Form 3160-5
(June 1990)

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

5. Lease Designation and Serial No.
NM-14921

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Gregory Federal A #1

2. Name of Operator
Amoco Production Company

9. API Well No.

3. Address and Telephone No.
P. O. Box 800, Denver, CO 80201

10. Field and Pool, or Exploratory Area
Choza Mesa PC Ext., Blanco Mesaverde, Basin Dakota

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
890 FNL 900 FWL S 27 T 28N R 4W

11. County or Parish, State
Rio Arriba, New Mexico

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other APD Revision	☐ 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 your review of the attached casing, liner and cementing revisions to the application for permit to drill on the subject well.

If you have any questions or need more information please contact Lori Arnold at (303) 830-5651.

RECEIVED
AUG - 2 1993
OIL CON. DIV.
DIST. 3

93 JUL -9 AM 11:42
070 FARMINGTON, NM
RECEIVED
BLM

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

Signed Lori Arnold Title Business Analyst Date 7/8/93

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

NMOCD

APPROVED
JUL 12 1993
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.

* See Instructions on Reverse Side

FINAL COPY

AMOCO PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM

File: H:\group\srbu\nmexdk\dak31f46.wk3
Revision Date: 07/08/93

Lease: Gregory Federal A | Well No. 1 | Field: Basin Dakota
County: Rio Arriba, New Mexico | Location: 890 FNL x 900 FWL, Sec. 27–T28N–R04W
Formerly Reference Well #31

OBJECTIVE: Evaluate and develop Pictured Cliff, Mesa Verde and Dakota reserves.

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 – TD

LOG PROGRAM

Type	Depth Interval
DIL–CAL–NGT–GR–SP	SFC to TD
FDC–CNL	SFC to TD
MICROLOG	TD + 1000'

REMARKS:

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

7,271 Est. GL Elev. | 7,283 Est. KB Elev.

Marker	Depth (ft)	SS Elev. (ft)
Ojo Alamo	3,563	3,720
Fruitland	3,749	3,534
Pictured Cliffs *	4,133	3,150
Lewis Shale	4,308	2,975
Cliff House	6,004	1,279
Menefee	6,170	1,113
Point Lookout	6,373	910
Mancos Shale	6,526	757
Greenhorn	8,333	(1,050)
Dakota #	8,453	(1,170)
TOTAL DEPTH:	8,803	(1,520)

Probable completion interval
* Possible pay.

SPECIAL TESTS

TYPE	DEPTH INTERVAL, ETC
None	

Remarks:

DRILL CUTTING SAMPLES

FREQUENCY	DEPTH
20'	8453 – TD

DRILLING TIME

FREQUENCY	DEPTH
Geograph	0 – TD

Remarks:
Mudlogging Program:
Mudlogger to monitor chromatograph 100' above Cliff House to TD.
Full one man mudlogger services from Dakota Mud Up to TD.

MUD PROGRAM:

Approx Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L, cc's/30 min
0' – 400'	SPUD	8.5 – 9.0	Sufficient to clean hole and maintain hole conditions for logs.	
400'–INT CSG	LSND	8.8 – 11.0		
INT CSG– T. Dakota	AIR	–		
T. Dakota – TD	LSND	9.5 – 10		

REMARKS:

* Use minimum mud weight to control formation pressures.

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CASING PROGRAM:

Casing String	Estimated Depth (ft)	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor				
Surface	400	13–3/8"	17–1/2"	1,2
Intermediate	4,458	9–5/8"	12–1/4"	1,2,3
Protective	8,353	7"	8–3/4"	2,4
Production	8,803	4–1/2"	6–1/4"	2,5

Remarks:
1. Circulate cement to surface.
2. Southern Rockies Drilling Team to design cement programs.
3. Casing set 150' into Lewis Shale.
4. Casing set 20' into Greenhorn Limestone.
5. Casing set 50' into Morrison.

GENERAL REMARKS:
Southern Rockies Dakota Engineer to design completion program.

REVISED FOR LARGER CASING PROGRAM

Form 46 Reviewed by: | Logging program reviewed by:

PREPARED BY:	APPROVED:	APPROVED:
F. Seidel/R. Gierhart/H. TerBest	C. E. VanTuyl 7/8/93	
Form 46 7–84bw	For Production Dept	For Exploration Dept

RW #31

Amoco proposes to drill the well to further develop the Dakota reservior.
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 protective hole will be drilled with air to the top of the Greenhorn were protective casing will be set.
The production hole will be drilled with a non-dispersed mud system to TD.

Surface Casing:

Quanity (ft)	Size (in)	Weight (ppf)	Description	Cement program
400	13.375	68	J-55, ST&C	625 cf Class B, 2% CaCl2 + 0.25 #/sx Flocele. 1.18 cf/sx, 15.6 ppg

Hole size 17.5", 125% excess, circulate cement to surface.

Intermediate Casing:

Quanity (ft)	Size (in)	Weight (ppf)	Description	Cement program
4458	9.625	36	J-55, LT&C	* 2 stage

* 1st Stg Tail: 557 cf Class B, 0.4% CFR-3, 0.4% Halad 344, 5 #/sx Gilsonite, + 0.25 #/sx Flocele. 1.29 cf/sx, 15.11 ppg.

Top of Fruitland Coal 3749 ft
Stage tool depth 3649 ft, 100' above top of Fruitland Coal.

* 2nd Stg Lead: 2385 cf Class B, 65:35:6, 7#/sx salt, 0.375 #/sx Flocele, 5% Cal-Seal, 2% Microbond. 1.8 cf/sx, 13.0 ppg.

* 2nd Stg Tail: 129 cf Class B, 0.4% CFR-3, 0.4% Halad 344, 5 #/sx Gilsonite, + 0.25 #/sx Flocele. 1.29 cf/sx, 15.6 ppg.

Hole size 12.25", 120% excess, circulate cement to surface.

Protective Casing:

Quanity (ft)	Size (in)	Weight (ppf)	Description	Cement program
8353	7	23	J-55, LT&C	* 2 stage

* 1st Stg Tail: 685 cf Class B, 50/50 poz, 2% gel, 0.4% Halad 413, 0.1% SCR 100, 5 #/sx Gilsonite, 5% Microbond HT, 0.4% VersaSet, 0.25 #/sx Flocele. 1.35 cf/sx, 13.4 ppg.

Top Picture Cliffs 4133 ft Est Top Cmt 4033
Top of Mesa Verde 6004 ft
Stage tool depth 5504 ft, 500' above top of Mesa Verde.

* 2nd Stg Tail: 322 cf Class B, 50/50 poz, 2% gel, 0.4% Halad 413, 5 #/sx Gilsonite, 5% Microbond HT, 0.4% VersaSet, 0.25 #/sx Flocele. 1.35 cf/sx, 13.4 ppg.

Hole size 8.75", 60% excess, circulate cement to surface.

Production Liner:

Quanity (ft)	Size (in)	Weight (ppf)	Description	Cement program
550	4.5	11.6	N-80, LT&C	* single stage

* 1st Stg Tail: 110 cf Class G, 35% SSA 1, 1.0% CFR 3, 0.5% Halad 24, 0.25 #/sx Flocele. 1.56 cf/sx, 15.6 ppg.

Estimated Total Depth 8803 ft
Estimated Top of Liner 8253 ft 100' overlap into intermediate casing.

Hole size 6.25", 60% excess, tie cement back.

BY: FRANK SEIDEL/BARRY PEISER 07/08/93
= input depths from form 46 in shaded areas to calculate cement volumes.
H:\GROUP\SRBU\NMEXDK\CMTFORM.WK3