



September 19, 2017

5000-4150-59240-16

Marie Johnson
Progress Energy
Suite 1200, 205 – 5th Ave S.W.
Calgary, Alberta T2P 2V7

Dear Ms. Johnson:

**RE: ACID GAS DISPOSAL APPROVAL 96-16-001 AMENDMENT #1
PROGRESS ET AL JEDNEY b-088-J/094-G-01; WELL PERMIT #427
JEDNEY FIELD – BALDONNEL/UPPER CHARLIE LAKE “A” POOL**

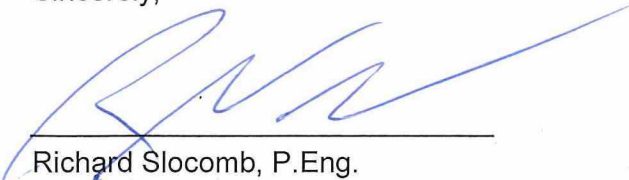
The subject well was approved for deep disposal of waste by-product acid gas (H₂S & CO₂), as a Special Project Order Approval 96-16-001 under section 116 of the Petroleum and Natural Gas Act. This amended approval is issued under Section 75 of the Oil and Gas Activities Act. Conditions in the Order reflect the back-up disposal purpose of this well, the primary disposal well a-79-J/94-G-1 WA# 9637 subject to disposal approval Order 96-16-002. It is the understanding of the Commission that placing this well into active disposal service will require significant planning. Disposal use of this well for a period exceeding five (5) consecutive days will require confirmation of wellbore and reservoir integrity.

Attached please find Order 96-16-001 Amendment #1, designating an area in the Jedney field Baldonnel/Upper Charlie Lake “A” pool.

Changes to emergency response planning requirements and planning zone determination is expected as a result of this amendment. The Emergency Planning Zone will be calculated based on the maximum H₂S and maximum allowed reservoir pressure. The changes to the Emergency Response Plans and planning zones will be conducted through the Commission’s Security and Emergency Management branch. Please contact Peter Dalton (Peter.Dalton@bcogc.ca), Director, Security & Emergency Management, to make the required amendments.

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

Sincerely,



Richard Slocomb, P.Eng.
Vice President, Engineering
Oil and Gas Commission

Attachments

ORDER 96-16-001 AMENDMENT #1

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

NTS 94-G-01 Block J Unit 88

- 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:

Well Details

- a) Inject acid gas only into the well Progress et al Jedney b-088-J/094-G-01; WA 427 – Baldonnel/Upper Charlie Lake "A" pool (1433.1 – 1476.7 mKB).

Operating Limits

- b) Limit the maximum H₂S concentration of the injection fluid stream to 80%
- c) Not exceed an injection pressure, measured at the wellhead on the subject well, of 9,800 kPag or the pressure required to fracture the formation, whichever is lesser.
- d) Not exceed 5 consecutive days of disposal without prior Commission consent.
- e) Inject only through tubing with a packer set as near as is practical above the injection interval.
- f) Continually measure and record the wellhead casing and tubing pressures electronically, including when the disposal well is inactive or suspended.

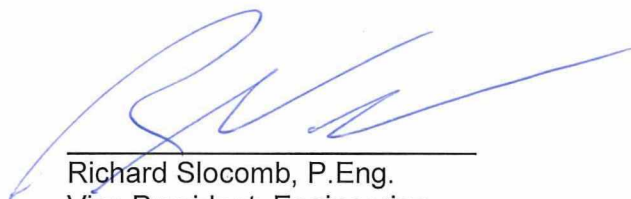
Monitoring

- g) Submit an annual Well Suspension/Injection form within the 30 days of the completion of the required tubing and annulus pressure tests.
- h) Conduct and submit an annual Surface Casing Vent Flow test to the Commission within 30 days of the completion of the test
- i) Every 2 years, 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.

Wellbore Integrity

- j) Ensure a Wellhead Emergency Shut-Off Device and Subsurface Safety Valve (SSSV) are installed to operate "fail-safe" and are linked to H₂S detector heads at the wellhead.
- k) Annually confirm the Subsurface Safety Valve is capable of activation remote from the wellhead.
- l) Implement appropriate corrosion and freeze protection measures in the casing-tubing annulus.
- m) Cease injection and notify the Commission immediately if hydraulic isolation is lost in the wellbore or formation.

- a) Maintain a barricade around the wellhead that is capable of withstanding vehicle collision.
- b) Not conduct a hydraulic fracture stimulation on any formation in the subject well without prior Commission approval.
- c) 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>.
- d) Prior to abandonment of the disposal zone, conduct a reservoir pressure test on the zone 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.



Richard Slocomb, P.Eng.
Vice President, Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 19th day of September, 2017.

Advisory Guidance for Order 96-16-001 Amendment #1

- I. A production packer must be set above the injection interval and the space between the tubing and casing filled with corrosion inhibiting fluids, as per section 16(2) of the Drilling and Production Regulation.
- II. Annual packer isolation tests are required, as per section 16(3) of the Drilling and Production Regulation.
- III. Injected fluids must be metered, as per section 74 of the Drilling and Production Regulation.
- IV. A monthly disposal statement must be submitted to the Commission not later than the 25th day of the month following the reported month, as per section 75 of the Drilling and Production Regulation.
- V. All fluid analyses must be submitted with 30 days of analysis completion as per section 34 (5) (a) of the Drilling and Production Regulation.