

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:

DAE 6/23/93
RS 6/23/93
KE 4/23/93
CASE NO. 10727
Order No. R-9917

APPLICATION OF MOBIL EXPLORATION
& PRODUCING U.S. INC. FOR DOWNHOLE
COMMINGLING, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 6 and June 3, 1993, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this _____ day of ^{July} ~~June~~, 1993, 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) The applicant, Mobil Exploration & Producing U.S. Inc., seeks approval to downhole commingle production from the South Shoe Bar-Upper Pennsylvanian and South Shoe Bar-Wolfcamp Pools within the following described wells located in Township 17 South, Ranges 35 and 36 East, NMPM, Lea County, New Mexico:

<u>WELL NAME & NUMBER</u>	<u>WELL LOCATION</u>
Lovington Deep St. No. 1	823' FNL & 581' FEL (A) 1-17S-35E
Lovington Deep St. No. 2	1830' FSL & 660' FEL (I) 1-17S-35E
Lovington Deep St. No. 3	1874' FNL & 1980' FEL (G) 1-17S-35E
Lovington Deep Amoco St. No. 1	1980' FNL & 660' FWL (E) 6-17S-36E
Lovington Deep Amoco St. No. 2	1830' FSL & 510' FWL (L) 6-17S-36E

(3) The evidence presented indicates that with the exception

of the Lovington Deep State Well No. 3, all of the subject wells are currently completed in and producing from the South Shoe Bar-Upper Pennsylvanian Pool. The Lovington Deep State Well No. 3 is currently completed in and producing from the South Shoe Bar-Wolfcamp Pool.

(4) The Lovington Deep State Well Nos. 1 and 2 and the Lovington Deep Amoco State Well Nos. 1 and 2 are currently capable of marginal production only from the South Shoe Bar-Upper Pennsylvanian Pool.

(5) The Lovington Deep State Well No. 3 is currently capable of producing an average of approximately 92 BOPD and 127 MCFGPD from the South Shoe Bar-Wolfcamp Pool (based on a six month average 10/92 through 03/93).

(6) The evidence presented indicates that the Lovington Deep State Well No. 3 produced from the South Shoe Bar-Upper Pennsylvanian Pool from April, 1988 to January, 1991, at which time it was recompleted to the Wolfcamp formation. At the time of recompletion, the well was capable of marginal production only from the South Shoe Bar-Upper Pennsylvanian Pool.

(7) The evidence presented further indicates that during its first 126 days of production from the Wolfcamp formation, the Lovington Deep State Well No. 3 was capable of producing an average of approximately 272 BOPD.

(8) According to applicant's testimony, the high initial Wolfcamp producing rates in the Lovington Deep State Well No. 3 were the result of encountering a natural fracture system in the Wolfcamp formation. Applicant further testified that it does not expect to encounter such high production in the Lovington Deep State Well Nos. 1 and 2 and the Lovington Deep Amoco State Well Nos. 1 and 2.

(9) Within the South Shoe Bar-Upper Pennsylvanian and South Shoe Bar-Wolfcamp Pools, the applicant expects to encounter marginal production only.

(10) The evidence presented indicates that it is not unlikely to encounter initial production in the South Shoe Bar-Wolfcamp Pool greater than what is normally considered by the Division to be appropriate for downhole commingling.

(11) As further evidence, the applicant presented bottomhole pressure data for both the Wolfcamp and Upper Pennsylvanian formations in this area. The data indicates that the applicant may encounter an initial bottomhole pressure within the Wolfcamp formation of approximately 4,600-4,700 psi. The data further indicates that the current bottomhole pressure within the subject producing wells is approximately 500 psi in both the Wolfcamp and Upper Pennsylvanian formations.

(12) In order to ascertain bottomhole pressures and producing rates, the applicant should be required to isolate the Upper Pennsylvanian formation and complete the Wolfcamp formation in such a manner as to permit the Wolfcamp to be singly produced until such time as the bottomhole pressure is compatible with the Upper Pennsylvanian formation and until such time as the Wolfcamp producing rate is sufficiently low to qualify for downhole commingling.

(13) This requirement should only apply to the Lovington Deep State Well Nos. 1 and 2 and the Lovington Deep Amoco State Well Nos. 1 and 2.

(14) The requirement described in Finding No. (12) above may be waived by the supervisor of the Hobbs District Office of the Division if it is determined to be unnecessary from initial Wolfcamp test data obtained by the applicant.

(15) The interest ownership among the two subject pools within each of the subject wells is common throughout.

(16) No offset operator and/or interest owner appeared at the hearing in opposition to the application.

(17) Approval of the subject application will allow the applicant the opportunity to economically produce the remaining oil and gas reserves within the South Shoe Bar-Wolfcamp and South Shoe Bar-Upper Pennsylvanian Pools, thereby preventing waste, and will not violate correlative rights.

(18) Subsequent to completing the subject wells for downhole commingling, the applicant should consult with the supervisor of the Hobbs District Office of the Division in order to determine the proper allocation of production from each respective pool.

(19) To afford the Division an opportunity to assess the potential of waste and to expeditiously order the appropriate remedial action, the operator should notify the Hobbs District Office of the Division any time any of the subject wells are shut-in for seven consecutive days.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Mobil Exploration & Producing U.S. Inc., is hereby authorized to downhole commingle production from the South Shoe Bar-Upper Pennsylvanian and South Shoe Bar-Wolfcamp Pools within the following described wells located in Township 17 South, Ranges 35 and 36 East, NMPM, Lea County, New Mexico:

<u>WELL NAME & NUMBER</u>	<u>WELL LOCATION</u>
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Lovington Deep St. No. 3	1874' FNL & 1980' FEL (G) 1-17S-35E

Lovington Deep Amoco St. No. 1 1980' FNL & 660' FWL (E) 6-17S-36E
Lovington Deep Amoco St. No. 2 1830' FSL & 510' FWL (L) 6-17S-36E

PROVIDED HOWEVER THAT, within the Lovington Deep State Well Nos. 1 and 2 and the Lovington Deep Amoco State Well Nos. 1 and 2, the applicant shall isolate the Upper Pennsylvanian formation and complete the Wolfcamp formation in such a manner as to permit the Wolfcamp to be singly produced until such time as the bottomhole pressure is compatible with the Upper Pennsylvanian formation and until such time as the Wolfcamp producing rate is sufficiently low to qualify for downhole commingling.

PROVIDED FURTHER THAT, the requirement described above may be waived by the supervisor of the Hobbs District Office of the Division if it is determined to be unnecessary from initial Wolfcamp test data obtained by the applicant.

(2) Subsequent to completing the subject wells for downhole commingling, the applicant shall consult with the supervisor of the Hobbs District Office of the Division in order to determine the proper allocation of production from each respective pool.

(3) The operator shall immediately notify the supervisor of the Hobbs District Office of the Division any time any of the subject wells have been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) Jurisdiction is hereby 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

S E A L

**STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
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BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 6 and June 3, 1993, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 6th day of July, 1993, 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) The applicant, Mobil Exploration & Producing U.S. Inc., seeks approval to downhole commingle production from the South Shoe Bar-Upper Pennsylvanian and South Shoe Bar-Wolfcamp Pools within the following described wells located in Township 17 South, Ranges 35 and 36 East, NMPM, Lea County, New Mexico:

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Lovington Deep Amoco St. No. 1	1980' FNL & 660' FWL (E)	6-17S-36E
Lovington Deep Amoco St. No. 2	1830' FSL & 510' FWL (L)	6-17S-36E

(3) The evidence presented indicates that with the exception of the Lovington Deep State Well No. 3, all of the subject wells are currently completed in and producing from the South Shoe Bar- Upper Pennsylvanian Pool. The Lovington Deep State Well No. 3 is currently completed in and producing from the South Shoe Bar-Wolfcamp Pool.

(4) The Lovington Deep State Well Nos. 1 and 2 and the Lovington Deep Amoco State Well Nos. 1 and 2 are currently capable of marginal production only from the South Shoe Bar-Upper Pennsylvanian Pool.

(5) The Lovington Deep State Well No. 3 is currently capable of producing an average of approximately 92 BOPD and 127 MCFGPD from the South Shoe Bar-Wolfcamp Pool (based on a six month average 10/92 through 03/93).

(6) The evidence presented indicates that the Lovington Deep State Well No. 3 produced from the South Shoe Bar-Upper Pennsylvanian Pool from April, 1988 to January, 1991, at which time it was recompleted to the Wolfcamp formation. At the time of recompletion, the well was capable of marginal production only from the South Shoe Bar-Upper Pennsylvanian Pool.

(7) The evidence presented further indicates that during its first 126 days of production from the Wolfcamp formation, the Lovington Deep State Well No. 3 was capable of producing an average of approximately 272 BOPD.

(8) According to applicant's testimony, the high initial Wolfcamp producing rates in the Lovington Deep State Well No. 3 were the result of encountering a natural fracture system in the Wolfcamp formation. Applicant further testified that it does not expect to encounter such high production in the Lovington Deep State Well Nos. 1 and 2 and the Lovington Deep Amoco State Well Nos. 1 and 2.

(9) Within the South Shoe Bar-Upper Pennsylvanian and South Shoe Bar-Wolfcamp Pools, the applicant expects to encounter marginal production only.

(10) The evidence presented indicates that it is not unlikely to encounter initial production in the South Shoe Bar-Wolfcamp Pool greater than what is normally considered by the Division to be appropriate for downhole commingling.

(11) As further evidence, the applicant presented bottomhole pressure data for both the Wolfcamp and Upper Pennsylvanian formations in this area. The data indicates that the applicant may encounter an initial bottomhole pressure within the Wolfcamp formation of approximately 4,600-4,700 psi. The data further indicates that the current bottomhole pressure within the subject producing wells is approximately 500 psi in both the Wolfcamp and Upper Pennsylvanian formations.

(12) In order to ascertain bottomhole pressures and producing rates, the applicant should be required to isolate the Upper Pennsylvanian formation and complete the Wolfcamp formation in such a manner as to permit the Wolfcamp to be singly produced until such time as the bottomhole pressure is compatible with the Upper Pennsylvanian formation and until such time as the Wolfcamp producing rate is sufficiently low to qualify for downhole commingling.

(13) This requirement should only apply to the Lovington Deep State Well Nos. 1 and 2 and the Lovington Deep Amoco State Well Nos. 1 and 2.

(14) The requirement described in Finding No. (12) above may be waived by the supervisor of the Hobbs District Office of the Division if it is determined to be unnecessary from initial Wolfcamp test data obtained by the applicant.

(15) The interest ownership among the two subject pools within each of the subject wells is common throughout.

(16) No offset operator and/or interest owner appeared at the hearing in opposition to the application.

(17) Approval of the subject application will allow the applicant the opportunity to economically produce the remaining oil and gas reserves within the South Shoe Bar-Wolfcamp and South Shoe Bar-Upper Pennsylvanian Pools, thereby preventing waste, and will not violate correlative rights.

(18) Subsequent to completing the subject wells for downhole commingling, the applicant should consult with the supervisor of the Hobbs District Office of the Division in order to determine the proper allocation of production from each respective pool.

(19) To afford the Division an opportunity to assess the potential of waste and to expeditiously order the appropriate remedial action, the operator should notify the Hobbs District Office of the Division any time any of the subject wells are shut-in for seven consecutive days.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Mobil Exploration & Producing U.S. Inc., is hereby authorized to downhole commingle production from the South Shoe Bar-Upper Pennsylvanian and South Shoe Bar-Wolfcamp Pools within the following described wells located in Township 17 South, Ranges 35 and 36 East, NMPM, Lea County, New Mexico:

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PROVIDED HOWEVER THAT, within the Lovington Deep State Well Nos. 1 and 2 and the Lovington Deep Amoco State Well Nos. 1 and 2, the applicant shall isolate the Upper Pennsylvanian formation and complete the Wolfcamp formation in such a manner as to permit the Wolfcamp to be singly produced until such time as the bottomhole pressure is compatible with the Upper Pennsylvanian formation and until such time as the Wolfcamp producing rate is sufficiently low to qualify for downhole commingling.

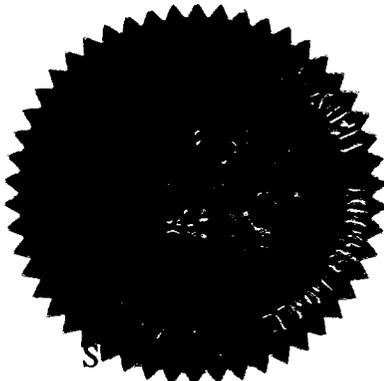
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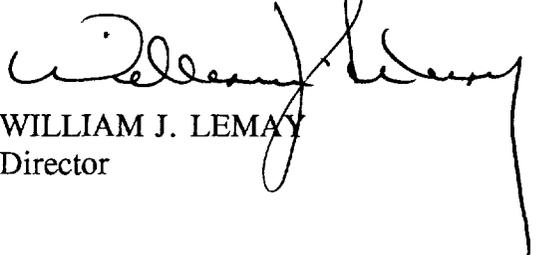
(3) The operator shall immediately notify the supervisor of the Hobbs District Office of the Division any time any of the subject wells have been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) Jurisdiction is hereby 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