NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Pictured Cliffs County Rio Arriba

Initial X Annual Special Date of Test 11-11-56

Company Magnolia Petroleum Company Lease Jicarilla "G" Well No. 2

Unit Sec. 25 Twp. 27N Rge. 3W Purchaser Not Connected

Casing Wt. I.D. Set at Perf. To

Tubing 2" Wt. 4.7 I.D. Set at 3859' Perf. 3882' To 3946'

Gas Pay: From 3882' To 3946' L xG -GL Bar.Press. 12 psig (Est.)

Producing Thru: Casing Tubing X Type Well G. G. Dual
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: October 25, 1956 Packer X Reservoir Temp.

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						842		844		
1.	2"	0.750"	0-30#		76					3 Hrs.
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.	This well flowed water in heads during the 3 hour period with some gas. After the first						
2.	hour, the flowing tubing pressure would drop to approximately 0 psig between heads, and						
3.	build up to a maximum of 30 psig while producing a head of water.						
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 P_c^2

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.									
2.									
3.									
4.									
5.									

Absolute Potential: MCFPD; n

COMPANY Magnolia Petroleum Company
ADDRESS Box 727, Kermit, Texas
AGENT and TITLE Warren M. Rust - Gas Engineer
WITNESSED
COMPANY

RECEIVED
NOV 16 1956
OIL CON. COM.
DIST. 3

REMARKS

An absolute potential could not be obtained with this test. It is possible this well can be cleaned up and a test obtained in the future.

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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