

CMD :  
OG5SECTONGARD  
INQUIRE LAND BY SECTION09/06/00 13:25:15  
OGOMES -TQE3  
PAGE NO: 1

Sec : 36 Twp : 20N Rng : 05W Section Type : NORMAL

D 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	C 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	B 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	A 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02
E 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	F 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	G 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	H 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02

PF01 HELP  
PF07 BKWDPF02  
PF08 FWDPF03 EXIT  
PF09 PRINTPF04 GoTo  
PF10 SDIVPF05  
PF11PF06  
PF12

CMD :  
OG5SECTONGARD  
INQUIRE LAND BY SECTION09/06/00 13:25:20  
OGOMES -TQE3  
PAGE NO: 2

Sec : 36 Twp : 20N Rng : 05W Section Type : NORMAL

L 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	K 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	J 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	I 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02 A A
M 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	N 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	O 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02	P 40.00 CS VA1683 0000 HIGH PLAINS ASSOC 10/01/02 A

PF01 HELP  
PF07 BKWDPF02  
PF08 FWDPF03 EXIT  
PF09 PRINTPF04 GoTo  
PF10 SDIVPF05  
PF11PF06  
PF12

CMD : ONGARD 09/06/00 13:25:45  
OG6IWCM INQUIRE WELL COMPLETIONS OGOMES -TQE3

API Well No : 30 31 20883 Eff Date : 06-28-1998 WC Status : P  
Pool Idn : 2285 ARENA BLANCA-ENTRADA (O)  
OGRID Idn : 14634 MERRION OIL & GAS CORP  
Prop Idn : 17342 ARENA BLANCA H

Well No : 001  
GL Elevation: 6647

	U/L	Sec	Township	Range	North/South	East/West	Prop/Act (P/A)
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B.H. Locn : I	36	20N	05W	FTG 2360	F S	FTG 1200	F E P

Lot Identifier:

Dedicated Acre:

Lease Type : S

Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

E6317: No more recs. for this api well no.

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07	PF08	PF09	PF10 NEXT-WC	PF11 HISTORY	PF12 NXTREC

CMD : ONGARD 09/06/00 13:26:05  
OG6C101 C101-APPLICATION FOR PERMIT TO DRILL OGOMES -TQE3

OGRID Idn : 147380 API Well No: 30 31 21006 APD Status(A/C/P): A  
Opr Name, Addr: PENWELL ENERGY INC Aprvl/Cncl Date : 07-11-2000  
1100 ARCO BLDG  
600 N MARIENFELD  
MIDLAND, TX 79701  
Prop Idn: 26250 TORREON WASH 36 STATE Well No: 1

	U/L	Sec	Township	Range	Lot	Idn	North/South	East/West
Surface Locn	: I	36	20N	05W			FTG 2143 F S	FTG 1223 F E
OCD U/L	: I		API County	: 31				

Work typ(N/E/D/P/A) : N Well typ(O/G/M/I/S/W/C): O Cable/Rotary (C/R) : F  
Lease typ(F/S/P/N/J/U/I): S Ground Level Elevation : 6636

State Lease No: Multiple Comp (S/M/C) : S  
Prpsd Depth : 6000 Prpsd Frmtn : ARENA BLANCA;ENTRADA

E0009: Enter data to modify record

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07	PF08	PF09 PRINT	PF10 C102	PF11 HISTORY	PF12

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. 10865  
Order No. R-10025*

**APPLICATION OF MERRION OIL & GAS CORPORATION FOR A HIGH ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT AND SPECIAL OPERATING RULES THEREFOR, WHICH INCLUDES THE FORMATION OF A NON-STANDARD OIL PRORATION UNIT AND A SPECIAL PROJECT OIL ALLOWABLE, MCKINLEY COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on November 18, 1993, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 1st day of December, 1993, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

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

(2) The applicant, Merrion Oil & Gas Corporation ("Merrion"), seeks to initiate a high angle/horizontal directional drilling pilot project in the Arena Blanca-Entrada Oil Pool underlying the N/2 SE/4 of Section 36, Township 20 North, Range 5 West, NMPM, McKinley County, New Mexico, thereby forming a non-standard 80-acre oil spacing and proration unit for said pool ("Project Area"). Applicant further seeks the adoption of special operating provisions and rules within said Project Area, including the designation of a target window such that the horizontal or production portion of the wellbore can be no closer than 100 feet to the outer boundary of the project area and for a special project oil allowable.

(3) The proposed project area is located within the boundaries of the Arena Blanca-Entrada Oil Pool and, as such, would be subject to the Division's general statewide rules and regulations for oil pools which require 40-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the unit.

(4) Merrion proposes to utilize its existing Arena Blanca Well No. 1 located at a previously approved unorthodox oil well location (Division Administrative Order NSL-2053, dated May 23, 1985) 2360 feet from the South line and 1200 feet from the East line (Unit I) of said Section 36, by recompleting said well in the following manner:

Directionally drill said well by kicking off from the vertical just above the top of the Entrada formation at a depth of approximately 5,471 feet, drill a short-radius curve in such a manner as to penetrate the Entrada, utilize existing and proven technology to continue drilling horizontally within the Arena Blanca-Entrada Oil Pool in a westerly direction a distance of approximately 400 feet, and produce the Entrada formation throughout the entire horizontal interval.

(5) The allowable assigned to the well shall be limited to the total of the allowable assigned to the 40-acre tracts included in the Project Area.

(6) The geological testimony presented at the time of the hearing indicates that the Arena Blanca-Entrada Oil Pool is an eolian sand "dune-like" deposit of limited extent, having high porosity and permeability with a strong water drive mechanism.

(7) The subject well is the only well to produce from said reservoir and it is currently producing rather large volumes of water and relatively low volumes of oil, also said conventional vertical wellbore is exhibiting effects of "water coning". By drilling a horizontal well along the top of the pay interval, Merrion is attempting to alleviate coning by creating a small pressure drop along the large length of a horizontally drilled wellbore instead of a large pressure drop through a small area available to a vertical wellbore.

(8) The oversized "window" requested by the applicant would allow for greater flexibility in the drilling of the horizontal portion of the wellbore and will also serve to minimize risk and maximize the success of such a completion.

(9) The only offset mineral interest owner to the proposed non-standard proration unit other than the applicant is the U. S. Government who controls an unleased parcel of federal land in Section 31, Township 20 North, Range 4 West, NMPM, McKinley County, New Mexico and no objection was filed by the U. S. Bureau of Land Management to this application.

(10) In the interest of conservation, prevention of waste, and protection of correlative rights, the application of Merrion Oil & Gas Corporation for a horizontal directional drilling pilot project should be approved provided, however, that:

- (a) the wellbore remain confined to the assigned target window;
- (b) the applicant should be required to conduct a directional survey on the well during the drilling of or after the completion of drilling operations on the well, and submit to the Aztec and Santa Fe offices of the Division a copy of said directional survey;
- (c) the Project Area for this well should include only those particular quarter-quarter sections actually penetrated by the subject wellbore;
- (d) an allowable should be established for this Project Area which is equal to the total of the allowable assigned to the 40-acre tracts included in the Project Area; and,
- (e) the non-standard 80-acre oil spacing and proration unit, as described above, should not become effective until such time as the horizontal wellbore has been properly surveyed and determined to be appropriate and will cease at such time as the horizontal wellbore is properly plugged and abandoned.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Merrion Oil & Gas Corporation ("Merrion") for a high angle/horizontal directional drilling pilot project consisting of the N/2 SE/4 of Section 36, Township 20 North, Range 5 West, NMPM, Arena Blanca-Entrada Oil Pool, McKinley County, New Mexico, forming an 80-acre non-standard oil spacing and proration unit ("Project Area") for said pool is hereby approved.

(2) Merrion is further authorized to utilize its Arena Blanca Well No. 1 located at a previously approved unorthodox oil well location (Division Administrative Order NSL-2053, dated May 23, 1985) 2360 feet from the South line and 1200 feet from the East line (Unit I) of said Section 36, by recompleting said well in the following manner:

Directionally drill said well by kicking off from the vertical just above the top of the Entrada formation at a depth of approximately 5,471 feet, drill a short-radius curve in such a manner as to penetrate the Entrada, utilize existing and proven technology to continue drilling horizontally within the Arena Blanca-Entrada Oil Pool in a westerly direction a distance of approximately 400 feet, and produce the Entrada formation throughout the entire horizontal interval.

(3) The displacement of the subject wellbore shall be limited to a target window such that the horizontal or production portion of the wellbore shall be no closer than 100 feet to the outer boundary of the project area.

(4) The Project Area or non-standard 80-acre oil spacing and proration unit shall be assigned an acreage dedication factor of 2.0 to be assessed toward the assigned depth bracket allowable for the Arena Blanca-Entrada Oil Pool.

(5) This non-standard 80-acre unit shall not become effective until such time as the horizontal wellbore is properly surveyed and deemed appropriate to do so by the Division's District Supervisor in Aztec and shall cease at such time as the horizontal well is properly plugged and abandoned.

(6) The geographic location of the kick-off point for the proposed horizontal well shall be determined prior to directional drilling operations. Also, the operator shall conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

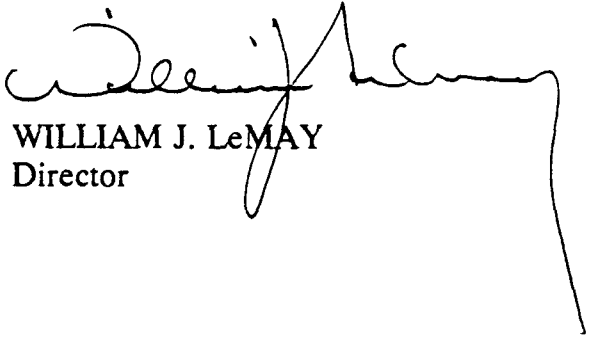
(7) The applicant shall notify the supervisor of the Aztec District Office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(8) The applicant shall submit copies of all directional surveys conducted on the subject well to both the Aztec and Santa Fe offices of the Division.

(9) Jurisdiction of this cause is hereby retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
WILLIAM J. LeMAY  
Director

S E A L

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

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

CASE NO. 8772  
Order No. R-8120

APPLICATION OF MERRION OIL & GAS  
CORPORATION FOR POOL CREATION,  
ASSIGNMENT OF DISCOVERY ALLOWABLE,  
AND SPECIAL DEPTH BRACKET ALLOWABLE,  
McKINLEY COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on December 4, 1985, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 10th day of January, 1986, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Merrion Oil and Gas Corporation, seeks the creation of a new Entrada oil pool, which would comprise the S/2 NE/4 and the N/2 SE/4 of Section 36, Township 20 North, Range 5 West, NMPM, McKinley County, New Mexico.
- (3) The applicant further seeks assignment of a discovery allowable to its Arena Blanca Well No. 1 located in Unit I of said Section 36.
- (4) Said Arena Blanca Well No. 1 was completed as a discovery well in the Entrada formation on August 27, 1985, in the perforated interval from 5514 feet to 5515.5 feet.
- (5) Under provisions of Division General Rule 509, said Arena Blanca Well No. 1 is entitled to and should be assigned a

discovery allowable equal to 5 barrels for each foot of depth to the uppermost perforation, or 27,505 barrels.

(6) A new pool for said discovery well should be created and designated the Arena Blanca-Entrada Oil Pool, with the vertical limits of the pool comprising the Entrada formation and the horizontal limits comprising the following described area:

TOWNSHIP 20 NORTH, RANGE 5 WEST, NMPM  
Section 36: S/2 NE/4 and N/2 SE/4

(7) The applicant further proposed a special depth bracket allowable of 750 barrels of oil per day for the subject pool.

(8) The Eagle Mesa-Entrada Pool located approximately five miles southeast of the proposed pool and the Media-Entrada Pool located approximately 9 miles southeast of the proposed pool operate under special depth bracket allowables of 750 barrels of oil per day.

(9) Evidence presented at the hearing indicates that the reservoir characteristics in the subject pool are very similar to the Eagle Mesa and Media Entrada Pools in this area.

(10) Evidence presented by the applicant indicates that high volume pumping (750 BOPD) of wells in the subject pool should result in the recovery of additional quantities of oil from the reservoir, thereby preventing waste.

(11) Approval of the subject application will serve to prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) A new pool for Entrada oil production is hereby created in McKinley County, New Mexico, to be designated the Arena Blanca-Entrada Oil Pool with vertical limits consisting of the Entrada formation and horizontal limits comprising the following described area:

TOWNSHIP 20 NORTH, RANGE 5 WEST, NMPM  
Section 36: S/2 NE/4 and N/2 SE/4

(2) The discovery well for said pool, the Merrion Oil and Gas Corporation Arena Blanca Well No. 1, located in Unit I, Section 36, Township 20 North, Range 5 West, NMPM, McKinley County, New Mexico, is hereby assigned an oil discovery allowable of 27,505 barrels of oil, to be produced within 730

days after the effective date of this order at an approximate rate of 37 barrels per day.

(3) A special depth bracket allowable of 750 barrels of oil per day is hereby established for the Arena Blanca-Entrada Oil Pool, McKinley County, New Mexico.

(4) The Director of the Division may rescind the provision for the special depth bracket allowable if at any time it appears that premature water encroachment or water coning is occurring, or other evidence of reservoir damage is apparent.

(5) The effective date of this order and of the pool creation contained herein shall be January 1, 1986.

(6) 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



R. L. STAMETS,  
Director

S E A L