File
C-122 file

NEW MEXICO OIL CONSERVATION COMMISSION
# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
OCT 6 1980
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special | Test Date: 9/6/80 | Unit:

Company: Depco, Inc.
Connection: None
Pool: ~~Diamond Mound~~ Plats - Morrow
Formation: Morrow
Completion Date: 9/6/80
Total Depth: 9410'
Plug Back TD: 9352'
Elevation: 3590'GL
Farm or Lease Name: Mesa State Comm
Well No.: 1

| Csg. Size | Wt. | d | Set At | Perforations |
|---|---|---|---|---|
| 4½" | 11.6 | 4.000 | 9410' | From 9096 To 9125 |
| Tbg. Size | Wt. | d | Set At | Perforations: Open end |
| 2 3/8" | 4.7 | 1.995 | 9016' | From To |

Unit: J | Sec.: 31 | Twp.: 15 | Rge.: 28
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Single
Packer Set At: 9020'
County: Chaves
Producing Thru: Tubing
Reservoir Temp. °F: 165 @ 9111
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 |
|---|---|---|---|---|---|---|---|---|
| 9111 | 9111 | .6772 | .436 | 1.568 | -0- | | 2" | Flg. |

## FLOW DATA 100"-2000#

| NO. | Prover Line Size X Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | TUBING DATA Press. p.s.i.g. | TUBING DATA Temp. °F | CASING DATA Press. p.s.i.g. | CASING DATA Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | 2760 | | | | 68 |
| 1. | 2 X 1.000 | 637 | 7.84 | 82 | 1951 | | | | 2 hr. |
| 2. | 2 X 1.000 | 637 | 12.3 | 78 | 1768 | | | | 1 hr. |
| 3. | 2 X 1.000 | 637 | 25.0 | 79 | 1402 | | | | 1 hr. |
| 4. | 2 X 1.000 | 637 | 30.25 | 85 | 1083 | | | | 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 | 4.753 | 71.40 | 650.2 | .9795 | 1.215 | 1.062 | 429 |
| 2 | 4.753 | 89.43 | 650.2 | .9831 | 1.215 | 1.063 | 540 |
| 3 | 4.753 | 127.50 | 650.2 | .9822 | 1.215 | 1.063 | 769 |
| 4 | 4.753 | 140.24 | 650.2 | .9768 | 1.215 | 1.060 | 839 |
| 5 | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_f$ | Z |
|---|---|---|---|---|
| 1 | .97 | 542 | 1.43 | .887 |
| 2 | .97 | 538 | 1.42 | .885 |
| 3 | .97 | 539 | 1.42 | .885 |
| 4 | .97 | 545 | 1.44 | .890 |
| 5 | | | | |

Gas Liquid Hydrocarbon Ratio: 4.908 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 58 @ 60 Deg.
Specific Gravity Separator Gas: .677 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX G Mix = 1.184
Critical Pressure: 668 P.S.I.A. 647 P.S.I.A.
Critical Temperature: 379 R 554 R

$P_c$ 2773.2 $P_c^2$ 7690.6

| NO | $P_t$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 1965.7 | 3863.9 | 3826.7 |
| 2 | | 1783.6 | 3181.4 | 4509.2 |
| 3 | | 1420.9 | 2018.9 | 5671.7 |
| 4 | | 1104.0 | 1218.9 | 6471.7 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.188$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.188$

Posted ID-2 Comp Book SI 10-24-80

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .997$

Absolute Open Flow: 997 Mcfd @ 15.025 | Angle of Slope θ: 45 | Slope, n: 1.00

Remarks: 18.13 BBLS/Cond.
13.78 BBLS/H2O

Approved By Commission: | Conducted By: JARREL SERVICES, INC. | Calculated By: R. Reston | Checked By: Joe A. Coleman