

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

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

CASE NO. 8190
Order No. R-7556

APPLICATION OF AMOCO PRODUCTION
COMPANY FOR TEMPORARY SPECIAL
SPACING RULES, UNION, HARDING, AND
QUAY COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on May 15, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 19th day of June, 1984, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Amoco Production Company, hereinafter referred to as "Amoco", as unit operator for the Bravo Dome Carbon Dioxide Gas Unit Area, hereinafter referred to as the "Unit", seeks the promulgation of temporary spacing rules for the Unit and for a distance of one mile outside the Unit, including a provision for 640-acre spacing and proration units and specified well locations.

(3) That the Unit, the outer boundaries of which encompass some one million acres, more or less, lies within all or portions of Township 16 North, Ranges 34 and 35 East, Townships 17 and 18 North, Ranges 30 through 37 East, Township 19 North, Ranges 29 through 36 East, Townships 20 and 21 North, Ranges 29 through 35 East, and Township 24 North, Ranges 31 through 34 East, NMPM, Union, Harding, and Quay Counties, New Mexico.

(4) That with the exception of certain areas in the Western and Southwestern portion of the Unit, a high percentage of the owners have ratified the Unit Agreement, and their lands are committed to the Unit.

(5) That in the Western and Southwestern portion of the unit, specifically in Townships 17 and 18 North, Ranges 30 and 31 East, Townships 19 and 20 North, Ranges 29, 30, and 31 East, and Township 21 North, Range 29 East, NMPM, Harding County, New Mexico, a large percentage of the owners have not ratified the Unit Agreement, and their lands are not committed to the Unit.

(6) That in support of its application for 640-acre spacing, Amoco offered certain geological, engineering, and economic data relating to quantity and quality of pay, long-term flow tests, and well economics.

(7) That a large portion of the data presented was developed from analysis of wells drilled in the Eastern part of the Unit, where the Bravo Dome carbon dioxide reservoir(s) are of superior quality to the carbon dioxide reservoir(s) in the Western and Southwestern portion of the Unit.

(8) That the owners of lands in the Western and Southwestern portion of the Unit appeared at the hearing and objected to the adoption of temporary 640-acre spacing and specified well locations.

(9) That some of said owners have drilled and produced carbon dioxide wells and have built and operated carbon dioxide processing plants in the area for many years, while others of said owners are currently engaged in drilling wells and designing plants for the purpose of carbon dioxide gas production and processing in the near future.

(10) That all of the aforesaid well drilling, plant construction, and plant design has been in good faith reliance upon the 160-acre spacing rules now in existence.

(11) That to change the spacing of wells in the Western and Southwestern portion of the Unit would impair the correlative rights of those owners who have invested in and planned for the development of their properties in reliance upon the existing 160-acre spacing rules, and would force the cancellation of certain plans for the drilling and development of carbon dioxide reserves and for plant construction, thereby causing waste and imposing an unjustified economic hardship upon said owners.

(12) That the evidence presented at the hearing establishes that the quantity and quality of the pay deteriorates from East to West.

(13) That the quantity and quality of the pay is considerably better in the area in which Amoco has drilled the vast majority of its wells, and in which the interference tests and long-term flow tests were conducted.

(14) That the quantity and quality of the pay is considerably poorer in the Western and Southwestern portion of the Unit where the protestant owners have drilled wells and have built and are planning to build carbon dioxide gas processing plants.

(15) That no evidence was presented at the hearing to support Amoco's contention that one well will efficiently and economically drain 640 acres in the Western and Southwestern portion of the Unit.

(16) That while the geological, engineering, and economic evidence presented by Amoco may justify the adoption of 640-acre spacing throughout certain portions of the Unit Area on a temporary basis, said evidence does not support -- even on a temporary basis -- any geological, engineering or economic, or other valid and compelling justification within the jurisdiction of the Commission, for such spacing in the Western and Southwestern portion of the Unit Area.

(17) That the application for 640-acre spacing in the Western and Southwestern portion of the Bravo Dome Carbon Dioxide Gas Unit Area should be denied, and such denial should be applicable to those lands lying in the area in which the reservoir characteristics are not conducive to good drainage.

(18) That such lands as described in Finding No. 17 above in which the application should be denied and which should continue to be spaced in accordance with Rule 104 of the Division Rules and Regulations are those lands within the Unit Area in Townships 17 and 18 North, Ranges 30 and 31 East, Townships 19 and 20 North, Ranges 29, 30, and 31 East, NMPM, Harding County, New Mexico, and as more specifically defined in Exhibit "A" attached hereto and made a part hereof, and said lands should be known as the "Bravo Dome 160-acre Area".

(19) That the geological and engineering evidence presented at the hearing justifies the approval of 640-acre spacing on a temporary basis for those remaining lands in the Unit Area, and outside the Unit Area but within one mile

thereof and defined in Exhibit "A" attached hereto, but not within the lands described in Finding No. (18) above.

(20) That approval of the application for said lands, will prevent waste, protect correlative rights, will permit the more rapid development and evaluation of said lands, expedite evaluation of said lands, and expedite the gathering of reservoir data in the area.

(21) That the area approved for temporary 640-acre spacing should be known as the "Bravo Dome 640-acre Area," and should comprise those lands defined in Exhibit "B" attached hereto and made a part hereof, as well as those lands outside the Unit Area but within one mile thereof but not within the 160-acre area (the lands defined in Exhibit "A" attached hereto).

(22) That Special Rules and Regulations for the Bravo Dome 640-acre Area should be promulgated, and said rules should provide for 640-acre spacing with the spacing and proration units to comprise a single governmental section; further that the rules should specify that wells be located no nearer than 1,650 feet to the outer boundary of the spacing and proration unit nor nearer than 330 feet to any governmental quarter-quarter section line.

(23) That the vertical limits of the Bravo Dome 640-acre Area should be the Tubb formation (from the base of the Cimarron Anhydrite to the top of the Granite).

(24) That the Special Rules and Regulations for the Bravo Dome 640-acre Area should remain in effect for a period of three years from date of entry of this Order.

(25) That Amoco Production Company should be required to submit a plan, which plan should include extensive shut-in periods for one or more Unit wells, to demonstrate the drainage efficiency of wells located on 640-acre spacing units.

(26) That this case should be reopened at a hearing in June, 1987, at which time Amoco and other interested parties should appear and show cause why the Bravo Dome 640-acre Area should not be developed on less than 640-acre spacing and proration units.

(27) That that portion of Order No. R-6645 relating to denial of 640-acre spacing should be superseded but that portion of said Order relating to administrative approval for the reinjection of carbon dioxide gas for the purpose of testing wells and production facilities should remain in effect.

IT IS THEREFORE ORDERED:

(1) That the application of Amoco Production Company for the promulgation of temporary special spacing rules for the Bravo Dome Carbon Dioxide Gas Unit Area to provide for 640-acre spacing and specified well locations within said Unit Area and outside the Unit Area but within one mile thereof is hereby denied.

(2) That the "Bravo Dome 160-acre Area" is hereby established comprising those lands defined in Exhibit "A" attached hereto and made a part hereof.

(3) That said Bravo Dome 160-acre Area shall be spaced, drilled, and operated in accordance with the Division Rules and Regulations, particularly with respect to those rules governing 160-acre gas well spacing.

(4) That the "Bravo Dome 640-acre Area" is hereby established comprising those lands defined in Exhibit "B" attached hereto and made a part hereof.

(5) That the vertical limits of the Bravo Dome 640-acre Area shall be the Tubb formation (from the base of the Cimarron Anhydrite to the top of the Granite).

(6) That 640-acre spacing and proration units and limited well locations, being no closer than 1,650 feet to the outer boundary of the unit and no closer than 330 feet to any governmental quarter-quarter section line, are hereby established for the Bravo Dome 640-acre Area for a period not to exceed three years from date of entry of this Order.

(7) That effective July 1, 1984, special rules and regulations for the Bravo Dome 640-acre Area in Union, Harding, and Quay Counties, New Mexico, as more fully described in Exhibit "B" attached to this Order and made a part hereof, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
BRAVO DOME 640-ACRE AREA

RULE 1. Each well completed or recompleted in the Bravo Dome 640-acre Area shall be spaced, drilled, and operated in accordance with the Special Rules and Regulations hereinafter set forth, that these rules shall be applicable to the Tubb formation outside the Bravo Dome 640-acre Area but not within the Bravo Dome 160-acre Area.

RULE 2. Each well shall be located on a standard unit containing 640 acres, more or less, consisting of a governmental section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter sections in the unit.

RULE 3. The Director of the Oil Conservation Division may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarter-quarter section or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning lands in the section in which the non-standard unit is situated which lands are not included in said non-standard unit.
- (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Director has received the applications.

RULE 4. Each well shall be located no nearer than 1,650 feet to the outer boundary of the section and no nearer than 330 feet to any governmental quarter-quarter section line; provided, however, that any subsequent wells drilled on a unit shall be located no nearer than 1,320 feet from any existing well drilling to or capable of producing from the Bravo Dome 640-acre Area, and provided, further, that in the case of a 640-acre unit offset by a spacing and proration unit of 160 acres or less in an area spaced on 160 acres which has thereon a well completed in and capable of producing from the

equivalent vertical limits of the Bravo Dome 640-acre Area, the 640-acre unit well may be located equidistant from the common line between the units as the well on the lesser sized unit.

RULE 5. The Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions. All operators offsetting the spacing and proration unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the spacing and proration unit or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

IT IS FURTHER ORDERED:

(1) That within 60 days following entry of this Order, Amoco Production Company shall submit a plan, acceptable to the Director of the Oil Conservation Division, to demonstrate the drainage efficiency of wells located on 640-acre spacing units which plan should include extensive shut-in periods for one or more Unit wells.

(2) That this case shall be reopened in June, 1987, at which time the applicant herein or other interested parties may appear and show cause why the Bravo Dome 640-acre Area should not be developed on less than 640-acre spacing and proration units.

(3) That that portion of Order No. R-6645 relating to spacing is hereby superseded but that portion of said Order relating to the reinjection of gas for test purposes shall remain in full force and effect.

(4) That the locations of all wells presently drilling to or completed in the Bravo Dome 640-acre Area are hereby approved; that the operator of any well having an unorthodox location shall notify the Santa Fe District Office of the Division in writing of the name and location of the well on or before August 1, 1984.

(5) That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, existing wells in the Bravo Dome 640-acre Area shall have dedicated thereto 640 acres in accordance with the foregoing pool rules, or, pursuant to Paragraph C. of said Section 70-2-18, existing

wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

(6) That failure to file new Forms C-102 with the Division dedicating 640 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this Order shall subject the well to being shut-in. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to the 60-day limitation, each well presently drilling to or completed in the Bravo Dome 640-acre Area shall receive no approved Form C-104, provided, however, that no further approval shall be required for any non-standard spacing and proration unit comprising less than 160 acres or for any 160-acre unit consisting of other than a single governmental quarter section, provided such unit has previously been approved by order of the Division.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

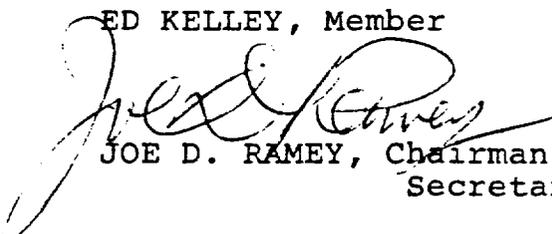
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JIM BACA, Member



ED KELLEY, Member



JOE D. RAMEY, Chairman and
Secretary

S E A L

HARDING COUNTY

TOWNSHIP 17 NORTH, RANGE 30 EAST, NMPM

Section 1: N/2, SE/4 and E/2 SW/4
Section 11: SE/4 and E/2 SW/4
Section 12: E/2, SW/4 and E/2 NW/4
Section 13: All
Section 14: E/2, E/2 W/2 and SW/4 NW/4
Section 15: SE/4 NE/4
Section 22: SE/4 SE/4
Sections 23 through 25: All
Section 26: NE/4 and E/2 NW/4
Section 27: NE/4 NE/4
Section 35: SE/4
Section 36: All

TOWNSHIP 17 NORTH, RANGE 31 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 18 NORTH, RANGE 30 EAST, NMPM

Sections 1 and 2: All
Section 3: E/2 E/2 and SW/4 SE/4
Section 10: E/2 NE/4
Section 11: N/2
Sections 12 through 14: All
Section 23: E/2 and E/2 W/2
Section 24: All
Section 25: E/2, E/2 W/2, W/2 NW/4 and NW/4 SW/4
Section 26: NE/4, E/2 NW/4 and N/2 S/2
Section 36: All

TOWNSHIP 18 NORTH, RANGE 31 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 29 EAST, NMPM

Section 1: NE/4 and E/2 NW/4

TOWNSHIP 19 NORTH, RANGE 30 EAST, NMPM

Sections 1 through 4: All
Section 5: E/2
Section 6: E/2 SE/4, NW/4 SE/4 and NE/4 SW/4
Section 7: NE/4 NE/4, E/2 SE/4, SW/4 SE/4 and
SE/4 SW/4
Sections 8 through 16: All
Section 17: N/2 and SE/4
Section 18: NE/4 NE/4
Section 20: W/2 NE/4 and S/2 SE/4

ORDER NO. R-7556

Exhibit "A"

Page 1 of 2

Sections 21 through 28: All
Section 29: NE/4
Section 32: NE/4 NE/4
Section 33: NW/4, W/2 NE/4, NE/4 NE/4,
NW/4 SE/4 and NE/4 SW/4
Section 34: N/2 and E/2 SE/4
Sections 35 and 36: All

TOWNSHIP 19 NORTH, RANGE 31 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 20 NORTH, RANGE 29 EAST, NMPM

Sections 1 and 2: All
Section 3: E/2, SW/4, S/2 NW/4 and Lot 3
Section 4: Lot 4, SE/4 NE/4 and E/2 SE/4
Section 5: SW/4 and SW/4 SE/4
Section 6: Lots 1, 2, and 3, SE/4 NW/4,
S/2 NE/4, SE/4 and NE/4 SW/4
Section 7: Lots 2 and 3, NE/4 SW/4 and N/2 SE/4
Section 8: NW/4 NW/4 and W/2 SW/4
Section 9: NE/4 NW/4, NE/4 and E/2 E/2
Sections 10 through 15: All
Section 16: E/2, NE/4 NW/4, S/2 SW/4 and
NW/4 SW/4
Section 17: S/2, SW/4 NE/4, S/2 NW/4 and
NW/4 NW/4
Section 18: Lots 1 through 4, SE/4 NW/4,
E/2 SW/4 and E/2
Section 19: Lots 1 and 2, E/2 W/2 and E/2
Section 20: All
Section 21: W/2 NW/4, NW/4 SW/4, NE/4 and
NE/4 SE/4
Sections 22 through 26: All
Section 27: N/2, SE/4, and NE/4 SW/4
Section 28: NE/4 NE/4
Section 29: N/2
Section 30: N/2 NE/4 and SE/4 NE/4
Section 34: NE/4 NE/4
Section 35: N/2 and SE/4
Section 36: All

TOWNSHIP 20 NORTH, RANGE 30 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 20 NORTH, RANGE 31 EAST, NMPM
Sections 1 through 36: All

BRAVO DOME 640-ACRE A A

UNION COUNTY, NEW MEXICO

TOWNSHIP 18 NORTH, RANGE 34 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 18 NORTH, RANGE 35 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 18 NORTH, RANGE 36 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 18 NORTH, RANGE 37 EAST, NMPM
Sections 6 and 7: All
Sections 18 and 19: All
Sections 30 and 31: All

TOWNSHIP 19 NORTH, RANGE 34 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 35 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 36 EAST, NMPM
Section 16: All
Section 18: S/2
Sections 19 and 20: All
Section 21: W/2, W/2 NE/4 and SE/4 NE/4
Section 26: S/2 S/2
Section 28: W/2
Sections 29 through 36: All

TOWNSHIP 20 NORTH, RANGE 34 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 20 NORTH, RANGE 35 EAST, NMPM
Section 3: W/2
Sections 4 through 10: All
Section 11: SW/4
Section 14: NW/4
Sections 15 through 22: All
Section 23: NW/4
Sections 27 through 34: All

TOWNSHIP 21 NORTH, RANGE 34 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 30 EAST, NMPM
Sections 1 through 24: All
Section 25: N/2 and SW/4
Section 26: All
Section 27: NE/4 and N/2 NW/4
Sections 28 through 33: All

TOWNSHIP 22 NORTH, RANGE 30 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 31 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 32 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 33 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 34 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 22 NORTH, RANGE 35 EAST, NMPM
Section 5: S/2
Sections 6 through 8: All
Section 9: W/2 and SE/4
Section 10: S/2 S/2
Sections 15 through 21: All
Section 22: N/2
Section 27: SW/4
Sections 28 through 33: All
Section 34: NW/4 and N/2 SW/4
Section 36: All

TOWNSHIP 23 NORTH, RANGE 30 EAST, NMPM
Section 36: All

TOWNSHIP 23 NORTH, RANGE 31 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 23 NORTH, RANGE 32 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 23 NORTH, RANGE 33 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 23 NORTH, RANGE 34 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 23 NORTH, RANGE 35 EAST, NMPM
Section 31: All

TOWNSHIP 24 NORTH, RANGE 31 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 24 NORTH, RANGE 32 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 24 NORTH, RANGE 33 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 24 NORTH, RANGE 34 EAST, NMPM
Sections 1 through 36: All

HARDING COUNTY, NEW MEXICO

TOWNSHIP 17 NORTH, RANGE 32 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 17 NORTH, RANGE 33 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 18 NORTH, RANGE 32 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 18 NORTH, RANGE 33 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 32 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 33 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 20 NORTH, RANGE 32 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 20 NORTH, RANGE 33 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 21 NORTH, RANGE 29 EAST, NMPM
Sections 1 through 27: All

Section 28: N/2, SE/4 and E/2 SW/4

Section 29: All

Section 30: Lots 1, 2 and 4, E/2 NW/4, NE/4,
N/2 SE/4 and SE/4 SE/4

Section 31: All

ORDER NO. R-7556

Exhibit "B"

Page 3 of 5

Section 32: W/2, SE/4, W/2 NE/4 and SE/4 NE/4

Section 33: W/2 SW/4, NE/4 S 4, NE/4 NW/4
and N/2 NE/4

Sections 34 through 36: All

TOWNSHIP 21 NORTH, RANGE 30 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 21 NORTH, RANGE 31 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 21 NORTH, RANGE 32 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 21 NORTH, RANGE 33 EAST, NMPM

Sections 1 through 36: All

QUAY COUNTY, NEW MEXICO

TOWNSHIP 16 NORTH, RANGE 34 EAST, NMPM

Section 3: Lots 3 through 6, 11 and 12

Section 4: Lots 1, 2, 5 through 12,
N/2 SE/4 and SW/4

TOWNSHIP 16 NORTH, RANGE 35 EAST, NMPM

Section 1: Lots 1 through 8, NW/4 SW/4
and S/2 SW/4

Sections 2 through 6: All

Section 7: Lots 1, 2, E/2 NW/4 and E/2

Sections 8 through 10: All

Section 11: NW/4, N/2 SW/4, N/2 S/2 SW/4,
and N/2 S/2 S/2 SW/4

TOWNSHIP 16 NORTH, RANGE 36 EAST, NMPM

Section 5: Lots 4 and 5

Section 6: Lots 1 through 8 and 10

TOWNSHIP 17 NORTH, RANGE 34 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 17 NORTH, RANGE 35 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 17 NORTH, RANGE 36 EAST, NMPM

Sections 1 through 36: All

ORDER NO. R-7556

Exhibit "B"

Page 4 of 5

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING

CASE NO. 8352
Order No. R-

APPLICATION OF CITIES SERVICE
OIL & GAS CORPORATION FOR SPECIAL
POOL RULES, HARDING AND SAN
MIGUEL COUNTIES, NEW MEXICO

RECEIVED

OCT 20 1984

ORDER OF THE COMMISSION

OIL CONSERVATION DIVISION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on September 26, 1984, before the Oil Conservation Commission of New Mexico hereinafter referred to as the "Commission."

NOW, on this _____ day of October, 1984, the Commission, a quorum being present, having considered the testimony presented and the exhibits reviewed at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Cities Service Oil and Gas Corporation, hereinafter referred to as "Cities," seeks an order establishing 640-acre spacing rules for carbon dioxide gas wells in the following described lands in Harding County, New Mexico:

Township 17 North, Range 29 East, NMPM

Sections 1 thru 12: All
Sections 14 thru 22: All
Sections 28 thru 30: All

Township 18 North, Range 29 East, NMPM

Sections 1 thru 36: All

Township 18 North, Range 30 East, NMPM

Sections 1 thru 36: All

Township 18 North, Range 31 East, NMPM

Sections 1 thru 36: All

Township 19 North, Range 29 East, NMPM

Sections 1 thru 36: All

Township 19 North, Range 30 East, NMPM

Sections 19 thru 36: All

Township 19 North, Range 31 East, NMPM

Sections 19 thru 36: All

Township 20 North, Range 29 East, NMPM

Sections 31 thru 33: All

(3) That of the lands described in Findings No. (2) above which Cities seeks to have spaced on 640 acres, the proposed Cities Service West Bravo Dome Carbon Dioxide Unit Area, subject to minor revisions, comprises only the following described lands:

Township 17 North, Range 29 East, NMPM

Sections 1: SW $\frac{1}{2}$ SW $\frac{1}{4}$
Sections 2 and 3: All
Section 4: W $\frac{1}{2}$, E $\frac{1}{2}$ NE $\frac{1}{4}$, and SE $\frac{1}{4}$
Section 5: N $\frac{1}{2}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, and SE $\frac{1}{4}$
Section 6: NE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ NE $\frac{1}{4}$, and SE $\frac{1}{4}$ NE $\frac{1}{4}$

Section 8: $E\frac{1}{2}W\frac{1}{2}$ and $E\frac{1}{2}$
 Sections 9 thru 11: All
 Section 12: $W\frac{1}{2}$, $SE\frac{1}{4}NE\frac{1}{4}$, and $SE\frac{1}{4}$
 Section 13: $NW\frac{1}{4}$ and $SW\frac{1}{4}NE\frac{1}{4}$
 Section 14: $W\frac{1}{2}$ and $N\frac{1}{2}NE\frac{1}{4}$
 Sections 15 thru 17: All
 Section 18: Lots 1 thru 4, $E\frac{1}{2}W\frac{1}{2}$,
 and $E\frac{1}{2}$
 Section 19: Lots 4, 5, and 6 and
 $NE\frac{1}{4}$ and $E\frac{1}{2}SE\frac{1}{4}$
 Section 20 thru 22: All
 Section 28: $N\frac{1}{2}$
 Section 29: Lots 4 and 6, $N\frac{1}{2}$,
 $W\frac{1}{2}SE\frac{1}{4}$ and $E\frac{1}{2}SW\frac{1}{4}$

Township 18 North, Range 29 East, NMPM

Section 1: $N\frac{1}{2}$, $N\frac{1}{2}SW\frac{1}{2}$, $SE\frac{1}{4}SW\frac{1}{4}$, and
 $SE\frac{1}{4}$
 Section 2 thru 5: All
 Section 6: $N\frac{1}{2}NW\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$, $NE\frac{1}{4}$, and
 $S\frac{1}{2}$
 Section 7 thru 9: All
 Section 10: $NW\frac{1}{4}$ and $W\frac{1}{2}SW\frac{1}{4}$
 Section 12: $NE\frac{1}{4}NW\frac{1}{4}$, $N\frac{1}{2}NE\frac{1}{4}$, $SE\frac{1}{4}NE\frac{1}{4}$
 and $SE\frac{1}{4}SE\frac{1}{4}$

 Section 13: $NE\frac{1}{4}NE\frac{1}{4}$
 Section 15: $W\frac{1}{2}$
 Section 16 thru 19: All
 Section 20: $N\frac{1}{2}$, $N\frac{1}{4}SW\frac{1}{4}$, $SW\frac{1}{4}SW\frac{1}{4}$, and
 $SE\frac{1}{4}$
 Section 21: All
 Section 22: $NW\frac{1}{4}$ and $SW\frac{1}{4}NE\frac{1}{4}$
 Section 28: $N\frac{1}{2}NW\frac{1}{4}$ and $NW\frac{1}{4}NE\frac{1}{4}$
 Section 29: $W\frac{1}{2}NW\frac{1}{4}$, $SE\frac{1}{4}NW\frac{1}{4}$, $SW\frac{1}{4}NE\frac{1}{4}$,
 $NE\frac{1}{4}SW\frac{1}{4}$, and $NW\frac{1}{4}SE\frac{1}{4}$
 Section 30: Lot 1 and $E\frac{1}{2}NW\frac{1}{4}$,
 $NE\frac{1}{4}SW\frac{1}{4}$, $NE\frac{1}{4}$, $N\frac{1}{2}SE\frac{1}{4}$ and
 $SE\frac{1}{4}SE\frac{1}{4}$
 Section 31: Lot 3 and $E\frac{1}{2}NE\frac{1}{4}$,
 $SW\frac{1}{4}NE\frac{1}{4}$, $E\frac{1}{2}SW\frac{1}{4}$, and $SE\frac{1}{4}$
 Section 32: All
 Section 33: $SW\frac{1}{4}$ and $NW\frac{1}{4}SE\frac{1}{4}$
 Section 35: $NE\frac{1}{4}NW\frac{1}{4}$, $S\frac{1}{2}NW\frac{1}{4}$, $N\frac{1}{2}SW\frac{1}{4}$,
 $SW\frac{1}{4}SW\frac{1}{4}$, and $N\frac{1}{2}NE\frac{1}{4}$
 Section 36: All

Township 18 North, Range 30 East, NMPM

Section 5: $NW\frac{1}{4}$, $N\frac{1}{2}NE\frac{1}{4}$, and $SE\frac{1}{4}NE\frac{1}{4}$
 Section 6: $N\frac{1}{2}$, $SE\frac{1}{4}SW\frac{1}{4}$, and $SW\frac{1}{2}SE\frac{1}{4}$
 Section 7: $W\frac{1}{2}$, $NW\frac{1}{4}NE\frac{1}{4}$ and $S\frac{1}{2}SE\frac{1}{4}$
 Section 18: $N\frac{1}{2}NW\frac{1}{4}$ and $SW\frac{1}{4}NW\frac{1}{4}$

Township 19 North, Range 29 East, NMPM

Section 2: SW $\frac{1}{4}$ SW $\frac{1}{4}$
Section 3: NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$, and SE $\frac{1}{4}$
Section 4: NW $\frac{1}{4}$, E $\frac{1}{2}$ NE $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$, and SE $\frac{1}{4}$
Section 5: N $\frac{1}{2}$
Section 6: W $\frac{1}{2}$ W $\frac{1}{2}$
Section 7: W $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, and S $\frac{1}{2}$
Section 9: W $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, and S $\frac{1}{2}$
Section 10: NW $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, and E $\frac{1}{2}$ SE $\frac{1}{4}$
Section 11: W $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, and E $\frac{1}{2}$ SE $\frac{1}{4}$
Section 14: NW $\frac{1}{4}$ and W $\frac{1}{2}$ NE $\frac{1}{4}$
Section 15: NE $\frac{1}{4}$ and E $\frac{1}{2}$ NW $\frac{1}{4}$
Section 16: All
Sections 18 and 19: All
Section 20: W $\frac{1}{2}$ and W $\frac{1}{2}$ E $\frac{1}{2}$
Section 21: W $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$
Section 22: N $\frac{1}{2}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, and N $\frac{1}{2}$ SE $\frac{1}{4}$
Section 24: E $\frac{1}{2}$ SW $\frac{1}{4}$ and DE $\frac{1}{4}$
Section 25: E $\frac{1}{2}$ W $\frac{1}{2}$ and E $\frac{1}{2}$
Section 28: SW $\frac{1}{4}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$
Section 29: W $\frac{1}{2}$, W $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, and SE $\frac{1}{4}$
Section 30 thru 33: All
Section 34: SW $\frac{1}{4}$ NE $\frac{1}{4}$ and S $\frac{1}{2}$
Section 35: W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$
Section 36: All

Township 19 North, Range 30 East, NMPM

Section 29: NW $\frac{1}{4}$ SW $\frac{1}{4}$
Section 30: All
Section 31: S $\frac{1}{2}$ N $\frac{1}{2}$ and S $\frac{1}{2}$
Section 32: W $\frac{1}{2}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ and SE $\frac{1}{4}$ SE $\frac{1}{4}$

Township 20 North, Range 29 East, NMPM

Section 31: N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, and N $\frac{1}{2}$ SE $\frac{1}{4}$
Section 32: All
Section 33: S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, and SE $\frac{1}{4}$ SE $\frac{1}{4}$

(4) That of the lands described in Finding No. (2) above which Cities seeks to have spaced on 640 acres, the Amoco operated Bravo Dome Carbon Dioxide Gas Unit Area comprises the following lands:

Township 18 North, Range 30 East, NMPM

Sections 1 and 2: All
Section 3: $E\frac{1}{2}E\frac{1}{2}$ and $SW\frac{1}{4}SE\frac{1}{4}$
Section 10: $E\frac{1}{2}NE\frac{1}{4}$
Section 11: $N\frac{1}{2}$
Sections 12 thru 14: All
Section 23: $E\frac{1}{2}$ and $E\frac{1}{2}W\frac{1}{2}$
Section 24: All
Section 25: $E\frac{1}{2}, E\frac{1}{2}W\frac{1}{2}, W\frac{1}{2}NW\frac{1}{4},$ and
 $NW\frac{1}{4}SW\frac{1}{4}$
Section 26: $NE\frac{1}{4}, E\frac{1}{2}NW\frac{1}{4},$ and $N\frac{1}{2}S\frac{1}{2}$
Section 36: All

Township 18 North, Range 31 East, NMPM

Sections 1 thru 36: All

Township 19 North, Range 29 East, NMPM

Section 1: $NE\frac{1}{4}$ and $E\frac{1}{2}NW\frac{1}{4}$

Township 19 North, Range 30 East, NMPM

Section 20: $W\frac{1}{2}NE\frac{1}{4}$ and $S\frac{1}{2}SE\frac{1}{4}$
Sections 21 thru 28: All
Section 29: $NE\frac{1}{4}$
Section 32: $NE\frac{1}{4}NE\frac{1}{4}$
Section 33: $NW\frac{1}{4}, W\frac{1}{2}NE\frac{1}{4}, NE\frac{1}{4}NE\frac{1}{4},$
 $NW\frac{1}{4}SE\frac{1}{4}$ and $NE\frac{1}{4}SW\frac{1}{4}$
Section 34: $N\frac{1}{2}$ and $E\frac{1}{2}SE\frac{1}{4}$
Sections 35 and 36: All

Township 19 North, Range 31 East, NMPM

Sections 19 thru 36: All

(5) That the lands described in Finding No. (4) above were, among other lands, the subject of Case No. 8190, wherein Amoco Production Company sought 640-acre spacing for its Bravo Dome Carbon Dioxide Gas Unit Area, which case was heard by the Commission on May 15, 1984, and from which on June 19, 1984 issued Commission Order No. R-7556; and that said Order No. R-7556 approved 640-acre well spacing for a portion of the unit area, but denied 640-acre spacing for the remainder of the area and established 160-acre spacing as the proper spacing for said remainder of the area.

(6) That the lands described in Finding No. (4) above are lands contained within the area currently requested by Cities for 640-acre spacing, but are lands which were considered for 640-acre spacing in Case No. 8190 for which 640-acre spacing was denied; and that said lands are lands contained in the "Bravo Dome 160-acre Area" designated by Commission Order No. R-7556.

(7) That although Cities appeared and participated in Case No. 8190 in support of Amoco's request for 640-acre spacing throughout the Bravo Dome Unit, neither it nor Amoco nor any other interested party requested a rehearing of Case 8190 after the entry of Order No. R-7556.

(8) That the current request for 640-acre spacing in that portion of the lands designated for 160 acre spacing in the Bravo Dome 160-acre Area is improper in that only three months have elapsed since the entry of Order No. R-7556; no party requested rehearing of Case No. 8190; no new evidence which could not have been available at the hearing of Case No. 8190 was presented; and Cities has not in the instant case established the importance to it of 640-acre spacing in lands within Amoco's Bravo Dome Unit Area, nor the necessity for such spacing; further, that the application for 640-spacing in those lands described in Finding No. (4) above should be dismissed, and Commission Order No. R-7556 affirmed with respect to said lands.

(9) That the great majority of the intervening lands lying between the proposed Cities West Bravo Dome Unit Area on the West and the Amoco-operated Bravo Dome Unit Area on

the East are owned and operated by AmeriGas Carbon Dioxide Division of UGI, hereinafter referred to as "AmeriGas."

(10) That interspersed among the lands described in Finding No. (3) above, being the area proposed by Cities as its West Bravo Dome Carbon Dioxide Gas Unit Area, are large tracts of land which are not included in the proposed unit area, and AmeriGas is the principal owner of these omitted lands.

(11) That AmeriGas appeared at and participated in the hearing of Case No. 8190, as well as the instant case, and opposed the establishment of 640-acre spacing in the area where the majority of its leases are located.

(12) That AmeriGas has owned and operated carbon dioxide wells on its leases in conformance to the Commission's 160-acre gas well spacing rules for many years, and has built and operated, and continues to operate, carbon dioxide processing plants in the area for the manufacture of liquid and solid carbon dioxide products.

(13) That AmeriGas has further plans for the drilling of additional wells and obtaining pipe line connections therefor, in order to market carbon dioxide gas produced from its leases.

(14) That all such previous development of leases and plant construction as well as plans for future development and pipe line marketing of carbon dioxide gas have been made by AmeriGas in good faith reliance upon continuation of the 160-acre spacing rules now in existence, particularly since the promulgation of Commission Order No. R-7556.

(15) That the inclusion of such large leases as owned by AmeriGas in the three above-referenced areas proposed for 640-acre spacing, i.e., the lands interspersed among the leases contained in Cities' proposed West Bravo Dome Unit Area, the lands contained in Amoco's Bravo Dome Unit Area, and the lands in the intervening area between the two units, would impair the correlative rights of AmeriGas, which has invested in and planned for the development of its properties in reliance upon the continuation of the existing 160-acre rules.

(16) That although Cities maintains that 640-acre spacing is necessary to its economics for the development of its leases, AmeriGas finds the current 160-acre spacing suitable to its economic structure.

(17) That to impose well spacing rules based on Cities' economics upon AmeriGas would be inequitable and not in the interest of conservation nor the protection of correlative rights.

(18) That to change the spacing pattern upon which AmeriGas has relied would likely result in the cancellation of certain of AmeriGas's plans, thereby causing waste and imposing an unjustified economic hardship upon AmeriGas.

(19) That although there is substantial variation in the thickness and quality of the pay from the Amoco Bravo Dome Unit Area westward across the AmeriGas lands and on into the proposed Cities West Bravo Dome Unit Area, and although there is little if any positive evidence that the pay and the various stringers of permeability composing the pay are

continuous and constitute a single contiguous common source of supply, there was evidence submitted at the hearing which would tend to support Cities' contention that one well will efficiently and economically drain 640 acres in the area comprising Cities' proposed West Bravo Dome Unit, at least on a temporary basis until further development has occurred in that area.

(20) That in order to accommodate Cities' economics and permit it to develop its leases, 640-acre spacing should be adopted for certain areas within and immediately adjacent to its proposed West Bravo Unit Area, and in order to not impose a spacing pattern predicated upon Cities' economics upon AmeriGas, 160-acre spacing should be adopted for the remaining lands within the area subject to the hearing of this case.

(21) That in accordance with the above finding, a reasonable criterion should be adopted for determining whether a given section of land should be spaced on 640 acres or 160 acres, and it appears to the Commission that a just and logical criterion should be based on ownership or control of such lands.

(22) That more than 50 percent ownership or control is a reasonable percentage upon which to base the spacing in the unit area, or in those lands immediately adjacent to the unit, and 640 acres spacing should be adopted for those sections in the proposed West Bravo Dome Carbon Dioxide Gas Unit Area and those sections immediately adjacent to but outside said unit area where Cities either owns or controls,

by virtue of operation of the unit, more than 50 percent of the lands within the sections.

(23) That the following described lands should be designated the West Bravo Dome 640-acre Spacing Area, and special rules for said area should be promulgated.

WEST BRAVO DOME 640-ACRE SPACING AREA

Township 17 North, Range 29 East, NMPM

Sections 2 thru 12: All
Sections 14 thru 22: All
Sections 28 and 29: All

Township 18 North, Range 29 East, NMPM

Sections 1 thru 9: All
Sections 15 thru 22: All
Sections 29 thru 32: All

Township 18 North, Range 30 East, NMPM

Sections 6 and 7: All

Township 19 North, Range 29 East, NMPM

Sections 3 thru 7: All
Sections 9 thru 11: All
Section 16: All
Sections 18 thru 20: All
Section 22: All
Section 25: All
Sections 29 thru 34: All
Section 36: All

Township 19 North, Range 30 East, NMPM

Sections 30 thru 32: All

Township 20 North, Range 29 East, NMPM

Sections 31 thru 33: All

(24) That the vertical limits of the West Bravo Dome 640-acre Area should be the Tubb formation (from the base of the Cimarron anhydrite to the top of the Granite).

(25) That the Special Rules and Regulations for the West Bravo Dome 640-acre Area should provide for 640-acre

spacing with the spacing and proration units to comprise a single governmental section; further that the rules should specify that wells be located no nearer than 1650 feet to the outer boundary of the spacing and proration unit nor nearer than 330 feet to any governmental quarter-quarter section line.

(26) That said 640-acre spacing rules for the area described in Finding No. (23) above should remain in effect for a period of 3 years from date of entry of this order, and this case should be reopened at a hearing in _____, 1987, at which time Cities and other interested parties should appear and show cause why the West Bravo Dome 640-acre Area should not be developed on less than 640-acre spacing and proration units.

(27) That the 640-acre spacing rules should be applicable only within the confines of the West Bravo Dome 640-acre Area as defined in Finding No. (23) above.

(28) That the application for 640-acre spacing and proration units for any area outside the West Bravo Dome 640-acre Area as defined in Finding No. (23) above should be denied.

(29) That an order based upon the above findings is in the interest of conservation, will prevent waste and protect correlative rights, and should be entered.

IT IS THEREFORE ORDERED:

(1) That the application of Cities Service Oil and Gas Corporation for 640-acre spacing rules for the lands described in Finding No. (4) of this order is hereby dismissed.

(2) That the application of Cities Service Oil and Gas Corporation for 640-acre spacing rules for the following described lands in Harding County, New Mexico, is hereby denied:

TOWNSHIP 17 NORTH, RANGE 29 EAST, NMPM

Section 1: All

TOWNSHIP 18 NORTH, RANGE 29 EAST, NMPM

Sections 10 thru 14: All
Sections 23 thru 28: All
Sections 33 and 34: All

TOWNSHIP 18 NORTH, RANGE 30 EAST, NMPM

Section 3: $W\frac{1}{2}$, $W\frac{1}{2}NE\frac{1}{4}$, $NW\frac{1}{4}SE\frac{1}{4}$
Sections 4 and 5: All
Sections 8 and 9: All
Section 10: $W\frac{1}{2}$, $W\frac{1}{2}E\frac{1}{2}$, $E\frac{1}{2}SE\frac{1}{4}$
Section 11: $S\frac{1}{2}$
Sections 15 thru 22: All
Section 23: $W\frac{1}{2}W\frac{1}{2}$
Section 25: $SW\frac{1}{4}SW\frac{1}{4}$
Section 26: $W\frac{1}{2}NW\frac{1}{4}$ and $S\frac{1}{2}S\frac{1}{2}$
Sections 27 thru 35: All

TOWNSHIP 19 NORTH, RANGE 29 EAST, NMPM

Section 1: $W\frac{1}{2}NW\frac{1}{4}$ and $S\frac{1}{2}$
Section 2: All
Section 8: All
Sections 12 thru 15: All
Section 17: All
Section 21: All
Sections 23 and 24: All
Sections 26 thru 28: All
Section 35: All

(3) That the "West Bravo Dome 160-acre Area" is hereby established and defined as comprising those lands described in Order No. (2) above.

(4) That said West Bravo Dome 160-acre Area shall be spaced, drilled, and operated in accordance with the Division

Rules and Regulations, particularly with respect to those rules governing 160-acre gas well spacing.

(5) That the "West Bravo Dome 640-acre Area" is hereby established comprising the following described lands:

WEST BRAVO DOME 640-ACRE AREA

TOWNSHIP 17 NORTH, RANGE 29 EAST, NMPM

Sections 2 thru 12: All
Sections 14 thru 22: All
Sections 28 and 29: All

TOWNSHIP 18 NORTH, RANGE 29 EAST, NMPM

Sections 1 thru 9: All
Sections 15 thru 22: All
Sections 29 thru 32: All

TOWNSHIP 18 NORTH, RANGE 30 EAST, NMPM

Sections 6 and 7: All

TOWNSHIP 19 NORTH, RANGE 29 EAST, NMPM

Sections 3 thru 7: All
Sections 9 thru 11: All
Section 16: All
Sections 18 thru 20: All
Section 22: All
Section 25: All
Section 29 thru 34: All
Section 36: All

TOWNSHIP 19 NORTH, RANGE 30 EAST, NMPM

Sections 30 thru 32: All

TOWNSHIP 20 NORTH, RANGE 29 EAST, NMPM

Sections 31 thru 33: All

(6) That the vertical limits of the West Bravo Dome 640-acre Area shall be the Tubb formation (from the base of the Cimarron anhydrite to the top of the granite).

(7) That 640-acre spacing and proration units and limited well locations, being no closer than 1,650 feet to

the outer boundary of the unit and no closer than 330 feet to any governmental quarter-quarter section line, are hereby established for the West Bravo Dome 640-acre Area for a period not to exceed three years from date of entry of this order.

(8) That effective _____, 1984, special rules and regulations for the West Bravo Dome 640-acre Area in Harding County, New Mexico, as defined in Order No. (5) above, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
WEST BRAVO DOME 640-ACRE AREA

RULE 1. Each well completed or recompleted in the West Bravo Dome 640-acre Area shall be spaced, drilled, and operated in accordance with the Special Rules and Regulations hereinafter set forth, that these rules shall be applicable to the Tubb formation outside the West Bravo Dome 640-acre Area but not within the West Bravo Dome 160-acre Area.

RULE 2. Each well shall be located on a standard unit containing 640 acres, more or less, consisting of a governmental section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter sections in the unit.

RULE 3. The Director of the Oil Conservation Division may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision

of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarter-quarter section or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning lands in the section in which the non-standard unit is situated which lands are not included in said non-standard unit.
- (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Director has received the applications.

RULE 4. Each well shall be located no nearer than 1,650 feet to the outer boundary of the section and no nearer than 330 feet to any governmental quarter-quarter section line; provided, however, that any subsequent wells drilled on a unit shall be located no nearer than 1,320 feet from any existing well drilling to or capable of producing from the West Bravo Dome 640-acre Area, and provided, further, that in the case of a 640-acre unit offset by a spacing and proration unit of 160 acres or less in an area spaced on 160 acres which has thereon a well completed in and capable of producing from the equivalent vertical limits of the West Bravo Dome 640-acre Area, the 640-acre unit well may be located

equidistant from the common line between the units as the well on the lesser sized unit.

RULE 5. The Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions. All operators offsetting the spacing and proration unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the spacing and proration unit or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

IT IS FURTHER ORDERED:

(1) That this case shall be reopened in _____, 1987, at which time the applicant herein or other interested parties may appear and show cause why the West Bravo Dome 640-acre Area should not be developed on less than 640-acre spacing and proration units.

(2) That the locations of all wells presently drilling to or completed in the West Bravo Dome 640-acre Area are hereby approved; that the operator of any well having an unorthodox location shall notify the Santa Fe District Office of the Division in writing of the name and location of the well on or before _____, 1984.

(3) That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, existing

wells in the West Bravo Dome 640-acre Area shall have dedicated thereto 640 acres in accordance with the foregoing pool rules, or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

(4) That failure to file new Forms C-102 with the Division dedicating 640 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this Order shall subject the well to being shut-in. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to the 60-day limitation, each well presently drilling to or completed in the West Bravo Dome 640-acre Area shall receive no approved Form C-104, provided, however, that no further approval shall be required for any non-standard spacing and proration unit comprising less than 160 acres or for any 160-acre unit consisting of other than a single governmental quarter section, provided such unit has previously been approved by order of the Division.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JIM BACA, Member

ED KELLEY, Member

RICHARD L. STAMETS, Chairman
and Secretary

S E A L

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

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

CASE NO. 8352
Order No. R-7737

APPLICATION OF CITIES SERVICE
OIL & GAS CORPORATION FOR TEMPORARY
SPECIAL SPACING RULES IN THE WEST
BRAVO DOME CARBON DIOXIDE GAS AREA,
HARDING COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on September 26, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 19th day of November, 1984, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) Applicant, Cities Service Oil & Gas Corporation, hereinafter referred to as "Cities Service", a substantial operator in the area, seeks the promulgation of temporary spacing rules for the West Bravo Dome Carbon Dioxide Gas Area and for a distance of one mile outside the Area, including a provision for 640-acre spacing and proration units and specified well locations.

(3) The West Bravo Dome Carbon Dioxide Gas Area which Cities Service proposes to space on 640-acre spacing is described on Exhibit "A" attached hereto.

(4) Cities Service is forming the West Bravo Dome Carbon Dioxide Gas Unit for production of carbon dioxide in a portion of the West Bravo Dome Carbon Dioxide Gas Area.

(5) Of the lands described in said Exhibit "A" which Cities Service seeks to have spaced on 640 acres, the Amoco operated Bravo Dome Carbon Dioxide Gas Unit Area comprises the following lands:

TOWNSHIP 18 NORTH, RANGE 30 EAST, NMPM

Sections 1 and 2: All
Section 3: E/2 E/2 and SW/4 SE/4
Section 10: E/2 NE/4
Section 11: N/2
Sections 12 through 14: All
Section 23: E/2 and E/2 W/2
Section 24: All
Section 25: E/2, E/2 W/2, W/2 NW/4, and NW/4 SW/4
Section 26: NE/4, E/2 NW/4, and N/2 S/2
Section 36: All

TOWNSHIP 18 NORTH, RANGE 31 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 29 EAST, NMPM

Section 1: NE/4 and E/2 NW/4

TOWNSHIP 19 NORTH, RANGE 30 EAST, NMPM

Section 20: W/2 NE/4 and S/2 SE/4
Sections 21 through 28: All
Section 29: NE/4
Section 32: NE/4 NE/4
Section 33: NW/4, W/2 NE/4, NE/4 NE/4,
NW/4 SE/4 and NE/4 SW/4
Section 34: N/2 and E/2 SE/4
Sections 35 and 36: All

TOWNSHIP 19 NORTH, RANGE 31 EAST, NMPM

Sections 19 through 36: All

(6) The lands described in Finding No. (4) above were, among other lands, the subject of Case No. 8190, wherein Amoco Production Company sought 640-acre spacing for its Bravo Dome Carbon Dioxide Gas Unit Area, which case was heard by the Commission on May 15, 1984, and from which on June 19, 1984, issued Commission Order No. R-7556; and that said Order No. R-7556 approved 640-acre well spacing for a portion of the unit area, but denied 640-acre spacing for the remainder of the area and established 160-acre spacing as the proper spacing for said remainder of the area.

(7) The lands described in Finding No. (5) above are lands contained within the area currently requested by Cities Service for 640-acre spacing, but are lands which were

considered for 640-acre spacing in Case No. 8190 for which 640-acre spacing was denied; and that said lands are lands contained in the "Bravo Dome 160-Acre Area" designated by Commission Order No. R-7556.

(8) In support of its application for 640-acre spacing in the West Bravo Dome Carbon Dioxide Gas Area, Cities Service offered substantial new evidence concerning geological and engineering data relating to the quantity and quality of the pay, long-term flow tests, flow test simulations, and well economics.

(9) Cities Service's long term flow tests, isochronal tests and the simulations constituted evidence that was not available prior to June 1, 1984.

(10) Cities Service's evidence established that the Tubb formation constitutes a common source of supply in the West Bravo Dome Carbon Dioxide Gas Area and that it most likely constitutes a common source of supply including that area designated the Bravo Dome 640-acre Area defined by said Order No. R-7556.

(11) Cities Service's evidence established that the Tubb formation has good geological continuity within the entire West Bravo Dome Carbon Dioxide Gas Area.

(12) With the exception of the thickness of the net pay, the carbon dioxide reservoir in the West Bravo Dome Carbon Dioxide Gas Area has reservoir parameters and quality similar to those in the Bravo Dome 640-Acre Area established and defined in said Order No. R-7556.

(13) Said Order No. R-7556 established 640-acre spacing units in said Bravo Dome 640-Acre Area and further established special rules therefore.

(14) The difference in the thickness of the net pay between the Bravo Dome Carbon 640-Acre Area and the West Bravo Dome Carbon Dioxide Gas Area is not an adequate basis upon which to space wells differently in each area.

(15) In addition to continuity, the only reservoir parameter that affects the ability of a well to drain and develop a given number of acres is the permeability.

(16) The range of permeabilities in the Bravo Dome Carbon 640-Acre Area and the West Bravo Dome Carbon Dioxide Gas Area are comparable.

(17) The average permeability in the West Bravo Dome Carbon Dioxide Gas Area is 10 millidarcies which is adequate for a well to have the capacity to drain 640 acres.

(18) The only opposition to the approval of 640-acre spacing for a temporary period within the West Bravo Dome Carbon Dioxide Gas Area was from AmeriGas Carbon Dioxide Division of UGI hereinafter referred to as "AmeriGas."

(19) AmeriGas is the owner of substantial acreage interests in the West Bravo Dome Carbon Dioxide Gas Area.

(20) AmeriGas has owned and operated carbon dioxide wells on its leases in conformance to the Commission's 160-acre gas well spacing rules for many years, and has built and operated, and continues to operate, carbon dioxide processing plants in the area for the manufacture of liquid and solid carbon dioxide products.

(21) Of the fourteen wells currently operated by AmeriGas, six are located on sections with no other well.

(22) At the time of the hearing AmeriGas presented no plans for the additional development of any of its acreage.

(23) At the hearing, AmeriGas did not demonstrate that the adoption of 640-acre spacing as to any of its undeveloped acreage would violate its correlative rights or cause waste.

(24) At this time, to amend the 160-acre spacing pattern upon which AmeriGas's currently operating wells were drilled and spaced could unnecessarily upset long established equities.

(25) Acreage upon which AmeriGas current wells are operating should not be placed in a 640-acre spaced area but should continue to remain in the Bravo Dome 160-Acre Area.

(26) To accomplish the intent of Finding No. (25) above, the following described acreage should be excluded from consideration for 640-acre spacing in this case:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM
Sections 4 and 5: All
Sections 8 and 9: All

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM
Section 13: All

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM
Sections 19 and 20: All

Section 29: All

Section 33: All

(27) The currently available information indicates that one well in the West Bravo Dome Carbon Dioxide Gas Area as amended in Finding No. (26) above, should be able to effectively and efficiently drain 640 acres.

(28) In order to prevent the economic loss caused by the drilling of unnecessary wells, to prevent the reduced recovery of carbon dioxide which might result from the drilling of too many wells, and to otherwise prevent waste and protect correlative rights, the West Bravo Dome Carbon Dioxide Gas Area, as described on Exhibit "B" should be created with temporary Special Rules providing for 640-acre spacing.

(29) The Bravo Dome 160-Acre Area as previously defined and described in said Order No. R-7556 should be contracted by the deletion therefrom of the area described on Exhibit "C" attached to this order.

(30) The vertical limits of the West Bravo Dome Carbon Dioxide Gas Area should be defined as the Tubb formation between the depths above sea level of 2563 feet and 2417 feet as found on the Compensated Neutron-Formation Density log of the Cities Service DC No. 1 Well, located in Unit F of Section 36, Township 19 North, Range 29 East, NMPM, Harding County, New Mexico.

(31) The testimony in this case demonstrates that the West Bravo Dome Carbon Dioxide Area and the Bravo Dome 640-Acre Area are parts of a common reservoir and they should be governed by common special rules.

(32) The Temporary Special Rules and Regulations consistent with the Bravo Dome 640-Acre Area special rules should be established for a period not to exceed three years in order to allow the operators in the West Bravo Dome Carbon Dioxide Gas Area to gather reservoir information to establish whether the temporary rules should be made permanent.

(33) This case should be reopened at a hearing in June, 1987, at which time Cities Service and other interested parties should appear and show cause why the West Bravo Dome Carbon Dioxide Gas Area should not be developed on less than 640-acre spacing and proration units.

IT IS THEREFORE ORDERED THAT:

(1) The Application of Cities Service for the promulgation of temporary special spacing rules for the West Bravo Dome Carbon Dioxide Area to provide for 640-acre spacing and specified well locations is hereby granted.

(2) The Bravo Dome 160-acre Area as defined and described in Order No. R-7556 is hereby contracted by deletion therefrom of the acreage described on Exhibit "C" attached to this order.

(3) The said West Bravo Dome Carbon Dioxide Gas Area is hereby established comprising those lands defined in Exhibit "B" attached hereto and made a part hereof.

(4) The vertical limits of the West Bravo Dome Carbon Dioxide Gas Area shall be the Tubb formation (from the base of the Cimarron Anhydrite to the top of the Granite) as defined in Finding (30) of this order.

(5) The 640-acre spacing and proration units and limited well locations, being no closer than 1,650 feet to the outer boundary of the unit and no closer than 330 feet to any governmental quarter-quarter section line, are hereby established for the West Bravo Dome Carbon Dioxide Gas Area for a period not to exceed three years from date of entry of this Order.

(6) Effective December 1, 1984, special rules and regulations for the West Bravo Dome Carbon Dioxide Gas Area in Harding County, New Mexico, as more fully described in Exhibit "B" attached to this Order and made a part hereof, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
WEST BRAVO DOME CARBON DIOXIDE GAS AREA

RULE 1. Each well completed or recompleted in the West Bravo Dome Carbon Dioxide Gas Area shall be spaced, drilled, and operated in accordance with the Special Rules and Regulations hereinafter set forth, that these rules shall be applicable to the Tubb formation outside the West Bravo Dome Carbon Dioxide Gas Area but not within the Bravo Dome 160-Acre Area and not within that area described in Finding No. 26 of this order.

RULE 2. Each well shall be located on a standard unit containing 640 acres, more or less, consisting of a governmental section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter sections in the unit.

RULE 3. The Director of the Oil Conservation Division may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

- (a) The non-standard unit consists of quarter-quarter section or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning lands in the section in which the non-standard unit is situated which lands are not included in said non-standard unit.
- (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Director has received the applications.

RULE 4. Each well shall be located no nearer than 1,650 feet to the outer boundary of the section and no nearer than 330 feet to any governmental quarter-quarter section line; provided, however, that any subsequent wells drilled on a unit shall be located no nearer than 1,320 feet from any existing well drilling to or capable of producing from the West Bravo Dome Carbon Dioxide Gas Area, and provided, further, that in the case of a 640-acre unit offset by a spacing and proration unit of 160 acres or less in an area spaced on 160 acres which has thereon a well completed in and capable of producing from the equivalent vertical limits of the West Bravo Dome Carbon Dioxide Gas Area, the 640-acre unit well may be located equidistant from the common line between the units as the well on the lesser sized unit.

RULE 5. The Director may grant an exception to the requirements of Rule 4 without notice and hearing when an

application has been filed for an unorthodox location necessitated by topographical conditions. All operators offsetting the spacing and proration unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the spacing and proration unit or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

IT IS FURTHER ORDERED THAT:

(1) This case shall be reopened in June 1987, at which time the applicant herein or other interested parties may appear and show cause why the West Bravo Dome Carbon Dioxide Gas Area should not be developed on less than 640-acre spacing and proration units.

(2) The locations of all wells presently drilling to or completed in the West Bravo Dome Carbon Dioxide Gas Area are hereby approved; the operator of any well having an unorthodox location shall notify the Santa Fe District Office of the Division in writing of the name and location of the well on or before March 1, 1985.

(3) Pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, existing wells in the West Bravo Dome Carbon Dioxide Gas Area shall have dedicated thereto 640 acres in accordance with the foregoing pool rules, or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

(4) Failure to file new Forms C-102 with the Division dedicating 640 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this Order shall subject the well to being shut-in. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to the 60-day limitation, each well presently drilling to or completed in the West Bravo Dome Carbon Dioxide Gas Area shall receive no approved Form C-104, provided, however, that no further approval shall be required for any non-standard spacing and proration unit comprising less than 160 acres or for any 160-acre unit consisting of other than a single governmental quarter section, provided such unit has previously been approved by order of the Division.

Case No. 8352
Order No. R-7737

(5) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

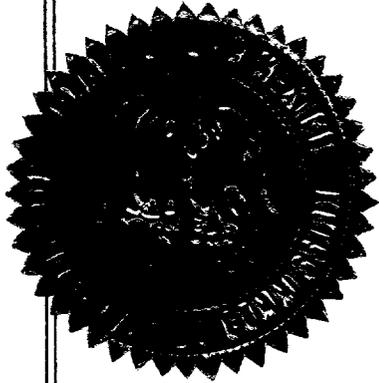
JIM BACA, Member



ED KELLEY, Member



R. L. STAMETS, Chairman
and Secretary



S E A L

HARDING COUNTY

TOWNSHIP 20 NORTH, RANGE 29 EAST, NMPM
Sections 31 through 33: All

TOWNSHIP 19 NORTH, RANGE 29 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 18 NORTH, RANGE 29 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 17 NORTH, RANGE 29 EAST, NMPM
Sections 1 through 12: All
Sections 14 through 22: All
Sections 28 through 30: All

* Sections 18, 19, 29, and 30 are partial sections.

TOWNSHIP 18 NORTH, RANGE 30 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 30 EAST, NMPM
Sections 19 through 36: All

TOWNSHIP 18 NORTH, RANGE 31 EAST, NMPM
Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 31 EAST, NMPM
Sections 19 through 36: All

CASE NO. 8352
ORDER NO. R-7737
EXHIBIT "A"

HARDING COUNTY

TOWNSHIP 18 NORTH, RANGE 30 EAST, NMPM

Sections 1 and 2: All
Section 3: E/2 E/2 and SW/4 SE/4
Section 10: E/2 NE/4
Section 11: N/2
Sections 12 through 14: All
Section 23: E/2 and E/2 W/2
Section 24: All
Section 25: E/2, E/2 W/2, W/2 NW/4 and NW/4 SW/4
Section 26: NE/4, E/2 NW/4 and N/2 S/2
Section 36: All

TOWNSHIP 18 NORTH, RANGE 31 EAST, NMPM

Sections 1 through 36: All

TOWNSHIP 19 NORTH, RANGE 29 EAST, NMPM

Section 1: NE/4 and E/2 NW/4

TOWNSHIP 19 NORTH, RANGE 30 EAST, NMPM

Section 20: W/2 NE/4 and S/2 SE/4
Sections 21 through 28: All
Section 29: NE/4
Section 32: NE/4 NE/4
Section 33: NW/4, W/2 NE/4, NE/4 NE/4,
NW/4 SE/4 and NE/4 SW/4
Section 34: N/2 and E/2 SE/4
Sections 35 and 36: All

TOWNSHIP 19 NORTH, RANGE 31 EAST, NMPM

Sections 19 through 36: All

CASE NO. 8352
ORDER NO. R-7737
EXHIBIT "C"

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. 8352
Order No. R-7737-A

IN THE MATTER OF CASE 8352 BEING
REOPENED PURSUANT TO THE PROVISIONS
OF DIVISION ORDER NO. R-7737, WHICH
ORDER ESTABLISHED SPECIAL RULES AND
REGULATIONS FOR THE WEST BRAVO DOME
CARBON DIOXIDE GAS AREA IN HARDING
COUNTY, NEW MEXICO, INCLUDING A
PROVISION FOR 640-ACRE SPACING UNITS.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 26, 1987, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 9th day of October, 1987, 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 Order No. R-7737, dated November 19, 1984, the Division established temporary special rules and regulations for the West Bravo Dome Carbon Dioxide Gas Area (defined on Exhibit "B" of said Order No. R-7737), Harding County, New Mexico, including a provision for 640-acre spacing and proration units.

(3) Pursuant to the provisions of Order No. R-7737, this case was reopened to allow the operators in the subject area to appear and show cause why the West Bravo Dome Carbon Dioxide Gas Area should not be developed on less than 640-acre spacing and proration units.

(4) Cities Service Oil and Gas Corporation (Cities Service), Amerigas, Amerada Hess Corporation, and Ross Carbonics entered appearances in this case at the time of the hearing.

(5) Cities Service, who owns substantial acreage and operates numerous wells within the West Bravo Dome Carbon Dioxide Gas Area, testified that no production history from wells within the subject area is available at the present time due to current low market demand for carbon dioxide gas.

(6) Cities Service further testified that the low market demand for carbon dioxide gas is due for the most part to the recent fall in oil prices which makes tertiary oil recovery projects uneconomical at the present time and all indications are that the market will not significantly improve for approximately two to three years.

(7) As a result, Cities Service requested at the hearing that the temporary special rules and regulations for the West Bravo Dome Carbon Dioxide Gas Area remain in effect for a period of three years following the date of first production from wells within the area, in order to give the operators in the area the opportunity to gather well performance data and production history.

(8) No operator within the subject area opposed the continuation of the temporary special rules and regulations.

(9) Cities Service did present evidence and testimony which shows that reservoir parameters such as porosity and permeability within the subject area are very similar to those reservoir parameters found within the Bravo Dome 640-Acre Area, which is located immediately to the East of the subject area and which has been permanently spaced on 640-acre proration units by the Division.

(10) While the evidence is insufficient at this time to establish permanent special rules and regulations for the subject area, the similar nature of the reservoir characteristics in the West Bravo Dome Carbon Dioxide Gas Area and in the Bravo Dome 640-Acre Area justifies the continuation of the temporary special rules and regulations including the provision for 640-acre spacing and proration units.

(11) The temporary special rules and regulations for the West Bravo Dome Carbon Dioxide Gas Area should continue in full force and effect for a period of two years commencing

Case No. 8352
Order No. R-7737-A

with the date of first production from the area in order to allow the operators in the subject area the opportunity to gather well performance data and production history.

(12) Cities Service should be required to notify the Division of the date of first production from the area.

(13) This case should be reopened at an examiner hearing in October, 1991 or two years from the date of first production from the area, whichever occurs first.

IT IS THEREFORE ORDERED THAT:

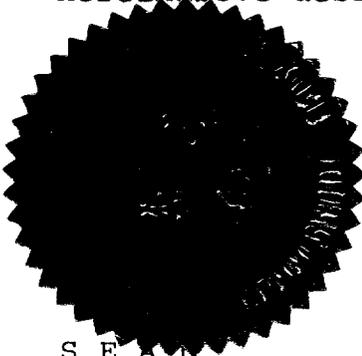
(1) The Temporary Special Rules and Regulations governing the West Bravo Dome Carbon Dioxide Gas Area, Harding County, New Mexico, are hereby continued in full force and effect until further order of the Division.

(2) This case shall be reopened at an examiner hearing in October, 1991, or two years from the date of first production from the subject area, whichever occurs first, at which time the operators in the subject area may appear and show cause why the West Bravo Dome Carbon Dioxide Gas Area should not be developed on less than 640-acre spacing and proration units.

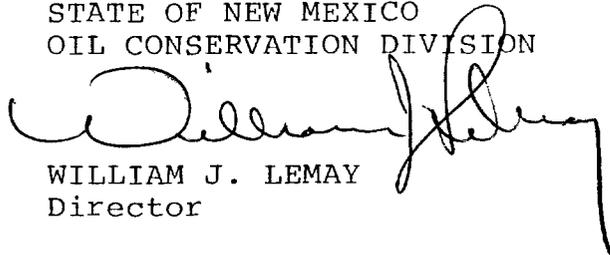
(3) Cities Service shall notify the Santa Fe office of the Division of the date of first production from the subject area.

(4) 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

S E A L
fd/

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

CASE NO. 8352
ORDER NO. R-7737-B

IN THE MATTER OF CASE 8352 BEING REOPENED PURSUANT TO THE PROVISIONS OF DIVISION ORDER NO. R-7737-A, WHICH ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE WEST BRAVO DOME CARBON DIOXIDE GAS AREA IN HARDING COUNTY, INCLUDING A PROVISION FOR 640-ACRE SPACING UNITS

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on November 21, 1991, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 4th day of December, 1991 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 Order No. R-7737, dated November 19, 1984, the Division established temporary special rules and regulations for the West Bravo Dome Carbon Dioxide Gas Area (defined on Exhibit "B" of said Order No. R-7737), Harding County, New Mexico, including a provision for 640-acre spacing and proration units.
- (3) Pursuant to the provisions of Order No. R-7737, this case was reopened on August 26, 1987 to allow operators in the subject area to appear and show cause why the West Bravo Dome Carbon Dioxide Gas Area should not be developed on less than 640-acre spacing and proration units.
- (4) By Division Order No. R-7737-A dated October 9, 1987, issued in said reopened case, the existing temporary special rules and regulations for the West Bravo Dome Carbon Dioxide Gas Area were continued for a period of two years commencing with the date of first production from the area or until October, 1991, whichever occurred first.

(5) There has been no production of carbon dioxide from said area to date.

(6) The applicant in this matter, OXY USA, Inc., requests at this time that the current special rules and regulations for the West Bravo Dome Carbon Dioxide Gas Area located in Harding County, New Mexico, including the provision for 640-acre spacing units, be continued for a period of two years following the date of first production.

(7) No interested party within the subject area appeared at the hearing in opposition to the continuation of said temporary rules and regulations.

(8) OXY USA, Inc. should be required to notify the Division of the date of first production from the area.

IT IS THEREFORE ORDERED THAT:

(1) The temporary Special Rules and Regulations governing the West Bravo Dome Carbon Dioxide Gas Area, Harding County, New Mexico, are hereby continued in full force and effect until further order of the Division.

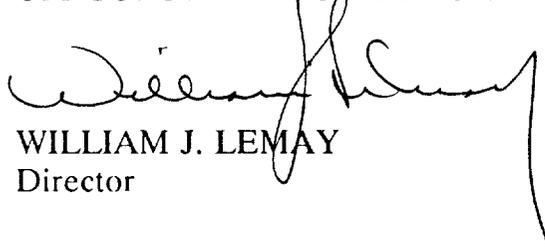
(2) This case shall be reopened at an examiner hearing two years from the date of first production from the subject area, at which time the operators in the subject area may appear and show cause why the West Bravo Dome Carbon Dioxide Gas Area should not be developed on less than 640-acre spacing and proration units.

(3) OXY USA, Inc. shall notify the Santa Fe Office of the Division of the date of first production from the subject area.

(4) 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

