



December 20, 2010

0320-4997-59240-06

Chad Holowatuk
VP Reservoir Engineering
Canbriam Energy Inc.
500, 521 – 3rd Ave SW
CALGARY, AB T2P 3T3

Dear Mr. Holowatuk:

**RE: GOOD ENGINEERING PRACTICE SPECIAL PROJECT
OTHER THAN NORMAL SPACING ORDER
ALTARES FIELD – DOIG PHOSPHATE-MONTNEY “A” POOL**

The Commission has reviewed your application, dated September 2, 2010, requesting approval of Good Engineering Practice for an area within the Altares field – Doig Phosphate/Montney formation.

The Commission maps the area of application within the Altares field Doig Phosphate-Montney “A” pool. As a compound formation pool, commingled production applications or notifications are not required. Gas recovery from this low permeability resource will benefit from the ability to produce horizontal wells in optimal locations, drilling from central sites.

As a result of recent legislative changes, authorities previously contained in a single approval document for this activity are now covered in the attached;

- 1) Order 10-06-057 designating Good Engineering Practice within a portion of the Altares field Doig Phosphate-Montney “A” pool as Special Projects under section 75 of the *Oil and Gas Activities Act*, and
- 2) Order 10-06-057–OTN approving Other Than Normal Spacing under section 65.1 of the *Petroleum and Natural Gas Act* for the subject formation and area.

As a Good Engineering Practice special project the applicant intends to locate, complete and operate wells in a manner to optimize resource recovery while minimizing surface impacts. No objections were received following posting of a notice of application on the OGC website.

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

Sincerely,

Richard Slocomb, P.Eng.
Supervisor, Reservoir Engineering
Resource Conservation

Attachments

IN THE MATTER of an application from Canbriam Energy Inc. to the Commission dated September 2, 2010 for a Good Engineering Practice project.

ORDER 10-06-057

- 1 Under Section 75(1)(a) of the *Oil and Gas Activities Act*, a portion of the Altares field – Doig Phosphate-Montney “A” pool is designated as a special project for the enhanced recovery of natural gas utilizing Good Engineering Practice within the following area;

DLS Twp 83 Rge 26 - fractional Sections 1, 12

NTS 94-A-04 Block E – units 98-100, fractional unit 97

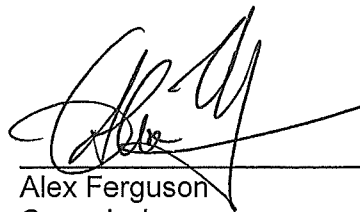
Block L - units 8-10, 18-20, 28-30 and fractional units 7, 17, 27

NTS 94-B-01 Block G - unit 91

Block H - units 72-79, 82-89, 91-100

Block I - units 1-11, 16-21, 26-30, 32-40, 42-50, 60, 70

Block J - units 1, 11, 21, 31, 41, 51 and 61.



Alex Ferguson
Commissioner
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 20 day of December 2010.

IN THE MATTER of an application from Canbriam Energy Inc. to the Commission dated September 2, 2010 for Other Than Normal Spacing.

ORDER 10-06-057-OTN

- 1 Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within a portion of the Altares field – Doig Phosphate-Montney “A” pool within the following area;

DLS Twp 83 Rge 26 - fractional Sections 1, 12

NTS 94-A-04 Block E – units 98-100, fractional unit 97
Block L - units 8-10, 18-20, 28-30 and fractional units 7, 17, 27

NTS 94-B-01 Block G - unit 91
Block H - units 72-79, 82-89, 91-100
Block I - units 1-11, 16-21, 26-30, 32-40, 42-50, 60, 70
Block J - units 1, 11, 21, 31, 41, 51 and 61.

- 2 Under section 65.1(3) of the *Petroleum and Natural Gas Act*, I specify the following:
- a) the target area for a gas well completed within the project area is not nearer than 150 m to the sides of the Other Than Normal Spacing area,
 - b) a gas well completed outside the specified target area may be subject to an off-target production penalty,
 - c) gas wells drilled within the specified project area are not subject to spacing requirements.




For Richard Slocomb
Supervisor, Reservoir Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 20th day of December 2010.

RATIONAL FOR ORDER

Order 10-06-057 has been made considering:

- **Rerservoir characteristics** – The Altares field Doig Phosphate-Montney “A” pool is a western extension of the regional Heritage Montney play. Gas is produced from low perm but thick siltstone sequences, likely turbidite slumping and flows. In this area the overlying gas-charged Doig Phosphate formation has been grouped with the Montney, for regulatory purposes, as a compound pool. Within the area of application the original-gas-in-place is estimated to be 57 Bcf per normal gas spacing area.
 - **Conservation of the resource** – Development of this unconventional resource is dependent on operator ability to locate wells without regard to normal well spacing and target area restrictions. Horizontal wells (~2000 m) drilled from multiwell pads receive multi-staged massive fracture stimulations. Well and microseismic data indicate a limited effective drainage radius, necessitating a high drilling density to contact all available rock mass.
 - **Current Status** – The applicant currently has one well, with near-term drilling plans. Numerous companies are active in this play region, those at a similar stage of development commonly operate under GEP approvals.
 - **Need for Special Project** – Special Project recognizes that as an operator, in a specific area, is utilizing best available practices to achieve gas recovery while minimizing surface impacts (in this case central well pads, tie-ins and facilities). Special Project approval enables an Other Than Normal Spacing Order, removing well spacing and target area restrictions and a project target area of 150m (versus normal 250m) from the boundary, allowing well placement to avoid stranded reserves. Applicants are not required to provide extensive detailed evidence of the necessity for increased well density on their area of application for special project status in this play; extensive supporting information and analogs are documented. The Commission is satisfied that there is a need for this project.
 - **P&NG rights** – Within the project area, based on tenure information and letters of consent from registered owners, the Commission is satisfied that Canbriam has appropriate rights in the subject formations and project area.
 - **Enabling Legislation** – Approval of **Good Engineering Practice** as a **special project under section 75** of the Oil and Gas Activities Act is a continuity of the refined GEP application and approval process. As per section 75(2a) designation may be made with or without conditions.
- Other Than Normal Spacing Order** under section 65.1 of the Petroleum and Natural Gas Act is the regulatory instrument to modify spacing and target areas within, and at the boundary of, a special project designated under section 75 of OGAA.
- **Objections** –There were no objections to this project filed with the Commission.



Alex Ferguson
Commissioner
Oil and Gas Commission

December 20, 2010