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O. C. D.
ARTESIA, OFFICE

EW MEXICO OIL CONSERVATION C[illegible]ISSION
MULTIPOI[illegible] AND ONE POINT BACK PRESSURE [illegible]ST FOR GAS WELL

File

Form C-122
Revised 9-1-65

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual [ ] Special | | | | Test Date: 6-10-82 | |
| Company: Yates Petroleum Corp. | | | Connection: Natural Gas Pipeline Co. | | Unit |
| Pool: Undes. Strawn | | | Formation: Strawn | | |
| Completion Date: 10-13-81 | Total Depth: 11500 | | Plug Back TD: 11467 KB | Elevation: 3145 KB | Farm or Lease Name: No. Carlsbad OK Com. |
| Csg. Size: 4 1/2 / Wt.: 11.6 # / d: 4.000 / Set At: 11500 KB | | | Perforations: From 10117 To 10127 KB | | Well No.: 1 |
| Tbg. Size: 2 3/8 / Wt.: 4.7 # / d: 1.995 / Set At: 10076 KB | | | Perforations: From To | | Unit: B / Sec.: 26 / Twp.: 21s / Rge.: 26e |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single | | | Packer Set At: 10074 | | County: Eddy |
| Producing Thru: Tubing | Reservoir Temp. °F: 161@10120 | | Mean Annual Temp. °F: 62 | Baro. Press. – $P_a$: 13.2 | State: N.M. |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 10114 | 10114 | 0.663 | 0.20 | 1.12 | Nil | ——— | 2" | Flanged |

| 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 | | | | | 3342 | 70 | | | Days |
| 1. | 2.067 x 0.625 | 395 | 11 | 72 | 2873 | 79 | | | 21 hrs. |
| 2. | 2.067 x 0.625 | 396 | 27 | 73 | 2335 | 82 | | | 24 hrs. |
| 3. | 2.067 x 0.625 | 397 | 56 | 75 | 1604 | 84 | | | 24 hrs. |
| 4. | 2.067 x 0.625 | 397 | 74 | 70 | 932 | 85 | | | 24 hrs. |
| 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 | 1.866 | 21.19 | 408.2 | .9887 | 1.238 | 1.039 | 50 |
| 2. | 1.866 | 33.24 | 409.2 | .9877 | 1.238 | 1.039 | 79 |
| 3. | 1.866 | 47.93 | 410.2 | .9859 | 1.238 | 1.038 | 113 |
| 4. | 1.866 | 55.10 | 410.2 | .9905 | 1.238 | 1.040 | 131 |
| 5. | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1. | .607 | 532 | 1.426 | .9265 |
| 2. | .609 | 533 | 1.429 | .9267 |
| 3. | .610 | 535 | 1.434 | .9274 |
| 4. | .610 | 530 | 1.421 | .9254 |
| 5. | | | | |

| | | |
|---|---|---|
| Gas Liquid Hydrocarbon Ratio | 252.4 Mcf/bbl. | |
| A.P.I. Gravity of Liquid Hydrocarbons | 53 Deg. | |
| Specific Gravity Separator Gas | .652 | XXXXXXXXX |
| Specific Gravity Flowing Fluid | XXXXX | .663 |
| Critical Pressure | 672 P.S.I.A. | 733.5 P.S.I.A. |
| Critical Temperature | 373 R | 403 R |

$P_c$ 4422.2 $P_c^2$ 19556

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | | 14764 | 4792 |
| 2 | | | 9955 | 9601 |
| 3 | | | 4643 | 14913 |
| 4 | | | 1497 | 18059 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0829$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0619$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 139$

Absolute Open Flow 139 Mcfd @ 15.025 | Angle of Slope θ 53.0 deg. | Slope, n 0.7541

Remarks: Static pressures by Bennett Wireline, flow pressures by DWT.

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Bill Trembley, Jr. | Eddie Mahfood | |