

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalant Formation Yates 1980 FEB 25 PM 2:30
Initial _____ Annual _____ Special I Date of Test 2-10-2-16-60
Company Olsen Oils, Inc. Lease Winningham Well No. 3
Unit I Sec. 30 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Co.
Casing 7" Wt. 20 I.D. _____ Set at 2664 Perf. _____ To _____
Tubing 2 1/2" Wt. 6.5 I.D. _____ Set at 3085 Perf. 3052 To 3082
Gas Pay: From 3052 To 3082 L 2664 XG 0.686 -GL 1827 Bar. Press. 13.2
Producing Thru: Casing I Tubing _____ Type Well Single
Date of Completion: 12-23-50 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~2 1/2"~~) (~~3085~~) (~~Meter~~)Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Pressure) (Line) Size	(Flow) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	<u>4</u>	<u>1.250</u>	<u>150</u>	<u>15.60</u>	<u>66</u>			<u>248/253/255</u>		<u>2 1/4/48/72</u>
2.	<u>4</u>	<u>1.250</u>	<u>149</u>	<u>17.22</u>	<u>68</u>			<u>191</u>		<u>2 1/4</u>
3.	<u>4</u>	<u>1.250</u>	<u>148</u>	<u>20.25</u>	<u>65</u>			<u>176</u>		<u>2 1/4</u>
4.								<u>160</u>		<u>2 1/4</u>
5.										

FLOW CALCULATIONS

No.	Coefficient Flange (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>9.643</u>	<u>50.46</u>		<u>.9943</u>	<u>.9352</u>	<u>1.017</u>	<u>460.1</u>
2.	<u>9.643</u>	<u>52.85</u>		<u>.9924</u>	<u>.9352</u>	<u>1.016</u>	<u>480.5</u>
3.	<u>9.643</u>	<u>57.13</u>		<u>.9952</u>	<u>.9352</u>	<u>1.016</u>	<u>520.9</u>
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c .865 (1-e^{-S}) .118

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 268.2 P_c 71.93

No.	Back P _t (psia)	P _t ²	F _c
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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 .

