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C-122
Revised 9-1-65

O. C. C.
ARTESIA, OFFICE

Type: ☒ Initial ☐ Annual ☐ Special | Test Date: 5-25-72 | Fed.Lse #NM0540701-A

| | | |
|---|---|---|
| Company: Phillips Petroleum Company | Connection: Shut in pending connection | -- |
| Pool: Carlsbad, South (Atoka) Gas | Formation: Atoka | Unit: -- |

| Completion Date | Total Depth | Plug Back TD | Elevation | Farm or Lease Name |
|---|---|---|---|---|
| 5-16-72 | 11875 | 11806 | 3217' Gr. 3237' DF | Drag-A |

| | Csg. Size | Wt. | d | Set At | Perforations | Well No. |
|---|---|---|---|---|---|---|
| * | 5-1/2" | 17#,20# | 3.434 | 11875 | From 10686 To 10799 | 1 |
| | Tbg. Size | Wt. | d | Set At | Perforations | Unit / Sec. / Twp. / Rge. |
| | -- | -- | -- | -- | From -- To -- | C / 18 / 23-S / 27-E |

| Type Well – Single – Bradenhead – G.G. or G.O. Multiple | Packer Set At | County |
|---|---|---|
| G. G. Multiple | 11470 | Eddy |

| Producing Thru | Reservoir Temp. °F | Mean Annual Temp. °F | Baro. Press. – $P_a$ | State |
|---|---|---|---|---|
| * annulus | 176 @ 11800 | 60 | 13.2 | New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 10688 | 10688 | .6003 | .0147 | .007 | -- | | 3" | Flange |

| | FLOW DATA | | | | | TUBING DATA | | CASING DATA | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NO. | Prover Line Size | X Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F | Duration of Flow |
| SI | | | | | | 4098 | | 4085 | 81 | |
| 1. | 3.068 | 1.00 | 160 | 50 | 92 | Morrow | | 3676 | 81 | 1 hr. |
| 2. | " | 1.75 | 450 | 10 | 84 | Completion | | 2295 | 82 | " |
| 3. | " | 1.75 | 410 | 17 | 80 | Shut-In | | 1962 | 82 | " |
| 4. | " | 1.75 | 410 | 22 | 86 | | | 1514 | 83 | " |
| 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 | 4.739 | 93.06 | 173.2 | .9706 | 1.280 | 1.013 | 561 |
| 2 | 15.61 | 68.06 | 463.2 | .9777 | " | 1.035 | 1376 |
| 3 | " | 84.82 | 423.2 | .9813 | " | 1.033 | 1718 |
| 4 | " | 96.49 | 423.2 | .9759 | " | 1.033 | 1944 |
| 5 | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_f$ | Z |
|---|---|---|---|---|
| 1. | Calculations made by Electronic | | | |
| 2. | Calculator. Program based on | | | |
| 3. | New Mexico Manual for Back- | | | |
| 4. | Pressure testing of gas wells. | | | |
| 5. | | | | |

Gas Liquid Hydrocarbon Ratio -- Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons -- Deg.
Specific Gravity Separator Gas .6003 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 671 P.S.I.A. ____ P.S.I.A.
Critical Temperature 358 R ____ R

$P_c$ 4098.2 $P_c^2$ 16795

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | 13,610 | 3689.3 | 13,611 | 3184 |
| 2 | 53,278 | 2308.7 | 5,331 | 11,464 |
| 3 | 39,014 | 1976.3 | 3,906 | 12,889 |
| 4 | 23,323 | 1529.2 | 2,338 | 14,457 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{16795}{14457}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1364$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2209$

Absolute Open Flow 2209 Mcfd @ 15.025 | Angle of Slope ↔ 49.5° | Slope, n .853

Remarks: Equipment trouble between first and second rates.
* To be produced through casing/tubing annulus.

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | D. E. Simpson | D. E. Simpson | W. J. Muelle. |