



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

January 19, 1996

Amoco Production Company
P. O. Box 800
Denver, Colorado 80201

Attention: J. W. Hawkins

AMENDED Administrative Order DD-121(NSBHL)

Dear Mr. Hawkins:

By Division Administrative Order DD-121, dated October 16, 1995, authorization was given Amoco Production Company ("Amoco") to directionally drill its Holmberg Gas Com Well No. 1-R from a standard surface gas well location, being 960 feet from the North line and 1710 feet from the East line (Lot 1/Unit B) of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico, to a standard bottom-hole gas well location in the Blanco-Mesaverde Pool within a drilling window or "producing area" in the NE/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines.

Reference is now made to your letter with attachments dated December 22, 1995, whereby an amendment should be issued in this order to accurately reflect the actual bottom-hole location of this wellbore.

The Division Director Finds That:

- (1) This application was originally approved under the provisions of General Rule 111.D and Rule 2(c) of the *"General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool"*;;
- (2) This amendment has been duly filed under the provisions of Division General Rules 111.D and 111.E and said Special Rule 2(c); and,
- (3) Amoco owns all affected offsetting 320-acre tracts to the captioned well, no notification was therefore required.

AMENDED Administrative Order DD-121 (NSBHL)

Amoco Production Company

January 19, 1996

Page No. 2

IT IS THEREFORE ORDERED THAT:

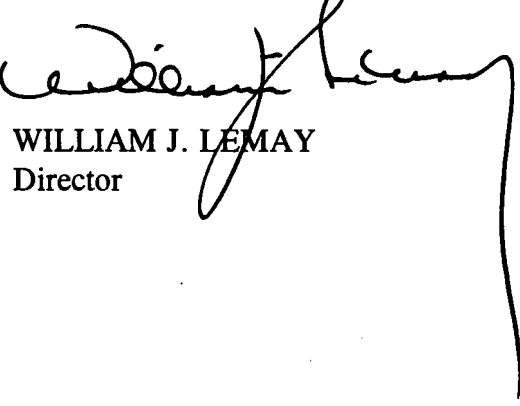
(1) Division Administrative Order DD-121 is hereby amended to properly reflect the actual bottomhole location for said Holmberg Gas Com Well No. 1-R within the Blanco-Mesaverde Pool to be, more or less, 2142 feet from the North line and 718 feet from the East line (Unit H) of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

(2) All other provisions of said Order DD-121, dated October 16, 1995, not in conflict with this change shall remain in full force and effect until further notice.

(3) 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

WJL/MES/kv

cc: Oil Conservation Division - Aztec
U. S. Bureau of Land Management - Farmington
File: Case 11,274
DD-121 ✓

DD-121. AMO

Rec. 12/26/95
Susp. N/A
Released 1/19/96

January 19, 1996

Amoco Production Company
P. O. Box 800
Denver, Colorado 80201

Attention: J. W. Hawkins

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Reference is now made to your letter with attachments dated December 22, 1995, whereby an amendment should be issued in this order to accurately reflect the actual bottom-hole location of this wellbore.

The Division Director Finds That:

- (1) This application was originally approved under the provisions of General Rule 111.D and Rule 2(c) of the "*General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool*";;
- (2) This amendment has been duly filed under the provisions of Division General Rules 111.D and 111.E and said Special Rule 2(c); and,
- (3) Amoco owns all affected offsetting 320-acre tracts to the captioned well, no notification was therefore required.

IT IS THEREFORE ORDERED THAT:

(1) Division Administrative Order DD-121 is hereby amended to properly reflect the actual bottomhole location for said Holmberg Gas Com Well No. 1-R within the Blanco-Mesaverde Pool to be, more or less, 2142 feet from the North line and 718 feet from the East line (Unit H) of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

(2) All other provisions of said Order DD-121, dated October 16, 1995, not in conflict with this change shall remain in full force and effect until further notice.

(3) 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

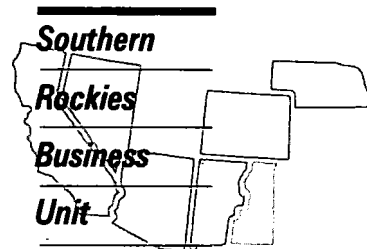
WJL/MES/kv

cc: Oil Conservation Division - Aztec
U. S. Bureau of Land Management - Farmington
File: Case 11,274
DD-121



NEW MEXICO OIL CONSERVATION DIVISION
RECEIVED

'95 DEC 25 AM 8 52



December 22, 1995

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

Application for Unorthodox Location
Holmberg Gas Com #1R Well
E/2 Section 28-T32N-R10W
Blanco Mesaverde Pool
San Juan County, New Mexico

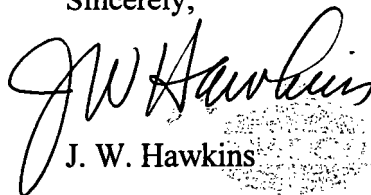
Amoco Production Company hereby requests administrative approval for an unorthodox location for the Holmberg Gas Com #1R well. This well was recently drilled as a high angle / horizontal well in the Blanco Mesaverde Pool as approved under NMOCD Administrative Order DD-121. The Holmberg Gas Com #1 well was drilled from a surface location of 960' FNL and 1710' FEL of Section 28, T32N-R10W to a bottomhole location of 2142' FNL and 718' FEL. The Project Area for this well is the Blanco Mesaverde gas proration unit consisting of E/2 Section 28, T32N-R10W with the Producing Area for the well to consist of a drilling window inside the NE/4 of Section 28 that is no closer than 790' to the quarter section lines. Since the bottom portion of the wellbore is closer than 790' to the quarter section lines, approval for the unorthodox location is required.

To aid in your review are:

- 1) a plat showing the well location, project area and producing area for the project well and the offset spacing units, their wells and operators;
- 2) a form C-102 showing surface and bottomhole locations of the well;
- 3) a direction survey for the wellbore.

Amoco is the only affected offset operator, therefore, no additional notice will be required.

Sincerely,


J. W. Hawkins

cc: Jack St. John
Patty Haefe

Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410

174.856

2.174.

169.856

2.169.1

164.856

2.164.2

159.856

2.159.85

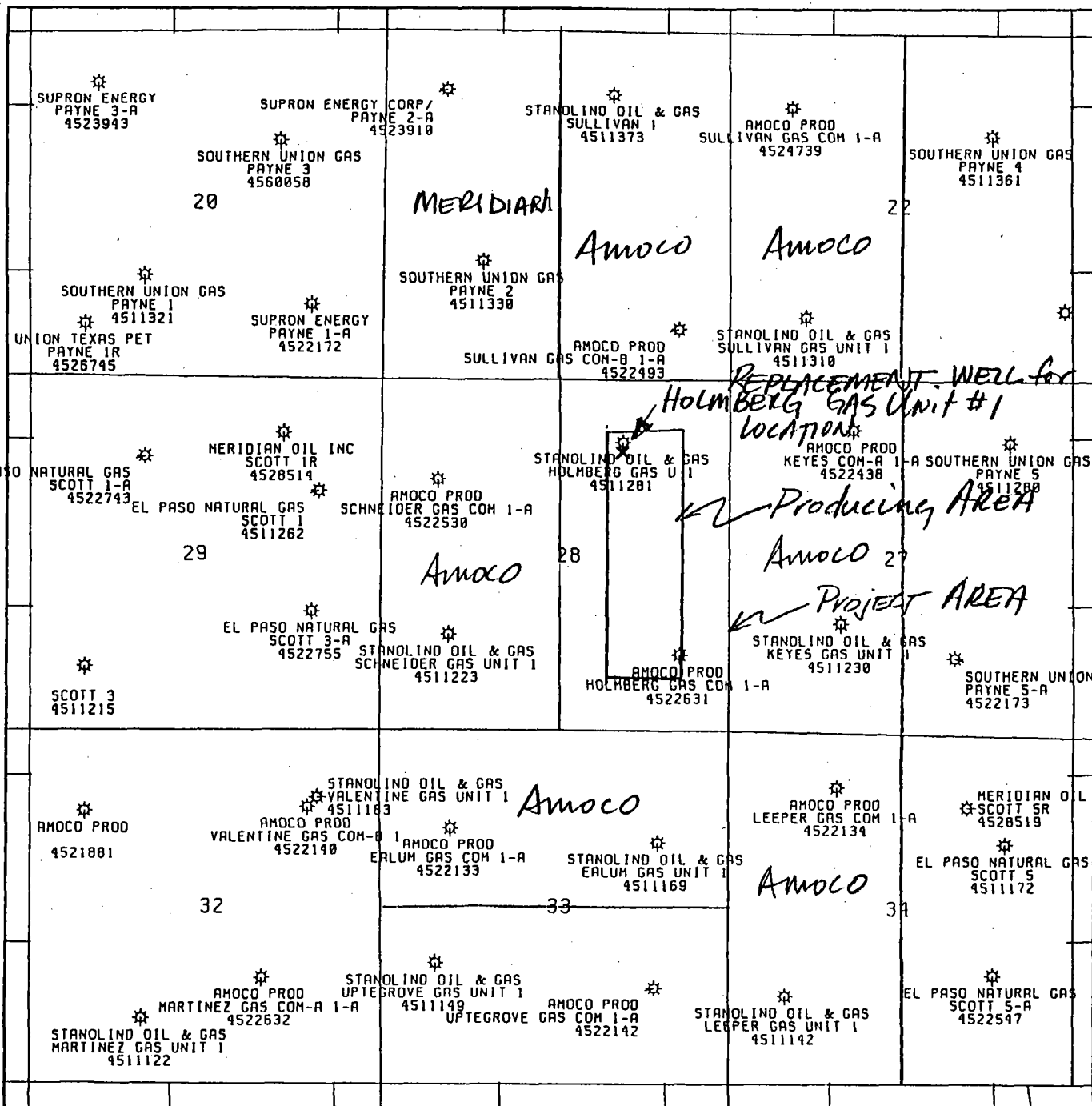


1:24000

STATUTE MILES 0 .2 STATUTE MILES

KILOMETERS 0 .5 KILOMETERS

AMOCO E&P SECTOR			
SOUTHERN ROCKIES BUSINESS UNIT			
SAN JUAN BASIN			
T32N-R10W			
1:24000	K. LAMBERT	1-SEP-95	



District I
PO Box 1930, Hobbs, NM 88241-1930

District II

811 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102

Revised October 18, 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

1 API Number 30-045-29299		2 Pool Code 72319		3 Pool Name Blanco Mesaverde		
4 Property Code		5 Property Name Holmberg Gas Com			6 Well Number 1R	
7 OGRID No. 000778		8 Operator Name Amoco Production Company			9 Elevation 6043'	

10 Surface Location

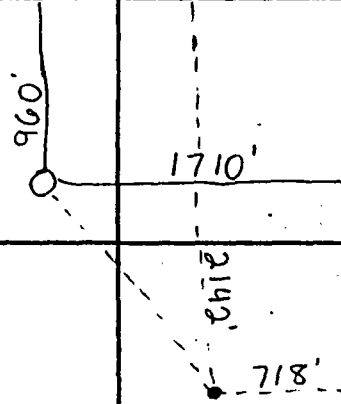
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
B	28	32N	10W		960	North	1710	East	San Juan

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
H	28	32N	10W		2142	North	718	East	San Juan

12 Dedicated Acres 319.51	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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

16 	17 OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i> Signature <u>Patty Haeefe</u> Patty Haeefe Printed Name Staff Assistant Title 12/22/95 Date	
	18 SURVEYOR CERTIFICATION <i>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.</i> 9/7/95 Date of Survey Signature and Seal of Professional Surveyer: 7016 Certificate Number	

Holmberg Gas Unit #1-R
com

AMOCO PRODUCTION COMPANY
SEC.28-T32N-R10W

1A
SLOT #1
SAN JUAN COUNTY
NEW MEXICO

SURVEY LISTING

by
Baker Hughes Inteq

Your ref : MWD Survey
Our ref : svy3507
License : HOLMBERG GAS UNIT

Date printed : 13-Nov-95
Date created : 8-Nov-95
Last revised : 13-Nov-95

Field is centred on n36 50 0.000,w107 30 0
Structure is centred on n36 57 38.012,w107 50 24

Slot location is n36 57 28.519,w107 50 45.068
Slot Grid coordinates are N 2167951.046, E 496342.302
Slot local coordinates are 960.00 S 1710.00 W
Reference North is True North

AMOCO PRODUCTION COMPANY
SEC.28-T32N-R10W, # 1A
SAN JUAN COUNTY, NEW MEXICO

SURVEY LISTING Page 1
Your ref : MWD Survey
Last revised : 13-Nov-95

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	RECTANGULAR COORDINATES		Dogleg Deg/100Ft	Vert Sect	
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00	
257.00	0.00	0.00	257.00	0.00 N	0.00 E	0.00	0.00	
638.00	1.00	71.70	637.98	1.04 N	3.16 E	0.26	1.01	
1161.00	1.00	106.70	1160.90	1.16 N	11.86 E	0.11	6.03	
1760.00	1.00	129.30	1759.82	3.65 S	20.91 E	0.06	15.24	
2107.00	0.25	71.70	2106.80	5.33 S	23.97 E	0.26	18.40	
2542.00	0.25	275.30	2541.79	4.94 S	23.93 E	0.11	18.06	
3011.00	1.50	336.70	3010.73	0.79 N	20.48 E	0.30	11.40	Last Single Shot Survey
3278.00	0.50	34.30	3277.70	4.96 N	19.76 E	0.49	7.60	
3308.00	0.63	102.90	3307.69	5.03 N	19.99 E	2.15	7.68	
3339.00	2.13	144.70	3338.68	4.53 N	20.49 E	5.52	8.38	
3369.00	4.38	150.40	3368.63	3.07 N	21.38 E	7.57	10.08	
3401.00	6.75	147.90	3400.48	0.42 N	22.98 E	7.44	13.17	
3431.00	9.06	147.30	3430.19	3.06 S	25.20 E	7.70	17.29	
3463.00	10.94	145.20	3461.71	7.68 S	28.29 E	5.98	22.84	
3494.00	13.38	145.40	3492.01	13.04 S	32.01 E	7.87	29.37	
3525.00	15.56	143.30	3522.02	19.33 S	36.53 E	7.23	37.11	
3556.00	17.63	143.90	3551.73	26.46 S	41.78 E	6.70	45.96	
3589.00	19.81	143.80	3582.98	35.01 S	48.03 E	6.61	56.55	
3620.00	21.44	142.60	3612.00	43.75 S	54.57 E	5.43	67.47	
3650.00	23.25	141.10	3639.74	52.72 S	61.62 E	6.32	78.87	
3681.00	24.56	140.80	3668.08	62.47 S	69.54 E	4.24	91.41	
3713.00	24.25	139.20	3697.22	72.60 S	78.03 E	2.28	104.60	
3744.00	25.44	136.90	3725.35	82.28 S	86.74 E	4.94	117.55	
3776.00	26.81	137.80	3754.08	92.64 S	96.29 E	4.46	131.55	
3806.00	27.56	141.80	3780.77	103.11 S	105.12 E	6.58	145.21	
3836.00	27.39	140.80	3807.39	113.91 S	113.78 E	1.64	159.03	
3868.00	25.26	143.90	3836.07	125.14 S	122.45 E	7.92	173.21	
3897.00	25.56	146.40	3862.27	135.35 S	129.56 E	3.84	185.65	
3929.00	26.94	147.90	3890.96	147.24 S	137.23 E	4.78	199.78	
3960.00	28.75	147.60	3918.38	159.48 S	144.96 E	5.86	214.23	
3991.00	30.94	147.40	3945.26	172.49 S	153.25 E	7.07	229.63	
4021.00	33.50	146.40	3970.64	185.89 S	161.99 E	8.72	245.60	
4053.00	36.19	144.60	3996.90	200.95 S	172.35 E	9.00	263.88	
4085.00	38.31	142.80	4022.37	216.55 S	183.82 E	7.45	283.24	
4117.00	40.06	142.60	4047.18	232.63 S	196.07 E	5.48	303.45	
4147.00	41.63	143.10	4069.87	248.27 S	207.92 E	5.34	323.07	
4179.00	42.69	143.80	4093.59	265.53 S	220.71 E	3.62	344.55	
4211.00	41.75	144.32	4117.29	282.94 S	233.33 E	3.13	366.05	
4242.00	42.50	143.80	4140.28	299.77 S	245.54 E	2.67	386.84	
4273.00	44.31	143.30	4162.80	316.90 S	258.19 E	5.94	408.14	
4305.00	43.81	142.40	4185.80	334.64 S	271.63 E	2.50	430.39	
4336.00	42.81	142.10	4208.35	351.45 S	284.65 E	3.29	451.64	
4368.00	43.81	142.30	4231.64	368.80 S	298.10 E	3.15	473.58	
4399.00	45.44	142.80	4253.70	386.09 S	311.34 E	5.38	495.35	
4431.00	44.81	142.20	4276.28	404.08 S	325.14 E	2.38	518.02	
4463.00	43.81	141.60	4299.18	421.67 S	338.94 E	3.39	540.36	
4493.00	44.56	141.60	4320.69	438.05 S	351.92 E	2.50	561.25	
4526.00	43.69	140.70	4344.38	455.95 S	366.34 E	3.25	584.20	
4558.00	42.50	139.70	4367.74	472.74 S	380.33 E	4.29	606.01	

All data is in feet unless otherwise stated
Coordinates from SLOT #1 and TVD from RKB (6054.00 Ft above mean sea level).
Vertical section is from wellhead on azimuth 144.00 degrees.
Declination is 11.71 degrees, Convergence is 0.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes Inteq


*Holmberg Gas Unit #1-A*AMOCO PRODUCTION COMPANY
SEC.28-T32N-R10W, # 1A
SAN JUAN COUNTY, NEW MEXICOSURVEY LISTING Page 2
Your ref : MWD Survey
Last revised : 13-Nov-95

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	RECTANGULAR COORDINATES	Dogleg Deg/100ft	Vert Sect
4589.00	43.13	139.90	4390.48	488.84 S 393.93 E	2.08	627.02
4620.00	44.69	140.70	4412.82	505.38 S 407.66 E	5.34	648.48
4652.00	44.75	140.30	4435.56	522.75 S 421.98 E	0.90	670.95
4683.00	44.25	140.20	4457.66	539.46 S 435.87 E	1.63	692.63
4715.00	43.88	140.40	4480.66	556.58 S 450.09 E	1.24	714.84
4747.00	43.25	139.70	4503.85	573.49 S 464.25 E	2.48	736.04
4779.00	42.75	139.40	4527.25	590.10 S 478.41 E	1.69	758.60
4810.00	42.56	140.10	4550.05	606.13 S 491.98 E	1.65	779.55
4842.00	43.00	139.90	4573.54	622.78 S 505.95 E	1.44	801.23
4874.00	44.69	141.20	4596.61	639.89 S 520.03 E	5.98	823.35
4906.00	45.06	141.30	4619.29	657.50 S 534.16 E	1.18	845.90
4936.00	45.00	141.40	4640.49	674.08 S 547.42 E	0.31	867.11
4967.00	44.94	141.10	4662.42	691.16 S 561.13 E	0.71	888.99
4998.00	44.81	141.10	4684.39	708.19 S 574.87 E	0.42	910.83
5028.00	44.81	142.10	4705.68	724.76 S 588.00 E	2.35	931.96
5059.00	44.56	142.20	4727.72	741.97 S 601.38 E	0.84	953.74
5089.00	44.63	142.10	4749.08	758.60 S 614.30 E	0.33	974.80
5121.00	45.06	142.60	4771.77	776.47 S 628.08 E	1.74	997.35
5153.00	44.88	142.30	4794.41	794.40 S 641.87 E	0.87	1019.96
5183.00	44.38	142.20	4815.76	811.06 S 654.77 E	1.68	1041.03
5215.00	44.75	141.90	4838.56	828.77 S 668.58 E	1.33	1063.47
5246.00	45.50	142.40	4860.43	846.12 S 682.06 E	2.68	1085.42
5277.00	45.56	142.20	4882.14	863.62 S 695.59 E	0.50	1107.54
5308.00	45.63	141.70	4903.84	881.06 S 709.24 E	1.17	1129.67
5337.00	45.44	140.90	4924.15	897.21 S 722.18 E	2.07	1150.34
5429.00	44.69	139.40	4989.13	947.21 S 763.90 E	1.41	1215.32
5522.00	44.63	137.40	5055.28	996.09 S 807.30 E	1.51	1280.37
5615.00	44.13	136.70	5121.75	1043.70 S 851.62 E	0.75	1344.94
5708.00	43.56	135.30	5188.03	1090.04 S 896.36 E	1.21	1400.73
5805.00	43.06	133.80	5259.41	1136.72 S 943.77 E	1.18	1474.36
5850.00	42.89	133.34	5292.34	1157.86 S 966.00 E	0.79	1504.53 Projected Survey
5885.00	42.50	133.00	5318.17	1181.73 S 991.60 E	—	1521.86 Projected Survey

*These calculations are correct to the best of my knowledge.**Bradley D. Silveo**Bradley D. Silveo*
Amoco Production Company
*November 14, 1995*All data is in feet unless otherwise stated
Coordinates from SLOT #1 and TVD from RKB (6054.00 Ft above mean sea level).
Vertical section is from wellhead on azimuth 144.00 degrees.
Declination is 11.71 degrees, Convergence is 0.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

STATE OF COLORADO)
CITY AND : ss.
COUNTY OF DENVER)

On this the 14th day of November, 19 95, the undersigned, personally appeared, Bradley D. Bilyeu, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he/she executed the same for the purposes therein contained. In witness whereof, I hereunto set my hand and official seal.


Notary Public

My Commission expires:

August 17, 1997





STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

October 16, 1995

Amoco Production Company
P. O. Box 800
Denver, Colorado 80201

Attention: J. W. Hawkins

Administrative Order DD-121

Dear Mr. Hawkins:

Reference is made to Amoco Production Company's application dated September 15, 1995 for authorization to directional drill a high-angle well to a pre-determined bottom-hole location in order to further develop the Blanco-Mesaverde Pool underlying an existing 319.51-acre standard gas spacing and proration unit ("GPU") comprising Lots 1 and 4, the E/2 NE/4, and the SE/4 (E/2 equivalent) of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

The Division Director Finds That:

- (1) The application has been duly filed under the provisions of Rule 111(D) and (E) of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;
- (2) By Order No. R-8170, as amended, the Division promulgated the "*General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool*", which includes provisions for 320-acre gas spacing and proration units and well location requirements whereby the initial well drilled on a GPU shall be located be no closer than 790 feet to the outer boundary of the quarter section on which the well is located and not closer than 130 feet to any quarter-quarter section line or subdivision inner boundary and the infill well drilled on an existing GPU shall be in the quarter section not containing a Mesaverde gas well and shall be located with respect to the restrictions as previously described;
- (3) Initial development of Blanco-Mesaverde gas pool production within the subject 319.51-acre GPU occurred with the Holmberg Gas Com Well No. 1 (API No. 30-045-11281) being drilled in 1954 at a standard gas well location 890 feet from the North line and 1650 feet from the East line (Lot 1/Unit B) of said Section 28. The Holmberg Gas Com Well No. 1-A (API No. 30-045-22631) was drilled in 1977 as an "infill well" at a

standard gas well location 1165 feet from the South line and 810 feet from the East line (Unit P) of said Section 28. It is our understanding that the Holmberg Gas Com Well No. 1 has been plugged and abandoned;

- (4) The applicant/operator proposes to drill its replacement well for the Holmberg Gas Com Well No. 1 from a standard gas well location in Lot 1 (NW/4 NE/4 equivalent) of said Section 28, kick-off of vertical at a depth of approximately 3600 feet in a southerly direction, build to an angle of approximately 45 degrees and continue to drill in such a manner as to bottom back into the Blanco-Mesaverde Pool, with total horizontal displacement of said well to be approximately 1300 feet;
- (5) A high angle wellbore as proposed should provide Amoco a better opportunity to encounter the naturally occurring fracture system in the Mesaverde formation which should result in a higher production rate and an increased ultimate recovery of gas from this GPU.
- (6) The applicable drilling window or "producing area" for said wellbore should include that area within the NE/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines; and,
- (7) It appearing the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Amoco Production Company, is hereby authorized to directionally drill its proposed replacement well for the above-described Holmberg Gas Com Well No. 1 from a standard gas well location in Lot 1 (NW/4 NE/4 equivalent) of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico, by kicking-off from vertical in a southerly direction and continue drilling in such a manner as to bottom back into the Blanco-Mesaverde Pool (total horizontal displacement of said well to be approximately 1300 feet) within a drilling window or "producing area" the NE/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant

shall further provide a copy of said wellbore surveys to the Santa Fe and Aztec offices of the Division upon completion.

(3) Blanco-Mesaverde gas production from both the existing Holmberg Gas Com Well No. 1-A (API No. 30-045-22631), located at a standard infill gas well location 1165 feet from the South line and 810 feet from the East line (Unit P) of said Section 28, and the proposed well as described above shall be attributed to the existing 319.51-acre standard gas spacing and proration unit ("GPU") comprising Lots 1 and 4, the E/2 NE/4, and the SE/4 (E/2 equivalent) of Section 28.

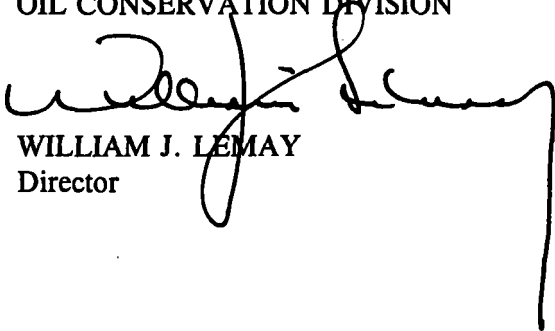
(4) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F and Order No. R-8170, as amended.

(5) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(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


WILLIAM J. LEMAY
Director

S E A L

WJL/MES/kv

cc: Oil Conservation Division - Aztec
U. S. Bureau of Land Management - Farmington
File: Case 11,274

DD-AMOC. 2

Rec. 9/22
Susp. 10/12
Released 10/13

October 16, 1995

Amoco Production Company
P. O. Box 800
Denver, Colorado 80201

Attention: J. W. Hawkins

Administrative Order DD- 121

Dear Mr. Hawkins:

Reference is made to Amoco Production Company's application dated September 15, 1995 for authorization to directional drill a high-angle well to a pre-determined bottom-hole location in order to further develop the Blanco-Mesaverde Pool underlying an existing 319.51-acre standard gas spacing and proration unit ("GPU") comprising Lots 1 and 4, the E/2 NE/4, and the SE/4 (E/2 equivalent) of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

The Division Director Finds That:

- (1) The application has been duly filed under the provisions of Rule 111(D) and (E) of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;
- (2) By Order No. R-8170, as amended, the Division promulgated the "*General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool*", which includes provisions for 320-acre gas spacing and proration units and well location requirements whereby the initial well drilled on a GPU shall be located be no closer than 790 feet to the outer boundary of the quarter section on which the well is located and not closer than 130 feet to any quarter-quarter section line or subdivision inner boundary and the infill well drilled on an existing GPU shall be in the quarter section not containing a Mesaverde gas well and shall be located with respect to the restrictions as previously described;
- (3) Initial development of Blanco-Mesaverde gas pool production within the subject 319.51-acre GPU occurred with the Holmberg Gas Com Well No. 1 (API No.

30-045-11281) being drilled in 1954 at a standard gas well location 890 feet from the North line and 1650 feet from the East line (Lot 1/Unit B) of said Section 28. The Holmberg Gas Com Well No. 1-A (**API No. 30-045-22631**) was drilled in 1977 as an "infill well" at a standard gas well location 1165 feet from the South line and 810 feet from the East line (Unit P) of said Section 28. It is our understanding that the Holmberg Gas Com Well No. 1 has been plugged and abandoned;

- (4) The applicant/operator proposes to drill its replacement well for the Holmberg Gas Com Well No. 1 from a standard gas well location in Lot 1 (NW/4 NE/4 equivalent) of said Section 28, kick-off of vertical at a depth of approximately 3600 feet in a southerly direction, build to an angle of approximately 45 degrees and continue to drill in such a manner as to bottom back into the Blanco-Mesaverde Pool, with total horizontal displacement of said well to be approximately 1300 feet;
- (5) A high angle wellbore as proposed should provide Amoco a better opportunity to encounter the naturally occurring fracture system in the Mesaverde formation which should result in a higher production rate and an increased ultimate recovery of gas from this GPU.
- (6) The applicable drilling window or "producing area" for said wellbore should include that area within the NE/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines; and,
- (7) It appearing the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Amoco Production Company, is hereby authorized to directionally drill its proposed replacement well for the above-described Holmberg Gas Com Well No. 1 from a standard gas well location in Lot 1 (NW/4 NE/4 equivalent) of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico, by kicking-off from vertical in a southerly direction and continue drilling in such a manner as to bottom back into the Blanco-Mesaverde Pool (total horizontal displacement of said well to be approximately 1300 feet) within a drilling window or "producing area" the NE/4 equivalent of said Section 28 that is no closer than 790 feet to the quarter section lines.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Aztec offices of the Division upon completion.

(3) Blanco-Mesaverde gas production from both the existing Holmberg Gas Com Well No. 1-A (API No. 30-045-22631), located at a standard infill gas well location 1165 feet from the South line and 810 feet from the East line (Unit P) of said Section 28, and the proposed well as described above shall be attributed to the existing 319.51-acre standard gas spacing and proration unit ("GPU") comprising Lots 1 and 4, the E/2 NE/4, and the SE/4 (E/2 equivalent) of Section 28.

(4) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F and Order No. R-8170, as amended.

(5) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(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

WILLIAM J. LEMAY
Director

S E A L

*Administrative Order DD-*****

Amoco Production Company

October 16, 1995

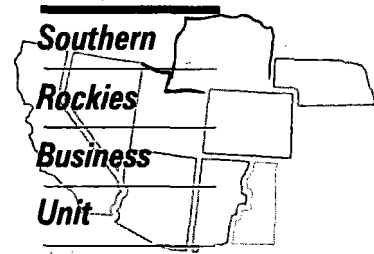
Page No. 4

WJL/MES/kv

cc: Oil Conservation Division - Aztec
U. S. Bureau of Land Management - Farmington
File: Case 11,274



OIL CONSERVATION DIVISION
RECEIVED
'95 SEP 22 AM 8 52



September 15, 1995

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

Application to Drill a Directional Well
Rule 111 as Amended by Order No. R-10388
Holmberg Gas Unit #1 Well
890' FNL, 1650' FEL, Section 28-T32N-R10W
Blanco Mesaverde Pool
San Juan County, New Mexico

*New Drill to replace
the original*

Amoco Production Company hereby requests administrative approval to directionally drill a replacement well for the Holmberg Gas Unit #1 well referenced above as a high angle horizontal well in the Blanco Mesaverde Pool. The referenced well was previously completed as a producing well in the Blanco Mesaverde Pool but has been plugged and abandoned. Amoco believes that directionally drilling the replacement well will provide a better opportunity to encounter the naturally occurring fracture system in the Mesaverde formation which will increase the producing rate and ultimate recovery of gas for this well. The surface location for the replacement well will be about 60' south of the old wellbore. We are requesting the Project Area for this well to be the Blanco Mesaverde gas proration unit consisting of E/2 Section 28, T32N-R10W with the Producing Area for the well to consist of a rectangle inside the gas proration unit that is not closer than 790' from the outer boundaries of the gas proration unit.

In accordance with Rule 111-D.(2), attached to aid in your review are:

- 1) a plat showing the well location, project area and producing area for the project well and the offset spacing units, their wells and operators;
- 2) a vertically oriented plan view for the project well showing top and bottom of the pool, degree of angle to be built, kickoff point, penetration point and lateral length;
- 3) a horizontal plan view for the project well showing the project area, producing area, estimated azimuth and maximum length of the lateral;
- 4) a type log section identifying the top and bottom of the pool.

As notification, a copy of this application will be sent by certified mail return receipt requested to the offset operators shown on the attached list advising them that if they have any objection, it must be filed in writing within twenty (20) days of the date notice was sent.

Sincerely,

J. W. Hawkins
J. W. Hawkins

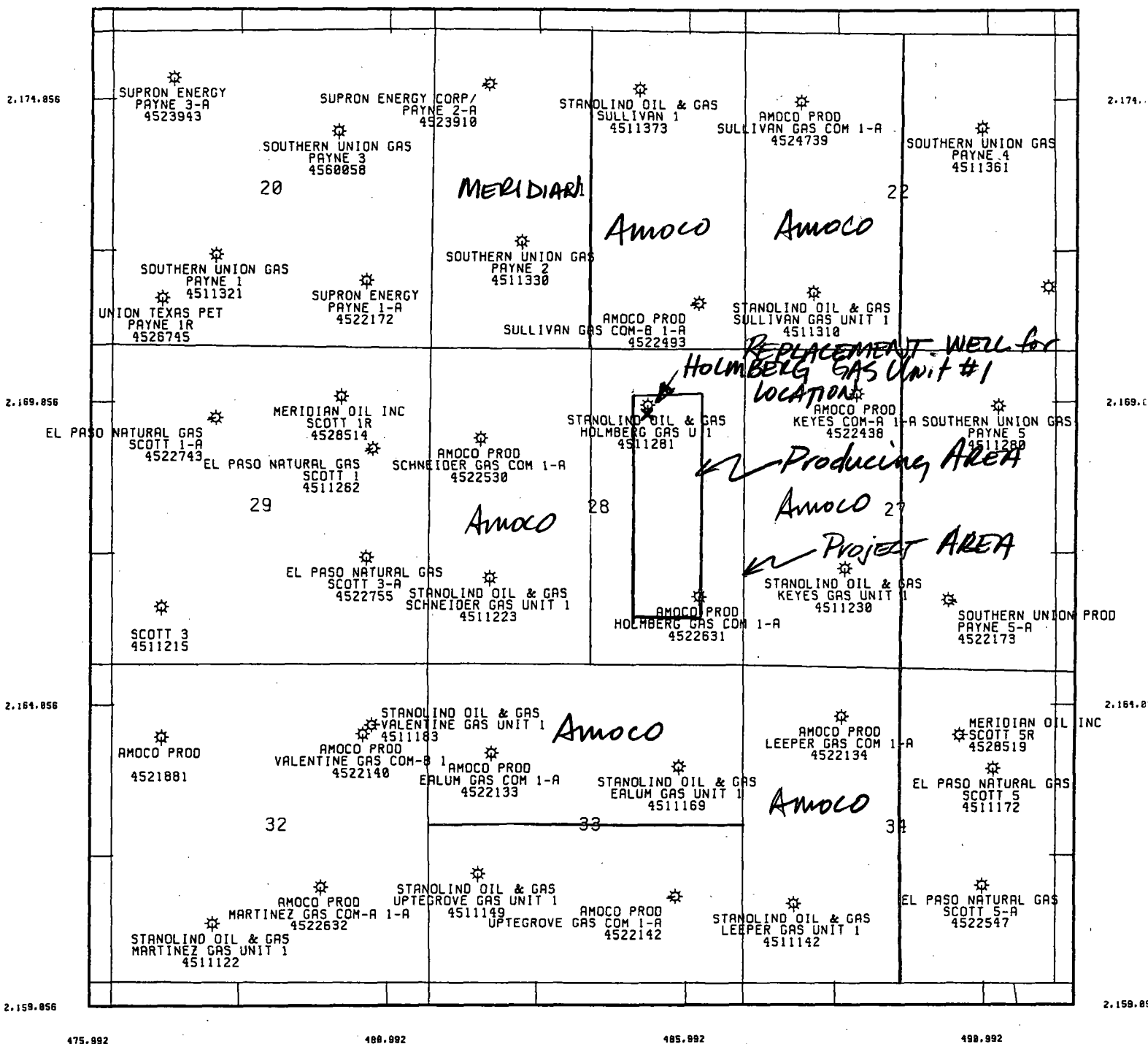
cc: Jack St. John
Gail Jefferson

Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410

*DD-108
DD-AMOC*

OFFSET OWNERS

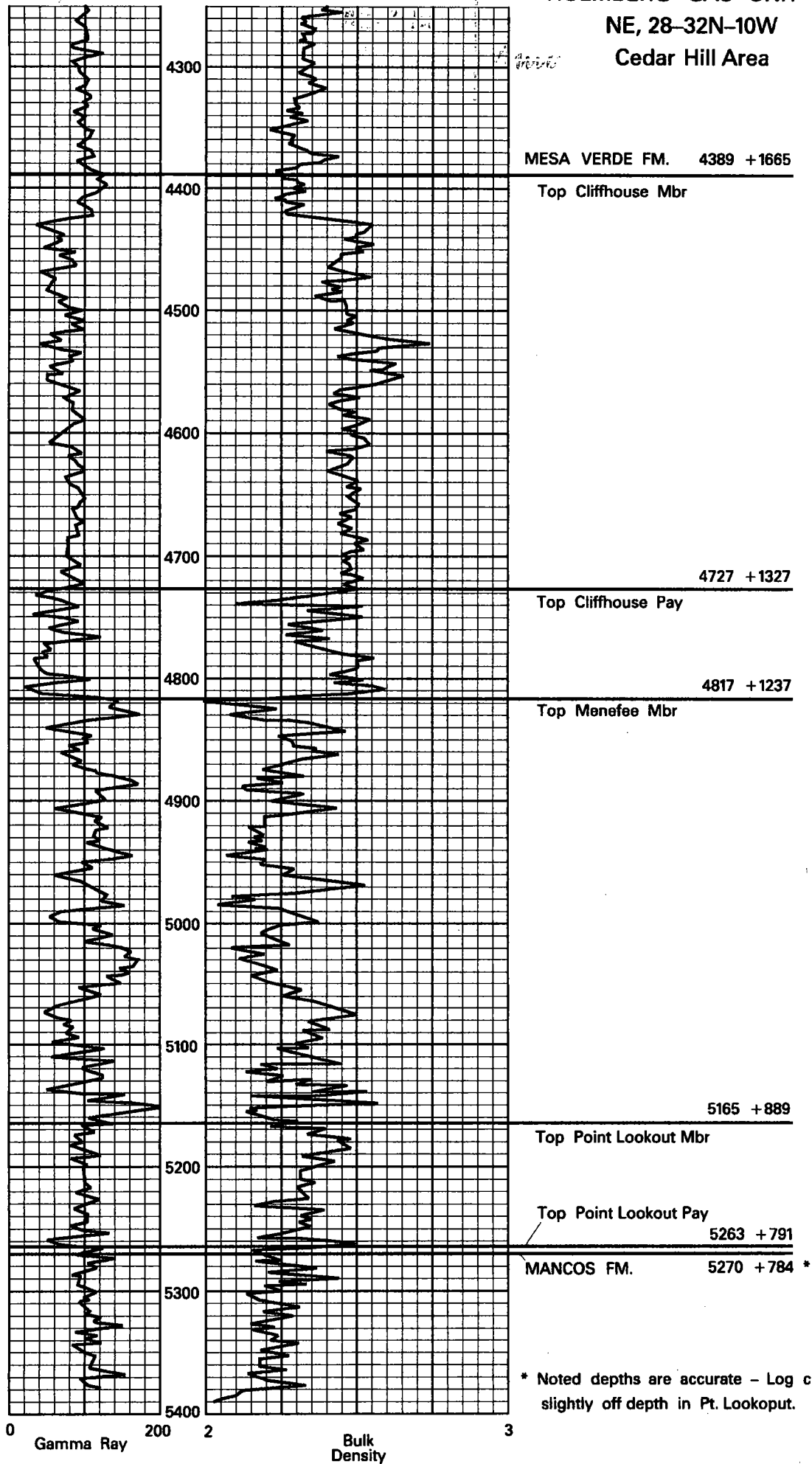
Meridian Oil Inc.
PO Box 4289
Farmington NM 87499



1:24000
STATUTE MILES 0 .2 STATUTE MILES
KILOMETERS 0 .5 KILOMETERS

AMOCO E&P SECTOR			
SOUTHERN ROCKIES BUSINESS UNIT			
SAN JUAN BASIN			
T32N-R10W			
DATE 1-24-88	BY K. LAMBERT	DATE 1-SEP-95	

TYPE LOG
HOLMBERG GAS UNIT #1
NE, 28-32N-10W
Cedar Hill Area



CMD : *
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

10/13/95 16:33:04
OGOMES -EMG5
PAGE NO: 1

Sec : 28 Twp : 32N Rng : 10W Section Type : NORMAL

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E 40.00 Fee owned A	F 40.00 Fee owned	4 39.74 Federal owned	H 40.00 Fee owned

PF01 HELP
PF07 BKWD

PF02
PF08 FWD

PF03 EXIT
PF09 PRINT

PF04 GoTo
PF10 SDIV

PF05
PF11

PF06
PF12

79.51
80.00
~~160.00~~
159.51
16
319.51

80.00

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

10/13/95 16:33:12
OGOMES -EMG5
PAGE NO: 2

Sec : 28 Twp : 32N Rng : 10W Section Type : NORMAL

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M 40.00 Fee owned A A	N 40.00 Fee owned	O 40.00 Fee owned	P 40.00 Fee owned A

PF01 HELP
PF07 BKWD

PF02
PF08 FWD

PF03 EXIT
PF09 PRINT

PF04 GoTo
PF10 SDIV

PF05
PF11

PF06
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Stanolind
Holmberg Gas Unit #1
(890 FNL, 1650 FEL) Sec. 28, T32N, R10W
San Juan County, New Mexico
KB: 6054

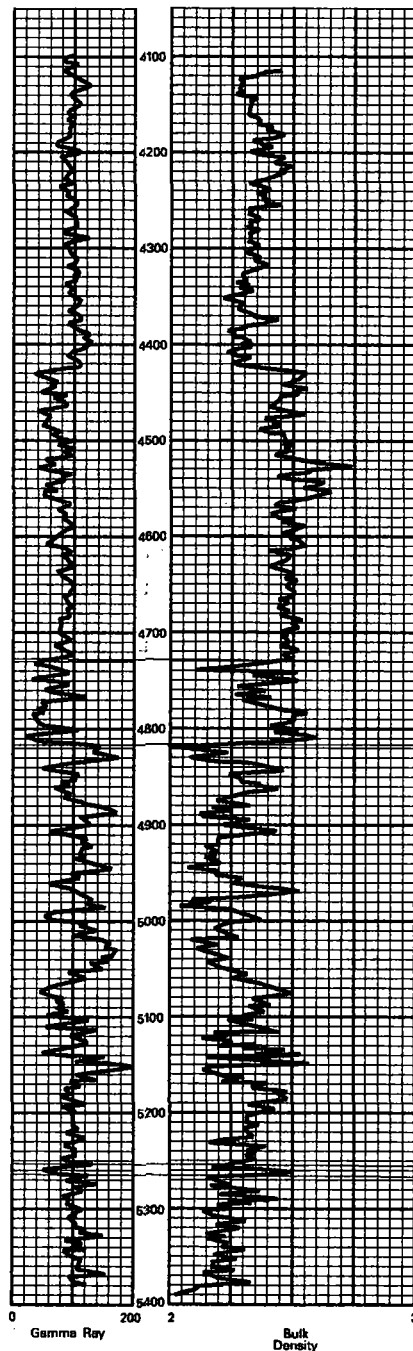
LEWIS SHALE

CLIFF
HOUSE
"E"

CLIFF
HOUSE

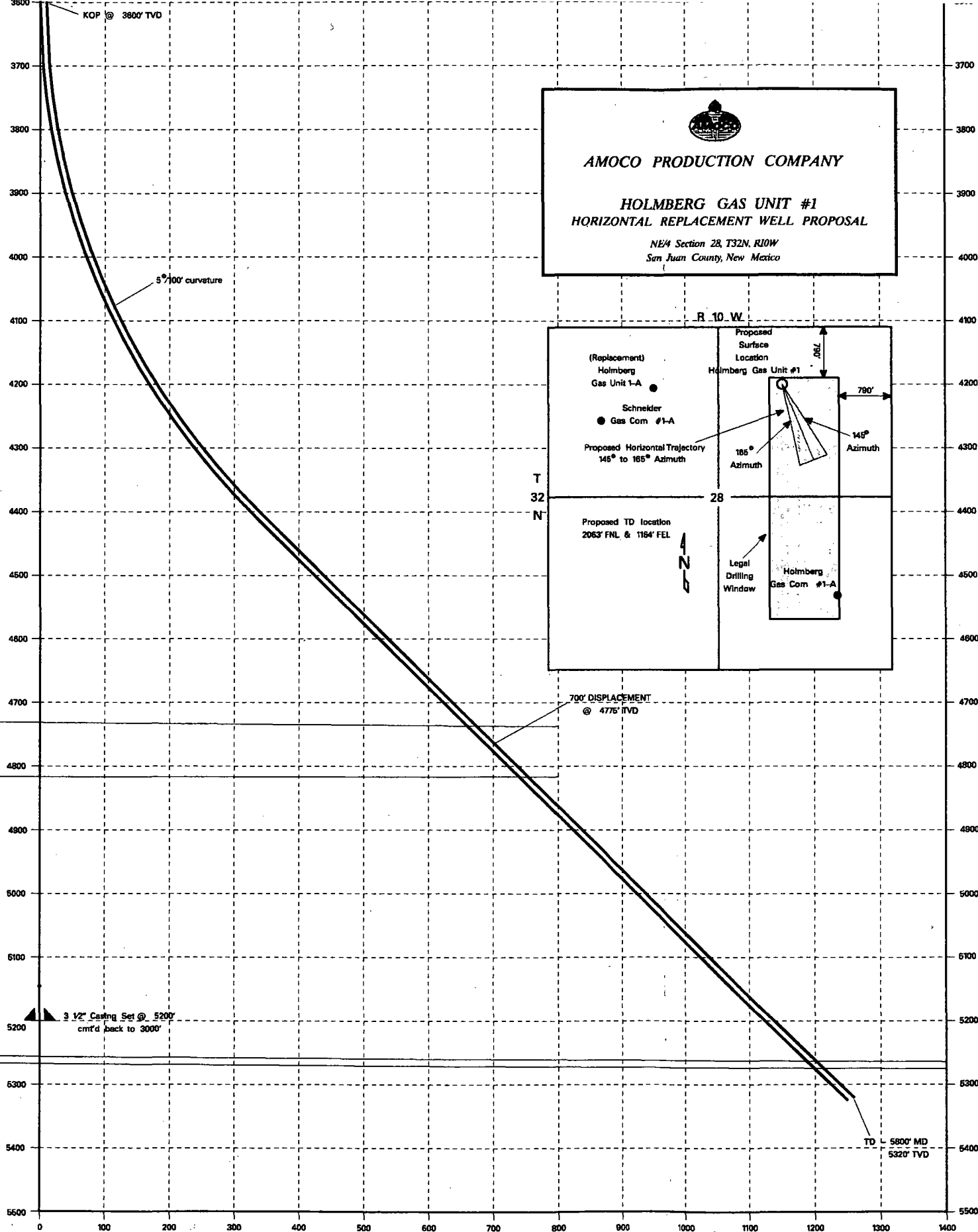
MENELEE

POINT
LOOKOUT



Vertical
Depth
↓

3 1/2" Casing Set @ 5200'
cm'd back to 3000'



AMOCO PRODUCTION COMPANY

HOLMBERG GAS UNIT #1
HORIZONTAL REPLACEMENT WELL PROPOSAL

NE 1/4 Section 28, T32N, R10W
San Juan County, New Mexico

