

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool UNDESIGNATED Formation CHACRA County RIO ARRIBA
Initial X Annual _____ Special _____ Date of Test May 28, 1958
Company KAY KIMBELL Lease SALAZAR FEDERAL Well No. 1-22
Unit K Sec. 22 Twp. 25N Rge. 6W Purchaser El Paso Natural Gas Co.
3416-3422' and 3506-3510
Casing 5 1/2" Wt. 15.5# I.D. 4.976 Set at 3560 Perf. and 3516 To 3528
1 1/2" NUE 2.4# 1.380 (below packer 871')
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 3470 Perf. Open ended To _____
(above packer 2587')
Gas Pay: From 3416 To 3528 L See remarks 0.700 -GL _____ Bar. Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well G. G. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 5-12-58 Packer Halliburton Reservoir Temp. 1200
Type "C"
OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						889		838		
1.		0.750	124		65	124	65	839		3 hours
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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		136	0.9952	0.9253	1.016	1803
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ (1-e^{-s})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 901 P_c 811.801

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	136	18,496				18,496	678,087	366	
2.			44.4	1971.4	80.827	115,218			
3.			17.0	289	34,391	133,714			
4.					115,218				
5.									

Absolute Potential: 2,068 MCFPD; n 0.75

COMPANY Kay Kimbell
ADDRESS 901 Lubbock National Bank Building, Lubbock, Texas
AGENT and TITLE Virgil L. Stooba, Engineer
WITNESSED _____
COMPANY _____

REMARKS

1-1/4" below packer 871'
2-3/8" above packer 2487'

GL = (871)(0.700) = 610
GL = (2487)(0.700) = 1,741

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} = Supercompressibility 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 .

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Required <u>3</u>		
OPERATION		
Operator	No.	Remarks
Santa Fe	1	
Production Office		
State Land Office		
U. S. G. S.	1	
Transporter		
File	1	