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:

APPLICATION OF BASS ENTERPRISES PRODUCTION COMPANY AND SANTA FE ENERGY COMPANY FOR THE RESCISSION OF DIVISION ADMINISTRATIVE ORDER NSL-3745, EDDY COUNTY, NEW MEXICO.

Case No. 11713

APPLICATION OF BASS ENTERPRISES PRODUCTION Case No. 11758
COMPANY FOR AN EXCEPTION TO DIVISION GENERAL
RULE 104.D(3) TO SIMULTANEOUSLY DEDICATE GAS
PRODUCTION, OR IN THE ALTERNATIVE, FOR AN
UNORTHODOX "INFILL" GAS WELL LOCATION AND AN
EXCEPTION TO DIVISION GENERAL RULE 104.D(3)
TO SIMULTANEOUSLY DEDICATE GAS PRODUCTION,
EDDY COUNTY, NEW MEXICO.

Order No. R-10869

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 20, 1997 and on April 3, 1997, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this <u>5th</u> day of September, 1997, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) By Division Administrative Order NSL-3745, dated December 27, 1996, Mewbourne Oil Company ("Mewbourne"), was granted authorization to drill its Scanlon

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Draw "35" State Well No. 1 (API No. 30-015-29384) at an unorthodox gas well location in order to test the Morrow formation 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 35, Township 18 South, Range 28 East, NMPM, North Turkey Track-Morrow Gas Pool, Eddy County, New Mexico, the W/2 of said Section 35 is to be dedicated to said well in order to form a standard 320-acre gas spacing and proration unit for said pool.

- (3) From August, 1978 to October, 1981 the Anadarko Production Company New Mexico State "AA" Well No. 1 (API No. 30-015-22698), located at a standard gas well location within the standard 320-acre gas spacing and proration unit that is the W/2 of said Section 35, 1980 feet from the North and West lines (Unit F) of said Section 35 produced 487,059 MCF of gas and 2,522 barrels of condensate from the North Turkey Track-Morrow Gas Pool. This well is currently operated by Xeric Oil and Gas Corporation and is completed in and producing oil from the Artesia-Queen Grayburg-San Andres Pool.
- (4) The North Turkey Track-Morrow Gas Pool currently comprises the following described area in Eddy County, New Mexico:

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM

Section 23: All
Sections 25 through 27: All
Section 28: N/2
Section 34: E/2
Sections 35 and 36: All

TOWNSHIP 18 SOUTH, RANGE 29 EAST, NMPM

Section 20: E/2Section 21: All Section 22: S/2 Section 23: S/2 Section 26: W/2Sections 27 through 29: All Section 30: S/2 Sections 31 through 35: All Section 36: S/2

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM

Section 1:

All

Section 2:

E/2

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM Sections 4 through 6: All.

- (5) The North Turkey Track-Morrow Gas Pool is a "non-prorated gas pool" and is not governed by the "General Rules for the Prorated Gas Pools of New Mexico", as promulgated by Division Order No. R-8170, as amended. Said gas pool is therefore subject to the Division's Statewide Rule 104.C(2)(b), which provides for 320-acre gas spacing and proration units, or drilling units, and requires that wells be located no closer than 660 feet to the nearest side boundary of the designated tract nor closer than 1650 feet to the nearest end boundary, nor closer than 330 feet to any quarter-quarter section or subdivision inner boundary thereon and General Rule 104.D(3), which restricts the number of producing wells within a single gas spacing unit within non-prorated pools to only one.
- ("Bass"), who is the operator of a North Turkey Track-Morrow Gas Pool producing well, the Turkey Track "2" State Com Well No. 1 (API No. 30-015-28481), located at a standard gas well location 2180 feet from the North line and 660 feet from the East line (Unit H) of Section 2, Township 19 South, Range 28 East, NMPM, Eddy County, New Mexico, in which the 321.40-acre area comprising Lots 1 and 2, the S/2 NE/4, and the SE/4 (E/2 equivalent) of said Section 2 is therein dedicated, and 50.22 % working interest owner of said 321.40-acre gas spacing and proration unit, and Santa Fe Energy Company ("Santa Fe"), owner of approximately 49.78 % working interest in said well and 321.40-acre unit, both seek to rescind said Division Administrative Order NSL-3745.
- Well No. 2 as an "infill" gas well to the above-described Turkey Track "2" State Com Well No. 1 at a standard gas well location within the 321.40-acre North Turkey Track-Morrow gas spacing and proration unit and an exception to Division General Rule 104.D(3) authorizing the simultaneous dedication of North Turkey Track-Morrow Gas Pool production from both wells within said 321.40-acre gas spacing and proration unit. IN THE ALTERNATIVE, if Division Administrative Order NSL-3745 approving Mewbourne's unorthodox Morrow gas well location in Section 2, Township 19 South, Range 28 East, NMPM, North Turkey Track-Morrow Gas Pool is upheld in Case 11713, Bass then seeks to drill its Turkey Track "2" State Com Well No. 2 at a corresponding unorthodox "infill" gas well location 660 feet from the North line and 1980 feet from the East line (Lot 2/Unit B) of said Section 2 and an exception to Division General Rule 104.D(3) authorizing the simultaneous dedication of North Turkey Track-Morrow Gas Pool production from both wells within said 321.40-acre gas spacing and proration unit.
 - (8) Yates Petroleum Company, who is the leasehold mineral interest owner in

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the W/2 equivalent of said Section 2, neither supported nor opposed the subject applications.

- (9) Division General Rule 104.F(4) provides that the Division Director may approve a properly filed administrative application for an unorthodox location 20 days after receipt of said application provided no affected parties [see Rule 104.F(3) for definition] to said unorthodox location has entered an objection thereto.
- (10) On December 5, 1996, Mewbourne filed an application with the Division for administrative review, pursuant to Division General Rule 104.F(2), for approval to drill its Scanlon Draw "35" State Well No. 1 (API No. 30-015-29384) at an unorthodox gas well location in order to test the Morrow formation 660 feet from the South line and 1980 feet from the West line (Unit N) of said Section 35. Mewbourne's chosen location is unorthodox to the south line of the dedicated acreage. Mewbourne provided notice of this application to Bass and Santa Fe in compliance with Division rule.
- (11) Bass and Santa Fe objected to the Mewbourne location by letter dated December 20, 1996, which was received by the Division on December 27, 1996. The 20-day deadline for receipt of the objection was December 26, 1996. On December 31, 1996, Bass and Santa Fe filed their application in Case 11713 seeking rescission of said Administrative Order NSL-3745.
- (12) Mewbourne opposed the application and asserted that rescission was only appropriate if it was shown that there were improprieties in the procedures by which Administrative Order NSL-3745 was obtained. By letter dated February 17, 1997, the Division accepted Bass' and Santa Fe's application for the rescission of Administrative Order NSL-3745 and overruled Mewbourne's objections thereto. Further, Administrative Order NSL-3745 was stayed pending review of this matter by a Division Examiner. Bass and Santa Fe were allowed to present geologic and engineering evidence on February 20, 1997.
- (13) Subsequent to the presentation of Bass' and Santa Fe's objection and the staying of Order NSL-3745 by Motion filed March 26, 1997. On April 3, 1997, the Division again denied Mewbourne's objection to Bass and Santa Fe's application, whereupon a hearing was held April 3, 1997, at which time Mewbourne presented its geologic and engineering evidence.
- (14) It was Bass' and Santa Fe's testimony in this matter that due to the characteristics of the Morrow formation in this area, penalties on wells due to unorthodox well locations are ineffective and, therefore, Bass did not recommend the imposition of a production penalty on the proposed Mewbourne well but, instead, advised the Division

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that, if the Mewbourne non-standard location was approved, it would seek approval of an offsetting well and simultaneous dedication of the wells in the E/2 equivalent of said Section 2.

- (15) The combined geological and engineering evidence and testimony presented by Bass, Santa Fe, and Mewbourne indicate that:
 - (a) the Morrow formation in this area to be a series of river channels;
 - (b) the Morrow channel in the immediate area of said Sections 35 and 2 does not trend in an east-southeasterly/west-northwesterly direction as mapped by Mewbourne for its administrative application but, instead, in a north-northwesterly/south-southeasterly direction;
 - (c) Bass and Santa Fe, in their mapping of the Morrow sand, used two methods:
 - (I) a structure map of the lower Morrow and an isopach of the lower Morrow Barnett interval identifying the areas favorable for sand deposition; and,
 - (ii) secondly, utilizing a normalized gamma-ray Bass presented a net sand reservoir map and illustrated how this is in good relationship to reservoir porosity thickness:

Such investigation allows for an accurate engineering analysis of the main productive channels of the Morrow sands;

(d) the mapping presented by Bass and Santa Fe reflects regional trends widely supported by industry and shows that Mewbourne has an orthodox or standard location 1650 feet from the South line and 1980 feet from the West line (Unit K) of said Section 35 with essentially the same reservoir potential as Mewbourne's proposed unorthodox location available to access commercial reserves in this lower

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Morrow sand interval;

- (e) the middle Morrow horizon in the immediate area of said Sections 2 and 35 is shown by Bass and Santa Fe:
 - (I) to be of economic importance; and,
 - (ii) that Mewbourne will encounter this reservoir at both their proposed unorthodox location and at a location immediately to the north considered to be standard;
- (f) Mewbourne's failed to map this interval thereby ignoring the possible reserves from this productive interval;
- (g) Mewbourne's map indicates 28 feet of pay at its proposed unorthodox location in the W/2 of said Section 35;
- (h) further, Mewbourne's map indicates an average of 24.5 feet of pay per well in four offset wellbores, each having an average recovery of over 3 BCF of gas and 22,000 barrels of condensate;
- (I) orthodox locations do exist within the W/2 of said Section 35 for Mewbourne to drill its Scanlon Draw "35" State Well No. 1;
- (j) moving Mewbourne's proposed well to an unorthodox location will allow the confiscation of a significant quantity of reserves from the Bass-operated lease;
- (k) the imposition of a penalty allowable would be ineffective in preventing this confiscation of reserves; and,
- (1) the proposed Mewbourne well should be drilled at a standard gas well location within its W/2 320-acre dedication.
- (16) The combined technical evidence presented in this matter indicates that Mewbourne's well at the proposed unorthodox location within the W/2 of said Section 35 would only serve to drain an area in excess of the intended area allowed under the rules

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governing said pool. In the absence of gas prorationing and a methodology for setting restrictions on production for the purpose of counteracting such advantages, the proposed unorthodox gas well location of Mewbourne's Scanlon Draw "35" State Well No. 1 in Unit "N" of said Section 35 should therefore be <u>denied</u> and the previous approval granting said location in Administrative Order NSL-3745 should be <u>rescinded</u> at this time.

- (17) Likewise, gas prorationing of a pool serves to establish a means whereby production can be managed and controlled in a manner that could allow and adjust for discrepancies and/or advantageous conditions such as: (I) unorthodox locations, (ii) non-standard sized and shaped spacing and proration units, and (iii) the drilling of additional wells within a single spacing unit. Non-prorated does not equate to unrestricted and such advantageous situations allowed in prorated pools are discouraged in pools where unrestricted production is not only allowed but encouraged. Allowables are not issued in non-prorated pools and the only method available to protect correlative rights is the control of well density and locations. Added well density required because of special geological situations can be addressed by special pool rules after notice and hearing.
- (18) A second well to be concurrently and continuously producing gas from the non-prorated North Turkey Track-Morrow Gas Pool within a single spacing unit would also be considered as an advantageous condition that would only serve to drain an area in excess of the intended area allowed under the rules governing said pool. In the absence of prorationing within this pool, one party should not be allowed to drain or take advantage of neighboring property. Again, placing a restriction on production in this instance is arbitrary and is not a prudent or acceptable method in controlling or restricting the excessive production of gas from this pool.
- an exception to Division General Rule 104.D(3) so as to allow the continuous and concurrent production of gas attributed to the North Turkey Track-Morrow Gas Pool from its Turkey Track "2" State Com Well No. 1 (API No. 30-015-28481), located at a standard gas well location 2180 feet from the North line and 660 feet from the East line (Unit H) of Section 2, Township 19 South, Range 28 East, NMPM, Eddy County, New Mexico, and from the proposed Turkey Track "2" State Com Well No. 2 to be drilled at a standard gas well location within the existing 321.40-acre gas spacing and proration unit comprising Lots 1 and 2, the S/2 NE/4, and the SE/4 (E/2 equivalent) of said Section 2 should be denied. Further, Bass Enterprises Production Company's request in Case 11758 to drill its Turkey Track "2" State Com Well No. 2 at a location considered to be anything other than standard pursuant to Division General Rule 104.C(2)(b) should also be denied.

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IT IS THEREFORE ORDERED THAT:

- (1) The application of Bass Enterprises Production Company and Santa Fe Energy Company in Case No. 11713 for the rescission of Division Administrative Order NSL-3745, dated December 27, 1996 is hereby approved.
- (2) Division Administrative Order NSL-3745, which order authorized Mewbourne Oil Company to drill its Scanlon Draw "35" State Well No. 1 (API No. 30-015-29384) at an unorthodox gas well location within a standard 320-acre gas spacing and proration unit comprising the W/2 of said Section 35 in order to test the Morrow formation 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 35, Township 18 South, Range 28 East, NMPM, North Turkey Track-Morrow Gas Pool, Eddy County, New Mexico, is hereby canceled and is no longer in effect.

IT IS FURTHER ORDERED THAT:

- (3) The application of Bass Enterprises Production Company in Case 11758 for an exception to Division General Rule 104.D(3) so as to allow the continuous and concurrent production of gas attributed to the North Turkey Track-Morrow Gas Pool from its Turkey Track "2" State Com Well No. 1 (API No. 30-015-28481), located at a standard gas well location 2180 feet from the North line and 660 feet from the East line (Unit H) of Section 2, Township 19 South, Range 28 East, NMPM, Eddy County, New Mexico, and from the proposed Turkey Track "2" State Com Well No. 2 to be drilled at a standard gas well location within the existing 321.40-acre gas spacing and proration unit comprising Lots 1 and 2, the S/2 NE/4, and the SE/4 (E/2 equivalent) of said Section 2 is hereby denied.
- (4) Bass Enterprises Production Company's request in Case 11758 to drill its Turkey Track "2" State Com Well No. 2 at a location considered to be anything other than standard pursuant to Division General Rule 104.C(2)(b) is also denied.
- (5) Jurisdiction of this cause 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

WILLIAM J./LEMAY

Director

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