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May 21, 2015

Project 130323

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**ATTENTION:** John Driedger, P.Eng.  
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**REFERENCE:** Performance Verification Plan, Capua Management Area  
(229 East 24<sup>th</sup> Avenue) Adjacent to the Former Shell Service Station,  
4000 Main Street, Vancouver, BC, Location Code: C01211

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The Environment & Water business unit of SNC-Lavalin Inc. (SNC-Lavalin) has prepared this Performance Verification Plan (PVP) in support of an application for a Certificate of Compliance (CofC) for the Capua Management Area at 229 East 24<sup>th</sup> Avenue, adjacent to the former Shell service station, 4000 Main Street, Vancouver, BC, Location Code: C01211, BC Ministry of Environment (MoE) site ID # 16631 (herein referred to as the "MA"). The PVP presents the principal risk controls that apply at the MA to ensure the MA CofC remains valid (i.e., the key risk controls of Schedule B). The PVP was prepared in accordance with MoE Procedure 12: Procedures for preparing and issuing contaminated sites legal instruments (2013) and Administrative Guidance 14: Performance Verification Plans, Contingency Plans and Operations and Maintenance Plans (2014).

## **PRINCIPAL RISK CONTROLS**

A Human Health and Ecological Risk Assessment (HHERA) was conducted for the MA, and the results are presented in the SNC-Lavalin report, *Human Health and Ecological Risk Assessment, Management Area Adjacent to Former Shell Service Station, 4000 Main Street, Vancouver, BC, Location Code: C01211*, prepared by SNC-Lavalin, dated May 21, 2015, (SNC-Lavalin, 2015a). The HHERA was prepared based on the findings and conclusions presented in the SNC-Lavalin report, *Updated Stage 1 Preliminary Site Investigation (PSI), Detailed Site Investigation (DSI) and Confirmation of Remediation, Management Area Adjacent to Former Shell Service Station, 4000 Main Street, Vancouver, BC, Location Code: C01211*, dated April 1, 2015 (SNC-Lavalin, 2015b).



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The principal risk controls on which the SNC-Lavalin (2015a) risk assessment was based, as presented in Schedule B of the CofC, is as follows:

- Groundwater at the MA must not be used for drinking water.

#### **DETERMINATION OF PROCEDURE 12 REMEDIATION TYPE**

Based on the principal risk control for the MA (i.e., the use of institutional control to mitigate/eliminate risks at the MA and lack of imminent risks in the event that control was either not implanted or were rendered ineffective), the Remediation Type applicable at the MA is considered to be Type 2.

Under a Remediation Type 2 scenario, MoE (2013; 2014) indicates that a PVP is required, while an operations and maintenance plan may be required.

#### **PERFORMANCE VERIFICATION PLAN**

A PVP is required to ensure that the principal risk control upon which the HHERA is based is being met at the MA.

This includes the maintenance of up-to-date records of performance verification actions and results for the MA being maintained by the responsible person (or their agents). If requested by the Director, the responsible person (or their agents) will provide these records to the MoE. As well, if requested by the Director, responsible person(s) will provide a signed statement on whether conditions set out in this Schedule B are being met.

Performance verification actions for the MA include the following:

- Communication with the owner/operator that groundwater at the MA must not be used for drinking water purposes. The MA is located in a commercial/residential developed area and drinking water to the surrounding area is currently supplied by a municipal water distribution system. Consequently, groundwater is not being used as a drinking water source. Given the developed nature of the surrounding area and the presence of an alternate drinking water supply, future use of groundwater at the MA as a drinking water supply is considered unlikely.

Based on the above, an advisory for the MA that groundwater must not be used for drinking water purposes is considered appropriate to meet this risk control. The listing of this risk control in Schedule B of the CofC meets this requirement.

In summary, it is our opinion that the advisory in Schedule B of the CofC is sufficient for addressing the principal risk control at the MA.





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## REFERENCES

- MoE. 2013. Procedure 12. Procedures for preparing and issuing contaminated sites legal instruments. BC Ministry of Environment, Victoria, BC, February, 2013.
- MoE. 2014. Administrative Guidance 14: Performance Verification Plans, Contingency Plans and Operations and Maintenance Plans. BC Ministry of Environment, Victoria, BC, February, 2014.
- SNC-Lavalin. 2015a. *Human Health and Ecological Risk Assessment, Management Area Adjacent to Former Shell Service Station, 4000 Main Street, Vancouver, BC, Location Code: C01211*, prepared by SNC-Lavalin Inc., dated May 21, 2015.
- SNC-Lavalin. 2015b. *Updated Stage 1 Preliminary Site Investigation (PSI), Detailed Site Investigation (DSI) and Confirmation of Remediation, Management Area Adjacent to Former Shell Service Station, 4000 Main Street, Vancouver, BC, Location Code: C01211*, prepared by SNC-Lavalin Inc., dated April 1, 2015.

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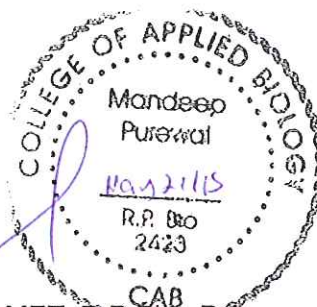
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