

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241 1980

## DISTRICT II

811 South First St. Artesia NM 88210 2835

## DISTRICT III

1000 Rio Brazos Rd. Artesia NM 87410 1693

State of New Mexico  
Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429Form C-107-A  
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

Conoco Inc.

10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Jicarilla K

14

Section 11, T-25-N, R-5-W, O

Rio Arriba

Lease

Well No

Unit Ltr Sec Twp Rge

County

OGRID NO. 005073

Property Code

18023

API NO.

30-039-20392

Spacing Unit Lease Types: (check 1 or more)

Federal ☒State ☐(and/or) Fee ☐

| The following facts are submitted in support of downhole commingling:                                                         | Upper Zone                                           | Intermediate Zone                                    | Lower Zone                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------|
| 1. Pool Name and Pool Code                                                                                                    | Blanco Pictured Cliffs South<br>72439                | Otero Chacra<br>82329                                | Blanco Mesaverde<br>72319                                                       |
| 2. TOP and Bottom of Pay Section (Perforations)                                                                               | 3064-3114'                                           | 3950-3980'                                           | 5075-5510'                                                                      |
| 3. Type of production (Oil or Gas)                                                                                            | Gas                                                  | Gas                                                  | Gas                                                                             |
| 4. Method of Production (Flowing or Artificial Lift)                                                                          | Flowing                                              | Flowing                                              | To Flow                                                                         |
| 5. Bottomhole Pressure                                                                                                        | a (Current)                                          | a.                                                   | a.                                                                              |
| Oil Zones - Artificial Lift: Estimated Current                                                                                | 378                                                  | 503                                                  | 560                                                                             |
| Gas & Oil - Flowing: Measured Current                                                                                         | b(Original)                                          | b.                                                   | b.                                                                              |
| All Gas Zones: Estimated Or Measured Original                                                                                 | 1140                                                 | 1012                                                 | 1317                                                                            |
| 6. Oil Gravity (*API) or Gas BT Content                                                                                       | 1225                                                 | 1204                                                 | 1324                                                                            |
| 7. Producing or Shut-In?                                                                                                      | Producing                                            | Shut-in                                              | To Be Completed                                                                 |
| Production Marginal? (yes or no)                                                                                              | Yes                                                  | Yes                                                  | Yes                                                                             |
| • If Shut-In give date and oil/gas/water rates of last production                                                             | Date Rates                                           | Date Rates<br>Est 7/98<br>24 MCFD, 0 BOPD,<br>0 BWPD | Date Rates                                                                      |
| Note: For new zones with no production history applicant shall be required to attach production estimates and supporting data |                                                      |                                                      |                                                                                 |
| • If Producing, date and oil/gas/water rates of recent test (within 60 days)                                                  | Date Rates<br>Est 7/98<br>14 MCFD, 0 BOPD,<br>0 BWPD | Date Rates                                           | Date Rates<br>Production to be allocated by subtraction<br>- See attached table |
| 8. Fixed Percentage Allocation Formula - % of each zone                                                                       | % Gas %                                              | % Gas %                                              | % Gas %                                                                         |

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?  
If not, have all working, overriding, and royalty interests been notified by certified mail?  
Have all offset operators been given written notice of the proposed downhole commingling?  
X Yes \_\_\_ No  
\_\_\_ Yes X No  
X Yes \_\_\_ No

11. Will cross-flow occur? X Yes \_\_\_ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. X Yes \_\_\_ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each others X Yes \_\_\_ No

13. Will the value of production be decreased by commingling? \_\_\_ Yes X No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. X Yes \_\_\_ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). DHC Order # 806

## 16. ATTACHMENTS

- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support allocation method or formula.
- \* Notification list of all offset operators.
- \* Notification list of working, overriding and royalty interests for uncommon interest cases.
- \* Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kay Maddox TITLE Regulatory Agent DATE February 16, 1998TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241 1980

DISTRICT II  
811 South First St. Artesia NM 88210 2835

DISTRICT III  
1000 Rio Brazos Rd. Aztec, NM 87410 1693

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

Form C-107-A  
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Conoco Inc. 10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500  
Address

Jicarilla K 14 Section 11, T-25-N, R-5-W, O Rio Arriba  
Lease Well No Unit Ltr Sec Twp Rge County

OGRID NO. 005073 Property Code 18023 API NO. 30-039-20392  
Spacing Unit Lease Types: (check 1 or more)  
Federal ☒ State ☐ (and/or) Fee ☐

| The following facts are submitted in support of downhole commingling:                                                                                                                               | Upper Zone                 | Intermediate Zone | Lowest Zone                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------|------------------------------------------|
| 1. Pool Name and Pool Code                                                                                                                                                                          |                            |                   | Basin Dakota 71599                       |
| 2. TOP and Bottom of Pay Section (Perforations)                                                                                                                                                     |                            |                   | 7262-7278'                               |
| 3. Type of production (Oil or Gas)                                                                                                                                                                  |                            |                   | Gas                                      |
| 4. Method of Production (Flowing or Artificial Lift)                                                                                                                                                |                            |                   | Flowing                                  |
| 5. Bottomhole Pressure<br>Oil Zones - Artificial Lift: Estimated Current<br>Gas & Oil - Flowing: Measured Current<br>All Gas Zones: Estimated Or Measured Original                                  | a (Current)<br>b(Original) | a<br>b            | a.<br>949<br>b.<br>2804                  |
| 6. Oil Gravity (°API) or Gas BT Content                                                                                                                                                             |                            |                   | 1275                                     |
| 7. Producing or Shut-In?                                                                                                                                                                            |                            |                   | Shut-in                                  |
| Production Marginal? (yes or no)                                                                                                                                                                    |                            |                   | Yes                                      |
| • If Shut-In give date and oil/gas/ water rates of last production<br>Note: For new zones with no production history applicant shall be required to attach production estimates and supporting data | Date<br>Rates              | Date<br>Rates     | Est 7/98<br>47 MCFD, 0.7 BOPD,<br>0 BWPD |
| • If Producing, date and oil/gas/ water rates of recent test (within 60 days)                                                                                                                       | Date<br>Rates              | Date<br>Rates     |                                          |
| 8. Fixed Percentage Allocation Formula - % for each zone                                                                                                                                            | % Gas %                    | % Gas %           | % Gas                                    |

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No  
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No  
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No

11. Will cross-flow occur? ☒ Yes ☐ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☒ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each others ☒ Yes ☐ No

13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). DHC # 806

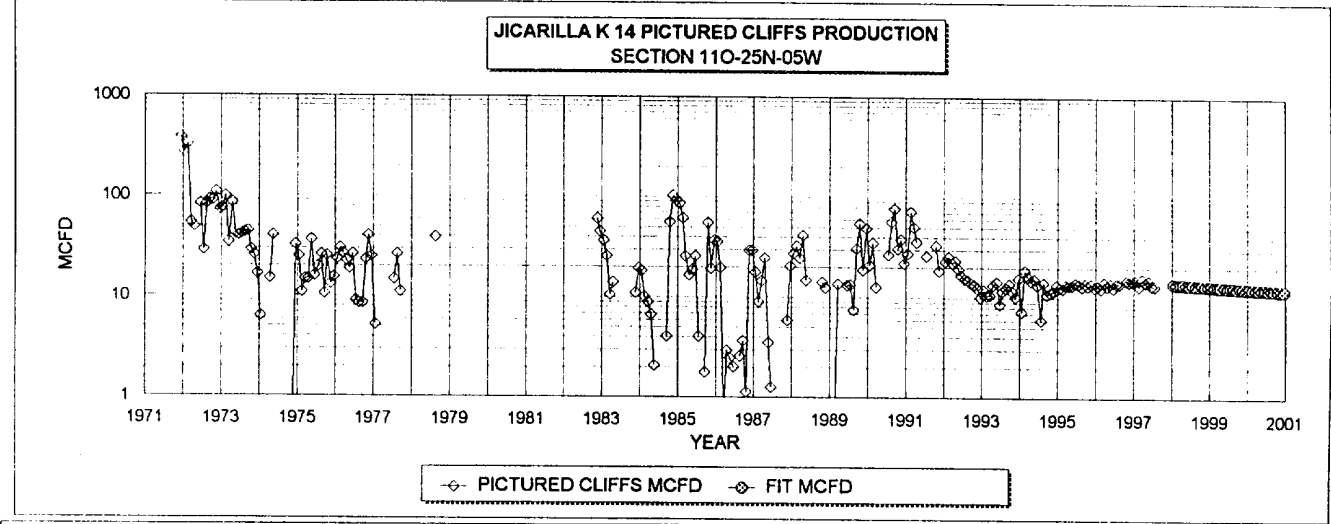
16. ATTACHMENTS

- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support allocation method or formula.
- \* Notification list of all offset operators.
- \* Notification list of working, overriding and royalty interests for uncommon interest cases.
- \* Any additional statements, data, or documents required to support commingling.

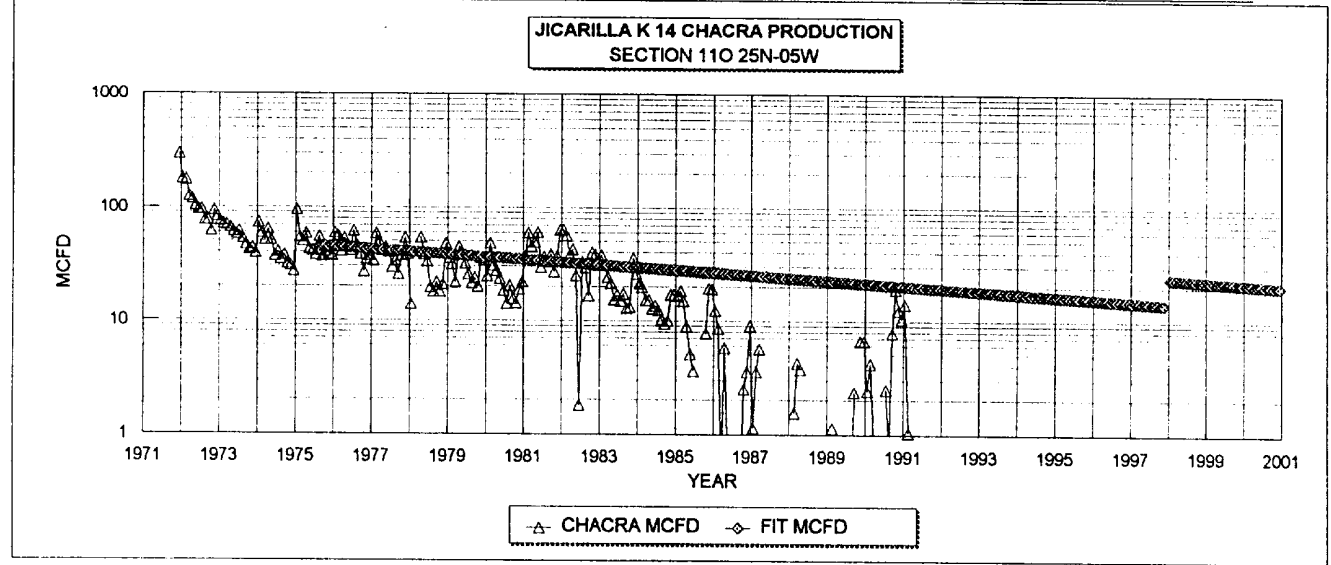
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kay Maddox TITLE Regulatory Agent DATE February 16, 1998

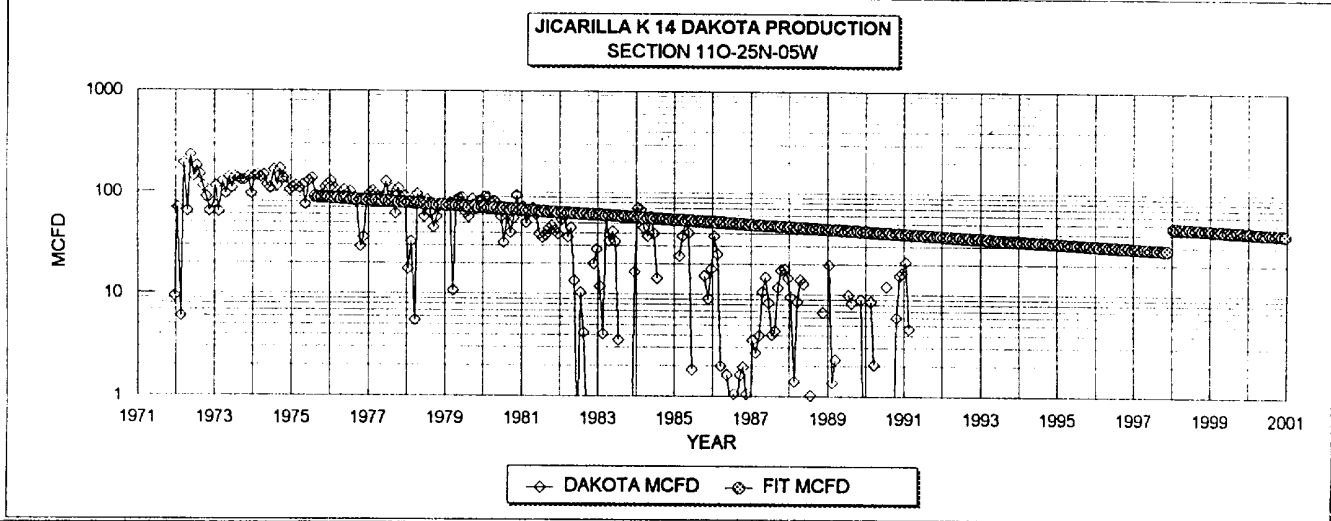
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798



|                                                  |                |                            |                    |
|--------------------------------------------------|----------------|----------------------------|--------------------|
| PICTURED CLIFFS HISTORICAL DATA: 1ST PROD: 12/71 |                | PIC. CLIFFS PROJECTED DATA |                    |
| OIL CUM:                                         | 0.11 MBO       | 7/1/98 Q1:                 | 14 MCFD            |
| GAS CUM:                                         | 179.8 MMCF     | DECLINE RATE:              | 5.1% (EXPONENTIAL) |
| OIL YIELD:                                       | 0.0006 BBL/MCF |                            |                    |



|                                         |                |                       |                    |
|-----------------------------------------|----------------|-----------------------|--------------------|
| CHACRA HISTORICAL DATA: 1ST PROD: 12/71 |                | CHACRA PROJECTED DATA |                    |
| OIL CUM:                                | 0.0 MBO        | 7/1/98 Q1:            | 24 MCFD            |
| GAS CUM:                                | 214.3 MMCF     | DECLINE RATE:         | 5.1% (EXPONENTIAL) |
| OIL YIELD:                              | 0.0000 BBL/MCF |                       |                    |



|                                         |                |                       |                    |
|-----------------------------------------|----------------|-----------------------|--------------------|
| DAKOTA HISTORICAL DATA: 1ST PROD: 12/71 |                | DAKOTA PROJECTED DATA |                    |
| OIL CUM:                                | 5.8 MBO        | 7/1/98 Q1:            | 47 MCFD            |
| GAS CUM:                                | 374.0 MMCF     | DECLINE RATE:         | 5.1% (EXPONENTIAL) |
| OIL YIELD:                              | 0.0158 BBL/MCF |                       |                    |

|                                     |     |      |                                                 |
|-------------------------------------|-----|------|-------------------------------------------------|
| FIXED COMMINGLE ALLOCATION FACTORS: |     |      |                                                 |
|                                     | GAS | OIL  |                                                 |
| PIC. CLIFFS                         | 17% | 0%   | GAS ALLOCATION BASED ON PROJECTED 1998 RATES    |
| CHACRA                              | 28% | 0%   | OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS |
| DAKOTA                              | 55% | 100% |                                                 |

NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA

JICARILLA K 14: PICTURED CLIFFS, CHACRA, AND DAKOTA FORECAST FOR SUBTRACTION COMMINGLE WITH MESAVERDE  
110-25N-05W

(7-12/98 AVG)

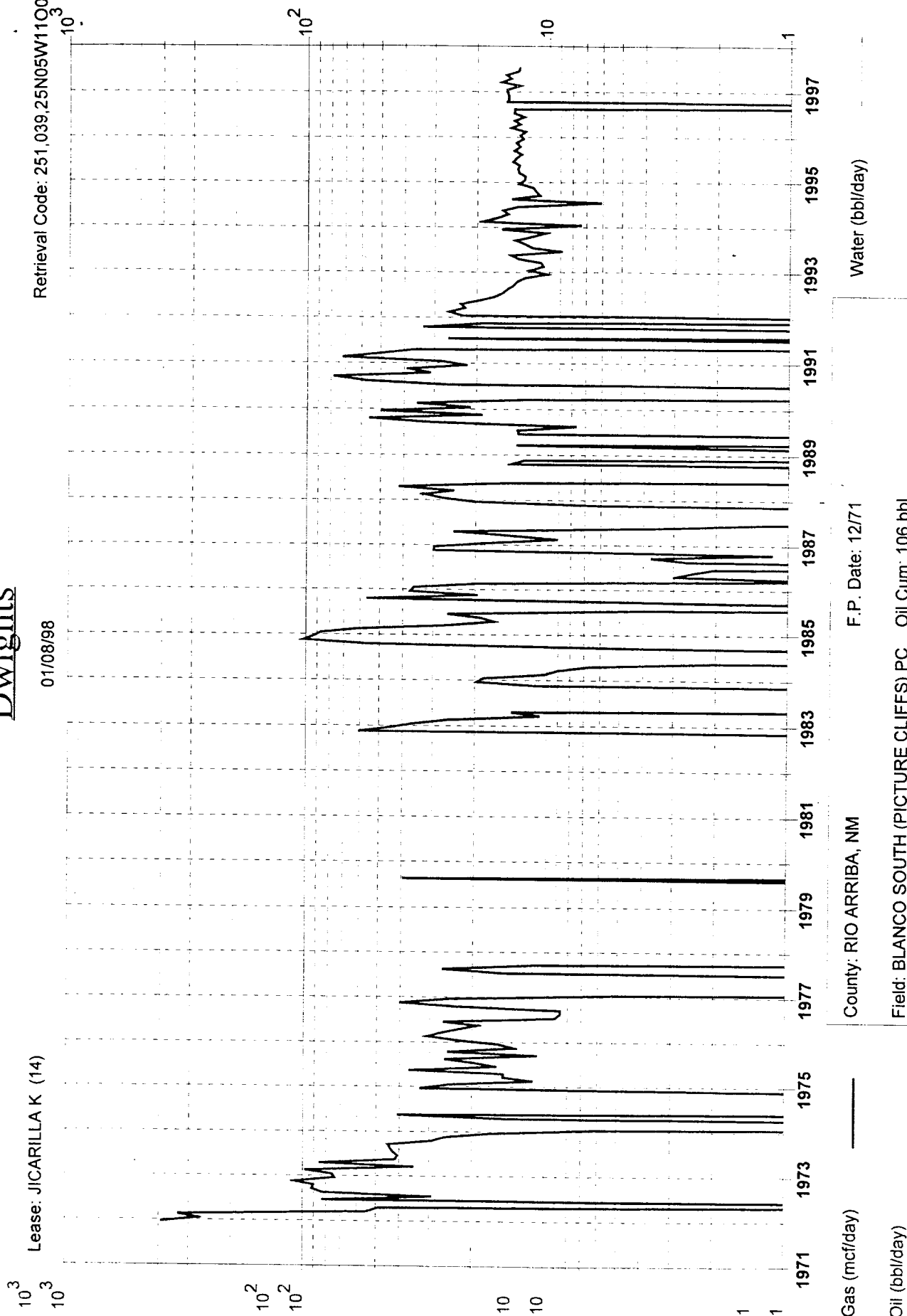
| YEAR | PICT. CLIFFS | CHACRA | DAKOTA | TOTAL | PICT. CLIFFS | CHACRA    | DAKOTA    |
|------|--------------|--------|--------|-------|--------------|-----------|-----------|
|      | MCFD         | MCFD   | MCFD   | MCFD  | OIL; BOPD    | OIL; BOPD | OIL; BOPD |
| 1998 | 14           | 23     | 46     | 83    | 0.0          | 0.0       | 0.7       |
| 1999 | 13           | 23     | 44     | 80    | 0.0          | 0.0       | 0.7       |
| 2000 | 13           | 21     | 42     | 76    | 0.0          | 0.0       | 0.7       |
| 2001 | 12           | 20     | 40     | 72    | 0.0          | 0.0       | 0.6       |
| 2002 | 11           | 19     | 38     | 68    | 0.0          | 0.0       | 0.6       |
| 2003 | 11           | 18     | 36     | 65    | 0.0          | 0.0       | 0.6       |
| 2004 | 10           | 17     | 34     | 62    | 0.0          | 0.0       | 0.5       |
| 2005 | 10           | 16     | 32     | 59    | 0.0          | 0.0       | 0.5       |
| 2006 | 9            | 16     | 31     | 56    | 0.0          | 0.0       | 0.5       |
| 2007 | 9            | 15     | 29     | 53    | 0.0          | 0.0       | 0.6       |
| 2008 | 8            | 14     | 28     | 50    | 0.0          | 0.0       | 0.4       |
| 2009 | 8            | 13     | 26     | 47    | 0.0          | 0.0       | 0.4       |
| 2010 | 7            | 13     | 25     | 45    | 0.0          | 0.0       | 0.4       |
| 2011 | 7            | 12     | 24     | 43    | 0.0          | 0.0       | 0.4       |
| 2012 | 7            | 11     | 22     | 41    | 0.0          | 0.0       | 0.3       |
| 2013 | 6            | 11     | 21     | 38    | 0.0          | 0.0       | 0.3       |
| 2014 | 6            | 10     | 20     | 37    | 0.0          | 0.0       | 0.3       |
| 2015 | 6            | 10     | 19     | 35    | 0.0          | 0.0       | 0.3       |
| 2016 | 5            | 9      | 18     | 33    | 0.0          | 0.0       | 0.3       |
| 2017 | 5            | 9      | 17     | 31    | 0.0          | 0.0       | 0.3       |
| 2018 | 5            | 8      | 16     | 30    | 0.0          | 0.0       | 0.3       |
| 2019 | 5            | 8      | 16     | 28    | 0.0          | 0.0       | 0.2       |
| 2020 | 4            | 8      | 15     | 27    | 0.0          | 0.0       | 0.2       |
| 2021 | 4            | 7      | 14     | 25    | 0.0          | 0.0       | 0.2       |
| 2022 | 4            | 7      | 13     | 24    | 0.0          | 0.0       | 0.2       |
| 2023 | 4            | 6      | 13     | 23    | 0.0          | 0.0       | 0.2       |
| 2024 | 4            | 6      | 12     | 22    | 0.0          | 0.0       | 0.2       |
| 2025 | 3            | 6      | 11     | 21    | 0.0          | 0.0       | 0.2       |
| 2026 | 3            | 5      | 11     | 19    | 0.0          | 0.0       | 0.2       |
| 2027 | 3            | 5      | 10     | 18    | 0.0          | 0.0       | 0.2       |
| 2028 | 3            | 5      | 10     | 18    | 0.0          | 0.0       | 0.2       |
| 2029 | 3            | 5      | 9      | 17    | 0.0          | 0.0       | 0.1       |
| 2030 | 3            | 4      | 9      | 16    | 0.0          | 0.0       | 0.1       |
| 2031 | 2            | 4      | 8      | 15    | 0.0          | 0.0       | 0.1       |
| 2032 | 2            | 4      | 8      | 14    | 0.0          | 0.0       | 0.1       |
| 2033 | 2            | 4      | 7      | 14    | 0.0          | 0.0       | 0.1       |
| 2034 | 2            | 4      | 7      | 13    | 0.0          | 0.0       | 0.1       |
| 2035 | 2            | 3      | 7      | 12    | 0.0          | 0.0       | 0.1       |
| 2036 | 2            | 3      | 6      | 12    | 0.0          | 0.0       | 0.1       |
| 2037 | 2            | 3      | 6      | 11    | 0.0          | 0.0       | 0.1       |
| 2038 | 2            | 3      | 6      | 10    | 0.0          | 0.0       | 0.1       |
| 2039 | 2            | 3      | 5      | 10    | 0.0          | 0.0       | 0.1       |
| 2040 | 2            | 3      | 5      | 9     | 0.0          | 0.0       | 0.1       |
| 2041 | 1            | 3      | 5      | 9     | 0.0          | 0.0       | 0.1       |
| 2042 | 1            | 2      | 5      | 8     | 0.0          | 0.0       | 0.1       |
| 2043 | 1            | 2      | 4      | 8     | 0.0          | 0.0       | 0.1       |
| 2044 | 1            | 2      | 4      | 8     | 0.0          | 0.0       | 0.1       |
| 2045 | 1            | 2      | 4      | 7     | 0.0          | 0.0       | 0.1       |
| 2046 | 1            | 2      | 4      | 7     | 0.0          | 0.0       | 0.1       |
| 2047 | 1            | 2      | 4      | 6     | 0.0          | 0.0       | 0.1       |
| 2048 | 1            | 2      | 3      | 6     | 0.0          | 0.0       | 0.1       |
| 2049 | 1            | 2      | 3      | 6     | 0.0          | 0.0       | 0.1       |
| 2050 | 1            | 2      | 3      | 6     | 0.0          | 0.0       | 0.0       |

# Dwights

Lease: JICARILLA K (14)

01/08/98

Retrieval Code: 251,039,25N05W11Q00PC



Gas (mcf/day)

Oil (bbl/day)

Water (bbl/day)

F.P. Date: 12/71

County: RIO ARRIBA, NM

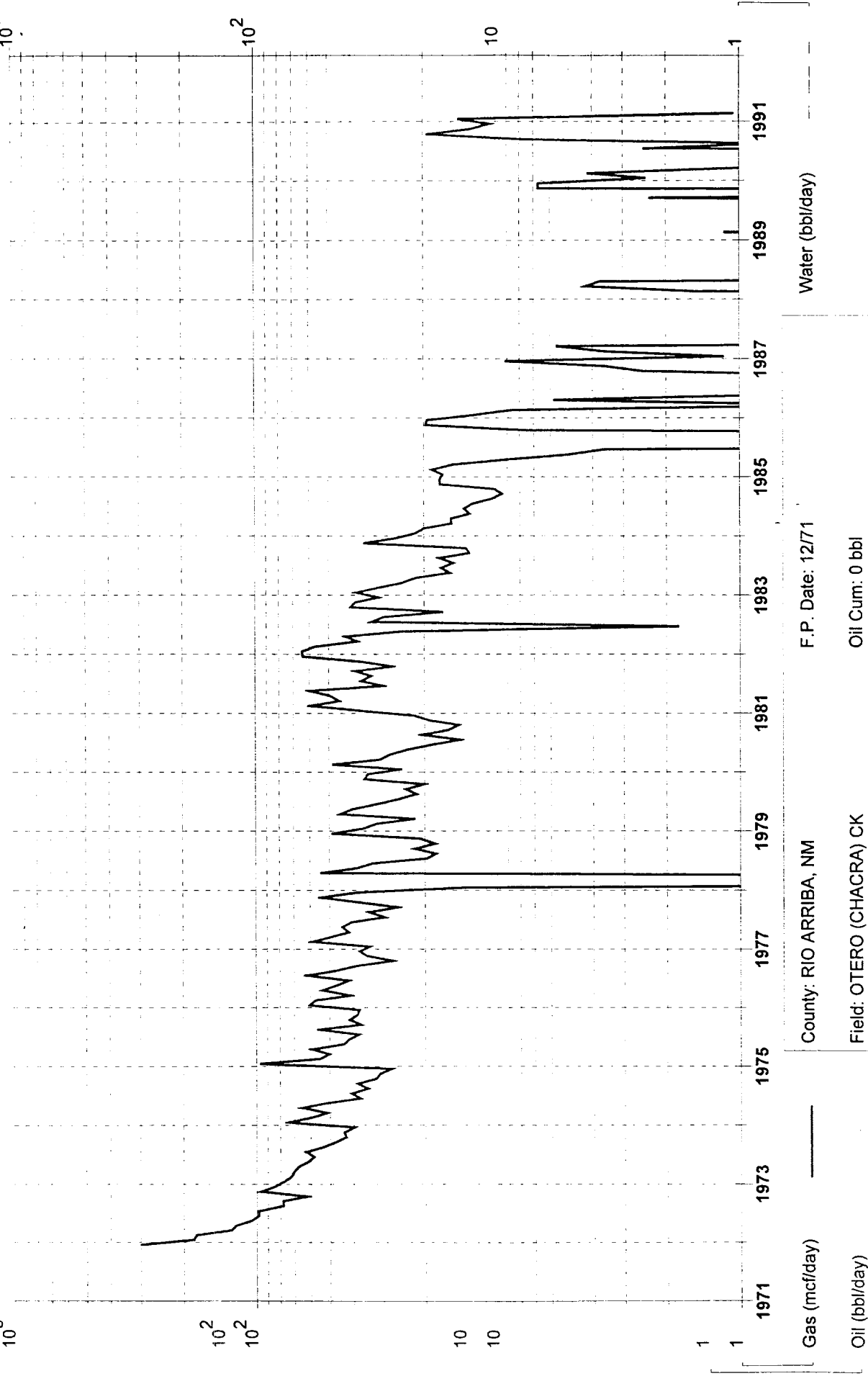
Field: BLANCO SOUTH (PICTURE CLIFFS) PC Oil Cum: 106 bbl

Reservoir: PICTURE CLIFFS Gas Cum: 179.8 mmcf

Operator: CONOCO INC Location: 110 25N 5W

# Dwights

Lease: JICARILLA K (000014)      01/08/98      Retrieval Code: 251,039,25N05W11Q00CK



F.P. Date: 12/71

County: RIO ARRIBA, NM

Oil Cum: 0 bbl

Field: OTERO (CHACRA) CK

Gas Cum: 214.3 mmcf

Reservoir: CHACRA

Location: 11O 25N 5W

Operator: MERIT ENERGY CORP

District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd. Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe. NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102

Revised February 21, 1994

instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                            |                                                                                   |                      |                                 |
|----------------------------|-----------------------------------------------------------------------------------|----------------------|---------------------------------|
| API Number<br>30-039-20392 |                                                                                   | 2 Pool Code<br>72319 | 3 Pool Name<br>Blanco Mesaverde |
| 4 Property Code<br>18023   | 5 Property Name<br>Jicarilla K                                                    |                      | 6 Well Number<br>14             |
| 7 OGRID No.<br>005073      | 8 Operator Name<br>Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500 |                      | 9 Elevation<br>6798'KB          |

## 10 Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| O             | 11      | 25N      | 5W    |         | 975           | South            | 1640          | East           | Rio Arriba |

## 11 Bottom Hole Location If Different From Surface

|                    |                   |                       |       |              |               |                  |               |                |        |
|--------------------|-------------------|-----------------------|-------|--------------|---------------|------------------|---------------|----------------|--------|
| UL or lot no.      | Section           | Township              | Range | Lot Idn      | Feet from the | North/South line | Feet from the | East/West line | County |
| 12 Dedicated Acres | 13 Joint or Infil | 14 Consolidation Code |       | 15 Order No. |               |                  |               |                |        |
| 320                |                   |                       |       |              |               |                  |               |                |        |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

[illegible]

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form 2001  
Superseded  
Effective 1-1-61

All distances must be from the outer boundaries of the Section

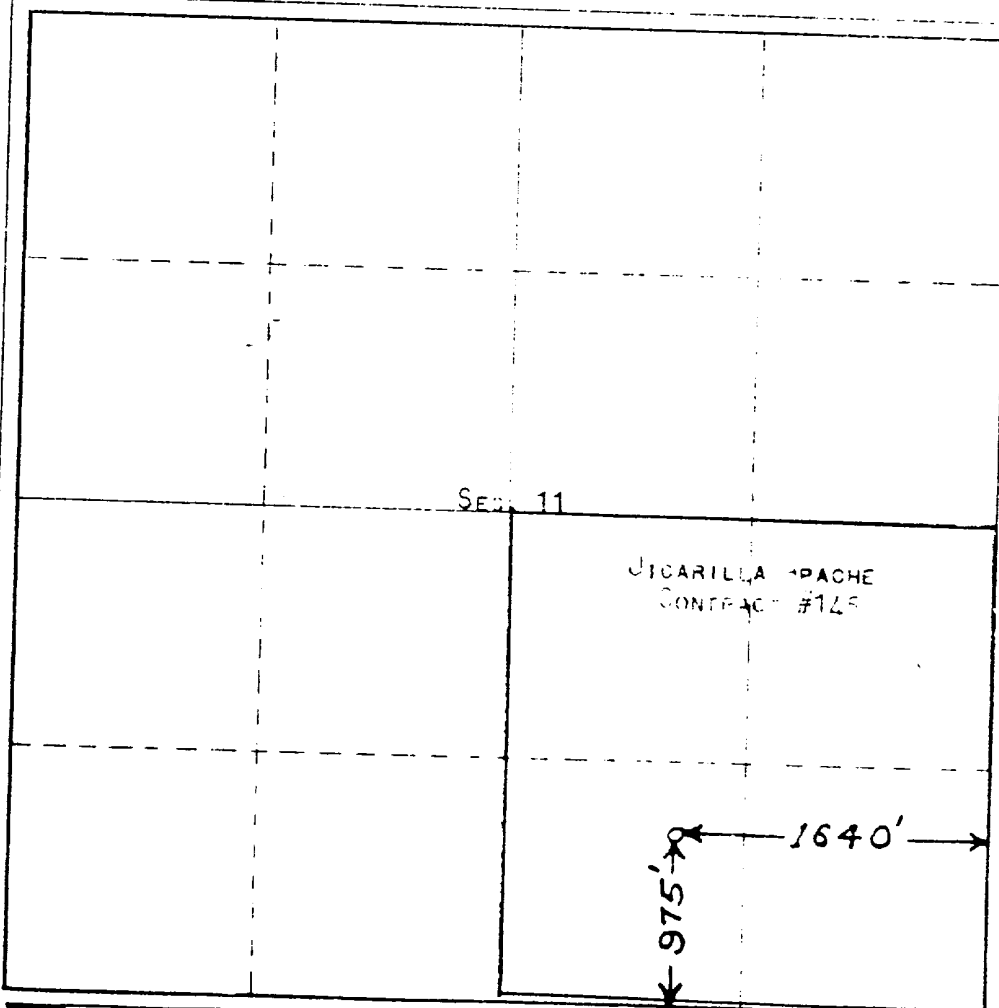
|                                                      |                                      |                                               |                           |                                   |                  |
|------------------------------------------------------|--------------------------------------|-----------------------------------------------|---------------------------|-----------------------------------|------------------|
| Operator<br><b>SOUTHERN UNION PRODUCTION COMPANY</b> |                                      |                                               |                           | Well Name<br><b>JICARILLA #11</b> |                  |
| Section<br><b>0</b>                                  | Range<br><b>11</b>                   | Meridian<br><b>25 NORTH</b>                   | County<br><b>SAN JUAN</b> | State<br><b>NEW MEXICO</b>        | Map<br><b>14</b> |
| Acres<br><b>975</b>                                  | Direction<br><b>SOUTH</b>            | Distance<br><b>1640</b>                       | Direction<br><b>EAST</b>  |                                   |                  |
| Ground Level Elev.<br><b>6787.0</b>                  | Producing Formation<br><b>CHACRA</b> | Other Chacra Ext.<br><b>OTERO CHACRA EXT.</b> |                           |                                   |                  |

1. Outline the acreage dedicated to the subject well by colored pencil or by tape marks.
2. If more than one lease is dedicated to the well, outline each and identify the ownership (including interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



Signature  
*Gilbert D. No and Co.*  
GILBERT D. NO AND CO.  
DRILLING SUPERINTENDENT  
SOUTHERN UNION PRODUCTION  
NOVEMBER 3, 1955

I hereby certify that the well shown on this plat was drilled on the sites of acreage shown and was drilled under my supervision and that the same is true and correct to the best of my knowledge and belief.

1324 JUNE 1, 1956

JAMES E. EGG

All distances must be from the outer boundaries of the Section

No allowable will be assigned to the well until all interests have been consolidated in a common action, unitization, forced pooling, or otherwise, in an action standard unit, allocating such interests, has been approved by the Commission.

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

Conoco, Inc.  
Jicarilla K #14  
Section 11, T-25-N, R-5-W, O  
Rio Arriba County, New Mexico

RE: Application for Downhole Commingling

**Offset Operators:**

Conoco, Inc. Is the only offset operator

CONDITIONS OF APPROVAL FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Well Name Jicarilla K #14

1. The individual production zones will be tested every three years, or more often if production rates indicate a change to allocation factors, to verify that the allocation factors and methods remain proper.
2. Production from downhole commingled wells are to be reported with an alpha character, "C" (ie C1, C2, etc).
3. The following modifications to your downhole commingling program are to be made :

None

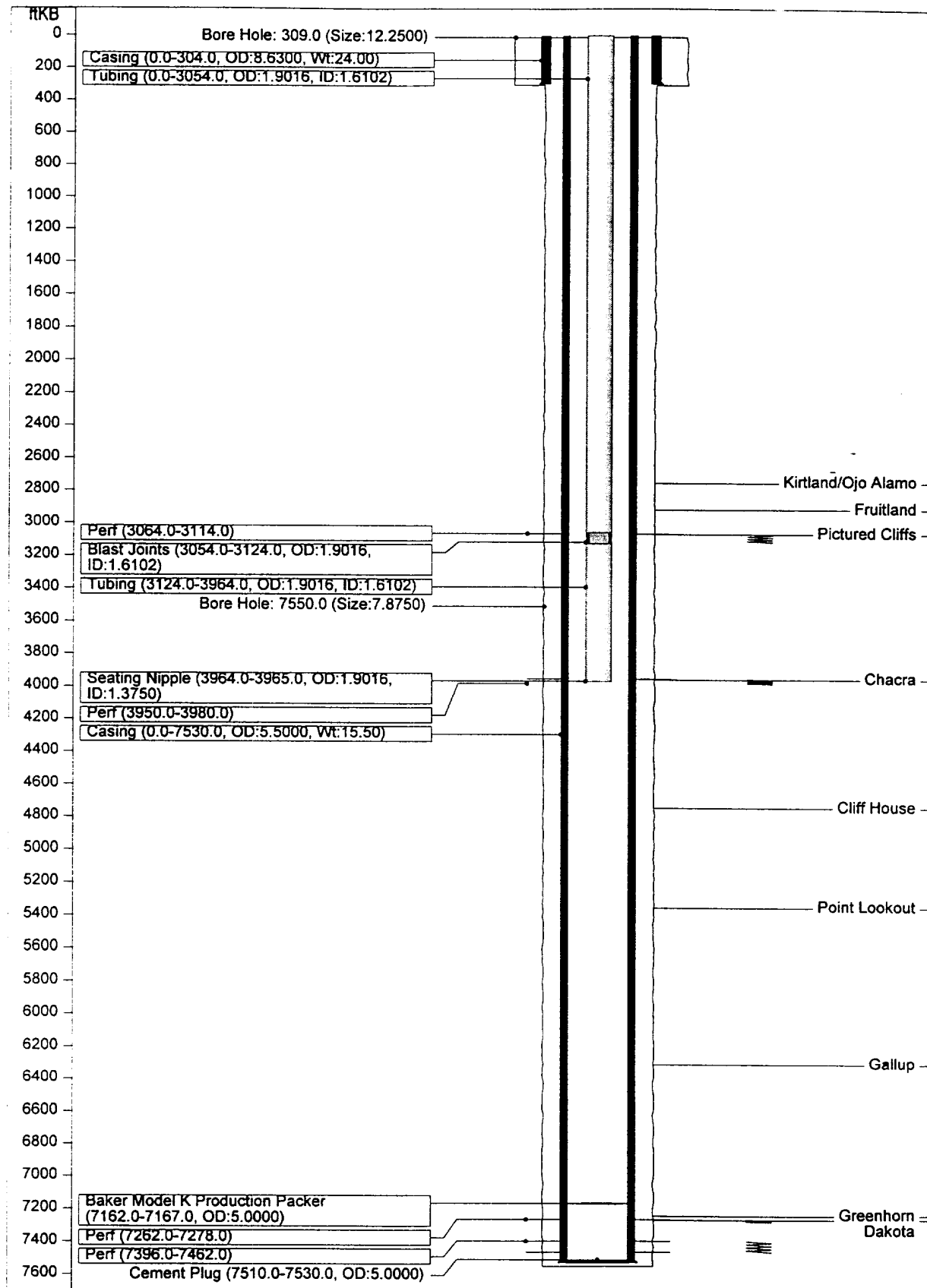
## **Jicarilla K #14**

### **Economic Evaluation**

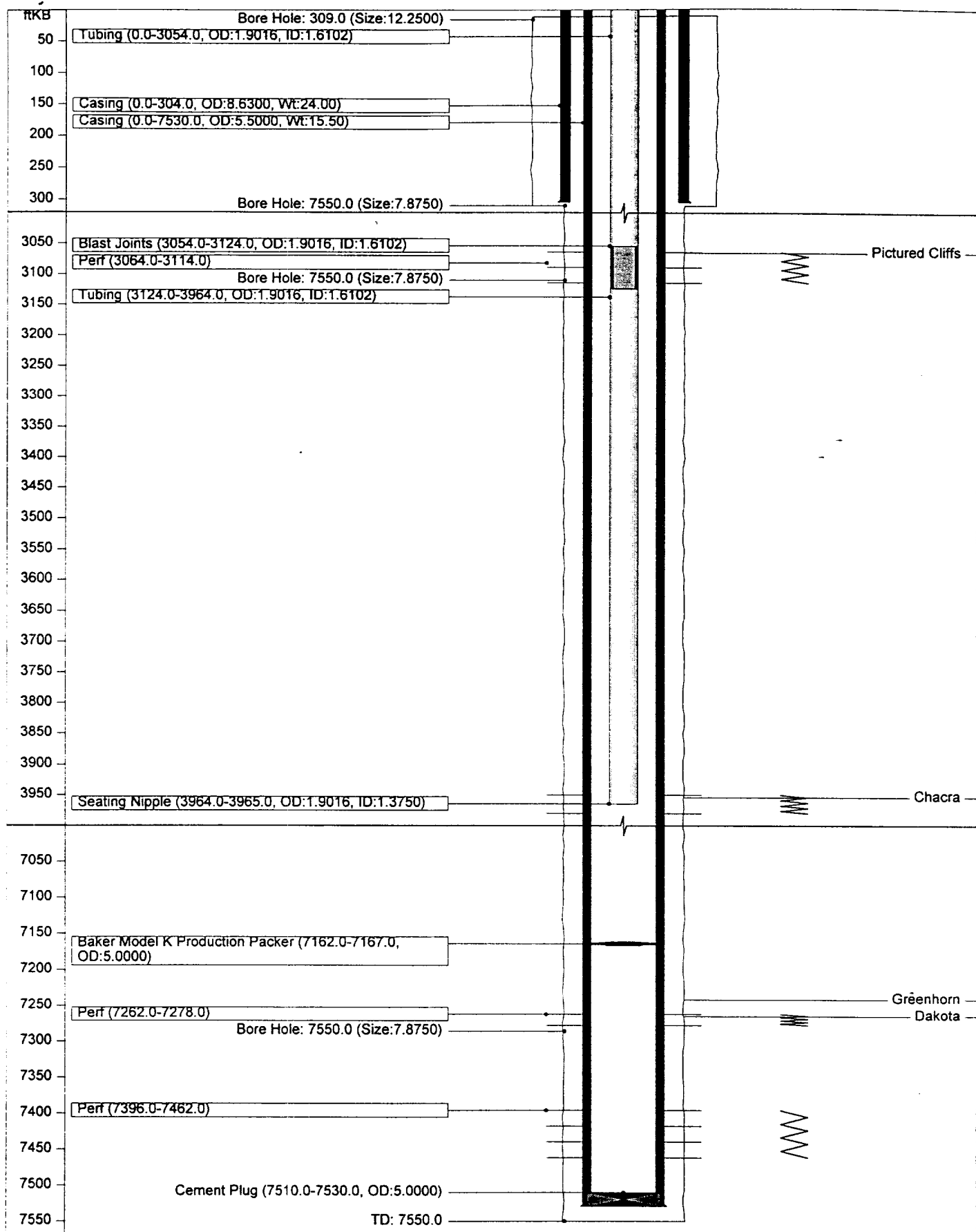
The subject wellbore has 5.5" casing (ID of 4.950"). It is physically impossible to install 4 strings of tubing in the wellbore to produce each zone separately.

Production from each of the four zones (Dakota, Mesa Verde, Chacra, and Pictured Cliffs) is marginal and artificial lift equipment (plunger lift) will be required to remove fluids from the wellbore in order to produce the well at the most efficient rate. The use of 2.375" tubing is the preferred size of tubing to install and operate plunger lift systems in.

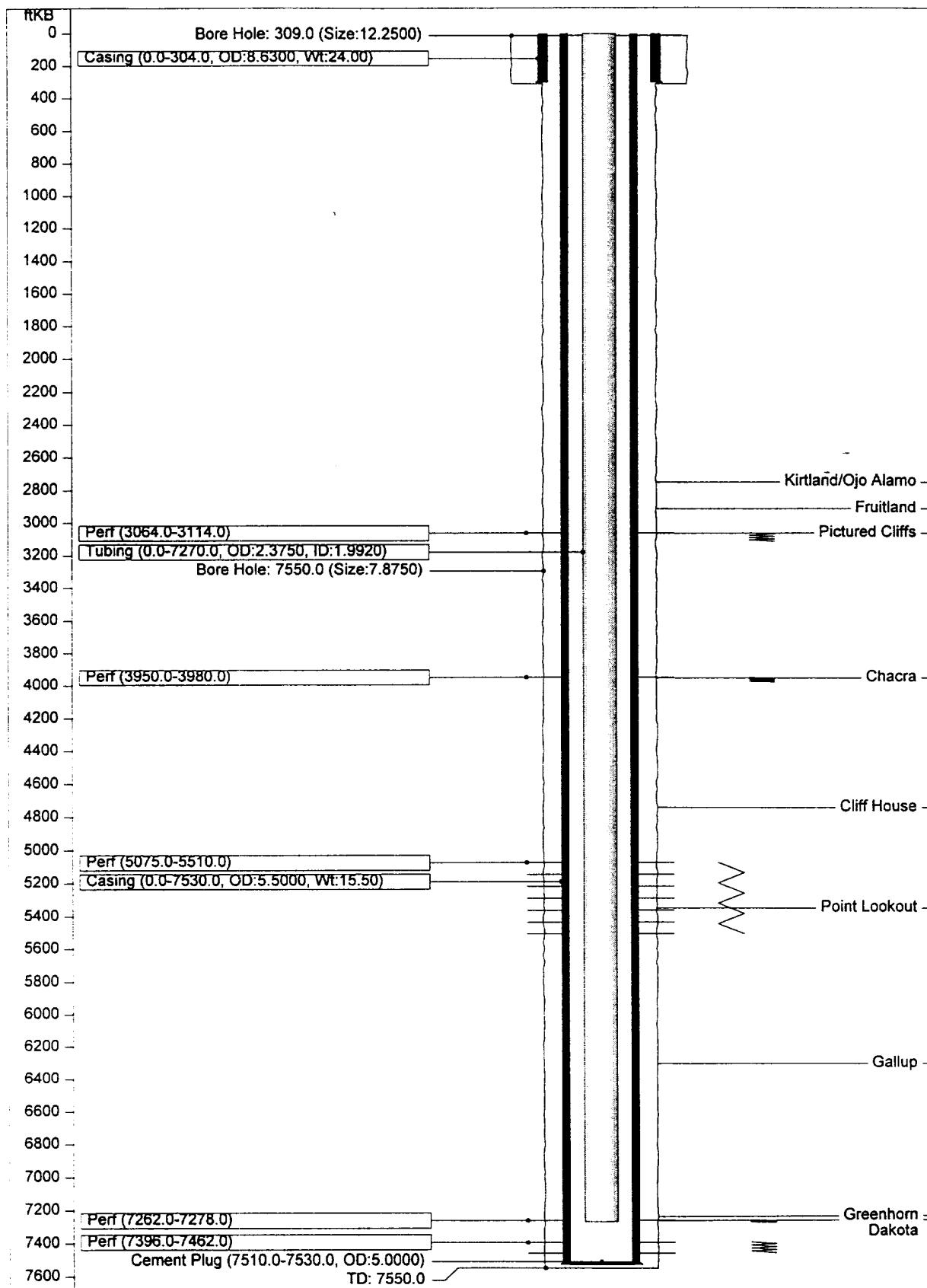
# JICARILLA K 14 (GMH 4/10/97)



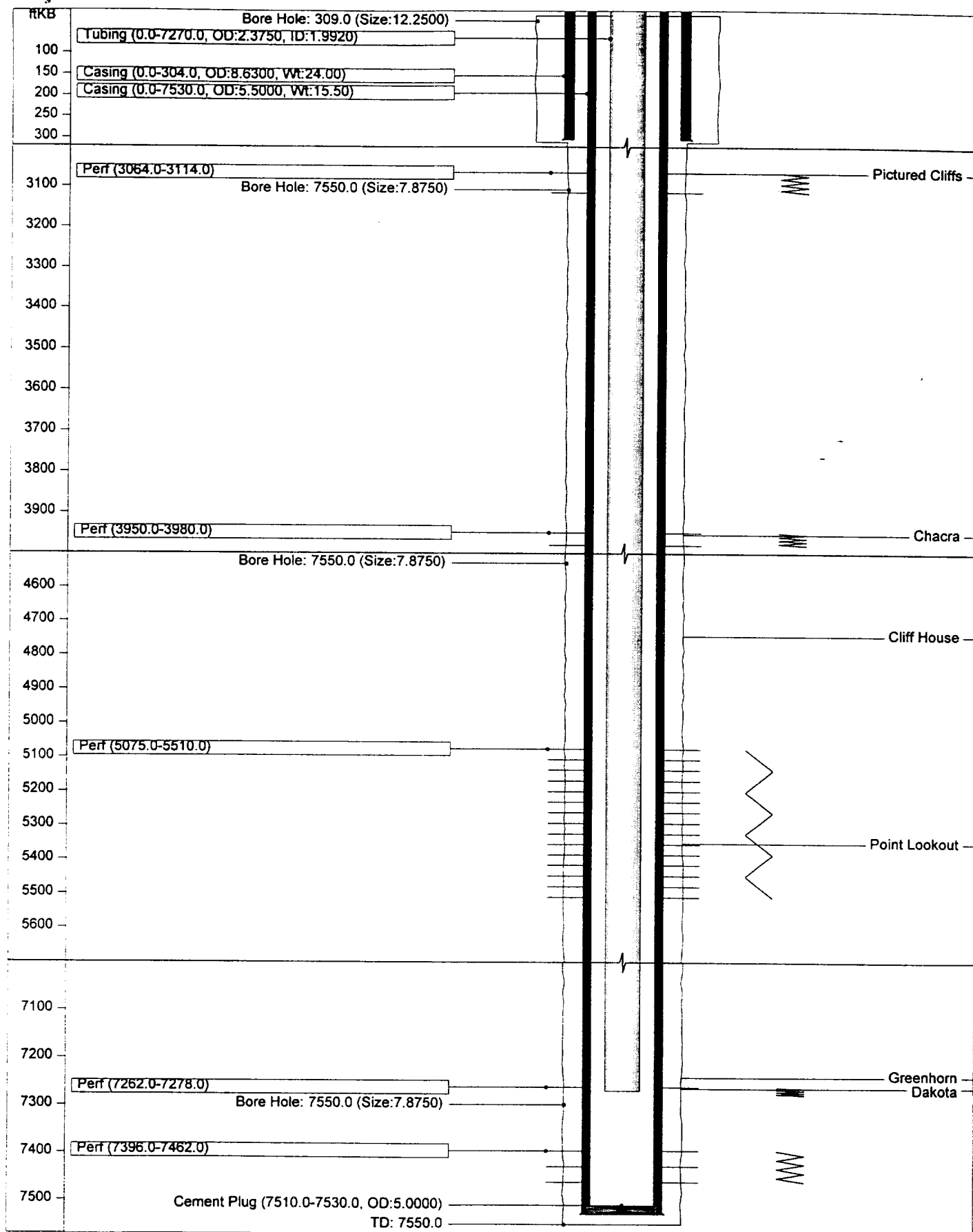
# JICARILLA K 14 (GMH 4/10/97)



# JICARILLA K 14 - Proposed



# JICARILLA K 14 - Proposed



## **Economic/Rate Justification (Generic)**

Approval is requested to recomplete the subject well to the Blanco Mesaverde and commingle with existing producing horizons. Expected rate and recovery from the Mesaverde is illustrated on the attached "Normalized Mesaverde Production" plot. This plot (attached to C107A form) is constructed from the more recent offset Mesaverde production data and provides a good estimate of the performance of the subject well. Clearly, the expected risked reserves are not sufficient to justify drilling a new, grass roots well. To prevent waste, these reserves must be accessed by the subject wellbore.

Production from the existing zones is established by ample production history. A production plot is attached that shows past and best-fit projections of future production for the existing zones. A table showing estimated future production for each existing zone is attached. This table (attached to C107A form) will be used to allocate commingled production to the new Mesaverde zone by the subtraction method (existing production shown on the table attached to the C107A will be subtracted from total metered production after adding the Mesaverde zone; the balance will be reported as Mesaverde production).