

Executive Summary: PIN-B Clifton Point Water License Amendment and Long Term Monitoring Program

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. The NHWL was constructed and operated at the site between 2009 and 2010. The NHWL was closed in 2010.

As per departmental commitments to monitor the landfill post-closure, a long term monitoring program was initiated at PIN-B in August 2011. The existing PIN-B water license expired on May 31, 2014. The purpose of this application is to renew and amend the existing water license so long term monitoring can be continued at the site.

The following activities are part of PIN-B's Long Term Monitoring Program:

- Visual Monitoring of the NHWL
- Active Layer Water Monitoring of the NHWL
 - Samples will be taken from the 4 monitoring wells installed around the NHWL. These samples will be analysed for a standard suite of contaminants and water quality parameters and the results will be compared to those from background samples.
- Soil Monitoring, as required, if seepage or staining is observed as part of visual inspection of NHWL
- Natural Environment Monitoring

The Long Term Monitoring Plan is scheduled to continue for 25 years over three phases as follows:

- Phase I: years 1, 3 and 5
- Phase II: (if required): Years 7, 10, 15 and 25
- Phase III (if required): Beyond 25 years

Phase I monitoring occurred at PIN-B in 2011 and 2013. The last Phase I monitoring event will occur in the summer of 2015. An evaluation of Phase I monitoring data will be carried out at the end of the 2015 program to determine whether Phase II monitoring frequency may be modified or downgraded. If no significant issues are identified for the landfill, monitoring may be discontinued (AMSRP 2009). If additional Phase II monitoring is warranted based on the groundwater monitoring or physical inspection of the landfill, it will be carried out during the years 2017, 2020 2025 and 2035. At the completion of the

25 year monitoring program, a review will take place and the need for continued monitoring (Phase III) will be assessed.

References

AMSRP (Abandoned Military Site Remediation Protocol). 2009. Volume II-Technical Supporting Documentation, Chapter 11 – Post-Construction Monitoring , p. 13. Indian and Northern Affairs Canada, Northern Affairs Organization, Contaminated Sites Program, March 2009.