

NEW MEXICO OIL CONSERVATION COMMISSION

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Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

O. B. F. Revised 12-1-55
ARTESIA, OFFICE

Pool RED LAKE Formation PREMIER SAND County EDDY
Initial X Annual _____ Special _____ Date of Test 8-18-60
Company CHAMBERS & KENNEDY Lease GULF STATE Well No. 1
Unit P Sec. 22 Twp. 17S Rge. 28 E. Purchaser _____
Casing 4 1/2 Wt. 16.25 I.D. 4.082 Set at 1996' Perf. 1910' To 1916'
Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 1990 Perf. NONE To _____
Gas Pay: From 1910' To 1916' L 6 xG .721 -GL _____ Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well SINGLE
Date of Completion: 5-13-60 Packer NONE Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. DWT psig	Temp. °F.	
SI										
1.	2"	3/8	68		82	378	76°	378	76°	76 HOURS
2.	2"	1/2	57		76			364	78°	2 HOURS
3.	2"	1/2	94		72			354	78°	2 HOURS
4.	2"	3/4	51		64			336	78°	2 HOURS
5.								314	78°	2 HOURS

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.	3.0691		81.2	.9795	.9129	1.000	223
2.	5.5233		70.2	.9850	.9129	1.000	349
3.	5.5233		107.2	.9887	.9129	1.014	542
4.	12.2023		64.2	.9962	.9129	1.000	712
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio DRY GAS cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c P_w MEASURED (1-e^{-s}) _____

Specific Gravity Separator Gas 721
Specific Gravity Flowing Fluid _____
P_c 391.2 P_c² 153

No.	P _w 378 x P _w (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.	377.2					142.3	10.7		.964
2.	367.2					134.8	18.2		.939
3.	349.2					121.9	31.1		.893
4.	327.2					107.1	45.9		.836
5.									

Absolute Potential: 1,850 MCFPD; n .810COMPANY CHAMBERS & KENNEDYADDRESS 607 MIDLAND NATIONAL BANK BUILDING, MIDLAND, TEXASAGENT and TITLE RICHARD TURNER, MANAGERWITNESSED JACK BRISCOECOMPANY APEX ENGINEERING 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.

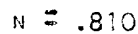
F_t = Flowing temperature correction factor.

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 .

ABSOLUTE POTENTIAL 1,850



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