

LEVELTON CONSULTANTS LTD.

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September 25, 2015

Levelton File # R613-1728-00

Geoenvirologic Consulting Ltd. 3831 West 50th Avenue Vancouver, BC V6N 3V4

Attention: Dr. Reidar Zapf-Gilje, P.Eng.

Project: Performance Verification Plan
Subject: 27540 28th Avenue, Langley, BC

1. 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 for the site located at 27540 28th Avenue, Langley, BC (Site).

The PVP presents the principal risk management measures that apply at the Site to maintain the validity of the Certificate of Compliance (CoC). This PVP has been prepared in general accordance with BC Ministry of Environment (MoE) Administrative Guidance 14: Performance Verifications Plans, Contingency Plans and Operations and Maintenance Plans. The PVP was prepared based on the findings of the reports for the Site, as listed in the reference section of this PVP.

The Site is roughly rectangular in shape with an area of approximately 6.08 Ha. With the exception of a building at the northeast corner of the Site occupied by a water treatment plant, the Site is currently vacant. The Site surface is unpaved and/or vegetated. The general topography around the Site appears to be sloping towards Bertrand Creek (west). The Site was formerly used for municipal sewage treatment by the aerated lagoon process. The following information is provided to describe the Site:



ITEM	INFORMATION
Common Name	Former Aldergrove Sewage Treatment Lagoons
Municipal Address	27540 – 28 th Avenue, Langley, BC
Legal Description	Parcel D EP 11300, Plan 4399, Sublot 4, Part SW1/4, Section 20, Township 13, New Westminster Land District, Except PCL C EP 15039 & a Portion of Plan 11275F; BCP8871 Road Dedication
P.I.D.	011-113-901
Latitude/Longitude	49° 03′ 08.61″ N, 122° 27′ 43.30″W

As identified in the Extended Stage 2 PSI, DSI and Remedial Excavation report, dissolved arsenic concentrations in groundwater exceeded the applicable CSR DW standards for the Site. Maximum dissolved arsenic concentration of 88.7µg/L was noted in the groundwater sample collected from MW9A. The Human Health Risk Assessment was conducted with the understanding that the Site is supplied with municipal water and that no existing drinking water wells are on-Site or are planned for future use.

2. PERFORMANCE VERIFICATION PLAN

Risk Control Type: Type 2

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 is required if the groundwater use at the Site is proposed to be changed;

Summary Rationale for Selecting Required PVP Elements:

- a. Groundwater consumed as drinking water poses an unacceptable risk to human health. However, drinking water at area around the Site is currently provided through municipal water lines. The future residential development onsite will be supplied by municipal potable water, therefore, the likelihood of risk exposure from arsenic concentrations exceeding the drinking water standard is considered low.
- b. Groundwater at the Site is not expected to be used as drinking water in the future.



3. REFERENCES

- 1. Stage 1 Preliminary Site Investigation 27540 28th Avenue, Langley, BC, prepared by Levelton Consultants Ltd., dated 22 October 2010.
- 2. Extended Stage 2 Preliminary Site Investigation, Detailed Site Investigation and Remedial Excavation 27540 28th Avenue, Langley, BC, prepared by Levelton Consultants Ltd., dated 22 October 2010.
- 3. Addendum to Stage 1 Preliminary Site Investigation 27540 28th Avenue, Langley, BC, prepared Levelton Consultants Ltd., dated 15 September 2015.
- 4. Addendum to Extended Stage 2 Preliminary Site Investigation, Detailed Site Investigation and Remedial Excavation - 27540 28th Avenue, Langley, BC, prepared by Levelton Consultants Ltd., dated 15 September 2015.
- 5. Human Health Risk Assessment for Arsenic in Soil and Groundwater- 27540 28th Avenue, Langley, BC, prepared by Levelton Consultants Ltd., dated 15 September 2015.
- 6. Ecological Risk Assessment 27540 28th Avenue, Langley, BC, prepared by Levelton Consultants Ltd., dated 15 September 2015.

4. CLOSURE

We trust that this PVP is satisfactory to your requirements. Please contact the undersigned if you have any questions.

Respectfully Submitted,

Levelton Consultants Ltd.

Prepared by

Reviewed by

Per: Jason Tung, B.A.Sc., EIT

September 25, 2015

Intermediate Environmental Engineer

Per: Jay Rao, M.A.Sc., P.Eng.

Senior Environmental Engineer

Jeff Miles