



January 12, 2001

7600-4520-59240-09
OGC - 01004

David Cronkhite
Chief Engineer
Encal Energy Ltd.
Box 2310, Station M
CALGARY, AB T2P 2M6

Encal Project (02)

Dear Mr. Cronkhite:

**RE: WATERFLOOD PRESSURE MAINTENANCE APPROVAL (AMENDMENT #3)
RIGEL CECIL 'G' POOL**

The Commission has reviewed your application, dated January 9, 2001 wherein you request an amendment to the waterflood pressure maintenance scheme approval for the subject oil pool.

Attached is Approval #98-09-003 (Amendment #3) for the application, granted under section 100 of the Petroleum and Natural Gas Act. The completion of the horizontal well B13-14-88-18 (bottom-hole 5-14) W6M, WA# 13533, as a water injector should improve oil recovery from the pool. The area of the project remains unchanged from the previous approval.

Please note that a Progress Report, as required under condition #7 of the approval, is now due.

Sincerely,

Craig Gibson, P. Eng.
Manager
Reservoir Engineering and Geology

Attachment

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

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- | | |
|--------------------------|----------------------|
| <input type="checkbox"/> | Wellfile (originals) |
| <input type="checkbox"/> | 59240 |
| <input type="checkbox"/> | Daily |
| <input type="checkbox"/> | Resource Revenue |
| <input type="checkbox"/> | S. Chicorelli |
| <input type="checkbox"/> | R. Stefik |
| <input type="checkbox"/> | G. Farr |
| <input type="checkbox"/> | P. Attariwala |
| <input type="checkbox"/> | D. Krezanoski |

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APPROVAL 98-09-003 (Amendment #3)

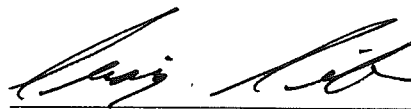
THE PROVINCE OF BRITISH COLUMBIA
PETROLEUM AND NATURAL GAS ACT
OIL AND GAS COMMISSION

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 "G" 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 "G" Pool as such scheme is described in the application from Encal dated February 25, 1998 and modified January 11 and June 19, 2000 and January 9, 2001 is hereby amended, subject to the terms herein contained:

1. The project area of the pressure maintenance scheme consists of sec 10, W/2 sec 14, E/2 sec 15, SW/4 sec 15, SE/4 sec 22, W/2 sec 23, NE/4 sec 23 and sec 26 Twp 88 Rge 18 W6M.
2. The project oil allowable for a month shall be based on the previous month's voidage replacement.
3. Water may be injected into the Rigel Cecil "G" Pool through the wells 6-10, B6-10 (BH 7-10), 11-10, B13-14 (BH 5-14) and 11-23-88-18 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. Progress reports shall be filed as stipulated in Section 8 of the *British Columbia Petroleum and Natural Gas General Regulation*.
8. The operations of the pressure maintenance scheme will be subject to periodic review and modification to the approval may be ordered, if deemed appropriate.



Craig Gibson
Manager
Reservoir Engineering and Geology

DATED AT the City of Victoria, in the Province of British Columbia, this 12th day of January, 2001.