

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT - " for such proposals

RECEIVED  
BLM MAIL ROOM  
65 OCT 20 PM 2: 01  
070 FARMINGTON, NM

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Amoco Production Company

Attention:

Patty Haefele

3. Address and Telephone No.

P.O. Box 800, Denver, Colorado 80201

(303) 830-4988

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

790' FNL 1750' FEL Sec. 19 T 31N R R9W Unit B

5. Lease Designation and Serial No.

SF-078336-B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Barrett LS 2

9. API Well No.

3004510641

10. Field and Pool, or Exploratory Area

Blanco Mesaverde

11. County or Parish, State

San Juan New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other repair-horizontal drill

- ☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

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

13. 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.)\*

Amoco Production Company requests permission to horizontally drill the subject well per the attached procedure.

RECEIVED  
OCT 31 1995  
OIL & GAS DIV.  
DEPT. OF THE INTERIOR

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

Signed

Patty Haefele

Title

Staff Assistant

Date

10-19-1995

(This space for Federal or State office use)

Approved by

Title

Conditions of approval, if any:

APPROVED

OCT 23 1995

DISTRICT MANAGER

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

NMOC

\* See Instructions on Reverse Side

177-123

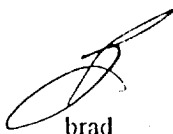
August 28, 1995

Barrett LS #2  
High angle horizontal  
San Juan County, New Mexico

## DRILLING PROCEDURE

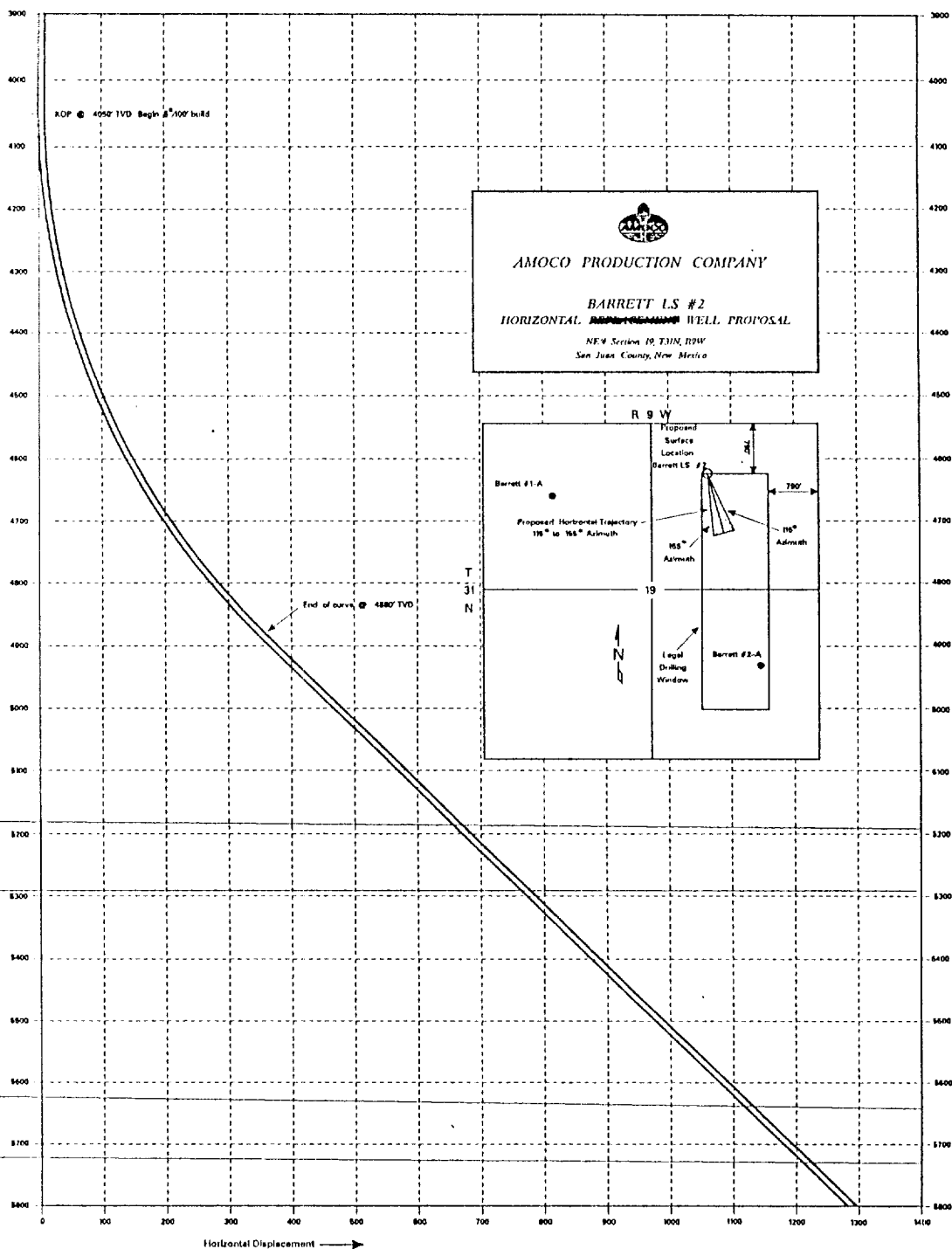
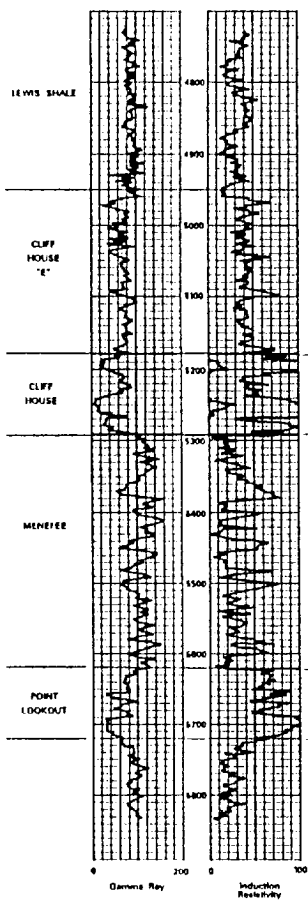
The subject well has been selected by the CRACK Team as a candidate for the second high angle intercept well in our 1995 series--the Riddle "D" #4-A well being the first. The fracture/fault is interpreted at approximately 660' to the Southeast, thus requiring a fairly long reach to intercept at 45 degrees in the Cliff House. Total offset for this well at TMD is prognosed to be 1,250' upon reaching the Mancos.

1. MIRURT complete with air package, dual double ram preventers and dual blood lines. Nipple down tree, nipple up BOE, test to 250 and 1,000 psi. Pull tubing (none shown on wellbore diagram-I'm presuming), inspect and stand back if usable.
2. Set cement retainer at 4,050' and squeeze the Mesaverde with 250 sx of 50:50 Pozmix containing 2 % gel, 6 % salt, 0.4 % 344, 0.50 #/sx floccle and 10 #/sx gilsonite. If no squeeze obtained, clear tubing and retainer, WOC for 6 hours and test to 500 psi. If no test, pump an additional 150 sx of the same slurry. After obtaining a squeeze, test casing to 500 psi--repair if necessary. Pick up the 3.500" drill string while WOC.
3. Run gyroscope survey and set oriented whipstock in 7.000" casing at 4,045 with azimuth at 135 degrees.. Cut window in the casing from 4,030 to 4,045 using air/mist. Clean entry, drill a few feet of hole and dry up the hole if we singleshot the hole. (Dependent on outcome of using GeoService on the Riddle, either use the MWD or singleshot survey the build.)
4. Pick up a Sperry 4.750" air motor with a 6.125 Smith DDP bit and build angle at 5 degrees per 100' to 45 degrees. Maintain azimuth at 120 to 150 degrees. (Although the azimuth angle isn't extremely critical, the importance of keeping a usable well bore is. Do not allow hole to dogleg-make corrections carefully and smoothly)
5. After reaching 45 degrees, TOH and pick up rotating assembly, with or without a motor dependent on the hole tendency to allow strictly rotational work and still maintain the 45 degrees.
6. Rotate ahead to intersect the top of the Cliff House at 5,187' at a displacement of 660' from the original well bore; correct with motor runs if necessary. Continue rotating, maintaining the 45 degree angle and 135 degree azimuth until the Mancos top is drilled at a TVD of 5,750'. Should a large productive fracture be encountered, a decision may be made to cease drilling operations.
7. Clean hole and run 4.500" casing to total measured depth with external casing packers as required to protect fractures from cement contamination. Insure that a stage tool is placed at the top of the Cliff House and that the upper Mesaverde and the Lewis Shale is cemented back into the existing 7.000" casing. Utilize 50:50 Pozmix containing 2 % gel, 6 % salt, 0.4 % Halad 344, 0.25 #/sx floccle mixed and pumped at 13.5 ppg. Use 40 % excess.
8. Drill out the cement and equipment as required and run 2.375" tubing with a muleshoe on bottom and a SN one joint up. Rig down and move out drilling tools. If liquid loading appears to be a problem, design and install a pumping unit. Keep well flowing while rigging down and connect to sales ASAP.



brad

Typical M.V. Log  
T3N, R3W  
San Juan County, New Mexico



## PRELIMINARY

AMOCO PRODUCTION COMPANY  
DRILLING AND COMPLETION PROGRAMFile No.: barrett.xlw  
Date: 8/31/95Lease: Barrett Well No. LS #2  
County: San Juan, New Mexico Location: NE/4 Section 19, T31N, R09W  
Former name: Same Field: Mesaverde

8/31/95 10:02

OBJECTIVE: Exploit horizontal Mesaverde	
<b>METHOD OF DRILLING</b>	
TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 - TD
<b>LOGGING PROGRAM</b>	
TYPE	DEPTH
<b>REMARKS:</b>	
<b>SPECIAL TESTS</b>	
TYPE	DEPTH INTERVAL, ETC
None	
<b>Remarks:</b>	

<b>APPROXIMATE DEPTHS OF GEOLOGICAL MARKER</b>			
Actual GL-----	Estimated KB	6557	6570
Marker		Depth (ft.)	SS Elev. (ft.)
Ojo Alamo, base		2,574	3,996
Fruitland		2,904	3,666
Pictured Cliffs		3,274	3,296
Lewis Shale		3,370	3,200
Cliff House*		5,187	1,383
KOP-----			
4045			
TOTAL DEPTH TVD-----		5,761	
MEASURED DEPTH		6300	
* Possible pay #Probable completion OJO ALAMO IS POSSIBLE USEABLE WATER			
<b>DRILL CUTTING SAMPLES</b>		<b>DRILLING TIME</b>	
FREQUENCY	DEPTH	FREQUENCY	DEPTH
None	** 10'	Geologist	0 - TD
Remarks:			
Mud Logging Program: ** Full two-man mud logging services/Benchmark			
Coring Program: None			

## MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt.	W/L, cc's/30 min.
0-----SCP	existing			
SCP---ICP	existing			
ICP---TD	air/foam			

## REMARKS:

MESAVERDE WILL BE DRILLED HORIZONTALLY TO INTERCEPT FRACTURE SYSTEM

## CASING PROGRAM:

Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor				
Surface	172	9.625	CASING SET	
Intermediate	5,081	7	CASING SET	
WHIPSTOCK	4,045	4.5	6 1/8"	Cement back into existing 7,000" at +/- 3,000'
Production	6,300			

## Remarks:

Southern Rockies engineering staff to design cementing program.

## GENERAL REMARKS:

Southern Rockies engineering staff to design completion program.

Form 46 Reviewed by:

Logging program reviewed by:

PREPARED BY:

APPROVED:

APPROVED:

St John/TerBest/bilyeu

For Production Dept

For Exploration Dept.

Form 46 7-84bw

8/31/95