BC Oil & Gas COMMISSION

July 29, 2010 5852-7100-32640-02

Greg Beddoes
Rotex Energy Ltd.
#21, 7895 – 4th Ave
Red Deer, AB T4P 2B4

Dear Mr. Beddoes:

RE: APPROVAL FOR DEEP WELL DISPOSAL OF NON-HAZARDOUS WASTE AND PRODUCED SALT WATER
ROTEX MAXHAMISH b-95-H/094-O-11 (WA# 21085); MATTSON & FANTASQUE

Commission staff have reviewed the application, dated March 23, 2010, requesting approval for disposal of non-hazardous waste and salt water into the subject well. An objection to this application, dated May 20, 2010, was filed by EnCana Corporation (EnCana). It is our understanding of the Commission that communication between the applicant and EnCana has occurred in attempt to resolve concerns.

The proposed disposal interval includes existing perforations in both the Mattson and Fantasque formations. The Mattson is highly porous and wet in this well. The Fantasque is mapped in the same Maxhamish Lake field Fantasque "A" pool as the well ECA Maxhamish c-75-H/94-O-11 (WA# 13590), operated by EnCana, currently producing at 3.8 e^3m^3/d with cumulative production of 0.29 Bcf.

The basis of objection by EnCana, and a concern of the OGC, is liquid disposal at b-95-H having an adverse impact on ultimate gas recovery from the well c-75–H. This is counterweighted by the following points:

- Structural complexities at this location are associated with the Bovie fault system. The top of Fantasque porosity in b-95-H is below the base of pay in the producing well 75-H.
- Injectivity tests were performed on various b-95-H well intervals. Evaluation of the final test, with all perforations open, indicates the majority of injection occurred in the lower Mattson formation, with negligible inflow into the Fantasque formation above.
- The rate of expansion of area of influence from disposal injection should allow concurrent gas recovery over the remaining economic life at c-75-H without negative impact.
- The OGC concurs that wellbore integrity and injectivity would be best preserved by leaving the well bore configured as a commingled completion.

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This application addresses a need in the area for disposal of non-hazardous waste liquids, at a location convenient to a major highway. We concur that the subject well appears to be a candidate for non-hazardous waste and salt water disposal in the Mattson and Fantasque formations, with conditions of the approval addressing the limited risk to remaining gas recovery from the off-setting well c-75-H.

Attached please find Approval 10-02-006 for the application granted under Part 8, Division 3, Section 94 of the *Drilling and Production Regulation* for the subject well and formations.

The Ministry of Environment identifies the type of effluent approved for injection (and maximum rate of injection) in a separate Permit. The effective date of this approval, for the purpose of disposal of non-hazardous waste, is the date of issuance of the Waste Discharge Permit, granted under the Environmental Management Act.

Should you have any questions, please contact Ron Stefik at (250) 419-4430.

Sincerely,

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

Attachment

cc: Susan Bialowas – EnCana Corporation
Reg Marquardt – Ministry of Environment
Devin Scheck, Director - Waste Management, OGC

APPROVAL 10-02-006

THE PROVINCE OF BRITISH COLUMBIA
PETROLEUM AND NATURAL GAS ACT
DRILLING AND PRODUCTION REGULATION
OIL AND GAS COMMISSION

IN THE MATTER of a scheme of Rotex Energy Ltd. (Rotex) for Salt Water and Non-Hazardous Waste (SW/NHW) disposal into the Mattson and Fantasque formations in the well Rotex Maxhamish b-95-H/94-O-11 (WA# 21085).

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

an application from Rotex to the Commission dated March 23, 2010, and related submissions.

1. The salt water and non-hazardous waste disposal interval must be in the Mattson and Fantasque formations.

2. A record of volume of SW/NHW 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. All disposal volumes may be allocated to the Mattson formation.

3. The salt water and non-hazardous waste disposal must be in accordance with the approval conditions of a Waste Discharge Permit, issued by the Ministry of Environment.

4. The maximum allowed wellhead disposal/injection pressure is 10 MPa and must not exceed the bottomhole formation fracture pressure.

5. The volume of liquids injected must not exceed 250,000 m^3 per year.

6. This approval may be modified or rescinded if deemed appropriate through a change in circumstances.

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

DATED AT the City of Victoria, in the Province of British Columbia, this 29th day of July, 2010.