

April 20, 2016

6600-7340-59240-16

Jeremy Sarada, CET  
Regulatory Analyst  
Centrica Canada  
1200, 525 – 8<sup>th</sup> Avenue S.W.  
Calgary, Alberta T2P 1G1

Dear Mr. Sarada:

**RE: ACID GAS DISPOSAL ORDER 01-16-001 AMENDMENT #1  
DIRECT ET AL PARKLAND 15-17-081-15W6M; WELL PERMIT #7979  
BASAL KISKATINAW 'B' POOL**

Commission staff have reviewed the request, dated March 29, 2016, seeking an increase in the approved disposal volume for the subject well. The approval for this well, issued in February 2001, stipulated a maximum cumulative disposal volume of 37 e<sup>6</sup>m<sup>3</sup>. Based on an assumption of continued operations at the current average rate, this maximum volume will be reached August 2016.

The subject well 15-17-81-15 was drilled for the purpose of Basal Kiskatinaw 'B' production, produced from July 1993 to August 2001. The last production from the Kiskatinaw 'B' pool was August 2001. The subject well was then converted to acid gas disposal, with first disposal operations in September 2001.

The Commission is currently reviewing all acid gas disposal approvals, establishing new conditions for enhanced safety of this type of well. Until the review process is complete and all new conditions confirmed, amendments will be temporary extensions. The attached amended approval order increases the maximum cumulative disposal volume to accommodate approximately one year of disposal. As well, the amendment includes some conditions that have been standardized since the original 2001 approval.

Attached please find Order 01-16-001 Amendment #1 designating an area in the Parkland field Basal Kiskatinaw 'B' pool as a Special Project under section 75 of the *Oil and Gas Activities Act*, for the operation and use of a storage reservoir for the disposal of acid gas.

Should you have any questions, please contact Michelle Gaucher at (250) 419-4482 or Ron Stefik at (250) 419-4430.

Sincerely,



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Richard Slocomb, P.Eng.  
Deputy Commissioner, Engineering  
Oil and Gas Commission

Attachment

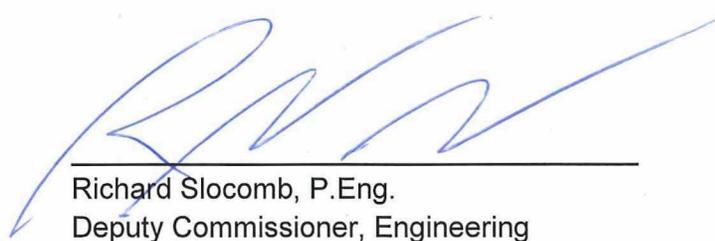
**ORDER 01-16-001 Amendment #1**

- 1 Under Section 75(1)(d) of the *Oil and Gas Activities Act*, the Commission designates the Basal Kiskatinaw "B" pool as a special project for the operation and use of a storage reservoir for the disposal of acid gas within the following area:

DLS      TWP 81      RNG 15      Sec 17.

- 2 Under section 75(2) of the *Oil and Gas Activities Act*, the special project designation in this Order is subject to the following conditions. The Permit Holder shall:
- a) Inject acid gas only into the well Direct et al Parkland 15-17-81-15W6M; WA 7979 – Basal Kiskatinaw 'B' pool (2446.5 – 2454.0 mKB MD).
  - b) Not exceed an injection pressure, measured at the wellhead on the subject well, of 6,500 kPag or the pressure required to fracture the formation, whichever is lesser.
  - c) The cumulative volume of acid gas injected must not exceed  $41.0 \times 10^6 \text{m}^3$  expressed at 101.325 kilopascals absolute and 15 degrees Celsius.
  - d) Inject only through tubing with a packer set as near as is practical above the injection interval.
  - e) Continually measure and record the wellhead casing and tubing pressures electronically.
  - f) Collect fluid sample annually and submit a report of the analysis through electronic submission noted to the disposal well
  - g) Cease injection and notify the Commission immediately if hydraulic isolation is lost in the wellbore or formation.
  - h) Submit the annual packer isolation test report to the Commission within 30 days of the completion of the test.
  - i) Include the disposal operating hours, the maximum injection pressure and the minimum temperature values on the monthly BC-S18 disposal statement.
  - j) At each facility turn-around, conduct a reservoir pressure test on the formation in the subject well, with a shut-in period of sufficient length to provide data for calculation of the reservoir pressure and submit a report of the test within 60 days of the end of the test.
  - k) Implement appropriate corrosion and freeze protection measures in the casing-tubing annulus.
  - l) During the next facility turnaround:
    - i) Perform a through tubing casing inspection log on the subject well and submit results to the Commission within 30 days of the completion of logging, at the next facility turn-around.
    - ii) Perform a hydraulic isolation temperature log on the subject well and submit results to the Commission within 30 days of the completion of logging

- m) Install a barricade around the wellhead that is capable of withstanding vehicle collision.
- n) Ensure a Wellhead Emergency Shut-Off Device and Subsurface Safety Valve are installed to operate "fail-safe" and these should be linked to H<sub>2</sub>S detector heads at the wellhead.
- o) Ensure the Subsurface Safety Valve has controls for remote activation.
- p) Immediately suspended all injection operations if any injection equipment, monitoring equipment or safety devices considered necessary for safe operation should fail.
- q) Not conduct a hydraulic fracture stimulation on any formation in the subject well without prior Commission approval.
- r) Submit a Progress Report to the Commission for each six month period the project is in operation. The Progress Report must be filed within 60 days after the end of each period and must contain the information specified in the Acid Gas Progress Report Requirements document found on the OGC website here: <http://www.bcogc.ca/industry-zone/documentation/Subsurface-Disposal>.



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Richard Slocomb, P.Eng.  
Deputy Commissioner, Engineering  
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 20<sup>th</sup> day of April, 2016.

## **Advisory Guidance for Order 01-16-001 Amendment #1**

- I. All injection into a well, except fresh water injection, must be through tubing as per section 16(1) of the Drilling and Production Regulation.
- II. A production packer must be set above the injection interval and the space between the tubing and casing filled with corrosion and frost inhibiting fluids, as per section 16(2) of the Drilling and Production Regulation.
- III. Annual packer isolation tests are required, and must be submitted within 30 days of completing the test as per section 16(3) of the Drilling and Production Regulation.
- IV. Injected fluids must be metered, as per section 74 of the Drilling and Production Regulation.
- V. A monthly disposal statement must be submitted to the Commission not later than the 25<sup>th</sup> day of the month following the reported month, as per section 75 of the Drilling and Production Regulation.