

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Dakota County San Juan
Initial I Annual _____ Special _____ Date of Test Oct. 15, 1959
Company Angel Peak Oil Company Lease Angel Peak Well No. 21
Unit P Sec/ 12 Twp. 28N Rge. 11W Purchaser Southern Union Gas Company
Casing 5 1/2" Wt. 15.5# I.D. 4.950 Set at 6524.95 Perf. 6221 To 6463
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 6268' Perf. 6248 To 6268
Gas Pay: From 6221 To 6463 L _____ xG _____ -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing I Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual _____
Date of Completion: Oct. 6, 1959 Packer _____ Reservoir Temp. _____

OBSERVED DATA

Tested Through ~~600000~~ (Choke) ~~600000~~ 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								
1.		<u>3/4"</u>	<u>398</u>		<u>74</u>	<u>2090</u>	<u>2094</u>	<u>10 days</u>
2.							<u>1115</u>	<u>3 hours</u>
3.								
4.								
5.								

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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>12.365</u>		<u>410</u>	<u>0.9868</u>	<u>0.9393</u>	<u>1.044</u>	<u>4,906</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2106 P_c 1413
P_w 1127 P_{w2} 127

No.	$\frac{P_w}{P_t}$ (psia)	P _c ²	F _c Q	(F _c Q) ²	$\frac{(F_c Q)^2}{(1-e^{-s})}$	P _w ²	P _c ² -P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.						<u>127</u>	<u>216</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 8,340 MCFPD; n 0.75
COMPANY ANGEL PEAK OIL COMPANY
ADDRESS P. O. Box 815, Farmington, New Mexico
AGENT and TITLE Thomas E. Fenno, 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 .

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received	3	
RECEIVED		
DATE		
BY		
1		
1		
Inspector	1	
File	1	✓