

9097

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4/27/82	
Company Harvey E. Yates Co.				Connection El Paso Natural Gas	
Field Undesignated Austin-Miss				Unit Mississippian	
Completion Date 2/20/82		Total Depth 13524'		Elevation 3968	
Casing Size 5 1/8"		Set At 13393'		Perforations: Open Hole From 13393' To 13524'	
Tub. Size 2 3/8"		Set At 13350'		Perforations: From - To -	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 13182'	
Reservoir Temp. °F 193 @ 13524'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 13524'		H 13524'		G _g 0.671	
CO ₂ 1.358		N ₂ 1.358		H ₂ S Nil	
Prover -		Meter Run 4.026		Flg. -	

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	
1	4.026	5/64	1.750	240	2.0	70	3977	2855	PACKER		72.0 hrs
2	4.026	7/64	1.750	137	7.0	78	2150				1.0 hr
3	4.026	9/64	1.750	123	11.0	78	1595				1.0 hr
4	4.026	12/64	1.750	130	12.0	81	925				1.0 hr
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 _{sp}	Rate of Flow Q, Mscf/d
1	14.93	22.50	253.2	.9905	1.221	1.025	416
2	14.93	32.43	150.2	.9831	1.221	1.014	589
3	14.93	38.71	136.2	.9831	1.221	1.013	703
4	14.93	41.45	143.2	.9804	1.221	1.014	751
5							

NO	P _i	Temp. °R	T _r	Z	Gas/Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.38	530	1.39	.951	34.153	50.5 @ 60	0.671	.760	669	382
2	.22	538	1.41	.972						
3	.20	538	1.41	.974						
4	.21	541	1.42	.973						
5										

NO	P _i	P _w	P _w ²	P _i ² - P _w ²	(1) $\frac{P_i^2}{P_i^2 - P_w^2} =$	(2) $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n =$
1	3990.2	15921.7			1.060	1.054
2	2869.4	8233.6	7688.1			
3	2166.0	4691.4	11230.3			
4	1613.2	2602.4	13319.3			
5	949.8	902.1	15019.6			

Absolute Open Flow 791				Mscf @ 15.025		Angle of Slope 48		Slope, n .900	
Remarks: MADE 3 BBL OIL IN 4.0 HOURS = 18.0 B O/D									

Approved By Division	Conducted By: JARREL WELL TESTING, INC.	Calculated By: R. [Signature]	Checked By: Joe A. Coleman PE #1208
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MAR 15 1983
C. C. D.
HOLDS OFFICE