



December 22, 2015

Mr. Matt Robinson
EAG Canada ULC
Suite 330 – 1650 Des Peres Road
St. Louis, MO 63131

Dear Mr. Robinson:

**Re: Performance Verification Plan for Certificate of Compliance
4760 Keith Avenue, Terrace, BC
Project No. 12118**

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 property located at the 4760 Keith Avenue, Terrace, BC (herein referred to as the "Site").

The PVP presents the principal risk management measures (i.e., the Schedule B key risk management controls) that apply and must remain in place at the Site to ensure that the Site CofC remains valid. The PVP was prepared in accordance with BC Ministry of Environment (MOE) Administrative Guidance 14: Performance Verification Plans, Contingency Plans, and Operations and Maintenance Plans (MOE, 2014). The PVP was based on the findings of the Keystone Environmental report (2015) titled *Report of Findings – Human Health and Ecological Risk Assessment, 4760 Keith Avenue, Terrace, BC*.

DETERMINATION OF REMEDIATION TYPE

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

Under a Remediation Type 2 (Case 2) scenario, MOE (2014) indicates that a PVP is required and that an operations and maintenance plan may be required. A contingency plan is not required.

REQUIRED RISK CONTROLS

The principal risk controls which must be maintained at the Site include the following items:

- Groundwater must not be used as drinking water.
- Future commercial buildings must be constructed with a surface-oriented concrete-slab foundation and footings without basement

REQUIRED ACTIONS TO IMPLEMENT THE REQUIRED RISK CONTROLS

The following actions are required to implement the risk controls:

- Mandatory notification provided to the owner/operator of the Site that no drinking water wells are to be developed
- Communication by the Site owner/operator with building designers to ensure that the construction of future buildings at the Site will be strictly limited to include a surface-oriented concrete slab foundation and footings without basement.

Records of these actions should be maintained by the Site owner and submitted to the MOE if requested. Other reporting requirements for all performance verification records include the following:

- The Director must be notified promptly by the person(s) responsible for the Site if performance verification actions indicate that any of the required risk controls are not being met. The following information must be submitted to the Director with the notification, or as soon as practicable thereafter:
 - The time period over which risk controls were not in place or implemented
 - The nature of the excursion(s)
 - The temporary or permanent corrective measures implemented or to be implemented
 - An implementation schedule
 - Supporting documentation
- If requested by the Director, a report signed by an Approved Professional must be submitted for review to the Director and must include the following (as applicable):
 - An evaluation of the performance of the institutional controls
 - Supporting documentation

SUMMARY RATIONALE

Groundwater contamination exceeding the CSR Schedule 6 drinking water standards are present. A drinking water use preclusion on groundwater at the Site is needed to prevent human consumption and risk.

Indoor air contamination exceeding the CSR Schedule 11 vapour standards are present. Future commercial buildings must be constructed with a surface-oriented concrete slab foundation and footings without basement to remain consistent with the restrictive covenant on the site and to maintain the validity of attenuation factors assumed in the detailed site investigation.

CONCLUSION

It is our opinion that the actions identified above are sufficient to ensure performance verification of the risk controls required for this Site.

GENERAL LIMITATIONS AND CONFIDENTIALITY

Findings presented in this report were based upon the Preliminary Site Investigation – Stage 1 (PSI 1) Update and Detailed Site Investigation (DSI) report and the HHERA report, completed for the property located at 4760 Keith Avenue, Terrace, BC (Keystone Environmental, 2015a; 2015b). This PVP was completed in a manner consistent with that level of care and skill normally exercised by other environmental professionals practicing under similar circumstances in the area at the time of the performance of the work.

This report has been prepared solely for the internal use of EAG Canada ULC and the BC MOE, pursuant to the agreement between Keystone Environmental Ltd. and EAG Canada ULC. This report must be read as a whole and sections thereof cannot be read out of such context. Keystone Environmental Ltd. accepts no responsibility, and denies any liability whatsoever, to parties other than EAG Canada ULC and the BC MOE, who may obtain access to this report for any injury, loss or damage suffered by such parties arising out of, reliance upon, or decisions or actions based on this report, except to the extent those parties have obtained a prior written consent of Keystone Environmental to use and rely upon this report and the information contained herein. Any injury, loss or damages arising from improper use of this report shall be borne by the party making such use.

If you should have any questions, please do not hesitate to contact the signatory below.

Sincerely,

Keystone Environmental Ltd.

Original signed by

Kevin Hall, B.Sc., R.P.Bio.
Risk Assessor

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ATTACHMENT:

- References

REFERENCES

REFERENCES

- British Columbia Ministry of Environment. Environmental Protection Division. 2014. *Administrative Guidance 14 on Contaminated Sites: Performance Verification Plans, Contingency Plans, and Operations and Maintenance Plans*. (Version 1.0). Retrieved from <http://www.env.gov.bc.ca/epd/remediation/guidance/administrative/ag14.pdf>
- Keystone Environmental Ltd. 2015a. *Report of Findings – Stage 1 Preliminary Site Investigation Update and Detailed Site Investigation, 4760 Keith Avenue, Terrace, BC*. Burnaby, BC: Keystone Environmental Ltd.
- Keystone Environmental Ltd. 2015b. *Report of Findings – Human Health and Ecological Risk Assessment, 4760 Keith Avenue, Terrace, BC*. Burnaby, BC: Keystone Environmental Ltd.