

December 15, 1998

**Request for Exception to Rule 303-A  
Downhole Commingling  
Wantz-Abo Pool and  
Wantz-Granite Wash Pool  
Hugh No. 12  
2310' FNL & 330' FEL, Unit Letter H,  
Section 14, T-22-S, R-37-E  
Lea County, New Mexico**



**Chevron**

**Chevron U.S.A. Production Company**  
P.O. Box 1150  
Midland, TX 79702

State of New Mexico  
Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

DEC 24 1998

Attention: Ms. Lori Wrotenbery – Director

Dear Ms. Wrotenbery:

Chevron U.S.A. Inc. respectfully requests administrative approval for an exception to Rule 303-A to permit downhole commingling of the Wantz-Abo and Wantz-Granite Wash zones in the Hugh Well No. 12.

Currently the Hugh #12 is producing from the Wantz-Abo. The Lower Wantz-Granite Wash zone is shut-in and isolated with a CIBP. Chevron is planning a workover to complete the Upper Wantz-Granite Wash zone and combine it with existing Wantz-Abo production. The proposed downhole commingling will allow continued production of the Wantz-Abo and Wantz-Granite Wash zones to a lower economic limit, thus increasing ultimate recovery.

Enclosed is the pertinent data supporting this application as outlined in Rule 303-A. A copy of this administrative application is being provided to our offset operators via Certified Mail. If you have any questions, or if you require further information, please contact Craig Wright at (915) 687-7284.

Sincerely,

*Craig A. Wright*  
C.A. Wright  
Petroleum Engineer  
New Mexico Area

Attachments

Cc: NMOCD – Hobbs, NM  
C.O. Blake  
C.A. Wright  
Central Files – Lease and Well Files

## 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 87505-6429Form C-107-A  
New 3-12-96

## APPROVAL PROCESS:

\_\_\_ Administrative \_\_\_ Hearing

## EXISTING WELLBORE

\_\_\_ YES \_\_\_ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

CHEVRON U.S.A. INC.

P. O. BOX 1150, MIDLAND, TX 79702

Operator

Address

HUGH

#12

H 14 22S 37E

LEA

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

GRID NO. 4323 Property Code 002641 API NO. 30-025-25739 Federal \_\_\_ State \_\_\_ (and/or) Fee X

| The following facts are submitted in support of downhole commingling:                                                                                                                                    | Upper Zone                                            | Intermediate Zone | Lower Zone                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------|-----------------------------------------|
| 1. Pool Name and Pool Code                                                                                                                                                                               | WANTZ-ABO                                             |                   | UPPER WANTZ-GRANITE WASH 62730          |
| 2. Top and Bottom of Pay Section (Perforations)                                                                                                                                                          | 6734'-7068'                                           |                   | 7270'-7447' (PROPOSED)                  |
| 3. Type of production (Oil or Gas)                                                                                                                                                                       | OIL                                                   |                   | OIL (EST)                               |
| 4. Method of Production (Flowing or Artificial Lift)                                                                                                                                                     | ROD PUMP                                              |                   | ROD PUMP (PROPOSED)                     |
| 5. Bottomhole Pressure<br>Oil Zones - Artificial Lift:<br>Gas & Oil - Flowing: Estimated Current<br>All Gas Zones: Measured Current<br>Estimated Or Measured Original                                    | a. (Current)<br>210#<br>b. (Original)<br>1500# (1993) | a.<br><br>b.      | a.<br>325# (EST)<br>b.<br>1700# (EST)   |
| 6. Oil Gravity ( $^{\circ}$ API) or Gas BTU Content                                                                                                                                                      | 36.0                                                  |                   | 38.3 (EST)                              |
| 7. Producing or Shut-In?                                                                                                                                                                                 | PRODUCING                                             |                   | INTERVAL NOT COMPLETED                  |
| Production Marginal? (yes or no)                                                                                                                                                                         | YES                                                   |                   | NO (EST)                                |
| * If Shut-In, give date and oil/gas/water rates of last production<br><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:   | Date: AVG. OFFSET IP<br>Rates: 47/333/7 |
| * If Producing, give date and oil/gas/water rates of recent test (within 60 days)                                                                                                                        | Date: 10-12-98<br>Rates: 5/151/6                      | Date:<br>Rates:   | Date:<br>Rates:                         |
| 8. Fixed Percentage Allocation Formula - % for each zone                                                                                                                                                 | Oil: 13 % Gas: 34 %                                   | Oil: % Gas: %     | Oil: 87 % Gas: 66 %                     |

1. 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.

0. Are all working, overriding, and royalty interests identical in all commingled zones? X 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? X Yes \_\_\_ No

1. Will cross-flow occur? \_\_\_ Yes X 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)

2. Are all produced fluids from all commingled zones compatible with each other? X Yes \_\_\_ No

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

4. 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

5. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). \_\_\_\_\_

## 6. 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 Craig A. Wright TITLE PETROLEUM ENGR DATE 12/15/98

TYPE OR PRINT NAME CRAIG A. WRIGHT TELEPHONE NO. ( 915 ) 687-7284

## **REQUEST FOR EXCEPTION TO RULE 303-A**

**Hugh #12**

**Wantz-Abo & Wantz-Granite Wash Fields**

### **A: Operator**

Chevron USA Prod. Co.  
P.O. Box 1150  
Midland, TX 79702

### **B: Lease Name and Well Number**

Hugh #12  
Unit Letter H, 2310' FNL & 330' FEL  
Section 14, T-22-S, R-37-E  
Lea County, New Mexico  
Wantz-Abo and Wantz-Granite Wash Pools

### **C: Plats and Offset Operators**

Attached

### **D: C-116's**

1. Current Gas-Oil Ratio Test for Wantz-Abo zone. (Attached).
2. The Upper Wantz-Granite Wash is not completed in the Hugh #12 wellbore. Average IP in the Upper Wantz-Granite Wash from three offset producers is 47 bopd 333 mcfpd 7 bwpd. (See Attached Production Plots).

### **E: Production Decline Curves**

Attached

### **F: Estimated Bottomhole Pressure**

|               | Current        | Original            |
|---------------|----------------|---------------------|
| Wantz-Abo     | 210 psi        | 1500 psi (Yr. 1993) |
| UpperWantz-GW | 325 psi (Est.) | 1700 psi (Est.)     |

Note: Typically, the Wantz-GW bottomhole pressure declines rapidly once production commences; consequently, the differential bottomhole pressure between the Abo & Granite Wash will be minimal shortly after the Grainite Wash has been completed.

## **G: Production Characteristics**

Previous commingling of these zones by Chevron and other operators in this area have shown that the produced fluids are compatible and commingling will not cause formation damage.

## **H: Value**

Chevron will receive the same price for product from these zones and value will not be adversely affected.

## **I: Production Allocation**

| <u>Pool</u>    | <u>BOPD</u> | <u>MCFD</u> | <u>BWPD</u> | <u>Estimated Method</u> |
|----------------|-------------|-------------|-------------|-------------------------|
| Wantz-Abo      | 7           | 175         | 6           | Allocated production    |
| Upper Wantz-GW | <u>47</u>   | <u>333</u>  | <u>7</u>    | Avg. Offset IP          |
| Total          | 54          | 508         | 13          |                         |

Wantz-Abo rates are averages from the last three months (Aug-Oct, '98) of allocated production.

Upper Wantz-GW rates are average IP's from three offset producing wells.

| <u>Allocated Percentages</u> | <u>Oil %</u> | <u>Gas %</u> | <u>Water %</u> |
|------------------------------|--------------|--------------|----------------|
| Wantz-Abo                    | 13           | 34           | 46             |
| Upper Wantz-GW               | <u>87</u>    | <u>66</u>    | <u>54</u>      |
| Total                        | 100          | 100          | 100            |

## **J: Ownership**

Ownership of all zones is common and correlative rights will not be compromised.

## **K: Offset Operator Notification**

All offset operators have been notified by copy of this letter via certified mail.

**HUGH #12**  
**Production Data**

**Wantz-Abo – Allocated Production**

| <u>Date</u> | <u>CDOIL</u> | <u>CDGAS</u> | <u>CDWAT</u> |
|-------------|--------------|--------------|--------------|
| Aug 98      | 7            | 181          | 6            |
| Sep 98      | 8            | 185          | 6            |
| Oct 98      | 7            | 159          | 6            |

**Upper Wantz-GW – Offset IP's**

| <u>Well</u>             | <u>CDOIL</u> | <u>CDGAS</u> | <u>CDWAT</u> |
|-------------------------|--------------|--------------|--------------|
| Cossatot H #1 (Hendrix) | 50           | 500          | 18           |
| Elliott B #13 (Hendrix) | 40           | 100          | 0            |
| Cossatot G #1 (Hendrix) | 50           | 400          | 4            |



District I  
PO Box 1988, Hobbs, NM 88241-1988  
District II  
PO Drawer DD, Artesia, NM 88211-8719  
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 10, 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>30-025-25739 |                                   | Pool Code<br>62700 | Pool Name<br>WANTZ-ABO |
| Property Code<br>002641    | Property Name<br>HUGH             |                    | Well Number<br>#12     |
| OGRID No.<br>4323          | Operator Name<br>CHEVRON USA INC. |                    | Elevation              |

10 Surface Location

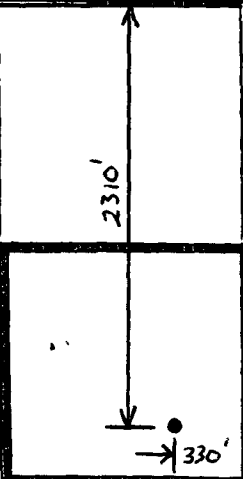
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| H             | 14      | 22S      | 37E   |         | 2310'         | NORTH            | 330'          | EAST           | LEA    |

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 Dunes 1 Acres<br>40 | 13 Joins or Infill | 14 Consolidation Code | 15 Order No. |
|------------------------|--------------------|-----------------------|--------------|

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

|                                                                                            |                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16<br> | 17 OPERATOR CERTIFICATION<br>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.<br><br>Signature: <u>Craig A. Wright</u><br>Printed Name: <u>Craig A. Wright</u><br>Title: <u>PE</u><br>Date: <u>12/15/98</u>                                                               |
|                                                                                            | 18 SURVEYOR CERTIFICATION<br>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.<br><br>Date of Survey:<br>Signature and Seal of Professional Surveyor:<br><br>Certificate Number: |
|                                                                                            |                                                                                                                                                                                                                                                                                                                                              |

District I  
PO Box 1988, Hobbs, NM 88241-1988  
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  
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Form C-102  
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Fee Lease - 3 Copies

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WELL LOCATION AND ACREAGE DEDICATION PLAT

|                            |  |                                   |  |                                   |                    |
|----------------------------|--|-----------------------------------|--|-----------------------------------|--------------------|
| API Number<br>30-025-25739 |  | Pool Code<br>62730                |  | Pool Name<br>WANTZ - GRANITE WASH |                    |
| Property Code<br>002641    |  | Property Name<br>HUGH             |  |                                   | Well Number<br>#12 |
| OGRID No.<br>4323          |  | Operator Name<br>CHEVRON USA INC. |  |                                   | Elevation          |

10 Surface Location

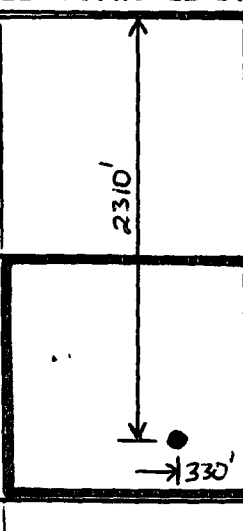
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| H             | 14      | 22S      | 37E   |         | 2310'         | NORTH            | 330'          | EAST           | LEA    |

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 Ditch: 1 Acre | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
| 40               |                    |                       |              |

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

|    |                                                                                      |                                                                                                                                                                                                                                                                                                                   |
|----|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16 |  | 17 OPERATOR CERTIFICATION                                                                                                                                                                                                                                                                                         |
|    |                                                                                      | <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Craig A. Wright<br/>Signature<br/>Craig A. Wright<br/>Printed Name<br/>PE<br/>Title<br/>12/15/98<br/>Date</p>                                                                       |
|    |                                                                                      | 18 SURVEYOR CERTIFICATION                                                                                                                                                                                                                                                                                         |
|    |                                                                                      | <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey<br/>Signature and Seal of Professional Surveyor<br/>Certificate Number</p> |



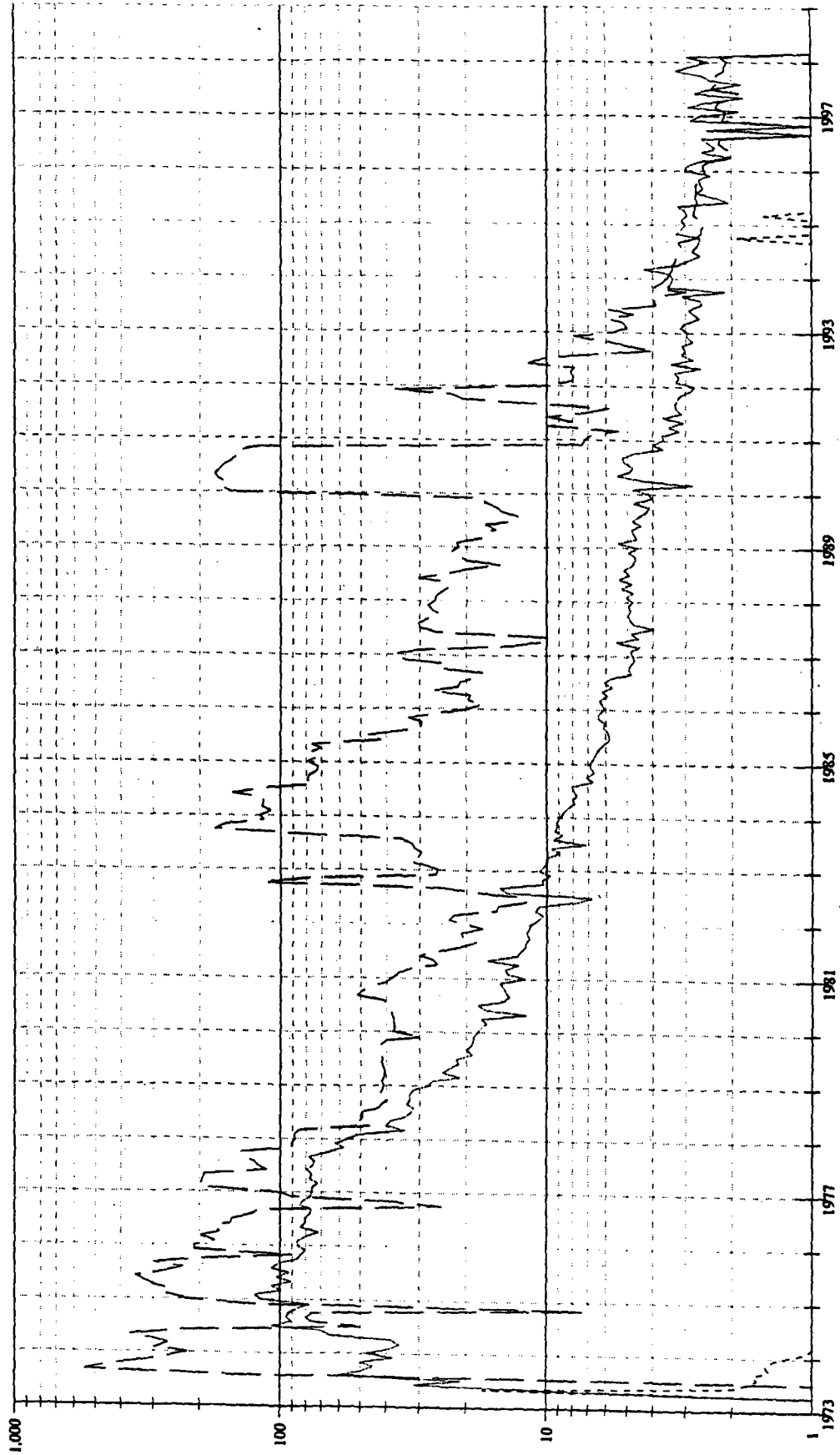
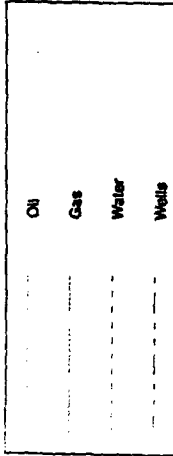
**Offset Operators**

J.H. Hendrix Corp.  
P.O. Box 3040  
Midland, TX 79702-3040





Field: WANTZ  
 Lease: COSSATOT H | Well #1  
 Operator: HENDRIX JOHN H CORPORATION  
 Production Rate vs Time  
 For the Period 01/1973 to 12/1998 | API: 30025244090001

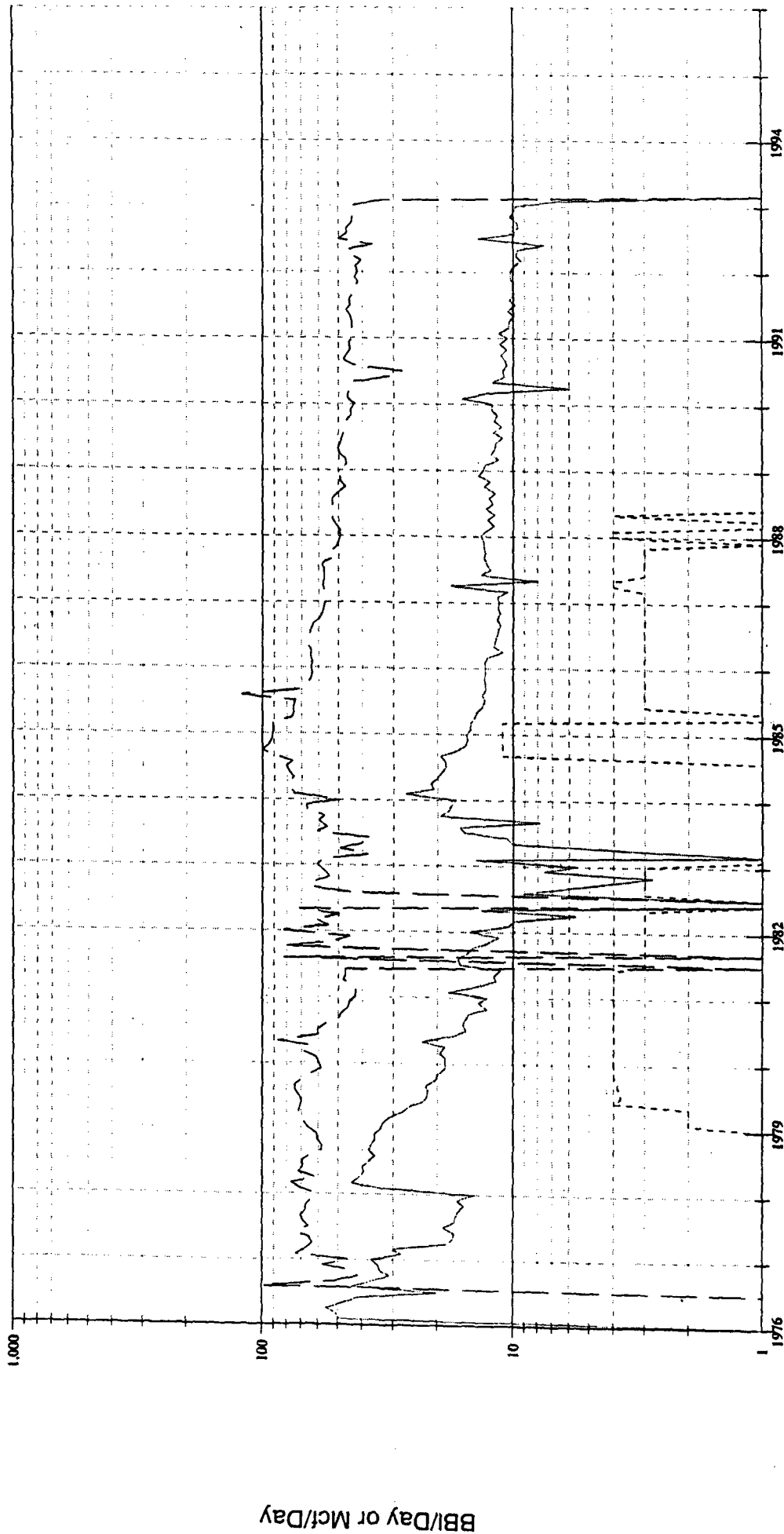
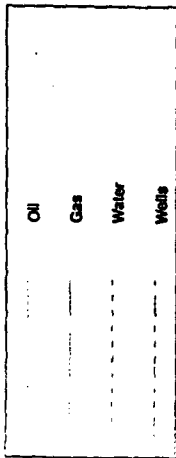


Bbl/Day or Mcf/Day

Reported Oil Production = 187,997 Bbls  
 Reported Gas Production = 558,643 Mcf  
 Reported Water Production = 6,219 Bbls

Time

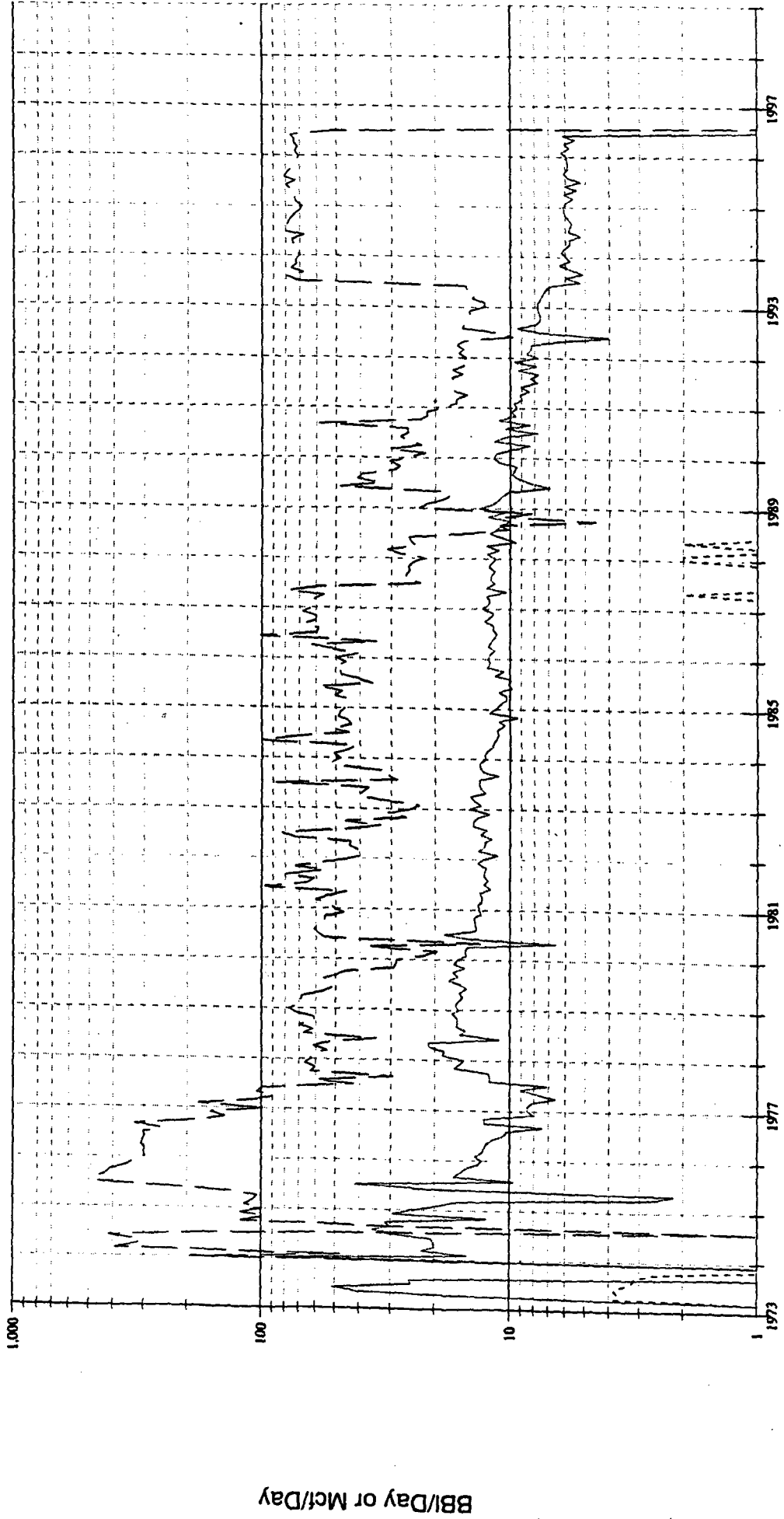
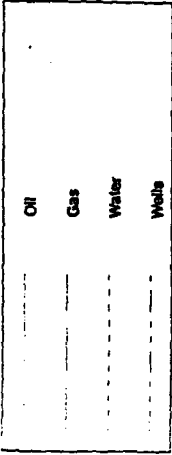
Field: WANTZ  
 Lease: ELLIOTT B 13 | Well #2  
 Operator: HENDRIX JOHN H CORPORATION  
 Production Rate vs Time  
 For the Period 01/1976 to 12/1995 | API: 30025251480000



Reported Oil Production = 102,375 Bbls  
 Reported Gas Production = 341,831 Mcf  
 Reported Water Production = 10,667 Bbls

Time

Field: WANTZ  
 Lease: COSSATOT G | Well #1  
 Operator: HENDRIX JOHN H CORPORATION  
 Production Rate vs Time  
 For the Period 01/1973 to 12/1998 | API: 30025243710000



Reported Oil Production = 102,780 Bbls  
 Reported Gas Production = 601,668 Mcf  
 Reported Water Production = 5,525 Bbls

Time

DHC-2174



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

12/30/98

GOVERNOR

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC \_\_\_\_\_  
DHC X \_\_\_\_\_  
NSL \_\_\_\_\_  
NSP \_\_\_\_\_  
SWD \_\_\_\_\_  
WFX \_\_\_\_\_  
PMX \_\_\_\_\_

Gentlemen:

I have examined the application for the:

Chevron USA Inc Hugh #12-H-14-225-37e  
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OR- This

Yours very truly,

*Chris Williams*

Chris Williams  
Supervisor, District 1

/ed