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 1-5-60

Company Arizona Explorations, Inc. Lease Jicarilla Well No. C-9

Unit A Sec. 3 Twp. 23N Rge. 5W Purchaser Southern Union Gas Company

Casing 5½" Wt. 14# I.D. _____ Set at 2377 Perf. 2288 To 2311

Tubing 1¼" Wt. 2.4# I.D. _____ Set at 2312 Perf. 2302 To 2312

Gas Pay: From 2288 To 2311 L 2300 xG 0.690 -GL 1587 Bar.Press. 12.0

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

Date of Completion: 12-11-59 Packer _____ Reservoir Temp. _____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (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						686		686		
1.		3/4"	149		59	160		149	59	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.	14.1605		161	1.001	0.9325	1.020	2170
2.							
3.							
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 _____ $(1-e^{-s})$ _____ P_c 698 P_c^2 487,204

AOF = $(2170)\left(\frac{698^2}{698^2 - 161^2}\right)^{0.85}$ = 2273

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: 2273 MCFPD; n 0.85
COMPANY Arizona Explorations Inc.
ADDRESS 417 Meadows Building, Dallas 6, Texas
AGENT and TITLE Virgil L. Stoabs, Engineer
WITNESSED George Credicott
COMPANY Arizona Explorations, Inc.

REMARKS

RECEIVED
JAN 14 1960
OIL CON. COM.

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.