

March 27, 2012

4390-4980-59240-06

Jeremy Moore New Gas Team Lead - BC Shell Canada Limited 400 – 4<sup>th</sup> Avenue S.W. PO Box 100, Station M Calgary, AB T2P 2H5

Dear Mr. Moore:

RE:

GOOD ENGINEERING PRACTICE SPECIAL PROJECTS
OTHER THAN NORMAL SPACING ORDERS
GROUNDBIRCH FIELD - DOIG PHOSPHATE BEDS "A" POOL

The Commission has reviewed your application dated December 19, 2011, requesting approval of Good Engineering Practice for five areas within the Groundbirch field - Doig Phosphate formation.

The Commission maps this area within the Groundbirch field - Doig Phosphate Beds "A" pool. Gas recovery from this resource will benefit from the ability to produce horizontal wells in optimal locations, drilling from central sites.

The following Orders are attached;

- 1) Orders 12-06-010, 12-06-011, 12-06-012, 12-06-013 and 12-06-014 designating Good Engineering Practice within a portion of the Groundbirch field Doig Phosphate Beds "A" pool as a Special Project under section 75 of the *Oil and Gas Activities Act*, and
- 2) Orders 12-06-010-OTN, 12-06-011-OTN, 12-06-012-OTN, 12-06-013-OTN and 12-06-014-OTN approving Other Than Normal Spacing under section 65.1 of the *Petroleum and Natural Gas Act* for the subject pool 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 notice of application on the OGC website from January 16<sup>th</sup> – February 6<sup>th</sup>, 2012.

Should you have any questions, please contact Ron Stefik at (250) 419-4430 or Kelly Okuszko at (250) 419-4433.

Sincerely,

Paul Jeakins

Commissioner & CEO
Oil and Gas Commission

Attachments

## ORDER 12-06-010

Under Section 75(1)(a) of the Oil and Gas Activities Act, the Groundbirch field – Doig Phosphate Beds "A" pool is designated as a special project for the enhanced recovery of natural gas utilizing Good Engineering Practice within the following area;

DLS 77-19W6M – Sections 19, 30, 31 DLS 77-20W6M – Sections 12, 13, 23-26, 35 and 36.

Paul Jeakins

Commissioner & CEO
Oil and Gas Commission

#### ORDER 12-06-010-OTN

1 Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within the Groundbirch field - Doig Phosphate Beds "A" pool within the following area;

DLS 77-19W6M – Sections 19, 30, 31 DLS 77-20W6M – Sections 12, 13, 23-26, 35 and 36.

- 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 250 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.

Ron Stefik

Sr Technical Advisor, Reservoir Engineering

Oil and Gas Commission

## ORDER 12-06-011

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

DLS 78-20W6M - Sections 26, 27, 34 and 35.

Paul Jeakins

Commissioner & CEO
Oil and Gas Commission

#### ORDER 12-06-011-OTN

- Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within the Groundbirch field Doig Phosphate Beds "A" pool within the following area; DLS 78-20W6M Sections 26, 27, 34 and 35.
- 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 250 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.

Ron Stefik

Sr Technical Advisor, Reservoir Engineering

Oil and Gas Commission

## ORDER 12-06-012

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

DLS 79-20W6M - Sections 21, 22, 27-29 and 32-34.

Paul Jeakins

Commissioner & CEO
Oil and Gas Commission

#### ORDER 12-06-012-OTN

- Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within the Groundbirch field Doig Phosphate Beds "A" pool within the following area; DLS 79-20W6M Sections 21, 22, 27-29 and 32-34.
- 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 250 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.

Ron Stefik

Sr Technical Advisor, Reservoir Engineering

Oil and Gas Commission

## ORDER 12-06-013

1 Under Section 75(1)(a) of the Oil and Gas Activities Act, the Groundbirch field – Doig Phosphate Beds "A" pool is designated as a special project for the enhanced recovery of natural gas utilizing Good Engineering Practice within the following area;

DLS 80-21W6M - Sections 11, 12 and 14.

Paul Jaakins

Commissioner & CEO
Oil and Gas Commission

## ORDER 12-06-013-OTN

- Under Section 65.1(2) of the Petroleum and Natural Gas Act, Other Than Normal Spacing is approved within the Groundbirch field Doig Phosphate Beds "A" pool within the following area;
  DLS 80-21W6M Sections 11, 12 and 14.
- 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 250 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.

Ron Stefik

Sr Technical Advisor, Reservoir Engineering

Oil and Gas Commission

## ORDER 12-06-014

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

DLS 80-21W6M – Section 34 DLS 81-21W6M – Sections 2-4 and 9-11.

Paul Jeakins

Commissioner & CEO
Oil and Gas Commission

# ORDER 12-06-014-OTN

1 Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within the Groundbirch field - Doig Phosphate Beds "A" pool within the following area;

DLS 80-21W6M – Section 34 DLS 81-21W6M – Sections 2-4 and 9-11.

- 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 250 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.

Ron Stefik

Sr Technical Advisor, Reservoir Engineering

Oil and Gas Commission