
I	SPILL SOURCE CITY LAGOON		SPILL CAUSE LARGE SOLID ITEMS			AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED			HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS A partial clogging of the effluent pipe of the lagoon occurred on Tuesday October 16, 2018. This clogging caused the water level in the lagoon to rise faster than the normal rate and caused a minor spill. The City discussed the issue with the WWTP consultant and contractor and will follow a plan to stop the leak, and will try to unblock the pipe.							
L	REPORTED TO SPILL LINE BY Maria Karveli		POSITION A. Superintendent		EMPLOYER City of Iqaluit		LOCATION CALLING FROM BLDN 2425	
							TELEPHONE 867-979-5636	
M	ANY ALTERNATE CONTACT Matthew Hamp		POSITION Director Public Works		EMPLOYER City of Iqaluit		ALTERNATE CONTACT City Hall	
							ALTERNATE TELEPHONE 867-979-5653	
REPORT LINE USE ONLY								
N	RECEIVED AT SPILL LINE BY		POSITION STATION OPERATOR		EMPLOYER		LOCATION CALLED YELLOWKNIFE, NT	
							REPORT LINE NUMBER (867) 920-8130	
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC					SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN		FILE STATUS ☐ OPEN ☐ CLOSED	
AGENCY		CONTACT NAME			CONTACT TIME		REMARKS	
LEAD AGENCY								
FIRST SUPPORT AGENCY								
SECOND SUPPORT AGENCY								
THIRD SUPPORT AGENCY								