

OIL CONSERVATION DIVISION N

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

CLSK

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <i>Chi Energy</i>				Lease or Unit Name <i>Big Eddy</i>			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date <i>12-24-97</i>		Well No. <i>137</i>	
Completion Date <i>12-10-97</i>		Total Depth <i>13050</i>		Plug Back TD		Elevation	
Csg. Size <i>5 1/2</i>		WL <i>20#</i>		Set At <i>13047</i>		Perforations: From: <i>12632</i> To: <i>12654</i>	
Tbg. Size <i>2 7/8</i>		WL <i>8.7</i>		Set At <i>12655</i>		Perforations: From:	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <i>Single</i>				Packer Set At <i>12545</i>		County <i>Eddy</i>	
Producing Thru <i>12655</i>		Reservoir Temp. °F <i>187.9@12655</i>		Mean Annual Temp. °F <i>60°</i>		Baro. Press - P _a <i>13.2</i>	
L <i>12655</i>		H <i>12655</i>		Gg <i>.608</i>		% CO ₂ <i>1.07</i>	
				% N ₂ <i>.28</i>		% H ₂ S	
				Prover		Meter Run <i>4"</i>	
						Taps <i>Flg</i>	

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	
SI						3893		PKR		24 hrs
1.	4 X 1.625		313	3.00	78	3130		PKR		1 Hr
2.	4 X 1.625		316	8.00	74	3075		PKR		1 hr
3.	4 X 1.625		316	21.00	70	3000		PKR		1 hr
4.	4 X 1.625		324	51.00	68	2890		PKR		1 hr
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 _{pv}	Rate of Flow Q, Mcfd
1.	12.79	31.28	326.2	.9831	1.282	1.025	516
2.	12.79	51.32	329.2	.9868	1.282	1.026	852
3.	12.79	83.15	329.2	.9905	1.282	1.027	1387
4.	12.79	131.14	337.2	.9924	1.282	1.029	2196
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl
1.	.48	538	1.50	.951	147.35	
2.	.48	534	1.49	.950		
3.	.48	530	1.48	.949		
4.	.49	528	1.48	.945		
5.			1.47			

P _c 3906.2 P _c ² 15258.4					A.P. I. Gravity of Liquid Hydrocarbons 51.0 @ 60° Deg.	
					Specific Gravity Separator Gas .608	
					Specific Gravity Flowing Fluid XXXXX	
					Critical Pressure *675 P.S.I.A. 671 P.S.I.A.	
					Critical Temperature 357 R 365 R	
$1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{2.265}{\quad} \quad (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{2.265}{\quad}$						
$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{4.974}{\quad}$						

Absolute Open Flow	4974	Mcf/d @ 15.025	Angle of Slope θ	45	Slope, n	1.000
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Remarks: *Well Produce 1.40 BBL 51.0 API Condensate*
 *=Corrected to 1.07% Co2

Approved By Division	Conducted By: <i>Pro Well Testers</i>	Calculated By: <i>MB</i>	Checked By: <i>BM</i>
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