

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool East Mesa - Pictured Cliffs Formation Pictured Cliffs County San Juan
Initial Y Annual _____ Special _____ Date of Test 3-25-58
Company PAN AMERICAN PETROLEUM CORP. Lease Sarah E. Lilly "B" Well No. 1
Unit _____ Sec. 8 Twp. 27N Rge. 12W Purchaser El Paso Natural Gas Company
Casing 9 1/2" Wt. 14.5 I.D. 9.012 Set at 1344 Perf. 1306 To 1317
Tubing 1.66 Wt. 2.3 I.D. 1 1/4 Set at 1305 Perf. 1295 To 1305
Gas Pay: From 1306 To 1317 L 1306 xG 0.69 (est.) GL 901 Bar.Press. 12
Producing Thru: Casing X Tubing _____ Type Well Gas - Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 3-11-58 Packer None Reservoir Temp. 84.0 F

OBSERVED DATA

Tested Through (Pressure) (Choke) (None) Type Taps _____

| No. | Flow Data | | | Tubing Data | | Casing Data | | Duration of Flow Hr. |
|-----|------------------------|------------------------|-------------|----------------------|------------------|-------------|------------------|----------------------|
| | (Pressure) (Line) Size | (Choke) (Orifice) Size | Press. psig | Diff. h _w | Temp. °F. | Press. psig | Temp. °F. | |
| SI | <u>Start in 8 days</u> | | | | | | | |
| 1. | <u>2"</u> | <u>3/4"</u> | <u>24</u> | | <u>60 (est.)</u> | <u>395</u> | <u>60 (est.)</u> | <u>3</u> |
| 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. | <u>12.15</u> | | <u>36</u> | <u>1.000</u> | <u>0.938</u> | <u>1.000</u> | <u>415</u> |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

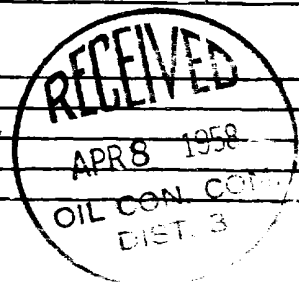
PRESSURE CALCULATIONS

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 407 P_c 165,449

| 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. | | | | | | <u>2809</u> | <u>163,440</u> | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |

Absolute Potential: 420 MCFPD; n 0.85
COMPANY PAN AMERICAN PETROLEUM CORPORATION
ADDRESS BOX 487, FARMINGTON, NEW MEXICO
AGENT and TITLE L. M. BAUM, JR., Field 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_2} = 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} - Supercompressibility 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 .

| OIL CONSERVATION COMMISSION | | |
|-----------------------------|---|-------------------------------------|
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