

## COMMINGLING Order No. MU8708

MADE at the City of Calgary, in the Province of Alberta, on

4th day of February 2015.

Y.P. Shong

ALBERTA ENERGY REGULATOR

The Alberta Energy Regulator (AER) pursuant to the *Oil and Gas Conservation Act*, chapter O-6 of the Revised Statutes of Alberta, 2000, orders as follows:

- 1) The following table shows
  - the specified pools and wells in the HUSSAR Field wherein production may be commingled in the wellbore, and
  - the allocation factors to prorate the commingled production to the specified pools:

Allocation **Pools** (Unique Identifier) Percentage a) <sup>1</sup>HUSSAR LOWER EDMONTON C, ΑII None HUSSAR LOWER EDMONTON E, HUSSAR LOWER EDMONTON H, HUSSAR BASAL BELLY RIVER C, HUSSAR VIKING A, HUSSAR VIKING B. HUSSAR VIKING O. HUSSAR VIKING EE. HUSSAR VIKING FF. HUSSAR VIKING GG. HUSSAR VIKING KK. HUSSAR VIKING LL, HUSSAR VIKING AAA, HUSSAR UPPER MANNVILLE C, HUSSAR GLAUCONITIC FF, HUSSAR GLAUCONITIC LL, HUSSAR GLAUCONITIC J2J, HUSSAR GLAUCONITIC B3B, HUSSAR GLAUCONITIC D3D. HUSSAR GLAUCONITIC K3K, HUSSAR GLAUCONITIC A4A. HUSSAR GLAUCONITIC D4D. HUSSAR GLAUCONITIC H5H, HUSSAR GLAUCONITIC K5K, HUSSAR GLAUCONITIC L5L. HUSSAR GLAUCONITIC R5R, HUSSAR GLAUCONITIC T5T, HUSSAR GLAUCONITIC Y5Y. HUSSAR GLAUCONITIC A6A, HUSSAR GLAUCONITIC B7B. HUSSAR GLAUCONITIC L7L. HUSSAR GLAUCONITIC E9E, HUSSAR GLAUCONITIC H9H, HUSSAR GLAUCONITIC X9X, HUSSAR OSTRACOD NN,

	HUSSAR OSTRACOD OO, HUSSAR OSTRACOD TT, HUSSAR OSTRACOD YY, HUSSAR BASAL MANNVILLE B, HUSSAR BASAL MANNVILLE YYY, HUSSAR BASAL MANNVILLE B2B, HUSSAR BASAL MANNVILLE D2D, HUSSAR BASAL MANNVILLE G2G, HUSSAR BASAL MANNVILLE O2O, HUSSAR BASAL MANNVILLE P2P, HUSSAR BASAL MANNVILLE S2S, HUSSAR BASAL MANNVILLE T2T, HUSSAR BASAL MANNVILLE E3E, HUSSAR BASAL MANNVILLE E3E, HUSSAR BASAL MANNVILLE H3H, HUSSAR BASAL MANNVILLE K3K, HUSSAR MFP8501 MILK RIVER, HUSSAR MFP8505 2WS, HUSSAR MFP8506 BELLY RIVER, HUSSAR MFP8513 BOW ISLAND, HUSSAR MFP8519 GLAUCONITIC, HUSSAR MFP8542 BSL BELLY RIV, and HUSSAR MFP8543 BSL BELLY RIV,		
b)	HUSSAR VIKING E and COUNTESS UPPER MANNVILLE E19E	00/06-02-024-19W4/0 00/06-02-024-19W4/0	25 75
c)	HUSSAR VIKING O, HUSSAR BASAL MANNVILLE VVV, and HUSSAR MFP8506 BELLY RIVER	00/06-36-026-22W4/0	None
d)	HUSSAR VIKING Q, HUSSAR GLAUCONITIC S, HUSSAR OSTRACOD V, HUSSAR BASAL MANNVILLE M, HUSSAR BASAL MANNVILLE V, HUSSAR BASAL MANNVILLE II, and HUSSAR BASAL MANNVILLE FFF	All	None
e)	HUSSAR VIKING W and HUSSAR VIKING X	All	None
f)	HUSSAR VIKING JJ and HUSSAR GLAUCONITIC L6L	All	None
g)	HUSSAR BASAL COLORADO C and HUSSAR GLAUCONITIC N	All	None
h)	HUSSAR BASAL COLORADO K, HUSSAR GLAUCONITIC U5U, HUSSAR GLAUCONITIC V5V, and HUSSAR OSTRACOD RR	All	None
i)	HUSSAR UPPER MANNVILLE H and HUSSAR GLAUCONITIC Y3Y	All	None
j)	HUSSAR GLAUCONITIC KKK and HUSSAR OSTRACOD AA	All	None

k)	HUSSAR GLAUCONITIC X5X and HUSSAR OSTRACOD SS	All	None
l)	HUSSAR GLAUCONITIC J7J and HUSSAR OSTRACOD JJJ	All	None
m)	HUSSAR GLAUCONITIC P8P and HUSSAR BASAL MANNVILLE D5D	All	None
n)	HUSSAR OSTRACOD R and HUSSAR BASAL QUARTZ G	All	None
o)	HUSSAR BASAL MANNVILLE J, HUSSAR BASAL MANNVILLE O, and HUSSAR BASAL MANNVILLE GGG	All	None

2) Non associated gas production from the EDMONTON GRP, BELLY RIVER GRP, MILK RIVER FM, COLORADO SHALE, FIRST WHITE SPECKS, MEDICINE HAT SD, SECOND WHITE SPECKS, FISH SCALE MEMBER, VIKING FM, and MANNVILLE GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 27, RANGE 21, WEST OF THE 4th MERIDIAN: Sections 7, 21, 28, 33 (see clause 11)

3) Non associated gas production from the EDMONTON GRP, BELLY RIVER GRP, MILK RIVER FM, COLORADO SHALE, FIRST WHITE SPECKS, MEDICINE HAT SD, SECOND WHITE SPECKS, FISH SCALE MEMBER, VIKING FM, and MANNVILLE GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 27, RANGE 20, WEST OF THE 4th MERIDIAN: Section 29

IN TOWNSHIP 27, RANGE 22, WEST OF THE 4th MERIDIAN: Sections 13-16, 21-27, 35-36

4) Non associated gas production from the BELLY RIVER GRP, LEA PARK FM, COLORADO GRP, and MANNVILLE GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 23, RANGE 18, WEST OF THE 4th MERIDIAN: Sections 34-36

IN TOWNSHIP 24, RANGE 18, WEST OF THE 4th MERIDIAN: Section 3 (see clause 10)

5) Non associated gas production from the MANNVILLE GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 23, RANGE 20, WEST OF THE 4th MERIDIAN: Sections 19-20, 27-32

IN TOWNSHIP 23, RANGE 21, WEST OF THE 4th MERIDIAN: Sections 10-11, 13-36

IN TOWNSHIP 23, RANGE 22, WEST OF THE 4th MERIDIAN: Section 35

IN TOWNSHIP 24, RANGE 20, WEST OF THE 4th MERIDIAN:

Sections 6 and 7

IN TOWNSHIP 24, RANGE 21, WEST OF THE 4th MERIDIAN: Sections 1-12, 14-16, 18, 20-22, 27-31

IN TOWNSHIP 24, RANGE 22, WEST OF THE 4th MERIDIAN: Sections 1-18, 20-29, 33-36

IN TOWNSHIP 25, RANGE 20, WEST OF THE 4th MERIDIAN: Sections 24-35

IN TOWNSHIP 26, RANGE 20, WEST OF THE 4th MERIDIAN: Sections 2-11, 15-18, 22

6) Non associated gas production from the MANNVILLE GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 23, RANGE 21, WEST OF THE 4th MERIDIAN: Sections 1, 3-8, 12

IN TOWNSHIP 23, RANGE 22, WEST OF THE 4th MERIDIAN: Sections 1-4, 7-17, 20-29, 31-34, 36 (see clause 9)

7) Associated gas, non associated gas, and oil production from the MANNVILLE GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 23, RANGE 18, WEST OF THE 4th MERIDIAN: Sections 22, 26-35

IN TOWNSHIP 24, RANGE 18, WEST OF THE 4th MERIDIAN: Sections 3-9, 16-19, 30-31

IN TOWNSHIP 24, RANGE 19, WEST OF THE 4th MERIDIAN: Sections 12-15, 20-29, 32-36

IN TOWNSHIP 25, RANGE 18, WEST OF THE 4th MERIDIAN: Sections 5 and 6

IN TOWNSHIP 25, RANGE 19, WEST OF THE 4th MERIDIAN: Sections 1-11, 14-22, 28-30

- 8) Production from the Hussar Basal Mannville J or Hussar Basal Mannville GGG Pools shall be in accordance with specified gas well spacing.
- 9) Operators shall conduct segregated initial pressure and deliverability tests on each new completion in any of the subject Mannville Group pools.
- 10) Commingling of gas from the formations shall only occur if the pressure of one zone does not exceed 90% of the fracture pressure of other zones.
- 11) Commingling of the Edmonton Group and Mannville Formation shall only occur if the pressure of the Mannville Formation does not exceed 90% of the fracture pressure of the Edmonton Group.
- 12) AER Order No. MU8653 is rescinded.

## END OF DOCUMENT