NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Lower Gallup County San Juan

Initial x Annual Special Date of Test 7-29-57

Company Magnolia Petroleum Company Lease Ah-Nuse-Bah Well No. 1

Unit K Sec. 22 Twp. 25N Rge. 11W Purchaser No connection

Casing 5 1/2" Wt. 14# I.D. 5.012" Set at 5000' Perf. 4,892' To 4,931'

Tubing 2 3/8" Wt. 4.7# I.D. 1.995 Set at 4,869' Perf. - To -

Gas Pay: From 4,892' To 4,931' L - xG 0.68(Est.) GL - Bar.Press. 12 psia

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

Date of Completion: 7-15-57 Packer none Reservoir Temp. -

OBSERVED DATA

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

No.	Flow Data (~~Prover~~) (Line) ~~Size~~	(Choke) (~~Orifice~~) ~~Size~~	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						1,335	-	1,335	-	
1.	2"	0.250"	1,243	-	73	1,243	73	1,276	-	3 hrs.,5 min.
2.	2"	0.375	1,075	-	78	1,075	78	1,149	-	2 1/2 hrs.
3.	2"	0.500	750	-	83	750	83	961	-	3 hrs.
4.	2"	0.750	394	-	84	391	84	821	-	3 hrs.
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.	1.3309	-	1,255	.9877	.9393	1.148	1,779
2.	3.0300	-	1,087	.9831	.9393	1.120	3,407
3.	5.4315	-	762	.9786	.9393	1.081	4,318
4.	12.3650	-	403	.9777	.9393	1.041	4,764
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____
Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid 0.68
F_c _____ $(1-e^{-s})$ _____ P_c 1,347 P_c^2 1814.4

No.	P_w ~~Pc~~ (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.	1288					1658.9	155.5		
2.	1161					1347.9	466.5		
3.	973					946.7	867.7		
4.	833					693.9	1,120.5		
5.									

Absolute Potential: 5,990 MCFPD; n .49
COMPANY MAGNOLIA PETROLEUM COMPANY
ADDRESS P. O. Box 2406, Hobbs, New Mexico
AGENT and TITLE Warren M. Bantz, Gas Engr.
WITNESSED
COMPANY

REMARKS

RECEIVED
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OIL CON. COM.
DIST. 3

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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