

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Antero-Pictured Cliffs Formation Pictured Cliffs County San Juan
Initial X Annual _____ Special _____ Date of Test 10-4-57
Company PAN AMERICAN PETROLEUM CORP. Lease Federal Gas Unit 3 Well No. 1
Unit 1 Sec. 23 Twp. 29N Rge. 10W Purchaser El Paso Natural Gas Company
Casing 5 1/2" Wt. 11.2 I.D. 5.012 Set at 2031 Perf. 1925 To 1959
Tubing 3 1/2" Wt. 2.34 I.D. 1.300 Set at 1931 Perf. 1930 To 1931
Gas Pay: From 1925 To 1959 L 1262 xG 0.65 est. -GL 1262 Bar.Press. 12
Producing Thru: Casing X Tubing _____ Type Well Gas - Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9-14-57 Packer no Reservoir Temp. 99° F (est.)

OBSERVED DATA

Tested Through (Prover) (Choke) (Valve) Type Taps _____

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI	<u>Standard 20 days</u>							
1.		<u>3/4"</u>	<u>303</u>		<u>60</u>	<u>319</u>	<u>60</u>	<u>3 hours</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>12.368</u>		<u>318</u>	<u>1.000</u>	<u>0.9608</u>	<u>1.032</u>	<u>3862</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})

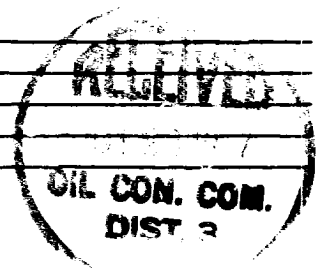
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid .65 est.
P_c 686 P_c 667.896

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>109.561</u>	<u>358.395</u>		<u>0.486</u>
2.									
3.									
4.									
5.									

Absolute Potential: 4043 MCFPD; n 0.85

COMPANY PAN AMERICAN PETROLEUM CORPORATION
ADDRESS Room 187, Washington, New Mexico
AGENT and TITLE H. H. Smith, 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 = 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 .

[illegible]