

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Astoc-Pictured Cliffs Formation Pictured Cliffs County San Juan
Initial I Annual _____ Special _____ Date of Test 12-19-57
Company PAN AMERICAN PETROLEUM CORP. Lease San Juan Gas Unit Well No. 1
Unit 0 Sec. 20 Twp. 27N Rge. 10W Purchaser El Paso Natural Gas Company
Casing 5-1/2" Wt. 14 I.D. 4.612 Set at 1061 Perf. 1702 To 1805
Tubing 1.66 Wt. 2.3 I.D. 1-1/4" Set at 1703 Perf. 1772 To 1783
Gas Pay: From 1702 To 1805 L 1770 xG 0.67 vol. -GL 1201 Bar.Press. 12
Producing Thru: Casing I Tubing _____ Type Well Gas - Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 11-25-57 Packer No Reservoir Temp. 89° F

OBSERVED DATA

Tested Through (20000) (Choke) (20000) Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Restriction) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Start in 24 days									
1.		1/4"	407		60 est.	425	60 est.	407	60 est.	3
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>12.965</u>		<u>420</u>	<u>1.000</u>	<u>0.9735</u>	<u>1.002</u>	<u>3000</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 0.67 vol.
P_c 400 P_c 470,970

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>270,969</u>	<u>277,487</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 7923 MCFPD: n 0.85
COMPANY PAN AMERICAN PETROLEUM CORPORATION
ADDRESS Box 407, Farmington, New Mexico
AGENT and TITLE E. L. Baker, Jr., Field Engineer R.M. Baker, Jr.
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 .

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