



September 30, 1999

7600-4520-59240-09  
OGC 990477

Ms. Bev Prefontaine  
Consulting Reservoir Technician  
Encal Energy Ltd.  
1800, 421 - Seventh Ave S.W.  
CALGARY, AB T2P 4K9

*Encal/Newport Project (02)*

Dear Ms. Prefontaine:

**RE: PRESSURE MAINTENANCE APPROVAL AMENDMENT #1  
RIGEL CECIL 'I' POOL**

The Commission has reviewed your application dated September 10, 1999 wherein you requested an amendment to the Approval dated February 24, 1999 for a waterflood pressure maintenance scheme in the subject oil pool.

Attached is Approval #99-09-001 (Amendment #1) for the application, granted under section 100 of the Petroleum and Natural Gas Act. This amendment expands the scheme area, modifies the production allowable and adds an additional water injection location.

Sincerely,

B. van Oort, P. Eng.  
Director  
Engineering and Geology Branch

Attachment

Approval Letters to Industry  
GEP, SWD, CONCURRENT PROD,  
PRESSURE MAINTENANCE,  
WATERFLOOD, ETC.

Copy

- Wellfile (originals)
- 59240
- Daily
- Resource Revenue
- R. Stefik
- G. Farr
- P. Attariwala
- C. Gibson
- D. Krezanoski
- S. Chicorelli

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APPROVAL 99-09-001 (AMENDMENT #1)

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


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IN THE MATTER of a pressure maintenance scheme of Encal Energy Ltd. (Encal) for waterflood recovery of oil by water injection into the Rigel Cecil "T" Pool.

The approval granted pursuant to Section 100 of the Petroleum and Natural Gas Act, R.S.B.C. 1996, c.361 is hereby amended as follows:

The pressure maintenance scheme of Encal for waterflood recovery of oil from the Rigel Cecil "T" Pool as described in the application from Encal dated January 22, 1999 and amended September 10, 1999 is hereby approved, subject to the terms herein contained:

1. The project area of the pressure maintenance scheme consists of NE/4 sec 6, E/2 sec 7, W/2 & NE/4 sec 8, W/2 sec 16, E/2 & SW/4 sec 17, W/2 & NE/4 sec 21, sec 27, E/2 & SW/4 sec 28, E/2 frac sec 33, frac sec 34 of Twp 88 Rge 18 W6M, frac unit 12, frac unit 13, unit 22 and unit 23 of Block K/94-A-10.
2. The project daily oil allowable is 253.3 m<sup>3</sup>.
3. Water may be injected into the Rigel Cecil "T" pool through the wells 15-6, 13-27 and A2-28-88-18 W6M.
4. The injection pressure measured at the sandface must not exceed the formation fracture pressure.
5. All associated gas production will be conserved.
6. An oil well may be drilled anywhere within the project area provided that it is not nearer than 100 m to the sides of the project area.
7. Royalty exempt oil production entitlement for the discovery well Encal Rigel 4-21-88-18 W6M (WA 10648) is limited to a volume of 11, 450 m<sup>3</sup> or the volume produced in the first 36 producing months, whichever is lesser.
8. Progress reports shall be filed as stipulated in Section 8 of the *Petroleum and Natural Gas General Regulation*.
9. The operations of the pressure maintenance scheme will be subject to periodic review and modification to the approval may be ordered, if deemed appropriate.

  
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Bou van Oort  
Director  
Engineering and Geology Branch

DATED AT the City of Victoria, in the Province of British Columbia, this 30 day of September, 1999.