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-0498

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.
John Schumacher 2E

2. Name of Operator
Amoco Production Company

Attention:
Patty Haefele

9. API Well No.

3. Address and Telephone No.
P.O. Box 800, Denver, CO 80201 (303) 830-4988

10. Field and Pool, or Exploratory Area
Basin Dakota

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1170' FSL 1180' FEL Sec. 8 T 30N R 12W

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	☐ 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 _____	☐ 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 and cementing revisions to the APD approved on 11/13/95.

RECEIVED
DEC 15 1995
OIL CON. DIV.
DIST. 3

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

Signed Patty Haefele Title Staff Assistant Date 12-05-1995

(This space for Federal or State office use)

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

APPROVED
DEC 11 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.

NMOCD

* See Instructions on Reverse Side

AMOCO PRODUCTION COMPANY

DRILLING and COMPLETION PROGRAM

Lease/Well#: John Schumacher #2E
County: San Juan New Mexico
Former name:

Surface Location: 1170' FSL & 1180' FEL of Section 8, T30N, R12W
Field: Basin Dakota

OBJECTIVE: Develop Dakota Gas formation.

METHOD OF DRILLING

TYPE OF TOOLS: Rotary
DEPTH OF DRILLING: Ground Level - TD

LOGGING PROGRAM

TYPE	DEPTH
SP-GR-Cal-HRI-SDL-DSN-ML (Triple Combo)	Minimum run required

Logging Program Remarks:

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Actual GL----------Estimated KB: 5824 / 5836

Marker	Depth (ft.)	SS Elev. (ft.)
Ojo Alamo	506	5,330
Kirtland	581	5,255
Fruitland Coal	1,736	4,100
PC	2,036	3,800
Lewis Shale	2,251	3,585
Cliff House	3,606	2,230
Menefee Shale	3,746	2,090
Point Lookout	4,401	1,435
Mancos	4,806	1,030
Gallup	5,666	170
Greenhorn	6,424	-588
Graneros	6,476	-640
Dakota **	6,536	-700
TOTAL DEPTH	6,886	-1,050

* Possible pay
**Probable completion
Ojo Alamo is possible usable water

SPECIAL TESTS

TYPE	DEPTH INTERVAL, ETC
None	

Remarks:

DRILL CUTTING SAMPLES		DRILLING TIME	
FREQUENCY	DEPTH	FREQUENCY	DEPTH
		Geolograph	Int - TD

Remarks:
Mud Logging Program: One man to pick TD or an automated unit.

Coring Program: None

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L, cc's/30 min.
0' - 250'	Spud			
250' - 4806' (1)	Water	8.6 - 9.0	Sufficient to clean hole	N/C
4806' - TD (2, 3)	LSND	8.8 - 9.6	Suficient to clean hole and run logs	As required

Mud Program Remarks:
1 - The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.
2 - Mud up at the top of the Mancos Shale with a LSND designed for good hole cleaning.
3 - Sweep the hole as necessary.

CASING PROGRAM:

Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor				
Surface	250	7"	8.75"	1
Production	6,886	2-7/8"	6.25"	1

Casing Program Remarks:
1 - Circulate cement to surface.

GENERAL REMARKS:

Business Unit Engineering staff to design completion program.

Form 46 Reviewed by:	Logging program reviewed by:	
PREPARED BY: Webb/Logan/Ovitz	APPROVED:	APPROVED:
Form 46 7-84bw	For Production Dept	For Exploration Dept
Date: 10/3/95	Rev. Date: 12/4/95 13:16	File: jschum2e.xlw

Version No. 2
12/05/95
968A2.XLS

CEMENTING PROGRAM

John Schumacher #2E

blp

Well Name:	John Schumacher #2E	Field:	Basin Dk
Location:	Sec 08, T30N, R12W	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Dakota
		KB Elev. (est.)	5836 ft.
		GL Elev. (est.)	5824 ft.

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Circ. Out (bbl.)
Conductor							
Surface	250	8.75	7.000	8R, ST&C	Surface	NA	
Production	6,886	6.25	2.875	8R, EUE	Surface	NA	

Casing Properties: (No Safety Factor Included)

Casing String	Size (in.)	Weight (lb/ft.)	Grade	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Drift (in.)
Conductor								
Surface	7.000	20	J-55	3740	2270	234	0.0404	6.331
Production	2.875	6.5	N-80	10570	11160	144	0.00579	2.347

Mud Program:

Apx. Interval (ft.)	Mud Type	Mud Weight (lb/gal)
0 - SCP	Water/Spud	8.6-9.2
SCP - 4800	Water	8.6-9.0
4800-TD	LSND	8.8-9.6

Recommended Mud Properties Prior Cementing:

PV	<20
YP	<10
Fluid Loss	<15

Cementing Program:

	Conductor	Surface	Production
Excess %, Bit		75	30
Excess %, Caliper		NA	20
BHST (est. deg. F)		80	165
Pipe Movement		NA	NA
Rate, Max. (bpm)		6	6
Rate, Recommended (bpm)		6	4
Pressure, Max. (psi)		200	2000
Shoe Joint		40	80
Batch Mix		NA	NA
Circulating prior cmtng (hr.)		0.5	1
Time Between Stages,(hr.)		NA	NA
Special Instructions		1,6,7	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

John Schumacher #2E

Surface:

Preflush	20 bbl.	Fresh Water + dye marker	
Slurry 1 TOC@Surface	60 sk	Standard Cement + 2% CaCl2 + 1/4 lb/sk flocele	70 cu. ft.

Slurry Properties:	density (lb/gal)	yield (ft3/sk)	water (gal/sk)
slurry 1	15.60	1.18	5.20

Casing Equipment: (Halliburton) 7", 8R, ST&C

1 Type M Guide Shoe
1 Insert Float w Auto Fill
1 Weld A
3 S-4 Centralizer
1 Top Wooden Plug

CEMENTING PROGRAM

John Schumacher #2E

Production: (Foam Cement)

Preflush	20 bbl. 40 bbl.	Mud Flush + dye marker + 150 scf/bbl nitrogen Fresh Water + 150 scf/bbl nitrogen	
Lead Cement Slurry 1		50/50 Std. Cmt/Poz A + Nitrogen + 2% gel (total) + 5 lb/sk gilsonite + 0.4% Halad-344 + 1/4 lb/sk flocele	1042 cu. ft.
Tail Cement Slurry 2 TOC@5500		50/50 Std. Cmt/Poz A + 2% gel (total) + 5 lb/sk gilsonite + 0.4% Halad-344 + 1/4 lb/sk flocele	280 cu. ft.
Top Out Cement Slurry 3	85 sk	Standard Cement + 2% Calcium Chloride	100 cu. ft.

Slurry Properties:

	surf. density (lb/gal)	foam density (lb/gal)	surf. yield (ft3/sk)	foam yield (ft3/sk)	water (gal/sk)	nitrogen rate (scf/bbl)	depth of fill (ft)
slurry 1	13.50	10.00	1.32	1.85	5.59	130	500 - 2500
slurry 1	13.50	10.00	1.32	1.85	5.59	275	2500 - 4000
slurry 1	13.50	10.00	1.32	1.85	5.59	400	4000 - 5500
slurry 2	13.50	NA	1.32	NA	5.59	NA	5500 - TD
slurry 3	15.60	NA	1.18	NA	5.20	NA	0 - 500

Note: The job should be pumped at 6 bpm max FOAM rate. Do not exceed 4 bpm on displacement. Slow to 2 bpm for the last 40 bbl of 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", EUE

1 Super Seal II Float Shoe
25 S-4 Fluidmaster Centralizer 1st 10 centralizers. everyother joint, then one every 10 joints, 1 above and below the Ojo Alamo
1 Lock Clamp
1 Weld A
1 Omega Latch Down Plug and Baffle