

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
BULM MAIL ROOM
30 SEP 14 PM 2:00

5. Lease Designation and Serial No.

SF-078147

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Moore LS #4R

9. API Well No.

3004529200

10. Field and Pool, or Exploratory Area

Blanco Mesaverde

11. County or Parish, State

San Juan New Mexico

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

2. Name of Operator

Attention:

Amoco Production Company

Gail M. Jefferson, Rm 1295C

3. Address and Telephone No.

P.O. Box 800, Denver, Colorado 80201

(303) 830-6157

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

1170FNL 1435FEL Sec. 23 T 32N R 12W Unit B

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 APD Revision

- ☐ 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 your approval of the attached casing, cementing, and BOP revisions to the APD approved on May 10, 1995.

RECEIVED
SEP 10 1995
OIL CON. DIV.
DIST. 3

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

Signed

Gail M. Jefferson

Title

Sr. Admin. Staff Asst.

Date

09-12-1995

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

APPROVED

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.

SEP 13 1995

* See Instructions on Reverse Side

NMOC

DISTRICT MANAGER

DRILLING and COMPLETION PROGRAM

Well No. #4R
Surface Location: 1170' FNL & 1430' FEL of Section 23, T32N, R12W
Field:

OBJECTIVE: Single MV					
METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS		Actual GL-----Estimated KB		6278	6290
Rotary	DEPTH OF DRILLING Ground Level - TD	Marker		Depth (ft.)	SS Elev. (ft.)
LOGGING PROGRAM		Ojo Alamo			
TYPE	DEPTH	Kirtland		2,057	4,233
		Fruitland Coal		2,242	4,048
		PC		2,687	3,603
		Lewis Shale		2,872	3,418
		Cliff House *		4,557	1,733
		Menefee Shale *		4,667	1,623
		Point Lookout *		5,094	1,196
No open hole logs required.		Mancos		5,494	796
		Gallup			
		Greenhorn			
		Dakota			
Logging Program Remarks:		TOTAL DEPTH		5,600	690
		* Possible pay			
		**Probable completion			
		Ojo Alamo is possible usable water			
SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE	DEPTH INTERVAL, ETC	FREQUENCY	DEPTH	FREQUENCY	DEPTH
None		None		Geologist	Surf - TD
Remarks:		Remarks:			
		Mud Logging Program: None			
		Coring Program: None			

Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L, cc's/30 min.
50' - 3022' (1) (2)	Water	8.6 - 9.2	Sufficient to clean hole	N/C
3022' - TD (3)	Air/Gas			

- 1 - The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.
- 2 - If required to mud up, mud up with a LSND designed for good hole cleaning.
- 3 - If required to mud up, mud up with a LSND designed for good hole cleaning, API WL between 10 -15.

Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor	120	8-5/8"	12.25"	
Surface	3,022	5-1/2"	7.875"	1, 2
Production	5,600	2-7/8"	4.75"	3

- 1 - Circulate cement to surface.
- 2 - Set casing 150' into the Lewis Shale.
- 3 - Circulate cement at least 200' into the surface casing overlap.

Business Unit Engineering staff to design completion program.

Form 46 Reviewed by:	Logging program reviewed by:	
PREPARED BY:	APPROVED:	APPROVED:
P. Edwards/Craig/Ovitz		
Form 46 7-84bw	For Production Dept	For Exploration Dept
Date: 3/8/95	Rev. Date: 9/13/95 13:41	File: moorls4r.xlw

CEMENTING PROGRAM

blp

Moore LS #4R

Well Name: **Moore LS #4R**
Location: 1070' FNL X 1430' FEL, Sec 23, T32N, R12W
County: San Juan
State: New Mexico

Field:
API No. 30-045-29200
Well Flac
Formation: Mesa Verde
KB Elev. (est.) 6290 ft.
GL Elev. (est.) 6278 ft.

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Casing Weight (lb/ft.)	Casing Grade	Thread	TOC (ft.)
Conductor	120	12.25	8.625	24	J-55	8R, ST&C	Surface
Surface	3,022	7.88	5.500	14	J-55	8R, ST&C	Surface
Production	5,574	4.75	2.875	6.5	N-80	EUE	2800

Casing Properties: (No Safety Factor Included)

Casing String	Casing Weight (lb/ft.)	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Torque(ft. lbs.) Opt/Min/Max	Drift (in.)
Conductor	24	2950.00	1370	244	0.0636		7.972
Surface	14	4270	3120	172	0.0244		6.241
Production	6.4	10570	11160	144	0.00579		2.347

Mud Program:

Apx. Interval (ft.)	Mud Type	Mud Weight (lb/gal)	Recommended Mud Properties Prior Cementing:	
			PV	<20
			YP	<10
O - SCP	Spud	8.6-9.2	Fluid Loss	<15
SCP - TD	Air/Gas	NA		

Cementing Program:

	Surface	Production
Excess %, Bit	60	30
Excess %, Caliper	NA	20
BHST (est. deg. F)	110	145
Pipe Movement	NA	NA
Rate, Max. (bpm)	6	4
Rate, Recommended (bpm)	6	4
Pressure, Max. (psi)	200	2000
Shoe Joint	80	40
Batch Mix	NA	NA
Circulating prior cmtng (hr.)	1.5	1
Time Between Stages, (hr.)	NA	NA
Special Instructions	1,6,8	2,4,6

- 1 Do not wash pumps and lines
- 2 Wash pumps and lines.
- 3 Do not reverse out
- 4 Run Blend Test on Cement
- 5 Record Rate , Pressure, and Density on 3.5" disk
- 6 Confirm densometer with pressurized mud scales
- 7 1" cement to surface if cement is not circulated.
- 8 If cement is not circulated to the surface, run temp. survey 10-12 hr. after landing plug.

Notes:

- *** Displace top plug on the production casing job with 0.2% Clay Fix II or 2% KCl water.
- *** Do not wash up on top of plug. Wash pumps and lines. We want to do rig less completions.

CEMENTING PROGRAM

Moore LS #4R

Conductor:

Preflush	10 bbl.	Fresh Water	
Slurry 1 TOC@Surface	100 sk	Standard Cement + 2% CaCl ₂ (not mixed) or 1.5 cu. yard Ready Mix	47 cu. ft.

Slurry Properties:	density (lb/gal)	yield (ft ³ /sk)	water (gal/sk)
slurry 1	15.60	1.18	5.20

Casing Equipment: (Halliburton) 8 5/8", 8R, ST&C
1 Top Wooden Plug

Surface:

Preflush	20 bbl.	Mud Flush	
	20 bbl.	Fresh Water + dye marker	
Lead Slurry 1 TOC@Surface		50/50 Standard Cement/Blended Silicalite + 0.2% gel (total) + 0.5% Versaset + 0.4% Halad-344 + 0.2% CaCl ₂ + 1/4 lb/sk floccle	708 cu. ft.

Slurry Properties:	density (lb/gal)	yield (ft ³ /sk)	water (gal/sk)
slurry 1	12.00	2.03	11.45

Casing Equipment: (Halliburton) 5 1/2", 8R, ST&C
1 Type Regular Guide Shoe
1 Super Seal II Float Collar
1 Weld A
15 S-4 Centralizer
1 Top Rubber Plug

1 ea. on 1st 12 joints, 1 ea. above and below Ojo Alamo

CEMENTING PROGRAM

Moore LS #4R

Production:

Preflush	10 bbl.	Chemical Wash	
	05 bbl.	Fresh Water	
Lead Cement		50/50 Std. Cmt/Poz A	281 cu. ft.
Slurry 1		+ 2% gel (total)	
TOC @ TOL + 200 ft.		+ 5 lb/sk gilsonite	
		+ 0.4% Halad-344	
		+ 1/4 lb/sk floccs	

Slurry Properties:	density (lb/gal)	yield (ft ³ /sk)	water (gal/sk)
slurry 1	13.50	1.32	5.59

Note: The job should be pumped at 4 bpm max rate. Do not exceed 2 bpm on displacement. Slow to 2 bpm for the displacement. Displace with 2% KCl or 0.2% Clay Fix II water. This is to be a rigless completion. Wash pumps and lines before displacing.

Casing Equipment: Halliburton 2 7/8", 8R, EUE, (no need to cut long pin)

- 1 Super Seal II Float Shoe
- 10 S-4 Fluidmaster Centralizer
- 1 Lock Clamp
- 1 Weld A
- 1 Omega Latch Down Plug and Baffle

Amoco Production Company
BOP Pressure Testing Requirements

Lease: Moore LS
County: San Juan

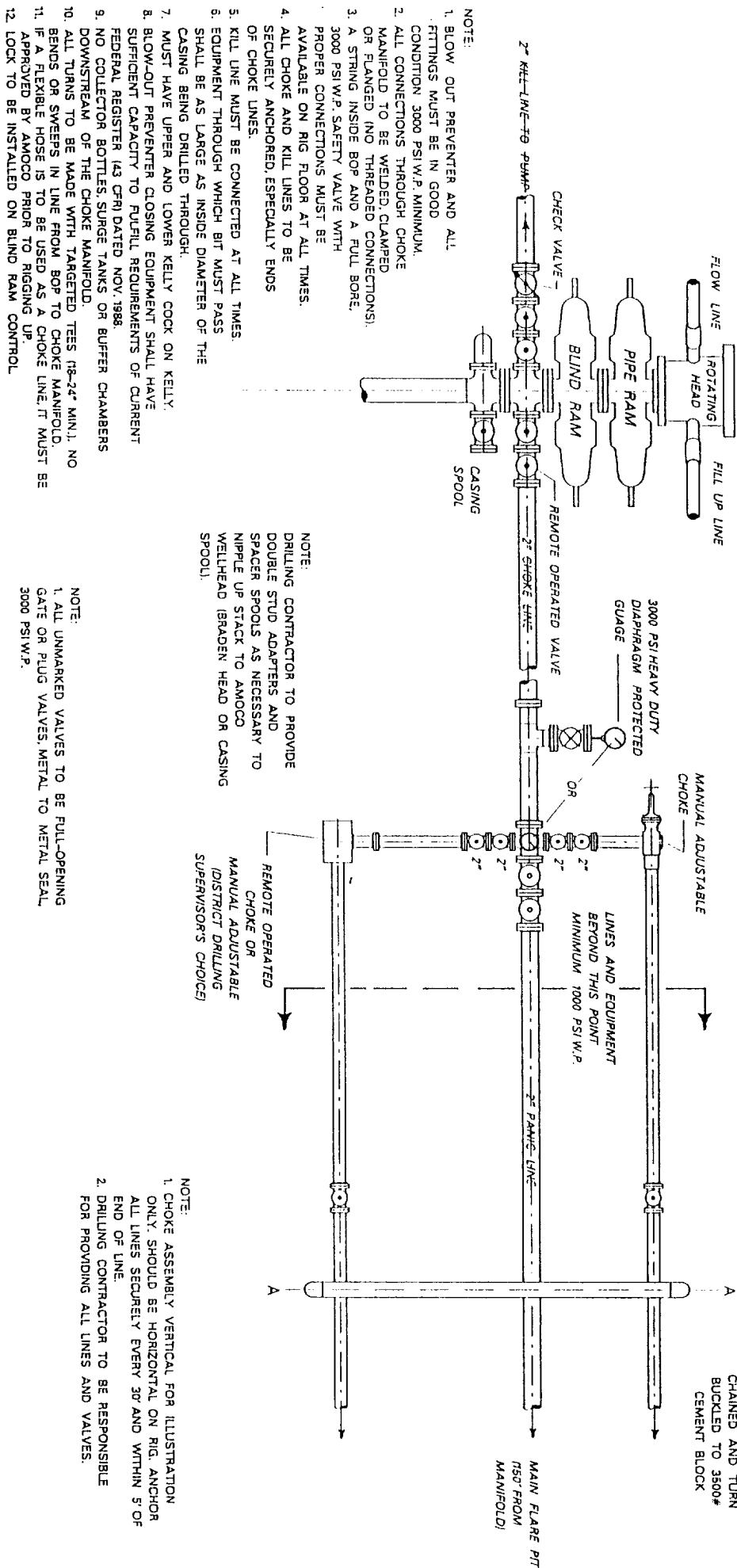
Well No. #4R
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	0		
Kirtland	2,057		
Fruitland Coal	2,242		
PC	2,687		
Lewis Shale	2,872		
Cliff House *	4,557	1200	197.46
Menefee Shale *	4,667		
Point Lookout *	5,094	900	0
Mancos	5,494		
Gallup	0		
Greenhorn	0		
Dakota	0		

** Note: Determined using the following formula: $ABHP - (.22 \times TVD) = ASP$

Requested BOP Pressure Test Exception: 500

MINIMUM BLOW-OUT PREVENTER REQUIREMENTS 3,000 PSI W.P. Typical Dakota / Mesaverde Air / Mud (SRBU)



SAN JUAN BASIN
MESAVERDE FORMATION
PRESSURE CONTROL EQUIPMENT

Background

The objective Mesaverde formation maximum surface pressure is anticipated to be less than 1000 psi, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 psi. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 psi system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 psi rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rigs to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below surface to total depth. No abnormal temperature, pressures, or Hydrogen Sulfide gas is anticipated.

Equipment Specification

Interval

BOP Equipment

Below surface casing to total depth

11" or 7 1/16", 3000 psi double ram
preventer with rotating head.

All ram type preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 750 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure at the appropriate intervals.