

3-OCC

1-M.L. Kendrick

1-B. Parrish

1-Comm. of Public Lands

2-EPNS, Farm., El Paso

1-Phillips 1-TCA

1-Snoddy (Melland)

1-F

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BASIN DAKOTA Formation DAKOTA County Rio ArribaInitial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 11/27/63Company Beta Development Company Lease 8J 29-6 Unit Well No. 69Unit A Sec. 16 Twp. 29N Rge. 6W Purchaser EPNS Co.Casing 4 1/2 Wt. 11.60 I.D. 4.000 Set at 7798 Perf. 7662 To 7763Tubing 2-3/8 Wt. 4.70 I.D. 1.995 Set at 7738 Perf. Open To endGas Pay: From 7662 To 7763 L 7729 xG .67 -GL 5178 Bar.Press. 12.0Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single GasDate of Completion: 11/14/63 Packer \_\_\_\_\_ Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) \_\_\_\_\_ Type Taps \_\_\_\_\_

| No. | Flow Data                  |                                            |                |                         |              | Tubing Data               |              | Casing Data                |              | Duration of Flow Hr.           |
|-----|----------------------------|--------------------------------------------|----------------|-------------------------|--------------|---------------------------|--------------|----------------------------|--------------|--------------------------------|
|     | (Prover)<br>(Line)<br>Size | (Choke)<br>( <del>or choke</del> )<br>Size | Press.<br>psig | Diff.<br>h <sub>w</sub> | Temp.<br>°F. | Press.<br>psig            | Temp.<br>°F. | Press.<br>psig             | Temp.<br>°F. |                                |
| SI  |                            |                                            |                |                         |              |                           |              |                            |              |                                |
| 1.  |                            | <u>3/4</u>                                 | <u>317</u>     |                         | <u>77</u>    | <u>2735</u><br><u>317</u> | <u>77</u>    | <u>2779</u><br><u>1170</u> |              | <u>8 Days</u><br><u>3 Hrs.</u> |
| 2.  |                            |                                            |                |                         |              |                           |              |                            |              |                                |
| 3.  |                            |                                            |                |                         |              |                           |              |                            |              |                                |
| 4.  |                            |                                            |                |                         |              |                           |              |                            |              |                                |
| 5.  |                            |                                            |                |                         |              |                           |              |                            |              |                                |

## FLOW CALCULATIONS

| No. | Coefficient<br>(24-Hour) | $\sqrt{h_{wpf}}$ | Pressure<br>psia | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Compress.<br>Factor<br>F <sub>pv</sub> | Rate of Flow<br>Q-MCFPD<br>@ 15.025 psia |
|-----|--------------------------|------------------|------------------|----------------------------------------|-------------------------------------|----------------------------------------|------------------------------------------|
| 1.  | <u>12.3650</u>           |                  | <u>329</u>       | <u>.9849</u>                           | <u>.9463</u>                        | <u>1.031</u>                           | <u>3,905</u>                             |
| 2.  |                          |                  |                  |                                        |                                     |                                        |                                          |
| 3.  |                          |                  |                  |                                        |                                     |                                        |                                          |
| 4.  |                          |                  |                  |                                        |                                     |                                        |                                          |
| 5.  |                          |                  |                  |                                        |                                     |                                        |                                          |

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2791 P<sub>c</sub> 7789.6  
P<sub>w</sub> 1182 P<sub>w</sub> 1397.1

| No. | P <sub>w</sub><br>P <sub>t</sub> (psia) | P <sub>t</sub> <sup>2</sup> | F <sub>c</sub> Q | (F <sub>c</sub> Q) <sup>2</sup> | (F <sub>c</sub> Q) <sup>2</sup><br>(1-e <sup>-s</sup> ) | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup> | Cal.<br>P <sub>w</sub> | P <sub>w</sub><br>P <sub>c</sub> |
|-----|-----------------------------------------|-----------------------------|------------------|---------------------------------|---------------------------------------------------------|-----------------------------|----------------------------------------------------------|------------------------|----------------------------------|
| 1.  |                                         |                             |                  |                                 |                                                         | <u>1397.1</u>               | <u>6392.3</u>                                            |                        | <u>.423</u>                      |
| 2.  |                                         |                             |                  |                                 |                                                         |                             |                                                          |                        |                                  |
| 3.  |                                         |                             |                  |                                 |                                                         |                             |                                                          |                        |                                  |
| 4.  |                                         |                             |                  |                                 |                                                         |                             |                                                          |                        |                                  |
| 5.  |                                         |                             |                  |                                 |                                                         |                             |                                                          |                        |                                  |

Absolute Potential: 4.529 MCFPD; n 75COMPANY Beta Development CompanyADDRESS 234 Petroleum Club Plaza, Farmington, New MexicoAGENT and TITLE George L. Hoffman, Production Engineer

WITNESSED \_\_\_\_\_

COMPANY \_\_\_\_\_

REMARKS \_\_\_\_\_



## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

$P_f$  = Meter pressure, psia.

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressibility factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)Form approved.  
Budget Bureau No. 42-R1424.

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

|                                                                                                                                                                    |  |                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER                                                   |  | 5. LEASE DESIGNATION AND SERIAL NO.<br><b>NM 021576</b>                                        |
| 2. NAME OF OPERATOR<br><b>El Paso Natural Gas Company</b>                                                                                                          |  | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME                                                           |
| 3. ADDRESS OF OPERATOR<br><b>Box 990, Farmington, New Mexico</b>                                                                                                   |  | 7. UNIT AGREEMENT NAME<br><b>San Juan 29-6 Unit</b>                                            |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*<br>See also space 17 below.)<br>At surface<br><br><b>990'N, 990'E</b> |  | 8. FAIRM OR LEASE NAME<br><b>San Juan 29-6 Unit</b>                                            |
| 14. PERMIT NO.                                                                                                                                                     |  | 9. WELL NO.<br><b>69</b>                                                                       |
| 15. ELEVATIONS (Show whether DF, RT, GR, etc.)<br><b>6412'OL, 6422'IF</b>                                                                                          |  | 10. FIELD AND POOL, OR WILDCAT<br><b>Basin Dakota</b>                                          |
|                                                                                                                                                                    |  | 11. SEC., T., R., M., OR BLK. AND SURV. OR PLAT.<br><b>Sec. 25, T-29-N, R-6-W<br/>N.M.P.M.</b> |
|                                                                                                                                                                    |  | 12. COUNTY OR PARISH<br><b>Rio Arriba</b>                                                      |
|                                                                                                                                                                    |  | 13. STATE<br><b>New Mexico</b>                                                                 |

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐

(Other)

PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON\* ☐CHANGE PLANS ☐

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐

(Other)

REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT\* ☒

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

This well was originally drilled & operated by Beta Development Co.; effective 3-1-64 El Paso Natural Gas Company has assumed operatorship of this well and the well will be called the EPNB Co. San Juan 29-6 Unit #69.



18. I hereby certify that the foregoing is true and correct

SIGNED **ORIGINAL SIGNED E.S. CEARLY**

TITLE

**Petroleum Engineer**

DATE

**March 5, 1964**

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

## Instructions

**General:** This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

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

**Item 17:** Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.