

## NEW MEXICO OIL CONSERVATION COMMISSION

HOEBS OFFICE OCC

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

NOV 19 AM 7:57

Pool Barent Formation Green County LinInitial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9-30-56Company Gulf Oil Corporation Lease Fulton, S. E. Well No. 1Unit P Sec. 28 Twp. 218 Rge. 36E Purchaser Furman Basin PL Co.Casing 5.5" Wt. 17.00 I.D. 4.802" Set at 3650' Perf. \_\_\_\_\_ To \_\_\_\_\_Tubing 2.375" Wt. 4.70 I.D. 2.000" Set at 3755' Perf. \_\_\_\_\_ To \_\_\_\_\_Gas Pay: From 3650' To 3770' L 3760' xG 0.680 -GL 2549 Bar. Press. 12.8Producing Thru: Casing \_\_\_\_\_ Tubing I Type Well SingleDate of Completion: 5-10-56 Packer 3600' Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Barent) (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	Temp. °F.	
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	64	692.1				21
3.	1	1.50	170.1	13.1	71	535.5				23.75
4.	1	1.50	160.1	19.0	73	490.1				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	0.9790	0.9793	1.050	850
2.	15.36	55.36	182.6	0.9743	0.9793	1.047	1276
3.	15.36	106.10	184.0	0.9896	0.9793	1.046	1579
4.	15.36	117.80	173.6	0.9877	0.9793	1.045	1736
5.							

## PRESSURE CALCULATIONS

GOR = 3.56  
MR = 1.36

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  $P_c^2$  69562

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.	790.3	624.6	8.146	71.33	11.48	624.6	69562 - 624.6	797.4	.98
2.	872.8	761.8	12.460	155.30	25.81	770.8	69562 - 770.8	861.3	.97
3.	908.7	825.7	13.690	256.20	39.68	825.7	69562 - 825.7	898.5	.96
4.	930.0	865.0	17.290	296.90	67.80	865.0	69562 - 865.0	929.0	.95
5.									

Absolute Potential: 2530 MCFPD; n 0.91COMPANY Gulf Oil CorporationADDRESS Box 2167, Brea, N.M.AGENT and TITLE John L. Smith

WITNESSED \_\_\_\_\_

COMPANY \_\_\_\_\_

REMARKS \_\_\_\_\_

ELVIS A. UT  
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.

$F_{pv}$  = 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  $P_t$ .