

**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:**

**CASES NO. 15655 and 15659
ORDER NO. R-14442**

Case 15655

APPLICATION OF BLACK MOUNTAIN OPERATING, LLC FOR A NON-STANDARD OIL SPACING AND PRORATION UNIT, COMPULSORY POOLING AND AN UNORTHODOX WELL LOCATION, LEA COUNTY, NEW MEXICO

Case 15659

APPLICATION OF GMT EXPLORATION COMPANY 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 May 11, 2017, and again on July 20, 2017 at Santa Fe, New Mexico, before Examiner Michael A. McMillan.

NOW, on this 15th day of September, 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. 15655, 15656, 15659, and 15660 were consolidated at the hearing for the purpose of testimony; however, one order will be issued for Cases 15655 and 15659.
- (3) Black Mountain Operating, LLC ("Applicant" or "Black Mountain"), seeks an order pooling all uncommitted interests in the Bone Spring formation, Grama Ridge; Bone Spring, NE Pool (Pool code: 28430), underlying the W/2 SW/4 of Section 35,

Township 21 South, Range 34 East, and Lot 4, SW/4 NW/4, W/2 SW/4 (W/2 W/2 equivalent) of Irregular Section 2, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico, to form a non-standard 242.15-acre, more or less, non-standard oil spacing and proration unit (the "Unit").

(4) The Unit will be dedicated to Applicant's Grama Ridge State Com. Well No. 1H (the "proposed well"; API No. 30-025-pending), a horizontal well to be drilled from a surface location 144.3 feet from the South line and 911 feet from the West line (Unit M) of Section 2, Township 22 South, Range 34 East, to a bottom-hole location 2371 feet from the South line and 330 feet from the West line (Unit L) of Section 35, Township 21 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 Grama Ridge; Bone Spring, NE Pool (Pool code 28430), 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 six adjacent quarter-quarter sections oriented north to south.

(6) Applicant and Marathon Oil Permian LLC ("Marathon") as successor of interest, appeared through counsel and presented the following land, geologic, and engineering evidence:

- (a) Applicant stated at the May 11, 2017 hearing that the Bone Spring formation in this area is suitable for development by horizontal drilling;
- (b) the proposed orientation of the horizontal well from South to North or North to South is appropriate for the proposed Unit;
- (c) Applicant has acreage in the W/2 SW/4 of Section 35, and the W/2 NW/4 of Section 2. Applicant has no acreage in the W/2 SW/4 of Section 2;
- (d) The 3rd Bone Spring sand is the primary target within the Bone Spring formation in the Unit, which is continuous throughout the Unit. Further, the Third Bone Spring sand is over 200 feet thick with 6% porosity or greater. The Applicant provided a net isopach map from the top of the 3rd Bone Spring Sand to the top of the Wolfcamp, as depicted on Black Mountain Exhibit 9;
- (e) The 3rd Bone Spring sand was chosen because it is a commonly selected completed interval within the general area;
- (f) The Second Bone Spring sand is also prospective;

- (g) Applicant seeks to drill longer laterals because there are no section-line setbacks, which allows you to produce reserves that sit inside those setback areas. Further, an operator is not having to drill the overburden multiple times as you are developing the Unit;
- (h) Longer laterals allow for more completed lateral length per acre due to the reduction of how many setbacks exist, which leads to enhanced recoveries versus short laterals;
- (i) Applicant stated there is almost a linear scaling between lateral length and estimated actual reserves based on lateral length on selected studies of horizontal wells in Lea County. The 1-1/2 mile laterals have approximately 1.5 times the reserves of one-mile lateral wells;
- (j) Another advantage is a reduction in surface facilities;
- (k) Black Mountain would be amenable to move the surface location due to the possible 3 Bear Gas processing facility;
- (l) Marathon agreed with the geological and engineering presentation that Black Mountain presented on May 11, 2017;
- (m) At the July 20, 2017 hearing, Marathon in rebuttal testimony, questioned the validity of the maps presented by GMT Exploration, LLC (GMT). The 3rd Bone Spring map isopach, GMT Exhibit B, Page 4 showed over 100 feet gross interval for the Great Western Drilling Onshore Inc. State Well No. 1 ("Great Western Well"; API 30-025-27907). However, the logged interval in the Great Western Well was only 45 feet as shown on Cross-Section A-A' GMT Exhibit B. Further, the gross interval in the Great Western Well is approximately 60 feet thick, as shown on Cross-Section A-A'. The discrepancy can be explained because the contours of the isopach map are from the top of the 3rd Bone Spring Sand to the base of the Wolfcamp XY Marker. The log values for the Great Western Well are for the 3rd Bone Spring Sand only;
- (n) Marathon changed its proposed well from South to North to North to South. The surface location for the proposed well will be in the NW/4 SW/4, Unit L of Section 35 and the bottom hole location in the SW/4 SW/4, Unit M of Section 2. This was done to alleviate the surface issues with the 3 Bear Gas Processing Plant;
- (o) Applicant provided notice to parties subject to pooling by certified mail, return receipt requested, and by publication before hearing in a newspaper of general circulation in Lea County, New Mexico, the

county in which the property is located, for those parties for whom return receipts were not returned.

(7) GMT Exploration Company, LLC ("GMT") appeared at the hearing through counsel and presented the following land, geologic, and engineering evidence, in opposition to granting of this application. Further, GMT presented a counter proposal for compulsory pooling, Case 15659, for the W/2 W/2 equivalent of Irregular Section 2, Township 22 South, Range 34 East, NMPM, Lea County.

- (a) GMT seeks approval of a 162.15-acre, more or less, non-standard oil spacing and proration unit and project area ("the GMT Unit") for oil and gas production from the Bone Spring formation, Ojo Chiso; Bone Spring (Pool code: 96553), comprising Lot 4, SW/4 NW/4, and W/2 SW/4 (W/2 W/2 equivalent) of Irregular Section 2, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico. Applicant further seeks an order pooling all uncommitted interests in the GMT Unit;
- (b) The Unit will be dedicated to GMT's Pucker Rapid State Com Well No. 1H (the "GMT proposed well"; API No. 30-025-43739), a horizontal well to be drilled from a surface location 200 feet from the South line and 455 feet from the West line (Unit M), to a terminus or bottom hole location 330 feet from the North line and 330 feet from the West line Lot 4, (NW/4 NW/4 equivalent) of Irregular Section 2, Township 22 South, Range 34 East, NMPM. The completed interval of the proposed well in the Bone Spring formation will be orthodox;
- (c) The GMT 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 four adjacent quarter-quarter sections oriented north to south
- (d) GMT has acreage in Lot 4, SW/4 NW/4 and W/2 SW/4 (W/2 W/2 equivalent) of Irregular Section 2. GMT has no acreage in the W/2 SW/4 of Section 35;
- (e) GMT's initial well objective during the May 11, 2017 hearing was the 2nd Bone Spring sand. The reservoir degrades into the E/2 SW/4 of Section 35 in the 3rd Bone Spring sand. The good reservoir in the 2nd Bone Spring and reservoir degradation in the 3rd Bone Spring sand is the reason for the W/2 W/2 of Section 2 project area. Further, GMT has very good 2nd Bone Spring sand wells in the near

vicinity, which is another reason for selecting the 2nd Bone Spring as the initial target;

- (f) However, during the July 20th hearing, GMT stated that all of the Bone Spring sands are prospective in the GMT Unit;
- (g) Black Mountain Operating, LLC's original proposed surface location was located in the middle of the proposed 3 Bear Energy Gas Processing Plant. GMT has a surface use agreement with the surface owner;
- (h) Centennial Resource Production, LLC is the successor of interest to GMT Exploration Company, LLC. GMT has a voluntary agreement with Centennial Resource Production, LLC to present testimony;
- (i) GMT maps are portions of regional maps of formations in the Delaware Basin in Lea County. Therefore, the data control was derived not only from the wells located within boundaries of the maps, but wells outside the boundaries of the map;
- (j) GMT presented geological and engineering data that the direct relationship between lateral length and reserves may not necessarily be the result of lateral length, but could be the result of changes in drilling, completion and geology. If the reservoir rock is continuous, then there is a direct relationship between lateral length and estimated ultimate recovery (EUR). However, the reservoir rock is not continuous through the Unit. GMT engineer showed an example that a 1-1/2-mile lateral is 1.4 times greater lateral length than a 1-mile lateral. However, the EUR is only between 1.22 and 1.27 times greater oil recovery for a 1-1/2-mile lateral. It is only a 30 percent increase in EUR. As a result, the direct relationship between lateral length and EUR is not applicable;
- (k) At the July 20, 2017 Hearing, the 3rd Bone Spring isopach interval as depicted on GMT Exhibit 16, page 7 is 100 feet at the Great Western Onshore Inc. Well No. 1 (API 30-025-279707; "Great Western Well"). However, Great Western Well log value for the 3rd Bone Spring is only 45 feet. The discrepancy is that the isopach map is from the top of the 3rd Bone Spring marker to the base of the Wolfcamp XY Marker. The log value for the Great Western Well is for the 3rd Bone Spring Sand only;
- (l) GMT stated in their closing argument that the primary factor for choosing their Unit was based on their geologic presentation, and the corresponding cross-sections and maps.

(8) BTA Oil Producers, LLC ("BTA") appeared at the hearing through counsel and presented the following land evidence, in opposition to granting of the Black Mountain Operating, LLC application.

- (a) BTA and Black Mountain Operating, LLC are subject to an existing Joint Operating Agreement (JOA) that covers the W/2 of Section 35. Further, BTA has no interest in the W/2 W/2 of Section 2;
- (b) BTA has an approved APD for the W/2 W/2 of Section 35;
- (c) BTA's objection to the Black Mountain Operating, LLC Application is that the W/2 NW/4 would be stranded because of the planned 1-1/2-mile horizontal well. Further, BTA lacks operational capacity in Section 26 to the North, so BTA would be prohibited from fully developing the W/2 NW/4 of Section 35;
- (d) BTA believes that Black Mountain Operating, LLC is prohibited from drilling into the W/2 SW/4 of Section 35 based on the provisions of the JOA;
- (e) BTA, under cross-examination, stated that a 1-1/2 mile horizontal well could be drilled that would develop the W/2 NW/4 of Section 35;

(9) Devon Energy Production Company, LLC made an appearance through counsel in support of the GMT Exploration Company, LLC application.

The Division concludes as follows:

(10) Marathon Oil Permian LLC in their closing argument submitted a revised surface and bottom hole location. The Surface location is 2557 feet from the South line and 505 feet from the West Line, Unit L, Section 35, Township 21 South, Range 34 East. The bottom hole location is 330 feet from the South line and 330 feet from the West line, Unit M, Section 2, Township 22 South, Range 34 East, NMPM.

(11) Marathon Oil Permian LLC's AFE is approximately \$70,000 less than the original AFE by Black Mountain.

(12) Marathon Oil Permian LLC's Grama Ridge State Com. Well No. 1H (the "proposed well"; API No. 30-025-pending) application should be **approved**. The compelling factor was the erroneous map that GMT presented that showed reservoir degradation of the 3rd Bone Spring sand in the W/2 SW/4 of Section 35, and the W/2 NW/4 of Section 2, which was one of their arguments in support of their protest. The isopach map, and the well data are inconsistent; therefore, the argument for reservoir degradation presented by GMT is invalid. GMT isopach map values included the 3rd Bone Spring sand and portions of the Wolfcamp formation. However, the well data included only the 3rd

Bone Spring sand. Lastly, the Wolfcamp A Isopach Map shows similar discrepancies; even though this formation is not a subject of the hearing. As a result, the well data values and isopach values contradict themselves, and are unreliable. Therefore, Case 15659 **should be denied.**

(13) Further, Commission Hearing Order No. R-10731-B, issued on February 13, 1997, findings Paragraph 23 (f) states that in competing compulsory pooling orders, geology takes precedent. As stated in the previous paragraph, the GMT Exploration and Production, LLC geologic presentation was flawed.

(14) Marathon in their closing argument claimed that prevention of waste by drilling a 1-1/2-mile horizontal well was the primary reason for approval of their application. However, the testimony was not conclusive. GMT engineering testimony refuted that claim.

(15) The BTA Oil Producers, LLC argument of stranded acreage in the W/2 NW/4 of Section 35 is not valid. BTA Oil Producers, LLC could propose a 1-1/2-mile lateral in the W/2 NW/4 of Section 35 and the W/2 W/2 of Section 26.

(16) The Division's Hobbs District Office has determined the correct pool for the proposed well is the Ojo Chiso; Bone Spring Pool (Pool code 96553).

(17) 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.

(18) 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.

(19) There are interest owners in the Unit that have not agreed to pool their interests.

(20) 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. 15655 should be approved by pooling all uncommitted interests, whatever they may be, in the oil and gas within the Unit.

(21) Marathon Oil Permian LLC, as successor of interest to Black Mountain Operating LLC should be designated the operator of the subject well and the Unit.

(22) 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.

(23) 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 Black Mountain Operating, LLC in Case 15655, all uncommitted interests, whatever they may be, in the oil and gas in the Bone Spring formation, Ojo Chiso; Bone Spring Pool (Pool code 96553), underlying the W/2 SW/4 of Section 35, Township 21 South, Range 34 East, and Lot 4, SW/4 NW/4 and W/2 SW/4 (W/2 W/2 equivalent) of Irregular Section 2, Township 22 South, Range 34 East, NMPM, Lea County, New Mexico (the "Unit"), are hereby pooled to form a 242.15-acre, more or less, non-standard oil spacing and proration unit.

(2) The Unit shall be dedicated to the Applicant's Grama Ridge State Com. Well No. 1H (the "proposed well"; API No. 30-025-pending), a horizontal well to be drilled from a surface location 2557 feet from the South line and 505 feet from the West line (Unit L) of Section 35, Township 21 South, Range 34 East to a terminus or bottom hole location 330 feet from the South line and 330 feet from the West line (Unit M) of Irregular Section 2, Township 22 South, Range 34 East, NMPM. The completed interval of the proposed well will be located at an orthodox location.

(3) The application of GMT Exploration Company, LLC in Case 15659 for a non-standard oil spacing and proration unit and compulsory pooling **is hereby denied**.

(4) The operator of the Unit shall commence drilling the proposed well on or before September 30, 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 September 30, 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) Marathon Oil Permian LLC (OGRID 372098) 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 shall 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).

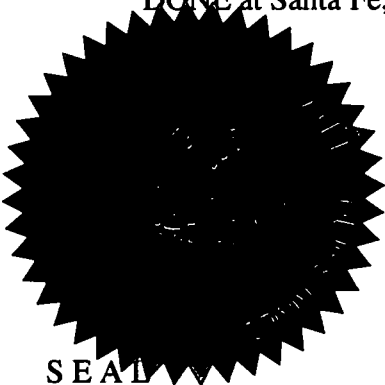
(16) Any unleased mineral interests shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under this order. Any well costs or charges that are to be paid out of production shall be withheld only from the working 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

DAVID R. CATANACH
Director