

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Unnamed Formation Alamo Verde County Rio Arriba
Initial X Annual _____ Special _____ Date of Test 12-25-56
Company Magnolia Petroleum Company Lease Jicarilla "H" Well No. 2
Unit A Sec. 2 Twp. 26N Rge. 3W Purchaser Pacific Northwest
Casing 5 1/2 Wt. 11# I.D. 5.112 Set at 6,100 Perf. 5526 To 6,030
Tubing 2" Wt. 11.7 I.D. 1.995 Set at 5,531 Perf. _____ To _____
Gas Pay: From 5,526 To 6,030 L 5,531 xG 0.68 -GL 3761 Bar.Press. 12 psia
Producing Thru: Casing _____ Tubing X Type Well C. C. Incl
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 12-25-56 Packer Yes Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1,711				
1.	2"	0.750"	392		75	392	75			3 Hours
2.										
3.										
4.										
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.	12.3650		1601	0.9259	0.9393	1.011	1.815
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 9.402 (1-e^{-S}) 0.239

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1,723 P_c² 2,968.7 x 10³

No.	P_{tx} 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.	1601	163.2	15.27	239.1	139.7	659.2	2,308.5		
2.									
3.									
4.									
5.									

Absolute Potential: 5,532 MCFPD; n 0.75COMPANY Magnolia Petroleum CompanyADDRESS Box 47, Roswell, N.M.AGENT and TITLE Warren W. R. Gas Engineer

WITNESSED _____

COMPANY _____

REMARKS _____

OIL

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 .

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