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appropriate district office  
See Rule 401 & Rule 1122

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-122  
Revised 4-1-91

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <u>Santa Fe Energy</u>				Lease or Unit Name <u>Topaz 30 Fed</u>			
Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date <u>8/24/96</u>		Well No. <u>1</u>	
Completion Date <u>8/10/96</u>		Total Depth <u>14010</u>		Plug Back TD <u>13909</u>		Elevation <u>3674.1</u>	
Csg. Size <u>5 1/2</u>		Wt. <u>17</u>		d <u>4.892</u>		Set At <u>14010</u>	
Tbg. Size <u>2 3/8</u>		Wt. <u>4.7</u>		d <u>1.995</u>		Set At <u>13740</u>	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <u>Single</u>				Packer Set At <u>13740</u>		Formation <u>Morrow</u>	
Producing Thru <u>Tab</u>		Reservoir Temp. °F <u>197</u>		Mean Annual Temp. °F <u>60</u>		Baro. Press. - P <sub>a</sub> <u>13.2</u>	
L <u>13740</u>		H <u>13740</u>		G <sub>g</sub> <u>.664</u>		% CO <sub>2</sub> <u>.68</u>	
				% N <sub>2</sub> <u>.42</u>		% H <sub>2</sub> S <u>N/A</u>	
				Prover <u>0</u>		Meter Run <u>1</u>	
						Taps <u>F/g</u>	

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
							Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							4050		PKR		
1.	2" x 1.00			558	4	91°	4040	60			1 HR
2.	2" x 1.00			556	8	86°	3970	60			1 HR
3.	2" x 1.00			553	9	80°	3910	60			1 HR
4.	2" x 1.00			557	34	76°	3600	60			1 HR
5.											

NO.	COEFFICIENT (24 HOUR)	h <sub>w</sub> P <sub>m</sub>	Pressure P <sub>m</sub>	Flow Temp. Factor Ft.	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
2.	4.946	67.48	569.2	.9759	1.227	1.051	420
3.	4.946	71.38	566.2	.9813	1.227	1.051	446
4.	4.946	139.23	570.2	.9850	1.227	1.052	875
5.							

NO.	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio <u>N/A</u>		Mcf/bbl.
					A.P. I Gravity of Liquid Hydrocarbons <u>N/A</u>	Deg.	
1.	.84	551	1.47	.910	Specific Gravity Separator Gas <u>.664</u>	XXXXXXXXXX	
2.	.84	546	1.45	.906	Specific Gravity Flowing Fluid <u>N/A</u>	XXXXXX	
3.	.84	540	1.44	.905	Critical Pressure <u>673</u>	P.S.I.A. <u>N/A</u>	
4.	.84	536	1.43	.903	Critical Temperature <u>374</u>	R <u>N/A</u>	
5.							

p<sub>c</sub> 4893.5 - p<sub>w</sub><sup>2</sup> 23946.3

NO.	p <sub>i</sub> <sup>2</sup>	p <sub>w</sub>	p <sub>w</sub> <sup>2</sup>	p <sub>c</sub> <sup>2</sup> - p <sub>w</sub> <sup>2</sup>
1.		4843.5	23459.5	486.5
2.		4787.0	22915.4	1030.6
3.		4771.5	22767.2	1178.8
4.		4547.6	20680.7	3265.3
5.				

1)  $\frac{p_c^2}{p_c^2 - p_w^2} = 7.333$  (2)  $\left[ \frac{p_c^2}{p_c^2 - p_w^2} \right]^n = 3.255$

AOF = Q  $\left[ \frac{p_c^2}{p_c^2 - p_w^2} \right]^n = 2843$

Absolute Open Flow 2843 Mcfd @ 15.025 Angle of Slope  $\theta$  59.3 Slope, n .5926

Remarks: Calculated From Known Bottom Hole Pressures.

Approved By Division \_\_\_\_\_ Conducted By: Pro Well Tester Calculated By: MB Checked By: BM

