

OIL CONSERVATION DIVIS N

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Santa Fe Energy						Lease or Unit Name Goucho					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 6-18-97		Well No. 24			
Completion Date		Total Depth 13305		Plug Back TD		Elevation		Unit - Sec. - TWP - Rge. K-29-22s-34e			
Csg. Size 51/2 31/2	Wt. 17/96	d 4.892/?	Set At 13305	Perforations: From: 13288 To: 13293		Country Lea					
Tbg. Size 23/8	Wt. 4.7	d 1.995	Set At 11524	Perforations: From: To:		Pool North West Bell Lake Dio Chiso					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 11524		Formation Marrow			
Producing Thru Tbg		Reservoir Temp. °F 189.2		Mean Annual Temp. °F 60°		Baro. Press - P _a 13.2		Connection Air			
L 11524	H 11524	Gg .613	% CO ₂ .54	% N ₂ .28	% H ₂ S 0	Prover 0	Meter Run 4.026	Taps F/G			

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.	
SI							5400			
1.	4.026 X 1.000			600	1"	86°	5250	74°	PKR	
2.	4.026 X 1.000			600	8"	83°	4840	81°		
3.	4.026 X 1.000			600	20"	84°	4350	82°		
4.	4.026 X 1.000			590	50"	88°	3490	86°		
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, F _{sp}	Rate of Flow Q, Mcfd
1.	4.753	24.7	613.2	.9759	1.277	1.039	152
2.	4.753	70.0	613.2	.9786	1.277	1.040	432
3.	4.753	110.7	613.2	.9777	1.277	1.040	683
4.	4.753	173.6	603.2	.9741	1.277	1.039	1066
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.81	546	1.54	.926	N/A	
2.	.80	543	1.53	.925	N/A	
3.	.80	544	1.53	.925	.613	XXXXXXXXXX
4.	.81	548	1.54	.926	N/A	XXXXXX
5.						

P _c 5413.2		P _w 29302.7	
NO.	P _i ²	P _w ²	P _c ² - P _w ²
1.		5263.3	27702.3
2.		4854.0	23561.4
3.		4365.3	19056.1
4.		3509.1	16988.8
5.			

1) $\frac{P_c^2}{P_c^2 - P_w^2} = \underline{1.725}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{1.670}$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{1.566}$

Absolute Open Flow 1,670	Mcf/d @ 15.025	Angle of Slope θ 50.53	Slope, n .823
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Remarks: ***No liquid made during test**

Approved By Division	Conducted By: Pro Well Testers	Calculated By: MB	Checked By: Bob Murray
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