

Form 1000-5  
December 1989

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0115  
Expires September 30 1990

5. Lease Designation and Serial No.

SF-078318A, SF-078316F

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other Coal Seam

2. Name of Operator

AMOCO PRODUCTION COMPANY

3. Address and Telephone No.

P.O. BOX 800, DENVER COLORADO 80201 ATTN: JOHN HAMPTON RM. 1846

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

890' FWL, 2120' FSL, NE/SW, Sec. 30, T31N R9W

7. If Unit or C.A. Agreement Designation

8. Well Name and No.

Riddle Gas Com "C"

9. API Well No.

#1

10. Field and Pool, or Exploratory Area

Basin Fruitland Coal

11. County or Parish, State

San Juan, NM

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

TYPE OF SUBMISSION

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

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other
- ☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection

Changes to drilling program

(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.)

Please see the attached revised drilling program (changes in formation tops, total depth, etc.).

RECEIVED

MAY 29 1990

OIL CON. DIV.  
DIST. 3

Please contact Cindy Burton (303)830-5119 if you have any questions.

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

Signed

*J. Hampton* CEB

Title Sr. Staff Admin. Supr.

Date

4/27/90

(This space for Federal or State office use)

Approved by

Title

Ken Townsend

Conditions of approval, if any:

FOR

FARMINGVILLE, TEXAS

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 statement or representations as to any matter within its jurisdiction.

# AMOCO PRODUCTION COMPANY DRILLING AND COMPLETION PROGRAM

Date: 4/23/90

Lease & Well # Riddle Gas Com /C/ #1

Cty/St San Juan/NM

FLAC NO.

Field Basin Fruitland Coal Gas

Operation Center San Juan/Durango

Surf. Loc. 31N 9W Sec. 30 2120 FSL 890 FWL

BHLOC same

Coal Degas # 225

CRITICAL WELL \_\_\_\_\_ NON-CRITICAL WELL x

ORIGINAL x REVISION # \_\_\_\_\_

## LOGGING PROGRAM

TYPE	DEPTH INTERVAL
FDC/GR/CAL	TD to base of 7" casing
Microlog	
Mudlogger	TD to base of 7" casing

REMARKS Run FDC at slow speed, high sample rate. Bulk density presentation as per standard coal log format. Customer edit 8 track LIS tape to W. L. Pelzmann in Denver - ASAP.

NOTE Mudlogs will be the only log if the well is completed as an open hole. The log suite stated above will be run only if the well is deepened into the Pictured Cliffs.

## APPROXIMATE DEPTHS OF GEOLOGICAL MARKERS

ESTIMATED ELEVATION 6653 KB

MARKER	TVD ELEV.	MEAS. DEPTH
Ojo Alamo	+4024	2629
Fruitland	+3555	3098
Ignacio Seam #	+3423	3230
Cottonwood Seam #	+3370	3283
Cahn Seam #	+3310	3343
Pictured Cliffs	+3240	3413

TOTAL DEPTH +3245 3408

\*POSSIBLE PAY #PROBABLE COMPLETION INTERVAL

DRILL CUTTING SAMPLES	DRILLING TIME
FREQUENCY DEPTH	DEPTH
INTERVAL	FREQUENCY INTERVAL
10' Base 7" csg.-TD	Geolograph BSC-TD

Remarks The Pictured Cliffs will not be penetrated if the well is completed successfully open hole. If the well is not a successful open hole completion, the well will be deepened to 3608'. Mudlogger to modify TD based on location of basal seam

## MUD PROGRAM

Approximate Interval	Type Mud	Weight #/Gal.	Viscosity Sec. API	W/L CC/30M	Other Specifications
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0-250'	spud				
250'-int.csg pt.	LSND	8.6-8.9			Sufficient to clean hole.
int. csg pt. -	water w/induced air for hole cleaning purposes.				
top of Pictured Cliffs					

Remarks: 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 (9-11 #/gal) with LSND mud for hole stability and well control. The well will then be deepened approximately 200' into the Pictured Cliffs to provide necessary footage for a cased and cemented completion technique to allow a fracture stimulation.

CASING PROGRAM (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)

CASING STRING	DEPTH	EST. SIZE	HOLE SIZE	CEMENT	CEMENT TYPE	DESCRIP. OF LANDING PT
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SURFACE	250	9 5/8	12 1/4	to sfc.	**	
INTERMEDIATE	3170	7"	8 3/4	to sfc.	**	Above abnormally pressured coal seams
LINER CASING	TD	N/A	6 1/4	None	***	Open hole

Remarks: \*\*\* A contingency 5 1/2" liner will be run and cemented if the well is deepened into the Pictured Cliffs for a fracture stimulation. \*\* Operation Center to design.

WELLHEAD: 3,000 psi flanged equipment

COMPLETION PROGRAM Planned open hole completion. A contingency completion will require as many as two fracture stimulations.

GENERAL REMARKS: This well to be maintained in confidential status. Region is to provide statement in permit to regulatory agencies that indicates the Pictured Cliffs will be penetrated approximately 200' in the event the planned open hole completion in the coal seams does not yield a commercial volume of gas. The contingency plan to drill into the Pictured Cliffs will allow adequate rat hole for a cemented liner across the coal seam. The cemented liner will provide isolation for a necessary fracture stimulation to initiate a commercial volume of gas.

## PREPARED BY:

G. E. Gray, W. L. Pelzmann, T. R. Enterline J. L. Spitler

## APPROVALS:

PRODUCTION DEPARTMENT	DATE	EXPLORATION DEPARTMENT	DATE
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a:riddlel.gcb disk 64

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 <sub>2</sub> 15.6 ppg

#### INTERMEDIATE CASING

<u>Quantity</u>	<u>Size</u>	<u>Weight</u>	<u>Description</u>	<u>Cement Program</u>
3170'	7"	20#	K55 ST&C	888 cf Class B, 65:35:5 10% salt, .25% dispersant 13.1 ppg 118 cf Class B 2% CaCl <sub>2</sub> 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.