

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undersaturated Dakota Formation Dakota County San Juan
Initial XX Annual _____ Special _____ Date of Test 9-7-60
Company Leidl-Taylor Oil Corporation Lease Pickman Well No. 1
Unit 10/4 Sec. 15 Twp. 25-N Rge. 5-E Purchaser _____
Casing 5-1/2" Wt. 17# I.D. 4.892 Set at 6001 Perf. 6673 To 6864
Tubing 2" Wt. 4.70# I.D. 1.995 Set at 6797 Perf. Open ended To _____
Gas Pay: From 6673 To 6864 L _____ xG 0.719 -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing X Type Well Single gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 8-23-60 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) 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.	Press. psig	Temp. °F.	
SI										
1.		<u>3/4"</u>	<u>237</u>		<u>69°</u>	<u>1007</u>	<u>69°</u>	<u>6015</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>18.365</u>		<u>740</u>	<u>0.9737</u>	<u>0.9153</u>	<u>1.024</u>	<u>1821</u>
2.							
3.							
4.							
5.							

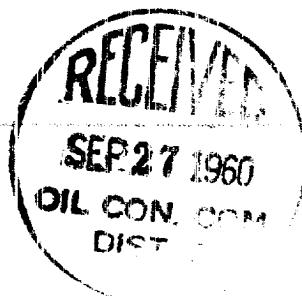
PRESSURE CALCULATIONS

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 6019 P_c 4,076.361

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.									
2.									
3.									
4.									
5.									

Absolute Potential: 3046 MCFPD; n 0.75
COMPANY Leidl-Taylor Oil Corporation
ADDRESS P. O. Boxer 1196, Farmington, New Mexico
AGENT and TITLE J. F. Berry - Dist. Engineer
WITNESSED Frank Clark
COMPANY El Paso Natural Gas 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 .

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