

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Budget Bureau No. 1004-0135
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER	5. LEASE DESIGNATION AND SERIAL NO. Jicarilla Contract 491
2. NAME OF OPERATOR Amoco Production Co.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache
3. ADDRESS OF OPERATOR 501 Airport Drive, Farmington, N M 87401	7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1585' FSL X 1505' FEL	8. FARM OR LEASE NAME Jicarilla Contract 491
14. PERMIT NO. JAN 16 1986	9. WELL NO. 1
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 7115' GR	10. FIELD AND POOL, OR WILDCAT Wildcat Glp/Wildcat Dakota
	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NW/SE Sec 32, T28N, R2W
	12. COUNTY OR PARISH Rio Arriba
	13. STATE New Mexico

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF ☐	PULL OR ALTER CASING ☐	WATER SHUT-OFF ☐	REPAIRING WELL ☐
FRACTURE TREAT ☐	MULTIPLE COMPLETE ☐	FRACTURE TREATMENT ☐	ALTERING CASING ☐
SHOOT OR ACIDIZE ☐	ABANDON* ☐	SHOOTING OR ACIDIZING ☐	ABANDONMENT* ☐
REPAIR WELL ☐	CHANGE PLANS ☐	(Other) ☐	(Other) ☐
(Other) Complete Additional Zone ☒		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	
17. 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 approval to do additional completion work to the above referenced well according to the attached procedure.

Verbal approval received from Jim Lovato.

RECEIVED
JAN 31 1986
OIL CON. DIV.
DIST. 3

I, I hereby certify that the foregoing is true and correct

SIGNED

B. S. Shaw

TITLE

Adm. Supervisor

APPROVED
DATE JAN 27 1986

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

JAN 27 1986

M. MILLENBACH
AREA MANAGER

*See Instructions on Reverse Side

FARMINGTON DISTRICT COMPLETION
PROCEDURE

W/F

Date: 8/29/85WELL NAME: Jicarilla Contract 491 #1 FIELD: WILDCATLOCATION: 1585' FSL x 1505' F&L Sec. 32-28N2W FORMATION(S): _____Rio Arriba County, NMELEVATIONS: KB: 7127 TD: 8245 PBD: 8205CASING: 9 5/8" 36 # K-55 @ 5587" 26 # K-55 @ 8245LOGS: DIC-SP-GR LDT core CR-51100DV TOOL SET AT: 3962

READ THE NOTES PLEASE

PURPOSE: Initial CompletionDBB
~~TKA~~
BJW

TWE

GOM
~~DHS~~MCH
~~RGB~~

RWO/AJM

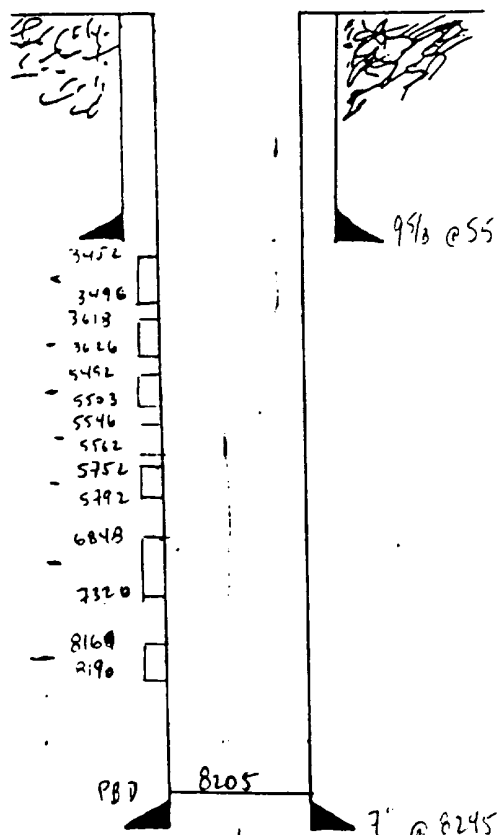
2DF

EDA
ENGR

FILE

PERFORATING: WELEXSTIMULATION: HALLIBURTONPROCEDURE

SEE ENGINEER PRIOR
TO MOVING A LOG ON THIS
WELLBORE SKETCH



1) MURSA

2) TIE in 2 7/8" log and bit and clean out wellbore to PBD of 8205.

3) Pressure test the casing to 3900 psi.

4) Displace the hole w/ 2 1/2 bbl water and circulate clean. Backpressure and monitor tag while circulating clean.

5) Run junk basket and gauge string to 220.

6) Swab the fluid level down to 7000' prior to perforate.

7) Perforate the induction log interval from

8169-8190 w/ 4" casing

guns, 4 JSPF, 120' phasing. Use hollow steel carrier guns w/ Welex JRC/HI charges.

8) TIE in 2 7/8" tag and pack. Set the pack @ 8100. Swab test the Bureau Canyon unit notified by main office.

9) Breakdown the Bureau Canyon w/ 8,000 gallons of 2 1/2 bbl water @ 15 BPM. Max pressure is 3900 psi.

DISTRICT MANAGER [Signature]DISTRICT ENGINEER [Signature]DISTRICT DRILLING SUPERVISOR [Signature]ENGINEER Ed Alizadeh x 246 326 2348

DATE _____

Jicarilla Contract 491 #1

- 10) Flow test the Burro Canyon interval from 8169 to 8190.
Swab if necessary. If zone is water productive, obtain a water sample and send to the engineer. Set a cast iron bridge plug at 7500.
- 11) If the zone seems to be dry or hydrocarbon productive; frac down with 57,000 gallons of 30# gelled 2% KCl water with 67,000 pounds of 20-40 sand. Add 1 gallon surfactant per 1000 gallons fluid. Maximum pressure is 3900 psi. Average treating pressure should be approximately 2600 psi @ 30 BPM. Have the service company add bentonite to keep gel in the tanks.

STAGE	FLUID VOL	SURFACT VOL	SAND CONC	SAND
1	15,000 gal	15,000 gal	0	0
2	17,000 gal	17,275 gal	1.0	17,000 #
3	25,000 gal	27,275 gal	2.0	50,000 #
	57,000 gal	60,049 gal		67,000 #

Notes: A) Run $\frac{1}{2}$ milliliter per 1000 lbs sand (33.5 milliliters)

B) Flush w/ 300 barrels of 2% KCl water.

C) obtain ISIP, 5, 10, and 15 minute SIP's.

- 12) SI well for 24 hours to allow the frac to heal
13) Run GR tracer survey.
14) Flow back the frac through a $\frac{1}{4}$ " choke. Swab if necessary

Do NOT PRODUCE SAND.

- 15) Test until notified by main office.
16) Set a retrievable BP @ 7500.
17) Pressure test the BP to 1500 psi. Swab the fluid level down to 6000.
18) Perforate the induction log interval from 6848 - 7320 w/ 4" casing guns, 1 JSPP, 120° phasing. Use hollow steel casing guns w/ Welox JRC/H charges.
19) TTH w/ 2 $\frac{2}{3}$ " log & pick. Set the pick @ 6750.
20) Breakdown the Gallup w/ 17,000 gallons of 2% KCl water @ 30 BPM. Max pressure is 3900 psi.
21) Swab back the casing until notified by the main office.

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- 22) Frac the Gallup interval down casing with 310,000 gallons of 30 # gelled 2% KCl water with 320,000 lbs. of 20-40 sand. Add 1 gallon surfactant per 1000 gallons of fluid. Have the service company add bactericide as they get the tanks. Maximum pressure is 3900 psi. Estimated average treating pressure is 1800 psi. @ 60 BPM.

STAGE	FLUID VOL.	SUPPLY VOL.	SAND CONC	SAND
1	115,000 gal	115,000 gal	0	0
2	70,000 gal	73,129 gal	1	70,000 #
3	125,000 gal	136,377 gal	2	250,000 #
	310,000 gal	324,503 gal		320,000 #

Notes: A) Run $\frac{1}{2}$ milliliter per 1000 lbs of sand (160 milliliters)

B) Flush w/ 250 barrels of 2% KCl water

C) obtain ISIP, 5, 10, and 15 minute SIP's

- 23) SI well for 24 hours to allow the fluid to heal
 24) Run GR tracer survey
 25) Flow back the Gallup through a $\frac{1}{4}$ " choke. Swab if necessary

Do NOT PRODUCE SAND.

- 26) Test until notified by main office.
 27) Set a retrievable BP @ 5900.
 28) Pressure test the BP to 1500 psi.
 29) Swab the fluid level down to 5000'.
 30) Perforate the induction log interval from 5752-5792 w/ 4" casing guns, 4 ISPF, and 120° phasing.

Use hollow steel carrier guns with Welox SFC/H charges.

- 31) Frac the Pant Lookout with 75,000 gallons of 75 quality foam with 90,000 lbs. of 20-40 sand. Add 20 lb gel / 1000 gallons liquid and 1 gallon surfactant per 1000 gallons gel. N_2 will be pumped at 20,025 scf/min and 2670 scf/bbl of gel. Estimated average treating pressure is 2500 psi. Max pressure is 3900 psi. Treating rate is 30 BPM. Have the service company add bactericide as they get the tanks.

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<u>STAGE</u>	<u>FOAM VOL.</u>	<u>GEL VOL.</u>	<u>SAND CONC</u> <u>Total/Gel</u>	<u>SAND</u>
1	20,000 gal	5000 gal	0 / 0	0
2	20,000 gal	5000 gal	1.0 / 4.0	20,000 #
3	35,000 gal	8750 gal	2.0 / 8.0	70,000 #
	75,000 gal	13,750 gal		90,000 #

Notes: A) Run $\frac{1}{2}$ mill curve per 1000 lbs. sand (45 mill curves).

B) Flush w/ 200 barrels of 2% KCl water.

C) Obtain ISIP, 5, 10, and 15 minute SIP's.

- 32) Sit well for 24 hours to allow free to heel
- 33) Run GR tracer survey
- 34) Flow back free through a $\frac{1}{4}$ " choke. Stop if necessary.
Do NOT PRODUCE SAND.
- 35) Test mtl notified by main office
- 36) Set a retrievable BP @ 5600'. Pressure test to 1500 ps
- 37) Shut the fluid level down to 5000'.
- 38) Perforate the induction log intervals 5546-5562 and 5496-5503
w/ 4" casing guns, 4 JSPP, and 120' phasing. Use hollow steel
carrier guns with Welox SKC/H charges.
- 39) Free the cliffhouse with 40,000 gallons of 75 quality foam
with 50,000 lbs. of 20-40 sand. Add 20 lb gel / 1000 gallons
liquid and 1 gallon surfactant per 1000 gallons of gel. N_2 will
be pumped at 20,025 scf/min and 2670 scf/lb of gel. Estimated
average treating pressure is 2500 psi. Max pressure is 3900 psi. Treating
rate is 30 BPM. Have the service company add backpressure as
directed by the operator.

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STAGE	FOAM VOL.	GEL VOL.	SAND CONC	SAND
1	10,000 gal	2500 gal	0/0	0
2	10,000 gal	2500 gal	10/4.0	10,000 #
3	20,000 gal	5000 gal	20/8.0	40,000 #
	40,000 gal	10,000 gal		50,000 #

Notes: A) Run $\frac{1}{2}$ milliliter per 1000 lbs sand (25 milliliters)

B) Flush w/ 200 barrels of 2% KCl water.

C) Obtain ISIP, 5, 10, and 15 minute SIP's.

- 40) SI well for 24' hours.
- 41) Run GR tracer survey.
- 42) Flow back free through a $\frac{1}{2}$ " choke swab if necessary.
Do NOT PRODUCE SAND.
- 43) Test until notified by main office.
- 44) Set a retrievable BP @ 3700.
- 45) Pressure test the BP to 1500 psi.
- 46) Swab the fluid level down to 3000'.
- 47) Perforate the induction log interval 3618 to 3626 w/ 4" casing guns,
4 ISPF, and 120° phasing. Use hollow steel carrier guns w/ Welox JRC/H charges.
- 48) TIH w/ 3 $\frac{1}{2}$ " N-80' workstring w/ pick. Set the pick @ 3550.
- 49) Breakdown the lower P.C. w/ 5000 gallons of 2% KCl water @ 30 BPM.
- 50) Swab test the lower P.C. until notified by main office.
- 51) Free the lower Pictated Cliffs zone down the tubing with 18,000 gallons of 75 quality foam with 23,000 lbs. of 20/40 sand. Add 60 lbs gel / 1000 gallons fluid and 1 gallon surfactant per 1000 gallons of gel.
It will be pumped @ 14,175 scf/min and 1890 scf / bbl of gel. Estimated average treating pressure is 2600 psi. Max pressure is 5000 psi. Treating rate is 30 BPM. Have the service company add bactericide as
it gel the tanks.

Jicarilla Contract 491 #1

STAGE	FOAM VOL	GEL VOL.	SAND CONC.	SAND
1	5000 gal	1250 gal	Total/gal 0/0	0
2	3000 gal	750 gal	1.0/40	3000 #
3	10,000 gal	2500 gal	2.0/100	20,000 #
	18,000 gal	2250 gal		23,000 #

Notes: A) Run $\frac{1}{2}$ millibar per 1000 lbs. sand (11.5 millibars)

B) Flush w/ 32 barrels of 2% KCl water

C) Obtain ISIP, 5, 10, and 15 minute SIP's

- 52) SI well for 24 hours.
- 53) Run GR tracer log.
- 54) Flow back frac through a 7" choke. Swab if necessary.
Do NOT produce sand.
- 55) Test until notified by owner of test.
- 56) Set a retrievable BP @ 3550'.
- 57) Pressure test the BP to 1500 psi.
- 58) Swab the fluid level down to 3000'.
- 59) Perforate the induction log interval 3452 - 3496 w/ 4" casing guns, 4 JSIF, and 120° phasing. Use hollow steel carrier guns with Welox JRC/H charges.
- 60) TIH w/ 3 1/2" N-80 workstring and pack. Set the pack @ 3430'.
- 61) Frac the upper Pictured Cliffs zone down the tubing with 31,000 gallons of 75 quality foam with 10,000 lbs. of 20-40 sand. Add 20 lbs gel/1000 gallons fluid and 1 gallon surfactant per 1000 gallons gel. N₂ will be pumped at 14, 175 scf/min and 1890 scf/bbl of gel. Estimated average treating pressure is 2600 psi @ 30 BPM. Maximum pressure is 5000 psi. Have the service company add bactericide as they gel the fluids.

Jicarilla Contract 491 #11

STAGE	FOAM VOL.	GEL VOL.	SAND CONC. Total / gal	SAND
1	8000 gal	2000 gal	0/0	0
2	6000 gal	1500 gal	10/40	6000 #
3	17,000 gal	4250 gal	2.0/8.0	34,000 #
	31,000 gal	7750 gal		40,000 #

- NOTES: A) Run $\frac{1}{2}$ milliliter per 1000 lbs. sand (20 milliliters)
 B) Flush w/ 30 barrels of 2% KCl water
 C) Obtain ISIP, 5, 10, and 15 minute SIP's.

- 62) SI well for 24 hours
 63) Run GR tracer log.
 64) Flow back frac through a $\frac{1}{4}$ " choke. Swab if necessary.
 Do NOT produce SAND.
 65) Test until notified by man. office

Instructions will follow on how to produce the well.

SPECIAL NOTES:

- A) CLEAN ALL FRAC TANKS AND FILTER ALL COMPLETION WATER.
 B) WE BRADY SAND AND SIEVE TEST IT FOR QUALITY.
 C) REPORT DAILY PRODUCTION ON THE WIRE INCLUDING BWTR.
 D) PERFORM ALL QUALITY CONTROL CHECKS.
 E) OBTAIN A WATER SAMPLE FROM EACH ZONE AND SEND IT TO THE ENGINEER.
 F) ANY OF THESE ZONES MIGHT BE SQUEEZED OFF IF TESTS ARE POOR. THUS, CLOSE CONTACT WITH THE ENGINEER IS IMPERATIVE.