

Appendix C

Landfill Monitoring - South Shore Landfill

The Collection of Landfill Monitoring Data at the CAM-M
Cambridge Bay Site – 2005 Report
APPENDIX C South Shore Landfill

C.1 South Shore Landfill

~~3.3.1~~C.1.1 Landfill Summary

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The south shore landfill is located approximately 2 km east of the main facilities near the POL Beach Staging area. The area of the south shore landfill has an area of approximately 20,000 m² with an estimated depth of 1.5 m. The location of the landfill is shown on Figure C-1. Based on a previously completed evaluation of the landfill, it has been classified as a moderate potential environmental risk. Prior to 2001 sampling event, the landfill was re-assessed and it was classified as a low potential environmental risk.

~~3.3.2~~C.1.2 Visual Monitoring

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Based on the visual inspection, the South Shore Landfill area appears to be in good condition with no visible signs of settlement or frost action. There are erosion rills on the slopes along the margins of the landfill, which appears unchanged since the previous inspection. Vegetation cover is sparse and scattered with minimal ground cover. Construction debris, a crushed drum and a buried wirestrand rope cable, was detected at the east side of the landfill at locations SSLF 5 and SSLF 6, as shown in the site photographs. The surface of the landfill is evidently used as a golf practice range, as evidenced by the sand box shown in photograph SSLF 4. The site inspection record is appended at the end of this section. Overall the the performance of the landfill is considered to be acceptable.

~~3.3.3~~C.1.3 Soil Sampling

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Soil samples were collected at the designated locations of CM-1, CM-2, CM-3 and CM-4. The sampling locations are shown on Figure C-1. At each location wherever possible two samples were collected at approximately 0.10 m below ground and between 0.40-0.50 m below ground. A photograph of each test pit for each location sampled is shown in Appendix C3. The analytical results and sample depths are tabulated in Table C-1 and the laboratory reports are provided in Appendix G.

No staining or free product was observed during the sampling event. There were no odours documented during the sampling event at the South Shore Landfill.

Moderate concentrations of Total Petroleum Hydrocarbons (TPH) (C10-32) and PCBs were detected in the deep sample from soil sample location CM-4. The sample was re-analysed to characterize CCME fractions F1-F3. The concentrations noted are noteworthy and should be evaluated in the context of the Landfill Monitoring Plan.

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Figure C-1 South Shore Landfill

**The Collection of Landfill Monitoring Data at the CAM-M
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Table C-1 CAM-M Cambridge Bay, Summary of 2005 Soil Analysis - South Shore Landfill

Appendix C Attachments

- C1 Site Condition/Visual Inspection Records**
- C2 Geotechnical Inspection Photographic Records**
- C3 Soil Testpit Photographic Record**
- C4 Field Notes**

Appendix C1

Site Condition/Visual Inspection Records

Appendix C2

Geotechnical Inspection Photographic Records

Appendix C3

Soil Testpit Photographic Records

Appendix C4

Field Notes