

1-Bill Parish 1-D
1-Tidewater, Durango
2-Tidewater, Midland
1-N.W. Prod. 1-F
1-Lion
NEW MEXICO OIL CONSERVATION COMMISSION
MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 12-1-55

Pool Undesignated Formation Mesaverde County San Juan
Initial X Annual _____ Special _____ Date of Test 10/10/61
Company Southwest Production Co. Lease Karl Hudson Well No. 1
Unit D Sec. 26 Twp. 30 Rge. 12 Purchaser El Paso Natural Gas Co.
Casing 4 1/2 Wt. 10.50 I.D. 4.040 Set at 3410 Perf. 3374 To 3391
Tubing 1 1/2 Wt. 2.76 I.D. 1.610 Set at 3381 Perf. - To 3381
Gas Pay: From 3374 To 3391 L 3381 xG .67 -GL 2265.2 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Single- Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 10/2/61 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~Bottom~~) (Choke) (~~Neck~~) Type Taps _____

| Flow Data | | | | | | Tubing Data | | Casing Data | | Duration of Flow Hr. |
|-----------|----------------------------|--|----------------|-------------------------|--------------|----------------|--------------|----------------|--------------|----------------------------|
| No. | (Prover) (Line) Size | (Choke) (Prover) Size | Press. psig | Diff. h _w | Temp. °F. | Press. psig | Temp. °F. | Press. psig | Temp. °F. | |
| SI | | | | | | 1293 | | 1293 | | 7 days |
| 1. | | 3/4 | 143 | | 60 | 143 | 60 | 623 | | 3 hr. |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 5. | | | | | | | | | | |

FLOW CALCULATIONS

| No. | Coefficient (24-Hour) | $\sqrt{h_w P_f}$ | Pressure psia | Flow Temp. Factor F _t | Gravity Factor F _g | Compress. Factor F _{pv} | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----|--------------------------|------------------|------------------|--|-------------------------------------|--|--|
| 1. | 12.3650 | | 155 | 1.0000 | .9463 | 1.017 | 1,845 |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

PRESSURE CALCULATIONS

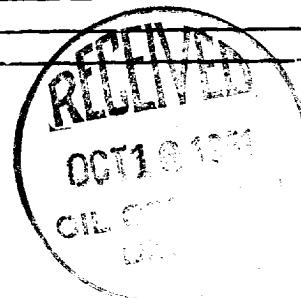
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1305 P_c² 1703.0
P_w 635 P_w² 403.2

| No. | P _w P _t (psia) | P _t ² | F _c Q | (F _c Q) ² | (F _c Q) ² (1-e ^{-s}) | P _w ² | P _c ² -P _w ² | Cal. P _w | P _w P _c |
|-----|---|-----------------------------|------------------|---------------------------------|---|-----------------------------|--|------------------------|----------------------------------|
| 1. | | | | | | 403.2 | 1299.8 | | .486 |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |

Absolute Potential: 2,258 MCFPD; n .75

COMPANY Southwest Production Company
ADDRESS 207 Petr. Club Plaza, Farmington, N.M.
AGENT and TITLE G. L. Hoffman, Production Engineer
WITNESSED _____
COMPANY _____

REMARKS



INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

- Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia
- P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if
flowing through casing.) psia
- P_f = Meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercompressability factor.
- n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .