

Submit in duplicate to
appropriate district office
See Rule 401 & Rule 1122

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <i>Kaiser-Francis Oil Company</i>				Lease or Unit Name <i>Fed CK Com</i>			
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date <i>8-18-96</i>		Well No. <i>1</i>	
Completion Date <i>7/28/96</i>		Total Depth <i>15018</i>		Plug Back TD <i>13965</i>		Elevation <i>3630 GR</i>	
Csg. Size <i>4 1/2</i>		Wt. <i>11.6</i>		Set At <i>15018</i>		Perforations: From: <i>13630</i> To: <i>13648</i>	
Tbg. Size <i>2 3/8</i>		Wt. <i>4.7</i>		Set At <i>13577</i>		Perforations: From: <i>-</i> To: <i>-</i>	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <i>Single</i>				Packer Set At <i>13577</i>		Formation <i>ATOKA</i>	
Producing Thru <i>Tbg</i>		Reservoir Temp. °F <i>197</i>		Mean Annual Temp. °F <i>60°</i>		Baro. Press. - P. <i>13.2</i>	
L <i>13576</i>		H <i>13576</i>		Gg <i>.615</i>		% CO ₂ <i>.47</i>	
				% N ₂ <i>1.14</i>		% H ₂ S <i>0</i>	
				Prover <i>0</i>		Meter Run <i>4.026</i>	
						Taps <i>F/g</i>	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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	
SI						<i>6850</i>		<i>PKR</i>		<i>18 hrs</i>
1.	<i>4.026 X 2.500</i>		<i>480</i>	<i>3</i>	<i>82°</i>	<i>6700</i>				<i>1 hr</i>
2.	<i>4.026 X 2.500</i>		<i>500</i>	<i>6</i>	<i>70°</i>	<i>6700</i>				<i>1 hr</i>
3.	<i>4.026 X 2.500</i>		<i>500</i>	<i>8</i>	<i>70°</i>	<i>6600</i>				<i>1 hr</i>
4.	<i>4.026 X 2.500</i>		<i>500</i>	<i>15</i>	<i>60°</i>	<i>6500</i>				<i>1 hr</i>
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.	<i>32.64</i>	<i>38.4</i>	<i>493.2</i>	<i>.9795</i>	<i>1.275</i>	<i>1.039</i>	<i>1626</i>
2.	<i>32.64</i>	<i>55.5</i>	<i>513.2</i>	<i>.9905</i>	<i>1.275</i>	<i>1.043</i>	<i>2386</i>
3.	<i>32.64</i>	<i>64.0</i>	<i>513.2</i>	<i>.9905</i>	<i>1.275</i>	<i>1.043</i>	<i>2751</i>
4.	<i>32.64</i>	<i>87.7</i>	<i>513.2</i>	<i>1.000</i>	<i>1.275</i>	<i>1.043</i>	<i>3806</i>
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl
1.	<i>.738</i>	<i>542</i>	<i>1.51</i>	<i>.927</i>		
2.	<i>.768</i>	<i>530</i>	<i>1.48</i>	<i>.919</i>		
3.	<i>.768</i>	<i>530</i>	<i>1.48</i>	<i>.919</i>		
4.	<i>.768</i>	<i>530</i>	<i>1.48</i>	<i>.919</i>		
5.						

P _c <i>6852.6</i> P _c ² <i>46958.1</i>				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		<i>6803.9</i>	<i>46293.0</i>	<i>665.1</i>
2.		<i>6726.4</i>	<i>45244.4</i>	<i>1713.7</i>
3.		<i>6614.0</i>	<i>43744.9</i>	<i>3213.2</i>
4.		<i>6528.7</i>	<i>42623.9</i>	<i>4334.2</i>
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 10.834$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^2 = 3.2915$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^2 = 12527.45$

Absolute Open Flow *12527.45* Mcfd @ 15.025 Angle of Slope θ *63.5* Slope, n *.500*

Remarks: * *Calculated From Known Bottom Hole Pressures*

Approved By Division _____ Conducted By: *Pro Well Testing & WL* Calculated By: *Pro Well Testing & WL* Checked By: *CVV*