

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Eumont Formation Queen County Lea
Initial X Annual _____ Special _____ Date of Test 7-30-59
Company Continental Oil Company Lease Hawk B-8 Well No. 3
Unit 0 Sec. 8 Twp. 21 Rge. 37 Purchaser El Paso Nat. Gas Co.
Casing 7" OD Wt. 23# I.D. 6.366 Set at 6659 Perf. 3568 To 3695
Tubing 2" EUE Wt. 4.70# I.D. 1.995 Set at 3717 Perf. _____ To _____
Gas Pay: From 3568 To 3695 L 3568 xG 0.660 -GL 2355 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 10-12-52 Packer _____ Reservoir Temp. 90°

OBSERVED DATA

Tested Through 4" (Prover) ~~(Choke)~~ (~~Valve~~) Type Taps 4" Prover

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Choke) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								534		72
1.	4"	3/4"			74			298		6
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient 4" Prover (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.137		311.2	0.9868	0.9535	1.029	3.657
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 0.740 (1-e^{-s}) 0.150
Specific Gravity Separator Gas 0.660
Specific Gravity Flowing Fluid _____
P_c 547.2 P_c 299.4

No.	P_t 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.	311.2	96.8	2.71	7.34	1.10	97.9	201.5	312.9	57.2
2.									
3.									
4.									
5.									

Absolute Potential: 5,200 MCFPD; n 1.000

COMPANY Continental Oil Company

ADDRESS Box 68, Eunice, New Mexico

AGENT and TITLE Dist. Supt.

WITNESSED

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} = 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 .

Company: Continental Oil Company
 Well: Hawk B-8 No. 3
 Location: Unit 0, Sec. 8-21-37
 Pool: Eumont
 Date: July 30, 1959

Open Flow Potential: 5,200 MCF/GPD

$Q_2 = 26,500$ Log = 4.4232459

$Q_1 = 2,650$ Log = 3.4232459

Slope = 1.0000000

