NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County Rio Arriba

Initial X Annual Special Date of Test October 20, 1961

Company San American Petroleum Corporation Lease Jicarilla Contract 155 Well No. 13

Unit E Sec. 30 Twp. 26N Rge. 5W Purchaser El Paso Natural Gas Company

Casing 4½ Wt. 11.6 I.D. 4.090 Set at 7397 Perf. 7271 To 7278

Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 7270 Perf. Open Ended To

Gas Pay: From 7271 To 7278 L 7270 xG 0.700 est. -GL 5089 Bar.Press. 12

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

Date of Completion: 10/12/61 Packer None Reservoir Temp. 144°

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	8 days					2292		2292		
1.	2 in.	3/4 in	267		60°F est.	324	60°F est.	605		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.	12.365		279	1.000	0.9258	1.031	3057
2.							
3.							
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 2304 P_c^2 5,308,416

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.						485.809	4,822.607		
2.									
3.									
4.									
5.									

Absolute Potential: 3285 MCFPD; n 0.75

COMPANY ~~San American Petroleum Corporation~~
ADDRESS ~~P. O. Box 480, Farmington, New Mexico~~
AGENT and TITLE ~~R. H. Causey, Jr. Senior Petroleum Engineer~~ R H Causey Jr
WITNESSED
COMPANY

RECEIVED
NOV 6 1961
OIL CON. COM.
DIST. 3

REMARKS

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.