

NWB Annual Report

Year being reported:

2014

License No: 1BR-SIM0813

Issued Date: November 25, 2008

Expiry Date: November 30, 2013

Project Name: CAM-D Simpson Lake Remediation Project

Licensee: Aboriginal Affairs and Northern Development Canada (AANDC)

Mailing Address:

PO Box 2200
Iqaluit, NU
X0A 0H0

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

General Background Information on the Project (*optional):

CAM-D Simpson Lake, a former Distant Early Warning (DEW) Line site, is located on the Boothia Peninsula between Shepherd Bay and Pelly Bay, Nunavut. The nearest communities are Taloyoak (120 km northwest), Gjoa Haven (100 km west) and Kugaaruk (80 km east). The DEW Line site was in operation from 1957 to 1963 after which the site was abandoned.

Remediation commenced at the site in 2010 and was completed in March 2012. The materials destined for southern disposal were sent to CAM-3 via cat train in March 2012 and final demobilization from CAM-3 to southern disposal sites occurred September 2012. To contain the soils and waste left on site, a non-hazardous waste landfill (NHWL) was constructed. In 2011, four groundwater monitoring wells were installed around the perimeter of the NHWL and the landfill was closed.

As per departmental commitments to monitor the CAM-D NHWL post-closure, a long term monitoring program was initiated at CAM-D in August 2012. The first two monitoring events of the 25-year long term monitoring at CAM-D were completed in August 2012 and August 2014. Long term monitoring activities undertaken at the site on August 23, 2014 included visual and natural environment monitoring along with soil and groundwater sampling around the perimeter of the landfill.

The attached report *Long term Monitoring, 2014 CAM-D, Simpson Lake, Nunavut* provides more details and results of the monitoring activities undertaken in 2014.

Licence Requirements: the licensee must provide the following information in accordance with

Part B

Item 1

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):	4 groundwater monitoring wells were sampled	
Water Quantity:	20/day	Quantity Allowable Domestic (cu.m)
	<0.025/day	Actual Quantity Used Domestic (cu.m)
	N/A	Quantity Allowable Drilling (cu.m)
	N/A	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- ☒ Solid Waste Disposal
☐ Sewage
☐ Drill Waste
☐ Greywater
☐ Hazardous
☐ Other:

Additional Details:

The Long Term Monitoring team visited the site August 23, 2014. As per attached 2014 CAM-D Simpson Lake Long Term Monitoring Report, water samples were taken from groundwater monitoring wells to confirm the non-hazardous landfill is performing adequately.

No sewage or grey water were generated during the 2014 long term monitoring event. Solid wastes generated during the monitoring event (< 0.5 m³) were collected and removed from the site at the completion of monitoring activities.

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: (as reported to the Spill Hot-line)
 Date of Spill:
 Date of Notification to an Inspector:
 Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed ▼

Additional Details:

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed ▼

Additional Details:

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

WORK COMPLETED

Long Term Monitoring

- Years 1 and 3 of the long term monitoring program were completed in August 2012 and August 2014 respectively.
- During the 2014 event, 5 groundwater samples including 1 field duplicate were collected from 4 monitoring wells around the NHWL.
- Concentrations of contaminants of concern in groundwater samples were below the upper limit of acceptability when compared with historical results with the exception of some metals at MW1. Concentrations of nitrate and nitrate+nitrite surpassed the upper limit of acceptability in MW2 and MW3. Given the site conditions and location of the NHWL in relation to surface water bodies (none in the near vicinity), it is believed these concentrations are not a concern at this time.
- The wells will continue to be monitored to see if any elements of concern continue to be above average levels .

FUTURE WORK PROPOSED

Long Term Monitoring

- Started in 2012, continues until 2036
- Year 5 of the 25-year long term monitoring plan is scheduled for August 2016
- Future events, if warranted, will occur in 2018, 2021, 2026 and 2036

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Details attached

Additional Details:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Not Applicable (N/A)

Additional Details:

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

No inspection and/or compliance report issued by INAC ▼

Additional Details: (Dates of Report, Follow-up by the Licensee)

Any additional comments or information for the Board to consider

Following analysis of data collected during the 2014 monitoring event, it was determined that the Site and its non-hazardous waste landfill continue to operate as designed.

A license amendment was submitted to the NWB July 10, 2014 for the ***CAM-D (Simpson Lake) Long Term Monitoring Program***. The renewed license will permit AANDC to continue its long term monitoring activities at the site.

Date Submitted:

June 26, 2015

Submitted/Prepared by:

Lilianne Arsenault

Contact Information:

Tel: 867-975-4732

Fax: 867-975-4560

email: Lilianne.Arsenault@aandc.gc.ca

GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	Deg °	Min ,	Sec "	Deg °	Min ,	Sec "
Monitoring well MW-01	68	35	35.29	91	58	50.51
MW-2	68	35	37.35	91	58	48.83
MW-3	68	35	37.54	91	58	54.21
MW-4	68	35	35.58	91	58	56.07

GPS Locations of areas of waste disposal

[illegible]