

**FINAL REPORT ON THE RECLAMATION OF THE WEST AIRSTRIP LANDFILL**  
**December-20-08**

**PREAMBLE**

This report applies to the West Airstrip Landfill (latitude 79° 59' 51" N, longitude 85° 51' 8" W) located in Eureka, NU (latitude 79° 59' 41" N, longitude 85° 48' 48" W) and is a requirement of subsection I.7 of the Nunavut Water Board Licence No. **3BC-EUR0611**.

The following formal distribution will be made of this report:  
Nunavut Water Board  
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**INTRODUCTION**

The West Airstrip Landfill is located at the west end of the air strip. It is an abandoned (closed) landfill and its surface is capped. Based on observations of the site prior to full capping of the site and geophysical data, the site is believed to contain mostly domestic waste and fuel drums.

**RECENT ACTIVITIES**

- Additional cover material was placed on exposed areas in the summer of 2008

**RECENT MONITORING ACTIVITIES**

**1995** (Detailed Site Characterization and Monitoring at the Abandoned Landfill, Eureka, NWT, PWGSC, November 1995)

- Samples were collected downgradient from the landfill and along the drainage channel leading from the landfill to the ocean
- Samples were analyzed for PCB's, PHC's and metals.

**2007** (Eureka High Arctic Weather Station, Geophysical Investigation, Eureka, NU, May 2008, EBA Engineering Consultants Ltd, Edmonton, AB)

- Samples were collected from the landfill and analyzed.

**2007** (Characterization of Contaminated Sites at CFS-Alert and CFS-Eureka, Nunavut, NRC, 2007)

- Two (2) soil samples were collected in 2006, from a depth of 40 cm and tested for metals and TPH.

## RESULTS OF MONITORING ACTIVITY

### **1995**

- Concentrations of parameters analyzed were all below DEW Line Tier I and II Criteria
- Concentrations of selenium were below the CCME Soil Remediation Criteria for commercial/industrial land use.
- West Landfill is located in a suitable, stable location with no evidence of contaminated leachate.
- Full closure of the landfill and monitoring of landfill cover freeze-back was recommended

### **2007 (EBA)**

- The landfill is completely re-vegetated.
- Sampling showed no evidence that the west airstrip landfill is leaching contaminants.
- This landfill is located in a relatively stable location with limited receptors.
- Additional fill should be placed over the entire area.

### **2007 (NRC)**

- No contaminants were found to exceed the CCME criteria.

## LONG-TERM MONITORING NEEDS

The above results indicate that the site is no longer releasing contaminants and therefore, operational monitoring is no longer required.

Notwithstanding, EC will inspect the site yearly for

- settling of cover material
- cave-ins

and re-grade it, if necessary, to prevent the creation of standing water.

In addition, the vegetation will be monitored to ensure that it continues to grow and cover the site. Finally, the drainage path ways will be maintained if required.

## **Appendix A:**

Detailed Site Characterization and Monitoring  
At the  
Abandoned Landfill, Eureka, NWT  
*PWGSC November 1995*

## **Appendix B:**

Eureka High Arctic Weather Station  
Geophysical Investigation  
Eureka, NU  
*May 2008, EBA Engineering Consultants Ltd*

## **Appendix C:**

Characterization of Contaminated Sites at  
CFS-Alert and CFS-Eureka, Nunavut  
NRC 2007