

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated DK Formation Dakota County Rio Arriba
 Initial X Annual _____ Special _____ Date of Test 7/19/60
 Company Val R. Reese & Associates Lease Mesa Well No. 1-25
 Unit D Sec. 25 Twp. 24N Rge. 7W Purchaser _____
 Casing 5½ Wt. 15.5 I.D. 4.950 Set at 6557 Perf. 6264 To 6436
 Tubing 1½ Wt. 2.30 I.D. 1.380 Set at 6370 Perf. 6368 To 6370
 Gas Pay: From 6264 To 6436 L 6368 xG 0.67 -GL 4266 Bar.Press. 12.0
 Producing Thru: Casing _____ Tubing X Type Well G.G. Dual
 Date of Completion: 7/1/60 Packer 6250 Single-Bradenhead-G. G. or G.O. Dual
 Reservoir Temp. _____

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Orifice)~~ 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
SI						2005		dual	
1.									
2.									
3.		3/4	34		62				3 hrs.
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.							
2.							
3.	12.365		46	0.9981	0.9608	1.000	546
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 P_c 16.46 (1-e^{-s}) 0.267
 Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 2017 P_c² 4068.289

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.	46	2.116	8.987	80.766	135.645	137.761	3930.528	371	1.350
4.									
5.									

Absolute Potential: 684 MCFPD; n 0.75/1.2524
 COMPANY Val R. Reese & Associates, Inc.
 ADDRESS Lobby of Simms Bldg., Albuquerque, New Mexico
 AGENT and TITLE Morris B. Jones - Consulting Engr. M. B. JONES
 WITNESSED Jim Jacobs
 COMPANY Val R. Reese & Associates

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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