



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 9/7/83

RE: Proposed MC \_\_\_\_\_  
Proposed DHC x \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated 9/6/83  
for the Nixon Development Co. Jane Whitney #1 K-21-25N-11W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,

Frank J. Long

**HIXON DEVELOPMENT COMPANY**

P. O. BOX 2810  
FARMINGTON, NEW MEXICO 87499

September 1, 1983

Mr. Joe D. Ramey, Director  
Energy and Minerals Department  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Subject: Request for Administrative Approval  
Downhole Commingling  
Irene Whitney No. 1  
1850' FSL, 1650' FWL, Sec. 21, T25N, R11W

Dear Mr. Ramey:

The subject well was recently drilled as a marginally productive Basin Dakota and Bisti Lower Gallup oil well. The well is a farmout to Hixon Development Company from Tenneco Oil & Gas Company. We respectfully request administrative approval to downhole commingle the two zones in this well. If administrative approval is not possible, we then request an earliest possible hearing date. This is necessary because this well's lease is expiring October 19, 1983.

The well is located on a Navajo Allotted lease and does not have a shut in well delay rental provision. We will be in jeopardy of losing the well's Dakota proration unit if production is not established across the lease expiration date.

The Dakota zone in this well tested 3.5 BOPD, 14 BWPD, 15 MCFD on 7/25/83. The 15 MCFD producing rate does not satisfy gas pipeline hookup requirements of 400 MCFD. Consequently the only way this production can be salvaged is through downhole commingling.

As a precedent for this request, the following Bisti field area Gallup-Dakota wells have been approved for commingling: Merry May #1 (24-24N-9W); 1-E Big eight (8-24N-9N) and July Jubilee #1 (30-24N-9W).

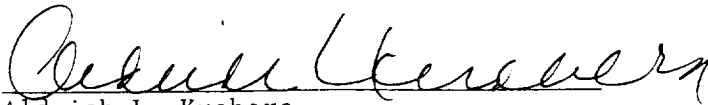
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Page 2

Enclosed for your review is information pertaining to Rule 303  
Section C. Please give this request your earliest consideration.

Very truly yours,

Hixon Development Company

by   
Aldrich L. Kuchera  
Executive Vice President

attachments

ALK:jjja

cc: Mr. Frank Chavez-OCD-Aztec  
Tenneco Oil Company

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Rule 303-C Downhole Commingling Data  
Irene Whitney No. 1  
NE SW Section 21, T25N, R11W  
San Juan County, New Mexico

1.-(a) (1) Daily oil production

| <u>Zone</u> | <u>Perfs</u>                          | <u>BOPD</u> | <u>Date</u> |
|-------------|---------------------------------------|-------------|-------------|
| Dakota      | 5952'-62'<br>5854'-64'                | 3.5         | 7/25/83     |
| Gallup      | 5096'-5100'<br>5056'-64'<br>5030'-40' | 10          | 8/30/83     |

NOTE: The well is shut in waiting on a gas pipeline hookup.

(2) Both the Gallup and Dakota Zones will require artificial lift.

(3) Well tests showed production as follows:

| <u>Zone</u> | <u>Date</u> | <u>BOPD</u> | <u>BWPD</u> | <u>MCFD</u> | <u>GOR</u> |
|-------------|-------------|-------------|-------------|-------------|------------|
| Gallup      | 8/30/83     | 10          | 3           | 159         | 15,900     |
| Dakota      | 7/25/83     | 3.5         | 14          | 15          | 4,286      |

NOTE: The Dakota was fraced with 2% KCL water. Only part of the load fluid was recovered by 7/25/83. The BWPD is expected to decrease to less than 10 BWPD after all frac fluid is recovered.

(4) Both the Gallup and Dakota produced water salinity are comparable and compatible with chlorides in the range of 29,000 ppm. Combining these two fluids will not result in formation damage.

(5) The total value of the crude oil will not be reduced by commingling. The oil gravity of the two crudes is in the range of 39. Both crudes will receive the same oil price.

(6) Ownership of both zones is common as follows:

|                   | <u>WI</u> |
|-------------------|-----------|
| Hixon et al       | 0.875     |
| Tenneco Oil & Gas | 0.125     |

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ALCOA CO. INC.  
DALLAS

Allotted Indian lease royalty on both oil and gas is 16-2/3%.

- (7) Commingling is not expected to jeopardize the efficiency of present or future secondary recovery operations. This area has been waterflooded in past.
- 1.-(b)
  - (1) The Dakota Zone is not commercial if produced through a separate tubing string. Our Gas Purchase Agreement with the Gas Company of New Mexico specifies 400 MCFD production against a 400 psi line pressure. In the absence of commingling the Dakota Zone will be plugged and abandoned and this resource will be lost.
  - (2) The measured 12 hour Dakota shut in bottom hole pressure (@ + 638' Datum) is 766 psia. The Gallup measured bottom hole (mid perf) pressure is 671 psia shut in after 24 hours. No significant zone crossflow is expected.
  - (3) Both zones produce comparable salinity fluids. Formation damage is not anticipated.
  - (4) Both the Dakota and Gallup fluids are compatible on the basis of comparable water analysis.
  - (5) Both zones have common ownerships and royalty.
  - (6) The lower Dakota zone pressure is higher than the upper Gallup pressure (766 psia vs. 671 psia).
- 2.
  - (a) Hixon Development Company  
P.O. Box 2810  
Farmington, NM 87499
  - (b) Navajo Lease- N00-C-14-20-5243  
Irene Whitney No.1  
1850' FSL, 1650' FWL, Sec. 21-25N-12W  
San Juan County, New Mexico  
Pools- Basin Dakota  
Bisti Lower Gallup

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- (c) Plat attached. Ownership map attached. Note: This and all offset acreage is owned/assigned to Hixon Development Company and by Tenneco. A copy of this application is being sent to Tenneco Oil & Gas Company.
- (d) Current production test of the Gallup is per the attached Form C-116. The Dakota zone was shut in temporarily plugged back 7/26/83. The Dakota tested 3.5 BOPD, 14 BWPD, 15 MCFD on 7/25/83.
- (e) Attached are completion reports showing completion information. The Gallup zone was IP'd at 10 BOPD, 3 BWPD, 159 MCFD On 8/30/83.
- (f) Measured bottom hole pressure (7/26/83) of the Dakota is 766 psia. Measured Gallup BHP on 8/27/83 is 671 psia.
- (g) The Dakota produces 0.7 specific gravity natural gas, a green paraffin based oil (39 API) and produced water. The produced water is comparable in salinity and ion/cation components to the Gallup produced water. The Gallup produces comparable paraffin based oil and gravity natural gas.
- (h) Production value commingled is as follows:

|                            | <u>\$/Day</u> |
|----------------------------|---------------|
| (13.5 BOPD) (\$29.60/BO) = | 399.60        |
| (174 MCFD) (\$2.00/MCF) =  | 348.00        |
| Commingled daily revenue   | 747.60        |
|                            | <hr/>         |
|                            | <hr/>         |

Production value without commingling will be based on the Gallup only because the Dakota will be plugged and abandoned.

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(10 BOPD) (\$29.60/BO) = 296.00

(159 MCFD) (\$2.00/MCF) = 318.00

Non-commingled daily revenue \$614.00

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- (i) Production will be allocated on the basis of current well testing and calculated reserves. Production will be allocated as a ratio of oil and gas produced by both zones taking into consideration differential declining reserves.

The first year's production will be allocated as follows:

Dakota Gas = Total Gas Produced x 15/174

Gallup Gas = Total Gas Produced x 159/174

Dakota Oil = Total Oil Produced x 3.5/13.5

Gallup Oil = Total Oil Produced x 10/13.5

- (j) Tenneco Oil Company is the owner of the well's lease. Offset leases are per the attached map and are owned/assigned to Tenneco and Hixon Development Company. Tenneco has been notified of this commingling request in writing.

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WELL NAME Irene Whitney #1  
LOCATION 1850' FSL, 1650' FWL SECTION 21 T 25N R 11W  
COUNTY San Juan STATE NM

GLE 6583'  
RBM 6595'  
DF \_\_\_\_\_  
KB-12'

### SURFACE CASING

Hole size: 12-1/4"  
Casing: 8-5/8" 24# ST&C  
Casing set @ 520.71'  
w/275 SX

### FORMATION TOPS

|                        |              |
|------------------------|--------------|
| <u>Pictured Cliffs</u> | <u>1367'</u> |
| <u>Menefee</u>         | <u>2860'</u> |
| <u>Point Lookout</u>   | <u>3833'</u> |
| <u>Gallup</u>          | <u>4926'</u> |
| <u>Sanostee</u>        | <u>5385'</u> |
| <u>Dakota "A"</u>      | <u>5806'</u> |
| <u>Dakota "B"</u>      | <u>5948'</u> |
| <u>Burro Canyon</u>    | <u>6050'</u> |

### CEMENT TOP

### PERFORATIONS

5030'-40', 5056'-64'  
5096'-5100'  
5854'-64'  
5952'-62'

PBD 6031'

### PRODUCTION CASING

Hole size: 7-7/8"  
Casing: 5-1/2" 15.5# K-55 ST&C  
Casing set @ 6072' w/ 850 SX

TD 6077'

### WELL HISTORY

Spud date: 7-1-83  
Original owner: Tenneco Farmout  
IP \_\_\_\_\_ BOPD \_\_\_\_\_ BWPD \_\_\_\_\_  
GOR \_\_\_\_\_ MCF \_\_\_\_\_  
Completion treatment: \_\_\_\_\_

### CURRENT DATA

Pumping Unit 228 Lufkin  
Tubing \_\_\_\_\_  
Pump size \_\_\_\_\_  
Rod string \_\_\_\_\_  
Remarks \_\_\_\_\_

Temporary retrievable  
bridge plug @ 5150'

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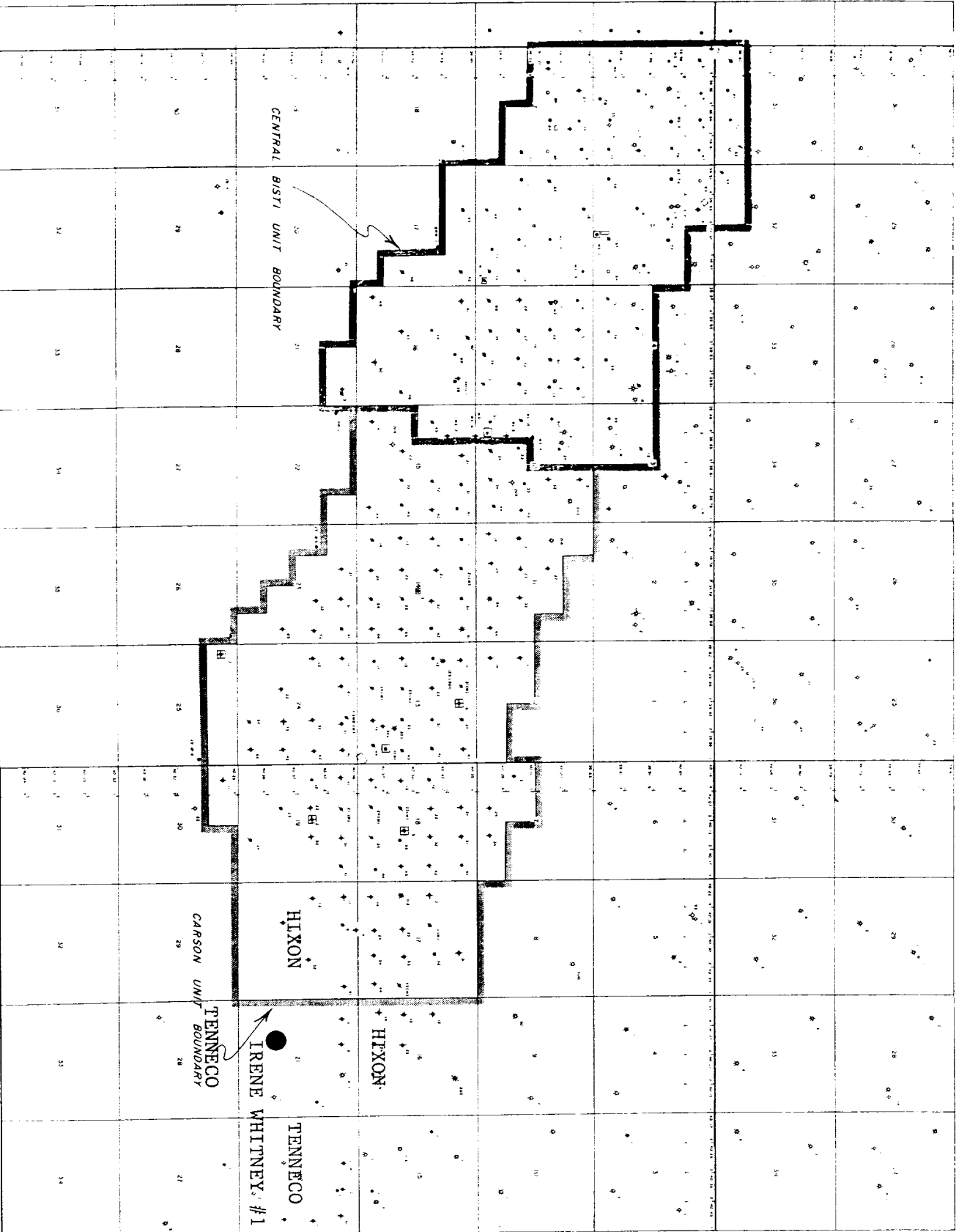
San Juan repro Form 100-13

R 12 W

R 11 W

T 26 N

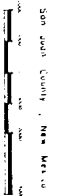
T 25 N



OFFSET OWNERSHIP MAP

HIXON DEVELOPMENT COMPANY

CENTRAL BISTI - CARSON UNIT AREA



|                           |  |          |  |                    |  |                    |  |
|---------------------------|--|----------|--|--------------------|--|--------------------|--|
| Hixon Development Company |  | TOWNSHIP |  | RANGE              |  | COUNTY             |  |
| Section 21                |  | 25 North |  | 21 WEST            |  | San Juan           |  |
| Footage Location of Well: |  |          |  | Line and           |  | Feet from the      |  |
| 1650                      |  |          |  | South              |  | West               |  |
| Feet from the             |  |          |  | Line and           |  | Feet from the      |  |
| 1650                      |  |          |  | South              |  | West               |  |
| Producing Formation:      |  |          |  | Pool               |  | Dedicated Acreage: |  |
| Lower Gallup              |  |          |  | Bisti Lower Gallup |  | 80 Acres           |  |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

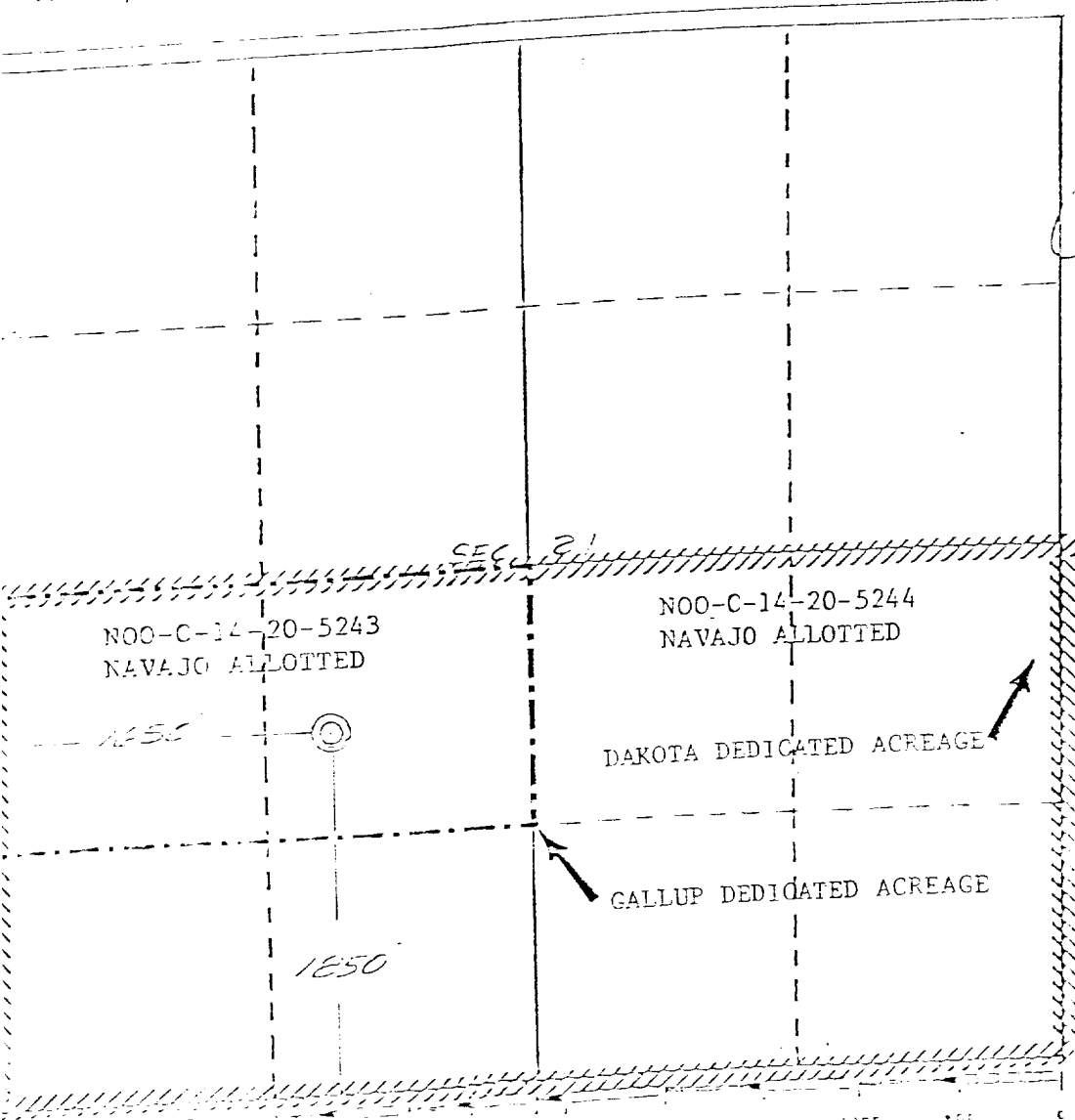
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

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

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

No effort 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 Division.

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|                                                                                                                     |                           |
|---------------------------------------------------------------------------------------------------------------------|---------------------------|
| CERTIFICATION                                                                                                       |                           |
| I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. |                           |
| Name                                                                                                                | Aldrich L. Kuchera        |
| Position                                                                                                            | Petroleum Engineer        |
| Company                                                                                                             | Hixon Development Company |
| Date                                                                                                                | April 5, 1983             |
|                                                                                                                     |                           |
| Date Surveyed                                                                                                       | March 29, 1983            |
| Registered Professional Engineer and/or Land Surveyor                                                               |                           |
|                                                                                                                     |                           |
| Edgar L. Risenhoover, L.S.                                                                                          |                           |

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

| Hixon Development Company                   |          | Pool     |    | Basin Dakota       |     | County                             |            | San Juan                                       |                  |                                  |                   |                  |            |            |                              |      |
|---------------------------------------------|----------|----------|----|--------------------|-----|------------------------------------|------------|------------------------------------------------|------------------|----------------------------------|-------------------|------------------|------------|------------|------------------------------|------|
| P.O. Box 2810, Farmington, New Mexico 87499 |          |          |    | TYPE OF TEST - (X) |     | Scheduled <input type="checkbox"/> |            | Completion <input checked="" type="checkbox"/> |                  | Special <input type="checkbox"/> |                   |                  |            |            |                              |      |
| LEASE NAME                                  | WELL NO. | LOCATION |    |                    |     | DATE OF TEST                       | CHOKE SIZE | TBG. PRESS.                                    | DAILY ALLOW-ABLE | LENGTH OF TEST HOURS             | PROD. DURING TEST |                  |            |            | GAS - OIL RATIO CU. FT./BBL. |      |
|                                             |          | U        | S  | T                  | R   |                                    |            |                                                |                  |                                  | WATER BBL'S.      | GRAV. OIL BBL'S. | OIL BBL'S. | GAS M.C.F. |                              |      |
| Lrene Whitney                               | 1        | K        | 21 | 25N                | 11W | 7/25/83                            | S          | .250                                           | 3                |                                  | 24                | 14               | 39         | 3.5        | 15                           | 4286 |

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The well will be assigned an allowable greater than the amount of oil produced on the official test. Testing gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is tested by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned and allowable when authorized by the Commission.

Test volume must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Well original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with the appropriate pool rules.

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

MAILED

SEP 1 1983

*[Signature]*  
(Signature)

Petroleum Engineer

(Title)

September 1, 1983

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

| Well Name |   | Location |    |     |     | Date of Test | Type of Test - (X) | Choke Size | Tbg. Press. | Daily Allowable | Length of Test Hours | Prod. During Test |           |            | GAS - OIL RATIO |        |
|-----------|---|----------|----|-----|-----|--------------|--------------------|------------|-------------|-----------------|----------------------|-------------------|-----------|------------|-----------------|--------|
| Well No.  | U | S        | T  | R   |     |              |                    |            |             |                 | Water Bbls.          | Grav. Oil         | Oil Bbls. | GAS M.C.F. | CU.FT./BBL.     |        |
| Whitney   | 1 | K        | 21 | 25N | 11W | 8/30/83      | P                  | .250       | 150         | -               | 24                   | 3                 | 39        | 10         | 159             | 15,900 |

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The well will be assigned an allowable greater than the amount of oil produced on the official test.  
During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is being tested by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned an allowable when authorized by the Commission.

Test volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base is 1.0.

Report casing pressure in flow of tubing pressure for any well producing through casing.  
Well original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with rules and appropriate pool rules.

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

SEP 1 1983

Petroleum Engineer

(Title)

September 1, 1983

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
GEOLOGICAL SURVEY

# WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1. TYPE OF WELL: ☒ OIL WELL ☐ GAS WELL ☐ DEW ☐ Other

2. TYPE OF COMPLETION: ☐ NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESER. ☐ Other

3. NAME OF OPERATOR: **Black Development Company**

4. ADDRESS OF OPERATOR: **1111 E. 1810, Farmington, New Mexico 87400**

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements):

At surface: **185' FSL, 1650' FWL, 21-25-11**

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

12. COUNTY OR PARISH: **San Juan**

13. STATE: **NM**

15. DATE SURVEYED: **7/1/83** 16. DATE T.D. REACHED: **7/9/83** 17. DATE COMPL. (Ready to prod.): **8/2/83** 18. ELEVATIONS (DT, REB, ET, GL, ETC.): **6595' KE** 19. ELEV. CASINGHEAD: **6583' GLE**

20. TOTAL DEPTH, MD & TVD: **6072'** 21. PLUG BACK T.D., MD & TVD: **BP @ 5150'** 22. IF MULTIPLE COMPL. HOW MANY? **2** 23. INTERVALS DRILLED BY: **2** ROTARY TOOLS: ☒ CABLE TOOLS: ☐

24. PRODUCING INTERVAL(S) OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD):  
**Gallup: 5096'-5100', 5056'-5064', 5030'-5040'** 25. WAS DIRECTIONAL SURVEY MADE: **yes**

26. TYPE LOGS AND OTHER LOGS RUN: **Production Electric and Compensated Density Neutron Gamma Ray** 27. WAS WELL CORED: **no**

| CASING RECORD (Report all strings set in well) |                 |                |           | CEMENTING RECORD |                                                                     | AMOUNT PULLED                                              |
|------------------------------------------------|-----------------|----------------|-----------|------------------|---------------------------------------------------------------------|------------------------------------------------------------|
| CASING SIZE                                    | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE |                  |                                                                     |                                                            |
| 8-1/8"                                         | 24#             | 521'           | 12-1/4"   | 325 ft           | Class B w/2% CaCl                                                   | 8 1/2#/sx cello                                            |
| 5-1/2"                                         | 15.5#           | 6072'          | 7-7/8"    | 620 ft           | Class H pcc, 4% D-20 gel, 2#/sx I-20 cello & 0.6% D-60 flac. 410 ft | 65/35 Class D-20 gel, 2#/sx cello, .6% flac & 10 D-44 salt |

| LINER RECORD |          |             |               | TUBING RECORD |        |                |                 |
|--------------|----------|-------------|---------------|---------------|--------|----------------|-----------------|
| SIZE         | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD)   | SIZE   | DEPTH SET (MD) | PACKER SET (MD) |
|              |          |             |               |               | 2-7/8" | 4930'          |                 |

| 31. PERFORATION RECORD (Interval, size and number) | 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. |
|----------------------------------------------------|------------------------------------------------|
| 5096'-5100'                                        | DEPTH INTERVAL (MD)                            |
| 5056'-5064'                                        | AMOUNT AND KIND OF MATERIAL USED               |
| 5030'-5040'                                        | 5096'-5100' 1500 gallons 7-1/2% HCl acid       |
|                                                    | 5056'-5064' 75,000# 20-40 sand & 89,166        |
|                                                    | 5030'-5040' gallons 2% KCl                     |

| PRODUCTION                                                               |                 |                         |                         |          |            |                                    |               |
|--------------------------------------------------------------------------|-----------------|-------------------------|-------------------------|----------|------------|------------------------------------|---------------|
| 33. PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) |                 |                         |                         |          |            | WELL STATUS (Producing or shut-in) |               |
| pumping                                                                  |                 |                         |                         |          |            | Shut in high GOR                   |               |
| DATE OF TEST                                                             | HOURS TESTED    | CHOKE SIZE              | PROD'N. FOR TEST PERIOD | OIL—BBL. | GAS—MCF.   | WATER—BBL.                         | GAS-OIL RATIO |
| 8/30/83                                                                  | 24              | .250                    |                         | 10       | 159        | 3                                  | 15,900        |
| FLOW, TUBING PRESS.                                                      | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL—BBL.                | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.)            |               |
| 150                                                                      | 25              |                         | 10                      | 159      | 3          | 30                                 |               |

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): **To Be Sold** TEST WITNESSED BY: **OME**

35. List of Other Tests

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
SIGNER: **[Signature]** TITLE: **Petroleum Engineer** DATE: **9/1/83**

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

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SEP 1 1983

# 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. It is to be used 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 office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions. It is not intended to the time this summary report is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation logs, geologic tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments to be submitted on this form, see item 33.

Item 33: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. (Consult local State office for specific instructions.)

Item 34: 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 47: "Seals (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.)

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DIST. 3  
SEP 6 - 1983

| SUMMARY OF FORMER ZONES:<br>SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND A WELL-DEVELOPED LOG OF THE WELL INCLUDING<br>DEPTH INTERVAL TESTED, COBBLER TEST, TIME TOOL OPEN, KNOVING AND BUILT-IN PRESSURE, AND OTHER DATA |       | 38. GEOLOGIC MARKERS |      |            |     |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------|------|------------|-----|------------------|
| FORMATION                                                                                                                                                                                                                                                    | TOP   | BOTTOM               | NAME | MEAN DEPTH | TOP | THREE FEET DEPTH |
| Frontland                                                                                                                                                                                                                                                    | 922'  |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 1367' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 1577' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 1723' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 2860' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 3833' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 4028' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 4926' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 5010' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 5385' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 5762' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 5806' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 5948' |                      |      |            |     |                  |
| Frontland                                                                                                                                                                                                                                                    | 6050' |                      |      |            |     |                  |

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

RECEIVED

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ DRY ☐ Other SEP 6-1983

2. TYPE OF COMPLETION: ☐ OPEN ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESV. ☐ OIL CON. DIV. DIST. 3

3. NAME OF OPERATOR: Hixon Development Company

4. ADDRESS OF OPERATOR: P.O. Box 2810, Farmington, New Mexico 87499

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements):

At surface: 1850' FSL, 1650' FWL, 21-25-11

At top prod. interval reported below:

At total depth:

14. PERMIT NO. DATE ISSUED

NAME OF ADJUTANT  
UNIT ADJUTANT NAME

6. NAME OF LEASE NAME

Irene Whitney

7. WELL NO.

1

10. FIELD AND POOL OF WILDCAT

Basin Dakota

11. SEC. T. R. M. OR BLOCK AND SURVEY OR AREA

Section 21, T25N, R11W

12. COUNTY OR PARISH

San Juan

13. STATE

NM

15. DATE SPUNDED 7/1/83 16. DATE T.D. REACHED 7/9/83 17. DATE COMPL. (Ready to prod.) 7/25/83 18. ELEVATIONS (DT, REB. RT, GL, ETC.)\* 6595' KB 19. ELEV. CASINGHEAD 6583' GLE

20. TOTAL DEPTH, MD & TVD 6077' 21. PLUG. BACK T.D., MD & TVD 6031' 22. IF MULTIPLE COMPL., HOW MANY? 2 23. INTERVALS DRILLED BY X ROTARY TOOLS CABLE TOOLS

24. PRODUCTION INTERVAL(S) OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 5854'-5864', 5952'-5962' Basin Dakota 25. WAS DIRECTIONAL SURVEY MADE? yes

26. TEST ELECTRIC AND OTHER LOGS RUN Inductor Electric and Compensated Density Neutron Gamma Ray 27. WAS WELL CORRED? no

| CASING RECORD (Report all strings set in well) |                 |                |           | CEMENTING RECORD                                                                  |                                   | AMOUNT FULLED |
|------------------------------------------------|-----------------|----------------|-----------|-----------------------------------------------------------------------------------|-----------------------------------|---------------|
| CASING SIZE                                    | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE |                                                                                   |                                   |               |
| 8-5/8"                                         | 24#             | 521'           | 12-1/4"   | 325 ft <sup>3</sup> Class B w/2% CaCl <sub>2</sub>                                | 1/2#/sx cello                     |               |
| 5-1/2"                                         | 15.5#           | 6072'          | 7-7/8"    | 620 ft <sup>3</sup> Class H poz, 4% D-20 gel, 1/2#/sx D-20 cello, 0.6% D-60 flac. | 410 ft <sup>3</sup> 65/35 Class 1 |               |
|                                                |                 |                |           | poz, 2% D-20 gel, 1/2#/sx cello, .6% flac.                                        | 10%                               |               |

| LINER RECORD |          |             |               | TUBING RECORD |      |                |                |
|--------------|----------|-------------|---------------|---------------|------|----------------|----------------|
| SIZE         | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD)   | SIZE | DEPTH SET (MD) | PACER SET (MD) |
|              |          |             |               |               |      |                |                |

| 31. PERFORATION RECORD (Interval, size and number) |          | 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. |                                                  |
|----------------------------------------------------|----------|------------------------------------------------|--------------------------------------------------|
| INTERVAL                                           | HOLES    | DEPTH INTERVAL (MD)                            | AMOUNT AND KIND OF MATERIAL USED                 |
| 5854'-5864'                                        | 21 holes | 5854'-5864'                                    | 24 barrels 15% HCl acid and                      |
| 5952'-5962'                                        | 21 holes | 5952'-5962'                                    | 13,000# 20/40 sand using                         |
|                                                    |          |                                                | 545,980 SCF nitrogen & 20260 gal 70 quality foam |

| PRODUCTION                                                 |                 |                                                                      |                         |          |            |                                    |               |
|------------------------------------------------------------|-----------------|----------------------------------------------------------------------|-------------------------|----------|------------|------------------------------------|---------------|
| 33. DATE FIRST PRODUCTION                                  |                 | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) |                         |          |            | WELL STATUS (Producing or shut-in) |               |
|                                                            |                 | swabbing                                                             |                         |          |            | shut in                            |               |
| DATE OF TEST                                               | HOURS TESTED    | CHOKE SIZE                                                           | PROD'N. FOR TEST PERIOD | OIL—BBL. | GAS—MCF.   | WATER—BBL.                         | GAS-OIL RATIO |
| 7/25/83                                                    | 12              | .250                                                                 | →                       | 1.75     | 7.5        | 7                                  | 4286          |
| FLOW, TYPING PRESS.                                        | CASING PRESSURE | CALCULATED 24-HOUR RATE                                              | OIL—BBL.                | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.)            |               |
| 3                                                          | 220             | →                                                                    | 3.5                     | 15       | 14         | 39                                 |               |
| 34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) |                 |                                                                      |                         |          |            | TEST WITNESSED BY                  |               |
| To be sold                                                 |                 |                                                                      |                         |          |            | OME                                |               |
| 35. LIST OF ATTACHMENTS                                    |                 |                                                                      |                         |          |            |                                    |               |

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

SIGNED [Signature] Senior Petroleum Engineer

DATE 8/31/83

MAILED

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

SEP 1 1983

# 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. It is to be used in conjunction with 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 21, and 33, below regarding separate reports for separate completions.

If not indicated 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 test, 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 1: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. (Consult local State office for special office for specific instructions.)

Item 1B: 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 production interval or intervals, tops, bottoms (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identifying each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 27: "Seals Cemented": 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.)

## LIST OF IMPORTANT ZONES OF POROSITY AND CONTRASTS THEREOF: CORE INTERVALS, AND ALL OTHER IMPORTANT ZONES, INCLUDING

LOCATION

TOP

BOTTOM

DESCRIPTION OF ZONES

NAME

MEAS. DEPTH

TRUE VERT. DEPTH

Product Land  
Product Cliffs

922'

1367'

1577'

1723'

2860'

3833'

4028'

4926'

5010'

5385'

5762'

5806'

5948'

6050'

Product House

Product Lookout

Product Lookout

Product Lookout

Product Lookout

Product Lookout

Product Lookout

Product Lookout

Product Lookout

Product Lookout

RECEIVED  
SEP 18 1983  
OIL CON. DIV.  
DIST. 3