

**NWB Annual Report**

Year being reported: 2017

License No: 1BR-CL1727

Issued Date: May 26, 2017

Expiry Date: May 25, 2027

Project Name: PIN-B Clifton Point Long Term Monitoring

Licensee: Indigenous and Northern Affairs Canada (INAC) 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):**

PIN-B Clifton Point is located on the coast of Amundsen Gulf (Beaufort Sea) in Nunavut. The nearest communities are Paulatuk, Northwest Territories (NT), about 220 km to the northwest, and Kugluktuk, Nunavut about 220 km to the southeast. The site is situated about 1 km inland from the coast. PIN-B was an Intermediate DEW Line Site constructed in 1957 and subsequently closed and abandoned in 1963.

Remediation works were conducted at the site between 2009 and 2010, including consolidation and off-site disposal of hazardous soils and materials, demolition of buildings and structures, excavation and consolidation of wastes from various historical dumps and clean-up of other site debris. All of the non-hazardous wastes were placed in a non-hazardous waste landfill (NHWL) constructed on-site for that purpose.

As per departmental commitments to monitor the NHWL post-closure, a 25-year long term monitoring (LTM) program was initiated at PIN-B in August 2011 and includes visual inspections, groundwater sampling, soil sampling (as required), and natural environment monitoring. Refer to the *PIN-B Clifton Point Long Term Monitoring Plan* (2011, 2017) for additional information.

Years 1, 3, and 5 of the LTM Plan took place in 2011, 2013, and 2015 respectively. Year 7 was completed on August 3, 2017. The attached report *Long Term Monitoring, 2017 PIN-B, Clifton Point, Nunavut* (PIN-B 2017 LTM Report) contains results of the LTM activities conducted in 2017. Future events are scheduled for 2020, 2025, and 2035.

**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):	Monitoring Wells at NHWL (See GPS Coordinates Page)	
Water Quantity:	1/day	Quantity Allowable Domestic (cu.m)
	<0.01	Actual Quantity Used Domestic (cu.m)
	0	Quantity Allowable Drilling (cu.m)
	0	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

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

Additional Details:

Groundwater samples were collected from 2 monitoring wells (MW2 and MW3). The other 2 wells (MW1 and MW4) were dry/frozen (ice was observed at the bottom of both wells). The total volume of water used/collected was less than 2 litres.

Monitoring activities were conducted within a single day and was based out of Yellowknife, NT and Kugluktuk, NU so no camp was required. Solid wastes (packaging, paper towels, paper, kimwipes, filters, Teflon tubing) generated (< 0.5 m3) were collected and removed from the site at the completion of monitoring activities.

Additional information is provided in the *PIN-B Clifton Point Long Term Monitoring Plan* (2011, 2017) and the PIN-B 2017 LTM Report.

**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)

N/A

**Revisions to the Spill Contingency Plan**

SCP submitted and approved - no revision required or proposed ▼

Additional Details:

N/A

**Revisions to the Abandonment and Restoration Plan**

AR plan submitted and approved - no revision required or proposed



Additional Details:

N/A

**Progressive Reclamation Work Undertaken**

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

Year 7 of LTM occurred on August 3, 2017. A visual inspection of the NHWL and surrounding area was conducted in accordance with the Abandoned Military Site Remediation Protocol (AMSRP) and the site-specific LTM Plan. The NHWL was found to be in acceptable condition. Three new settlement features were observed (minor depressions) and an existing animal burrow, or attempted burrow, appeared to be slightly wider but shallower than it was in 2015. Care will be taken to monitor these features during future monitoring events. No significant changes to other features were observed.

A total of 3 groundwater samples were collected (2 samples plus 1 blind duplicate) and the other 2 wells were dry/frozen. Because MW2 went dry during purging, a small volume of purge water was submitted for total metal analysis only. Exceedances of the Federal Interim Groundwater Quality Guidelines (FIGQGs) for some metals were observed (particularly in the purge water from MW2) and will be closely monitored as the LTM program continues. Soil samples were not collected because there was no indication of seepage or staining. Please refer to the PIN-B 2017 LTM Report for additional information.

As per the *PIN-B Clifton Point Long Term Monitoring Plan* (2011, 2017), future long term monitoring events are scheduled for 2020, 2025, and 2035.

**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 (monitoring wells) can be found in the *PIN-B Clifton Point Long Term Monitoring Plan* (2011, 2017).

**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 2010 and the only structure remaining on site is the NHWL. No waste was deposited on site in 2017. Any solid waste generated was removed from site at the completion of monitoring 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, etc)

N/A

**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)

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)

The last inspection conducted at PIN-B was in 2010. The 2010 Inspection Report is available on the NWB ftp site. The majority of issues were identified during remediation and no issues remain applicable to post-remediation monitoring activities.

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

Physical observations of the NHL and results of groundwater chemical analysis conducted during the 2017 LTM event indicate that the NHL at PIN-B is in acceptable condition, is performing as designed, and is containing the enclosed waste.

**Date Submitted:**

March 27, 2018

**Submitted/Prepared by:**

Jean Allen, Contaminants Specialist, INAC

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### GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
MW-1	70	31	32.19	68	18	19.87
MW-2	70	31	34.97	68	18	11.64
MW-3	70	31	32.53	68	18	7.952
MW-4	70	31	29.87	68	18	12.88

### GPS Locations of areas of waste disposal

[illegible]