Executive Summary: CAM-D (Simpson Lake) Water License Amendment and Long Term Monitoring **Program**

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.

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 existing CAM-D Water License expired on November 30, 2013. 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 Long Term Monitoring Plan for CAM-D includes the following:

- Natural environment monitoring
- Groundwater monitoring of the landfill
- Visual monitoring of the landfill
- Soil monitoring, if seepage or staining is observed around the landfill

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 began at CAM-D in 2012 and will continue in 2014. The last Phase I monitoring event will occur in the summer of 2016. An evaluation of Phase I monitoring data will be carried out at the end of the 2016 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 2016, 2018, 2021, 2026 and 2036. 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.

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References

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