

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Basin Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 6-19-61
Company Redfern & Hord, Inc. Lease Maddox Well No. 2
Unit L Sec. 33 Twp. 30N Rge. 12W Purchaser _____
Casing 4 1/2 Wt. 9.5 I.D. _____ Set at 6464 Perf. 6226 To 6394
Tubing 1 1/2 Wt. 2.4 I.D. _____ Set at 6330 Perf. 6328 To 6330
Gas Pay: From 6226 To 6394 L _____ xG 0.680 -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing X Type Well Single Gas
Date of Completion: 5-21-61 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps _____

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI						2134	2132	
1.								
2.								
3.	2"	0.750	186		62		1246	3 hrs.
4.								
5.								

FLOW CALCULATIONS

No.	Coefficient (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.							
2.							
3.	12.3650		198	.9981	9393	1.022	2346
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2146 P_c² 4605

No.	$\frac{P_w}{P_t}$ (psia)	P _t ²	F _c Q	(F _c Q) ²	$\frac{(F_c Q)^2}{(1-e^{-s})}$	P _w ²	P _c ² -P _w ²	Cal. P _w	$\frac{P_w}{P_c}$
1.									
2.									
3.	1258					1582	3023		1.5233
4.									
5.									

Absolute Potential: 3216 MCFPD; n .75 1.371
COMPANY Redfern & Hord, Inc.
ADDRESS 1007 N. Dustin, Farmington, New Mexico
AGENT and TITLE T. A. Dugan, Engineer Original signed by T. A. Dugan
WITNESSED _____
COMPANY _____

REMARKS

RECEIVED

JUN 23 1961

OIL

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 .