

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
OIL WELL GAS WELL OTHER Coal Seam
SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
Amoco Production Company ATTN: J. L. Hampton

3. ADDRESS OF OPERATOR
P. O. Box 800 Denver, Colorado 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface
2380' FNL, 1370' FEL SW/NE
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
20 miles from Aztec, NM

10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
1370'

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6392' GR

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
12 1/4"	9 5/8"	36#	250'
8 3/4"	7"	20#	2938'
6 1/4"	4 1/2"	22# 11.6	3174' (TD)

5. LEASE DESIGNATION AND SERIAL NO.
SF-078319 -A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Riddle Gas Com "B"

9. WELL NO.
#1

10. FIELD AND POOL, OR WILDCAT
Basin Fruitland Coal ~~Gas~~

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 30, T31N, R9W

12. COUNTY OR PARISH 13. STATE
San Juan NM

16. NO. OF ACRES IN LEASE
1225.92 905.92

19. PROPOSED DEPTH
3174' TD

17. NO. OF ACRES ASSIGNED TO THIS WELL
320 acres E/2 3/16 1/4

20. ROTARY OR CABLE TOOLS
Rotary

22. APPROX. DATE WORK WILL START*
As soon as permitted

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED GENERAL REQUIREMENTS

200 cf Class B (cement to surface)
823 cf Class B (cement to surface)
None

Notice of Staking was Submitted: 3/20/90

Lease Description:

T31N, R9W:
Sec. 21: W/2 SW/4
Sec. 28: NW/4 NW/4
Sec. 29: Lots 1, 2, 3, 5-12, N/2 N/2
Sec. 30: Lots 5, 6, 8-19 NE/NE

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DIST. 3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED J. L. Hampton / JCB TITLE Sr. Staff Admin. Supervisor DATE 3/28/90

PERMIT NO. _____ APPROVAL DATE _____
APPROVED AS AMENDED

APPROVED BY _____ TITLE _____ DATE APR 20 1990
CONDITIONS OF APPROVAL, IF ANY: _____
John J. Kelly
AREA MANAGER

*See Instructions On Reverse Side

RESERVE

1980 & 1981

OIL CONT. DIV.

DET. 3

Amoco proposes to drill the well to further develop the Fruitland Coal reservoir. The well will be drilled to the surface casing point using native mud. The well will then be drilled to the intermediate casing point with a non-dispersed mud system. The attached modified 12" 3000 psi blowout preventer will be used. Amoco will attempt to complete the Fruitland coal by drilling the interval with water and air. A service unit will probably be used to drill into the coals using the attached modified 6" 3000 psi BOP. If commercial productivity is established, then the well will be completed as an open hole.

SURFACE CASING

<u>Quantity</u>	<u>Size</u>	<u>Weight</u>	<u>Description</u>	<u>Cement Program</u>
250'	9 5/8"	36#	K55 ST&C	200 cf Class B, 2% CaCl ₂ 15.6 ppg

INTERMEDIATE CASING

<u>Quantity</u>	<u>Size</u>	<u>Weight</u>	<u>Description</u>	<u>Cement Program</u>
2938	7"	20#	K55 ST&C	823 cf Class B, 65:35:5 10% salt, .25% dispersant 13.1 ppg 118 cf Class B 2% CaCl ₂ 15.6 ppg

The above casing design is based upon a 9.0#/gallon mud weight.

CONTINGENCY OPERATIONAL PLAN

In the event the well does not yield commercial volumes of gas from the open hole completion, the water filled hole will be mudded-up and weighted-up as necessary (9-11#/gal.) for hole stability and well control. The well will then be deepened approximately 200' into the Pictured Cliffs formation to provide necessary footage for a cased and cemented completion technique. The Fruitland coals will then be perforated and fracture stimulated. The Pictured Cliffs formation will be isolated with cement.

CONTINGENCY LINER

650'	4-1/2"	11.6#	K55 LT&C	250 cf Class B
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The contingency string is based upon an 11.0#/gallon mud weight.

EVALUATION

Mud logs will be the only logs run if the well is completed as an open hole. The log surveys (FDC/GR/CAL, Microlog, Mudlogger) will be run only if the well is drilled into the Pictured Cliffs formation, and only if well condition is suitable to allow proper wireline log interpretation.

Submit to Appropriate District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

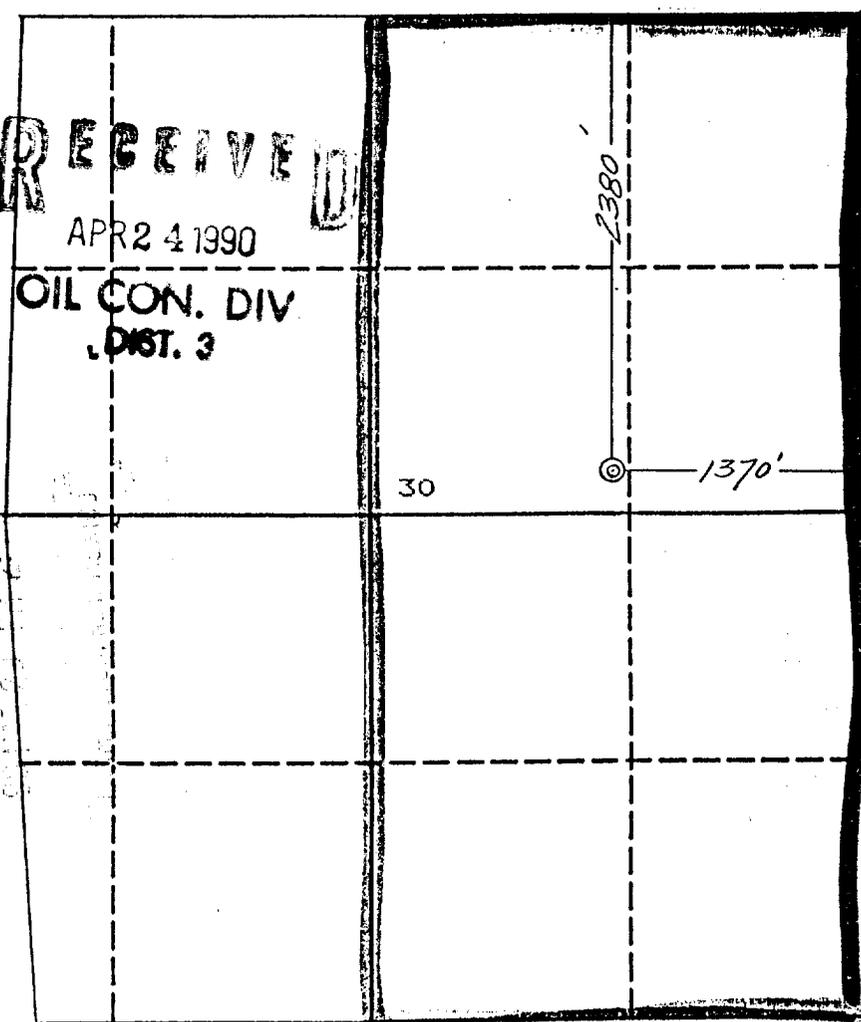
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator AMOCO PRODUCTION COMPANY		Lease RIDDLE GAS COM /B/		Well No. # 1
Unit Letter G	Section 30	Township 31 NORTH	Range 9 WEST	County SAN JUAN
Actual Footage Location of Well: 2380 feet from the NORTH line and 1370 feet from the EAST line				
Ground level Elev. 6392	Producing Formation <i>Leutland Coal</i>	Pool <i>Basin Leutland Coal</i>	Dedicated Acreage: 316.04 Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communization, unitization, force-pooling, etc.? <input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____ If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____ No allowable will be assigned to the well until all interests have been consolidated (by communization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>				

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OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *G.L. Hampton*
 Printed Name: **G. L. Hampton**
 Position: *Staff Admin. Supr*
 Company: *Amoco Prod. Company*
 Date: **3/19/90**

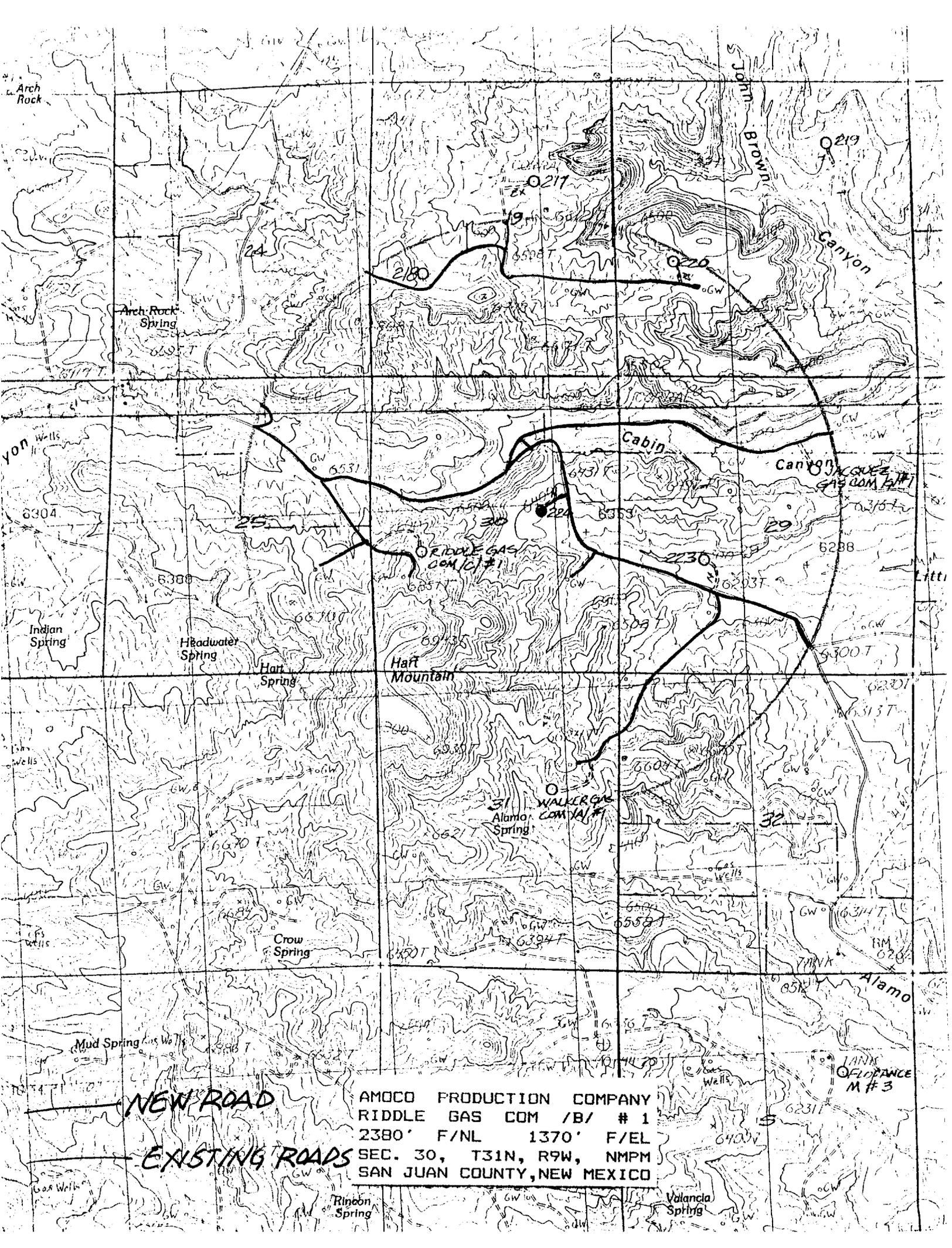
SURVEYOR CERTIFICATION

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 knowledge and belief.

Date Surveyed: **March 14, 1990**

Signature & Seal of Professional Surveyor
GARY D. VANN
 Registered Professional Land Surveyor
7016
 Gary D. Vann
 Certified
7016

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0



NEW ROAD

EXISTING ROADS

AMOCO PRODUCTION COMPANY
 RIDDLE GAS COM /B/ # 1
 2380' F/NL 1370' F/EL
 SEC. 30, T31N, R9W, NMPM
 SAN JUAN COUNTY, NEW MEXICO

TANK OF FLORENCE M # 3

Rincon Spring

Valencia Spring