TECHNICAL MEMORANDUM

DATE May 24, 2012 **PROJECT No.** 12-1170-0031

TO Sandy Coulter, Manager of Environmental Operations
City of Barrie

CC Richard Forward, City of Barrie; Christi Groves, Golder Associates Ltd.

FROM Theresa Repaso-Subang, Senior Risk Assessor **EMAIL** Theresa_Repaso-Subang@golder.com

ALLANDALE STATION LANDS, BARRIE, ONTARIO

The Corporation of the City of Barrie ("the City") retained Golder Associates Ltd. (Golder) to carry out supplemental subsurface environmental investigations on the property known as the Allandale Station Lands in Barrie, Ontario (the "Site"). The Site is bounded to the south by the Canadian National Railway ("CNR"), with Gowan Street beyond, to the west by Essa Road with commercial properties beyond, to the north by Tiffin Street and Lakeshore Drive, and to the east by GO Train rail lines.

Previous subsurface investigations were carried out in 2010. Soil samples collected from test pits located within the berm running along the northern property boundary had reported levels of metals including mercury. Mercury levels found in soil samples collected from the Site were below the Table 2 industrial/commercial standard of 3.9 µg/g, for potable groundwater use and coarse-textured soils. If the land use of the Site changes to a more sensitive land use in the future, there are two soil samples collected from the Site with mercury levels that are above the Table 2 residential/parkland standard of 0.27 µg/g, for potable groundwater use and coarse-textured soils.

The mercury levels found in soil during the 2010 subsurface investigations are generally below or comparable to levels found in typical Ontario background soils (0.27 µg/g). The highest mercury concentration of 0.65 µg/g reported in one surface soil sample from TP101, is approximately two times higher than typical Ontario background. This is considered to be within normal variability for metals that are found naturally in soils.

The highest mercury concentration of 0.65 µg/g reported in one surface soil sample is below the direct contact standard of 9.8 µg/g developed by the Ministry in their generic standard setting process. Potential direct contact with the soils on Site by the public, including children, is not expected to cause harmful effects.

To reduce exposures to metals and organics in soils at the Site, people who may come in direct contact with the soils should practice proper hygiene (i.e., wash hands thoroughly) before eating or smoking.

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