NWB Annual Report Year being reported: 2021

License No: 1BR-SIM1520 Issued Date: August 17, 2015

Expiry Date: August 16, 2020

\*LICENCE RENEWAL APPLICATION SUBMITTED

Project Name: CAM-D Simpson Lake Long Term Monitoring

Licensee: Crown-Indigenous Relations and Northern Affairs Canada

(CIRNAC) Contaminated Sites

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, an intermediate Distant Early Warning (DEW) Line site, is located on the Boothia Peninsula, approximately 120 km from Taloyoak, 100 km from Gjoa Haven, and 80 km from Kugaaruk. The DEW Line site was constructed in 1957 and abandoned in 1963.

Remediation of the CAM-D site occured between 2010 and 2012. A non-hazardous waste landfill (NHWL) was constructed to contain non-hazardous material. In 2011, four (4) groundwater monitoring wells were installed around the perimeter of the NHWL.

As per departmental commitments to monitor the NHWL post-closure, a 25-year long term monitoring (LTM) program was initiated at CAM-D in 2012 and includes visual inspection, groundwater sampling, soil sampling (as required), and natural environment monitoring. Refer to the *CAM-D* (*Simpson Lake*) Long Term Monitoring Plan (2010) for additional information.

Years 1, 3, 5, 7, and 9 took place in 2012, 2014, 2016, 2018, and 2020 respectively. Future events will occur in 2022, 2024, 2026, and 2036.

cence R ith	equirements: the licer	nsee must pro	ovide the following information in accordance
	Part B	Item 1	
summaı	y report of water use	and waste dis	sposal activities, including, but not limited to: me
			anagement; drill waste management; solid and
azardous	waste management.		
	Water Source(s):	Monitoring \	Wells at the NHWL (See GPS Coordinates Page)
	Water Quantity:	1/day	Quantity Allowable Domestic (cu.m)
		0	Actual Quantity Used Domestic (cu.m) Quantity Allowable Drilling (cu.m)
		0	Total Quantity Used Drilling (cu.m)
	Waste Managemen  ☑ Solid Waste Disp		sal
	☐ Sewage	J0341	
	☐ Drill Waste		
	☐ Greywater		
	$\square$ Hazardous		
	☐ Other:		
	Additional Details:		
			ke) Lake Long Term Monitoring Plan (2010)
	and the CAM-D 2	2020 LTM Re	port for details.
	CIDNIAC was not	onoito in 202	21. Thus, no water samples were collected
	and no solid was		
	and no solid was	te was genera	ated III 2021.
!!-4 - <b>£</b>			war affallan on a stand talan
iist of U	Spill No.: No sp		(as reported to the Spill Hot-line)
	Date of Spill: N/A		(
	Date of Notification	to an Inspecto	r: N/A
		-	mitigation measures, short/long term monitoring, etc)
	N/A		5 , 5
	IN/A		
ande!	40 4h 0 0 - 111 0 - 11	D'	
evisions	to the Spill Continger No Spill Contingency Pla	<del>-</del>	or approved
	140 Spin Contingency Pla	ii (SCF) subiliilleu	• от аррголей
	Additional Details:		
	N/A		

# Revisions to the Abandonment and Restoration Plan N/A - not applicable Additional Details: N/A

# **Progressive Reclamation Work Undertaken**

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

No progessive reclamation work was undertaken in 2021.

As per the CAM-D (Simpson Lake) Long Term Monitoring Plan (2010) and the additional LTM event added to the LTM Plan in 2016 to monitor deterioration observed at the northern corner of the NHWL, the next LTM event (Year 11) is scheduled for 2022. Future LTM events are scheduled for 2024, 2026, and 2036 (Years 13, 15, and 25 respectively).

# **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:

Additional details regarding water sources can be found in the *CAM-D* (Simpson Lake) Long Term Monitoring Plan (2010).

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:

Remediation was completed in 2012 and the only structure remaining at the site is the NHWL. No waste was deposited on site in 2021. Any solid waste generated is removed from the site at the completion of LTM activities.

# 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	d, etc)
N/A	
Any other details on water use or waste disposal requested by the Board by being reported.	November 1 of the year
No additional sampling requested by an Inspector or the Board	•
Additional Details: (Attached or provided below)	
N/A	
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)	
N/A	
Any additional comments or information for the Board to consider	

### Any additional comments or information for the Board to consider

Physical observations of the NHWL conducted during the 2020 LTM event indicate that the NHWL at CAM-D is in marginal condition and is performing as designed to contain enclosed waste. While some features such as cracking and erosion on the northern corner of the NHWL continues to increase since the last LTM event (2018), no significant impact on NHWL stability has been observed to date. As per the monitoring report from 2016, continued monitoring at an increased frequency is still recommended at CAM-D to monitor if further deterioration is observed and if the NHWL stability remains intact.

Date Submitted:
Submitted/Prepared by:
Contact Information:

January 18, 2022

Selma Al-Soweydawi, Contaminants Specialist

**Tel**: 867-975-4732 **Fax**: 867-975-4560

email: selma.al-soweydawi@rcaanc-cirnac.gc.ca