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March 8, 1999

HAND-DELIVERED

Mr. Michael E. Stogner, Hearing Examiner
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
2040 South Pacheco Street
Santa Fe, New Mexico 87505

OIL CONSERVATION DIV
MAR-8 PM 3:57

Re: ***Oil Conservation Division Case No. 12015:
Application of Gruy Petroleum Management for an Unorthodox Well
Location and Simultaneous Dedication, Lea County, New Mexico***

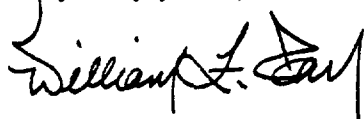
***Oil Conservation Division Case No. 12017:
Application of Gruy Petroleum Management for an Unorthodox Well
Location and Simultaneous Dedication, Lea County, New Mexico***

Dear Mr. Stogner:

To assist you in consideration of the above-referenced applications, enclosed is Gruy Petroleum Management's proposed order of the Division.

If you need anything further from Gruy, please advise.

Very truly yours,



WILLIAM F. CARR

Enc.

WFC:mlh

cc: Zeno Farris, (w/enc.)
J.E. Gallegos, Esq., (w/enc.)

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

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

**APPLICATION OF GRUY PETROLEUM
MANAGEMENT FOR AN UNORTHODOX
WELL LOCATION AND SIMULTANEOUS
DEDICATION, LEA COUNTY, NEW MEXICO.**

**CASE NO. 12015
ORDER NO. R-_____**

**APPLICATION OF GRUY PETROLEUM
MANAGEMENT FOR AN UNORTHODOX
WELL LOCATION AND SIMULTANEOUS
DEDICATION, LEA COUNTY, NEW MEXICO.**

**CASE NO. 12017
ORDER NO. R-_____**

**GRUY PETROLEUM MANAGEMENT'S
PROPOSED ORDER OF THE COMMISSION**

BY THE DIVISION:

These cases came on for hearing at 8:15 o'clock a. m. on September 3, 1998, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this ____ day of February, 1999, the Division Director, having considered the testimony, the record, and the recommendation 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 these causes and the subject matters thereof.

(2) In Case 12015 Gruy Petroleum Management ("Gruy") seeks an exception to Oil Conservation Division Rule 104.C. (2), Rule 104.D. (3), and the August 3, 1990 Division

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memorandum concerning Rule 104 to authorize an unorthodox well location for the Rhodes Federal Unit Well No. 43 at a point 2310 feet from the South line and 990 feet from the West line in Unit L of Section 4, Township 26 South, Range 37 East, N.M.P.M.. and authorization to simultaneously dedicate the Rhodes Federal Unit Wells 41, 43 and 415 to a standard gas spacing and proration unit comprised of the SW/4 of Section 4 in the Rhodes-Yates-Seven Rivers Gas Pool.

(3) In Case 12017, Gruy seeks an exception to Oil Conservation Division Rule 104.C. (2) to authorize an unorthodox gas well location for the Rhodes State Com. Well No. 5 at a point 330 feet from the North line and 2310 feet from the West line in Unit C of Section 16, Township 26 South, Range 37 East, N.M.P.M., and authorization to simultaneously dedicate the Rhodes State Com. Wells 5, 18 and 19 to a standard gas spacing and proration unit comprised of the NW/4 of Section 16 in the Rhodes-Yates-Seven Rivers Gas Pool.

(4) Gruy does not seek to amend the rules which govern the development of the Rhodes-Yates-Seven Rivers Gas Pool.

(5) Each application raises similar issues and the cases were consolidated at the time of hearing.

(6) Doyle Hartman, an operator in the Rhodes-Yates-Seven Rivers Gas Pool, appeared and presented testimony in opposition to these applications.

(7) Armstrong Energy Corporation, an operator in the pool also appeared in the case but did not present evidence.

(8) The Rhodes-Yates-Seven Rivers Gas Pool was created on January 1, 1982 by Order No. R-6891. This gas pool included acreage which had originally been developed as part of the Rhodes Oil Pool (Yates-Seven Rivers) and which, from 1944 through 1982, had been operated by El Paso Natural Gas Company as a gas storage unit. *See*, Order Nos. 850 and R-6891, Testimony of Hartman at 176.

(9) The Rhodes-Yates-Seven Rivers Gas Pool is governed by the general rules of the Oil Conservation Division which provide for 160-acre gas well spacing with wells to be located at least 660 feet from the outer boundary of the dedicated spacing and proration unit and at least 1320 feet from any existing well on the spacing and proration unit.

(10) The Rhodes-Yates-Seven Rivers Oil Pool shares a common boundary with the Rhodes-Yates-Seven Rivers Gas Pool which is also developed under the general rules of the Oil Conservation that provide for 40-acre oil well spacing and proration units with wells located no closer than 330 feet from the outer boundary of the dedicated spacing and proration unit. Gruy Exhibit No. 1, Testimony of Jessup at 11.

(11) Prior to the entry of Order No. R-6891 on January 1, 1982, the Rhodes Pool was developed under 40-acre spacing rules. There now are numerous non-standard spacing and proration units in the Rhodes-Yates-Seven Rivers Gas Pool and there are numerous spacing units upon which more than one well produces from a standard 160-acre spacing unit in the pool. Gruy Exhibit No. 2, Testimony of Jessup at 12. These multiple well spacing units were approved by Order No. R-6891. Testimony of Hartman at 202-203.

(12) On July 27, 1988 and on August 3, 1990, the Division Director issued memoranda which permitted only one well per gas spacing unit in a non-prorated pool unless compelling evidence was presented at a Division hearing which showed that applicants correlative rights would be impaired unless both wells are produced.

(13) Gruy acquired its interests in the Rhodes-Yates Seven Rivers Gas Pool in May 1997 and thereafter Applications for Permits to Drill were approved by the Division for additional wells on certain spacing and proration units in the pool. Some of the proposed locations offset Hartman operated properties. Testimony of Farris at 27-29.

(14) Gruy first learned of the Division requirements for the simultaneous dedication of wells on spacing units in non-prorated gas pool by a letter from Hartman dated May 21, 1998. Thereafter Gruy (a) limited its drilling activity to locations which would only be offset by Gruy operated properties, (b) advised Hartman that Gruy would not proceed with the wells offsetting his tracts until OCD approval had been received, and (c) filed the subject applications seeking authorization for simultaneous dedication. *See*, Hartman Exhibit No. 22, Testimony of Farris at 30.

(15) Doyle Hartman does not own an interest in either of the spacing units which are the subject of this case or in any 160-acre spacing or proration unit which immediately offsets either of the spacing or proration units which are the subject of these consolidated cases. *See*, Gruy Exhibit Nos. 3 and 4, Testimony of Jessup at 15, Testimony of Hartman at 222-223.

(16) Hartman does not contend that either of the two Gruy applications impair his correlative rights. Testimony of Hartman at 222.

UNORTHODOX GAS WELL LOCATION, RHODES FEDERAL UNIT WELL NO. 43, SW/4, SECTION 4

(17) When Gruy acquired the SW/4 of Section 4, this acreage was dedicated to the Rhodes Federal Unit Well No. 41 located in Unit N. Testimony of Jessup at 13.

(18) Since acquiring this interest, Gruy has drilled its Rhodes Federal Unit Well No. 415 at a standard location in Unit M of said Section 4 and has recompleted its Rhodes Federal Unit Well 43 located in Unit L at a point 2310 feet from the South line and 990 feet from the West line of this section. This well was originally drilled in the 1950's at a standard oil well location but it is at an unorthodox location since recompleted as a gas well. It has been shut in since July 1998. Gruy Exhibit No. 3, Testimony of Jessup at 13, Testimony of Farris at 34-35, 51.

(19) All acreage directly and diagonally offsetting the Rhodes Federal Unit Well No. 43 is operated by Gruy and therefore there are no other parties adversely affected by this well location.

(20) The recompletion of uneconomic oil wells in the Rhodes-Yates-Seven Rivers Gas Pool provides Gruy with its best opportunity to produce additional reserves from this pool thereby protecting its correlative rights and preventing the waste of hydrocarbons.

FINDING: An unorthodox gas well location in the Rhodes Yates-Seven Rivers Gas Pool for the Gruy Petroleum Management Rhodes Federal Unit Well No. 43 at a point 2310 feet from South line and 990 feet from the West line of Section 4, Township 26 South, Range 37 East, N.M.P.M., should be **approved**.

UNORTHODOX GAS WELL LOCATION, RHODES STATE COM. WELL NO. 5, NW/4, SECTION 16

(21) When Gruy acquired the NW/4 Section 16, this acreage was simultaneously dedicated to the Rhodes State Com Well No. 18 located in Unit D and the Rhodes State Com Well No. 19 located in Unit F of said section. These wells were drilled in October 1973 and the simultaneous dedication of these wells was approved when the Rhodes-Yates-Seven

Rivers Gas Pool was created by Order No. R-6891. *See*, Testimony of Farris at 91.

(22) Since acquiring this interest, Gruy has drilled its Rhodes State Com Well No. 5. This well was permitted in June, 1998, and erroneously drilled at a location 330 feet from the North line and 2310 feet from the West line of Section 16. Gruy Exhibit No. 4, Testimony of Farris at 61-62, Testimony of Jessup at 14-15. This well produced through the month of August 1998. Testimony of Farris at 63.

(23) Gruy presented volumetric calculations and a map of drainage areas for wells in this pool which show that the Rhodes State Com Well No. 5 is necessary to effectively produce the recoverable reserves under the NW/4 of Section 16. Gruy Exhibit No. 12, Testimony of Lee at 144.

(24) All acreage directly and diagonally offsetting the Rhodes State Com. Well No. 5 is operated by Gruy (Testimony of Farris at 34). does not impair the interest of Hartman (Testimony of Hartman at 226) or Armstrong (Gruy Exhibit No. 4).

FINDING: An unorthodox gas well location in the Rhodes-Yates-Seven Rivers Gas Pool for the Gruy Petroleum Management Rhodes State Com Well No. 5 at a point 330 from the North line and 2310 feet from the West line of Section 5, Township 26 South, Range 37 East, N.M.P.M., should be **approved**.

SIMULTANEOUS DEDICATION

(25) In support of its applications for simultaneous dedication, Gruy presented geological testimony which showed:

- (a) the Yates formation varies in thickness in this area and it is not a nonhomogeneous reservoir (Testimony of Lee at 99),
- (b) wells offsetting one another in this pool produce from different porosity horizons within the Yates formation (Gruy Exhibit Nos. 10-11, Testimony of Lee at 104-105),
- (c) there is lenticular porosity development in the Yates formation and that porosity is not uniform from top to bottom of the reservoir or from well to well (Gruy Exhibit Nos. 10-11, Testimony of Lee at 103 -106), and

- (d) there is additional porosity which has not been developed below the total depth of certain wells in this reservoir, (Gruy Exhibit Nos. 10-11, Testimony of Lee at 105,).

(26) Hartman testified that one efficiently completed well could drain the reserves under a 160-acre spacing and proration unit in the Rhodes-Yates-Seven Rivers Gas Pool (Testimony of Hartman at 163), Hartman's development of his acreage supports Gruy's geologic interpretation of this reservoir. Hartman recently completed his Bates Well No. 3 located in Unit K of Section 10, Township 26 South, Range 37 East, N.M.P.M., to open additional pay because this acreage had not been effectively drained by wells the in offsetting 40-acre tracts comprised of Units L, M, and N of said Section 10. Testimony of Hartman at 231.

(27) Gruy presented engineering testimony which shows:

- (a) there are locations on the edge of the reservoir where additional drilling is necessary to recover the gas in place (Gruy Exhibit No. 8, Testimony of Lee at 97-98),
- (b) the reservoir is not being uniformly drained by the wells currently completed in this pool (Testimony of Lee at 102),
- (c) volumetric calculations and estimated drainage areas for the wells in the pool demonstrate areas which are undrained by the wells currently capable of producing from the reservoir (Testimony of Lee at 106-107),
- (d) its volumetric analyses of this pool and the estimated radius of drainage of wells in the reservoir shows a need for additional wells to recover the remaining reserves in the Yates-Seven Rivers formation (Testimony of Lee at 106-107), and
- (e) The Rhodes Federal Unit Well No. 43 and the Rhodes State Com Well No. 5 are in portions of the reservoir which had not been drained by the existing wells in this reservoir. Gruy Exhibit No. 12, Testimony of Lee at 144.

(28) Hartman presented engineering evidence by which he was able to determine

the area drained by each well in this reservoir and concluded that one efficiently completed well could drain 160 acres in this pool. Hartman Exhibit Nos. 25, 26, 27, Testimony of Hartman at 165-176.

(29) Hartman testified that he opposes the Gruy applications because he does not want the precedent set for more than one well on each 160-acre tract (Testimony of Hartman at 222) and that more than one well on a 160-acre tract in this pool had the possibility of impairing correlative rights. Testimony of Hartman at 222, 164.

(30) Hartman's development of the tracts he operates in this pool refutes his own argument because the portion of the pool in which he operates is developed on an effective 40-acre spacing pattern:

- (a) Hartman operates the N/2 S/2 of Section 10 and a 160-acre non-standard spacing and proration unit comprised of the SW/4 SE/4, SE/4 SW/4 of Section 10 and the NW/4 NE/4, NE/4 NW/4 of Section 15, Township 26 South, Range 37 East, N.M.P.M., (Hartman Exhibit No. 36, Testimony of Hartman at 216),
- (b) This area is developed with Yates wells drilled on each of the offsetting 40-acre tract identified as Units E, K, L, M, and N, of Section 10 and Units D, E, F. of Section 15, (Hartman Exhibit No. 36, Testimony of Hartman at 218, 229-234),
- (c) Although some of these wells were approved when the Rhodes-Yates-Seven Rivers Gas Pool was approved in 1982, Hartman has only recently drilled his Bates No. 3 in Unit K of Section 10 because the offsetting Bates No. 1 in Unit L and other Yates offsetting wells in Units M and N have not drained this acreage, (Hartman Exhibit No. 36, Testimony of Hartman at 230-231), and
- (d) Hartman now proposes to drill his Bates No. 4 Well as an additional Yates well in Unit B of Section 15. Testimony of Hartman at 232.

(31) Although Hartman contends that more than one efficient well per 160-acre tract is unnecessary (Testimony of Hartman at 216) and that economic waste results from drilling too many wells on a spacing unit (Testimony of Hartman at 214, 223), he testified that to abandon existing wells in the pool constitutes waste. Testimony of Hartman at 219.

(32) If these applications are denied, Gruy will be denied the opportunity to efficiently recover additional reserves under its tracts and its correlative rights will be impaired. Testimony of Lee at 108.

FINDING: The Yates-Seven Rivers formation under the Rhodes-Yates-Seven-Rivers Gas Pool is not a homogeneous reservoir.

FINDING: Additional wells are necessary to efficiently recover the reserves under the SW/4 of Section 4 NW/4 of Section 16, Township 26 South, Range 37 East, N.M.P.M.

FINDING: Simultaneous dedication of the Rhodes Federal Unit Well Nos. 41, 43 and 415 to the standard 160-acre spacing unit comprised of the SW/4 of Section 4 and the Rhodes State Com. Well Nos. 5, 18 and 19 to the standard 160-acre spacing unit comprised of the NW/4 of Section 16, both in Township 26 South, Range 37 East, N.M.P.M., will not impair the correlative rights of any operator in the pool and is necessary to afford Gruy Petroleum Management the opportunity to produce its fair share of the reserves under these spacing units.

FINDING: Approval of the applications of Gruy Petroleum Management for unorthodox well locations and simultaneous dedication will avoid the abandonment of wells capable of producing from the Yates-Seven Rivers formation thereby preventing waste.

(33) Approval of the applications of Gruy Petroleum Management for unorthodox locations and simultaneous dedication will avoid the alternating production requirement of Rule 104.D. (3), as clarified by the August 3, 1990 Division memorandum, thus affording Gruy the opportunity to recover additional reserves under these tracts thereby protecting their correlative rights, and preventing economic waste.

(34) The application of Gruy Petroleum Management for an unorthodox location for its Rhodes Federal Unit Well No. 43 at a point 2310 feet from the South line and 990 feet from the West line of Section 4, Township 26 South, Range 37 East, N.M.P.M., should be **granted** and the simultaneous dedication of a standard gas spacing unit in the Rhodes-Yates-Seven Rivers Gas Pool comprised of the SW/4 of said Section 4 to its Rhodes Federal Unit Well Nos. 41, 43 and 415 should be **approved**.

(35) The application of Gruy Petroleum Management for an unorthodox location for its Rhodes State Com Well No. 5 located 330 feet from the North line and 2310 feet from

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the West line of Section 16, Township 26 South, Range 37 East, N.M.P.M. should be **granted** and the simultaneous dedication of a standard gas spacing unit in the Rhodes-Yates-Seven Rivers Gas Pool comprised of the NW/4 of said Section 16 to its Rhodes State Com Well Nos. 5, 18 and 19 should be **approved**.

IT IS THEREFORE ORDERED THAT:

(1) The application of Gruy Petroleum Management for an unorthodox location for its Rhodes Federal Unit Well No. 43 at a point 2310 feet from the South line and 990 feet from the West line of Section 4, Township 26 South, Range 37 East, N.M.P.M., is hereby approved and the simultaneous dedication of a standard gas spacing unit in the Rhodes-Yates-Seven Rivers Gas Pool comprised of the SW/4 of said Section 4 to its Rhodes Federal Unit Well Nos. 41, 43 and 415 is hereby approved.

(2) The application of Gruy Petroleum Management for an unorthodox location for its Rhodes State Com Well No. 5 located 330 feet from the North line and 2310 feet from the West line of Section 16, Township 26 South, Range 37 East, N.M.P.M. is hereby approved and the simultaneous dedication of a standard gas spacing unit in the Rhodes-Yates-Seven Rivers Gas Pool comprised of the NW/4 of said Section 16 to its Rhodes State Com Well Nos. 5, 18 and 19 is hereby approved.

(3) Jurisdiction of these causes 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 hereinafter designated.

**STATE OF NEW MEXICO
OIL CONSERVATION DIVISION**

LORI WROTENBERY
Director

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