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file

EW MEXICO OIL CONSERVATION CC SSION
MULTI-POINT (ABANDONED) POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 9-1-65

RECEIVED
JUL 18 1977
O. C. C.
ARTESIA, OFFICE

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JUL 7 1977
C & K PETROLEUM, INC.
Midland, Texas

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual [ ] Special | | | | Test Date: 6-29-77 | SPUD DATE: 2-25-77 |
| Company: C & K Petroleum, Inc. | | | Connection: El Paso Natural Gas Company | | |
| Pool: White City (Penn) | | | Formation: Morrow | | Unit |
| Completion Date: 5-11-77 | Total Depth: 11750 | | Plug Back TD: 11695 | Elevation: 3387 GL | Farm or Lease Name: Pennzoil Fed. "9" |
| Csg. Size: 5 1/2 / Wt.: 17 & 20 / d: / Set At: 11750 | | | Perforations: From 11318 To 11637 | | Well No.: 1 |
| Tbg. Size: 2 7/8 / Wt.: 6.5 / d: 2.441 / Set At: 11210 | | | Perforations: From To | | Unit: J / Sec.: 9 / Twp.: 24 / Rge.: 26 |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple | | | Packer Set At: 11210 | | County: Eddy County |
| Producing Thru: Tbg. | Reservoir Temp. °F: 186 @ 11210 Est. | Mean Annual Temp. °F: 60 | Baro. Press. – $P_a$: 13.2 | | State: New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 11210 | 11210 | .575 | | | | | | |

| 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 | | | | | | 3742 | | | | 24 hrs. |
| 1. | 4 | x 2.000 | 432 | 2.89 | 76 | 3465 | | | | 1 hr. |
| 2. | 4 | x 2.000 | 440 | 9.61 | 68 | 3225 | | | | 1 hr. |
| 3. | 4 | x 2.000 | 450 | 17.64 | 66 | 2950 | | | | 1 hr. |
| 4. | 4 | x 2.000 | 462 | 33.64 | 66 | 2415 | | | | 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 | 19.81 | 35.87 | 445.2 | .9850 | 1.319 | 1.027 | 948 |
| 2. | 19.81 | 65.99 | 453.2 | .9924 | 1.319 | 1.035 | 1771 |
| 3 | 19.81 | 90.39 | 463.2 | .9943 | 1.319 | 1.036 | 2433 |
| 4. | 19.81 | 126.43 | 475.2 | .9943 | 1.319 | 1.038 | 3410 |
| 5 | | | | | | | |

| NO. | $P_r$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1 | .66 | 536 | 1.55 | .948 |
| 2. | .67 | 528 | 1.53 | .933 |
| 3. | .69 | 526 | 1.52 | .931 |
| 4. | .71 | 526 | 1.52 | .929 |
| 5 | | | | |

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: None Deg.
Specific Gravity Separator Gas: .575 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 672 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 346 R ____ R

$P_c$ 3755.2 $P_c^2$ 14101.5

| NO | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|
| 1 | 3480.2 | 12111.8 | 1989.7 |
| 2 | 3244.4 | 10526.1 | 3575.4 |
| 3 | 2975.3 | 8852.4 | 5249.1 |
| 4 | 2452.5 | 6014.8 | 8086.7 |
| 5 | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.744$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.559$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5.315$

Absolute Open Flow: 5,315 Mcfd @ 15.025 | Angle of Slope θ: 51.5° | Slope, n: .798

Remarks:

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Starley Lenamon | Starley Lenamon | |

C & K PETROLEUM, INC.

Pennzoil Federal 9 No. 1
J-9-24-26 Eddy County, New Mexico
June 29, 1977