



P.O. Box 119  
Gjoa Haven, NU X0B 1J0  
Tel: (867) 360-6338  
Fax: (867) 360-6369

ᓄᓇᓂᓪ ᐃᓕᓕᓂᓪ ᑲᓂᓕᓂᓪ  
NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

---

File: 1BR-SIM0813 Amendment No.1

June 17, 2010

Natalie Plato  
Director, Contaminated Sites  
Indian and Northern Affairs Canada  
P.O. Box 2200  
Iqaluit, NU X0A 0H0  
Email: [natalie.plato@inac-ainc.gc.ca](mailto:natalie.plato@inac-ainc.gc.ca)

**RE: 1BR-SIM0813 Type "B" – Amendment No.1**

Dear Ms. Plato:

Please find attached, Amendment No.1 to Licence No. 1BR-SIM0813 Type "B" issued to Indian and Northern Affairs Canada, Contaminated Sites by the Nunavut Water Board (NWB) (**Motion 2010-11-L01**) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada and the Nunavut Waters and Nunavut Surface Rights Tribunal Act*. The terms and conditions of the original Licence related to water use and waste disposal remain an integral part of this approval.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration.<sup>1</sup>

Sincerely,

Thomas Kabloona  
Nunavut Water Board Chair

TK/dc/ip

Enclosure: Licence No. **1BR-SIM0813 - Amendment No.1**  
NIRB/Comments

Cc: Kitikmeot Distribution List

---

<sup>1</sup> Indian and Northern Affairs Canada – Water Resources, February 15, 2010; Environment Canada, February 5, 2010 and Government of Nunavut – Department of Culture, Language, Elders and Youth, January 14, 2010.

## LICENCE AMENDMENT No. 1

---

<b>Licensee:</b>	<b>Indian and Northern Affairs Canada – Contaminated Sites</b>	
<b>Licence No:</b>	<b>1BR-SIM0813</b>	<b>Type “B”</b>
<b>Licence Issued:</b>	<b>November 25, 2008</b>	
<b>Amendment Effective Date:</b>	<b>June 17, 2010</b>	

---

Pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, with respect to the application for amendment dated November 16, 2009, made by Indian and Northern Affairs Canada – Contaminated Sites (INAC – Contaminated Sites), the Nunavut Water Board hereby grants the following Licence amendment.

The Licence issued November 25, 2008 with an expiry date of November 30, 2013 shall be amended to include the following terms and conditions, with respect to use of water and deposit of waste during camp operations and the implementation of a remedial action plan, to allow INAC – Contaminated Sites, to change the location of the CAM-D Simpson Lake remediation camp, water source and monitoring stations. The Licensee is also upgrading the sewage treatment process at the CAM-D location to a mechanical system. In addition, the Licensee has identified the need to use a second small temporary Mobilization Camp near the CAM-3 Shepherd Bay site, for the purpose of marshalling materials and supplies during mobilization and demobilization activities. The CAM-D Simpson Lake Intermediate Distant Early Warning Line site is located within the Kitikmeot Region, approximately at latitude 68°35'N and longitude 91°57'W.

### **Camp Location**

The camp location has changed from near Freshwater Lake to north of the unnamed tributary to the Murchison River near Borrow Area #2. The site description is detailed in Figures 1 and 2 of the modification requested later dated October 14, 2009 that was included in the amendment application.

### **Water Use**

The Licensee has applied for a change in water source location, from the Freshwater Lake, Water Supply Lake located near the previous camp location and Simpson Lake, to an unnamed tributary to the Murchison River for the new camp location near Borrow Area #2 as identified in the application information. Freshwater Lake will remain as a water source backup for the possibility of the unnamed tributary being unable to support the camp needs.

Water supply for the temporary Mobilization Camp and winter Cat Train activity, located near the CAM-3 site, will be the Water Supply Lake associated with the Department of National Defence, Defence Construction Canada at CAM-3 as indicated on the map “CAM-3 Shepherd Bay Final” included with the amendment application. The Board has been satisfied the

### **Sewage Treatment and Disposal**

The Amendment includes changes to the on-site sewage treatment. Twin Sewage Lagoons will no longer be used and at the new campsite a KODIAK BIONEST treatment unit will be used. The mechanical treatment unit is designed to treat sewage to standards that will meet the NWB discharge limits. NWB discharge limits are based on sewage eventually being received by the Murchison River and with a design flow of 150 - 600 litres per capita per day from the Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories, 1992.

### **Operations and Maintenance**

The Licensee submitted, along with the application information, an Operators Manual for the KODIAK BIONEST treatment. This is not considered a submission as required under Part F, Item 2, 3 and 4 of the Licence. As the NWB requires a comprehensive O&M Manual under this part, the Licensee is still required to submit the Manual that is inclusive of the Sewage Disposal Facility as part of this Amendment.

### **Quality Assurance/Quality Control (QA/QC)**

The NWB has noted that a Quality Control and Quality Assurance Plan (QA/QC Plan) is required under Part K, Item 9. Under Part K, Item 10, the Board requires an addendum to the QA/QC Plan taking into account changes in operation/technology, and submit for review of the Board as required with the Annual Report.

## **PART A: SCOPE, DEFINITIONS AND ENFORCMENT**

### **2. Definitions**

**“Sewage Disposal Facility”** comprises the KODIAK BIONEST treatment unit designed to treat sewage as described in the amendment application filed by the Licensee and dated November 16, 2009;

**“Water Supply Facilities”** means the unnamed tributary to the Murchison River near the main camp located near Borrow Area #2 for the CAM-D project, Freshwater Lake and the Water Supply Lake associated with the CAM-3 project, to be used as a camp water source for the Mobilization Camp located adjacent to the CAM-3 project, along Shepherds Bay, and associated infrastructure designed to collect and supply water;

## **PART C: CONDITIONS APPLYING TO WATER USE**

### **Amend Item 1**

1. The Licensee shall obtain water for the main CAM-D camp and barrel rinsing from the unnamed tributary to the Murchison River, proximal to Borrow Area #2 or Freshwater Lake, up to a maximum of eighteen (18) cubic metres per day. The Licensee shall obtain

water for the Shepherd Bay Mobilization Camp for the CAM-3 Water Supply Lake up to a maximum of two (2) cubic metres per day.

**PART D: CONDITIONS APPLYING TO WASTE DISPOSAL**

Amend Items 6, 7, 8 and 10

6. The Licensee shall direct all sewage from the CAM-D Camp to the Sewage Disposal Facility for treatment prior to discharge to the environment at Monitoring Station SIM-2.
7. The Licensee shall dispose all toilet wastes from the CAM-3 Camp by incineration, chemical or composting toilets. Any remaining residue generated through the course of the operation shall be backhauled and disposed of in an approved waste disposal site.
8. The Licensee may dispose all grey water from the CAM-3 Camp by depositing into a properly constructed sump located at a distance of at least thirty (30) metres from the ordinary high water mark of any water body, at a site where direct flow into a water body is not possible and no additional impacts are created, unless otherwise approved by the Board in writing.
10. All waste discharged from the Final Discharge Point of the Sewage Disposal Facility at Monitoring Program Stations SIM-2 shall not exceed the following effluent quality limits:

PARAMETER	MAXIMUM CONCENTRATION OF ANY GRAB SAMPLE
BOD <sub>5</sub>	120 mg/L
Total Suspended Solids (TSS)	180 mg/L
Fecal Coliforms	100,000 CFU/100mL
pH	6.0 to 9.0
Oil and Grease	no visible sheen

**PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

Amend Items 1 and 2

1. The Board has approved the Plan entitled "Spill Contingency Plan, CAM-D DEW Line Environmental Remediation, Simpson Lake, Nunavut" dated September 2009 that was submitted as additional information with the amendment application.
2. The Licensee shall, within thirty (30) days following issuance of the amendment, submit to the Board for review, an addendum to the approved Plan under Part H, Item 1 that addresses the following:

- a. Include an effective period for the Plan;
- b. Include site maps of appropriate scale that details the CAM-3 Camp and the CAM-D Camp, along with structures, fuel storage facilities, spill kits, waste discharge locations and local topography in relation to nearby water bodies;
- c. Section 5.4.1 includes procedures to leave contaminated tundra in place with peat moss. This is not an acceptable treatment method as contaminants may leech into groundwater or nearby water bodies. This section shall be updated with the appropriate treatment and disposal information for contaminated tundra;
- d. In the event of a Spill, notify INAC Manager of Field Operations at 867-975-4295 following notification to the 24 hour Spill Report Line;
- e. MSDS's should be current within 3 years; and
- f. Update Appendix 2 to the NT/NU Spill Report Form (available on ftp site).

**PART K: CONDITIONS APPLYING TO THE MONITORING PROGRAM**

**Amend Item 1**

1. The Licensee shall maintain Monitoring Program Stations at the following locations:

<b>Monitoring Program Station Number</b>	<b>Description</b>	<b>Status</b>
SIM-1	Raw water supply intakes of the Water Supply Facilities	Active (Volume)
SIM-2	Final Discharge Point from the Sewage Disposal Facility	Active (Volume and Water Quality)
SIM-3	Final Point of Discharge from the Waste Handling Facility.	Active (Water Quality)
SIM-4	Final Point of Discharge from the Non-Hazardous Waste Disposal Facility.	Active (Water Quality)

**Amend Item 2**

2. The Licensee shall measure and record in cubic metres, the daily quantities of water utilized for camp operations, for all purposes at the intake of each source for the Water Supply Facilities, Monitoring Program Station SIM-1.

**Amend Item 6**

6. The Licensee shall monitor compliance with respect to Part D, Item 10, by collecting a representative composite sample once monthly during periods of discharge, from the Final Discharge Point of the Sewage Treatment Facility, Monitoring Program Station SIM-2.

**All remaining terms and conditions of the Type "B" Licence 1BR-SIM0813 dated November 25, 2008 still apply.**

This Licence Amendment issued and recorded at Gjoa Haven, NU on June 17, 2010.

Approved by,



---

Thomas Kablona  
Nunavut Water Board Chair