DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
811 South First St., Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410
DISTRICT IV
2040 S. Pacheco, Santa Fe, NM 87505

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
Revised August 1999

APPROVAL PROCESS:
__ Administrative __Hearing

EXISTING WELLBORE
_X_ YES ___ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

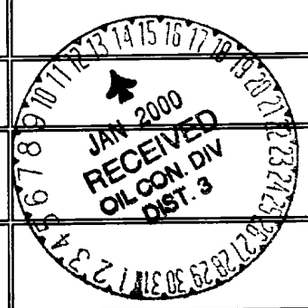
BURLINGTON RESOURCES OIL & GAS COMPANY — Operator
PO BOX 4289, FARMINGTON, NM 87499 — Address

SAN JUAN 27-5 UNIT — Lease
32 — Well No.
G 25-27N-05W — Unit Ltr. - Sec - Twp - Rge
RIO ARRIBA — County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7454 API NO. 30-039-06912 Federal _X_ , 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 | Tapacitos PICTURED CLIFFS-85920 | | BLANCO MESAVERDE – 72319 |
| 2. Top and Bottom of Pay Section (Perforations) | 3490'-3566' | | 5642'-5796' |
| 3. Type of production (Oil or Gas) | GAS | | GAS |
| 4. Method of Production (Flowing or Artificial Lift) | FLOWING | | 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) 519 psi (see attachment) | | a. (Current) 529 psi (see attachment) |
| | b. (Oriiginal) 1130 psi (see attachment) | | b. (Oriiginal) 1345 psi (see attachment) |
| 6. Oil Gravity (EAPI) or Gas BTU Content | BTU 1223 | | BTU 1232 |
| 7. Producing or Shut-In? | Producing | | Producing |
| Production Marginal? (yes or no) | NO | | YES |
| * If Shut-In, give date and oil/gas/ water rates of last production | Date: N/A<br>Rates: | Date: N/A<br>Rates: | Date: N/A<br>Rates: |
| Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data<br>* If Producing, give date andoil/gas/ water rates of recent test (within 60 days) | Date: N/A<br>Rates: | Date: N/A<br>Rates: | Date: N/A<br>Rates: |
| 8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%) | Oil: % Gas: %<br>WILL BE SUPPLIED UPON COMPLETION | Oil: % Gas: %<br>WILL BE SUPPLIED UPON COMPLETION | Oil: % Gas: %<br>WILL BE SUPPLIED UPON COMPLETION |




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 _X_ No
If not, have all working, overriding, and royalty interests been notified by certified mail? __ Yes _X_ 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 other? _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). **R-10694**

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 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.

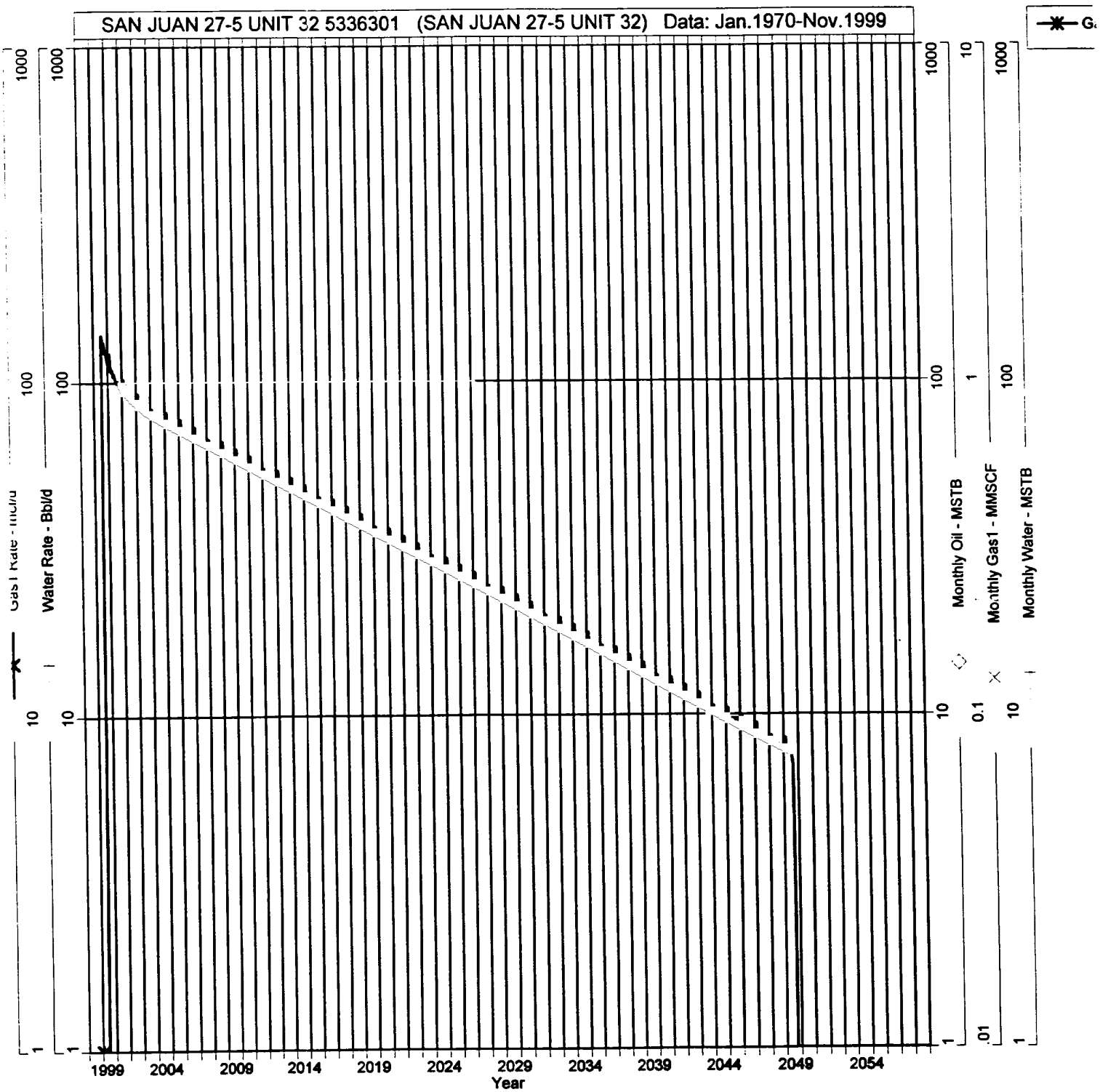
SIGNATURE Scott Dobson TITLE PRODUCTION ENGINEER DATE: 1/12/00

TYPE OR PRINT NAME SCOTT DOBSON TELEPHONE NO. 505-326-9700

San Juan 27-5 Unit #32

Expected Production

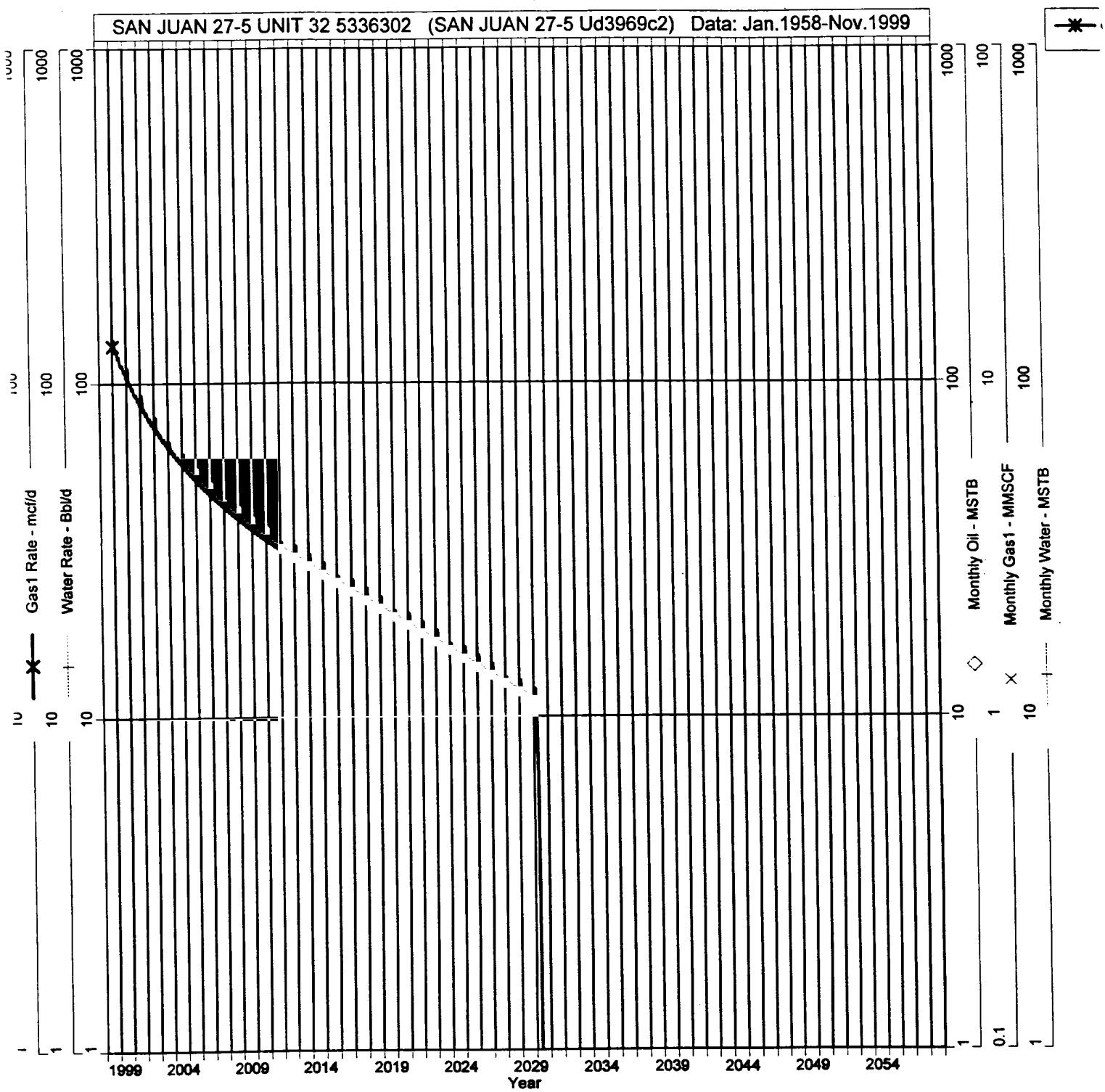
Pictured Cliffs Formation



San Juan 27-5 Unit #32

Expected Production

Mesaverde Formation



# San Juan 27-5 Unit #32

Bottom Hole Pressures

Flowing and Static BHP

Cullender and Smith Method

Version 1.0 3/13/94

## Pictured Cliffs

### PC-Current

| | |
|---|---|
| GAS GRAVITY | 0.697 |
| COND. OR MISC. (C/M) | C |
| %N2 | 0.61 |
| %CO2 | 0.12 |
| %H2S | 0 |
| DIAMETER (IN) | 1.66 |
| DEPTH (FT) | 3536 |
| SURFACE TEMPERATURE (DEG F) | 60 |
| BOTTOMHOLE TEMPERATURE (DEG F) | 137 |
| FLOWRATE (MCFPD) | 0 |
| SURFACE PRESSURE (PSIA) | 474 |
| BOTTOMHOLE PRESSURE (PSIA) | 518.7 |

### PC-Original

| | |
|---|---|
| GAS GRAVITY | 0.697 |
| COND. OR MISC. (C/M) | C |
| %N2 | 0.61 |
| %CO2 | 0.12 |
| %H2S | 0 |
| DIAMETER (IN) | 1.66 |
| DEPTH (FT) | 3536 |
| SURFACE TEMPERATURE (DEG F) | 60 |
| BOTTOMHOLE TEMPERATURE (DEG F) | 137 |
| FLOWRATE (MCFPD) | 0 |
| SURFACE PRESSURE (PSIA) | 1023 |
| BOTTOMHOLE PRESSURE (PSIA) | 1129.9 |

## Mesaverde

### MV-Current

| | |
|---|---|
| GAS GRAVITY | 0.709 |
| COND. OR MISC. (C/M) | C |
| %N2 | 0.17 |
| %CO2 | 0.8 |
| %H2S | 0 |
| DIAMETER (IN) | 2.375 |
| DEPTH (FT) | 5750 |
| SURFACE TEMPERATURE (DEG F) | 60 |
| BOTTOMHOLE TEMPERATURE (DEG F) | 198 |
| FLOWRATE (MCFPD) | 0 |
| SURFACE PRESSURE (PSIA) | 460 |
| BOTTOMHOLE PRESSURE (PSIA) | 529.1 |

### MV-Original

| | |
|---|---|
| GAS GRAVITY | 0.709 |
| COND. OR MISC. (C/M) | C |
| %N2 | 0.17 |
| %CO2 | 0.8 |
| %H2S | 0 |
| DIAMETER (IN) | 2.375 |
| DEPTH (FT) | 5750 |
| SURFACE TEMPERATURE (DEG F) | 60 |
| BOTTOMHOLE TEMPERATURE (DEG F) | 198 |
| FLOWRATE (MCFPD) | 0 |
| SURFACE PRESSURE (PSIA) | 1152 |
| BOTTOMHOLE PRESSURE (PSIA) | 1345.3 |

Page No.: 1
Print Time: Thu Dec 30 14:41:05 1999
Property ID: 1433
Property Name: SAN JUAN 27-5 UNIT | 32 | 53363A
Table Name: R:\RESERVES\GDPNOS\TEST.DBF

| --DATE-- | ---CUM_GAS-- Mcf | M_SIWHP Psi |
|---|---|---|
| 08/27/58 | 0 | 1023.0 |
| 10/21/58 | 0 | 1023.0 |
| 09/22/59 | 47000 | 703.0 |
| 05/29/60 | 74000 | 692.0 |
| 05/28/61 | 107000 | 659.0 |
| 08/06/62 | 136000 | 671.0 |
| 06/14/63 | 155000 | 665.0 |
| 05/07/64 | 171000 | 682.0 |
| 05/10/65 | 187000 | 688.0 |
| 09/02/66 | 211000 | 636.0 |
| 08/04/67 | 228000 | 598.0 |
| 05/02/68 | 243000 | 577.0 |
| 07/14/69 | 266143 | 571.0 |
| 11/23/70 | 286845 | 578.0 |
| 04/08/71 | 295350 | 530.0 |
| 08/09/72 | 322647 | 482.0 |
| 05/16/73 | 334532 | 503.0 |
| 07/15/74 | 352556 | 485.0 |
| 08/02/78 | 401399 | 514.0 |
| 04/30/82 | 449412 | 434.0 |
| 06/20/84 | 464944 | 493.0 |
| 11/04/86 | 470912 | 560.0 |
| 09/08/89 | 495355 | 476.0 |
| 09/12/91 | 505431 | 522.0 |
| 05/03/93 | 520279 | 474.0 |

San Juan 27-5 Unit #32

Existing Pictured Cliffs

Page No.: 2
Print Time: Thu Dec 30 14:41:06 1999
Property ID: 1434
Property Name: SAN JUAN 27-5 UNIT | 32 | 53363B
Table Name: R:\RESERVES\GDPNOS\TEST.DBF

| --DATE-- | ---CUM_GAS-- Mcf | M_SIWHP Psi |
|---|---|---|
| 08/27/58 | 0 | 1152.0 |
| 10/07/58 | 0 | 1151.0 |
| 09/22/59 | 62000 | 722.0 |
| 05/29/60 | 92000 | 690.0 |
| 05/28/61 | 129000 | 642.0 |
| 08/06/62 | 161000 | 610.0 |
| 04/19/63 | 177000 | 617.0 |
| 10/22/64 | 211000 | 614.0 |
| 05/10/65 | 220000 | 612.0 |
| 04/19/66 | 229000 | 562.0 |
| 05/16/67 | 255000 | 573.0 |
| 05/02/68 | 265000 | 544.0 |
| 08/28/70 | 302295 | 522.0 |
| 04/08/71 | 316528 | 451.0 |
| 08/09/72 | 339128 | 449.0 |
| 12/06/83 | 481602 | 409.0 |
| 11/04/86 | 509169 | 466.0 |
| 09/08/89 | 541302 | 559.0 |
| 08/20/91 | 549244 | 680.0 |
| 05/03/93 | 567287 | 460.0 |

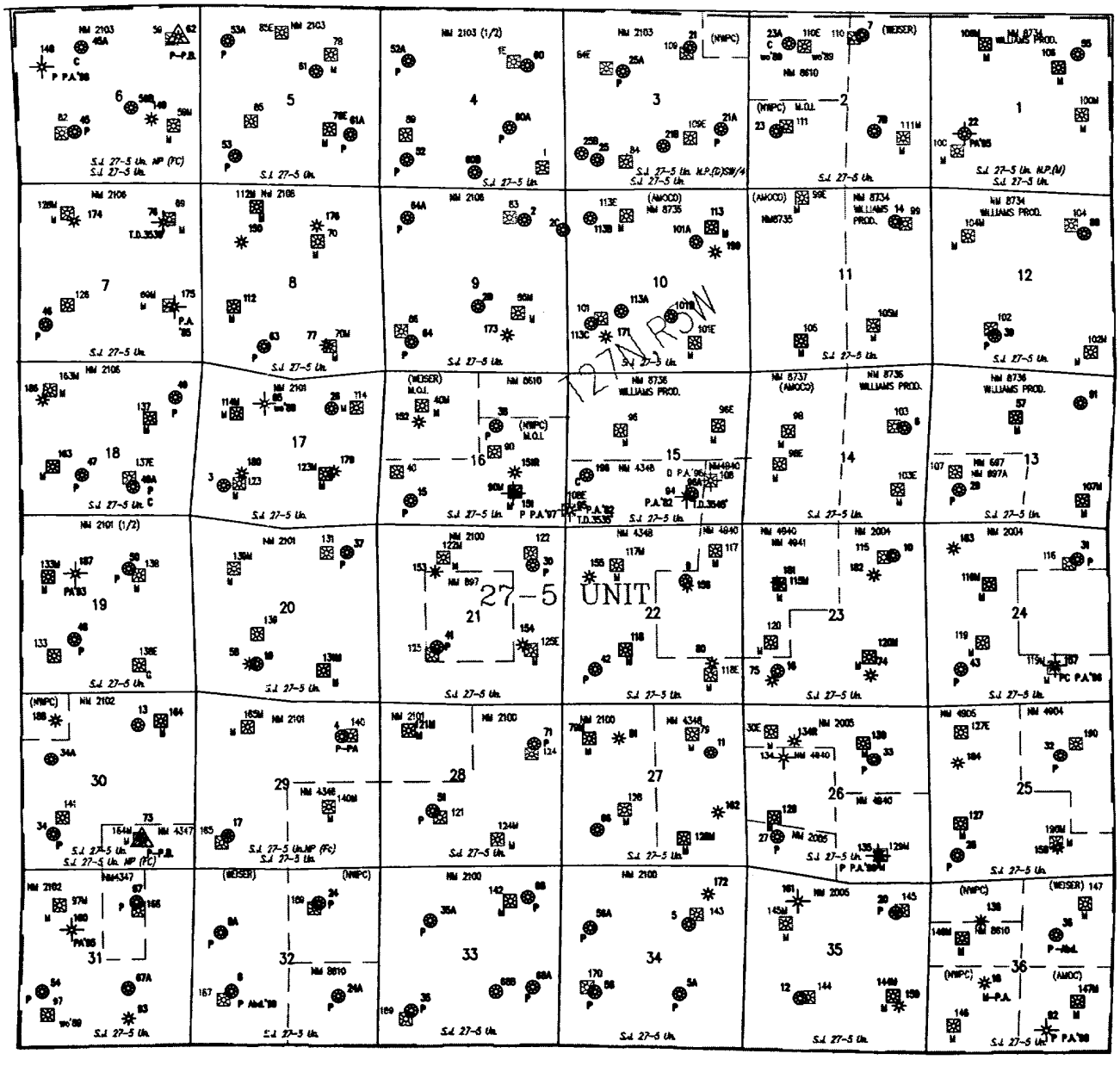
San Juan 27-5 Unit #32

Existing Mesaverde

San Juan 27-5 Unit #32

Pictured Cliffs / Mesaverde

27N – 5W – 25G



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 11626
ORDER NO. R-10694

APPLICATION OF BURLINGTON RESOURCES
OIL & GAS COMPANY FOR THE ESTABLISHMENT
OF A DOWNHOLE COMMINGLING "REFERENCE
CASE" FOR ITS SAN JUAN 27-5 UNIT PURSUANT
TO DIVISION RULE 303.E AND THE ADOPTION
OF SPECIAL ADMINISTRATIVE RULES THEREFOR.
~~SAN JUAN~~ COUNTY, NEW MEXICO.
RIO ARRIBA

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 17 and November 7, 1996, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 12th day of November, 1996, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Burlington Resources Oil & Gas Company (Burlington), pursuant to the provisions of Division Rule 303.E., seeks to establish a downhole commingling "reference case" to provide exceptions for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 27-5 Unit, San Juan County, New Mexico.

(3) Division Rule No. 303.E., amended by Order No. R-10470-A, currently states:

"If sufficient data exists on a lease, pool, formation, geographic area, etc., so as to render it unnecessary to repeatedly provide such data on Form C-107-A, an operator may except any of the various criteria required under Paragraph 303.D. of this rule by establishing a "reference case". The Division, upon its own motion, or by application from an operator, may establish "reference cases" either administratively or by hearing. Upon Division approval of such "reference cases" for specific criteria, subsequent applications to downhole commingle (Form C-107-A) will be required only to cite the Division order number which established such exceptions and shall not be required to submit data for those criteria."

(4) The applicant is the current operator of the San Juan 27-5 Unit which encompasses some 23,043 acres in Township 27 North, Range 5 West, NMPM, San Juan County, New Mexico.

(5) Within the San Juan 27-5 Unit, the applicant currently operates one hundred and one (101) Basin-Dakota Gas Pool wells, one hundred and five (105) Blanco-Mesaverde Gas Pool wells, eighty-seven (87) South Blanco-Pictured Cliffs and Tapacito-Pictured Cliffs Gas Pool wells, and four (4) Basin-Fruitland Coal Gas Pool wells.

(6) According to its evidence and testimony, Burlington seeks to:

a) establish a "reference case" for marginal economic criteria in the Dakota and Pictured Cliffs formations whereby these formations and/or pools may be identified as "marginal" on Form C-107-A's subsequently filed for wells within the San Juan 27-5 Unit. The applicant further proposes that the data provided in the immediate case serve as supplemental data or confirmation that these formations and/or pools should be classified as "marginal";

b) establish a "reference case" for pressure criteria in the Dakota and Pictured Cliffs formations whereby the Division may utilize data provided in the immediate case to verify the pressure data provided on Form C-107-A's subsequently filed for wells within the San Juan 27-5 Unit;

c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing a certain method of allocating production on Form C-107-A's subsequently filed for wells within the San Juan 27-5 Unit; and,

d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the San Juan 27-5 Unit without additional notice to each affected interest owner as required by Division Rule No. 303.D.

(7) In support of its request to except marginal economic criteria, the applicant presented geologic and engineering evidence and testimony which indicates that within the San Juan 27-5 Unit:

a) the structure and thickness of the Dakota and Pictured Cliffs formations are very consistent;

b) the average recoverable Dakota and Pictured Cliffs gas reserves underlying an undeveloped drill block are approximately 583 MMCFG and 426 MMCFG, respectively;

c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 393 MCFGD and 63 MCFGD, respectively; and,

d) the estimated ultimate gas recoveries and initial producing rates from the Dakota and Pictured Cliffs formations are insufficient to justify drilling stand alone wells and/or dually completed wells to recover such gas reserves.

(8) The evidence and testimony presented by the applicant indicates that the Dakota and Pictured Cliffs formations within the San Juan 27-5 Unit should be properly classified as "marginal".

(9) In support of its request to except pressure criteria within the Dakota and Pictured Cliffs formations within the San Juan 27-5 Unit, the applicant presented engineering evidence and testimony which indicates that:

a) the average shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations at the time of initial development were approximately 3,141 psi and 1,118 psi, respectively; and,

b) the average current shut-in bottomhole pressure within the Dakota and Pictured Cliffs formations are approximately 1,032 psi and 441 psi, respectively.

(10) There is sufficient pressure data available within the San Juan 27-5 Unit so as to except pressure criteria as proposed by the applicant.

(11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the San Juan 27-5 Unit depending on the circumstances. Some of the methods and circumstances are described as follows:

a) the subtraction method will likely be utilized in those instances involving the Basin-Fruitland Coal Gas Pool and in those instances where a zone with a well established decline rate is commingled with a newly completed zone;

b) a fixed allocation formula will be utilized in those instances where production history for both zones is available, or in those instances where newly completed zones are tested and stabilized flow rates obtained.

(12) The allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore the proposal to except allocation formulas should be approved.

(13) In support of its request to establish a "reference case" or administrative procedure for providing notice within the San Juan 27-5 Unit the applicant presented evidence and testimony which indicates that:

a) the interest ownership between two zones within a given wellbore in the San Juan 27-5 Unit is generally not common;

b) pursuant to Division Rule No. 303.D., applicant is currently required to notify all interest owners within the San Juan 27-5 Unit every time a Form C-107-A is submitted to the Division. There is a considerable number of such interest owners within the unit;

c) providing notice to each interest owner within the San Juan 27-5 Unit of subsequent downhole commingling is unnecessary and is an excessive burden on the applicant;

d) the downhole commingling of wells within the San Juan 27-5 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 27-5 Unit should not violate the correlative rights of any interest owner;

e) no interest owner appeared at the hearing in opposition to the establishment of a "reference case" or administrative procedure for notice.

(14) An administrative procedure should be established within the San Juan 27-5 Unit for obtaining approval for subsequent downhole commingled wells without notice to Unit interest owners, provided however that, all other provisions contained within Division Rule No. 303.C. are complied with.

(15) Approval of the proposed "reference cases" for marginal economic criteria, pressure criteria, allocation formulas and notice will lessen the burden on the applicant insofar as providing the data required pursuant to Division Rule No. 303.D. and Form C-107-A, will provide the applicant a streamlined method for obtaining downhole commingling approvals within the San Juan 27-5 Unit, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Burlington Resources Oil & Gas Company to establish a "reference case" for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 27-5 Unit, San Juan County, New Mexico, is hereby approved.

(2) Upon filing of Division Form No. C-107-A's for wells subsequently downhole commingled within the San Juan 27-5 Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal", supporting data to verify the Pictured Cliffs and Dakota pressure information provided, and support or justification for utilizing a given method or formula for allocation of production, provided however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.

(3) In order to obtain Division authorization to downhole commingle wells within the San Juan 27-5 Unit, the applicant shall file a Form C-107-A with the Santa Fe and Aztec Offices of the Division. Such application shall contain all the information required under Rule No. 303.C. of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the San Juan 27-5 Unit of such proposed commingling.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LeMAY
Director

Form C-128 6-57

NEW MEXICO OIL CONSERVATION COMMISSION

Well Location and Acreage Dedication Plat

1/8 36 09

T.V. 5865

Section A.

Date JULY 24, 1958

Operator EL PASO NATURAL GAS COMPANY Lease SAN JUAN 27-5 UNIT SF 079492

Well No. 32(PM) Unit Letter G Section 25 Township 27-N Range 5-W NMPM

Located 1550 Feet From NORTH Line, 1550 Feet From EAST Line

County RIO ARRIBA G. L. Elevation 6665 Dedicated Acreage 320 & 160 Acres

Name of Producing Formation MESA VERDE & PICTURED CLIFF Pool BLANCO MV, TAPACITO PC EXT.

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?

   Yes X No

2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes X No If answer is "yes", Type of Consolidation.

   **Unit Operating Agreement**

3. If the answer to question two is "no", list all the owners and their respective interests below:

| Owner | Land Description |
|---|---|
| | |

RECEIVED

JUL 28 1958

U. S. GEOLOGICAL SURVEY

Section B.

This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

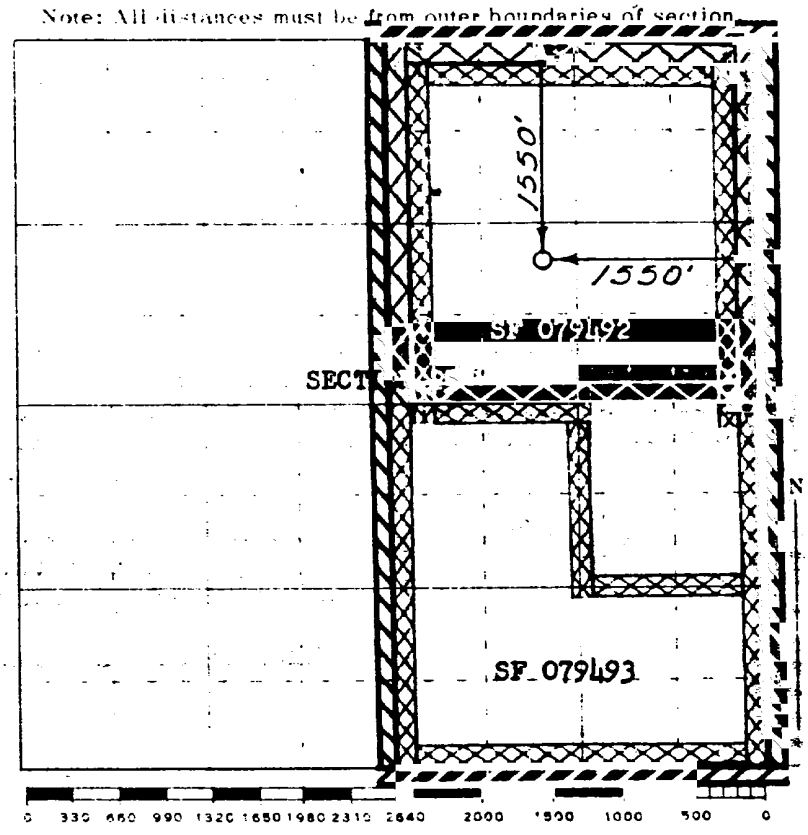
El Paso Natural Gas Company
(Operator)

Orig'nal Signed D. C. Johnston
(Representative)

Box 997
(Address)

Farmington, New Mexico

Note: All distances must be from outer boundaries of section.




Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Seal)

Date Surveyed DECEMBER 18, 1957

David O. Vilven

Registered Professional Engineer and/or Land Surveyor

Farmington, New Mexico

API # 30-039-06912

STATE OF NEW MEXICO
ENERGY and MINERALS
DEPARTMENT

This form is not to be used for reporting packer leakage tests in Southeast New Mexico

# OIL CONSERVATION DIVISION



# NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator BURLINGTON RESOURCES OIL & GAS CO. Lease SAN JUAN 27-5 UNIT Well No. 32

Location of Well: Unit G Sect 25 Twp. 027N Rge. 005W County RIO ARRIBA

| | NAME OF RESERVOIR OR POOL | TYPE OF PROD. (Oil or Gas) | METHOD OF PROD. (Flow or Art. Lift) | PROD. MEDIUM (Tbg. or Csg.) |
|---|---|---|---|---|
| Upper Completion | PICTURED CLIFFS | Gas | Flow | Tubing |
| Lower Completion | MESAVERDE | Gas | Flow | Tubing |

PRE-FLOW SHUT-IN PRESSURE DATA

| | Hour, date shut-in | Length of time shut-in | SI press. psig | Stabilized? (Yes or No) |
|---|---|---|---|---|
| Upper Completion | 9/18/99 | 120 Hours | 187 | |
| Lower Completion | 9/18/99 | 72 Hours | 233 | |

FLOW TEST NO. 1

Commenced at (hour,date)* 9/21/99 Zone producing (Upper or Lower) LOWER

| TIME (hour,date) | LAPSED TIME SINCE* | PRESSURE Upper Completion | PRESSURE Lower Completion | PROD. ZONE TEMP | REMARKS |
|---|---|---|---|---|---|
| 9/22/99 | 96 Hours | 195 | 170 | | |
| 9/23/99 | 120 Hours | 199 | 154 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

OCT 27 1999
OIL CON. DIV.
DIST. 3

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hours. _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): _____

MID-TEST SHUT-IN PRESSURE DATA

| | Hour, date shut-in | Length of time shut-in | SI press. psig | Stabilized? (Yes or No) |
|---|---|---|---|---|
| Upper Completion | | | | |
| Lower Completion | Hour, date shut-in | Length of time shut-in | SI press. psig | Stabilized? (Yes or No) |

(Continue on reverse side)

FLOW TEST NO. 2

| Commenced at (hour, date)** | | | Zone producing (Upper or Lower): | | |
|---|---|---|---|---|---|
| TIME (hour, date) | LAPSED TIME SINCE ** | PRESSURE | | PROD. ZONE TEMP. | REMARKS |
| | | Upper Completion | Lower Completion | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hours _____ Grav. _____ GOR _____

Gas: _____ MCFPD: Tested thru (Orifice or Meter): _____

Remarks: _____

I hereby certify that the information herein contained is true and complete to the best of my knowledge

Approved OCT 27 1999 19____

New Mexico Oil Conservation Division

By ORIGINAL SIGNED BY CHARLIE T. PERRIN

Title DEPUTY OIL & GAS INSPECTOR, DIST. #3

Operator **Burlington Resources**

By _____

Title **Operations Associate**

Date **Friday, October 08, 1999**

NORTHWEST NEWMEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Division.

2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Division in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.

3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.

4. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: if, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to lack of a pipeline connection the flow period shall be three hours.

5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.

6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Tes No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3 hours tests: immediately prior to the beginning of each flow period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the New Mexico Oil Conservation Division on Northwest New Mexico Packer Leakage Test Form Revised 10-01-78 with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only).