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**Sent by Email**

**September 30, 2018**

Licensing  
Nunavut Water Board  
P.O. Box 119  
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**Re: August 2018 – Monthly Monitoring Report for Water Licence 2BB-BOS1727**

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This report is comprised of monitoring requirements as set out in Part J of water licence 2BB-BOS1727. Boston Camp is used to support seasonal surface exploration programs. Boston Camp was shutdown for the winter season on September 12, 2017 and remains inactive at this time. Sampling locations monitored under this licence (seasonally or when facilities are operational) are provided in Figure 2 at the end of this report.

**Part J Item 2: Water Use Volumes**

No water was used as the camp was not operational.

**Part J Item 3: Minewater Discharge Volumes**

Minewater was not pumped from underground during this period.

**Part J Items 4 and 5: Sewage Disposal Facility Daily Effluent Discharge and Sewage Sludge**

Effluent was not discharged at BOS-3 and no sludge was removed from the sewage disposal facility. The camp was not operational.

**Part J Items 5: Daily Quantities of Effluent Discharged – Containment Pond, Bulk Fuel Storage and Landfarm**

No water was discharged from the Containment Pond (BOS-2), the Bulk Fuel Storage Facility (BOS-5), or the Landfarm (BOS-6) this month. An additional 9.7m<sup>3</sup> of water was discharged from the Portal Decline (BOS-9) to the tundra in August.

**Part J Items 6 and 7: Water Source and Waste Disposal Coordinates**

GPS coordinates of locations of water sources and waste associated with camp and drilling activities are kept on file. No water sources were utilized to support domestic water use or drilling activities this month.

**Part J Items 8, 11 and 12 (also Part D Items 6, 17 and 19): Sampling at Containment Pond, Minewater, Bulk Fuel Storage, and Landfarm**

Water quality treatment was undertaken at the Containment Pond (BOS-2) with an activated carbon oil-water separator system in August after samples collected in June and July exceeded discharge criteria for this facility. A sample collected on August 13 post-treatment exceeded the Maximum Average Concentration (MAC) for Total Suspended Solids and total arsenic. The results were below the allowable Maximum Concentration in Any Grab Sample (MCGS).

Further water quality treatment was conducted using the oil-water separator system and a second sample was collected on August 26. This sample exceeded the MAC and MCGS for Total Suspended Solids but was below discharge criteria for all other parameters. TMAC communicated with the Inspector to determine a path forward for discharging this facility prior to freeze-up and prevent overtopping of the pond during freshet in 2019. On September 5, 2018 the Inspector granted a one-time authorization to discharge from this facility to a depression in the surrounding camp pad. No discharge from this facility occurred in August.

No samples were collected from the Bulk Fuel Storage facility (BOS-5) or the Landfarm (BOS-6) as there was not sufficient water accumulated in these facilities to collect samples in August.

Water quality samples collected from the Portal Decline (BOS-9) in June met the criteria for discharge for this facility.

Results of all sampling are presented in Appendix A of this report.

**Part J Item 9: Sewage Disposal Facility Effluent**

No samples were taken at monitoring station BOS-3 as the camp was not operational.

No samples were taken at monitoring station BOS-4 as there was no discharge from the Sewage Disposal Facility this month.

**Part J Item 11: Seepage Monitoring**

Seepage at Boston (BOS-8) is monitored seasonally when water is available to sample. No seepage was observed during the month of August at BOS-8 sample locations.

**Part J Item 14 (also Part F Item 7): Under-Ice Water Quality Sampling**

Not applicable as on-ice drilling did not occur pertaining to licence 2BB-BOS1727.

**Incident Reporting**

Spill #18-315 – On August 5, a spill of wastewater was discovered while conducting a routine inspection of the unoccupied Boston advanced exploration site. A small stain was observed outside of a seacan being utilized for storage of treated sewage sludge that was generated during the 2017 seasonal exploration program based at the Boston

camp. A single tote was found to have released 0.5m<sup>3</sup> of the liquid contents (wastewater) of the sludge stored within its containment.

Upon discovery of the spill a plan was actioned to expedite transport of all remaining totes containing treated sewage sludge back to Doris Camp for disposal in the Tailings Impoundment Area (TIA) to eliminate the risk of future spills from these totes. Once the seacan was empty, it was moved in order to access the contaminated material beneath. Contaminated material was excavated from the spill area and placed into a mega bag for backhaul to the Doris Project for disposal. See Figure 1 below with photos of pre- and post-cleanup of the spill.

Root Cause:

- Tote potentially compromised due to freeze/thaw over the winter.
- Insufficient secondary containment used. The seacan did not have a liner installed to act as a form of secondary containment unlike others at the site used to store this material.

Corrective Actions:

- Treated sewage sludge will be transported back to Doris Camp for disposal as soon as possible to reduce the risk of stored totes undergoing damage during freeze/thaw (complete);
- Seacan liners will be used in the event that totes are to be stored in seacans; and
- If seacans are utilized for storage of liquids they will be sloped to encourage drainage towards the back of the seacan rather than the front in order to contain any spilled material.

**Figure 1. Spill #18-315 Completed spill cleanup**



Spill location.



Spill reclamation.

Should there be any questions regarding this monthly report, please contact  
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Yours sincerely,



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**Figure 2. 2BB-BOS1727 SNP Monitoring Locations**

