

NEW KICO OIL CONSERVATION COMMISSIO
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

JUL 1 10 52 AM '69
Temp Date 6-9-69

Type Test		<input checked="" type="checkbox"/> Initial		<input type="checkbox"/> Annual		<input type="checkbox"/> Special		6-9-69			
Company				Connection							
Southwestern Natural Gas, Inc.				Phillips Petroleum Co.							
Pool				Formation				Unit			
Lea Pennsylv-nian				Penn. Bend							
Completion Date		Total Depth		Plug Back TD		Elevation		Farm or Lease Name			
		14,546		13,100		3666 KDB		Aztec Federal			
Perf. Size	Wt.	d	Set At	Perforations:		Well No.					
7"	26#, 29#		14,389	From 12,987 To 13,079		14-1					
Tbg. Size	Wt.	d	Set At	Perforations:		Unit		Sec. Twp. Rge.			
2" EUE	4.70	1.995	12,723	From Open End To		14-20-S, 34-E					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				Packer Set At		County					
Single				12,723		Lea					
Producing Thru		Reservoir Temp. *F		Mean Annual Temp. *F		Baro. Press. - P _a		State			
Tubing		174 @ 12,700		60°		13.2		New Mexico			
L	H	G _g	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run	Taps			
12,987	12,987	0.600					3.000	Flange			
FLOW DATA			TUBING DATA			CASING DATA			Duration		
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. *F	Press. p.s.i.g.	Temp. *F	Press. p.s.i.g.	Temp. *F	of Flow
SI							3375.2		Packer		80
1.	3.000 x 1.500			303.8	2.1	67	3083.2				1
2.	3.000 x 1.500			303.8	3.9	69	2558.2				1
3.	3.000 x 1.500			303.8	6.4	73	2122.2				1
4.	3.000 x 1.500			487.4	7.8	78	1526.2				1
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient ** (24 Hour)	$\sqrt{h_w P_m}$	Pressure * P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1	43106.49	9.45	4.5	.9933	1.000	1.028	416				
2	43106.49	17.55	4.5	.9915	1.000	1.028	771				
3	43106.49	28.80	4.5	.9877	1.000	1.028	1261				
4	43106.49	44.46	5.7	.9831	1.000	1.039	1891				
5.											
NO.	P _t	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>40.3</u> Mcf/bbl.						
1	.47	527	1.47	.946	A.P.I. Gravity of Liquid Hydrocarbons <u>58</u> Deg.						
2	.47	529	1.48	.946	Specific Gravity Separator Gas <u>0.600</u> X X X X X X X X						
3	.47	533	1.49	.946	Specific Gravity Flowing Fluid <u>X X X X X</u>						
4	.73	538	1.50	.927	Critical Pressure <u>671</u> P.S.I.A. P.S.I.A.						
5.					Critical Temperature <u>358</u> R R						
P _c <u>5446.2</u>		P _c ² <u>29661.1</u>									
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$				
1		5163.2	26,658.6	3002.5							
2		4813.2	23,166.8	6494.3							
3		4389.2	19,265.1	10396.0							
4		3830.2	14,670.4	14990.7							
5	(Used BHP Bomb for above)										
Absolute Open Flow <u>3250</u> Mcfd @ 15.025				Angle of Slope θ <u>48.1°</u>				Slope, n <u>0.896</u>			
Remarks: * Used L-10 Chart ** 3.000 x 1.500 & 1500# - 1.00" meter well tested w/BHP Bomb											
Approved By Commission:			Conducted By:			Calculated By:			Checked By:		
			Apex Engineering			Harry LeGendre			L.N. Dunavant		