

CAMPBELL, CARR, BERGE  
& SHERIDAN, P.A.  
LAWYERS

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POST OFFICE BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
TELEPHONE: (505) 988-4421  
TELECOPIER: (505) 983-6043

March 9, 1995

**HAND-DELIVERED**

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

Re: Oil Conservation Division Case No. 11176:  
Application of Amoco Production Company to Amend Division Order No. R-10174 to Include Provisions for an Unorthodox Surface Gas Well Location, Simultaneous Dedication, and an Exception to Rule 2(b) of the Special Rules Governing the Blanco-Mesaverde Pool, San Juan County, New Mexico

Dear Mr. Stogner:

The above-referenced case is scheduled for hearing on March 16, 1995. As you are aware, the development of this acreage was the subject of Case No. 11054 which came before you for hearing on August 4, 1994. Order No. R-10174 was entered on August 25, 1994 granting the application of Amoco for a high angle/horizontal directional drilling pilot project and special operating rules therefor for the subject spacing unit. Following the entry of that Order, Amoco had to move the surface location due to topographical conditions. New notice was provided to affected operators and, as a result of this notification, Conoco expressed objection to this proposal.

Amoco and Conoco have met concerning this matter and it is my belief that Conoco will not be objecting when this matter comes before you on March 16, 1995.

Michael E. Stogner, Chief Engineer  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
March 9, 1995  
Page 2

Since the case, as it is currently styled, it provides "In the absence of objection, this application will be taken under advisement," Amoco does not intend to present testimony at the March 16th hearing.

Amoco has asked me to deliver to you the following information for your consideration in handling this application:

- (1) A nine section plat showing the surface location and horizontal lateral for the Florence 37R Well;
- (2) A copy of Amoco's November 28, 1994 letter to the New Mexico Oil Conservation Division advising of the change in the surface location with attached topographic map, Form C-102 acreage dedication plat, and directional well plan; and
- (3) Original Florence 37R Hearing Order approving this well in August, 1994.

If you need anything further from Amoco to proceed with your consideration of this matter following the March 16, 1995 hearing, please advise.

Very truly yours,

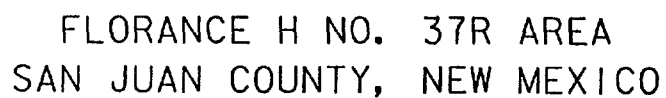
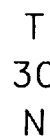


WILLIAM F. CARR  
ATTORNEY FOR AMOCO PRODUCTION COMPANY

WFC:mlh  
Enclosures

cc: Mr. J. W. Hawkins (w/o enclosures)  
Amoco Production Company  
Post Office Box 800  
Denver, CO 80201

R 8 W





Southern

Rockies

Business

Unit

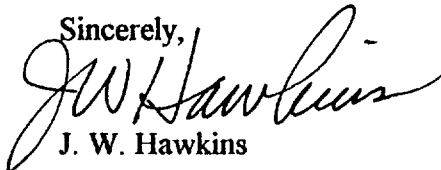
November 28, 1994

Mr. William J. LeMay, Director  
New Mexico Oil Conservation Division  
2040 S. Pacheco Street  
P.O. Box 6429  
Santa Fe, NM 87505

**NMOCD Order No. R-10174**  
**Approval for Horizontal Drilling Project**  
**Florance #37R Well**  
**E/2 Section 6-T30N-R8W**  
**Blanco Mesaverde Pool**  
**San Juan County, New Mexico**

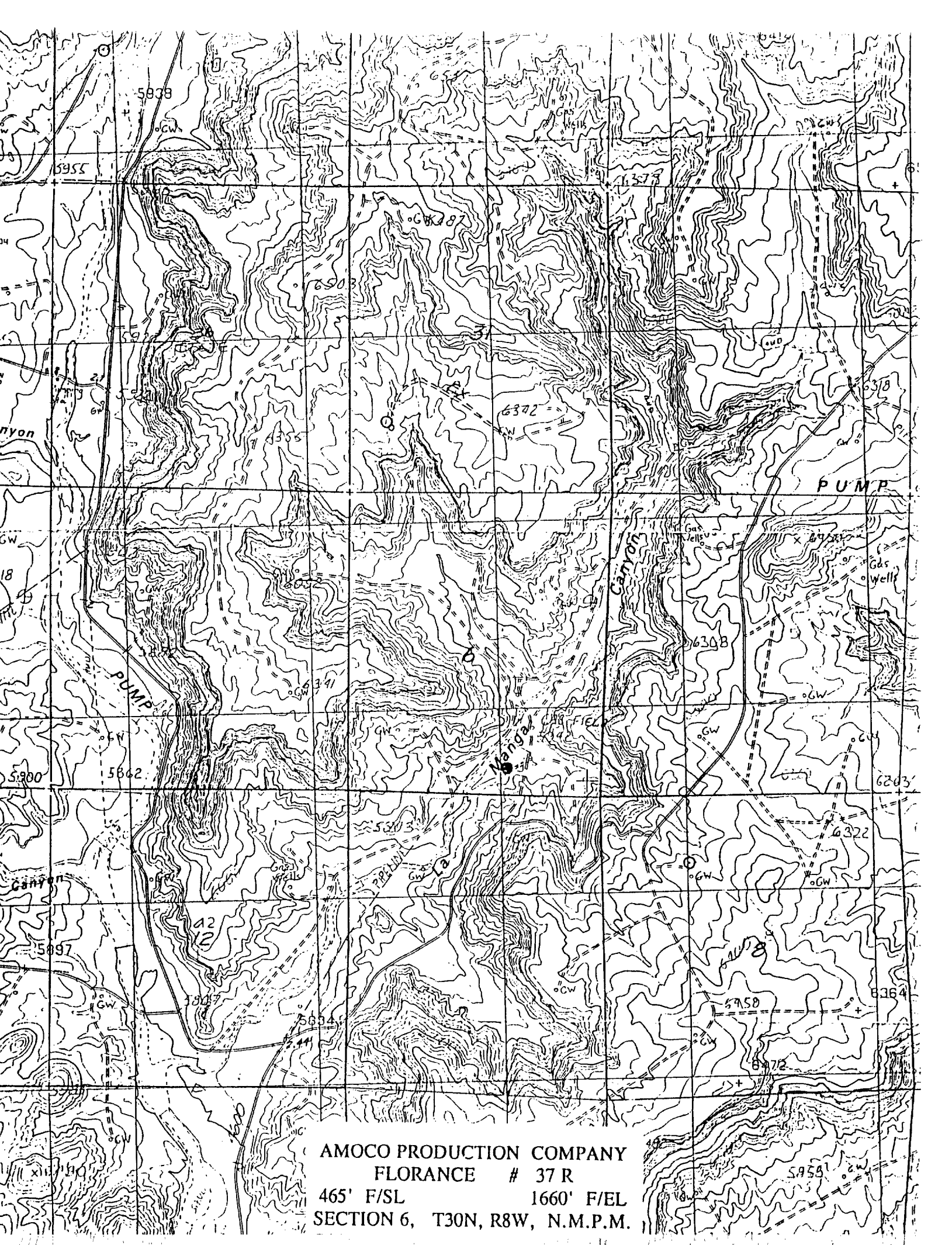
Per my telephone conversation with Mike Stogner, this letter will inform you of Amoco's plans to drill the Florance #37 R well from a surface location of 465' FSL and 1660' FEL to a proposed bottomhole location of 1350' FNL and 1850' FEL of Section 6, T30N-R8W. This well was approved as a horizontal drilling project by Order No. R-10174. Due to the topographical conditions and the presence of pipelines in the area, we have had to locate the well outside of the legal drilling window in order to still meet our horizontal drilling objectives. The well is planned to enter the proposed producing interval, the Point Lookout member of the Blanco Mesaverde Pool, at a depth of 4978' TVD and at a location inside the legal drilling window. No portion of the horizontal lateral of the well's producing interval will be closer than 790' from the outer boundary of the proration unit. Attached for your file is a topographical map, well location plat, and the planned directional program for the well. It is my understanding that no further approvals are necessary.

Sincerely,

  
J. W. Hawkins

Attachments

cc: SL Acevedo 11/28/94 - ewb



AMOCO PRODUCTION COMPANY  
FLORANCE # 37 R  
465' F/SL 1660' F/EL  
SECTION 6, T30N, R8W, N.M.P.M.

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Bravos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code 72319		Pool Name Blanco Mesaverde	
Property Code		Property Name FLORANCE			Well Number # 37 R
GRID No. 000778		Operator Name AMOCO PRODUCTION COMPANY			Elevation 5932

<sup>10</sup> Surface Location

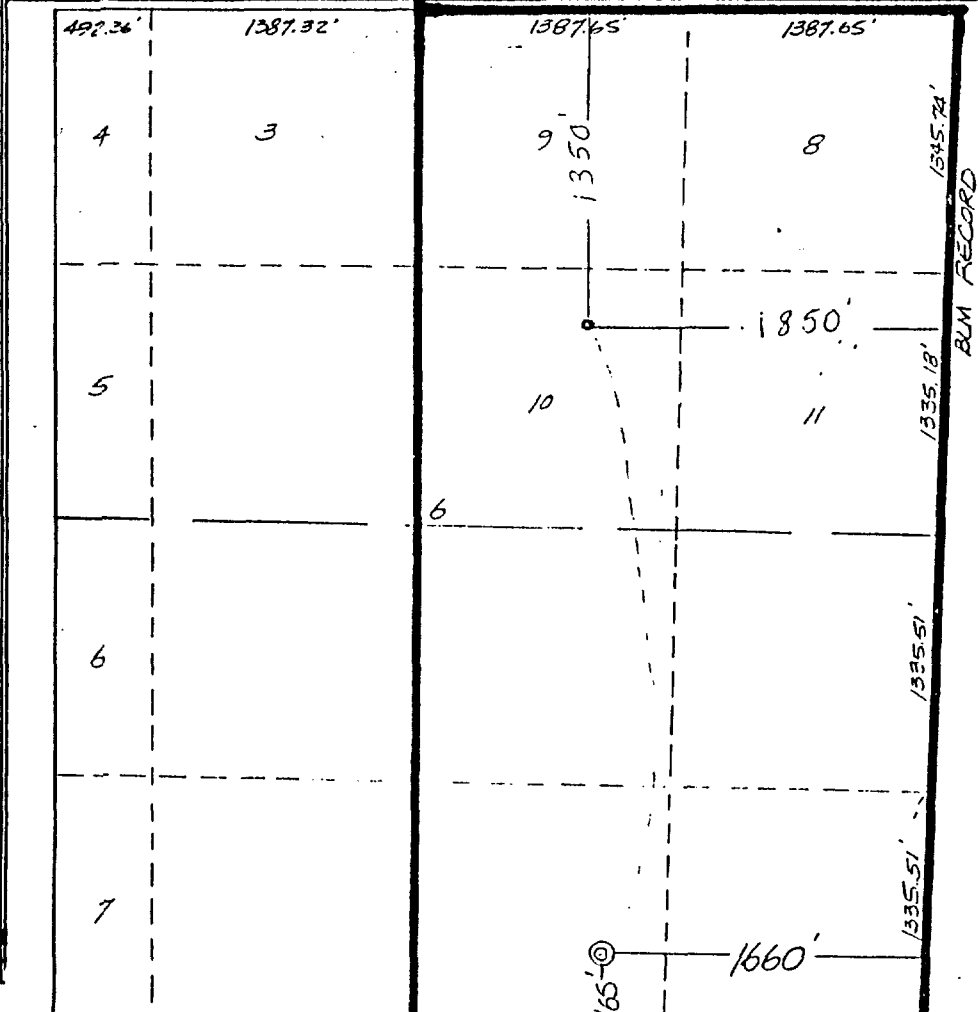
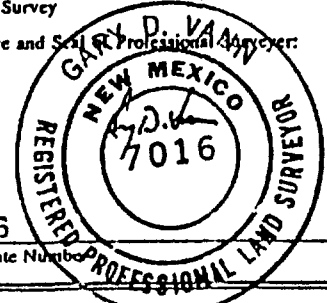
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	6	30 N	8 W		465	SOUTH	1660	EAST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	6	30N	8W		1350	North	1850	East	San Juan

" Dedicated Acres	" Joint or Infill	" Consolidation Code	" Order No.
327.1			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Julie L. Acevedo</i> Signature Julie L. Acevedo Printed Name Sr. Staff Assistant Title 11/17/94 Date</p>
	<p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>November 9, 1994 Date of Survey Signature and Seal of Professional Surveyor:  7016 Certificate Number</p>

Units are FEET

F/lorance #37-R

71

T I	Meas. Depth	Survey Incl Dir	Depth (TVD)	North -South	East -West	Vert. Section	Closure Dist Dir	Dog Leg
	.00	.00 13.00	.00	.00	.00	.00	0 0	.0
	100.00	.00 13.00	100.00	.00	.00	.00	0 0	.0
	200.00	.00 13.00	200.00	.00	.00	.00	0 0	.0
	300.00	.00 13.00	300.00	.00	.00	.00	0 0	.0
	400.00	.00 13.00	400.00	.00	.00	.00	0 0	.0
	500.00	.00 13.00	500.00	.00	.00	.00	0 0	.0
	600.00	.00 13.00	600.00	.00	.00	.00	0 0	.0
	700.00	.00 13.00	700.00	.00	.00	.00	0 0	.0
	800.00	.00 13.00	800.00	.00	.00	.00	0 0	.0
	900.00	.00 13.00	900.00	.00	.00	.00	0 0	.0
	1000.00	.00 13.00	1000.00	.00	.00	.00	0 0	.0
	1100.00	.00 13.00	1100.00	.00	.00	.00	0 0	.0
	1200.00	.00 13.00	1200.00	.00	.00	.00	0 0	.0
	1300.00	.00 13.00	1300.00	.00	.00	.00	0 0	.0
	1400.00	.00 13.00	1400.00	.00	.00	.00	0 0	.0
	1500.00	.00 13.00	1500.00	.00	.00	.00	0 0	.0
	1600.00	.00 13.00	1600.00	.00	.00	.00	0 0	.0
	1700.00	.00 13.00	1700.00	.00	.00	.00	0 0	.0
	1800.00	.00 13.00	1800.00	.00	.00	.00	0 0	.0
	1900.00	.00 13.00	1900.00	.00	.00	.00	0 0	.0
	2000.00	.00 13.00	2000.00	.00	.00	.00	0 0	.0
	2100.00	.00 13.00	2100.00	.00	.00	.00	0 0	.0
	2200.00	.00 13.00	2200.00	.00	.00	.00	0 0	.0
	2300.00	.00 13.00	2300.00	.00	.00	.00	0 0	.0
	2400.00	.00 13.00	2400.00	.00	.00	.00	0 0	.0
	2500.00	.00 13.00	2500.00	.00	.00	.00	0 0	.0
	2600.00	.00 13.00	2600.00	.00	.00	.00	0 0	.0
	2700.00	.00 13.00	2700.00	.00	.00	.00	0 0	.0
	2800.00	.00 13.00	2800.00	.00	.00	.00	0 0	.0
	2900.00	.00 13.00	2900.00	.00	.00	.00	0 0	.0
	3000.00	.00 13.00	3000.00	.00	.00	.00	0 0	.0
	3100.00	.00 13.00	3100.00	.00	.00	.00	0 0	.0
	3200.00	.00 13.00	3200.00	.00	.00	.00	0 0	.0
	3300.00	.00 13.00	3300.00	.00	.00	.00	0 0	.0
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	3700.00	.00 13.00	3700.00	.00	.00	.00	0 0	.0
	3800.00	.00 13.00	3800.00	.00	.00	.00	0 0	.0
	3900.00	.00 13.00	3900.00	.00	.00	.00	0 0	.0

*F/brance #37-12*

*p 2*

Units are FEET

Meas. Depth	Survey Incl	Dir	Depth (TVD)	North -South	East -West	Vert. Section	Closure Dist	Dir	Dog Leg
4000.00	.00	13.00	4000.00	.00	.00	.00	0	0	.0
4100.00	.00	13.00	4100.00	.00	.00	.00	0	0	.0
4200.00	.00	13.00	4200.00	.00	.00	.00	0	0	.0
4300.00	.00	13.00	4300.00	.00	.00	.00	0	0	.0
4400.00	.00	13.00	4400.00	.00	.00	.00	0	0	.0
4500.00	.00	13.00	4500.00	.00	.00	.00	0	0	.0
4567.00	10.50	13.00	4566.63	5.97	1.38	5.91	6	13	15.7
4667.00	21.00	13.00	4662.74	32.38	7.47	32.10	33	13	10.5
4767.00	31.50	13.00	4752.30	75.41	17.41	74.77	77	13	10.5
4867.00	42.00	13.00	4832.31	133.63	30.85	132.49	137	13	10.5
4967.00	52.50	13.00	4900.10	205.08	47.35	203.33	210	13	10.5
5067.00	63.00	13.00	4953.38	287.37	66.34	284.92	295	13	10.5
5167.00	73.50	13.00	4990.39	377.74	87.21	374.52	388	13	10.5
5267.00	84.00	13.00	5009.87	473.17	109.24	469.13	486	13	10.5
5367.00	90.00	13.00	5015.10	570.43	131.69	565.56	585	13	6.0
5465.00	90.00	13.00	5015.10	665.92	153.74	660.24	683	13	.0
5507.14	90.00	13.00	5015.10	706.98	163.22	700.94	726	13	.0
5574.17	90.00	13.00	5015.10	772.29	178.30	765.70	793	13	.0
5674.17	90.00	10.91	5015.10	870.12	199.01	862.75	893	13	2.1
5774.17	90.00	8.83	5015.10	968.63	216.15	960.62	992	13	2.1
5874.17	90.00	6.74	5015.10	1067.71	229.70	1059.17	1092	12	2.1
5974.17	90.00	4.66	5015.10	1167.21	239.63	1158.27	1192	12	2.1
6074.17	90.00	2.57	5015.10	1267.00	245.93	1257.79	1291	11	2.1
6174.17	90.00	.48	5015.10	1366.96	248.59	1357.59	1389	10	2.1
6274.17	90.00	358.40	5015.10	1466.95	247.62	1457.56	1488	10	2.1
6374.17	90.00	356.31	5015.10	1566.84	243.00	1557.55	1586	9	2.1
6474.17	90.00	354.23	5015.10	1666.49	234.76	1657.43	1683	8	2.1
6574.17	90.00	352.14	5015.10	1765.78	222.89	1757.06	1780	7	2.1
6674.17	90.00	350.05	5015.10	1864.57	207.41	1856.33	1876	6	2.1
6700.00	90.00	349.52	5015.10	1889.99	202.83	1881.89	1901	6	2.1
6800.00	90.00	349.52	5015.10	1988.32	184.64	1980.79	1997	5	.0
6900.00	90.00	349.52	5015.10	2086.65	166.45	2079.69	2093	5	.0
6905.06	90.00	349.52	5015.10	2091.63	165.53	2084.69	2098	5	.0
7005.06	90.00	350.28	5015.10	2190.08	148.00	2183.69	2195	4	.8
7105.06	90.00	351.04	5015.10	2288.75	131.77	2282.86	2293	3	.8
7205.06	90.00	351.80	5015.10	2387.63	116.85	2382.20	2390	3	.8
7305.06	90.00	352.56	5015.10	2486.70	103.24	2481.68	2489	2	.8
7405.06	90.00	353.32	5015.10	2585.94	90.95	2581.28	2588	2	.8
7505.06	90.00	354.07	5015.10	2685.34	79.97	2680.99	2687	2	.8
7600.00	90.00	354.79	5015.10	2779.83	70.75	2775.75	2781	1	.8

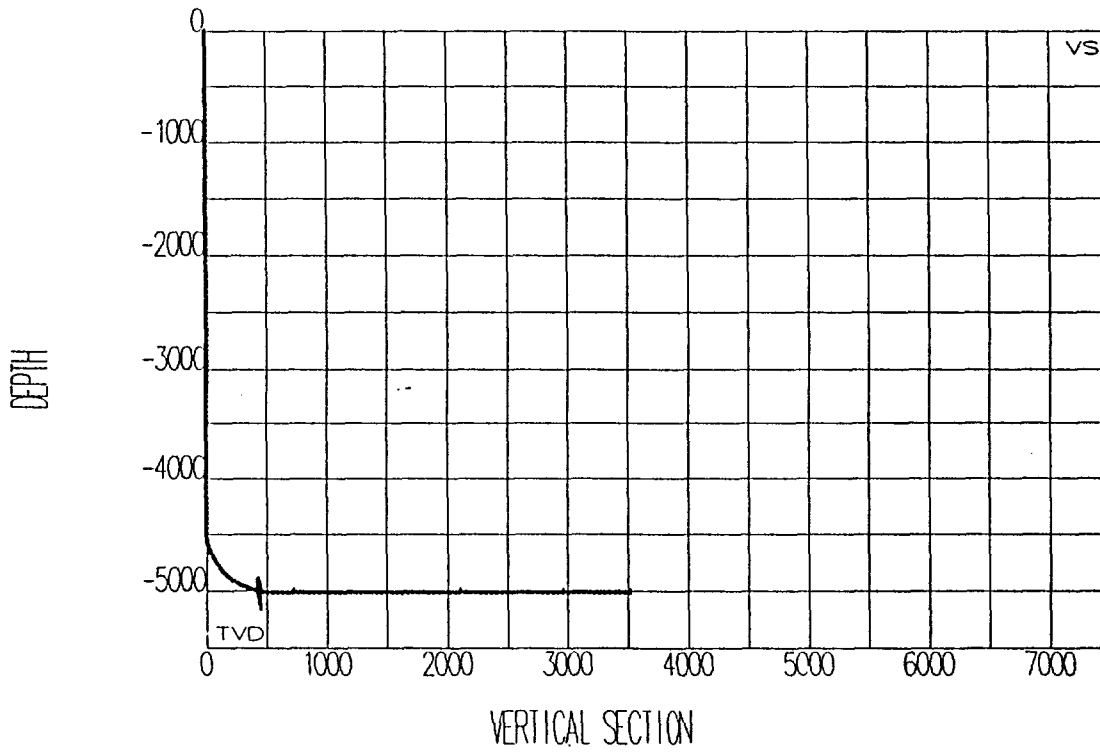


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*p 3*

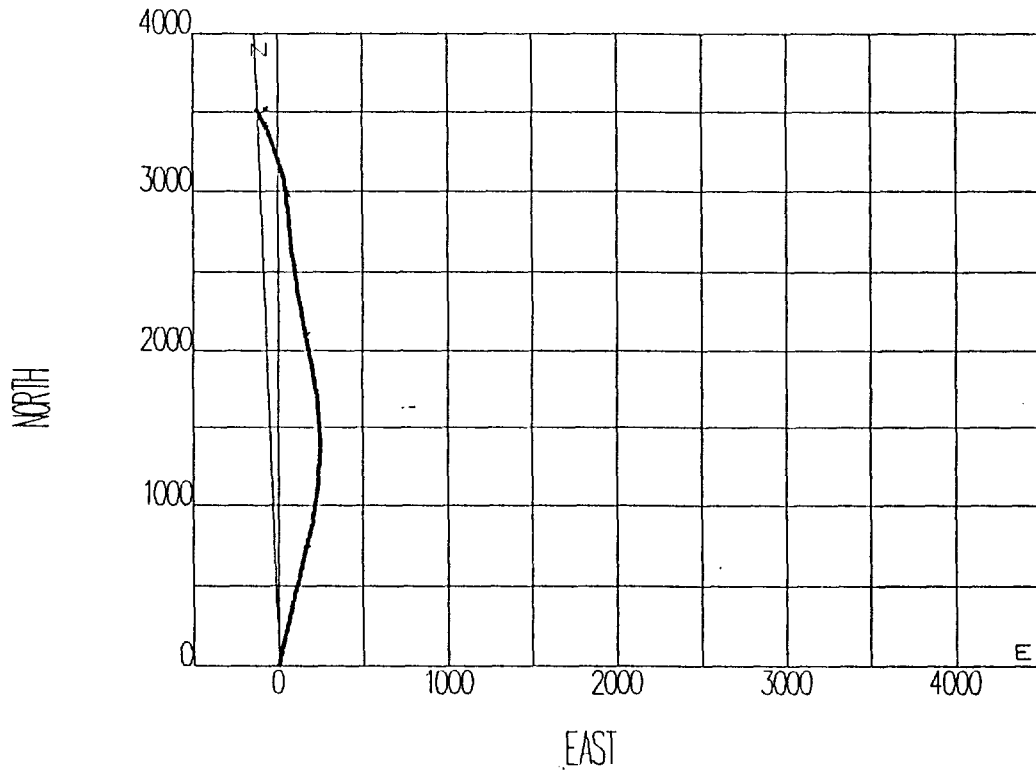
Units are FEET

Meas. Depth	Survey Incl Dir	Depth (TVD)	North -South	East -West	Vert. Section	Closure Dist Dir	Dog Leg
7700.00	90.00 354.79	5015.10	2879.42	61.67	2875.59	2880 1	.0
7767.83	90.00 354.79	5015.10	2946.97	55.51	2943.31	2947 1	.0
7867.83	90.00 349.72	5015.10	3046.02	42.04	3042.77	3046 1	5.1
7967.83	90.00 344.65	5015.10	3143.50	19.87	3140.95	3144 0	5.1
8067.83	90.00 340.00	5015.10	3238.75	-10.48	3237.19	3239 360	4.7
8100.00	90.00 340.00	5015.10	3268.98	-21.49	3267.78	3269 360	.0
8200.00	90.00 340.00	5015.10	3362.95	-55.69	3362.87	3363 359	.0
8238.56	90.00 340.00	5015.10	3399.18	-68.88	3399.54	3400 359	.0
8300.00	90.00 335.00	5015.10	3455.93	-92.38	3457.06	3457 358	8.1
8340.28	90.00 330.00	5015.10	3491.65	-110.98	3493.40	3493 358	12.4
8360.00	90.00 330.00	5015.10	3508.73	-120.84	3510.81	3511 358	.0

Florence #37-R



*Florence* #37-R



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:

RECEIVED  
AUG 26 1994  
CAMPBELL, CARR, & AL.

CASE NO. 11054  
ORDER NO. R-10174

APPLICATION OF AMOCO PRODUCTION COMPANY FOR A HIGH  
ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT AND  
SPECIAL OPERATING RULES THEREFOR, SAN JUAN COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 4, 1994, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 25th day of August, 1994 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) At the time of the hearing Division Case Nos. 11051, 11052, 11053, 11054, 11055, and 11056 were consolidated for purposes of testimony.

(3) The applicant in this matter, Amoco Production Company ("Amoco"), is the operator of a non-standard 327.11-acre gas spacing and proration unit ("GPU") in the Blanco-Mesaverde Pool comprising Lots 8, 9, 10, and 11 and the SE/4 (E/2 equivalent) of Section 6, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, which is currently simultaneously dedicated to the applicant's Florance "H" Well No. 37 (API No. 30-045-60189), located at a standard gas well location 1650 feet from the North line and 990 feet from the East line (Lot 11/Unit H) of said Section 6, and to its Florance "H" Well No. 37A (API No. 30-045-22274), located at a standard gas well location 1780 feet from the South line and 1495 feet from the East line (Unit J) of said Section 6.

(4) Said proration unit is located within the boundaries of the Blanco-Mesaverde Pool and is therefore subject to the Special Rules and Regulations for said pool and the General Rules for the Prorated Gas Pools of New Mexico, both contained within Division Order No. R-8170, as amended.

(5) At this time the applicant seeks to initiate a high angle/horizontal directional drilling pilot project within said 327.11-acre GPU by drilling its proposed Florance "H" Well No. 37-R, initially as a replacement well for the existing Florance "H" Well No. 37 in the SE/4 of said Section 6. *However, nothing should be included within this order, if approved, prohibiting the operator to simultaneously produce all three wells within the subject GPU, provided such simultaneous dedication/production be governed by all applicable provisions of said special pool rules and related Division policies.*

(6) Further, the applicant seeks special rules and provisions within the project area including authorization to cross quarter-quarter section lines and the designation of a prescribed area limiting the horizontal displacement of the producing portion of the wellbore within the allowed 790 foot setback requirements from the outer boundary of the subject proration unit.

(7) At this time the applicant proposes to drill its said Florance "H" Well No. 37-R at a standard surface gas well location in the SE/4 of said Section 6 and in the following unconventional manner:

Drill vertically to a depth of approximately 4650 feet, set a long string of 5 1/2-inch casing, kick-off from underneath the casing shoe in a northerly direction with a medium radius curve hole, build to an angle of approximately 90 degrees so as to encounter the Blanco-Mesaverde Pool and continue drilling horizontally a distance of approximately 1600 feet.

(8) The applicant's evidence indicates that there are some producing wells in this area that exhibit significantly greater producing rates and ultimate gas recoveries than others. Applicant contends that such difference in rates and recoveries is due primarily to some wells intersecting natural fracture systems within the Blanco-Mesaverde Pool.

(9) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore should encounter a substantially greater number of natural fractures within said pool than would a conventional wellbore, which should substantially increase the productivity of the subject well and which should ultimately result in the recovery of a significantly greater amount of gas from the proposed project area, thereby preventing waste.

(10) No offset operator and/or interest owner appeared at the hearing in opposition to the proposed horizontal directional drilling pilot project.

(11) The application, as proposed, exhibits sound engineering practices, promotes the conservation of gas underlying the unit, and serves to prevent waste and protect correlative rights. This application would therefore be approved provided however that:

- (a) no part of the horizontal wellbore should be located closer than 790 feet from the outer boundary of the project area;
- (b) the applicant be required to conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that direction, extent and terminus of said wellbore may be determined to be in compliance with the terms of this order;
- (c) the applicant further be required to submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division; and,
- (d) the applicant notify the supervisor of the Aztec District Office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Amoco Production Company for a high angle/horizontal directional drilling pilot project within an existing non-standard 327.11-acre gas spacing and proration unit ("GPU") in the Blanco-Mesaverde Pool comprising Lots 8, 9, 10, and 11 and the SE/4 (E/2 equivalent) of Section 6, Township 30 North, Range 8 West, NMPM, San Juan County, New Mexico, is hereby approved.

(2) Amoco shall be permitted to drill its Florance "H" Well No. 37-R, as a replacement well for the existing Florance "H" Well No. 37 (API No. 30-045-60189), located at a standard gas well location 1650 feet from the North line and 990 feet from the East line (Lot 11/Unit H) of said Section 6, from a standard surface gas well location in the SE/4 of said Section 6 and in the following unconventional manner:

Drill vertically to a depth of approximately 4650 feet, set a long string of 5 1/2-inch casing, kick-off from underneath the casing shoe in a northerly direction with a medium radius curve hole, build to an angle

of approximately 90 degrees so as to encounter the Blanco-Mesaverde Pool and continue drilling horizontally a distance of approximately 1600 feet.

PROVIDED HOWEVER THAT, no portion of the horizontal displacement of said well's producing interval be closer than 790 feet from the outer boundary of the subject proration unit.

(3) The E/2 equivalent of said Section 6 shall be simultaneously dedicated to the above-described well and to the existing Florance "H" Well No. 37A (API No. 30-045-22274), located at a standard gas well location 1780 feet from the South line and 1495 feet from the East line (Unit J) of said Section 6.

HOWEVER, the operator of the subject GPU shall be permitted to include production from said Florance "H" Well No. 37, thereby permitting the simultaneous dedication of all three wells, (the Florance "H" Well Nos. 37, 37A, and 37-R), to the subject 327.11-acre GPU.

PROVIDED HOWEVER THAT, the operator of the subject GPU abide to all applicable Special Rules and Regulations for the Blanco-Mesaverde Pool and the General Rules for the Prorated Gas Pools of New Mexico, both contained within Division Order No. R-8170, as amended, and to any related Division policies covering such simultaneous dedication.

(4) The applicant shall conduct a directional survey on the vertical portion of the wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that direction, extent and terminus of said wellbore may be determined to be in compliance with the terms of this order.

(5) The applicant shall submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division.

(6) The applicant shall notify the supervisor of the Aztec District Office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

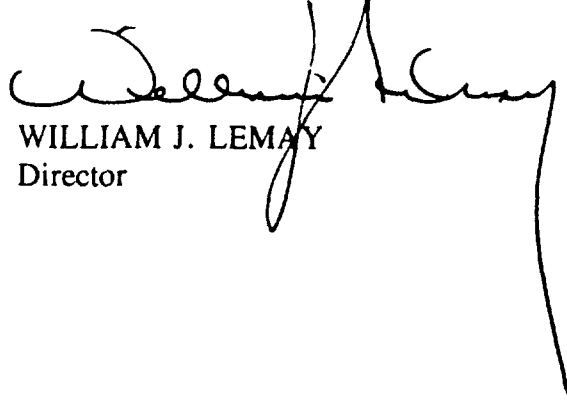
(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read 'William J. Lemay', is written over the printed name and title. The signature is fluid and cursive, with a long vertical stroke extending downwards from the end of the name.

WILLIAM J. LEMAY  
Director

S E A L