



February 28, 2014

Director
Ministry of Environment
Environmental Management Branch
PO Box 9342, Stn Prov Govt
Victoria, BC V8W 9M1

Dear Sir/Madame:

**Re: Performance Verification Plan for Certificate of Compliance at
104 East 1st Avenue Street
MOE Site ID: 12675
Keystone Environmental Project No. 9469**

Keystone Environmental Ltd. (Keystone Environmental) has prepared this Performance Verification Plan (PVP) in support of an application for a risk-based Certificate of Compliance (CofC) for the metes and bounds area near 104 East 1st Avenue, Vancouver, BC (herein referred to as the Site). The property has MOE Site ID: 12675.

The PVP presents the principal risk management measures that apply at the Site to ensure the Site CofC remains valid (i.e., the key risk management controls of Schedule B of the Site CofC which must remain in place at the Site). The PVP was prepared in accordance with BC Ministry of Environment (MOE) Procedure 12: Procedures for preparing and issuing contaminated sites legal instruments (2013a).

PRINCIPAL RISK ASSESSMENT MANAGEMENT CONTROLS

A human health and ecological risk assessment (HHERA) was conducted for the Site, and the results were presented in the Human Health and Ecological Risk Assessment Report for 104 East 1st Avenue, Vancouver, BC (Project No. 9469), dated February, 2014.

The principal risk management conditions upon which the risk assessment are based on include the following:

For Current Site Uses (i.e., as a staging area for the off-Site development and Sales office):

- 1) Contaminated soils must remain covered by buildings, pavement, or located behind fencing to prevent contact by the general public and on-Site commercial workers.
- 2) Vegetation must not be permitted to establish in exposed contaminated surface soils.

For Future Site Uses (i.e., landscaping and/or repaving has been completed):

- 1) Contaminated soils must be covered by buildings, pavement, or at least 1 m of uncontaminated soils.
- 2) A layer of at least 0.3 m of uncontaminated soil should be beneath the paving stones.
- 3) If contaminated soils remain at depths greater than 1 m depth, deeper rooting vegetation must not be permitted to occur in area(s) where contamination remains.

In addition, should any construction activities take place on-Site, both currently and in the future, a health and safety plan must be prepared or reviewed by a qualified health and safety officer of the company performing construction activities to mitigate incidental soil ingestion and dermal contact exposures by occupational workers.

DETERMINATION OF PROCEDURE 12 REMEDIATION TYPE

Based on the risk management measures for the Site, (i.e., the use of institutional and engineering controls to mitigate/eliminate risks at the Site and lack of imminent risks in the event that controls were either not implemented or were implemented but were rendered ineffective) the Remediation Type applicable at the Site is considered to be Type 2.

Under a Remediation Type 2 scenario, MOE (2013a) 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 management measures upon which the HHERA is based are 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) must provide these records to the MOE. As well, if requested by the Director, responsible person(s) must 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:

- a. Inspection by the responsible person or agent once every five years to ensure that:
 - Contaminated soils on-Site are covered by buildings, pavement or a clean soil cap of minimum one metre thickness, or access to soils is prevented by fencing – Photo documentation should be collected and documented in an inspection record.
 - Vegetation with rooting depths of greater than 1 m must not be planted in areas of the site with soil contamination. Photo documentation of those contaminated areas should be collected and documented in an inspection record.
 - Statement of any construction activities on the Site in the inspection interval and appending of the prepared health and safety plan if construction occurred in any of the

contaminated areas.

In summary, it is our opinion that the advisories listed in Schedule B of the CofC are sufficient to ensure performance verification of the risk management measures required for this Site.

GENERAL LIMITATIONS AND CONFIDENTIALITY

Findings presented in this report are based upon the results of a field investigation including a chemical injection remediation plan, the drilling of boreholes, construction of monitoring wells, collection and analysis of soil, water, and vapour samples. Geologic observations and analytical results reflect conditions encountered at a specific test location. Site conditions (geologic, hydrogeologic, and chemical characterization) may vary from that extrapolated from the data collected during this investigation. Consequently, while findings and conclusions documented in this report have been prepared in a manner consistent with that level of care and skill normally exercised by other members of the environmental science and engineering profession practising under similar circumstances in the area at the time of the performance of the work, this report is not intended, nor is it able to provide a totally comprehensive review of present or past site environmental conditions.

This report has been prepared solely for the internal use of Cressey (Quebec Street) Development LLP. and for review by the BC Ministry of Environment, the Contaminated Sites Approved Professionals (CSAP) Society and Mr. Scott Steer R.P.Bio, pursuant to the agreement between Keystone Environmental Ltd. and Cressey (Quebec Street) Development LLP. A copy of the general terms and conditions associated with this agreement is attached in Appendix K. By using this report, Cressey (Quebec Street) Development LLP., BC Ministry of Environment, CSAP, and Mr. Steer agree that they will review and use the report in its entirety. Any use which other parties make of this report, or any reliance on or decisions made based on it, are the responsibility of such parties. Keystone Environmental Ltd. accepts no responsibility for damages, if any, suffered by other parties as a result of decisions made or actions based on this report.

If you should have any questions, please do not hesitate to contact me.

Sincerely,

Keystone Environmental Ltd.

Original signed by

Brent Olson, P.Geo.
Project Manager

Original signed by

Andrew Wan, M.ET., R.P.Bio.
Risk Assessor

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ATTACHMENT:

- References

REFERENCES

REFERENCES

MoE. 2013a. Procedure 12. Procedures for preparing and issuing contaminated sites legal instruments. BC Ministry of Environment, Victoria, BC, February 2013.

MoE. 2013b. Protocol 11: Upper cap concentrations of substances. BC Ministry of Environment, Victoria, BC, January, 2013.

Human Health and Ecological Risk Assessment, 104 East 1st Avenue, Vancouver, BC. Keystone Environmental Ltd., February, 2014.