St. File

NEW MEXICO OIL CONSERVATION COMMISSION — Form C-122 Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

122 file

RECEIVED
AUG 25 1977
O. C. C.
ARTESIA, OFFICE

| | | | | | |
|---|---|---|---|---|---|
| Type Test: ☒ Initial ☐ Annual ☐ Special | | | | Test Date: 8-16-77 | |
| Company: HONDO Oil & Gas Co. | | Connection: EPNG | | Unit | |
| Pool: North Turkey Track Morrow | | Formation: Morrow | | | |
| Completion Date: 8-3-77 | Total Depth: 11,336 | Plug Back TD: 11,270 | Elevation: 3461 GL | Farm or Lease Name: Alscott Fed. | |
| Csg. Size: 5 1/2 / Wt.: 17 / d: / Set At: 11,336 | | Perforations: From 10,888 To 10,946 | | Well No.: 2 | |
| Tbg. Size: 2 3/8 / Wt.: 4.7 / d: 1.995 / Set At: 10,820 | | Perforations: From open To end | | Unit: O / Sec.: 30 / Twp.: 18 / Rge.: 29 | |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single | | Packer Set At: 10,820 | | County: Eddy | |
| Producing Thru: Tbg. | Reservoir Temp. °F: 182 @ 10,820 | Mean Annual Temp. °F: | Baro. Press. – $P_a$: 13.2 | State: New Mexico | |
| L: 10,820 | H: 10,820 | Gg: .644 | % $CO_2$: | % $N_2$: | % $H_2S$: |
| Prover: | Meter Run: | Taps: | | | |

| NO. | FLOW DATA: Prover Line Size X Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | TUBING DATA: Press. p.s.i.g. | Temp. °F | CASING DATA: Press. p.s.i.g. | Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | 3280 | | Shut-in | | 72 hr. |
| 1. | 4 X 1.250 | 436 | 5.8 | 87 | 2877 | | | | 1 hr. |
| 2. | 4 X 1.250 | 436 | 11.6 | 86 | 2722 | | | | 1 hr. |
| 3. | 4 X 1.250 | 436 | 24.0 | 85 | 2522 | | | | 1 hr. |
| 4. | 4 X 1.250 | 438 | 39.7 | 83 | 2272 | | | | 1 hr. |
| 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 | 7.469 | 51.04 | 449.2 | .9750 | 1.246 | 1.038 | 481 |
| 2. | 7.469 | 72.19 | 449.2 | .9759 | 1.246 | 1.038 | 681 |
| 3. | 7.469 | 103.83 | 449.2 | .9768 | 1.246 | 1.038 | 980 |
| 4. | 7.469 | 133.84 | 451.2 | .9786 | 1.246 | 1.039 | 1266 |
| 5. | | | | | | | |

| NO. | $P_r$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1. | .67 | 547 | 1.47 | .928 |
| 2. | .67 | 546 | 1.47 | .928 |
| 3. | .67 | 545 | 1.47 | .928 |
| 4. | .67 | 543 | 1.46 | .926 |
| 5. | | | | |

Gas Liquid Hydrocarbon Ratio 21,194 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 60 @ 60 Deg.
Specific Gravity Separator Gas .644 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX G mix. .794
Critical Pressure 670 P.S.I.A. 666 P.S.I.A.
Critical Temperature 372 R 421 R

$P_c$ 3293.2 $P_c^2$ 10,845.2

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 2892.0 | 8363.7 | 2481.5 |
| 2 | | 2741.3 | 7514.7 | 3330.5 |
| 3 | | 2542.7 | 6465.3 | 4379.9 |
| 4 | | 2297.7 | 5279.4 | 5565.8 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.949$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.949$

Posted 10-2 book 8-12-77

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.467$

Absolute Open Flow 2,467 Mcfd @ 15.025 Angle of Slope θ 45 Slope, n 1.00

Remarks: Well made 6.7 bbls condensate during test, point alignement too flat, a slope of 45° was drawn through high rate of flow.

Witnessed by: Conducted By: Calculated By: Checked By: