

May 25, 2009

9000-7450-32640-02

Darren Munn, P.Eng. Manager, Engineering Stone Mountain Resources Ltd. Sun Life Plaza, West Tower 2800, 144 - 4th Avenue S.W. Calgary AB T2P 3N4

Dear Mr. Munn:

RE: SALT WATER DISPOSAL APPROVAL <u>SMR TATTOO c-C068-B/094-O-15 (WA# 25340); ELKTON FORMATION</u>

Commission staff have reviewed your application dated April 30, 2009 requesting permission to dispose of produced water from shale gas completions into the Elkton formation of the subject well.

The subject well was drilled in March, 2009 and completed open hole in the Elkton formation. A total of 35 m³ water, with no hydrocarbons, was recovered during swab testing at an inflow capability of 85 m³/d. As such, the OGC is satisfied there is no economic hydrocarbon potential in the Elkton formation of the subject well.

The well was stimulated with 10 m³ of 15% HCL, followed by an injectivity test, (approved March 27, 2009), on April 1, 2009. The approved volume of 500 m³ was injected in less than 8 hours, at much higher rates than anticipated. The final injection rate was 1824 m³/d at a wellhead injection pressure of 4700 kPag. The injectivity test demonstrated the Elkton zone has excellent ability to accept water. A reservoir pressure of 6566 kPaa was determined from the fall off test pressure transient analysis. No fluid compatibility issues are anticipated for the proposed disposal of produced frac water from the Muskwa and Evie shales based on test results. A scale inhibition program will be established prior to injection as a precaution.

We concur that the subject well appears to be a good candidate for salt water disposal in the Elkton formation. Notice of your application was posted on the OGC website and no objections were received.

Attached is Approval 09-02-007 for the application, granted under Part 8, Division 3, Section 94 of the *Drilling and Production Regulation*.

Should you have any questions, please contact the undersigned at (250) 952-0366 or Kelly Okuszko, at (250) 952-0325.

Sincerely,

Richard Slocomb, P.Eng. Supervisor, Reservoir Engineering Resource Conservation

Attachment

APPROVAL 09-02-007

THE PROVINCE OF BRITISH COLUMBIA <u>PETROLEUM AND NATURAL GAS ACT</u> DRILLING AND PRODUCTION REGULATION OIL AND GAS COMMISSION

IN THE MATTER of a scheme of Stone Mountain Resources Ltd. (SMR) for Salt Water Disposal in the Tattoo area Elkton formation in the well SMR TATTOO c-C068-B/094-O-15 (WA# 25340).

NOW, THEREFORE, pursuant to Part 8, Division 3, Section 94 of the *Drilling and Production Regulation*, the scheme is hereby approved, as such scheme is described in

an application from SMR to the Commission received April 30, 2009 and related submissions.

- 1. The disposal interval must be in the Elkton formation.
- 2. A record of volume of salt water disposed of through this well must be included on a Monthly Injection/Disposal Statement, in the prescribed form (BC-S18), which must be submitted to the Oil and Gas Commission not later than the 25th day of the month following the reported month.
- 3. The disposal/injection pressure at the sandface must not exceed the formation fracture pressure.
- 4. The Commission must be notified in writing of the date of commencement of disposal.
- 5. This approval may be modified or rescinded if deemed appropriate through a change in circumstances.

Richard Slocomb Supervisor, Reservoir Engineering Resource Conservation Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this <u>25th</u> day of May 2009.