# STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES OIL CONSERVATION DIVISION

APPLICATION TO AMEND ORDER NO. R-12984 TO REMOVE CERTAIN ACREAGE FROM THE BASIN-MANCOS GAS POOL (97232); TO CREATE ○ A MANCOS OIL POOL SPECIAL POOL RULES; WITH HORIZONTAL WELLS FROM PRE-EXISTING POOLS IN THE SUBJECT'S AREA AND RESTRICT THOSE POOLS TO CURRENT BOUNDARIES; TO ABOLISH OIL ALLOWABLES IN THE SUBJECT AREA; TO RETAIN FOR THE NEW OIL POOL THE AUTHORITY TO DOWNHOLE COMMINGLE **PRODUCTION FROM** THE MANCOS, **MESAVERDE** AND FORMATIONS PROVIDED BY ORDER NO. R-12984-B; AND TO AMEND THE SPECIAL RULES FOR THE COUNSELORS GALLUP-DAKOTA POOL (13379); SAN JUAN, RIO ARRIBA, SANDOVAL AND MCKINLEY COUNTIES, NEW MEXICO.

CASE NO. [5/9]

#### **APPLICATION**

ConocoPhillips Company, Encana Oil & Gas (USA) Inc., Logos Resources, LLC, and WPX Energy Production, LLC, ("Applicants") jointly file this application with the Oil Conservation Division for an order (1) amending Division Order No. R-12984 to remove certain acreage from the Basin-Mancos Gas Pool (97232); (2) creating a "Mancos Oil Pool" subject to special rules allowing, among other things, 320-acre spacing units for all horizontal wells in the subject area and standard 330 foot setbacks; (3) to exempt horizontal wells from the pre-existing pools covering all or part of the Mancos formation in the subject area and to restrict pre-existing pools to current boundaries, (4) to abolish oil allowables in the subject area for all pools, (5) to retain for the new Mancos Oil Pool the approval to downhole commingle production from the Mancos, Mesaverde and Dakota formations provided by Order No. R-12984-B, and (6) to amend the Special Rules for the Counselors Gallup Dakota Oil Pool (13379) to provide for standard 330 foot setbacks. In support of this application, Applicants state:

#### I. <u>BACKGROUND</u>.

- 1. Applicants are working interest owners and operators in the San Juan Basin of New Mexico with experience drilling vertical and horizontal wells in the Mancos formation.
- 2. On September 3, 2008, the Division issued Order No. R-12984 creating the Basin-Mancos Gas Pool (97232) and establishing Special Rules for this gas pool.
- 3. The horizontal boundary of the Basin-Mancos Gas Pool includes all of San Juan and Rio Arriba Counties in New Mexico, as well as Section 21 of Township 23 North, Range 5 West, N.M.P.M. in Sandoval County, New Mexico. The vertical limit of the Basin-Mancos Gas Pool is from the base of the Point Lookout formation (the lowest subdivision of the Mesaverde) to the base of the Greenhorn member of the Mancos formation. See Order R-12984.
- 4. Under the Special Rules adopted for the Basin-Mancos Gas Pool, wells are assigned 320-acre spacing units and located no closer than 660 feet to the outer boundary of the spacing unit. *Id*.
- 5. The Basin-Mancos Gas Pool currently covers an area of the San Juan Basin that has proven to be more productive of oil in the Mancos formation rather than natural gas and associated natural gas liquids.
- 6. Within this area are numerous oil pools, associated pools and gas pools that pre-exist adoption of the Basin-Mancos Gas Pool and which cover all or part of the Mancos formation. See Attachment A.
- 7. Under the Special Rules adopted for the Basin-Mancos Gas Pool, some horizontal oil wells in this area have been drilled pursuant to the spacing and location

requirements of the Basin-Mancos Gas Pool while other horizontal oil wells have been drilled under the spacing and location requirements of these various, pre-existing pools.

8. The applicability of these various pre-existing pools to horizontal oil development in the area has caused inconsistency in the assigned spacing units, has caused unnecessary paperwork for the Division and operators, and has prevented operators from orienting horizontal oil wells for maximum recovery.

9. To efficiently develop the remaining oil reserves in this area, there is a need to remove this area from the Basin-Mancos Gas Pool; to create for the entire subject area a "Mancos Oil Pool" providing 320-acre spacing units for all horizontal wells and standard 330-foot setback requirements; to exempt horizontal wells from pre-existing pools in this area; and to restrict these pre-existing pools to current boundaries, subject only to contraction from time to time as the Division deems appropriate.

# II. REQUEST TO CREATE A MANCOS OIL POOL AND TO RESTRICT PRE-EXISTING POOLS IN THE SUBJECT AREA.

10. Applicants request that the following acreage (the "Subject Area") be removed from the Basin Mancos Gas Pool, as applicable, and that this acreage be placed within a new oil pool (the "Mancos Oil Pool") for horizontal and vertical well development in the Mancos formation:

MCKINLEY, RIO ARRIBA, SAN JUAN AND SANDOVAL COUNTIES, NEW MEXICO:

TOWNSHIPS 17-32 NORTH, RANGES 14-19 WEST:
All Sections

NOTUDO 17 20 NODTH DANCES 10 12 WEST.

TOWNSHIPS 17-29 NORTH, RANGES 10-13 WEST:
All Sections

#### **TOWNSHIP 30 NORTH, RANGE 13 WEST:**

Sections 5-8 and 13-36

### TOWNSHIP 31 NORTH, RANGE 13 WEST:

Sections 1-24 and 29-32

### **TOWNSHIP 32 NORTH, RANGE 13 WEST:**

All Sections

### TOWNSHIPS 17-28 NORTH, RANGE 9 WEST:

All Sections

### TOWNSHIPS 17-27 NORTH, RANGE 8 WEST:

All Sections

### TOWNSHIPS 17-25 NORTH, RANGES 3-7 WEST:

All Sections

#### **TOWNSHIPS 17-26 NORTH, RANGE 2 WEST:**

All Sections

#### **TOWNSHIPS 24-32 NORTH, RANGE 1 WEST:**

All Sections

#### **TOWNSHIP 26 NORTH, RANGES 4-7 WEST:**

Sections 25-36

#### **TOWNSHIP 26 NORTH, RANGE 3 WEST:**

Sections 1-4, 9-16 and 21-36

### TOWNSHIP 23 NORTH, RANGE 1 WEST:

Sections 1-18

#### **TOWNSHIPS 25-26 NORTH, RANGE 1 EAST:**

All Sections

#### **TOWNSHIP 24 NORTH, RANGE 1 EAST:**

Sections 5-8, 17-20 and 29-32

#### **TOWNSHIP 27 NORTH, RANGE 1 EAST:**

Sections 3-10 and 13-25

#### **TOWNSHIPS 28-31 NORTH, RANGE 1 EAST:**

Sections 3-10, 15-22 and 27-34

#### **TOWNSHIP 32 NORTH, RANGE 1 EAST:**

Sections 7, 15-22 and 27-34

- 11. As with the current Basin-Mancos Gas Pool, the vertical limits of this new "Mancos Oil Pool" will extend from the stratigraphic equivalent of the base of the Point Lookout formation to the base of the Greenhorn member of the Mancos formation as reflected in the type log for the Rincon No. 20 well in Unit Letter K, Section 11, Township 23 North, Range 7 West, NMPM (API No. 30-039-26768) in Rio Arriba County, New Mexico.
- 12. Attachment A to this Application lists the pre-existing pools within the Subject Area that cover all or part of the Mancos formation.
- 13. To facilitate efficient and effective horizontal oil development in the Subject Area, Applicants request horizontal wells in the Subject Area be exempt for the pre-existing pools set forth in Attachment A and that these pools only apply to existing and future vertical well development.
- 14. Applicants further request that the boundaries of the pre-existing pools set forth in Attachment A remain confined to current acreage and depths, that these pools not be subject to any further expansion, and that these pools be contracted from time to time as the Division deems appropriate.

## III. REQUEST TO CREATE SPECIAL POOL RULES FOR THE MANCOS OIL POOL AND TO ABOLISH OIL ALLOWABLES.

15. Because of the unique character and nature of the Mancos formation, and due to the existing oil development within the Subject Area, special rules are necessary to ensure that further development of the oil reserves can be accomplished in an effective and efficient manner without impairing correlative rights.

- 16. Applicants request that wells drilled within the proposed Mancos Oil Pool comply with the statewide requirements for oil pools, subject to the following exceptions:
- A. Since horizontal oil wells have been drilled in the Subject Area pursuant to the 320-acre spacing requirements of the Basin- Mancos Gas Pool, and because 320-acre spacing allows for the efficient orientation of horizontal oil wells in this unique area, Applicants request that the Division continue to assign 320-acre spacing units to all horizontal wells drilled within the proposed Mancos Oil Pool.
- B. Applicants request that <u>vertical wells</u> drilled within the proposed Mancos Oil Pool remain subject to the standard statewide 40-acre oil spacing unless the vertical wells are located within the boundaries of a pre-existing pool set forth in Attachment A, in which case these wells will comply with the spacing requirements applicable to that pre-existing pool.
- C. To protect the correlative rights of owners and operators of wells drilled within the pre-existing pools set forth in Attachment A, Applicants request that future horizontal and vertical oil wells drilled within the boundaries of the pre-existing pools set forth in Attachment A, or in any contiguous spacing unit, comply with the setback requirements of these pre-existing pools for the acreage along the common boundary.
- 17. Applicants further request that the Division abolish the depth bracket allowable for all oil pools in the Mancos formation within the Subject Area.

- A. The Mancos formation in the Subject Area is a solution gas reservoir and therefore the rate of oil production from any well does not affect the ultimate recovery of oil or cause waste.
- B. The results obtained from horizontal wells drilled within the Mancos formation in the Subject Area demonstrate a potential to exceed the oil allowable currently provided by the Division's Rules without causing damage to the reservoir.

# IV. REQUEST TO CONTINUE DOWNHOLE COMMINGLING IN THE MANCOS OIL POOL.

- 18. The Division has previously recognized that the Mancos formation is a distinctive geologic formation that vertically lies above the Dakota formation and beneath the Mesaverde formation. See Order R-12984 at Finding (3)(a).
- 19. In 2012, under an Application filed by ConocoPhillips, the Division approved on a pool-wide basis the downhole commingling of production from the Basin-Mancos Gas Pool with production from the Blanco-Mesaverde Gas Pool and the Basin-Dakota Gas Pool. See Order R-12984-B, Ordering \(\frac{1}{2}\).
- 20. The Division approved the downhole commingling of production from the Mancos, Dakota and Mesaverde formations after receiving evidence that it has "previously issued orders pre-approving downhole commingling of production from various 'Gallup' pools with production from the Mesaverde and Dakota" (see Order R-12984-B, Finding (3)(a)) and after receiving evidence on "fluid compatibility" and "pressure differentials." *Id*, Findings (3)(e)-(m).
- 21. Order R-12984-B reflects: "Based on the available geologic evidence and well experience it is reasonable to conclude that neither fluid compatibility nor pressure

differentials will be an issue between the Mancos, Mesaverde and Dakota formations." See Order R-12984-B, Finding (3)(m).

22. Applicants request that the approval to downhole commingle production from the Mancos formation with production from the Blanco-Mesaverde Gas Pool and the Basin-Dakota Gas Pool remain for the Subject Area even though this area will now be classified as the Mancos Oil Pool rather than the former Basin-Mancos Gas Pool.

# V. REQUEST TO AMEND SPECIAL RULES FOR COUNSELORS GALLUP DAKOTA OIL POOL (13379).

- 23. Many of the pre-existing pools in the Subject Area set forth in Attachment A are subject to the general statewide rules requiring 40-acre spacing units and that wells be located no closer than 330 feet to the outer boundary of the spacing unit.
- 24. The Special Rules and Regulations for the Counselors Gallup Dakota Oil Pool (adopted by Order R-7034 in 1982 and made permanent by Order R-7034-B in 1986) provides for 160-acre spacing units and requires wells to be located no closer than 660 feet from the outer boundary of the spacing unit, no closer than 330 feet from the quarter-quarter section line, and no closer than 1320 feet to another well producing from the same formation.
- 25. In order to efficiently and effectively recover the remaining oil reserves within this pool, and thereby prevent waste, Applicants request that the Special Rules and Regulations for the Counselors Gallup Dakota Oil Pool be amended to allow for wells to be located no closer than 330 feet to the outer boundary of the applicable spacing units. Applicants further request that the Division continue to require 160-acre

spacing units for vertical wells, but provide for 320-acre spacing units for horizontal wells within the pool.

26. Approval of this application will be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

WHEREFORE, the Applicants requests that this matter be set for hearing before an Examiner of the Oil Conservation Division on August 21, 2014, and that after notice and hearing as required by law, the Division enter its order granting this application.

Respectfully submitted,

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# ATTACHMENT 'A' APPLICATION FOR THE MANCOS OIL POOL

POOL NAME (Pool Codes) within the boundaries of the proposed Mancos Oil Pool	POOL ORDER No.
ALAMITO- GALLUP OIL(1039)	R-5339
ALAMITO-GALLUP, SOUTH OIL (96203)	none
AMARILLO-GALLUP (1330)	R-4311; 4418
ANGELS PEAK-GALLUP ASSOCIATED GAS (2170)	R-5353
ARMENTA-GALLUP (2290)	R-7046
BACA-GALLUP OIL(3745)	R-8713
BADLAND HILLS-MANCOS OIL (96929)	R-9085-A
BISTI LOWER-GALLUP OIL (5890)	R-1069-B
BISTI-GALLUP, SOUTH (5860)	R-8090
BOULDER-MANCOS (7140)	R-2543
EAGLE SPRINGS-MANCOS (97029)	R-12645
CHA CHA-GALLUP (11880)	R-1800-A
COUNSELORS GALLUP-DAKOTA (13379)	R-7034
CUERVO-GALLUP (15006)	R-5470
DEVILS FORK-GALLUP ASSOCIATED (17610)	R-5353-G
DIKE ROCK-MANCOS (96158)	R-10357
DUFERS POINT GALLUP-DAKOTA (19859)	R-7435
EAGLE NEST-GALLUP GAS (76340)	R-7277
ENSENADA-GALLUP (96321)	R-1312
ESCRITO-GALLUP ASSOCIATED (22619)	R-5353
GALLEGOS-GALLUP ASSOCIATED (26980)	R-5353
GALLO CANYON GALLUP-DAKOTA OIL (96369)	R-10438
GAMBLERS MESA-GALLUP (96357)	R-10378
GAVILAN-GREENHORN-GRANEROS-DAK0TA (27192)	R-7745-B
GAVILAN-MANCOS (27194)	R-7407
GRASSY-GALLUP OIL (96339)	R-10344
GREEK-GALLUP (96219)	R-10357
HORSESHOE-GALLUP (32870)	R-1080; 1239
HOSPAH UPPER SAND (33075)	R-3361
HOSPAH UPPER SAND, SOUTH (33080)	R-3170/3361
HOSPAH LOWER-GALLUP SAND, SOUTH (33070)	R-3170/3361
JEWETT VALLEY-GALLUP (34140) (abandoned)	R-4311
KIMBETO WASH-GALLUP OIL (96598)	R-10643
KUTZ-GALLUP OIL (36550)	R-1825
KUTZ- GALLUP, SOUTH (96852)	R-11068
LA PLATA-GALLUP (37310)	R-2549-A; 3720
LINDRITH-GALLUP GAS (80200)	R-4311
LINDRITH GALLUP-DAKOTA, SOUTH (39179)	R-4555-A
LINDRITH GALLUP-DAKOTA, WEST (39189)	R-4314-A
LYBROOK-GALLUP (42289)	R2267-B

# ATTACHMENT 'A' APPLICATION FOR THE MANCOS OIL POOL

MANY ROCKS-GALLUP (44690)	R-2528
MANY ROCKS-GALLUP, NORTH (44700)	R-2795
MEADOWS-GALLUP (45450)	R-4311
MESA-GALLUP (45680)	R-2242
NAGEEZI-GALLUP (47540)	R-5339
NOSE ROCK HOSPAH (47940)	R-8417
ОЛТО GALLUP-DAKOTA (48020)	R-8544; 4311
OJITO GALLUP-DAKOTA, NORTHEAST (48025)	R-8188-A-B
OJO-GALLUP GAS (81880)	R-3196; 5420
OTERO-GALLUP OIL (48450)	R-1237-A
OTERO-SANASTEE (48640)	R-813
PINON-GALLUP (50380)	R-3103
PUERTO CHIQUITO-MANCOS OIL, EAST (50430)	R-3994; 2565
PUERTO CHIQUITO-MANCOS OIL, WEST (50440)	R-3994; 2565
RATTLESNAKE-GALLUP (50940)	R-4260
REGINA-GALLUP (51690)	R-6748; 8915-A
RIO PUERCO-MANCOS (52260)	R-7471
ROCK MESA-MANCOS OIL (96152) (abolished)	R-9701-B
RUSTY-GALLUP GAS (52860)	R-5339
RUSTY-GALLUP SOUTH OIL (96236)	NONE
SAN JOSE CREEK-MANCOS OIL (97521)	NONE
SHIPROCK-GALLUP OIL (55750) (abandoned)	R-1438
SHIPROCK-GALLUP NORTH GAS (85280)	R-3274
SIMPSON-GALLUP (56600)	R-2375-A
TAPACITO-GALLUP ASSOCIATED (58090)	R-5353
TOTAH-GALLUP OIL (59750)	R-1882
VERDE-GALLUP (62510)	R-949; 1285
WALKER DOME-MANCOS (62670) (abandoned)	R-843-A
WHITE WASH GALLUP-DAKOTA (64290)	R-5772

Wildcat wells within the boundary of the proposed MANCOS OIL POOL are not reflected above.