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April 7, 2017

Mr. John Kuharchuk
Saanich Senior Living Inc.
2807 – 928 Homer Street
Vancouver, BC V6B 1T7

Dear Mr. Kuharchuk:

**RE: Performance Verification Plan
Portion of 998 Gorge Road West, Saanich, BC
Site ID 4932**

1.0 Introduction

Trillium Environmental (Trillium) has prepared this Performance Verification Plan (PVP) on behalf of Saanich Senior Living Inc. in support of an application for a Certificate of Compliance (CofC) for the above referenced Site. The Site was described via metes-and-bounds in the report titled, *Human Health and Ecological Risk Assessment, Portions of 998 Gorge Road West and Adjacent Roadway, Saanich, BC*, dated April 7, 2017 (Trillium, 2017). This document is meant to satisfy the reporting requirements for Type 1B risk controls as outlined in the BC Contaminated Sites Regulation (CSR) Administrative Guidance 14. This document outlines the measures for implementing risk-management measures at the Site.

2.0 Risk Controls

The following Type 1B risk control is required:

The current concrete building foundation and its distance from the adjacent Management Area must be maintained.

3.0 Actions Required to Implement Required Risk Controls

The following performance verification measures are required to implement the risk control:

Maintain the existing building configuration and concrete foundation, as documented in the Certificate of Compliance as a Schedule B condition, and notify the Director in writing of any discrepancies or changes to the building affecting the assumptions for selection of vapour attenuation factors.

Following construction of the Site building and issuance of a CofC, install two (2) vapour probes within the area adjacent to the building, as shown in **Figure 1** (attached). Monitor soil vapour quality semiannually at the new probes and at SV-6 and SV-8 on the Management Area. Monitoring to occur during the dry and wet seasons within a one year period.

Following one year of monitoring, results will be compared to risk-based standards. If predicted indoor air concentrations are one half or less of the risk-based standards (to account for error), then vapour monitoring can be discontinued. In the event that vapour monitoring results are greater than one half the risk-based standards, semiannual monitoring shall be continued for another year with an increased scope that includes indoor air monitoring of the breathing zone within the underground parkade.

Records pertaining to these performance verification actions should be maintained by the Site owner (or their agent) and be available for review within 18 months of initiating vapour monitoring, as requested.

4.0 Summary of Rationale for Selecting Required PVP Elements

The residual petroleum contamination in the soil of the adjacent Management Area (portion of Gorge Road West) contributes as a source of vapour to the Site building. The Site's building foundation and the lateral separation between the building and the Management Area, were estimated to attenuate vapours to concentrations less than the risk-based and/or numerical standards (i.e., the intrinsic risk control). There remains some uncertainty whether an adequate amount of attenuation is afforded under different seasonal conditions since vapour sampling in the area adjacent to the current building sidewall (i.e., area of former SV-7) was not possible due to the start of building construction. The proposed monitoring plan serves to confirm that soil vapours are stable or decreasing in concentration over a range of seasonal conditions, and that the risk control provides adequate lateral vapour attenuation as anticipated.

I trust that this report meets your needs in support of the applications to the BC Ministry of Environment for legal instruments. Please do not hesitate to contact me if you have any further questions.

Respectfully submitted,
TRILLIUM ENVIRONMENTAL

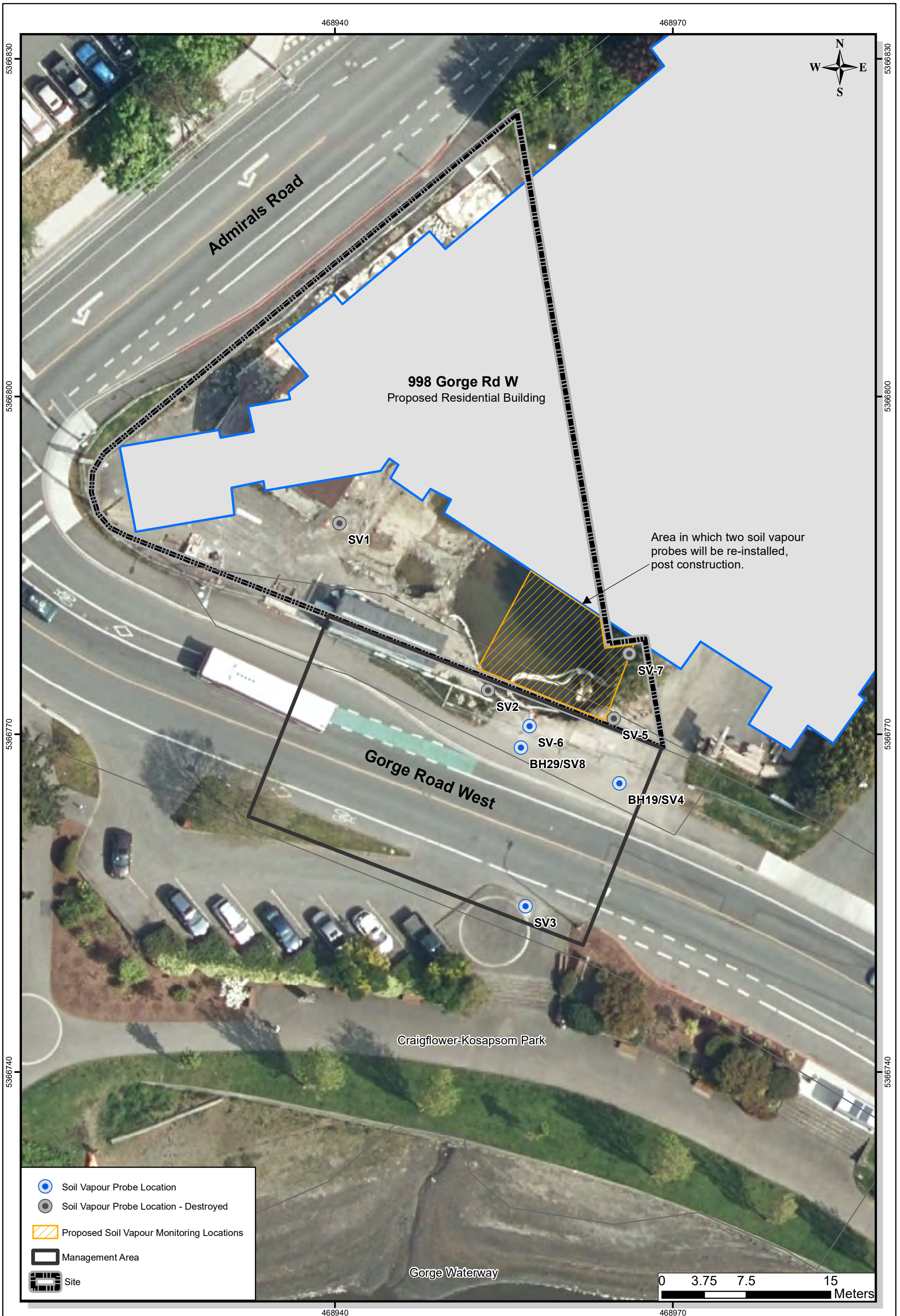


Stefan Quaglia, R.P.Bio., CSAP
squaglia@trilliumenviro.com

Cc: Colleen Delaney, Wittich Environmental Services Ltd.

Attachments:

Figure 1 Site Vapour Monitoring Area



Performance Verification Plan
 Portion of 998 Gorge Road West, Saanich BC
 Project: 14041

Wittich Environmental Services Ltd.
 Drawn: SR
 Date: 14/11/2016

Site Vapour Monitoring Locations

Client: Saanich Senior Living Inc.
 Source: District of Saanich 2015 Orthophoto

Figure 1



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Vancouver, BC V6B 1T7

Dear Mr. Kuharchuk:

**RE: Performance Verification Plan
Management Area - Portion of Gorge Road West, Saanich, BC
Site ID 17806**

1.0 Introduction

This document is meant to satisfy the reporting requirements for Type 1B risk controls as outlined in the BC Contaminated Sites Regulation (CSR) Administrative Guidance 14 to support an application for a Certificate of Compliance. Specifically, this document outlines the Performance Verification Plan (PVP) for implementing the intrinsic risk-management measures described below.

This report has been prepared for Saanich Senior Living Inc. and may be relied on by the District of Saanich.

2.0 Risk Controls

The following Type 1B intrinsic risk control is required at the Management Area:

- a) Soil contamination must remain at depths of 0.9m or greater below ground surface.

3.0 Actions Required to Implement Required Risk Controls

The following performance verification measures are required to implement risk controls:

Notification in the form of conditions in Schedule B of the Certificate of Compliance that soil contamination must remain at depths of 0.9m or greater below ground surface and that the responsible person for the site or their agent shall maintain records indicating that the risk control has been and continues to be met.

If requested by the Director, the responsible person must provide a signed statement confirming maintenance of the risk control. This may include providing a signed statement by an Approved Professional.

4.0 Summary of Rationale for Selecting Required PVP Elements

Soil contamination remains between depths of 0.9-1.55 metres below ground surface within the Management Area. Documentation supporting this application concluded that risks to ecological receptors were acceptable because of a lack of current and future potential terrestrial habitat, and risks to human receptors were acceptable because the present depth of affected soils effectively prevents direct exposure to contamination¹. The risk control serves to confirm that soil contamination at the Management Area will remain at depth, preventing direct exposure to human receptors.

We trust that this plan meets your needs in support of the applications to the BC Ministry of Environment for a legal instrument. Please do not hesitate to contact the undersigned with any questions.

Respectfully submitted,
TRILLIUM ENVIRONMENTAL



Stefan Quaglia, R.P.Bio., CSAP
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Cc: Jagtar Bains, Environmental Manager, District of Saanich
Colleen Delaney, Wittich Environmental Services Ltd.

¹ Human Health and Ecological Risk Assessment – Portions of 998 Gorge Road West and Adjacent Roadway, Saanich, BC, April 7, 2017.