

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

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Form C-122
Revised 9-1-65
C-122

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 8-15-75		AUG 26 1975	
Company Cities Service Oil Company		Connection To Air			
Poc. <i>Indesig</i> a Huron		Formation Morrow		Unit G. O. C. ARTESIA, OFFICE	
Completion Date 8-15-75		Total Depth 11,730'		Plug Back TD <i>11,549</i> 11550 Elevation 3236' gr.	
Csg. Size 5 1/2"		Set At 11,730'		Perforations: <i>11,548</i> From <i>11,541</i> To 11,363	
Tub. Size 2 7/8"		Set At 11,179'		Perforations: From open To ended	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 11,179'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 180° 11,455'		Magn. Annul. Temp. °F 60.0	
		Baro. Press. - P _g 13.2"		State New Mexico	
L 11,462		H 11,462		G _g 0.596	
		% CO ₂ .957		% N ₂ .421	
		% H ₂ S --0--		Prover -----	
		Meter Run 4"		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							3304		Packer	Choke	
1.	4" X 2.00"			500	35	104	1599			20/64	90 min.
2.	4" X 2.00"			500	23	88	1720			17/64	60 min.
3.	4" X 2.00"			500	15	80	1920			14/64	60 min.
4.	4" X 2.00"			500	7	76	2125			11/64	60 min.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	134.02	513.2	.9602	1.295	1.032	3.407
2	19.81	108.64	513.2	.9741	1.295	1.035	2.810
3	19.81	87.74	513.2	.9813	1.295	1.038	2.293
4	19.81	59.94	513.2	.9850	1.295	1.039	1.574
5							

NO.	P _g	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio TSTM	Mcf/bbl.
1	.76	564	1.59	.939	A.P.I. Gravity of Liquid Hydrocarbons	0.596
2	.76	548	1.55	.933	Specific Gravity Separator Gas	XXXXXXX
3	.76	540	1.53	.929	Specific Gravity Flowing Fluid	XXXXX
4	.76	536	1.51	.926	Critical Pressure	672 P.S.I.A.
5					Critical Temperature	354 R

NO.	P _g ²	P _w	R _w ²	P _g ² - R _w ²
1	3617.2	1653.4	2733.1	10351.0
2		1759.4	3095.5	9988.6
3		1949.1	3799.0	9285.1
4		2145.9	4604.9	8479.2
5				

(1) $\frac{P_g^2}{P_g^2 - R_w^2} = 1.264$		(2) $\left[\frac{P_g^2}{P_g^2 - R_w^2} \right]^n = 1.264$	
AOF = Q $\left[\frac{P_g^2}{P_g^2 - R_w^2} \right]^n = 4.307$			

Absolute Open Flow	4,307	Mcf/d @ 15.025	Angle of Slope θ	45°	Slope, n	1.00 limited
Remarks: Point alignment too flat, 45° slope was drawn through high rate of flow						
Approved By Commission:						
Conducted By:		Calculated By:		Checked By:		
Don Tyson		R.E.R.		J.W.W.		