

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Emmont Formation Utah County Lea
 Initial _____ Annual _____ Special X Date of Test 7-30 to 8-3-56
 Company Humble Oil & Refining Company Lease Emmont Gas Unit I Well No. 1
 Unit J Sec. 4 Twp. 20S Rge. 37E Purchaser El Paso Natural Gas Company
 Casing 5/8 Wt. 1-55 I.D. _____ Set at 3650 Perf. 3496 To 3528
 Tubing 2-3/8 Wt. 4-7 I.D. _____ Set at 3546 Perf. none To -
 Gas Pay: From 3496 To 3528 L 3496 xG 0.675 -GL 2360 Bar.Press. 13.2
 Producing Thru: Casing _____ Tubing X Type Well single
 Date of Completion: 2-1-56 Packer none Reservoir Temp. single

OBSERVED DATA

Tested Through (removed) (removed) (Meter) Type Taps flange

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI						862	862	72
1.	4	1.250	569	10.89	78	813	814	24
2.	4	1.250	557	22.89	80	735	736	24
3.	4	1.250	565	33.64	82	680	680	24
4.	4	1.250	566	49.00	86	611	611	24
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.	9.643	79.63	682.2	0.9831	0.9427	1.057	752
2.	9.643	112.2	579.2	0.9813	0.9427	1.056	1097
3.	9.643	139.5	578.2	0.9794	0.9427	1.056	1312
4.	9.643	168.5	579.2	0.9779	0.9427	1.055	1377
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 875.2 P_c 766.0

No.	P _w Pt (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.	827.2					684.3	81.7	827.2	94.5
2.	749.2		measured			561.5	204.7	749.2	84.6
3.	693.2					480.5	285.5	693.2	79.2
4.	624.2					389.6	376.4	624.2	71.9
5.									

Absolute Potential: 2475 MCFPD; n 0.83
 COMPANY Humble Oil & Refining Company
 ADDRESS Box 2347, Hobbs, N.M.
 AGENT and TITLE M. M. Ham District Superintendent
 WITNESSED Smith & Singer
 COMPANY El Paso Natural Gas Company

REMARKS

REMOVED BY
 M. M. HAM
 JUN 10 1956

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 .