Once you have received the sampling bottles and equipment from the lab, make sure you have the following things with you before you begin collecting samples:

1. Sample bottles;
2. Preservatives;
3. Coolers that the bottles and preservatives were sent in;
4. Field blanks;
5. Chain of custody forms (also called COCs);
6. Permanent marker to mark on bottles;
7. Pen to fill out chain of custody forms;
8. Nitrile gloves;
9. Packing tape;
10. Ice packs;
11. Shipping label to send samples back to the lab.

Once you have gathered everything, determine which day you will collect the samples. Be sure to check the flight schedule for that day and call the lab to ask if they are able to pick up the samples at the airport when they arrive.

3.5.1.2 Instructions for Sample Collection

Follow these instructions to collect samples from the sewage lagoon and wetland treatment facility:

1. Place ice packs in freezer the night before sampling.
2. In the morning, place ice packs and other equipment into coolers and load into vehicle. Make sure that the travel blanks and field blanks are in the cooler as well.
3. Drive to site and park in a safe spot away from traffic. DO NOT park on the truck turn around pad for the sewage lagoon.
4. Take coolers and equipment to sample location HAL-4. Put cooler and bottles in a safe and accessible area.
5. Put on a pair of nitrile gloves.
6. Fill the field blanks with deionized water.
7. Take out bottles needed to sample at this location and place beside the cooler. DO NOT OPEN THE BOTTLES.
8. Select the bottles NOT requiring or containing preservatives and put aside.
9. Take the bottles requiring or containing preservatives and sample these first.
10. Please note that some bottles MUST be rinsed and some bottles MUST NOT be rinsed. Please refer to the water sampling instructions provided by the laboratory that sent the sample bottles to determine if the bottle requires rinsing. If rinsing is required, discard rinse water downstream and away from the sampling location. Rinse the bottle three times. If the bottle must not be rinsed, carefully unscrew the cover and place bottle slowly into the water open end up and slightly tilted to allow water to slowly fill the bottle. If the bottle contains preservatives already, be sure not to tip or overfill the bottle as the preservatives will be washed out. Fill as directed by the water

sampling instructions provided by the laboratory that sent the sample bottles. To add preservatives (if not already in the bottle) refer to the water sampling instructions provided by the laboratory that sent the sample bottles to determine which preservative to add to the sample. Carefully pour contents into the sample bottle. Screw the cover on tightly and mix by gently tipping the bottle back and forth.

11. Label the bottle with the sampling location number (HAL-4), your name, date, time of collection and preservative added. Make sure to use a waterproof/permanent marker to label the bottles. Place filled sample jar in cooler.
12. Continue until all preserved samples have been taken.
13. Now fill the bottles not requiring preservatives. Refer to the water sampling instructions provided by the laboratory that sent the sample bottles to determine which bottles need to be rinsed.
14. Fill bottle as directed in the water sampling instructions provided by the laboratory that sent the sample bottles and screw cover on tightly. Label and place in cooler.
15. Continue until the rest of the bottles have been filled.
16. Take off nitrile gloves and dispose in garbage bag.
17. Collect cooler and move to sampling location HAL-5. Repeat steps 5 to 16.
18. If you are sampling during mid-August, collect samples for the acute lethality tests for Rainbow Trout and *Daphnia magna* using the supplied jugs. Be sure to wear a pair of nitrile gloves while collecting the samples. Unscrew the cap of the first jug and dip into the water, slowly filling the jug. If instructed to do so, rinse the bottle three times and then fill. Screw the cap back on, label and place in the cooler. Repeat for the second jug. Be sure to properly label with the date, time and sampler's name. Keep cool, but make sure that the samples do not freeze.
19. If necessary collect cooler and move to sampling location HAL-2. Repeat steps 5 to 16.
20. Once all samples have been collected and labelled, put on a new pair of nitrile gloves and pack samples into coolers tightly with ice packs to limit movement during shipping. Remove gloves and wash hands thoroughly.
21. Fill out the chain of custody form. An example of a filled out form can be found in Appendix C.
22. Place form in a sealable freezer bag, seal and put in the cooler with samples. Tape up the cooler with packing tape. Tape shipping label to top of cooler and bring to the airport. Always wash hands thoroughly after handling the cooler.
23. Fill out the shipping forms for sending the cooler to the lab and check that the plane will be on time.
24. Call the lab and tell them that the samples are on the way and give them the flight information.

As part of QA/QC testing, a second set of samples should be taken from one of the sampling points. This means filling two sets of sampling bottles from the same location. This second set of samples is to verify that sample results are accurate and that sampling methods are consistent. The second set of samples should be taken from a different sampling point during each sampling period. For example, for the early July sampling period two sets of samples may be taken from HAL-4. For the mid-August sampling, two sets of samples may be taken from HAL-2. During the late September sampling, two sets of samples may be taken from HAL-5.

3.5.2 Lab Analysis

Once the lab has received the samples, they will begin processing them. A report stating all results as well as the detection limits will be produced and sent to the Hamlet Office. The report will also state any problems that may have occurred during analysis of the samples.

3.6 Managing Insects and Weeds

3.6.1 Insect Management

In order to discourage attracting insects, the wetland surrounding the lagoon will be inspected regularly for areas of ponding water. Hamlet staff must cover up any puddles or potholes by filling them with soil (Municipal and Community Affairs, Small Wastewater Treatment Systems Operator Student Manual). Weeds growing in and around the lagoon surface may also attract insects. For information about weed management, please refer to Section 3.6.2.

3.6.2 Weed Management

Weeds growing in and around the lagoon may cause a number of problems such attracting unwanted insects, causing excessive odours, and impeding photosynthesis. Surface weeds block sunlight from entering the lagoon that is required for photosynthesis to occur. Photosynthesis is the reaction that provides energy for algae and that in turn allows algae to provide oxygen to bacteria in the lagoon. Bacteria require oxygen in order to break down wastes within the lagoon (Municipal and Community Affairs, Small Wastewater Treatment Systems Operator Student Manual). Wastes that are not breaking down may result in excessive odour.

Weeds/plants on the surface and edges of the lagoon must be removed promptly. Hamlet staff should skim weeds off the top of the lagoon and trim them at them edges. Any weeds that have been removed must be buried in the landfill immediately to prevent odours and insects.

3.7 Measures to Prevent Short-Circuiting

The lagoon is a rectangular shape where sewage is dumped in at one short end of the rectangle (the end furthest from the outfall) and discharged from the other short end (at the outfall). Sewage effluent is therefore forced to pass through the longer length of the lagoon. As long as effluent is discharged in and out in these locations, short-circuiting should be minimized (Municipal and Community Affairs, Small Wastewater Treatment Systems Operator Student Manual). However, should a break or breach of the lagoon berm occur, effluent may discharge from the breach potentially causing a short-circuiting effect. The Department of Community and Government Services (CGS), Government of Nunavut, should consider having an annual inspection of the lagoon conducted by a Geotechnical Engineer. This should help to identify problems with the berm structure and alert CGS to areas of the berm that need to be repaired prior to formation of a breach in the berm.

3.8 Measures to Prevent Stagnation and Excessive Odour

According to the Hamlet's water licence, the Hamlet is to notify the Inspector when flow is observed. Continuous flow provided by a lengthy discharge period should help to prevent stagnation of effluent in the lagoon. If stagnation does become a problem, the Hamlet (in consultation with Community and Government Services, Government of Nunavut) may want to consider a mechanical option such as installation of an aeration pump to aerate the lagoon.

Excessive odour may result from one of the following (Municipal and Community Affairs, Small Wastewater Treatment Systems Operator Student Manual):

- Shortly after the spring melt;
- During periods of extensive cloud cover;
- Stagnation
- Excessive presence of weeds in and around the lagoon
- Presence of sludge mats, floating scum or algae mats on the surface of the lagoon.

Discharging the lagoon continuously over the summer/fall period, should help prevent stagnation of effluent in the lagoon and reduce excessive odour resulting from the spring melt. As well, natural wind on the surface of the lagoon should act to aerate the lagoon and prevent stagnation. Any mats and/or scum that accumulate on the surface of the lagoon must be promptly broken up and dispersed by Hamlet staff. For weed management methods please refer to Section 3.6.2.

3.9 Site Records

Copies of records pertaining to operation and maintenance of the sewage lagoon should be kept at both the Hamlet Office and the Hamlet's Maintenance Garage. Information that must be included in these records are (*Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solid Waste Facilities in the Northwest Territories*, Duong and Kent, 1996):

- Volumes of any effluent discharged to the environment through an accidental spill;
- Sewage volume collected (both monthly and annually);
- Details of any maintenance undertaken at site;
- Record sheets;
- Copies of annual reports submitted to the NWB;
- Copy of the Hamlet's water licence;
- Copies of all manuals pertaining to the operation and maintenance of the Sewage Lagoon and Wetland Treatment Facility (i.e. Operation and Maintenance Manual, QA/QC Plan, Spill Contingency Plan, Abandonment and Restoration Plan, Sludge Management Plan); and
- Copies of spill reports and related regulations.

3.10 Safety Procedures

The following safety procedures should be obeyed in order to minimize health risks to personnel working in and around the wastewater and solid waste facilities:

- Equipment is to be kept clean;
- Wear protective clothing such as gloves and boots at all times;
- Work clothes must be kept in a designated change room and employees are to change into them when they arrive for work. Work clothes must NOT be worn home. The Hamlet's PW&S Maintenance Garage should be equipped with laundry facilities to wash work coveralls onsite;
- Hands to be washed frequently; as a minimum before eating and after work; and
- Personnel should receive appropriate vaccinations and ensure they are kept up-to-date. Please contact the Department of Health for a list of the appropriate vaccinations.

3.11 Site Access Control

There are no measures in place to control access to the site. There are a few bollards placed on either side of the truck discharge structure marking the edge between the truck turnaround pad and the sewage lagoon. However, the bollards do not appear to be placed close enough the truck discharge chute to prevent sewage trucks from backing up too far.

3.12 Contact Numbers

Contacts of those responsible for overseeing the operation and maintenance of the lagoon are as follows:

Senior Administrative Officer:	(867) 928-8829
Public Works Foreman:	(867) 928-8829

4 EMERGENCY RESPONSE

The Hamlet must be able to respond efficiently and effectively to all possible emergencies that may be encountered in the operation of the Hamlet's facilities. These include, but are not limited to fuel, chemical and wastewater spills as well as fires. Due to the nature of the Hamlet's facilities, burning or spillage of unknown or hazardous materials may occur. Only personnel who are properly trained to deal with these situations should respond to such emergencies.

Personnel must familiarize themselves with the emergency preparedness plans before an accident or emergency occurs. Copies of these plans must be kept in all sewage and solid waste disposal vehicles as well as in all common work areas. The following sections list contact numbers and outline procedures to follow in the event of an emergency.

4.1 Emergency Contact Numbers

The following is a list of contact numbers in the case of an emergency:

Fire Department:	(867) 928-8888
RCMP Detachment:	(867) 928-1111
24 Hour Spill Response Line:	(867) 920-8130

4.2 Contingency Planning

In the case of a service disruption, caused by a breach in the sewage lagoon berm, the Hamlet should follow the emergency measures listed below:

- Notify the Municipal Supervisor and the SAO;
- Report the spill to the NT-NU Spill Line (867) 920-8130;
- Contain or divert the spill where possible (consult with the Hamlet of Hall Beach Spill Contingency Plan for appropriate containment measures); and
- Consult with regulatory personnel on next steps.

The Department of Community and Government Services (CGS), Government of Nunavut, should have an annual inspection of the lagoon by a Geotechnical Engineer completed each year. This should help to identify problems with the berm structure and alert CGS to areas of the berm that require repairs.

In the event that the lagoon is not accessible by road and the sewage trucks are not able to discharge sewage to the lagoon, the following procedures should be implemented:

- Notify the Municipal Supervisor and the SAO;
- Notify the public and implement water use restrictions on the community; and
- Consult with regulatory personnel on next steps.

4.3 Spill Contingency Plan

A spill contingency plan has been created for activities associated with Hamlet operations including the sewage lagoon, solid waste facility and storage and handling of hazardous materials. A copy of the plan may be found in the Hamlet office and the PW&S Maintenance Garage. Hamlet personnel must familiarize themselves with the plan in order to respond quickly and effectively in the event of a spill.

4.4 Fire Response Plan

The Hamlet Fire Department is responsible for creating a contingency plan to deal with fires in the Hamlet. As burning of waste may produce harmful gases, special precautions should be taken when responding to fires in and around the solid waste facility. In the event of an uncontrolled fire in the Hamlet, the following steps should be taken:

- Immediately evacuate the area and go to the Hamlet's meeting place;
- Keep everyone including Hamlet personnel up-wind from the source; and
- Contact the Hamlet Fire Department at (867) 928-8888.

5 REFERENCES

1. Department of Indian and Northern Affairs Canada, Water Resources Division & The Northwest Territories Water Board. (1996). *Quality Assurance (QA) and Quality Control (QC) Guidelines for use by Class "B" Licensees in Collecting Representative Water Samples in the Field and for Submission of a QA/QC Plan.*

2. Department of Municipal and Community Affairs, Government of the Northwest Territories. *Small Wastewater Treatment Systems Operator – Student Manual.* Yellowknife: Municipal and Community Affairs, Government of the Northwest Territories.

3. Dillon Consulting Limited. (2003). *Wetlands Treatment Study, Hall Beach, Nunavut.* Prepared for Indian and Northern Affairs Canada.

4. Duong, D. and R. Kent. (1996). *Guidelines for the Preparation of an Operation and Maintenance Manual for Sewage and Solids Waste Disposal Facilities in the Northwest Territories.* Produced for MACA.

5. Ferguson Simek Clark Engineers & Architects. (2002). *Hall Beach Sewage Lagoon.* Prepared for Department of Community Government & Transportation, Government of Nunavut.

6. GENEQ inc. – Scientific Instruments Distributor. Photograph Retrieved March 29, 2010 from http://www.geneq.com/catalog/en/sludge_judge.htm

7. IEG Environmental. (2005). *Wastewater Sampling Instructions, Kitikmeot Region.* Produced for Department of Community and Government Services, Government of Nunavut.

8. National Guide to Sustainable Municipal Infrastructure. (2004). *Optimization of Lagoon Operation.* Issue No. 1.0. Retrieved March 29, 2010 from http://www.sustainablecommunities.fcm.ca/files/Infraguide/storm_and_wastewater/optimization_lagoon_operations.pdf

9. Nunavut Bureau of Statistics. (2000). *Nunavut: Community Population Projections.* Retrieved prior to 2006.

10. Nunavut Water Board. (2008). *Hamlet of Hall Beach Water Licence, Licence Number: 3BM-HAL0810.* Gjoa Haven: Nunavut Water Board.

11. Westerman, P. W., Shaffer, K. A., and Rice, J. M. (2008). *Sludge Survey Methods for Anaerobic Lagoons.* Retrieved March 29, 2010 from http://www.bae.ncsu.edu/programs/extension/manure/sludge-survey/sludge_survey.pdf

APPENDIX A

Annual Report Forms

ANNUAL REPORT
FOR THE HAMLET OF HALL BEACH

YEAR BEING REPORTED:_____

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence (3BM-HAL0810) issued to the Hamlet of Hall Beach.

i)- iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are results for Monitoring Station HAL-2, HAL-3, HAL-4 and HAL-5 as well as results for Acute Lethality to Rainbow Trout and Daphnia magna (for the months of May to August, inclusive)

Month Reported	Quantity of Water Obtained from all sources	Quantity of Sewage Waste Discharged
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
ANNUAL TOTAL		

Please indicate volumes in cubic metres - 1 cubic meter equals 1000 litres

iv. a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;

v. a list of unauthorized discharges and summary of follow-up action taken;

vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;

vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and

ix. updates or revisions to the approved Operation and Maintenance Plans.

ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

Record of Sampling Data for the Hall Beach Sewage Treatment Facility

Year:

Estimated amount of sewage deposited to the sewage treatment facility over the year (m^3):

Parameters	HAL-4	HAL-5
BOD		
Total Suspended Solids		
Conductivity		
Oil and Grease (Visual)		
Magnesium		
Sodium		
Chloride		
Total Hardness		
Ammonia Nitrogen		
Total Cadmium		
Total Cobalt		
Total Chromium		
Total Copper		
Total Aluminum		
Total Mercury		
Fecal Coliforms		
pH		
Nitrate-Nitrite		
Total Phenols		
Calcium		
Potassium		
Sulphate		
Total Alkalinity		
Total Zinc		
Total Iron		
Total Manganese		
Total Nickel		
Total Lead		
Total Arsenic		
Total Organic Carbon (TOC)		

* Note: Be sure to indicate units of measurement

APPENDIX B

Example of Sampling Instructions from Maxxam Laboratories

Maxxam Analytics Inc

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Please note that all sampling bottles have been pre-charged with their appropriate preservative; please take caution when filling with sample. Please fill each bottle provided, and as written below; each bottle is required for full analysis.

General Sampling Hints:

- Try to handle the opening of the containers as little as possible.
- If you need to set a lid down to take a sample, place the top of the lid down.
- Label bottles before taking samples; bottles won't be wet and it will be easier to write on the labels.

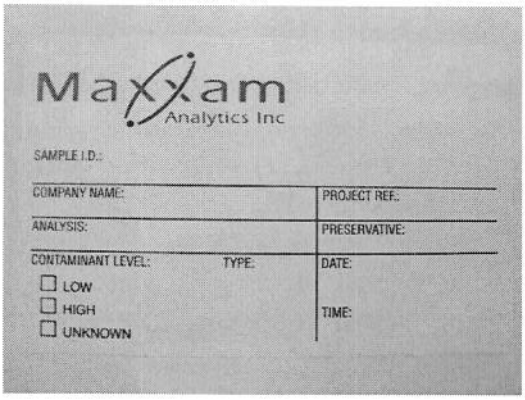
Day Before Sampling:

- Place ice or ice packs in the freezer
- Check flight times to ensure you have enough time to complete the sampling
- Check that you have the correct bottles for each sampling location

Make sure you have the following items before heading out to do the sampling:

- Ice or ice packs to keep samples cool
- Nitrile gloves
- Safety glasses
- Rubber safety boots
- Appropriate work clothing (coveralls that can be washed immediately after sampling)
- Sample bottles
- Cooler
- Permanent marker to label sample bottles

Example Label



Label Explanation

Sample ID – This is where the SNP numbers should be. This may already be filled in for you.

Company Name – This is where you write the name of the Hamlet.

Analysis – This will be the name of the test that the bottle is to be used for. This might be filled in already. If not, look at the next few pages to find out which bottle you have.

Contaminant Level – This should not apply to you.

Project Reference - This will be your Surveillance Network Program Number.

Preservative – This gives information as to what chemical is in the bottle. The bottles should be labeled if there are any preservatives already in them.

Date / Time – These must be filled in for each sample taken, every time. These numbers are extremely important; without them the samples will not be valid and have to be resampled.

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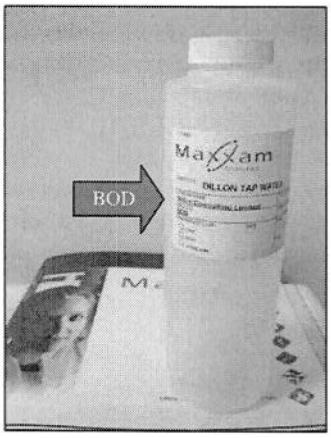
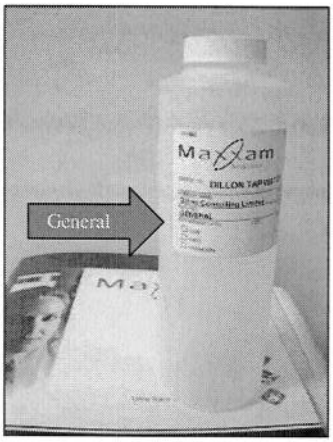
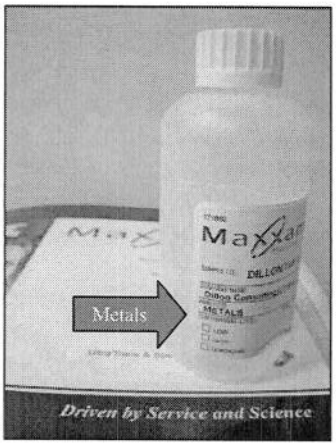


Biological Oxygen Demand – This is a 500mL plastic bottle, labeled as BOD with no preservative. Please fill slowly to the top of the neck with sample.



General Bottle – This bottle will also be a 500mL plastic bottle with no preservative. This container will be used for Alkalinity, Chloride, Conductivity, Hardness, Dissolved Calcium, Dissolved Magnesium, Nitrate, Nitrite, pH, and Sulphate.

Please slowly fill this bottle to the top of the neck with sample.



Total Metals Bottle – 250 mL plastic bottle with an orange preservative (Nitric Acid). Fill slowly to the half way point to ensure acid does not splash out; mix slightly by swirling. Once mixed, fill to the top, place the cap on and tilt back and forth to mix.

The contents of this will be analyzed for total metals; Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, Zn

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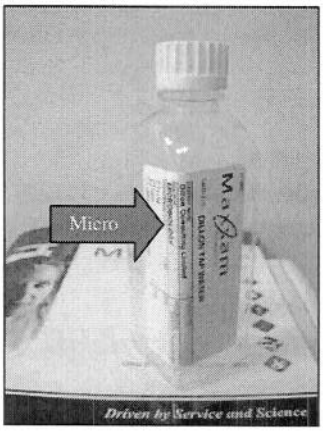
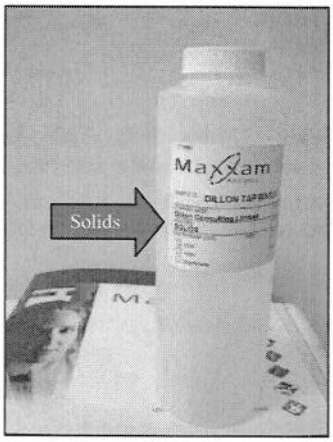


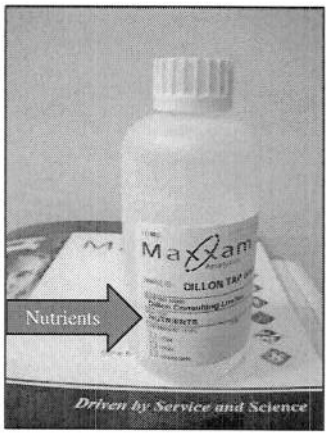
Microbiological Bottle – This is a sterilized, 300mL rectangular bottle with white powdered preservative (Sodium Thiosulphate). Fill slowly to half way point; swirl to ensure preservative is dissolved. Once dissolved, fill fully to the neck place the cap on and tilt back and forth to mix. This is used to test for fecal coliforms.

The sample should be taken on the same day that the samples will be shipped back to the lab. Once the sample is taken, it's only good for 24 hours.



Solids Bottle - This is a 500mL plastic bottle, labeled as SOLIDS with no preservative. Please fill slowly to the top of the neck with sample.

Contents will be analyzed for Total Suspended Solids.



Nutrients Bottle – 250mL plastic bottle with colorless preservative (Sulphuric Acid). Please note that this is a similar bottle to the total metals bottle; this container can only be used for Nutrients. Fill slowly to half point to ensure preservative does not splash out; mix slightly by swirling. Fill to the top of the neck place the cap on and tilt back and forth to mix.

The contents of this bottle will be analyzed for Ammonia-Nitrogen, and Total Organic Carbon.

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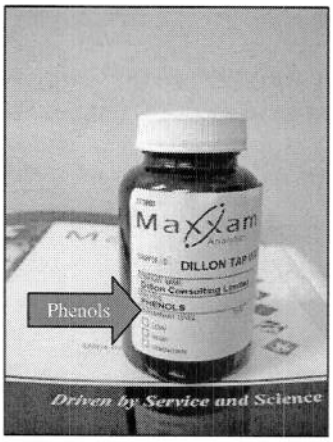
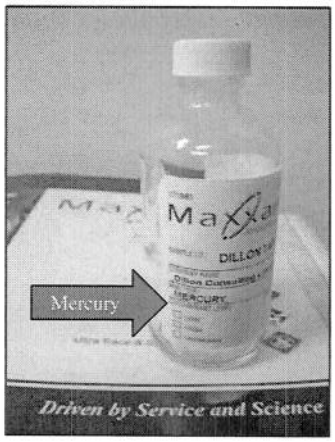
Oil and Grease Bottle – 1L brown amber bottle with colorless preservative (Hydrochloric Acid). Fill slowly to half point to ensure preservative does not splash out; mix slightly by swirling. Fill to the line indicated on the front of the bottle.

The contents of this bottle will be analyzed for Total Oil and Grease.



Phenols Bottle – 120mL stubby brown amber bottle with colorless preservative (Sulphuric Acid). Fill slowly to half point to ensure preservative does not splash out; mix slightly by swirling. Fill to the top of the neck, place the cap on and tilt back and forth to mix.

The contents will be analyzed for Total Phenols.



Mercury Bottle – 125mL clear bottle with yellow/orange preservative (Potassium Dichromate). Fill slowly to half point to ensure preservative does not splash out; mix slightly by swirling. Fill to the top of the neck, place the cap on and tilt back and forth to mix.

The contents will be analyzed for Total Mercury.

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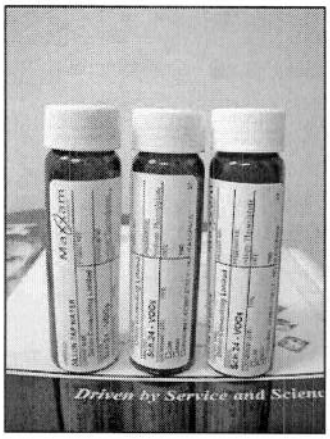
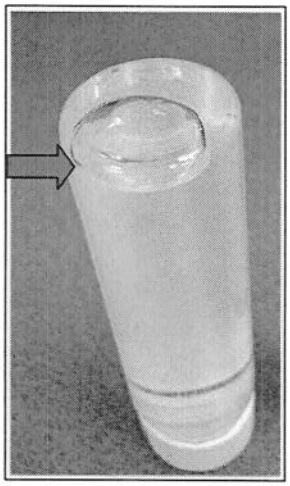


VOC Vials – These are three 40mL brown amber vials with white powdered preservative (Sodium Thiosulphate). All three vials must be filled with NO HEADSPACE; the vial must be filled to just overflowing. Fill slowly to half way point; swirl to ensure preservative is dissolved. Fill all the way to the top so the sample is just overflowing.



Once dissolved, fill to just overflowing.
If inverted, there SHOULD NOT be bubbles as pictured.
(Clear glass used to show bubble)
The contents of the above vials will be tested for Volatile Organic Compounds; VOC's.

Once sampling is completed:

- Pack bottles into cooler with ice or ice packs. Stand bottles upright and pack ice packs around bottles.
- Tape shipping address on top of the cooler. Tape cooler shut with packing tape (place tape over the hinges as well)
- Place "Test Samples" sticker on outside of cooler (if included with the cooler).
- Bring to airport for shipment to lab.
- Call the lab (Edmonton: 780-577-7100; Ottawa: 613-274-0573) to tell them that samples are on the way and give them the flight information.

APPENDIX C

Example of filled out COC Form from Maxxam Laboratories

Maxxam Analytics

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247

Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 465-1212, Fax: (780) 450-4187, Toll free: (877) 465-8889

Chain of Custody

Invoice To: Require Report? Yes ☐ No ☐	
Company Name:	
Contact Name:	
Address:	
Prov:	PC:
Contact #s: Ph:	Fax:

Report To:	
Prov:	PC:
Ph:	Fax:

PO# / AFE#:	
Quotation #:	
Project #:	
Proj. Name:	
Location:	
Sampler's Initials:	

DETECTION LIMIT REQUIREMENTS:

Check the applicable criterion and indicate land use

- ☐ AT1
- ☒ CCME
- ☐ OTHER

REPORT DISTRIBUTION:

EMAIL ADDRESS(S):

SERVICE REQUESTED:

☐ **RUSH** (Please ensure you contact the lab to reserve)

Date Required:

☐ REGULAR Turnaround (5 to 7 Days)

WATERS (footnotes defined on back)

	Sample Identification	Matrix S/W	Date & Time Sampled Year/Month/Day	Routine- Profile: ABRCAP-P	BTEX: Testcode: BTEXHSAB-W	Total Metals, Profile: REGMETW-T	Total Mercury - HGT-W	Oil & Grease by Hexane/Gravimetric - OGH	Ammonia, NH4AC-W	Total Organic Carbon, TOCCOLE-W	Total Suspended Solids - TSS	Total Phenols - PHEN					PAH, PAHMSAB-W	TPHIR		TROUT(screen)	DAPH (screen)				BOD*	Faecal Coliforms*	Oil & Grease Visual (code:OGS)*				*HOLD for 60 Days	# of Containers Submitted
1	**HAL-2**			x	x	x	x	x	x		x	x					x	x							x	x						
2	**HAL-4**			x		x	x		x	x	x	x													x	x	x					
3	**HAL-5**			x		x	x		x	x	x	x								x	x				x	x	x					
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

All samples are held for 60 calendar days after sample receipt. For long term storage please contact your project manager.

Maxxam Job #:

Relinquished By: **Date/Time:**

Sign and Print:

COMMENTS/SPECIAL INSTRUCTIONS:

BOD-hold time 48hrs; Coliforms- hold time 24hrs; OGS- : OGS- sample to lab soon after receipt

# JARS USED & NOT SUBMITTED	Received By	Temperature			Ice
	CUSTODY SEAL YES / NO				

APPENDIX D

Map of Sewage Treatment System and Solid Waste Facilities

EDIT DATE: 08.07.2011 PLOT DATE: 08.07.2011 ACAD FILE: 41\pw_9:\cad\09216\Hall beach\hbdrainage.dwg - FIGURE1

DILLON CONSULTING

PROJECT: SEWAGE AND SOLID WASTE SITES HALL BEACH, NUNAVUT	PROJECT NUMBER: 09-2156
	DATE: JULY 2011
TITLE: SITE MAP AND SNP LOCATIONS	FIGURE NUMBER: FIGURE 1

EDIT DATE: 08.07.2011 PLOT DATE: 08.07.2011 ACAD FILE: 41jpw g:\cad\09216\hall beach\hbdrainage.dwg - FIGURE2

DILLON CONSULTING

PROJECT: SEWAGE AND SOLID WASTE SITES HALL BEACH, NUNAVUT	PROJECT NUMBER: 09-2156
	DATE: JULY 2011
TITLE: SAMPLING LOCATIONS	FIGURE NUMBER: FIGURE 2