



Shawn Stuckey  
Senior Administrative Officer  
Incorporated Hamlet of Tuktoyaktuk  
P.O. Box 120  
Tuktoyaktuk, NT, X0E 0T0

November 25, 2021

Dear Mr. Shawn Stuckey,

**Re: Request to accept fluid and ice from IPC M – 18 Drill Sump**

The request for an Emergency decant of the Hamlet of Tuktoyaktuk's sewage lagoon was made due to erosion issues on the retention berm and less than 1m of available freeboard. The results of the SNP pre – decant sample showed an elevated pH (10), which exceeded water license criteria. After review of photos provided by the Hamlet of the full lagoon and evidence and gulying (cracks) in the retention berm, the Inspector authorized an Emergency decant to prevent the collapse of the facility berm and in order to avoid an uncontrolled release from the lagoon.

The request from Inuvialuit Petroleum Corporation (IPC) to deposit liquid and ice from the M – 18 drill sump into the Hamlet's lagoon system has been denied by the Inspector due to facility structural integrity ( i.e. potential of the collapse of the retention berm) and facility capacity (i.e. spring melt surface run – off may overflow the lagoon). To summarize, the request from IPC to deposit into the Hamlet of Tuktoyaktuk's lagoon will be denied due to the following:

- 220 m3 or 22,000 litres of effluent will decrease available freeboard and holding capacity in a lagoon that was at capacity this fall.
- With spring freshet, this added volume will increase the chances of an uncontrolled release.
- With erosion of the berm which resulted in the Emergency decant fall of 2021, this added volume may cause the berm structure, or integrity of the berm to collapse causing an uncontrolled release of a contaminant.
- PH in the lagoon facility prior to the Emergency decant exceeded the water license criteria of a pH between 6 – 9.
- The water license effluent quality criteria states that the lagoon should have no visible sheen. The drilling sump effluent, even though below criteria, may produce a visible sheen.
- Although the requested industrial effluent meets Industrial Waste Discharge guideline criteria for inputs to Municipal Sewage Systems, it is not known if contaminants from the drill sump effluent will have an effect on lagoon chemistry and overall functioning.
- Many parameters in the analytical results provided by IPC exceeded CCME Water Quality Guidelines for the Protection of Aquatic Life
- The lagoon was established for sewage and grey water only, not industrial waste discharges.



If you have any questions with regard to the above, please don't hesitate to contact me.

Sincerely,

Lloyd Gruben  
Water Resource Officer  
Inuvik Region  
Department of Environment and Natural Resources  
Ph: (867) 678 – 6652  
Cell: (867) 678 – 0623  
Fax: (867) 678 – 6699  
[www.gov.nt.ca](http://www.gov.nt.ca)

cc:

Ernie Francis – A/Manager, Wildlife & Environment  
Mardy Semmler – Executive Director – Inuvialuit Water Board  
Bijaya Adhikari – Science and Regulatory Coordinator – Inuvialuit Water Board  
Wendy Bidwell – Senior Water Resource Officer – Environment & Natural Resources