



DIAND Nuanvut District
Box 100
Iqaluit, NT
XOA OHO

Your file Votre référence

Our file Notre référence

September 8, 1997

B9545-5-P18

Mrs. Marla Limousin
Senior Administrative Officer
Hamlet of Pelly Bay
Pelly Bay, NT
XOE 1K0



Dear Mrs. Limousin;

Water Management Inspection - Hamlet of Pelly Bay, August 15, 1997

1. Attached for your records is a copy of the inspection report prepared as a result of the inspection carried out on the Hamlet of Pelly Bay on August 16, 1997.
2. The major issues to be addressed is the submission of the application for a Water Licence. Since my inspection in Pelly Bay, I understand that this application has been submitted. Furthermore, I understand that the Nunavut Water Board will have provided you with an updated supplemental questionnaire which they will request you complete.
3. There are other issues that will have to be addressed. These relate to salt water intrusion, the need for warning signs at both the water intake facilities and waste disposal facilities (dump and sewage), the need for the dump to be fenced and sufficient improvements to the retention berm at the sewage lagoon to prevent future failures of the structure. These are generally issues that must be taken up with MACA.
4. One particular issue that the Hamlet must address is the reporting of spills. As was pointed out during the inspection, the lagoon dyke was breached in June. While it was repaired shortly afterwards, no report was made to the Spill Line. For future reference, any spills of sewage, waste oil or other toxic materials that the Hamlet has control over must be reported to the NWT 24-Hour Spill Line. The phone number is (403)-920-8130.
5. The results of water samples collected during the inspection will be provided to you once analysis has been completed.
6. Please pass along my regards to the Hamlet Foreman, Mr. Geaten Apsaktaun, for the assistance he provided during my short visit.

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7. If you have any questions with respect to the Inspection Report, please do not hesitate to contact this office at the above address, or by phone at (819)-979-4405.

Sincerely,



Paul Smith
Water Resources Officer
Nunavut District

cc. - Nunavut Water Board, Gjoa Haven
- DIAND Water Resources Division, YK
- RMO, DIAND, Kugluktuk
- MACA, Cambridge Bay (Kojo Kumi)
- Public Health, YK (Bob Phillips)

Inspection Report

Pelly Bay
Unlicensed

15 August 1997

Water Supply

Note 1- Water Supply is from the Kugajuk River. The Hamlet has concerns with the supply in that the 2 intake lines sit in a 'hole' in the river in about 35 and 40 feet of water. The problem is that in the fall (with low river flow) that high tides have allowed the intrusion of salt water to sit in the 'hole'. Last year the Hamlet had to maintain an open hole in the ice for a period of 7 months in order to obtain fresh water since the truck fill station was unusable. The Hamlet would like to have 5' extensions added to the current intake structure that would effectively raise the level of the intake out of the salt water region. They feel quite strongly that this would allow them access to fresh water during the winter. Thus far, MACA has yet to address the situation to the Hamlet's satisfaction and freeze-up is now only weeks away. The Hamlet has also requested a salt water intrusion alarm to be installed at the pumphouse should sea water be encountered.

By copy of this inspection report, MACA is strongly urged to address this most unacceptable situation prior to freeze-up. It is understood that MACA's concern is that the upwards extension of the intake will not solve the situation because if the river freezes upstream and downstream (where it is more shallow) the captive water remaining between the surface ice and salt water below will not be of sufficient volume to meet the overwinter needs of the community. As obviously the present situation is completely unacceptable, and has been for years, the Hamlet's suggestions hold a great deal of merit. The improvements are low cost and if the captive volume of fresh water is insufficient and they must once again draw water via a hole in the ice, then at least the period of time that they would have to do so would be drastically reduced.

Waste Disposal

Note 2 - Solid Waste - The dump is a well contained, well run site. It is bordered by bedrock and an earthen berm. The Hamlet Foreman has also made a small diversion ditch to channel run-off water away from the dump. The site needs fencing and warning signs. The problem this past year is that on the advice of the Environmental Health Officer (EHO), the dump has not been burnt for a year. Since the facility is unfenced and there is a shortage of granular material for cover, unburnt garbage has quickly accumulated and has been scattered by the wind. This material needs to be picked up and burned or buried with the rest of the dump.

Note 3 - Sewage - There was a dyke failure in June. It has been repaired, but no improvements were made that would prevent it from happening again. There should be an overflow pipe/armoured trench installed. Treatment appears to be very good judging from the appearance of the effluent, which was very clear, within 200 m from the discharge point.

Discharge from the lagoon is facilitated by what appears to be a seepage berm (i.e. liquid fraction flows through the berm). The site needs a warning sign at the disposal site and below the discharge point. Any breaches in the sewage lagoon dyke that results in sewage escaping must be reported to the 24-Hour Spill Line @ (403)-920-8130. The Foreman was concerned with the situation and felt that he would have to burn the dump in order to regain some control over its operation. The Inspector spoke to the EHO about the predicament that the Hamlet had been placed in (one GNWT Department telling them not to burn and another GNWT Department (MACA) not being able to provide funding for additional granular material for sufficient cover) and indicated that the present situation was not suiting the communities waste disposal needs well (there is no law that prohibits the burning of municipal waste). This being the case, the Hamlet's dump is likely to be burnt, consolidated and covered with granular before winter sets in.

Other than this, the dump has been run very effectively. Waste oil is segregated and palletized. The Hamlet is still in the process of determining the suitability of cost sharing a waste oil furnace with NTPC (they want NTPC to operate the equipment). The Hamlet does not want to assume the liability of the furnace because most likely there is only enough waste oil to last one year and production rates are not sufficient to ensure operation year round. The unit is high maintenance and the Hamlet only considers it worthwhile if NTPC will be responsible for maintenance.

It is also standard practice for people of Pelly Bay to bring many of their old (car) batteries to the Hamlet Garage (not to the dump). The Hamlet is keeping all batteries separate until an acceptable means of disposal can be determined.

General Comments

Additional comments relate only for the need of warning signs at the water supply and waste disposal facilities.

Water samples collected included raw water, sewage effluent. A sample of creek water was collected for the Environmental Health Officer (Bob Phillips) who was on-site at the time of the inspection.

During the post-inspection discussion various topics were discussed with the SAO, Marla Limousin. Because the Supplemental Questionnaire initially released by the Nunavut Water Board was deemed to be inappropriate, Mrs. Limousin was advised to complete and submit the application for the water licence and then complete the new questionnaire when it is developed and provided to the Hamlet.

End

MUNICIPAL WATER USE INSPECTION FORM

D 15 August '97 COMPANY REP: Gaetan Apaktau (Hamlet Foreman)
 LICENSEE: Hamlet of Pelly Bay LICENCE #: Unlicensed

WATER SUPPLY

Source (s): Kugajuk River Quantity Used (to date): ~ 11,000 m³/year
 Owner/Operator: GNWT / Hamlet (estimate or actual)

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Intake Facilities: Note 1 Storage Structure N/A Treatment Systems A Chem. Storage A
 Flow Meas. Device A Convey. Lines N/A Pumping Stations A

Comments: See comments on next page regarding
salt water intrusion.

WASTE DISPOSAL

Sewage Sewage Treatment System (primary, secondary or tertiary) Probably Secondary in Summer
 Natural Water body lagoon Continuous Discharge (land or water) _____
 Seasonal Discharge yes Wetlands Treatment some Trench _____
 Solid Waste: Owner/Operator: GNWT / Hamlet
 Landfill Note 2 Burn & Landfill _____ Other _____

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Disch. Quality A Decant Structure Nil Erosion Note 3
 Disch. Meas. Dev. N/A Dyke Inspection Nil Seepages Note 3
 Dams, Dykes Note 3 Freeboard Nil Note 3 Spills Note 3
 Construcion N/A O & M Plan Nil A & R Plan Nil

Periods of Discharge: Spring - Fall Effluent Discharge Rate: Unknown

Comments: All spills must be reported to the NWT 24 Hour
Spill Line - 403-920-8130.

FUEL STORAGE

Owner: GNWT Operator _____ Condition of Tanks _____
 Berms & Liners _____ Water within berm: _____ Evidence of Leaks: _____
 Drainage Pipes _____ Pump Station and Catchment Berm _____
 Pipeline Condition _____ Not Applicable: ✓

SURVEILLANCE NETWORK PROGRAM

Samples Collected: (Hamlet) Nil
 (DIAND) Raw water, sewage effluent, & creek water
 Posted: SNP N/A Warning Required at water supply
 Record & Reporting Nil and waste disposal

Geotechnical Inspection: Nil

Non-Compliance of Act or Licence: Hamlet is unlicensed. Licensing
issues were discussed w/ SAG

Licensee Representatives Title

N/A
 Licensee Representatives Signature

Page 2 attached Yes ✓ No _____

Paul Smith
 Inspectors Name

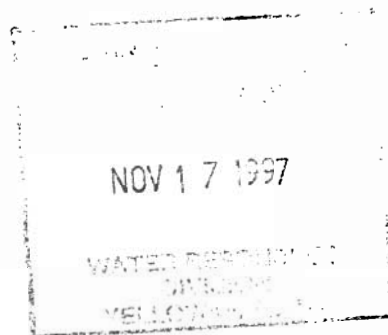
Paul Smith
 Inspectors Signature

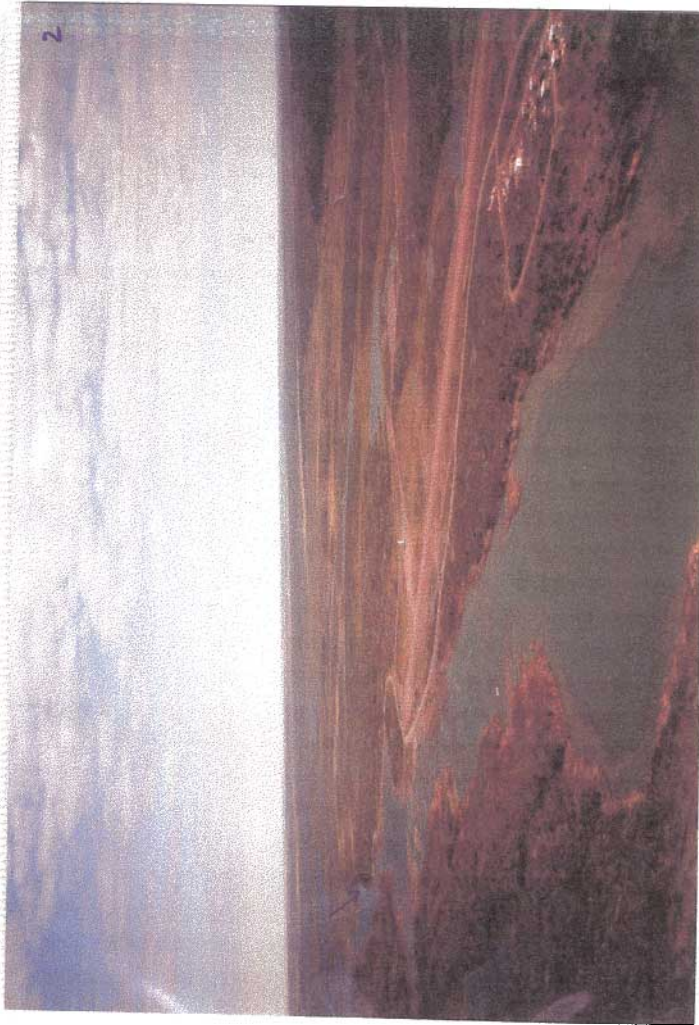
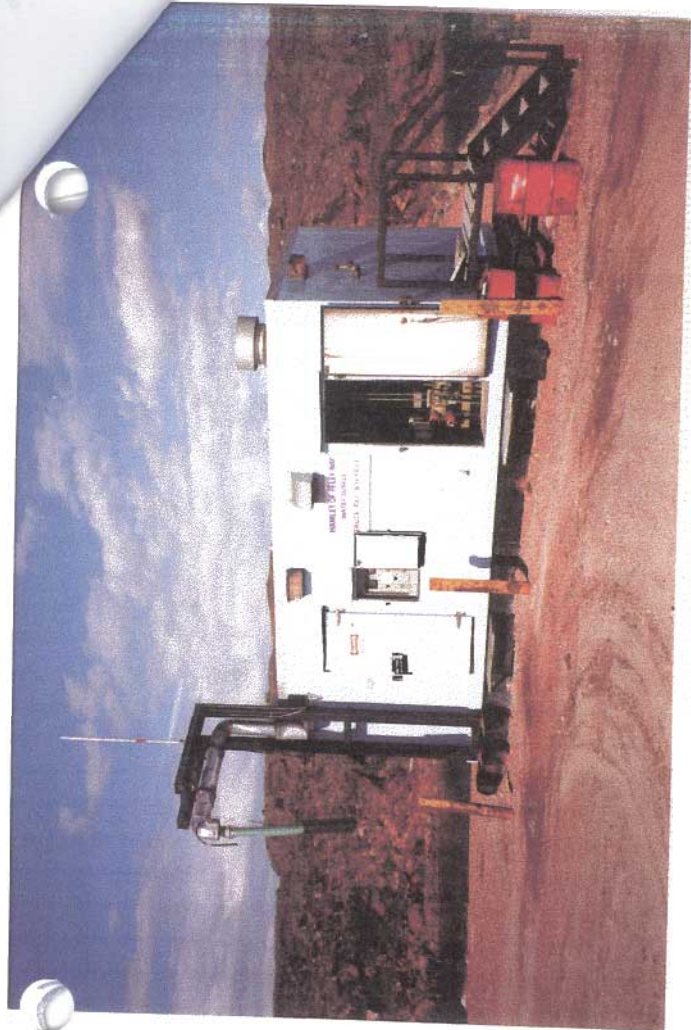
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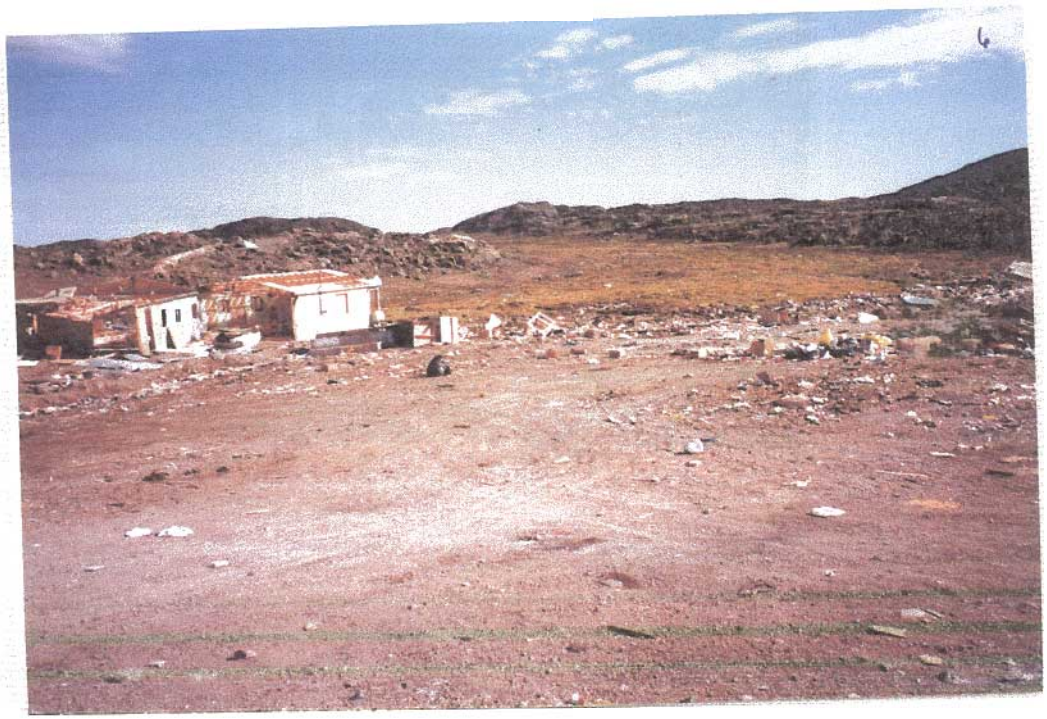
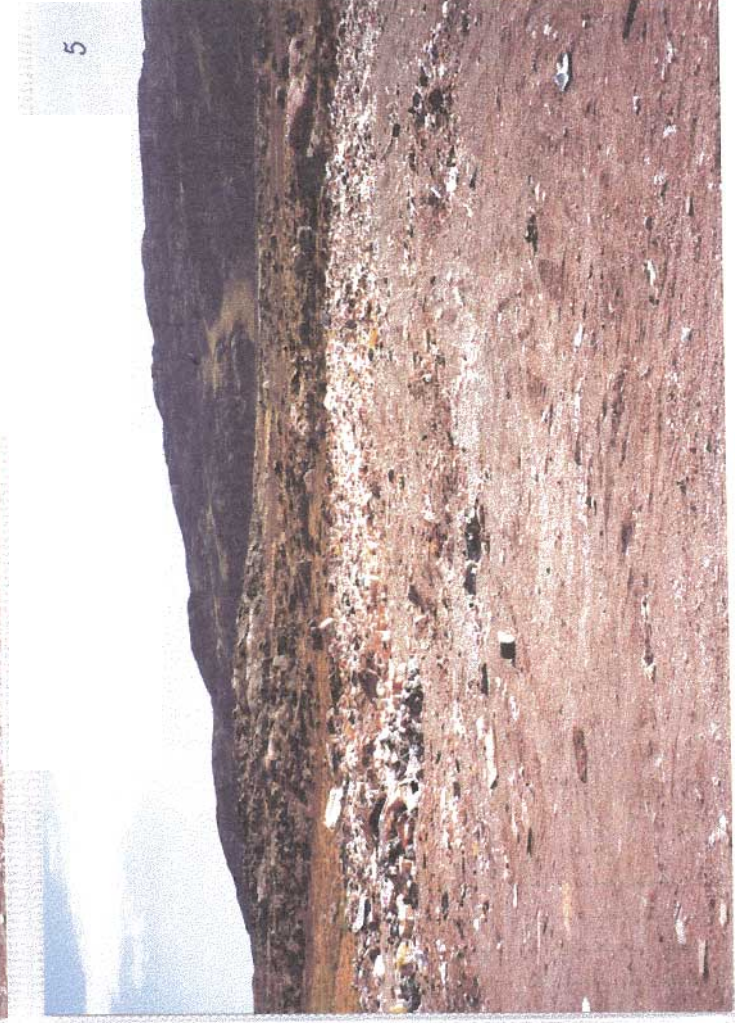
Pelly Bay - August 15, 1997

1. Truckfill station.
2. Aerial view. Arrow denotes location of truckfill station on river.
3. Creek where people go to collect water. Public Health had taken an interest in this source.
- 4-6. Waste disposal site. Accumulated garbage is due to Public Health's direction to the Hamlet not to burn the dump.
7. Trench to divert runoff water from entering the dump.
8. Waste oil - stacked and palletized.
9. Bulky metal disposal site.
- 10-14. Views of sewage disposal area. Note in 11+12 (arrow) an area of repair as lagoon washed out in June of last year. Photo 13 shows 'wetlands' area below lagoon. Photo 14 is reverse view.
15. Aerial view of community and waste disposal facilities (to show relative distances). Solid waste is on the left, sewage on the right.



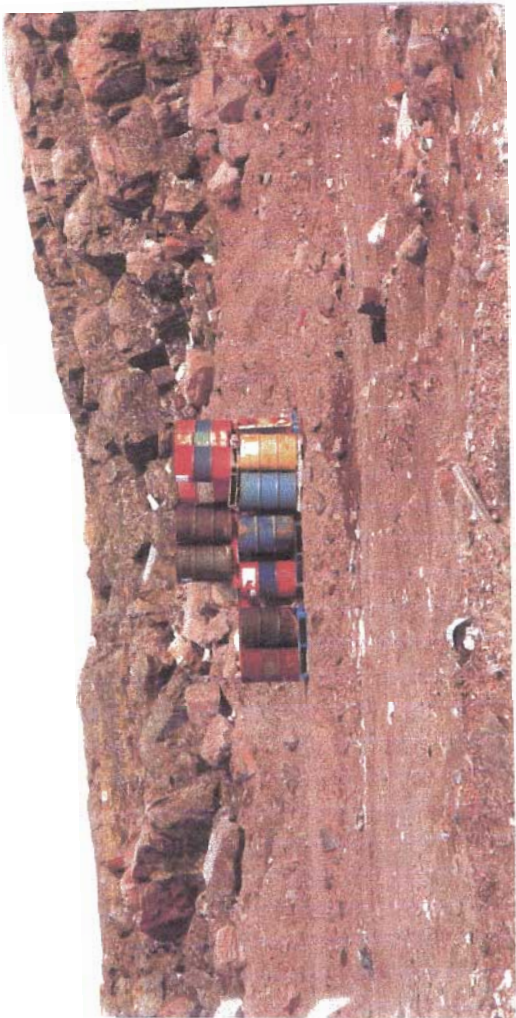


Pelly Bay
15 Aug '97





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