

## OIL AND GAS COMMISSION

July 22, 2005

5600-4540-59240-06 OGC -05217

Kurtis Fischer Sr. Engineering Technologist Crew Energy Inc. 1920, 205 – 5<sup>th</sup> Avenue SW Calgary AB T2P 2V7

Dear Mr. Fischer:

RE: GOOD ENGINEERING PRACTICE APPLICATION LAPRISE CREEK - COPLIN "B"

The Commission has reviewed your application dated July 7, 2005 requesting a Good Engineering Practice (GEP) scheme approval with concurrent production for producing oil and gas from the subject pool.

Commission staff have reviewed the updated simulation results, submitted by Crew Energy Inc. (Crew) in support of the application. Based on simulation results, Crew maintains that due to the thin nature of the reservoir and the oil- wet character of the rock, secondary recovery through waterflood pressure maintenance will not yield incremental oil recovery. Crew also believes that ultimate pool recovery will not be affected by oil production rate.

The OGC has received a letter, dated June 23, 2005, from Capex Exploration Ltd. (Capex) objecting to the proposed GEP with concurrent production scheme. Capex has recently drilled a well at d-A26-H/94-G-8 (WA# 19287), encountering oil pay in the subject pool. Capex has requested that it have an opportunity to test its new well and determine the optimum depletion strategy for the subject pool.

There are two issues that the Commission must address with regard to Crew's application for GEP with concurrent production: resource conservation and production equity. The simulation results are contrary to expectations for a solution gas drive reservoir and to the Commission's experience with analog pools. Controlled oil production rates, with low drawdown would minimize the pool's producing GOR and thus maximize oil recovery. Additionally there is an expectation that waterflood pressure maintenance would incremental oil recovery. Although Crew has obtained a core sample from the well c-25-H/94-G-8, yield incremental oil recovery. Although Crew has obtained a ssumptions, such as; reservoir wettability analysis of the core has not been performed to validate model assumptions, such as; reservoir wettability and water-oil relative permeability data. The Commission believes that resource conservation may be at risk with continued concurrent production. Additionally, the higher than normal project gas allowable, risk with continued concurrent production. Additionally production situation for Capex.

isk with community concertainty in an inequitable production study and independent production, may result in an inequitable production study independent production.	Approval Letters to Industry GEP, SWD, CONCURRENT PROD, PRESSURE MAINTENANCE, WATERFLOOD, ETC.
RESOURCE CONSERVATION BRANCH PO Box 9329 Stn Prov Gov't, Victoria BC V8W 9N3 Tel: (250) 952-0 Location: 6 <sup>th</sup> Flr 1810 Blanshard St, Victoria B Headquarters: #200, 10003 110 <sup>th</sup> Ave, Fort St. John BC V1J 6M7 Tel: (250) 2 www.ogc.gov.bc.ca	Copy 9 Wellfile (originals) 59240 Daily Resource Revenue S. Chicorelli

For the reasons given above, the OGC has determined that a GEP with concurrent production approval is not appropriate at this time. However, the Commission does believe that a GEP approval with a project based allowable is warranted, subject to normal GOR penalties. Therefore approval 05-06-036 is hereby granted under Part 8, Division 6, Section 101 of the British Columbia *Drilling and Production Regulation*.

This approval is intended to allow operational flexibility for producing lower GOR oil wells so as to maximize oil recovery. Please note that the Commission may establish a lease line daily oil allowable, as per Section 78 (3) of the *Drilling and Production Regulation*, if deemed necessary.

Sincerely,

Craig Gibson, P. Eng.

Director

Resource Conservation Branch

Attachment

## APPROVAL 05-06-036

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

IN THE MATTER of a Good Engineering Practice (GEP) scheme of Crew Energy Inc. (Crew) for producing the Laprise Creek – Coplin "B" oil pool with a project oil allowable.

NOW, THEREFORE, the Commission, pursuant to Part 8, Division 6, Section 101 of the *Drilling and Production Regulation*, hereby approves the GEP scheme of Crew as such scheme is described in

an Application to the Commission from Crew dated July 7, 2005.

This scheme is approved, subject to the conditions herein contained and, in particular:

- The area of the scheme shall consist of: 094-G-08 Block H – units 14, 15, 25, 35, 36, 46, and 56.
- 2. The project daily oil allowable, being the sum of the individual well allowables, is 60 m<sup>3</sup>.
- 3. All gas production will be conserved.
- 4. The requirements of Section 9 of the *Drilling and Production Regulation* are hereby waived, provided that oil wells within the scheme area are not completed nearer than 100 m to the sides of the approved scheme area.
- 5. This approval may be modified or rescinded at a later date if deemed appropriate.

Director

Resource Conservation Branch Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 22day of July 2005.