NM OCC-3 Geo Peppin-1 L.G. Truby-1 File-1

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122 Revised 12-1-55

| Poo                        | olWi                          | ldcat           |                     | Formation               | Fru              | itland                    |                       | County                 | San              | Juan             |
|----------------------------|-------------------------------|-----------------|---------------------|-------------------------|------------------|---------------------------|-----------------------|------------------------|------------------|------------------|
| Ini                        | tial                          | A               | nnual               |                         | Spec             | cial                      |                       |                        |                  |                  |
|                            | pany <b>North</b>             |                 |                     |                         |                  |                           |                       |                        |                  |                  |
|                            | t <b>E</b>                    |                 |                     |                         |                  |                           |                       |                        |                  |                  |
|                            | ing 44 V                      |                 |                     |                         |                  |                           |                       |                        |                  | 34               |
|                            | ing 1k V                      |                 |                     |                         |                  |                           |                       |                        |                  |                  |
|                            |                               |                 |                     |                         |                  |                           |                       |                        |                  | 24.24            |
|                            |                               |                 |                     |                         |                  |                           |                       |                        |                  |                  |
| 710                        | ducing Thru:                  | . Casin         | g                   | ru                      | onng             | Si                        | Type we<br>ngle-Brade | enhead-G.              | G. or G          | .O. Dual         |
| Dat                        | e of Complet                  | cion:2.         | -17-57              | Packe                   | r                |                           | Reservo               | oir Temp               |                  |                  |
|                            |                               |                 |                     |                         | OBSERV           | ED DATA                   |                       |                        |                  |                  |
| Tes                        | ted Through                   | (Phbliek        | (Choke              | (Metely)                |                  |                           |                       | Туре Тар               | s                |                  |
|                            |                               |                 | w Data              |                         |                  | Tubin                     | g Data                | Casing D               |                  |                  |
| No.                        | (Prover)<br>(Line)            | (Choke          | )   Pres            | s. Diff.                |                  |                           | . Temp.               |                        |                  | Duration of Flow |
|                            | Size                          | Size            | psi                 | g h <sub>w</sub>        | ° <sub>F</sub> . |                           | °F.                   | psig                   | °F∙              | Hr.              |
| SI<br>1.                   |                               | 3/4" BM         |                     |                         |                  | 677                       | <del></del>           | 677                    | ļ                | Shut in          |
| 2.                         | ·                             | 3/4 55          |                     |                         |                  | 155                       | 34                    | 556                    |                  | 3 hours          |
| 3.<br>4.                   |                               | <br>            |                     |                         |                  |                           |                       |                        |                  |                  |
| 5.                         |                               |                 |                     |                         |                  |                           | +                     | <u> </u>               |                  |                  |
|                            |                               |                 | •                   | •                       | FLOW CAL         | CITI A TITO!              | NS.                   |                        |                  |                  |
|                            | Coeffici                      | .ent            |                     |                         |                  |                           |                       | Compre                 | ss.              | Rate of Flow     |
| No.                        | (24-Hour) $\sqrt{h_{w}p_{f}}$ |                 |                     | Pressure Flow Fa        |                  | ctor Fact                 |                       | Facto                  | r                | Q-MCFPD          |
| 7                          |                               |                 | "wpf                |                         |                  |                           |                       |                        |                  | @ 15.025 psia    |
| 1.<br>2.<br>3.<br>4.       | 14.1605                       |                 |                     | 167                     | 1.005            | -                         | .9325                 | 1.01                   | <del>'</del> ——— | 2260             |
| <u>3</u> .                 |                               |                 |                     |                         |                  |                           |                       |                        |                  |                  |
| 5.                         |                               |                 |                     |                         |                  |                           | <del></del>           |                        |                  | <del></del>      |
| 'a - T                     | iquid Hydro                   | D               |                     |                         | ESSURE CA        |                           |                       | a: 0 :                 |                  |                  |
|                            | ity of Liqui                  |                 | rbons               |                         | cf/bbl.<br>deg.  |                           | Speci                 | fic Gravi<br>fic Gravi | ty Flow          | ing Fluid        |
| `c                         |                               |                 | _(1-e <sup>-s</sup> | Σ                       |                  |                           | Р <sub>с</sub>        | 689                    | _Pc              | 474721           |
| <del></del>                |                               |                 |                     | •                       |                  |                           | ·                     |                        | <del></del>      |                  |
| No.                        | P <sub>w</sub><br>P#/{p#7#)   | Pt <sup>2</sup> | $F_cQ$              | $(F_cQ)^2$              | (F.              | cQ) <sup>2</sup><br>-e-s) | $P_{W}^{2}$           | $P_c^2 - P_w^2$        | Ca               |                  |
| I.                         |                               |                 |                     |                         | (1               |                           |                       |                        | P.               | W 1 C            |
| 1.<br>2.<br>3.<br>4.<br>5. | 568                           |                 |                     |                         |                  |                           | 322624                | 152097                 |                  | 3.1212           |
| 4.                         |                               |                 |                     |                         |                  |                           |                       |                        | <del> </del>     | - <del> </del>   |
| 5.                         |                               |                 |                     |                         |                  |                           |                       |                        |                  |                  |
|                            | lute Potent                   |                 |                     |                         |                  |                           |                       |                        |                  |                  |
| COMF                       | PANY<br>RESS                  |                 |                     | rthwest Pi<br>Broadway, |                  |                           |                       |                        |                  |                  |
| AGEN                       | T and TITLE                   |                 |                     | s, Well To              |                  |                           | FEALUV                |                        |                  |                  |
| WI:IN                      | IESSED_                       |                 |                     |                         |                  |                           |                       |                        |                  |                  |
| O OPIT                     | WILT                          |                 |                     |                         | REMA             | ARKS                      |                       |                        | 1/3              |                  |
|                            |                               |                 |                     |                         |                  |                           |                       | 4                      | 1 =              | 于 <b>大</b>       |

### 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 (Pw). MCF/da. @ 15.025 psia and 600 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
- Pt Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia
- Pf Meter pressure, psia.
- hw Differential meter pressure, inches water.
- FgI Gravity correction factor.
- $F_t$  Flowing temperature correction factor.
- Fpv Supercompressability factor.
- n I 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  $P_t$ .

# PACIFIC NORTHWEST PIPELINE CORPORATION

## DRILLING DEPARTMENT

|                       |                |  | COMPAN  | Northwe                               | st Prod     | uction Co | rporation                             |
|-----------------------|----------------|--|---------|---------------------------------------|-------------|-----------|---------------------------------------|
|                       |                |  | LEASE_  | Blanco                                | 30-12       | _WELL NO. | 4-10                                  |
|                       |                |  | DATE O  | f TEST                                | 2-26-57     |           | · · · · · · · · · · · · · · · · · · · |
| SHUT IN PRESSURE      | (PSIG): TUBI   | NG 677 CASING  | 677     | _S.I. PEI                             | RIOD        | 8         | DAYS                                  |
| SIZE BLOW NIPPLE      | 2              |  |         |                                       |             |           |                                       |
| FLOW THROUGH 3        | /4" CK (Bureau | of Mines)  |         | _WORKING                              | PRESSUR     | ES FROM_  | Casing                                |
| TIME<br>HOURS MINUTES | PRESSURE       | Q (MCFD)<br>15.025 PSIA &  | 60°F    | WELLHEAD<br>PRESSURE                  |             | •         | TEMP                                  |
| 3 0                   |                | 2,260  |         | 556                                   |             |           | _54_                                  |
|                       |                |  |         |                                       |             |           |                                       |
|                       |                |  |         |                                       |             | ·<br>·    |                                       |
|                       |                |  |         |                                       |             | •         |                                       |
|                       |                |  |         |                                       |             | -<br>-    |                                       |
| START TEST AT         | 11:05 am       |  | END TES | T AT                                  | 2:05 pi     | <u>a</u>  |                                       |
| REMARKS:              |                | and the second seco |         |                                       | <del></del> |           |                                       |
|                       |                |  |         |                                       |             |           |                                       |
|                       |                |  |         | · · · · · · · · · · · · · · · · · · · |             |           |                                       |
|                       |                |  |         |                                       |             |           |                                       |
|                       |                |  |         |                                       |             |           |                                       |
|                       |                |  |         |                                       |             |           | <u></u>                               |
|                       |                |  |         |                                       |             |           |                                       |
|                       |                |  |         |                                       |             |           |                                       |
|                       |                |  | TESTED  | BY D.                                 | C. Adam     | 3         |                                       |

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