NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Ballard Formation Pictured Cliffs County Rio Arriba

Initial X Annual ____ Special ____ Date of Test May 6, 1960

Company Arizona Explorations, Inc. Lease Jicarilla H Well No. 7

Unit M Sec. 6 Twp. 23N Rge. 5W Purchaser Southern Union Gas Company

Casing 5½ Wt. 15.5 I.D. 4.950 Set at 2160 Perf. 2050 To 2068

Tubing 1½ Wt. 2.40 I.D. 1.380 Set at 2062 Perf. 2062 To ____

Gas Pay: From 2050 To 2068 L 2050 xG 0.650 -GL 1332 Bar.Press. 12.0

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

Date of Completion: ____ Packer - 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						599		600		SI
1.										
2.										
3.	2	3/4	54		64	117				3 hrs.
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.							
2.							
3.	12.365		66	0.9962	0.9608	1.010	744
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
P_c 1.311 $(1-e^{-s})$ 0.092 P_c 611 P_c^2 373.321

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.	66	4.356	0.975	0.9506	87	14.161	359.160		1.039
4.									
5.									

Absolute Potential: 769 MCFPD; n 0.85/1.0330

COMPANY Arizona Explorations, Inc.
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AGENT and TITLE Morris B. Jones, Consulting Engineer M. B. JONES
WITNESSED George Credicott
COMPANY Arizona Explorations, Inc.

REMARKS

RECEIVED
MAY 18 1960
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.