

SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

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 ☒

Coal Seam  
OTHER

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Amoco Production Company

3. ADDRESS OF OPERATOR

2325 East 30th Street, Farmington NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

1980' FSL x 1095' FWL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

20 miles northeast of Aztec NM

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drig. unit line, if any)

1095'

16. NO. OF ACRES IN LEASE

640.00

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320 W 12 314.17

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH  
See attached plan

3364'

20. ROTARY OR CABLE TOOLS

Rotary

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

6271' GR

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED

22. APPROX. DATE WORK WILL START\*

PROPOSED CASING AND CEMENTING PROGRAM

This action is subject to permit and approval of the Bureau of Land Management, U.S. Department of the Interior, as required by 30 U.S.C. 3135.3

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36# K55	250'	200 cf Class B
8-3/4"	7"	20# K55	2893'	812 cf Class B
6-1/4"	5-1/2"	23# P110	3104'	

Notice of Staking was submitted 4-17-89.

Lease description:

T31N-R9W, NMPM  
Sec. 22: All

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. J. Hampton*

TITLE Admin. Supv.

DATE 5/12/89

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED  
AS AMENDED

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

SEP 01 1989

AREA MANAGER

\*See Instructions On Reverse Side

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 11" 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 a 5-1/2" uncemented liner will be run. Amoco reserves the right to utilize a drilling rig to drill this hole section.

Quantity	Size	Weight	Description	Cementing Program
<u>SURFACE CASING</u>				
250'	9-5/8"	36#	K55 ST&C	200 cf Class B, 2% CaCl <sub>2</sub> 15.6 ppg
<u>INTERMEDIATE STRING</u>				
2893'	7"	20#	K55 ST&C	812 cf Class B, 65:35:6 10% salt, .25% dispersant 13.1 ppg 118 cf Class B, 2% CaCl <sub>2</sub> 15.6 ppg
<u>LINER</u>				
300'	5-1/2"	23#	P110 LT&C	None

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 250' 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#	K-55 LT&C	250 cf Class B
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The contingency string is based upon a 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, DIL/SP/GR, 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 <b>AMOCO PRODUCTION COMPANY</b>		Lease <b>RIDDLE B-1</b>		Well No. <b># 2</b>
Unit Letter <b>L</b>	Section <b>22</b>	Township <b>31 NORTH</b>	Range <b>9 WEST</b>	County <b>SAN JUAN</b>
Actual Footage Location of Well: <b>1980</b> feet from the <b>SOUTH</b> line and <b>1095</b> feet from the <b>WEST</b> line				
Ground level Elev. <b>6271</b>	Producing Formation <b>Fruitland</b>	Pool <b>Basin Fruitland Coal Gas</b>	Dedicated Acreage: <b>31/4 17</b> <b>W/2 320 Acres</b>	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 communitization, unitization, force-pooling, etc.? <input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>				

OPERATOR CERTIFICATION

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

Signature  
**B.D. Shaw**

Printed Name  
**B.D. Shaw**

Position  
**Adm. Supv.**

Company  
**Amoco Prod.**

Date  
**4-17-89**

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.

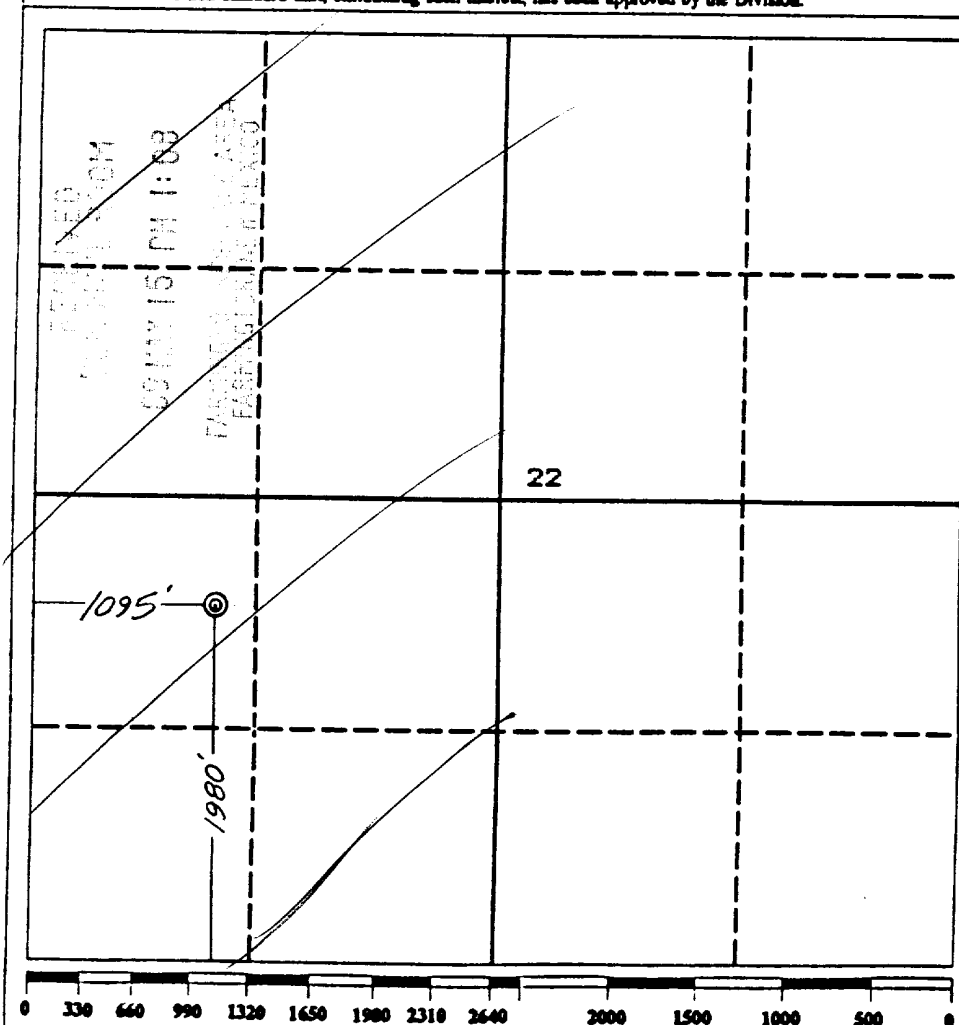
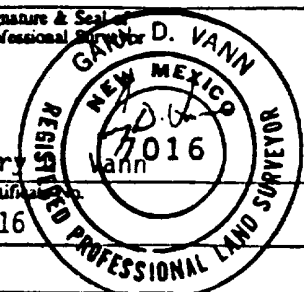
Date Surveyed  
**April 12, 1989**

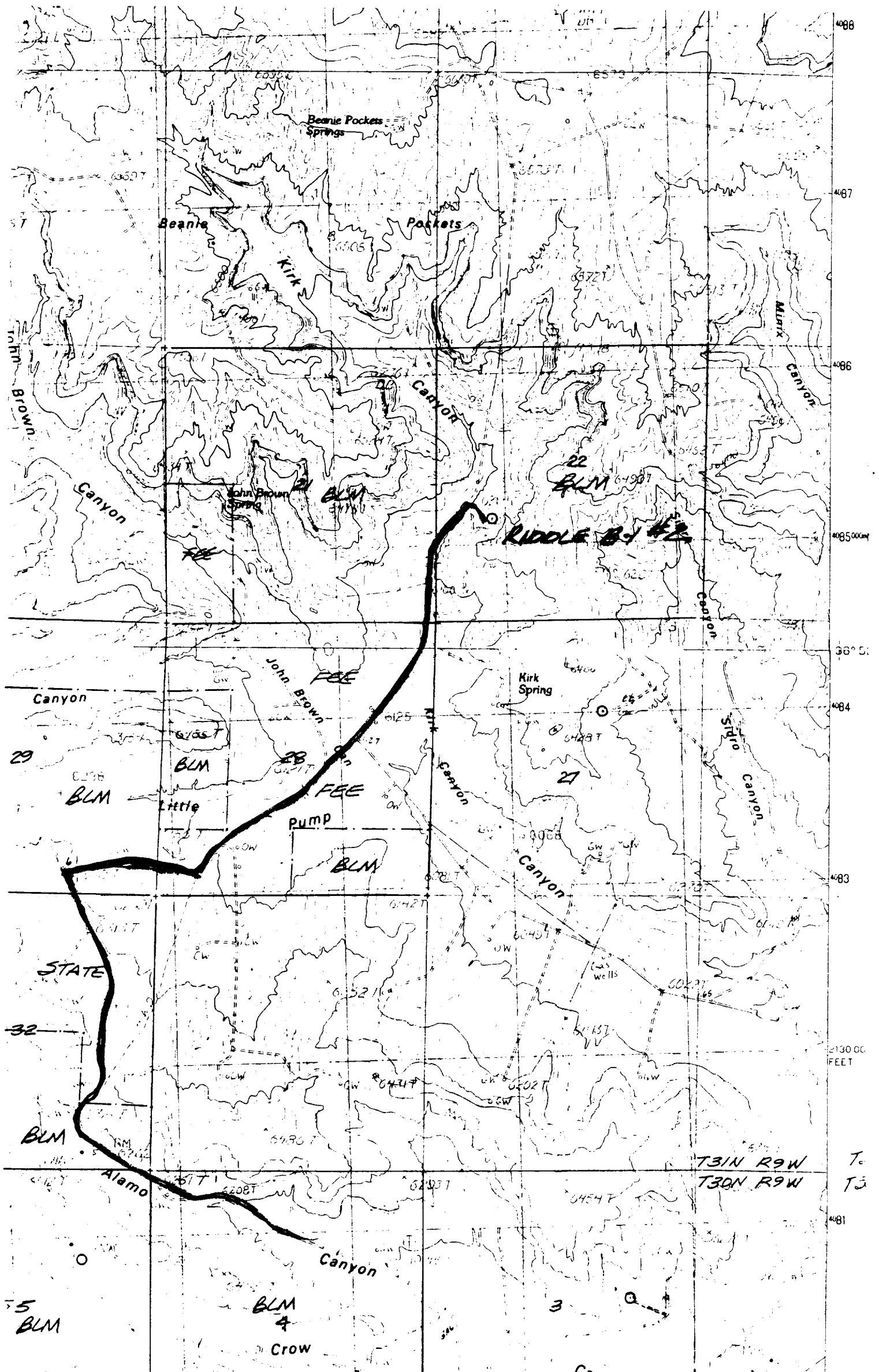
Signature & Seal of  
Professional Surveyor

**GARY D. VANN**  
**NEW MEXICO**  
**REGISTERED PROFESSIONAL LAND SURVEYOR**  
**7016**

Gary D. Vann

Certification  
7016





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
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verse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <u>Coal seam</u>	5. LEASE DESIGNATION AND SERIAL NO. <u>nm-012647</u>
2. NAME OF OPERATOR <u>Amoco Production Company ATTN: J.L. HAMPTON</u>	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR <u>P. O. Box 800 Denver, Colorado 80201</u>	7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <u>1980' FSL, 1095' FWL NW/SW</u>	8. FARM OR LEASE NAME <u>Riddle B 1</u>
14. PERMIT NO. <u>API</u> <u>30-045-27461</u>	9. WELL NO. <u>2</u>
15. ELEVATIONS (Show whether DF, RT, GR, etc.) <u>6271' GR.</u>	10. FIELD AND POOL, OR WILDCAT <u>Basin Fruitland Coal Gas.</u>
	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <u>Sec. 22, T31N, R9W</u>
	12. COUNTY OR PARISH <u>San Juan</u>
	13. STATE <u>N. Mex</u>

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	MULTIPLE COMPLETE	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	ABANDON*	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>
(Other)	<input type="checkbox"/>		<input type="checkbox"/>

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
FRACTURE TREATMENT	<input type="checkbox"/>	ALTERING CASING	<input type="checkbox"/>
SHOOTING OR ACIDIZING	<input type="checkbox"/>	ABANDONMENT*	<input type="checkbox"/>
(Other) <u>Spud and set casing</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

(Note: Report results of multiple completion or Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Spud a 12 1/4" surface hole on 9/20/89 at 2015 hrs. Drilled to 259 '.  
Set 9 5/8" 36# K-55 surface casing at 259 '. Cemented with 230 SX C.I.B. . Circulated 20 BBLs to the surface.  
Pressure tested casing to 1500 psi. Drilled a 8 3/4" hole to a TD of 2866 ' on 9/24/89 . Set 7" 23# K55 production casing at 2864 ' . Cemented with 500 SX C.I.B. lead in, tail w/100 SX C.I.B. . Circulated 39 BBLs good cement to the surface.

Rig Released at 0615 hrs. on 9/29/89 .

RECEIVED  
FEB 05 1990  
OIL CON. DIV.)  
DIST. 3

18. I hereby certify that the foregoing is true and correct

SIGNED J. Hampton/CUB TITLE Sr. Staff Admin. Supv. DATE 12/18/89  
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

TABULATION OF DEVIATION TESTS

\* \* AMOCO PRODUCTION COMPANY \* \*

<u>DEPTH</u>	<u>DEVIATION</u>
245'	1 1/4"
725'	1 1/4"
1602'	1"
2092'	1"
2592'	1"
2866'	1"

**RECEIVED**  
FEB 21 1990  
OIL CON. DIV.  
DIST. 3

A F F I D A V I T

THIS IS TO CERTIFY that to the best of my knowledge, the above tabulation details the deviation tests taken on AMOCO PRODUCTION COMPANY'S

Riddle B1 #2 NW/SW Sec. 22, T31N, R9W  
San Juan County, New Mexico

Signed CL Burton  
Title SR. Admin. Analyst

THE STATE OF COLORADO )  
COUNTY OF DENVER ) SS.

BEFORE ME, the undersigned authority, on this day personally appeared Cindy Burton known to me to be SR. Admin. Analyst for Amoco Production Company and to be the person whose name is subscribed to the above statement, who, being by me duly sworn on oath, states that he has knowledge of the facts stated herein and that said statement is true and correct.

SUBSCRIBED AND SWORN to before me, a Notary Public in and for said County and State this 16 day of February, 19 90.

Julie A. Victor  
Notary Public

My Commission Expires: 4-7-90