NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
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DIST. 3

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual [ ] Special | | | | Test Date: 9/17/82 | |
| Company: Northwest Exploration Co. | | Connection: New Completion | | | Unit |
| Pool: Undesignated | | Formation: ~~Bisby~~ Chacra | | | |
| Completion Date: 8/12/82 | Total Depth: 1930' | Plug Back TD: 1900' | Elevation: 7046' | Farm or Lease Name: Natani | |
| Csg. Size: 4.500 / Wt.: 10.5 / d: 4.052 / Set At: 1926' | | Perforations: From 1618' To 1760' | | Well No.: #6 | |
| Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 1633' | | Perforations: From To | | Unit: G / Sec.: 13 / Twp.: 21 / Rge.: 6 | |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Gas - Single | | Packer Set At: None | | County: Sandoval | |
| Producing Thru: Tubing | Reservoir Temp. °F: 6 | Mean Annual Temp. °F: | Baro. Press. – $P_a$: 12.0 | State: New Mexico | |
| L: | H: | Gg: .637 | % $CO_2$: | % $N_2$: | % $H_2S$: |
| Positive Choke | Meter Run: | Taps: | | | |

| NO. | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | Tubing Press. p.s.i.g. | Tubing Temp. °F | Casing Press. p.s.i.g. | Casing Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SI | Shut-in Pressure | | | | | | 336 | | 336 | | |
| 1. | 2" | X | .750" | 1.5" of $H_2O$ through 1" pipe | | | | | 31 | | 3 hrs. |
| 2. | | | | | | | | | | | |
| 3. | | | | | | | | | | | |
| 4. | | | | | | | | | | | |
| 5. | | | | | | | | | | | |

RATE OF FLOW CALCULATIONS

| NO. | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure $P_m$ | Flow Temp. Factor Ft. | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
|---|---|---|---|---|---|---|---|
| 1 | | From volumes of Pitot Gauge | | | | | 36 |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

| NO. | $P_r$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.

Specific Gravity Separator Gas _____ XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX _____

Critical Pressure _____ P.S.I.A. _____ P.S.I.A.

Critical Temperature _____ R _____ R

$P_c$ 348 $P_c^2$ 121104

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 43 | 1849 | 119255 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0155$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0116$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 36$

Absolute Open Flow 36 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .75

Remarks: Produced medium mist of water throughout test. Vented 14 MCF. Rate of flow taken from NMOCC volumes of Pitot Tube using 1" I.D. Pipe.

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Fred S. Hamrick | B.J. Broughton | BCB |