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

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 15759 ORDER NO. R-14524

APPLICATION OF ONEENERGY PARTNERS OPERATING, LLC FOR A NON-STANDARD OIL SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

These cases came on for hearing at 8:15 a.m. on August 17, 2017, and again on September 14, 2017 at Santa Fe, New Mexico, before Examiner Michael A. McMillan.

NOW, on this 28th day of December, 2017, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given and the Division has jurisdiction of these cases and the subject matters.
- (2) Cases No. 15759 and 15758 were consolidated at the hearing for the purpose of testimony; however, a separate order will be issued for each case.
- (3) OneEnergy Partners Operating, LLC ("Applicant" or "OneEnergy") seeks approval of a 322.49-acre, more or less, non-standard oil spacing and proration unit and project area (the "Unit") for oil and gas production from the Bone Spring formation, Ojo Chiso; Bone Spring Pool (Pool code: 96553), comprising the Lot 3, SE/4 NW/4, and E/2 SW/4 (E/2 W/2 equivalent) of Section 1, and E/2 W/2 of Section 12, all in Township 22 South, Range 34 East, NMPM, Lea County, New Mexico Applicant further seeks an order pooling all uncommitted interests in the Unit for the Bone Spring formation.
- (4) The Unit will be dedicated to Applicant's Lobo Rojo B3 State Com Well No. 2H (the "proposed well"; API No. 30-025-pending), a horizontal well to be drilled from a surface location 380 feet from the South line and 2456 feet from the West line (Unit

N) of Section 12, to a bottom-hole location 380 feet from the North line and 2260 feet from the West line, Lot 3 (NE/4 NW/4 equivalent) of Section 1, all in Township 22 South, Range 34 East, NMPM. The completed interval of the proposed well in the Bone Spring formation will be orthodox.

- (5) The proposed well is within the Ojo Chiso; Bone Spring Pool (Pool code 96553), and is subject to Division Rule 19.15.15.9(A) NMAC, which provides for 330-foot setbacks from the unit boundaries and standard 40-acre units each comprising a governmental quarter-quarter section. The proposed Unit and project area consists of eight adjacent quarter-quarter sections oriented north to south.
- (6) V-F Petroleum Inc. et.al., a working interest owner in the E/2 W/2 of Section 1, Township 22 South, Range 34 East, appeared at the hearing in opposition to the proposed compulsory pooling.
- (7) Applicant appeared through counsel and presented the following land, geologic, and engineering evidence:
 - (a) The Bone Spring formation in this area is suitable for development by horizontal drilling;
 - (b) the proposed orientation of the horizontal well from North to South or South to North is appropriate for the proposed Unit;
 - (c) each quarter-quarter section in the proposed unit can be expected to contribute more or less equally to production from the Bone Spring formation;
 - (d) Applicant has attempted a good faith effort to voluntarily consolidate the interest of V-F Petroleum Inc, et.al. within Lot 3, the SE/4 NW/4, and the E/2 SW/4 (E/2 W/2 equivalent) of Section 1;
 - (e) OneEnergy is seeking this Unit to prevent waste that would otherwise occur because of the 330-foot set-backs at the boundary of Section 1 and Section 12 that would not be stimulated with two one-mile horizontal wells;
 - (f) drilling costs per foot would be lower for a two-mile versus two one-mile horizontal wells:
 - (g) expenses saved would include replication of drilling a vertical well down to Third Bone Spring that would not be required for a two-mile horizontal well, and costs of constructing two well-pads and duplicated surface facilities that would be required for drilling a second one-mile horizontal;

- (h) operational expenses would be lower for the two-mile horizontal well versus one-mile lateral wells;
- (i) Applicant stated that the economic limit of wells is 5 barrels of oil per day ("BOPD");
- (j) by having two one-mile wells, the operator would have to stop producing the wells at an earlier date when a two-mile lateral would still be economic to produce;
- (k) the two-mile lateral's Estimated Ultimate Recovery (EUR) is at least double that of a one-mile lateral well;
- (1) the theoretical horizontal lateral length is 4620 feet for a one-mile project area, assuming 330-foot setbacks; however, the toe of a horizontal well may contain unusable lateral, caused by not getting perforations or casing to bottom and the first and last take points are not always at the maximum allowed set-backs so that the actual lateral length is less than the theoretical length;
- (m) the avoidance of 330-foot setbacks results in approximately 99,000 barrels of theoretically recoverable additional oil reserves;
- (n) Applicant showed actual examples of increased EUR per foot with increased lateral length;
- (o) V-F Petroleum Inc.'s correlative rights will not be violated, because it will have a 50% working interest in the Unit; and will have increased allocated EUR that is not available to be recovered with a one-mile lateral;
- (p) Applicant provided rebuttal data to the V-F Petroleum Inc.'s testimony based on the concept that two-mile laterals provide more EUR than two one-mile laterals;
- (q) EURs provide a more accurate comparison than use of cumulative reserves, and, with similar facilities of a two-mile versus one-mile lateral, production constraints on a two-mile lateral mask the decline of the two-mile lateral; and
- (r) notice by certified mail was provided to all uncommitted interest owners in the proposed Unit whose interests were evidenced by a conveyance instrument, either of record or known to Applicant when the Application was filed, and to heirs known to Applicant of deceased persons who appear as owners in such instruments, and

whose whereabouts could be ascertained by exercise of reasonable diligence.

- (8) V-F Petroleum Inc., Fuel Products, Inc., Gahr Energy Company; Ameristate Partners, LLC; Help E&P, LLC; Thomas M. Beall; Jerry M. Gahr; Marcus Wayne Luna; Sandra K. Lawless; Clifford N. Hair and Mark K. Nearburg (collectively, "VF") appeared at the hearing through counsel in opposition to granting of this application. Further, VF has an approved permit to drill a well dedicated to 162.49 acres consisting of Lot 3, SE/4 NW/4 and E/2 SW/4 (E/2 W/2 equivalent) of Section 1, Township 22 South, Range 34 East, NMPM, Lea County (Project Area). VF, however, does not request compulsory pooling of the project area for its proposed one-mile horizontal well.
 - (9) VF presented evidence of the following:
 - (a) The Project Area will be dedicated to VF's Getty 1 State Well No. 3H (the "VF proposed well"; API No. 30-025-43987), a horizontal well to be drilled from a surface location 330 feet from the South line and 2310 feet from the West line (Unit N), to a terminus or bottom hole location 330 feet from the North line and 2310 feet from the West line Lot 3, (NE/4 NW/4 equivalent) of Section 1, Township 22 South, Range 34 East, NMPM. The completed interval of the proposed well in the Bone Spring formation will be orthodox;
 - (b) the VF proposed well is within the Grama Ridge; Bone Spring, NE Pool (Pool code 28435), and is subject to Division Rule 19.15.15.9(A) NMAC, which provides for 330-foot setbacks from the unit boundaries and standard 40-acre units each comprising a governmental quarter-quarter section. The proposed Unit and project area consists of four adjacent quarter-quarter sections oriented north to south;
 - (c) VF and its partners want to develop their project area exclusively without any influence of a third party. Further, VF has a voluntary agreement with its partners;
 - (d) VF was a working interest owner in a two-mile horizontal well that lost the horizontal section twice, and the AFE did not represent the actual costs;
 - (e) VF's acreage is more perspective for the Bone Spring than the OneEnergy acreage. Section 1 acreage is up-dip from Section 12;
 - (f) VF prefers to have the surface location in the project area so that, in case there are problems with the borehole, they could make a completion in another zone, which would not be possible if the surface location is outside the Project Area;

- (g) the 4-1/2-inch drill pipe proposed by OneEnergy is less rigid than a 5-inch or 5-1/2-inch drill pipe; as a result, the drill pipe could start bending in the horizontal section, and drift into the underlying formation, and result in increased well costs;
- (h) VF stated that drilling two-mile laterals has increased risk because the target zone of the OneEnergy well is near the top of the Wolfcamp formation, and could easily drift into the underlying formation, which could hinder development of the Bone Spring formation;
- (i) VF presented an engineering study that shows the relationship of cumulative oil and gas production, comparing one-mile horizontal wells and two-mile horizontal wells;
- (j) VF used the following criteria in their engineering study: wells completed after 2015 in the Bone Spring formation, Lea County wells only, 1500 pounds proppant/foot, and minimum of 3,000 feet horizontal distance;
- (k) VF compared the data on a county wide basis, Township basis, and lastly at individual wells by the same operator;
- (l) for reference, a one-one relationship is doubling production of a two-mile horizontal well versus a one-mile horizontal well;
- (m) VF compared the cumulative production of a two-mile horizontal well (COG Operating LLC's Raspberry State Com Well No. Well No. 1H) and a one-mile horizontal well (COG Operating LLC's Pygmy 27 State Well No. 1H), "COG Wells";
- (n) the cumulative production showed that no benefit existed for the two mile well in the COG Wells; the increase in cumulative production (uplift) was .85 for the two-mile horizontal well to 1; therefore, it was not a one-one relationship, and, in fact, was detrimental to cumulative production; and
- (o) VF agreed not to take any action on the VF proposed well until the outcome of the hearing.

The Division concludes as follows:

(10) OneEnergy Partners Operating, LLC's Lobo Rojo State Com B3 Well No. 2H (the "proposed well"; API No. 30-025-pending) application should be **approved**. The compelling factor is the production data from COG Operating LLC's Raspberry State Com Well No. 1H (API 30-025-43179) 320-acre, two-mile project area consisting of the E/2 E/2

of Section 22 and E/2 E/2 of Section 27, all in Township 21 South, Range 33 East, NMPM) and the Pygmy 27 State Well No. 3H (API 30-025-42068) 160-acre, one-mile project area consisting of the W/2 E/2 of Section 27, Township 21 South, Range 33 East, NMPM) in the Bone Spring formation ("COG wells").

- (11) VF only compared cumulative production of the COG wells, which did not take into account the production profile that may exist with hyperbolically declining horizontal wells. The hyperbolically declining wells have a peak production within the first two months of production, another production profile from three months to 12 months should display a decline of between 5 percent to 20 percent. After one year, the wells will likely display a 5 percent decline. Using only cumulative production ignores any change in production with time in the hyperbolically declining wells. With time, a linear relationship exists between one-mile and two-mile horizontal wells.
- (12) Based on monthly production reports filed with the Division for the COG wells, it can be determined that initially the two-mile horizontal well underperformed relative to the one-mile horizontal well. However, after the seventh month of production, the trend reversed, and the two-mile horizontal well began to have better proportionate production than the one-mile horizontal well. Further, VF only included the first five month's production for the Raspberry State Com Well No. 1H, when ten months of production are available on the New Mexico Oil Conservation website
- (13) The Division's Hobbs District Office has determined the correct pool for the proposed well is the San Simon; Bone Spring, Northeast Pool (Pool code 97324).
- (14) Two or more separately owned tracts are embraced within the Unit, and/or there are royalty interests and/or undivided interests in oil and gas minerals in one or more tracts included in the Unit that are separately owned.
- (15) Applicant is owner of an oil and gas working interest within the Unit. Applicant has the right to drill the proposed well to a common source of supply within the Unit at the described location.
- (16) There are interest owners in the Unit that have not agreed to pool their interests.
- (17) To avoid the drilling of unnecessary wells, protect correlative rights, prevent waste and afford to the owner of each interest in the Unit the opportunity to recover or receive without unnecessary expense its just and fair share of hydrocarbons, the application in Case No. 15759 should be approved by pooling all uncommitted interests, whatever they may be, in the oil and gas within the Unit.
- (18) OneEnergy Partners Operating, LLC should be designated the operator of the proposed well and the Unit.

- (19) Any pooled working interest owner who does not pay its share of estimated well costs should have withheld from production its share of reasonable well costs plus an additional 200% thereof as a reasonable charge for the risk involved in drilling the subject well.
- (20) Reasonable charges for supervision (combined fixed rates) should be fixed at \$7,000 per month while drilling and \$700 per month while producing, provided that these rates should be adjusted annually pursuant to the Overhead section of the COPAS form titled "Accounting Procedure-Joint Operations." The operator is authorized to withhold from production the proportionate share of both the supervision charges and the actual expenditures required for operating the well, not in excess of what are reasonable, attributable to pooled working interest owners.

IT IS THEREFORE ORDERED THAT:

- (1) Pursuant to the application of OneEnergy Partners Operating, LLC, a 322.49-acre, more or less, non-standard oil spacing and proration unit and project area (the "Unit") is hereby established for oil and gas production from the Bone Spring formation, San Simon; Bone Spring, Northeast Pool (Pool code 97324), comprising Lot 3, SE/4 NW/4, and E/2 SW/4 (E/2 W/2 equivalent) of Section 1, and E/2 W/2 of Section 12, all in Township 22 South, Range 34 East, NMPM, Lea County, New Mexico.
- (2) All uncommitted interests, whatever they may be, in the oil and gas in the Bone Spring formation underlying the Unit, are hereby pooled.
- (3) The Unit shall be dedicated to the Applicant's Lobo Rojo B3 State Com Well No. 2H (the "proposed well"; API No. 30-025-pending), a horizontal well to be drilled from a surface location 380 feet from the South line and 2456 feet from the West line (Unit N) of Section 12, to a terminus or bottom hole location 380 feet from the North line and 2260 feet from the West line, Lot 3 (NE/4 NW/4 equivalent) of Section 1, both in Township 22 South, Range 34 East, NMPM. The completed interval of the proposed well will be located at an orthodox location.
- (4) The operator of the Unit shall commence drilling the proposed well on or before December 31, 2018, and shall thereafter continue drilling the proposed well with due diligence to test the Bone Spring formation.
- (5) In the event the operator does not commence drilling the proposed well on or before December 31, 2018, Ordering Paragraph (1) shall be of no effect, unless the operator obtains a time extension from the Division Director for good cause demonstrated by satisfactory evidence.
- (6) Should the proposed well not be drilled and completed within 120 days after commencement thereof, then Ordering Paragraph (1) shall be of no further effect, and the Unit and project area created by this order shall terminate, unless operator appears before the Division Director and obtains an extension of the time for completion of the proposed

well for good cause shown by satisfactory evidence. If the proposed well is not completed in all of the standard spacing units included in the proposed project area (or Unit) then the operator shall apply to the Division for an amendment to this Order to contract the Unit so that it includes only those standard spacing units in which the well is completed.

- (7) OneEnergy Partners Operating, LLC (OGRID 372031) is hereby designated the operator of the well and the Unit.
- (8) After pooling, uncommitted working interest owners are referred to as pooled working interest owners. ("Pooled working interest owners" are owners of working interests in the Unit, including unleased mineral interests, who are not parties to an operating agreement governing the Unit.) After the effective date of this order, the operator shall furnish the Division and each known pooled working interest owner in the Unit an itemized schedule of estimated costs of drilling, completing and equipping the proposed well ("well costs").
- (9) Within 30 days from the date the schedule of estimated well costs is furnished, any pooled working interest owner shall have the right to pay its share of estimated well costs to the operator in lieu of paying its share of reasonable well costs out of production as hereinafter provided, and any such owner who pays its share of estimated well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges. Pooled working interest owners who elect not to pay their share of estimated well costs as provided in this paragraph shall thereafter be referred to as "non-consenting working interest owners."
- (10) The operator shall furnish the Division and each known pooled working interest owner (including non-consenting working interest owners) an itemized schedule of actual well costs within 90 days following completion of the subject well. If no objection to the actual well costs is received by the Division, and the Division has not objected, within 45 days following receipt of the schedule, the actual well costs shall be deemed to be the reasonable well costs. If there is an objection to actual well costs within the 45-day period, the Division will determine reasonable well costs after public notice and hearing.
- (11) Within 60 days following determination of reasonable well costs, any pooled working interest owner who has paid its share of estimated costs in advance as provided above shall pay to the operator its share of the amount that reasonable well costs exceed estimated well costs and shall receive from the operator the amount, if any, that the estimated well costs it has paid exceed its share of reasonable well costs.
- (12) The operator is hereby authorized to withhold the following costs and charges from production from each well:
 - (a) the proportionate share of reasonable well costs attributable to each non-consenting working interest owner; and

- (b) as a charge for the risk involved in drilling the well, 200% of the above costs.
- (13) The operator shall distribute the costs and charges withheld from production, proportionately, to the parties who advanced the well costs.
- (14) Reasonable charges for supervision (combined fixed rates) for the well are hereby fixed at \$7,000 per month while drilling and \$700 per month while producing, provided that these rates may be adjusted annually pursuant to Section III.1.A.3. of the COPAS form titled "Accounting Procedure-Joint Operations." The operator is authorized to withhold from production the proportionate share of both the supervision charges and the actual expenditures required for operating the well, not in excess of what are reasonable, attributable to pooled working interest owners.
- (15) Except as provided above, all proceeds from production from the proposed well that are not disbursed for any reason shall be held for the account of the person or persons entitled thereto pursuant to the Oil and Gas Proceeds Payment Act (NMSA 1978 Sections 70-10-1 through 70-10-6, as amended). If not disbursed, such proceeds shall be turned over to the appropriate authority as and when required by the Uniform Unclaimed Property Act (NMSA 1978 Sections 7-8A-1 through 7-8A-31, as amended).
- (16) Any unleased mineral interests shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under this order. Any well costs or charges that are to be paid out of production shall be withheld only from the working interests' share of production, and no costs or charges shall be withheld from production attributable to royalty interests.
- (17) Should all the parties to this compulsory pooling order reach voluntary agreement subsequent to entry of this Order, this Order shall thereafter be of no further effect.
- (18) The operator of the well and Unit shall notify the Division in writing of the subsequent voluntary agreement of all parties subject to the compulsory pooling provisions of this Order.
- (19) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO OIL CONSERVATION DIVISION

and R. Colonad

DAVID R. CATANACH

Director