

December 21, 2009

9000-7400-32640-02

Cheryl Crumblin, RPF, A.Ag. Environmental Manager Geoterra I.R.S. Ltd. Box 3852 Fort Nelson, BC V0C 1R0

Dear Ms. Crumblin:

RE: WATER INJECTIVITY TEST
ALCAN HZ EVIE b-62-C/094-J-15 (WA# 17986); DEBOLT FORMATION

The Commission received an application, dated November 24, 2009, for disposal of produced water into the Debolt formation of the subject well. Also, a request was received on December 18, 2009 to conduct an extended injectivity test on this zone.

The Debolt formation is a candidate for disposal of produced water from shale gas development in the area. Circumstantial evidence would indicate that this location is prospective for water disposal in the Debolt formation. A limited injection test was successfully conducted in November 2009. Additional work, including a production test, will determine suitability for disposal well operation.

Approval for temporary injectivity testing is hereby granted under Part 8, Division 3, Section 94 of the *Drilling and Production Regulation*, subject to the following conditions:

- 1. The test injection interval must be in the Debolt formation.
- 2. Prior to injection, a production test must be attempted to evaluate hydrocarbon potential.
- 3. The total volume of injected water must not exceed 1200 m<sup>3</sup>.
- 4. The disposal/injection pressure at the sandface must not exceed the formation fracture pressure.

Prior to injection, please contact Ron Stefik at (250) 419-4430 if any hydrocarbons are encountered when conducting the production test. A suitable production test will require operations to unload any liquids in the wellbore and recover sufficient formation water to obtain an uncontaminated water sample.

Please note that a notice of your application for salt water disposal has been posted to the OGC website, with January 4, 2010 as the closing date for any objections to be filed. Final approval will not be issued until well results, in a supplemental application, are reviewed by this office.

Sincerely,

for Richard Slocomb, P. Eng. Supervisor, Reservoir Engineering