

**MULTIPOINT A ONE JOINT BACK PRESSURE TEST FOR GAS WELL RECEIVED**

|                                                                                                                         |          |                                |                          |                                 |                     |                                      |             |                              |  |
|-------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------|--------------------------|---------------------------------|---------------------|--------------------------------------|-------------|------------------------------|--|
| Type Test: <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |          |                                |                          |                                 |                     | Test Date: 3-17-82                   |             | JUN 23 1982                  |  |
| Company: J. C. WILLIAMSON ✓                                                                                             |          |                                |                          | Connection:                     |                     |                                      |             | O. C. D.                     |  |
| Pool: Wilcox                                                                                                            |          |                                |                          | Formation: Middle Delaware      |                     |                                      |             | Unit: ARTESIA, OFFICE        |  |
| Completion Date: 3-4-82                                                                                                 |          | Total Depth: 4034              |                          | Plug Back TD: 3610              |                     | Elevation:                           |             | Farm or Lease Name: E.P. USA |  |
| Csg. Size: 4.5                                                                                                          | Wt.:     | d:                             | Set At: 4034             | Perforations: From 3481 To 3485 |                     |                                      | Well No.: 2 |                              |  |
| Trg. Size: 2 3/8                                                                                                        | Wt.: 4.7 | d: 1.995                       | Set At: 3486             | Perforations: From To           |                     |                                      | Unit: 26    | Soc.: 26                     |  |
| Type Well: Single - Blindhead - G.C. or C.O. Multiple: Single                                                           |          |                                |                          | Packer Set At: 3390             |                     | County: Eddy                         |             |                              |  |
| Producing Thru Tbg.:                                                                                                    |          | Reservoir Temp. °F: 109 - 3481 |                          | Mean Annual Temp. °F:           |                     | Baro. Press. - P <sub>a</sub> : 13.2 |             | State: New Mexico            |  |
| L: 3486                                                                                                                 | H: 3486  | Gg: .583                       | % CO <sub>2</sub> : .09% | % N <sub>2</sub> : 5.13%        | % H <sub>2</sub> S: | Prover: 2"                           | Meter Run:  | Taps:                        |  |

  

| FLOW DATA |                  |   |              |                 |                      |          | TUBING DATA     |          | CASING DATA     |          | Duration of Flow |
|-----------|------------------|---|--------------|-----------------|----------------------|----------|-----------------|----------|-----------------|----------|------------------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F |                  |
| SI        |                  |   |              |                 |                      |          | 1615            |          |                 |          | 72 hr.           |
| 1.        | 2                | x | 1/16         | 1411            |                      | 75       | 1411            | 75       |                 |          | 1 hr.            |
| 2.        | 2                | x | 3/32         | 1105            |                      | 74       | 1105            | 74       |                 |          | 1 hr.            |
| 3.        | 2                | x | 1/8          | 847             |                      | 75       | 847             | 75       |                 |          | 1 hr.            |
| 4.        | 2                | x | 3/16         | 466             |                      | 75       | 466             | 75       |                 |          | 1 hr.            |
| 5.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |

  

| NO. | Coefficient (24 Hour) | $\sqrt{h_p P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor Ft. | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
|-----|-----------------------|------------------|-------------------------|-----------------------|-------------------|-----------------------------|----------------------|
| 1   | .06406                |                  | 1424.2                  | .9859                 | 1.310             | 1.106                       | 130                  |
| 2   | .1410                 |                  | 1118.2                  | .9868                 | 1.310             | 1.087                       | 222                  |
| 3   | .2648                 |                  | 860.2                   | .9859                 | 1.310             | 1.067                       | 314                  |
| 4   | .6082                 |                  | 479.2                   | .9859                 | 1.310             | 1.038                       | 391                  |
| 5   |                       |                  |                         |                       |                   |                             |                      |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio | A.P.I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|----------------|----------|----------------|------|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1   | 2.12           | 535      | 1.53           | .817 |                              |                                       | .583                           |                                |                   |                      |
| 2   | 1.66           | 534      | 1.53           | .846 |                              |                                       |                                |                                |                   |                      |
| 3   | 1.28           | 535      | 1.53           | .878 |                              |                                       |                                |                                |                   |                      |
| 4   | .71            | 535      | 1.53           | .929 |                              |                                       |                                |                                |                   |                      |
| 5   |                |          |                |      |                              |                                       |                                |                                |                   |                      |

  

| NO. | P <sub>r</sub> | P <sub>w</sub> | P <sub>r</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|----------------|----------------|-----------------------------|-----------------------------|-----------------------------------------------------------|
| 1   | 1628.2         | 2651.0         |                             |                             |                                                           |
| 1   |                | 1424.3         | 2028.5                      | 622.5                       |                                                           |
| 2   |                | 1118.4         | 1250.9                      | 1400.1                      |                                                           |
| 3   |                | 860.9          | 741.1                       | 1909.9                      |                                                           |
| 4   |                | 481.1          | 231.5                       | 2419.5                      |                                                           |
| 5   |                |                |                             |                             |                                                           |

  

(1)  $\frac{P_r^2}{P_r^2 - P_w^2} = 1.096$

(2)  $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.096$

AOF = Q  $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = .429$

Gas Liquid Hydrocarbon Ratio: Dry

A.P.I. Gravity of Liquid Hydrocarbons: .583

Specific Gravity Separator Gas: .583

Specific Gravity Flowing Fluid: .672

Critical Pressure: 672 P.S.I.A.

Critical Temperature: 350 R

  

|                                       |                      |                 |
|---------------------------------------|----------------------|-----------------|
| Absolute Open Flow: 429 Mcfd @ 15.025 | Angle of Slope θ: 45 | Slope, n: 1.000 |
|---------------------------------------|----------------------|-----------------|

  

Remarks: no fluid produced during test.

  

|                       |                                      |                              |             |
|-----------------------|--------------------------------------|------------------------------|-------------|
| Approved by Division: | Conducted by: R. Reston & R. McGowen | Calculated by: Joe B. Murray | Checked by: |
|-----------------------|--------------------------------------|------------------------------|-------------|

| SUGGESTED FIELD DATA SHEET (Not Required To File) |  |                                             |  |                                 |  |                                  |  |                         |  |
|---------------------------------------------------|--|---------------------------------------------|--|---------------------------------|--|----------------------------------|--|-------------------------|--|
| Type Test                                         |  | <input checked="" type="checkbox"/> Initial |  | <input type="checkbox"/> Annual |  | <input type="checkbox"/> Special |  | Test Date               |  |
|                                                   |  |                                             |  |                                 |  |                                  |  | 3-17-82                 |  |
| Company                                           |  |                                             |  | Connection                      |  |                                  |  | Lease No. or Serial No. |  |
| J. C. WILLIAMSON                                  |  |                                             |  |                                 |  |                                  |  |                         |  |
| Field                                             |  | Reservoir                                   |  | Location                        |  | Unit                             |  |                         |  |
| Wildcat                                           |  | Middle Delaware                             |  |                                 |  |                                  |  |                         |  |
| Completion Date                                   |  | Total Depth                                 |  | Plug Back TD                    |  | Elevation                        |  | Form or Lease Name      |  |
| 3-4-82                                            |  | 4034                                        |  | 3610                            |  |                                  |  | E.P. USA                |  |
| Csg. Size                                         |  | Wt.                                         |  | Set At                          |  | Perforations: From               |  | To                      |  |
| 4.5                                               |  | d                                           |  | 4034                            |  | 3481                             |  | 3485                    |  |
| Tbq. Size                                         |  | Wt.                                         |  | Set At                          |  | Perforations: From               |  | To                      |  |
| 2 3/8                                             |  | d                                           |  | 3486                            |  |                                  |  |                         |  |
| Type Completion (Describe)                        |  |                                             |  |                                 |  | Packer Set At                    |  | County or Parish        |  |
| Single                                            |  |                                             |  |                                 |  | 3390                             |  | Eddy                    |  |
| Producing Thru                                    |  | Reservoir Temp. F                           |  | Mean Annual Temp. F             |  | Baro. Press. - P <sub>a</sub>    |  | State                   |  |
| Tbq.                                              |  | 109 @ 3486                                  |  | 60                              |  | 13.2                             |  | New Mexico              |  |
| L                                                 |  | H                                           |  | G <sub>g</sub>                  |  | % CO <sub>2</sub>                |  | % N <sub>2</sub>        |  |
| 3486                                              |  | 3486                                        |  | .583                            |  | .09%                             |  | 5.30%                   |  |
|                                                   |  |                                             |  |                                 |  | % H <sub>2</sub> S               |  | Prover                  |  |
|                                                   |  |                                             |  |                                 |  |                                  |  | 2"                      |  |
|                                                   |  |                                             |  |                                 |  |                                  |  | Meter Run               |  |
|                                                   |  |                                             |  |                                 |  |                                  |  | To                      |  |

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J. C. WILLIAMSON

E. P. USA No. 2

26-26-29

Eddy Co., NM

March 17, 1982

DIETZEN CORPORATION  
MADE IN U.S.A.

NO. 341-L22 DIETZEN GRAPH PAPER  
LOGARITHMIC  
2 CYCLES X 2 CYCLES



OIL CONSERVATION DIVISION

Artesia, New Mexico

June 21, 1982

J.C. Williamson  
P.O. Box 16  
Midland, Texas 79702

Re: Well~~X~~ Placed In Pool~~X~~

Gentlemen:

As the result of Division Order R-7009 the following described well ~~(X)~~ (has ~~XXXXXX~~ been placed in the pool ~~(X)~~ shown below. This change in nomenclature has been made in our files. Please change your records to reflect the proper pool name. All subsequent reports must show this nomenclature until further notice.

BRUSHY DRAW - MIDDLE BELL CANYON GAS POOL

✓EP-USA #2      Ut.0      26-26-29

Transporters are advised, by copy of this letter, to change their records to reflect the pool name as established by this order.

Very truly yours,

*Larry Brooks*  
OIL CONSERVATION DIVISION

Distribution:

Original - Operator

XC: Santa Fe OCD

Each Transporter