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Project 507084

Imperial Oil
(172965 Canada Limited)
PO Box 2480, Station M, Room 25011
237 - 4th Avenue SW
Calgary, AB T2P 3M9

ATTENTION: Ms. Christine Wickens, E.I.T.
Program Manager – Environmental Services

REFERENCE: **Performance Verification Plan, Former Esso Service Station at
444 Trans Canada Highway, Hope, BC**

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 former Esso service station located at 444 Trans Canada Highway, Hope, BC, BC Ministry of Environment (MoE) site ID # 3675 (herein referred to as the “Site”). The PVP presents the principal risk controls that apply at the Site to ensure the Site 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 Site, and the results are presented in the SNC-Lavalin report, *Human Health and Ecological Risk Assessment, Former Esso Service Station, 444 Trans Canada Highway, Hope, BC and Associated Management Area*, prepared by SNC-Lavalin, dated December 1, 2015, (SNC-Lavalin, 2015a). The HHERA was prepared based on the findings and conclusions presented in the SNC-Lavalin report, *Preliminary and Detailed Site Investigation, Former Esso Service Station, 444 Trans Canada Highway, Hope, BC*, dated October 6, 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 from the Site must not be used as a drinking water source.*

Determination of Procedure 12 Remediation Type

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

This includes the maintenance of up-to-date records of performance verification actions and results for the Site 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 Site include the following:

- › Communication with the owner/operator that groundwater from the Site must not be used for drinking water purposes (e.g., washing, showering, bathing, gardening, consumption). The Site 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 Site as a drinking water supply is considered unlikely.

Based on the above, an advisory for the Site that groundwater from the Site 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 Site.





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, Former Esso Service Station, 444 Trans Canada Highway, Hope, BC and Associated Management Area*, prepared by SNC-Lavalin Inc., dated December 1, 2015.
- SNC-Lavalin. 2015b. *Preliminary and Detailed Site Investigation, Former Esso Service Station, 444 Trans Canada Highway, Hope, BC*, prepared by SNC-Lavalin Inc., dated October 6, 2015.

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The investigation undertaken by SNC-Lavalin with respect to this report and any conclusions or recommendations made in this report reflect SNC-Lavalin's judgement based on the site conditions observed at the time of the site inspection on the date(s) set out in this report and on information available at the time of preparation of this report. This report has been prepared for specific application to this site and it is based, in part, upon visual observation of the site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, portions of the site which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site, substances addressed by the investigation may exist in areas of the site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the locations from which samples were taken.





If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions and recommendations in this report may be necessary.

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Sabine Feldberg, B.Sc., MET Candidate
Environmental Advisor

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Infrastructure

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Mandeep Purewal, MET, RPBj, PAg
Project Specialist, Risk Assessment

