

DATE March 12, 2014**PROJECT No.** 1214360084-TM**TO** Director of Waste Management
British Columbia Ministry of Environment**CC** Robert McLenehan, P.Eng; Brian Willock, P.Eng, Norm Couttie**FROM** Andrew Bruemmer, P.Eng; Ian Hers, Ph.D.,
P.Eng.; Reidar Zapf-Gilje, P.Eng **EMAIL** Reidar_Zapf-Gilje@golder.com**PERFORMANCE VERIFICATION PLAN – SITE ID 2760**

1.0 BACKGROUND

This Performance Verification Plan (PVP) is being provided to the BC Ministry of Environment (MoE) as part of a submission package for a Certificate of Compliance (CoC) for the former City of North Vancouver works yard (Site ID #2760). The former works yard was located at civic address 720 West Second Street, North Vancouver, BC (the Site).

The scope of the PVP is outlined below.

2.0 PERFORMANCE VERIFICATION PLAN**Risk Control Type:** 1B**Required Risk Controls:**

- a) Groundwater at the Site must not be used as drinking water.

Required Actions to Implement Required Risk Controls:

- a) Mandatory communication between the Site owner and Director of Waste Management if the groundwater use at the Site is proposed to be changed;
- b) Completion of a limited groundwater monitoring program at off-Site monitoring wells. The scope of the groundwater monitoring program will be as follows:
 - i) Groundwater samples will be collected from MW13-01, MW13-04, MW13-03, and MW13-04 (as shown on Figure 5 of Report #12, as referenced in the associated Summary of Site Condition) on two events in 2014 (wet season and dry season) and one event in 2015 (wet season);
 - ii) Groundwater samples will be submitted to an approved laboratory for analysis of dissolved metals, chloride, sodium, benzene, toluene, ethylbenzene, xylenes (BTEX), light and heavy extractable petroleum hydrocarbons (LEPH/HEPH), volatile petroleum hydrocarbons (VPH), and volatile organic compounds (VOCs);
 - iii) Annual reporting of the groundwater monitoring results to document temporal changes in groundwater quality; and
 - iv) The groundwater monitoring program will be completed by the City of North Vancouver.



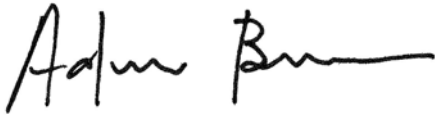
Summary Rationale for Selecting Required PVP Elements:

- a) Drinking water at the Site is currently provided through municipal water lines.
- b) Groundwater at the Site is not expected to be used as drinking water in the future.
- c) Groundwater quality at the off-Site monitoring well locations currently meets the Contaminated Sites Regulation (CSR) Schedule 6 standards for the protection of freshwater aquatic life. However, concentrations of sodium and chloride were observed to be above the CSR standards for protection of groundwater used as drinking water, and hydrocarbon-based parameters were also detected, although concentrations were less than applicable standards. The additional monitoring events will be completed in order to provide additional confidence that contaminant concentrations at the off-Site monitoring locations are demonstrating a decreasing trend. If, at the conclusion of the three monitoring events, groundwater concentrations demonstrate a decreasing trend it is anticipated that the monitoring program can be discontinued. An amendment to this PVP would be requested from the Director at that time.

3.0 CLOSURE

We trust that the information contained in this PVP is sufficient for your current review. Should you have any questions or concerns regarding this PVP, please do not hesitate to contact the undersigned at 604-296-4200.

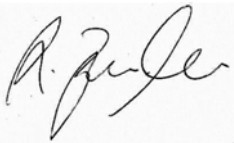
Sincerely,



Andrew Bruemmer, P.Eng
Project Manager



Ian Hers, Ph.D., P.Eng.
Project Director



Reidar Zapf-Gilje, P.Eng.
Contaminated Sites Approved Professional, Risk-based Standards

AB/IH/RZG/ch