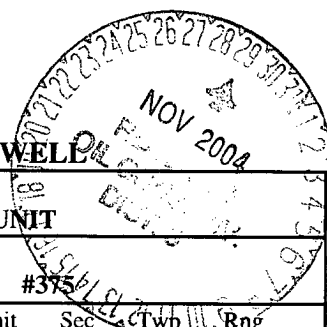30-039-26948

# NEW MEXICO OIL CONSERVATION COMMISSION
## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

| Operator | | Lease or Unit Name | |
|---|---|---|---|
| **Williams Production Company** | | **ROSA UNIT** | |

| Test Type | | | Test Date | Well Number |
|---|---|---|---|---|
| _X_ **Initial** **Annual** | | **Special** | **10/20/2004** | **#375** |

| Completion Date | Total Depth | Plug Back TD | Elevation | Unit | Sec | Twp | Rng |
|---|---|---|---|---|---|---|---|
| **9/14/2004** | **3534'** | | **6596'** | **K** | **24** | **31N** | **5W** |

| Casing Size | Weight | d | Set At | Perforations: | | County | |
|---|---|---|---|---|---|---|---|
| **5-1/2"** | **17#** | | **3441'** | **33446' - 3432'** | | **RIO ARRIBA** | |

| Tubing Size | Weight | d | Set At | Perforations: | | Pool | |
|---|---|---|---|---|---|---|---|
| **2-7/8"** | **6.5#** | | **3433'** | | | **BASIN** | |

| Type Well - Single-Bradenhead-GG or GO Multiple | Packer Set At | Formation |
|---|---|---|
| | | **FT** |

| Producing Thru | Reservoir Temp. oF | Mean Annual Temp. oF | Barometer Pressure - Pa | Connection |
|---|---|---|---|---|
| **Tubing** | | | | |

| L | H | Gq | %CO2 | %N2 | %H2S | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| | | **0.6** | | | | **3/4"** | | |

### FLOW DATA / TUBING DATA / CASING DATA

| NO | Prover X Orifice Line Size Size | | Pressure p.s.i.q | Temperature oF | Pressure p.s.i.q | Temperature oF | Pressure p.s.i.q | Temperature oF | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|
| SI | 2" X 3/4" | | | | 290 | | 155 | | 0 |
| 1 | | | | | 5 | 68 | 54 | | 0.5 hr |
| 2 | | | | | 5 | 68 | 69 | | 1.0 hr |
| 3 | | | | | 9 | 68 | 52 | | 1.5 hrs |
| 4 | | | | | 7 | 68 | 38 | | 2.0 hrs |
| 5 | | | | | 5 | 72 | 37 | | 3.0 hrs |

### RATE OF FLOW CALCULATION

| NO | Coefficient (24 Hours) | hwPm | Pressure Pm | Flow Temp. Factor Fl | Gravity Factor Fq | Super Compress. Factor, Fpv | Rate of Flow Q,Mcfd |
|---|---|---|---|---|---|---|---|
| 1 | 9.604 | | 17 | 0.9887 | 1.29 | 1.004 | 209 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |

| NO | Pr | Temp. oR | Tr | Z | Gas Liquid Hydrocarbon Ration | Mcf/bbl. |
|---|---|---|---|---|---|---|
| 1 | | | | | A.P.I Gravity of Liquid Hydrocabrons _____. | Deq. |
| 2 | | | | | Specific Gravity Separator _____. | |
| 3 | | | | | Specific Gravity Flowing Fluid xxxxxxxxxx | XXXXXX |
| 4 | | | | | Critical Pressure _____ p.s.i.a. | _____ p.s.i.a. |
| 5 | | | | | Critical Temperature _____ R | _____ R |

| Pc | **167** | Pc$^2$ | **27889** |
|---|---|---|---|

| NO | Pt1 | Pw | Pw$^2$ | Pc$^2$-Pw$^2$ |
|---|---|---|---|---|
| 1 | | 49 | 2401 | 25488 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |

(1) $\dfrac{Pc^2}{Pc^2-Pw^2} = $ **1.0942012**

(2) $\dfrac{Pc^{2\wedge n}}{Pc^2-Pw^2} = $ **1.0698**

$AOF = Q \quad \dfrac{Pc^{2\wedge n}}{Pc^2 - Pw^2} = $ **224**

| Absolute Open Flow | **224** | Mcfd @ 15.025 | Angle of Slope _____. | Slope, n | **0.75** |
|---|---|---|---|---|---|

Remarks:

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Mark Lepich | Tracy Ross | |