

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

(See other instructions on reverse side)

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER ☐		5. LEASE DESIGNATION AND SERIAL NO. SF-079294	
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☐		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR AMOCO PRODUCTION COMPANY		7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. P.O. Box 800, Denver, Colorado 80201 (303) 830-4912		8. FARM OR LEASE NAME, WELL NO. SAN JUAN 28-7 U221M	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1850 <u>FNL</u> 1850 FEL UNIT J SEC 25 At top prod. interval reported below At total depth CONFIDENTIAL		9. API WELL NO. 3003925358	
14. PERMIT NO.		DATE ISSUED	
15. DATE SPUDDED 03/07/94		16. DATE T.D. REACHED 03/16/94	
17. DATE COMPL. (Ready to prod.) 04/27/94		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GL 6209	
19. ELEV. CASINGHEAD		20. TOTAL DEPTH, MD & TVD 7410	
21. PLUG, BACK T.D., MD & TVD 7321		22. IF MULTIPLE COMPL., HOW MANY* TWO	
23. INTERVALS DRILLED BY ROTARY TOOLS YES		CABLE TOOLS NO	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* SEE ATTACHED DAKOTA		25. WAS DIRECTIONAL SURVEY MADE YES	
26. TYPE ELECTRIC AND OTHER LOGS RUN CBL, VDL, GR, CCL		27. WAS WELL CORED N	
28. CASING RECORD (Report all strings set in well) Casing Size/Grade Weight, LB./FT. Depth Set (MD) Hole Size Top of Cement, CEMENT RECORD Amount Pulled SEE ATTACHED			
29. LINER RECORD Size Top (MD) Bottom (MD) Sacks Cement* Screen (MD) SEE ATTACHED			
30. TUBING RECORD Size Depth Set (MD) Packer Set (MD) 2 1/16 7350 5700			
31. PERFORATION RECORD (Interval, size and number) SEE ATTACHED			
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. Depth Interval (MD) Amount and Kind of Material Used SEE ATTACHED			
33.* PRODUCTION Date First Production 05 06 1994 Production Method (Flowing, gas lift, pumping - size and type of pump) FLOWING Well Status (Producing or shut-in) Date of Test 05 06 1994 Hours Tested 24 Choke Size SEPARATOR Prod'n for Test Period TRACES Oil - BBL 1667 Gas - MCF 23 Water - BBL Flow Tubing Press 430 Casing Pressure 770 Calculated 24-Hour Rate Oil - BBL Gas - MCF Water - BBL Oil Gravity - API (CORR.)			
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TO BE SOLD TEST WITNESSED BY			
35. LIST OF ATTACHMENTS CASING RECORD, PERF INFO AND FRAC INFO ON AN ATTACHMENT			

CONFIDENTIAL

RECEIVED
JUL - 6 1994
OIL CON. DIV.
DIST. 8

*(See Instructions and Spaces for Additional Data on Reverse Side)

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.

SIGNED

Wayne Branam

TITLE

BUSINESS ANALYST

DATE

942511

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

San Juan 28-7 Unit Well #221 /M/ API # 30-039-253580

DESCRIPTION, CONTENTS, ETC.

TOP

BOTTOM

FORMATION

38. GEOLOGIC MARKERS

TOP

NAME

MEAS. DEPTH

TRUE
VERT. DEPTH

Ojo A	2125	
Kirtland	2242	
Fruitland	2596	
Pictured Cliffs	2913	
Lewis	2990	
Cliffhouse	4548	
Menefee	4730	
Pt. Lookout	5150	
Mancos	5547	
Gallup	6365	
Greenhorn	7060	
Graneros	7125	
Dakota	7155	

SAN JUAN 28-7 UNIT #221M

COMPLETION REPORT ATTACHMENT

CASING RECORD

CSG SIZE	CSG DESCRIPTION	HOLE SIZE	LANDED AT	CEMENT DESCRIPTION
11.75	42# H40	14.75	425	300SX CL B W/2% CAL CLORIDE; .25# FLOCELE
8.625	32# J55	10.625	3228	STAGE ONE 200SX CL B W/ .4% HALAD-344, .4% CFR-3, 2% MICIRO BOND, 5# GILSONITE, .25# FLOCELE STAGE TWO 475SX HALL. LIGHT W/ 7# SALT, 5% CAL- SEAL, 2% MICROBOND, .375# FLOCELE. TAILED W/ 100SX CL B W/ .4% HALAD-344, .4% CFR-3, 2% MICROBOND, 5# GILSONITE, .25# FLOCOELE
5.5 LINER	15.5# J55	8.875	7410	STAGE ONE 700SX 50/50 STD POZ A W/ 2% GEL, 5# GILSONITE, 5% MICROBOND .2% VERASET, .6% HALAD- 344, .3% SCR-100, .25# FLOCELE STAGE TWO 520SX 50/50 STD POZ A W/ 2% GEL, 5# GILSONITE, 5% MICROBOND, .2% VERASET, .6% HALAD- 344, .25# FLOCELE

DAKOTA PERF

7165, 7176, 7199, 7275, 7281, 7288 7310, 7316, 7328, 7338, 7355, 7360 USING 3 3/8" GUN W/ 1
SPF, 16 GRAM CHG W/ .38" HOLE

DAKOTA FRAC

PMP 114 BBLs CLEAN FLUID; FOAM RATE 24-1/2 BPM; INCREASED TO 4800 PSI; SHUT
DOWN; ISIP 4200 FRAC GRAD OF 0.84

DECISION MADE TO TRY TO BREAK DOWN W/GEL WATER; PMP 226 BBLs 30#GEL AT
32BPM AT 4050 PSI; ISIP 1700 & GRAD 0.67

DESICION MADE TO TRT FOAM FRAC AGAIN

STAGE ONE

PMP 219 BBLs CLEAN FLUID; FOAM RATE OF 21.8 BPM; START AVE PRESS 4417 PSI; USED
429644 SCF N2.

STAGE TWO

PMP 97 BBLs CLEAN FLUID; FOAM RATE OF 21.8 BPM; W/ 1/2 PPG 20/40 OTTAWA SAND;
AVE PRESS 4475; USED 178911 SCF N2

STAGE THREE

PMP 60 BBLS CLEAN FLUID; FOAM RATE OF 22 BPM; W/ 1 PPG 20/40 OTTAWA SAND; AVE PRESS 4500; USED 178911 SCF N2

STAGE FOUR

PMP 104 BBLS CLEAN FLUID; FOAM RATE OF 23 BPM; W/ 2 PPG 20/40 OTTAWA SAND; AVE PRESS 4530; USED 263774 SCF N2

STAGE FIVE

PMP 106 BBLS CLEAN FLUID; FOAM RATE OF 23 BPM; W/ 2-1/2 PPG 20/40 OTTAWA SAND; AVE PRESS 4550; USED 262346 SCF N2

STAGE SIX

PMP 95 BBLS CLEAN FLUID; FOAM RATE OF 22.8 BPM; W/ 3 PPG 20/40 OTTAWA SAND; AVE PRESS 4567; USED 263774 SCF N2

STAGE SEVEN

PMP 118 BBLS CLEAN FLUID; FOAM RATE OF 23 BPM; W/ 4 PPG 20/40 OTTAWA SAND; AVE PRESS 4506; USED 277144 SCF N2

STAGE EIGHT

PMP 61 BBLS CLEAN FLUID; FOAM RATE OF 22.6 BPM; W/ 5 PPG 20/40 RESIN SAND W/ ACTIVATOR; AVE PRESS 4190; USED 145889 SCF N2

STAGE NINE

PMP 166 BBLS GEL H2O W/ NO N2 AT 15.8 BPM; AVE PRESS 3477

ISIP 2320 PSI 15 MIN 2010 PSI LOAD OF 1500 BBLS; SAND IN FORMATION 161,000# 20/40 OTTAWA SAND

UNITED STATES
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(See other instructions on reverse side)

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER ☐

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☐

2. NAME OF OPERATOR
AMOCO PRODUCTION COMPANY

Attention:
WAYNE BRANAM

3. ADDRESS AND TELEPHONE NO.
P.O. Box 800, Denver, Colorado 80201 (303) 830-4912

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1850 FNL 1850 FEL UNIT J SEC 25

At top prod. interval reported below

At total depth

CONFIDENTIAL

14. PERMIT NO. DATE ISSUED

12. COUNTY OR PARISH
RIO ARRIBA

13. STATE
NEW MEXICO

15. DATE SPUDDED 03/07/94 16. DATE T.D. REACHED 03/16/94 17. DATE COMPL. (Ready to prod.) 04/27/94 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* GL 6209 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 7410 21. PLUG, BACK T.D., MD & TVD 7321 22. IF MULTIPLE COMPL., HOW MANY* TWO 23. INTERVALS DRILLED BY ROTARY TOOLS YES CABLE TOOLS NO

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* SEE ATTACHED MESAVERDE 25. WAS DIRECTIONAL SURVEY MADE YES

26. TYPE ELECTRIC AND OTHER LOGS RUN CBL, VDL, GR, CCL 27. WAS WELL CORED N

28. CASING RECORD (Report all strings set in well)					
CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	AMOUNT OF CEMENT	AMOUNT PULLED
		SEE	ATTACHED		

29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
		SEE	ATTACHED		1 1/4	5417	5700

31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
SEE ATTACHED		DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
			SEE ATTACHED

33.* PRODUCTION							
DATE FIRST PRODUCTION 04 28 1994		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) FLOWING				WELL STATUS (Producing or shut-in) SHUT IN	
DATE OF TEST 05/11/94	HOURS TESTED 39	CHOKE SIZE SEPARATOR	PROD'N FOR TEST PERIOD	OIL - BBL TRACES	GAS - MCF 715	WATER - BBL 38	GAS-OIL RATIO
FLOW TUBING PRESS 310	CASING PRESSURE 740	CALCULATED 24-HOUR RATE	OIL - BBL	GAS - MCF	WATER - BBL	OIL GRAVITY - API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TO BE SOLD TEST WITNESSED BY

35. LIST OF ATTACHMENTS
CASING RECORD, PERF INFO AND FRAC INFO ON AN ATTACHMENT

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Wayne Branam TITLE BUSINESS ANALYST DATE 7/4/95

*(See Instructions and Spaces for Additional Data on Reverse Side)

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37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

San Juan 28-7 Unit Well #221 /M/ API # 30-039-253580

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS		
				NAME	MEAS. DEPTH	TRUE VERT. DEPTH
				Ojo A	2125	
				Kirtland	2242	
				Fruitland	2596	
				Pictured Cliffs	2913	
				Lewis	2990	
				Cliffhouse	4548	
				Menefee	4730	
				Pt. Lookout	5150	
				Mancos	5547	
				Gallup	6365	
				Greenhorn	7060	
				Graneros	7125	
				Dakota	7155	

SAN JUAN 28-7 UNIT #221M

COMPLETION REPORT ATTACHMENT

CASING RECORD

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5.5 LINER	15.5# J55	8.875	7410	STAGE ONE 700SX 50/50 STD POZ A W/ 2% GEL, 5# GILSONITE, 5% MICROBOND .2% VERASET, .6% HALAD- 344, .3% SCR-100, .25# FLOCELE STAGE TWO 520SX 50/50 STD POZ A W/ 2% GEL, 5# GILSONITE, 5% MICROBOND, .2% VERASET, .6% HALAD- 344, .25# FLOCELE

MESAVERDE (POINT LOOKOUT) PERF

5281, 5282, 5338, 5339, 5342, 5343, 5371, 5372, 5373, 5403, 5404, 5405, 5447, 5448, 5449, 5450, 5489, 5490 USING 4" GUN, 19.5 GRAM CHG W/.45" HOLE

5153-5136, 5142-5148, 5154-5178, 5190-5196, 5200-5208, 5223-5234, 5241-5251 USING 4" GUN, W/2 SPF, 19.5 GRAM CHG W/.45" HOLE

MESAVERDE (CLIFFHOUSE AND MENEFEE) PERF

4552-4558, 4690-47287, 4560-4568, 5002-5006, 4572-4576, 5024-5026, 4592-4607, 5032-5038, 4618-4623, 5058-5063, 4656-4664, 4668-4674

MESAVERDE (POINT LOOKOUT) FRAC

FRAC POINT LOOKOUT 5281-5490

STAGE ONE

PMP 306 BBLS CLEAN FLUID; AVE PRESS 2030 PSI;FOAM RATE 43.2 BPM; USED 317561 SCF N2.

STAGE TWO

PMP 44 BBLS CLEAN FLUID; PMP 1 PPG 12/20 BRADY SAND; AVE PRESS 2115; FOAM RATE 42.3 BPM; USED 95236 SCF N2.

STAGE THREE

PMP 62 BBLS CLEAN FLUID; 2 PPG 12/20 BRADY SAND ; AVE PRESS 2125; AVE FOAM RATE 41 BPM; USED 129938 SCF N2.

STAGE FOUR

PMP 81 BBLS CLEAN FLUID; 3 PPG 12/20 BRADY SAND ; AVE PRESS 2167 PSI; AVE FOAM RATE 39.6 BPM; USED 166332 SCF N2.

STAGE FIVE

START 4 PPG 12/20 SAND TOT OF 59000 IN FORMATION

LOST GEL PLUGGED OFF AT BLENDER

LOST DISCHARGE PRESS

DISPLACE W/82348 SCF N2

ISIP 2000

CLEAN SAND OUT OF BLENDER MANIFOLD AND DISCHARGE LINE

ATTEMPT TO GET BACK IN FAILED

PMP 29 BBLS CLEAN FLUID & 23451 SCF N2

PRESS INCREASED TO 4600 WELL SCREENED OFF

ATTEMPT TO PMP INTO FORMATION; PMP 202 BBLS GEL WATER; PMP AT 30 BPM; 950 PSI

DECISION MADE TO TRY SECOND FRAC ON SAME ZONE

MESAVERDE (POINT LOOKOUT) SECOND FRAC

STAGE ONE

PMP 171 BBLS CLEAN FLUID; AVE PRESS 2025 PSI; AVE FOAM RATE 38 BPM; USED 317561 N2.

STAGE TWO

PMP 44 BBLS CLEAN FLUID; 1 PPG 12/20 BRADY SAND; AVE PRESS 1935 PSI; AVE FOAM RATE 39 BPM; USED 95236 SCF N2.

STAGE THREE

PMP 71 BBLS CLEAN FLUID; 2 PPG 12/20 BRADY SAND; AVE PRESS 1900 PSI; AVE FOAM RATE 39 BPM; USED 129938 SCF N2.

STAGE FOUR

PMP 81 BBLS CLEAN FLUID; 3 PPG 12/20 BRADY SAND AVE PRESS 1900 PSI; AVE FOAM RATE 39 BPM; USED 166332 SCF N2.

STAGE FIVE

PMP 101 BBLS CLEAN FLUID; 4 PPG 12/20 BRADY SAND; AVE PRESS 1950 PSI; AVE FOAM RATE 38 BPM; USED 82348 SCF N2.

STAGE SIX

PMP 76 BBLS CLEAN FLUID; 5 PPG 12/20 BRADY SAND; AVE PRESS 2060 PSI; AVE FOAM RATE 36.4 BPM; USED 23451 SCF N2.

STAGE SEVEN

PMP 121 BBLS GEL FLUID NO N2; AVE RATE 20 BPM PRESS DECLINING

SUMMARY OF 2ND FRAC

AVE PRESS 1488 PSI; AVE FOAM RATE 22.24 BPM; TOT SAND 204,000 # 12/20;

MESAVERDE (CLIFFHOUSE AND MENELEE) FRAC

FRAC CLIFFHOUSE AND MENELEE 4552-5063

STAGE ONE

PMP 178 BBLS CLEAN FLUID; AVE PRESS 2500 PSI; AVE FOAM RATE 59 BPM; 261012 SCF N2.

STAGE TWO

PMP 89 BBLS CLEAN FLUID; AVE PRESS 2500 PSI; AVE FOAM RATE 60.5 BPM; 1 PPG 16/30 BRADY SAND; 179312 SCF N2.

STAGE THREE

PMP 93 BBLS CLEAN FLUID; AVE PRESS 2600 PSI; AVE FOAM RATE 60.3 BPM; 2 PPG 16/30 BRADY SAND; 181202 SCF N2.

STAGE FOUR

PMP 97 BBLS CLEAN FLUID; AVE PRESS 2724 PSI; AVE FOAM RATE 59.4 BPM; 3 PPG 16/30 BRADY SAND; 189619 SCF N2.

STAGE FIVE

PMP 101 BBLS CLEAN FLUID; AVE PRESS 2800 PSI; AVE FOAM RATE 59.3 BPM; 4 PPG 16/30 BRADY SAND; 202826 SCF N2.

STAGE SIX

PMP 87 BBLS CLEAN FLUID; AVE PRESS 2740 PSI; AVE FOAM RATE 61 BPM; 5 PPG 16/30 BRADY SAND; 139539 SCF N2.

STAGE SEVEN

PMP 50 BBLS CLEAN FLUID; AVE PRESS 2670 PSI; AVE FOAM RATE 61.5 BPM; 61069 SCF N2.

SUMMARY

AVE PRESS 2387 PSI; AVE FOAM RATE 54.8 BPM; SAND IN FORMATION 170,000# 16/30 BRADY
