

September 25, 2020

9000-2700/2800-32640-02

Mat Loewen  
President  
Albright Flush Systems Ltd.  
P.O. Box 6148  
Fort St. John, BC V1J 4H6

Dear Mr. Loewen:

**RE: PRODUCED WATER DISPOSAL SPECIAL PROJECT; AMENDMENT #3  
ABT W STODDART A10-9-87-21 (WA #14095)  
STODDART WEST FIELD – CADOMIN AND GETHING FORMATIONS**

The Commission has reviewed the application from Benoit Regulatory Compliance on behalf of Albright Flush Systems Ltd. (Albright), dated July 10<sup>th</sup>, 2020, requesting commingled disposal approval for both the Gething and the Cadomin formations in the subject well. On November 10<sup>th</sup> of 2014, the well was approved for disposal into the Cadomin formation under OGAA section 75 Order 14-02-013. The order has since received two minor amendments.

Albright requested approval, a condition required of the order, to fracture the Cadomin in Q2 2019. The Commission was concerned that fractures may extend into the caprock (Gething), for which Albright did not have the PNG rights which allow fluid storage. Based on model results, the Commission approved a hydraulic fracture on June 17<sup>th</sup>, 2019 of a maximum size of 25t. Albright has since acquired consent to use the Gething for disposal from ConocoPhillips Canada Resources Corp., the 100% interest holder of the PNG rights. Albright intends to apply to hydraulically fracture the Cadomin and potentially the Gething at a future date.

Attached please find **Order 14-02-013 Amendment #3**, designating an area near the Stoddart West field – Cadomin and Gething formations 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 produced water. This Order includes a number of detailed operational conditions including: continuous tubing and casing pressure measurements, a maximum wellhead injection pressure, an ultimate reservoir pressure limit, as well as wellbore integrity monitoring and reporting requirements. Disposal wells are subject to regular field inspection and audit. Contravention of a condition of this Order may be subject to enforcement under section 62 of OGAA, or suspension or cancellation of the Order under section 75(2)(b). **This amendment becomes effective the date of a well recompletion or hydraulic fracture treatment** which removes reservoir segregation of the Cadomin and Gething formations. Until such time, the present approval Order 14-02-013 Amendment #2 remains in effect

Note that as per condition 2k), a hydraulic fracture may not be conducted on either formation without prior condition approval. Disposal of fluid with high total dissolved solids content requires adjustment of the wellhead injection pressure to remain below formation fracture pressure. It is the responsibility of the permit holder make adjustments to wellhead injection pressure.

Should you have any questions, please contact Logan Gray at (250) 419-4465 or Ron Stefik at (250) 419-4430.

Sincerely,



Ron Stefik, Eng. L.  
Supervisor, Reservoir Engineering  
Oil and Gas Commission

Attachment

### ORDER 14-02-013 Amendment #3

- 1 Under Section 75(1)(d) of the *Oil and Gas Activities Act*, the Commission designates the operation and use of a storage reservoir for the disposal of produced water, including flowback from fracturing operations, near the Stoddart West field – Cadomin and Gething formations as a special project in the following area:

DLS Twp 87 Rge 21 W6M Section 9 - Lsds 9, 10, 15, and 16

- 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 produced water into the well ABT W Stoddart A10-9-87-21; WA# 14095 Cadomin formation from 1,259.0 – 1,273.0 mKB. Produced water may also be stored in the Gething formation.
  - b) Not exceed an injection pressure, measured at the wellhead on the subject well, of 14,975 kPag or the pressure required to fracture the formation, whichever is lesser.
  - c) Inject only through tubing with a packer set as near as is practical above the injection interval.
  - d) Continually measure and record the wellhead casing and tubing pressures electronically.
  - e) Include the disposal operating hours and the maximum injection pressure value on the monthly Petrinex disposal report.
  - f) Cease injection and notify the Commission at Reservoir@bcogc.ca immediately if there are any indications that hydraulic isolation is lost in the wellbore or formation.
  - g) Conduct and submit an annual Surface Casing Vent Flow test to the Commission within 30 days of the completion of the test.
  - h) Conduct an annual 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.
  - i) Cease injection upon reaching a maximum formation pressure of 12,780 kPaa, measured at 1,266.0 mKB.
  - j)
    - i) Perform a casing inspection log on the subject well and submit results to the Commission within 30 days of the completion of logging, at an interval of not more than every 7 years, commencing from the date of initial disposal.
    - 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, at an interval of not more than every 5 years, commencing from the date of initial disposal.
  - k) Not conduct a hydraulic fracture stimulation on any formation in the subject well without prior Commission approval.
  - l) This amendment becomes effective the date of a well recompletion or hydraulic fracture treatment which removes reservoir segregation of the Cadomin and Gething formations.



Ron Stefik, Eng.L.  
Supervisor, Reservoir Engineering  
Oil and Gas Commission

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**Advisory Guidance for Order 14-02-013 Amendment #3**

- I. 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.
- II. Annual packer isolation tests are required to be conducted and the associated report must be submitted to the Commission within 30 days of test completion, as per section 16(3) of the Drilling and Production Regulation.
- III. Injected fluids must be metered and the injection pressure measured at the wellhead, as per section 74 of the Drilling and Production Regulation.
- IV. A monthly disposal statement must be submitted to the Commission via Petrinex not later than the 20<sup>th</sup> day of the month following the reported month, as per section 75 of the Drilling and Production Regulation.
- V. Seismic events must be reported and disposal operations suspended as per section 21.1 of the Drilling and Production Regulation.