

April 20, 2018

2200-4100-32640-60

Andy Johnson  
Area Leader of North Montney Operations  
Spectra Energy Midstream Corporation  
Suite 2200, 425 1<sup>st</sup> Street SW  
Calgary, AB T2P 3L8

Dear Mr. Johnson:

**RE: OBSERVATION WELL STATUS APPROVALS**  
**SEMC BUBBLES d-88-I/94-G-1; WA #462**  
**SEMC BUBBLES d-98-I/94-G-1; WA #14235**  
**SEMC BUBBLES d-8-A/94-G-1; WA #23757**  
**BUBBLES FIELD - BALDONNEL 'A' POOL**

Commission staff have reviewed the Spectra Midstream request for approval of three observation wells, dated April 10, 2018. The Drilling and Production Regulation Part 1 defines an observation well as "a well or a portion of a well designated as an observation well under section 2 (7)".

2 (7) An official may designate a well as an observation well if

- (a) the well is being used to monitor reservoir pressures or to obtain other formation information, and
- (b) the well is not used to produce from, or inject or dispose of fluids into, a formation being monitored.

The wells in this request were gas producers until 2013. During the time as producers and since, reservoir pressure and gas samples have been taken on these wells and have been used to assess migration of the acid gas plume within the Baldonnel A pool. The Commission and Spectra consider the fluid analyses and pressure data gathered from the well as having continued value for reservoir modelling and evaluating future disposal well options. Therefore, the Commission approves the wells for observation purpose.

Spectra will perform reservoir pressure tests on these wells in 2019 and will select the most suitable well for continued observation and potential back-up disposal for b-19-A/94-G-1 (WA 464); Special Project Approval # 97-16-002. Therefore, this approval is valid until December 31, 2019, at which time, two of the wells will require initiation of a High Risk suspension as detailed in the [Oil and Gas Activity Operations Manual, Chapter 9](#).

Approval of observation status is granted for wells SEMC Bubbles d-88-I/94-G-01; WA #462, SEMC Bubbles d-098-I/94-G-01; WA #14235 and SEMC Bubbles d-008-A/94-G-01, WA #23757, with the following conditions:

1. Collect fluid sample and submit analyses from the Baldonnel A pool each 6 months and submit the gas composition analyses.

2. Conduct a reservoir pressure test in 2018 and 2019 of sufficient duration to attain a stabilized pressure or until sufficient data are available to permit the calculation of the reservoir pressure.
3. Before December 31, 2019, submit to the Supervisor, Reservoir Engineering, a plan for continued use of one well as observation and high-risk suspension of the other two wells.

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

Sincerely,



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