



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative
Department Of National Defence	Andrew Tam
Licence No. / Expiry	Representative's Title
3BC-ALT1015	Assistant 8 Wing Environment Officer
Land / Other Authorizations	Land / Other Authorizations
Date of Inspection	Inspector
06/29/2015 to 07/01/2015	Atuat Shouldice
Activities Inspected	
<input type="checkbox"/> Camp	<input type="checkbox"/> Drilling
<input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Mining
<input checked="" type="checkbox"/> Other: Water Discharge	<input type="checkbox"/> Construction
	<input type="checkbox"/> Reclamation
	<input checked="" type="checkbox"/> Fuel Storage
	<input checked="" type="checkbox"/> Other:Water use

Conditions:	A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected
Water Use	Condition	Comment	Site Conditions	Condition	Comment
Intake/Screen	A		Water Management Structures	A	
Flow Measure. Device	A		Culverts / Bridges	A	
Source:	A		Drainage	A	
Water Use:	C	1	Erosion / Sediment	C	3
Recirculation (y /n)	Y		Mitigation Measures	A	
			Reclamation Activities	A	
			Materials Storage	A	
			Signage	A	
Waste Disposal					
Waste Water	C	2			
Solid Waste	A		Monitoring		
Hazardous Waste	A		Sample Collection / Analysis	A	
*The number in the comments field will correspond with specific comments provided below.					
Samples taken by Inspector:			Location(s): Alert		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					

SECTION 1	<input type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
A compliance inspection was conducted between the days of June 30 th and July 2 nd 2015, Inspectors Atuat Shouldice and Eva Paul were accompanied by Assistant 8 wing environmental office Andrew Tam.			
SECTION 2	<input checked="" type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
Water Use: 1			
Fresh water is recirculated in a continuous loop in order to prevent pipes from freezing during the winter. When water used for recirculation purposes is taken into consideration, water use levels are over 300m3 per day, thus over the allocation under the 3BM-ALT1015 Type B water license which expired in July 31 st 2015. To correct this situation, we received confirmation from Mr. Tam that Alert has applied for a Type A license.			
Wastewater:2			
The sewage terrace system is located on a steep slope. The available construction material (crushed shale) does not appear to be sufficient to build terraces that can withstand the flow of the sewage, compounded with the natural freshet runoff and the buildup of effluent over winter. The terraces are not holding as constructed: despite past repairs to the terraces, multiple breaches and erosion channels are present. On occasion, effluent does not follow the intended terrace path; much of it is running nearly straight down-hill in multiple free-flow channels. Past attempts to install silt curtains have also been ineffectual. Attempts to repair the terraces involve heavy equipment, which further destabilizes the slope by compromising the limited organic layer, and adds to the sediment loads. Given this situation, it is not surprising that high levels of Total suspended solids (TSS) are consistently reported. During the course of this inspection, samples were taken at the location where sewage enters the lake. The TSS levels at that sampling location were 270mg/L, while the allowable concentration under the water licence is 70mg/L. Further analysis of TSS (by subtracting VSS) shows that TSS is largely inorganic, in essence it is sedimentation caused by the system, not food or sewage left remaining in the effluent. Whether the primary problem is the construction material available, or the grade of the hill on which it is constructed, the inspector requests that a plan be provided that will describe how the proponent intends on dealing with the total suspended solids levels that have shown to be consistently higher than the criteria set in the water license.			
Section 3 Action required.			



Site Conditions:3

Inspector noted that a number of places around site had problems with erosion. This was evident through bodies of water around site that had visible suspended solids. Given the type of gravel material used around site this could result in high suspended solids. The proponent shall take all necessary measures to minimize erosion in all areas onsite.

Haz/Mat Management: 4

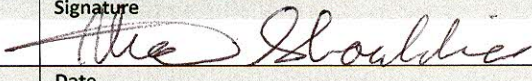
Hazardous material generated on site is collected and shipped out. Contaminated soil is treated in landfill at ALT-10 and plans to complete a lined landfarm adjacent to the millionaires dump has been put on hold. Two spills reported to the Nunavut spill line were closed during inspection. Spill #14448 spill #13294

Administrative :5

During the writing of this inspection report licence 3BC-ALT1015 had expired. Andrew Tam had informed inspectors that an application has been submitted for a Type A licence.

SECTION 3 ☐ **Comments (s. __)** ☐ **Non-Compliance with Act or Licence, (s. __)** ☒ **Action Required (s. __)**

Wastewater – The inspector requests that a Compliance Plan be provided that will provide details on how the proponent intends on coming into compliance with the elevated TSS levels observed at the terrace system sewage outfall. This Compliance Plan shall be provided on or before March 31st, 2016.

Licensee or Representative	Inspector's Name Atuat Shouldice
Signature	Signature 
Date	Date Jan 9 th 2016

Office Use Only: Follow-up report to be issued by Inspector ☐ Yes ☒ No