

September 15, 1997

1400-7400-59240-06 970822

Ms. Margaret Byl, P. Eng. Reservoir Exploitation Suncor Inc. Resources Group P.O. Box 38 112 - 4th Ave S.W. Calgary AB T2P 2V5

Dear Ms. Byl:

RE: GOOD ENGINEERING PRACTICE APPROVAL AMENDMENTS BLUEBERRY - DEBOLT 'A' & 'B' POOLS

This is with respect to your application dated May 30, 1997 requesting that the Good Engineering Practice (GEP) approval of April 3, 1963 and subsequently amended June 19, 1992 and May 14, 1996, for the Blueberry Debolt 'A' and 'B' pools, be modified and that two individual GEP's be issued, one for each pool.

We concur with your geological interpretation of two pools and consider your request for two individual GEP approvals appropriate. However, based on a technical review of the data, we do not agree with your proposal that the Debolt 'B' be further segregated into two separate pools.

Attached are two GEP Approvals 92-06-004 (Amendment #3A) and 92-06-004 (Amendment #3B), granted under Part 8, Division 6, section 104 of the *Drilling and Production Regulation*, for the subject pools.

Should you have any questions, please contact Peter Attariwala at (604) 952-0311.

Yours sincerely,

B. van Oort, P. Eng.

Director

**Engineering and Operations Branch** 

Attachments

Cöpies för Approval Letter to Industry (11)
RE: GEP, Sält Water Disposals, etc.

G. Miltenberger
Data Management

R. Stefik
D. Richardson ( PGT)
P. Attariwala
G. Farr
S. Chicorelli ( PGT)
Resource Revenue
59240
Wellfiles (originals)
Daily

Ministry of Employment and Investment Energy and Minerals Division Engineering and Operations Branch

Mailing Address: PO Box 9326 Stn Prov Govt Victoria BC V8W 9N3 Location: Sixth Floor 1810 Blanshard Street Victoria

## APPROVAL 92-06-004 (AMENDMENT #3A)

## THE PROVINCE OF BRITISH COLUMBIA PETROLEUM AND NATURAL GAS ACT DRILLING AND PRODUCTION REGULATION MINISTRY OF EMPLOYMENT AND INVESTMENT ENERGY AND MINERALS DIVISION

IN THE MATTER of a Good Engineering Practice (GEP) scheme of Suncor Inc. (Suncor) for producing the Blueberry Debolt 'A' oil pool with a project allowable.

NOW, THEREFORE, the Division Head, pursuant to Part 8, Division 6, section 104 of the *Drilling and Production Regulation*, hereby approves modification to the GEP scheme of Suncor as such scheme is described in

an Application from Suncor to the Division dated May 30, 1997.

This scheme approval of May 14th, 1996, is modified, subject to the conditions herein contained and, in particular:

- The area of the project is Section 25, fractional Sections 35 and 36-88-25 W6M, fractional units 8, 9, units 18 20, 29, 30, 39, 40, 49, 50, 60, 70 Block K, units 31, 41, 51Block L/94-A-12.
- 2. The reserves based project oil allowable is 869.0 m<sup>3</sup>/d.
- 3. 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.
- 4. This approval may be modified or rescinded at a later date if deemed appropriate.

B. van Oort, on behalf of

the Division Head

**Energy and Minerals Division** 

DATED AT the City of Victoria, in the Province of British Columbia, this / day of September, 1997.

## APPROVAL 92-06-004 (AMENDMENT #3B)

## THE PROVINCE OF BRITISH COLUMBIA PETROLEUM AND NATURAL GAS ACT DRILLING AND PRODUCTION REGULATION MINISTRY OF EMPLOYMENT AND INVESTMENT ENERGY AND MINERALS DIVISION

IN THE MATTER of a Good Engineering Practice (GEP) scheme of Suncor Inc. (Suncor) for producing the Blueberry Debolt "B" oil pool with a project allowable.

NOW, THEREFORE, the Division Head, pursuant to Part 8, Division 6, section 104 of the *Drilling and Production Regulation*, hereby approves modification to the GEP scheme of Suncor as such scheme is described in

an Application from Suncor to the Division dated May 30, 1997.

This scheme approval of May 14th, 1996, is modified, subject to the conditions herein contained and, in particular:

- 1. The area of the project is units 61, 71, 72, 81, 82, 92, 93 Block L/94-A-12 and units 2 4, 13 15, 24, 25, 34 36, 45 47, 56, 57 Block D/94-A-13.
- 2. The reserves based project oil allowable is 292.7 m<sup>3</sup>/d.
- 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.
- 4. This approval may be modified or rescinded at a later date if deemed appropriate.

B/van Oort, on behalf of the Divisian Head

Energy and Minerals Division

DATED AT the City of Victoria, in the Province of British Columbia, this (Jday of September, 1997.

September 15, 1997

**To:** File 1400-7400-59240-06

Re: GOOD ENGINEERING PRACTICE APPROVAL AMENDMENT BLUEBERRY - DEBOLT 'A' & 'B' POOLS

The Blueberry Debolt A & B oil pools have been on production since 1956. A GEP was approved April 3, 1963, which included the area of both the A and B pools, under a single DOA.

Each pool lies to the west of a major N-S trending sealing fault, but have been performing independently and are not in communication. The southern A pool experiences active bottom water drive which has been supplemented by downdip water disposal wells. The B pool has experienced pressure decline and increasing GOR under gascap expansion. It is interesting to note the Ministry has twice approved waterflood pressure maintenance schemes for the B pool but they have never been implemented.

Suncor has requested that separate GEP approvals be issued for each pool and that the B pool be further subdivided into two pools to permit gascap blowdown to commence. The Ministry does not agree to subdivision of the B pool and will not approve blowdown at this time. The ultimate recovery of oil would be reduced if blowdown was approved at this stage. If Suncor can make a convincing case that Pool 'B' should be further subdivided than blowdown may be considered. All wells had remained under single operatorship until Kaiser Energy drilled an oil well in the B pool in August 1995, thus presently correlative rights issues, and conservation is at risk.

The ministry is willing to recognize Suncor calculated reserves, which are higher than MEI, in calculating pool DOAs. The proposed allowables will have no impact on production from the A pool and approximately equals B pool production when adjusted for GOR.

Ron G. Stefik Senior Reservoir Engineering Technician Engineering and Operations Branch