STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501

DATE Oct. 31, 1985

RE: Proposed MC _____
Proposed DHC ✓
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated Oct 30, 1985

for the Amoco (Operator) Jic. Cont. 146 #35 (Lease and Well No.) D-3-25N-5W (Unit, S-T-R)

and my recommendations are as follows:

Approve

Yours truly,

Frank D. Chavez

Amoco Production Company
Petroleum Center Building
501 Airport Drive
Farmington, New Mexico 87401
505-325-8841

R. J. Broussard
District Manager

October 24, 1985

New Mexico Oil Conservation Division
Attn: David Catanach
P. O. Box 2088
Santa Fe, NM 87501

File: DDL-1233-400.1

Gentlemen:

Commingling Application
Jicarilla Contract 146 No. 35
Section 3, T25N, R5W
Rio Arriba County, New Mexico

Amoco Production Company requests approval to commingle production from the Otero Chacra and Blanco Mesaverde horizons in the subject well. Commingling is requested for these reasons:

1) The Mesaverde is not sufficiently pressured to first deliver, and commingling will allow us to produce the Mesaverde field.
2) If commingled, the Chacra will help produce remaining Mesaverde reserves.

The working interest and royalty of both zones are the same and bottom hole pressure of the Chacra is within 50 percent of the bottom hole pressure of the Mesaverde. Formation fluids are compatible.

In view of Rule 303C, we have attached 2 copies of the following:

1. Acreage Plat indicating ownership of offset leases
2. Well Completion Reports
3. Bottom hole pressures
4. Recommended Allocation Formula
5. Copy of notification to offset operations
6. Form C-116 (N.A.)
7. Chacra Production Curves

Since the Mesaverde has not produced, we are unable to supply production decline curves.

Thank you for your earliest attention to this application.

Yours very truly,

Original Signed
By R. J. Brousseard

MEM/ct

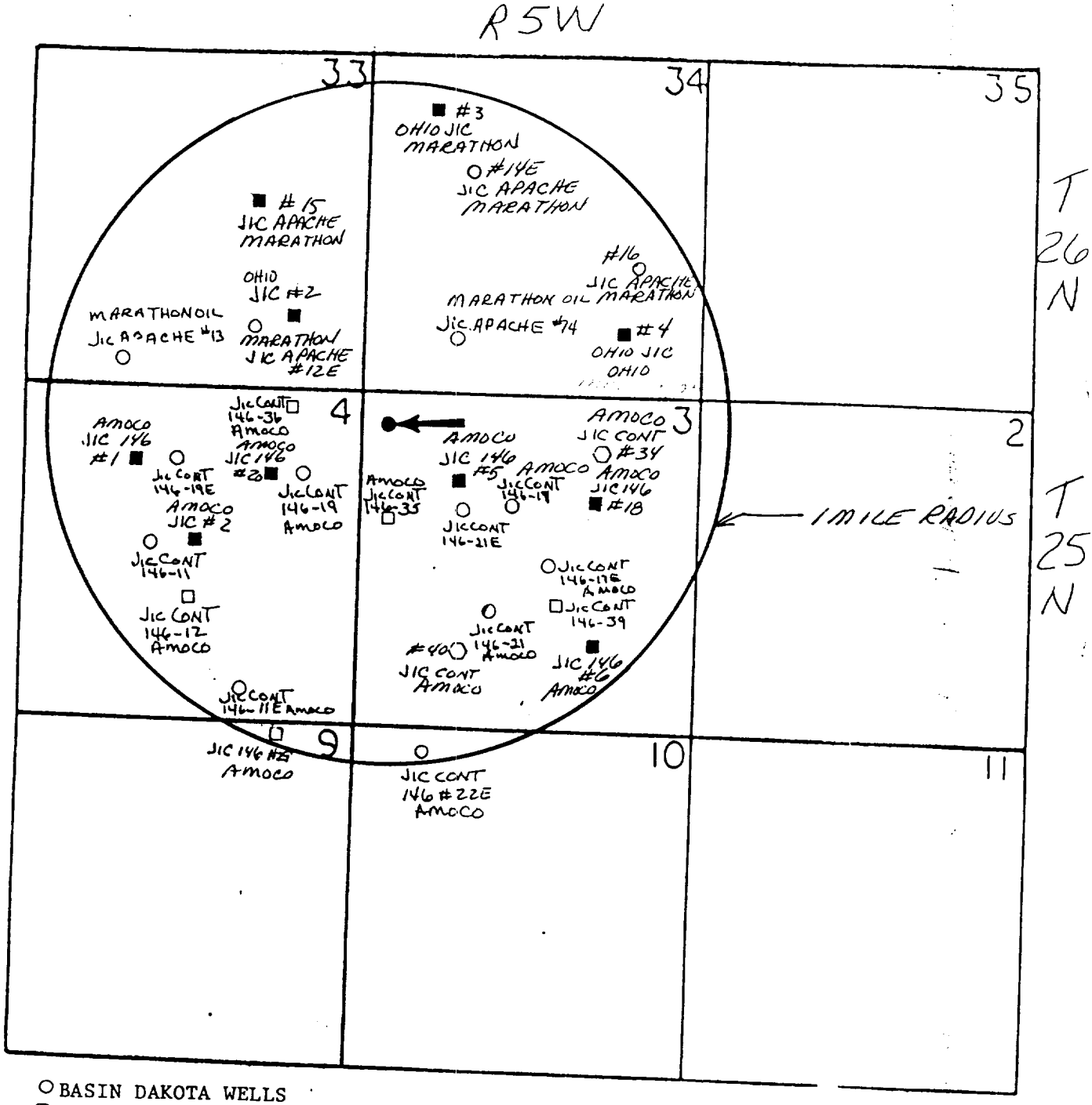
Attachments

✓cc: NMOCD - Aztec, NM

AM6

EXHIBIT C

JICARILLA CONTRACT 146 #35



○ BASIN DAKOTA WELLS
⬡ BLANCO MESAVERDE WELLS
■ BLANCO SO PICTURED CLIFF WELLS
□ OTERO CHACRA WELLS
△ OTERO GALLUP WELLS
● PROPOSED WELL

Amoco Production Company
Petroleum Center Building
501 Airport Drive
Farmington, New Mexico 87401
505-325-8841

R. J. Broussard
District Manager

October 24, 1985

Marathon Oil Company
5505 Hill N Dale Drive
Farmington, New Mexico 87401

File: DDL-1169-400.1

Gentlemen:

Commingling Application
Jicarilla Contract 146 #35
Section 3, Township 25 North, Range 5 West
Rio Arriba County, New Mexico

Amoco Production Company has applied for approval to commingle the Mesaverde and Chacra horizons in the subject well. If you have any objections, you have 20 days to notify the New Mexico Oil Conservation Division. If you do not respond within 20 days, your approval will be assumed.

R. J. Broussard BDS

EDA/cjm

DATE 4-26-85

WELL COMPLETION AND WORKOVER DATA

WELL NAME: Jicarilla Contract 146 #35
LOCATION: 1570 FNL X 1110 FWL Sec. 5, T25N, R5W
Rio Arriba County, New Mexico

ELEVATION: GL: 6602' KB: 6614'
TD: 5345' PBD: 5333'

CASING & CEMENT: 8-5/8" 24# K-55 CSA 298' X 354 Ft^3 Cmt
5-1/2" 17# K-55 CSA 5346' X 1961 Ft^3 Cmt

Tubing 1-1/4" 2.33# J-55 SA 3829'
2-1/16" 3.25# J-55 SA 5258' /1" coiled tubing landed @ 5250'

COMPLETION DATE: 10-21-82 FIRST DELIVERY: 10-23-83 Chacra

COMPLETION INTERVAL: 3790'-3826' Otero Chacra, 5294'-5116' Mesaverde

PERFORATIONS: 3790'-3826', 5116'-5138', 5138'-5147', 5196'-5200', 5210'-5215', 5238'-5242', 5270'-5276', 5290'-5294'

SPECIAL EQUIPMENT: Packer @ 3941'

INITIAL POTENTIAL: 1126 MCFD Chacra
740 MCFD Mesaverde

CORE INTERVAL:

DST RESULTS:

LOGS RUN: Gamma Ray, Duel Induction, Spontaneous Potential, Compensated Density

ORIGINAL COMPLETION: 5116'-5294' - 54,000 gals of 20# gel water X 2% KCL & 72,000# of 10-20 sand.
3790'-3826' - 68,000 gals of frac fluid & 110,000# of 10-20 sand.

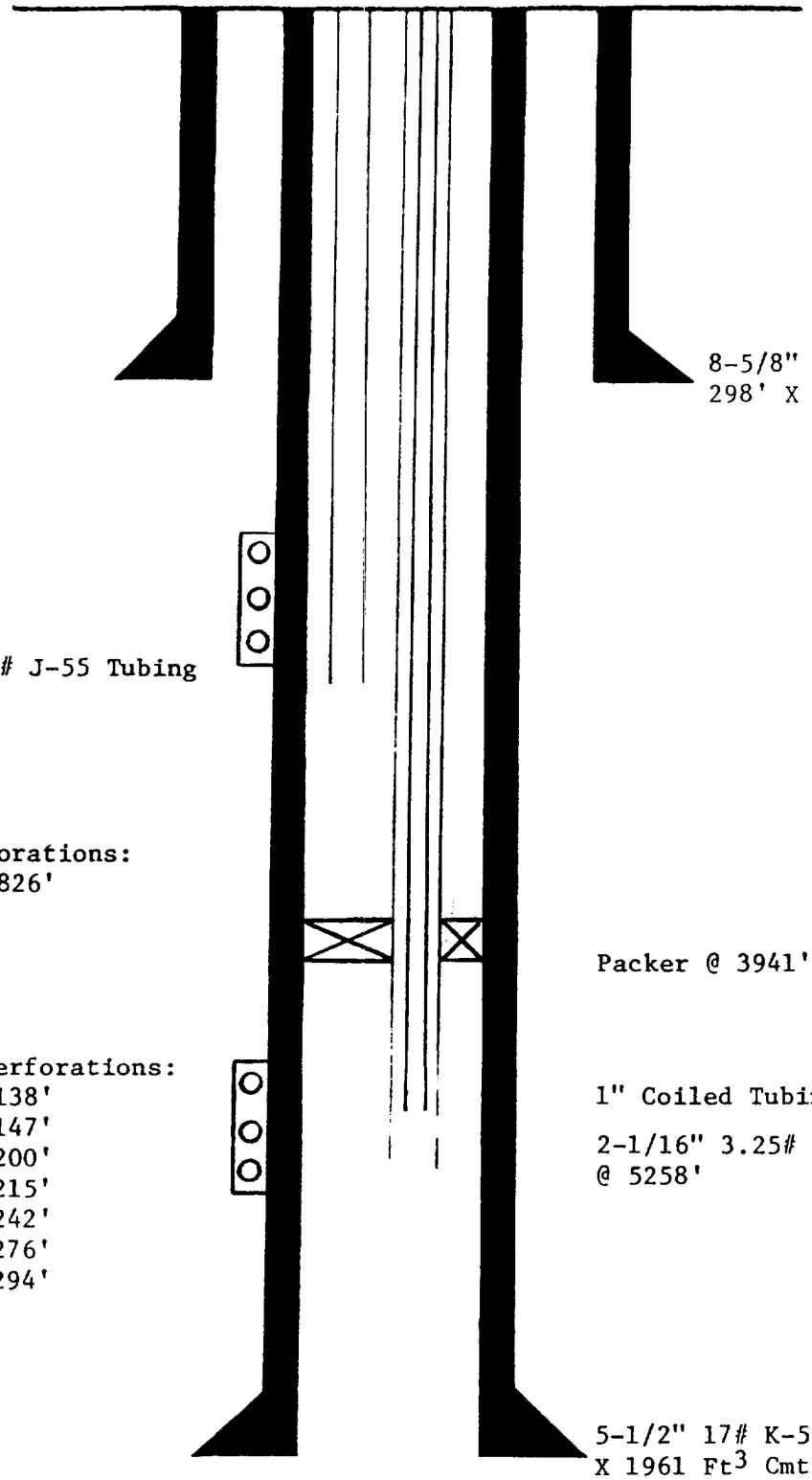
WORKOVERS AND EQUIPMENT CHANGES:

Jicarilla Contract 146 #35

8-20-83 Run pump

3-19-84 Change pump

2-22-85 Installed 1" coiled tubing. Pumped 275 gals. Super A - Sol & 55 gals. WA-766, displaced w/25,000 SCF $1X^2$.



Amoco Production Company	SCALE:
Jicarilla Contract 146 #35	DRG. NO.

Form 3160-4
(Nov. 1983)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE (See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED
NOV 1 1982
BUREAU OF LAND MANAGEMENT
FARMINGTON, NEW MEXICO

RECEIVED
NOV 29 1982
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT

GEOLOGICAL SURVEY
FARMINGTON, N. MEX.

5. LEASE DESIGNATION AND SERIAL NO.: Jicarilla Contract 146

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Jicarilla Apache

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Jicarilla Contract 146

9. WELL NO.: 35

10. FIELD AND POOL, OR WILDCAT: Otero Chacra

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: SW/4, NW/4, Section 3, T25N, R5W

12. COUNTY OR PARISH: Rio Arriba

13. STATE: NM

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

3. ADDRESS OF OPERATOR: 501 Airport Dr., Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: 1570' FNL x 1110' FWL, Section 3, T25N, R5W
At top prod. interval reported below: Same
At total depth: Same

14. PERMIT NO.:

DATE ISSUED:

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
6-18-82	6-29-82	10-21-82	6614' KB	6602' GL

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5345'	5333'	2	→	0 - TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 3790-3826' - Otero Chacra

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray, Dual Induction, Spontaneous Potential, Compensated Density

27. WAS WELL CORED: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	298'	12-1/4"	354 cu ft Class B Neat cmt	Cir 20 cu ft
5-1/2"	17#	5345'	7-7/8"	543 cu ft Class B neat cmt x 1418 cu ft Class B 65:35 POZ, 6% gel, x 2% med tuf plug x .8 FLA.	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
1-1/4"	3834'	3941'

31. PERFORATION RECORD (Interval, size and number)

3790-3826' with 2 spf, .38" holes for a total of 72

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3790-3826'	68,000 gallons of frac fluid and 110,000 pounds of 10-20 sand.

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
10-21-82	Flowing	Shut-In

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10-21-82	3	.75			141		

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
82 psig	496 psig			1126		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): To be sold

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS

ACCEPTED FOR RECORD

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

SIGNED: B.T. [illegible] TITLE: Admin. Supvr. DATE: 11-15-82

NOV 29 1982

FARMINGTON DISTRICT

BY

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

OPERATOR

cc: 4-MMS-Farmington
1-R. Ray-Denver
1-A.P. Payne-"

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
South Blanco PC	2892	2900	Sandstone, Shale
Otero Chacra	3784	3826	Sandstone
Gonzales-Mesaverde	4594	5300	Sandstone, Shale

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

U.S. GOVERNMENT PRINTING OFFICE 943—16—88828-1

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: Jicarilla Contract 146

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Jicarilla Apache

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Jicarilla Contract 146

9. WELL NO.: 35

10. FIELD AND POOL, OR WILDCAT: Gonzales Mesaverde

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: SW/4, NW/4, Section 3, T25N, R5W

12. COUNTY OR PARISH: Rio Arriba

13. STATE: NM

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

3. ADDRESS OF OPERATOR: 501 Airport Dr., Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: 1570' FNL x 1110' FWL
At top prod. interval reported below: Same
At total depth: Same

RECEIVED
NOV 17 1982
AMOCO PRODUCTION
FARMINGTON
U.S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

14. PERMIT NO.: — DATE ISSUED:

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
6-18-82	6-29-82	10-21-82	6614' KB	6602' GL

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5345'	5333'	2	→	0 - TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 5294-5116' - Mesaverde

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray, Dual Induction, Spontaneous Potential, Compensated Density

27. WAS WELL CORED: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	298	12-1/4"	354 cu ft class B neat Cmt	circ. 20 cu ft
5-1/2"	17#	5346	7-7/8"	543 cu ft class B neat cmt x	sur
				1418 cu ft class B 65:35 POZ, 6% gel, x 2% med tuf plug x .8% FLA.	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-1/16"	5256'	3941'

31. PERFORATION RECORD (Interval, size and number)
5116-5138', 5138-5147', 5196-5200', 5210-5215', 5238-5242', 5270-5276', 5290-5294' with 2 spf a total of 108 .40" holes.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5116-5294'	54,000 gallons of 20# gel water 2% KCL and 72,000 pounds of 10-20 sand.

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
10-28-82	Flowing	Shut-In

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10-28-82	3	.75			93		

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
50 psig	50 psig			740		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): To be sold.

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS

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

ACCEPTED FOR RECORD

SIGNED: B. [illegible] TITLE: Admin. Supvr. DATE: 11-15-82

NOV 22 1982

FARMINGTON DISTRICT

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

OPERATOR

3+4-NMS-Farmington
1-D. Ray-Denver
1-A. R. Powers-"

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
South Blanco PC	2892	2900	Sandstone, Shale
Otero Chacra	3784	3826	Sandstone
Gonzales			
Mesaverde	4594	5300	Sandstone, Shale

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

U.S. GOVERNMENT PRINTING OFFICE 643—16—83828-1

Amoco Production Company

ENGINEERING CHART

Sheet No. Of
File
Appn
Date 4/25/85
By EDA

SUBJECT Commingle the 146-31, 146-33, 146-35
Chacra/ Mesaverde

				GAS Allocations	OIL Allocations
JICARILLA CONTRACT	146-31	Sec 10 - 25N-5W			
	BLANCO	MESAVERDE	30 MCFD	17.44 %	100 %
	OTERO	CHACRA	142 MCFD	82.56 %	0 %
			172 MCFD		

				GAS Allocations	OIL Allocations
JICARILLA CONTRACT	146-33	Sec 10-25N-5W			
	BLANCO	MESAVERDE	2 MCFD	3.17 %	100 %
	OTERO	CHACRA	61 MCFD	96.83 %	0 %

				GAS Allocations	OIL Allocations
JICARILLA CONTRACT	146-35	Sec 3-25N-5W			
	BLANCO	MESAVERDE		10.31	100 %
	OTERO	CHACRA		89.69	0 %

NOTE: ALLOCATIONS ARE BASED ON AVERAGE PRODUCTION FOR THE 146-31 & 146-33 WHILE THE 146-35 IS JUST AN AVERAGE OF THE OTHER 2 WELLS.

Amoco Production Company

ENGINEERING CHART

Sheet No. Of
File
Appn
Date
By

SUBJECT

Commingling Applications 146-31, 33, 35

PRESSURES:	(Mesaverde) TP	(Chacra) CP	
146-31	250	150	
146-33	150	265	Tubing pressures are probably low due to high fluid level. They logged off one month prior to the tests.
146-35	35	600	

NOTE: We are unable to obtain bottom hole pressures on these 3 wells due to the wellbore configuration. The small strings of tubing will not allow a pressure bomb to be run inside of them and a fluid level cannot be obtained either. Thus, we have only surface pressures. The tubing pressures are 1" tubing pressures down to the Mesaverde. The casing pressure is actually 2⅛" tubing down to the Chacra.

Form 371 2-71

WELL NAME JICARILLA CONTRACT 146 #35

E-3-25N-5W OTERO CHACRA

	DAYS	BO	BW	MCF	MCFD
JAN	31			7409	239
FEB	21		1	3305	157
MAR	22			4156	189
APR	30			1873	62
MAY	31			2784	90
JUNE	26	—	—	2930	113
JULY	31	—	—	2095	68
AUG	31	—	—	1955	63
SEPT	14	—	—	864	62
OCT	3	—	—	222	74
NOV	22	—	—	2972	135
DEC	Shut-In				0

1985

	DAYS	BO	BW	MCF	MCFD
JAN	20			4	0.2
FEB	28			774	27.6
MAR	17			1076	63.3
APR	1			380	380
MAY	11			382	35
JUNE	11			926	84
JULY	31			136	4
AUG					
SEPT					
OCT					
NOV					
DEC					

	DAYS	BO	BW	MCF	MCFD
JAN					
FEB					
MAR					
APR					
MAY					
JUNE					
JULY					
AUG					
SEPT					
OCT					
NOV					
DEC					

	DAYS	BO	BW	MCF	MCFD
JAN					
FEB					
MAR					
APR					
MAY					
JUNE					
JULY					
AUG					
SEPT					
OCT					
NOV					
DEC					