



OIL AND GAS COMMISSION

April 3, 2007

2850-4060-59240-16

E. Oberhofer, P. Eng.
Sr. Reservoir Engineer
ConocoPhillips Canada
401 – 9th Avenue S.W.
Calgary, AB T2P 2H7

Dear Ms. Oberhofer:

Re: Acid Gas Injection Approval 04-16-001 (Amendment #1)
Burlington Burnt River a-94-A/93-O-8; WA 7908
Burnt River Pardonet-Baldonnel "A" Pool

This refers to your application dated March 20, 2007 wherein you requested an amendment to the acid gas injection approval for the subject well.

Based on the submitted technical data from Fekete Associates Inc., the proposal by ConocoPhillips Canada to increase the maximum acid gas injection rate is considered appropriate. Please note that only condition #5 of the original approval granted on October 21, 2004 has been amended, all other approval conditions remain unchanged.

Attached please find Approval 04-16-001 (Amendment #1) for the application granted under Section 100 of the Petroleum and Natural Gas Act.

Sincerely,

Doug McKenzie
Director
Resource Conservation Branch

Attachment

RESOURCE CONSERVATION BRANCH

PO Box 9329 Stn Prov Gov't, Victoria BC V8W 9N3 Tel: (250) 952-0302 Fax: (250) 952-0301
Location: 6th Flr 1810 Blanshard St. Victoria BC

Headquarters: #200, 10003 110th Ave, Fort St. John BC V1J 6M7 Tel: (250) 261-5729 Fax: (250) 261-5744 www.ogc.gov.bc.ca

APPROVAL 04-16-001 (AMENDMENT #1)

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

IN THE MATTER of a proposal (the Scheme) by ConocoPhillips Canada (the Operator) to inject acid gas into the Pardonet-Baldonnel "A" pool in the well Burlington Burnt a-94-A/93-O-08 (the well).

NOW THEREFORE, the Commission, pursuant to section 100 of the Petroleum and Natural Gas Act, R.S.B.C. 1996, c.361 hereby orders as follows:

The Scheme of the Operator for the injection of acid gas (hydrogen sulphide and carbon dioxide) into the Pardonet-Baldonnel "A" pool through the well, as such proposal is described in an application from the Operator to the Commission dated March 10, 2004 and supplemented with an additional application dated March 20, 2007 is hereby approved, subject to terms and conditions herein contained.

1. Acid gas shall be injected only into the Pardonet-Baldonnel "A" pool through the well.
2. The area of the Scheme shall consist of units 72-75, 82-85 and 92-95 of Block A and units 2-5 of Block H/93-O-8.
3. The wellhead injection pressure must not exceed 10,000 kPag.
4. The sandface injection pressure must not exceed 30,000 kPag.
5. The injection rate must not exceed $1133 \text{ } 10^3 \text{ m}^3/\text{d}$ expressed at 101.325 kPaa and 15 degrees Celsius.
6. The cumulative volume injected must not exceed $1,250.0 \text{ } 10^6 \text{ m}^3$ expressed at 101.325 kPaa and 15 degrees Celsius.
7. The Operator must monitor the casing, conduct annular packer isolation tests and implement appropriate corrosion protection measures.
8. The Operator must monitor reservoir pressure in the offsetting wells and maintain the hydraulic isolation of the injection zone.
9. The Wellhead Emergency Shut-Off Device must be linked to H₂S detector heads at the wellhead and a Subsurface Safety Valve or Injection Check Valve must be installed in the tubing string to operate "fail-safe".
10. A barricade must be installed around the wellhead that is capable of withstanding vehicle collision.
11. All injection operations must be immediately suspended if any injection equipment, monitoring equipment or safety devices considered necessary for safe operation should fail.
12. The Operator must submit a progress report to the Commission for each six-month period the Scheme is in operation, determined from the first day of injection. The requirement may be amended at the request of the operator after the scheme has been in operation for a period of three years. The progress report is due within 60 days after the end of each period and must contain:

- a) details of any workover or treatment program done on the well with reasons for the workover and results of the workovers,
 - b) a discussion of any changes in injection equipment and operations,
 - c) a general review of the operation of the project including identification of problems, remedial action taken and results of the remedial action on project performance,
 - d) a discussion of the overall performance of the scheme,
 - e) an evaluation of all monitoring done during the reporting period including corrosion protection, fluid analyses, logs and any other data collected,
 - f) a table showing monthly volumes of injected fluid, corresponding maximum wellhead injection pressures, maximum daily injection rates, average wellhead temperatures and hours on injection,
 - g) the volume-weighted average composition and formation volume factor for the injected fluid,
 - h) a plot showing monthly injection volume and average pressure versus time on an ongoing basis,
 - i) a table showing tonnes of sulphur and carbon dioxide disposed on a monthly and cumulative basis.
13. The Scheme shall be deemed to have commenced upon initiation of acid gas injection into the well. The Director, Operations Engineering Branch must be notified in writing 72 hours prior to the commencement of injection operations.
 14. An Emergency Response Plan procedure must be filed with the Director, Operations Engineering Branch prior to commencement of the injection operations.
 15. The operations of the acid gas injection scheme will be subject to periodic review by the Commission. The Director, Resource Conservation Branch or the Director, Operations Engineering Branch, may issue general guidelines regarding the operations of the acid gas injection scheme.
 16. The approval or any condition of it may be modified or rescinded for non-compliance of the conditions or unsafe operations.



Doug McKenzie
Director
Resource Conservation Branch

DATED AT the City of Victoria, in the Province of British Columbia, this 3rd day of April, 2007.