

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

NOV 19 AM 7:57

Pool Burnet Formation Green County Lin

Initial X Annual _____ Special _____ Date of Test 9-30-56

Company Gulf Oil Corporation Lease Felton, S. E. Well No. 1

Unit P Sec. 28 Twp. 218 Rge. 36E Purchaser Fordson Basin PL Co.

Casing 5.6" Wt. 17.04 I.D. 4.897" Set at 3650' Perf. _____ To _____

Tubing 2.375" Wt. 4.77 I.D. 2.099" Set at 3755' Perf. _____ To _____

Gas Pay: From 3650' To 3770' L 3760' xG 0.680 -GL 25.9 Bar. Press. 13.8

Producing Thru: Casing _____ Tubing X Type Well Single

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 5-10-56 Packer 3600' Reservoir Temp. _____

OBSERVED DATA

Tested Through (Burnet) (State) (Meter) Type Taps Pin

No.	Flow Data				Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	
SI						933.5			73
1.	1	1.50	171.0	6.6	68	777.1			22.5
2.	1	1.50	162.1	15.1	68	682.4			21
3.	1	1.50	170.1	13.1	71	535.5			23.75
4.	1	1.50	165.1	19.6	73	496.1			23.75
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.	15.36	56.03	184.2	0.9990	0.9993	1.000	805
2.	15.36	55.36	182.6	0.9983	0.9993	1.007	1878
3.	15.36	105.10	184.0	0.9996	0.9993	1.006	1579
4.	15.36	117.80	179.6	0.9977	0.9993	1.005	1728
5.							

GGR - 3.56
MR - 1.56

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 9.936 (1-e^{-s}) 0.161
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 263.7 P_c² 696.2

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.	796.3	634.1	8.166	71.33	11.48	636.1	263.1	771.4	598
2.	672.6	452.4	12.460	155.30	25.81	450.2	218.2	661.3	447
3.	508.7	258.8	15.490	240.80	39.68	357.0	219.2	608.5	316
4.	428.0	183.2	17.230	296.90	67.80	321.4	224.8	527.8	228
5.									

Absolute Potential: 2530 MCFPD; n 0.91
COMPANY Gulf Oil Corporation
ADDRESS Box 2167, Hobbs, N.M.
AGENT and TITLE John J. Smith
WITNESSED _____
COMPANY _____

REMARKS

ELVIS A. UTI
GAS ENGINEER

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 .