

# NEW MEXICO OIL CONSERVATION COMMISSION

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-61

Pool Basin Formation Basin County San Juan  
 Initial I Annual Annual Special Special Date of Test 7-1-61  
 Company Century Exploration Inc. Lease 112-2-1 Well No. 1  
 Unit N Sec. 20 Twp. 23N Rge. 9W Purchaser   
 Casing 4 1/2 wt. 9.5 I.D.  Set at 6500 Perf. 6380 To 6416  
 Tubing 2 3/8 wt. 4.705 I.D.  Set at 6410 Perf. Open Ended To   
 Gas Pay: From 6380 To 6416 L  xG  -GL  Bar. Press.   
 Producing Thru: Casing  Tubing I Type Well Single-Gas  
 Date of Completion: 6-28-61 Packer  Single-Bradenhead-G. G. or G.O. Dual  
 Reservoir Temp.

### OBSERVED DATA

Tested Through Prover (Prover) (Choke) Meter (Meter)

Type Taps

| Flow Data |                      |                        |             |                      |           | Tubing Data |           | Casing Data |           | Duration of Flow Hr. |
|-----------|----------------------|------------------------|-------------|----------------------|-----------|-------------|-----------|-------------|-----------|----------------------|
| No.       | (Prover) (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. h <sub>w</sub> | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. |                      |
| 1         |                      |                        |             |                      |           | 1773        |           | 1976        |           |                      |
| 2         | 2"                   | 3/4"                   | 196         |                      | 98        |             |           | 602         |           |                      |
| 3         |                      |                        |             |                      |           |             |           |             |           |                      |
| 4         |                      |                        |             |                      |           |             |           |             |           |                      |
| 5         |                      |                        |             |                      |           |             |           |             |           |                      |

### FLOW CALCULATIONS

| Coefficient (24-Hour) | $\sqrt{h_w P_f}$ | Pressure psia | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Compress. Factor F <sub>pv</sub> | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----------------------|------------------|---------------|----------------------------------|-------------------------------|----------------------------------|------------------------------------|
| 12.3650               |                  | 165           | 1.0329                           | 0.9395                        | 1.019                            | 1995                               |
|                       |                  |               |                                  |                               |                                  |                                    |
|                       |                  |               |                                  |                               |                                  |                                    |
|                       |                  |               |                                  |                               |                                  |                                    |

### PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio  cf/bbl.  
 Gravity of Liquid Hydrocarbons  deg.  
 (1-e<sup>-3</sup>)

Specific Gravity Separator Gas   
 Specific Gravity Flowing Fluid   
 P<sub>c</sub> 1538 P<sub>c</sub> 3752

| P <sub>w</sub> | P <sub>t</sub> (psia) | P <sub>c</sub> <sup>2</sup> | P <sub>c</sub> Q | (P <sub>c</sub> Q) <sup>2</sup> | (P <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-3</sup> ) | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup> | Cal. P <sub>w</sub> | P <sub>w</sub> |
|----------------|-----------------------|-----------------------------|------------------|---------------------------------|------------------------------------------------------|-----------------------------|----------------------------------------------------------|---------------------|----------------|
|                | 614                   |                             |                  |                                 |                                                      | 377                         | 3373                                                     |                     | 1.1634         |
|                |                       |                             |                  |                                 |                                                      |                             |                                                          |                     |                |
|                |                       |                             |                  |                                 |                                                      |                             |                                                          |                     |                |
|                |                       |                             |                  |                                 |                                                      |                             |                                                          |                     |                |

Absolute Potential: 2152 MCFPD: n. 75 1.0732

COMPANY Century Exploration Inc.  
 ADDRESS Box 100, Farmington, New Mexico

TEST and TITLE Engineer

WITNESSED  
 COMPANY

REMARKS  
 Well making heavy fog of distillate and water throughout test.