Form 3160-5 'June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED Budget Bureau No. 1004-0135

BURE	Expires: March 31, 1993				
SUNDRY NO	5. Lease Designation and Serial No. NM-14921				
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			8. If Indian, Allottee or Tribe Name		
			7. If Unit or CA, Agreement Designation	on	
1. Type of Weil	CONFIDEN	TINI			
Oil Gas Other	COMIDEN	ITAL	8. Well Name and No.		
2. Name of Operator			Gregory Federal	. A #1	
Amoco Production	Company	4./B/2	9. API Well No.		
3. Address and Telephone No. P. O. BOX 800, De	enver, CO 80201		10. Field and Pool, or Exploratory Area		
4. Location of Well (Footage, Sec., T., R., M., or		~	⊣Choza Mesa PC Ex	•	
			Mesaverde Basin	Dakota 	
890 FNL 900 FWL	S 27 T 28N R 4W		Rio Arriba, New	Mevico	
12. CHECK APPROPR	HATE BOX(s) TO INDICATE NATURE	OE NOTICE E			
TYPE OF SUBMISSION		TYPE OF ACTION	TEPONI, ON OTHER DAT	<u> </u>	
THE OF SOBANOSION		THE OF ACTION			
	Abendonment		Change of Plans		
Notice of Intent	Recompletion		New Construction		
Subsequent Report	Plugging Back	\vdash	Non-Routine Fracturing		
	Casing Repair Altering Casing	<u> </u>	Water Shut-Off Conversion to Injection		
Final Abandonment Notice	X Other APD Revi	sion 🗌	Dispose Water		
	1		ort results of multiple completion on Well C on Report and Log form.)	ompletion or	
	(Clearly state all pertinent details, and give pertinent dates, including			lly drilled, give	
subsurface locations and measured and tru	se vertical depths for all markers and zones pertinent to this work.)*				
	Company requests your revie			liner	
and cementing revisubject well.	isions to the application f	or permit	to drill on the		
-					
If you have any qu Arnold at (303) 83	uestions or need more infor 30-5651.	mation ple	ease contact Logi		
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			" // //	7	
	AI AI	JG - 2 1993) Eg	
			AH II: 42		
	OIL	CON. DIV	√.		
		DIST. 3	el		
			,		
					
14. I hereby certify that the foregoing is true and	,				
Signed Low Mull	Title B	usiness An	nalyst Date 7/8	/93	
This space for Federal or State office use)					

Approved by Conditions of approval, if any:

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, ficticing the transfer of the United States any false, fiction to the United States and the Unit representations as to any matter within its jurisdiction.

Title

AMOCO PRODUCTION COMPANY DRILLING AND COMPLETION PROGRAM

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

Lease: Gregory Federal A County: Rio Arriba, New Mexico Formerly Reference Well #31

Well No. 1

Field: Basin Dakota

Location: 890 FNL x 900 FWL, Sec. 27-T28N-R04W

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

METHOD O	F DRILLING		APPROXIMATE DEPTH	IS OF GEOLOG	ICAL MARKER		
TYPE OF TOOLS	DEPTH OF DRIL	LING	7,271 Est. GL Elev. 7,283 Es		st. KB Elev.		
Rotary	0 – TD		Marker	Depth (ft)	SS Elev. (ft)		
LOG PROGI	RAM		Ojo Alamo	3,563			
Туре	Depth Interval		Fruitland	3,749	3,534		
DIL-CAL-NGT-GR-SP	SFC to TD		Pictured Cliffs *	4,133	3,150		
FDG-CNL	SFC to TD		Lewis Shale	4,308	2,975		
MICROLOG	TD + 1000'		Cliff House	6,004	1,279		
			Menefee	6,170	1,113		
			Point Lookout	6,373	910		
			Mancos Shale	6,526	757		
			Greenhom	8,333	(1,050)		
			Dakota #	8,453	(1,170)		
REMARKS:			TOTAL DEPTH:	8,803	(1,520)		
			# Probable completion interval				
			* Possible pay.				
		DRILL CUTTING SAMPLES		DRILLING	DRILLING TIME		
SPECIAL TESTS		FREQUENCY	DEPTH	FREQUENCY	DEPTH		
TYPE DEPTH INTER		L, ETC	20'	8453 - TD	Geolograph	0 – TD	
			Remarks:	· · · · · · · · · · · · · · · · · · ·	·		
Vone			Mudlogging Program:				
Remarks:		Mudlogger to monitor chromatograph 100' above Cliff House to TD.					
			Full one man mudlogger	services from Da	kota Mud Up to Ti	D,	
					·		
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 d	lean hole and ma	intain hole condit	ions for logs	
400'-INT CSG	LSND	8.8 - 11.0		•		J	
INT CSG- T. Dakota	AIR	_					
T. Dakota TD	LSND	9.5 - 10					

^{*} Use minimum mud weight to control formation pressures.

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*	83/4"	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:	5.1		
PREPARED BY:	APPROVED:	7	APPROVED:	
F. Seidel/R. Gierhart/H. TerBest	J. K. Panal	1.Onlelan		•
Form 46 7 – 84bw	For Production Dept	18/12/16	For Exploration Dept	

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

The production hole will be drilled with a non-dispersed mud system to TD.

Surface Casing:

Quanity (ft) 400

Size (in)

Weight (ppf) 13.375 68

Description J-55, ST&C

Cement program 625 cf Class B, 2% CaCl2

+ 0.25 #/sx Flocele. 1.18 cf/sx, 15.6 ppg

Hole size 17.51, 125% excess, circulate cement to surface.

Intermediate Casing:

Quanity (ft)

4458

Size (in) 9.625

Weight (ppf) 36

Description J-55, LT&C

Cement program * 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% Calseal,

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) 8353

Size (in)

Weight (ppf) 23

Description J-55, LT&C

Cement program

* 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 Stage tool depth

6004 ft

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)

550

Size (in) Weight (ppf)

Description N-80, LT&C

Cement program * single stage

* 1st Stg Tail:

110 cf Class G, 35% SSA 1, 1.0% CFR 3, 0.5% Halad 24,

0.25 #/sx Flocele.

11.6

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.

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Surface Casing:

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

1.18 cf/sx, 15.6 ppg

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

Intermediate Casing:

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

* 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.

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

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Top Picture Cliffs

4133 ft Est Top Cmt 4033

Top of Mesa Verde

6004 ft 5504 ft, 500' above top of Mesa Verde. Stage tool depth

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