

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

e:SF
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3-30-80		JUL 24 1980	
Company STEVENS OIL COMPANY ✓				Connection To AIR				O. C. D.	
Pool Twin Lakes SH Area				Formation SAN ANDRES				Unit ARTESIA, OFFICE	
Completion Date 3-21-80		Total Depth 2770		Plug Back TD 2760		Elevation 3923.3 GL		Farm or Lease Name O'BRIEN "F"	
Csg. Size 4 1/2	Wt. 11.60	d 4.000	Set At 2770	Perforations: From 2566 To 2598		Well No. 4			
Tbg. Size 2 3/8	Wt. 4.60	d 2.375	Set At 2595	Perforations: From OPEN To END		Unit Sec. Twp. Rge. K 25 8S 28E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 2534		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 100° @ 2566		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 2566	H 2566	Gg .808	% CO ₂ 8.292	% N ₂ 18.637	% H ₂ S	Prover 2"	Meter Run	Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							568			
1.	2 X 1/8			455		61	455			
2.	2 X 1/4			420		65	531			
3.	2 X 7/16			453		65	468			
4.	2 X 3/4			243		60	315			
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	2.648		468.2	.9990	1.112	1.043	144
2	1.087		433.2	.9952	1.112	1.038	541
3	3.408		466.2	.9952	1.112	1.042	1832
4	9.453		256.2	1.0000	1.112	1.023	2755
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.60	521	1.38	.919	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.55	525	1.39	.928	Specific Gravity Separator Gas .808
3.	.60	525	1.39	.921	Specific Gravity Flowing Fluid X X X X X
4.	.33	520	1.38	.956	Critical Pressure 782 P.S.I.A.
5.					Critical Temperature 378 R

P _c 581.2	P _c ² 337.8	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.475$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.475$
NO.	P _t ²	P _w	P _w ²
1		468.5	219.5
2		547.4	299.7
3		521.6	272.1
4		488.7	201.3
5			

Absolute Open Flow 6.818 Mcfd @ 15.025		Angle of Slope θ 45	Slope, n 1.00
Remarks: NO WAY TO MEASURE FLUID. POINT ALIGNMENT TOO FLAT A SLOPE OF 45° WAS DRAWN THROUGH HIGH POINT OF FLOW.			
Approved By Commission:	Conducted By: MCT	Calculated By: RR	Checked By: JWW

STEVENS OIL COMPANY
O'BRIEN "F" No. 4

$$\begin{array}{rcl} \text{ABS (N)} & = & 9000 = 3.954242 \\ & & 900 = 2.954242 \\ \hline \text{N} & = & 1.000000 \end{array}$$

$$\text{CAOF} = 2755 \frac{(337.8)^{1.00}}{(136.5)} = 6.818 \text{ MCF/DAY}$$

