

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-23-72	
Company Sohio Petroleum Co.			Connection NONE		
Prod. Undesignated			Formation San Andres		Unit -
Completion Date 8-23-72		Total Depth 4250'		Plug Back TD 4210'	Elevation 3489' KB
Farm or Lease Name ALVES		Well No. 3			
Csg. Size 5 1/2"	Wt. 15.5	d 4.950	Set At 4243'	Perforations: From 4085' To 4118'	
Thg. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 3826'	Perforations: From open To ended	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 4103'	
Producing Thru Tubing		Reservoir Temp. °F 128° 3800'		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State NEW MEXICO			
L 4102	H -	Gg 0.6444	% CO ₂ 4.92	% N ₂ 0.27	% H ₂ S 0.00
Prover		Meter Run X		Taps F	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
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	
1.	4	29/64	1 1/4	270	36	80	375	80	-	-	5.0 Hrs
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	7.469	100.97	283.2	0.9813	1.246	1.022	943.38
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.41	540	1.50	0.958	A.P.I. Gravity of Liquid Hydrocarbons	-
2.					Specific Gravity Separator Gas	0.6444
3.					Specific Gravity Flowing Fluid	X X X X X
4.					Critical Pressure	690 P.S.I.A.
5.					Critical Temperature	360 °R

$P_c = 1318.2$ $P_c^2 = 1817.6$				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.083$	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.632$	
NO.	P_w^2	P_w *	P_w^2	$P_c^2 - P_w^2$		
1.	-	972.2	945.2	872.4		
2.						
3.						
4.						
5.						

$ACF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1540$			
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Absolute Open Flow	1540	Mcf/d @ 15.025	Angle of Slope	56° 18'	Slope, n	0.567
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Remarks: * BHP @ (-613') 4102' used for pressure calculations
+ Previous Back Pressure on Alves A, No.2 used with permission of NMCC

Approved By Commission	Conducted By	Calculated By	Checked By
<i>[Signature]</i>	COLEMAN PET. ENG. CO.	JOE A. COLEMAN	JOE A. COLEMAN

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