

1. Station Area Non-hazardous Landfill

1.1 Landfill Summary

The Station Area Landfill is located approximately 100m northwest of the main station area, 300m north of where the module train was located, and 400m off the abandoned airstrip. The landfill encompasses an area of approximately 10,000m². The depth of landfill debris is approximately 1.0 to 2.0m. The landfill configuration and sample locations are shown on Figure A-1. The landfill surface is fairly irregular with numerous slope breaks and small mounds. The toe of the landfill is vegetated and the surrounding area at the base of the landfill is lush tundra. Based on the evaluation of the landfill as a source of contamination, potential pathways, and receptors, the Station Area Landfill was classified as low potential environmental risk. The remedial work for this landfill included regrading and the placement of additional granular fill material to remove contaminant transport pathways. The long term monitoring plan consists of visual monitoring and the periodic collection of soil samples.

For 2008, the monitoring requirements for the Station Area Landfill included visual inspection and soil sampling.

1.2 Visual Monitoring

A visual inspection of the Station Area Landfill was completed on August 19, 2008. Based on the visual inspection, the Station Area Landfill appears to be in good condition and continues to function as designed. The condition of the Station Area Landfill appears substantially unchanged from the description provided from last year's inspection.

Minor surficial erosion, which appears to be associated with surface runoff, was noted at several locations along the eastern slope of the granular cover (refer to Photos 3 and 4). These areas of minor surficial erosion were first documented in 2006 (inspection by EBA) and re-evaluated in 2007 at the time of last years inspection. The granular cover in the areas of observed surficial erosion appears to be self armouring with limited potential for significant further degradation. None of the areas of observed surficial erosion appear to warrant remediation at this time.

In general, the granular landfill cover shows no evidence of problematic or degraded conditions. Overall performance of the landfill is considered acceptable.

Figure A-1 Station Area Non-hazardous Waste Landfill

1.3 Soil Sampling

Soil samples were collected at the designated locations of C2-1, C2-2, C2-3, C2-4, and C2-5. The sampling locations are shown on Figure A-1. At each location, where possible, two samples were collected at approximately 0.1m below ground and between 0.4-0.5m below ground. The test pits at C2-1, C2-2, and C2-4 were excavated to a depth of 0.2m before the water table was reached. Samples C2-1B, C2-2B, and C2-4B were collected at this depth. A photograph of the test pit at each location sampled is shown in Appendix A3.

AECOM did not identify any hydrocarbon odours, staining, or free product, at any of the sampling locations at the Station Area Landfill. Detectable concentrations of TPH (C6-34) were identified in the soil sample collected from location C2-2 however AECOM does not consider the detected concentration to be of significance. The laboratory results indicate no detectable levels of PCB in any soil samples collected from the Station Area Landfill. Low levels of copper, Nickel, cobalt, lead, zinc and chromium were detected in the various soil samples from the Station Area Landfill, however none of the results are considered to be of significance. It is recommended by AECOM that these results be evaluated in the context of the DEW Line Landfill Monitoring Plan.

Analytical results and depths of samples are provided in Table A-1 and the laboratory certificate is provided in Appendix E.

Table A-1 Summary of 2008 Soil Analysis – Station Area Landfill