

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7-3-82		JUL 14 1982	
Company CITIES SERVICE COMPANY				Connection To Atmos.		Unit O. C. D.			
Pool D. ...				Formation Morrow		Farm or Lease Name Carter Farms "A" 1/4			
Completion Date 7-3-82		Total Depth 12,598'		Plug Back TD 12,560'		Elevation 3047' GL.		Well No. 1	
Casing Size 7 5/8"	Wt. 29#	d 6.875	Set At 12,598'	Perforations: From 12,186 To 12,242'		Unit N		Soc. 17	Twp. 23S
Thg. Size 2 7/8"	Wt. 6.4#	d 2.441	Set At 12,144'	Perforations: From OPEN ENDED		Rge. 28E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 12,126'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 196° 12,157'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 12,157'	H 12,157'	G _g .584	% CO ₂ 1.203	% N ₂ .951	% H ₂ S	Prover	Meter Run 4.00"	Taps Flange	

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							3555		PKR.	CHOKE	24 Hrs.
1.	4"	x	1.5	510	5"	107°	3305	60°		6/64	1 Hr.
2.	4	x	1.5	520	18	105	3057	60		9/64	45 Min.
3.	4	x	1.5	580	32	72	2889	60		12/64	45 Min.
4.	4	x	1.5	750	40	74	2865	60		16/64	30 Min.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	11.09	51.45	523.2	.9577	1.309	1.031	733
2	11.09	97.97	533.2	.9594	1.309	1.032	1408
3	11.09	137.78	593.2	.9887	1.309	1.047	2070
4	11.09	174.72	763.2	.9868	1.309	1.059	2651
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NO.	R _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.		
					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
					Specific Gravity Separator Gas _____ 584		
					Specific Gravity Flowing Fluid _____ X X X X X		
					Critical Pressure _____ 675 P.S.I.A.		
					Critical Temperature _____ 346 R		

$P_c = 3568.2$ $P_c^2 = 12732.05$				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.47$	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.47$
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	
1		3318.2	11010.45	1721.6	
2		3070.2	9426.13	3305.92	
3		2902.2	8422.76	4309.29	
4		2753.2	7580.11	5151.94	
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Absolute Open Flow <u>6523</u> Mcfd @ 15.025			Angle of Slope @ <u>45°</u>	Slope, n <u>1.000</u>
Remarks: Angle of Slope too Flat, <u>45°</u> Angle Drawn Thru highest Rate utilized and an N Slope of 1.000 was used to calculate AOF.				
Approved By Commission:		Conducted By: J.W.		Calculated By: J.W.
				Checked By: M.K.