1. West Landfill – North and South

1.1 Landfill Summary

The West Landfill – North is located one kilometre northwest of the decommissioned module train and consists of seven lobes of buried debris over an area of 13,400m^2. The depth of the landfill is about 1.0 to 1.5 metres. Based on the evaluation of the landfill as a source of contamination, potential pathways, and receptors, the West Landfill - North was classified as low potential environmental risk. The remediation for this landfill included regrading with the placement of additional granular fill and excavation of the contaminated soil. The landfill configuration and sample locations are shown on Figure B-1. The long term monitoring plan consists of visual monitoring, and the periodic collection of soil samples.

The West Landfill – South is located adjacent to the SRR facilities. The main lobe of this landfill is 8,300m^2, however three additional lobes (West Landfill – Central) are located to the northwest for a total area of 10,900m^2. Both areas have been linked for purposes of monitoring. Based on the evaluation of the landfill as a source of contamination, potential pathways, and receptors, the West Landfill – South (and – Central) was classified as low potential environmental risk. The landfill configuration and sample locations are shown on Figure B-2. The long term monitoring plan consists of visual monitoring and the periodic collection of soil samples.

For 2008, the monitoring requirements for the West Landfills included visual inspection and soil sampling.

1.2 Visual Monitoring

A visual inspection of the West Landfill was conducted on August 19, 2008. Based on the visual inspection, both the West Landfill North and West Landfill South appear to be in good condition and consistent with the condition depicted in the photographic documentation from last years inspection. The granular covers showed no visible signs of problematic settlement or erosion. There are a few shallow erosion rills on the slopes along the margins of the landfill. However, the cover is relatively coarse and therefore stable.

The site inspection record for the landfill is appended as an attachment to this section. Overall performance of the landfill is considered acceptable.

Figure B-1 West Landfill – North

Figure B-2 West Landfill – South

1.3 Soil Sampling

Soil samples were collected at the designated locations of C2-6, C2-7, C2-8, C2-9, and C2-10 at the West Landfill – North and C2-11, C2-12, C2-13, and C2-14 at the West Landfill South. The sampling locations are shown on Figures B-1 and B-2. Two samples were collected at each location at approximately 0.1m below ground and between 0.4-0.5m below ground. A photograph of the test pit at each location sampled is shown in Appendix B3.

AECOM did not identify any hydrocarbon odours, staining, or free product, at any of the sampling locations at the West Landfill. No detectable concentrations of TPH (C6-34) were identified in the soil samples collected from the West Landfill. The laboratory results indicate no detectable levels of PCB in any soil samples collected from the West Landfill. Low levels of copper, Nickel, cobalt, lead, zinc and chromium were detected in the various soil samples from the West Landfill, however none of the results are considered by AECOM 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 B-1 for the West Landfill – North and in Table B-2 for the West Landfill – South. The laboratory certificate is provided in Appendix E.

Table B-1 Summary of 2008 Soil Analysis – West Landfill – North

Table B-2 Summary of 2008 Soil Analysis – West Landfill – South