

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

Form C-122
Revised 9-1-65

RECEIVED

C/SF C-122

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-08-82		JAN 21 1982	
Company HARVEY E. YATES COMPANY			Connection EL PASO NATURAL GAS		
Pool SOUTH EMPIRE <i>Morrow</i>			Formation MORROW		Unit ARTESIA OFFICE
Completion Date 11/19/81		Total Depth 11,000'		Plug Back TD 10,955'	
Elevation 3540' GL		Farm or Lease Name TRAVIS DEEP OHIO COM			
Csg. Size 4-1/2"	Wt. 11.6#	d 3.875"	Set At 11,000'	Perforations: From 10,850' To 10,858'	
Thg. Size 2-3/8"	Wt. 4.7#	d 1.995"	Set At 10,801'	Perforations: From N/A To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE			Packer Set At 10,809'		County EDDY
Producing Thru TUBING		Reservoir Temp. °F 155 @ 10,854'		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State NEW MEXICO			
L 10854	H 10854	G _g 0.654	% CO ₂ 0.53	% N ₂ 0.47	% H ₂ S Nil
Prover		Meter Run X		Taps	

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	71 HOURS						1937		PKR.	--	
1.	4.026" X 1.750"			33.04	1.44	54	1700	54	"	--	60 MINS.
2.	4.026" X 1.750"			34.41	3.24	60	1486	60	"	--	60 MINS.
3.	4.026" X 1.750"			33.04	4.84	68	1230	68	"	--	60 MINS.
4.	4.026" X 1.750"			37.21	7.29	70	910	70	"	--	60 MINS.
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	14.93	6.898	46.24	1.0060	1.2365	1.011	153.2
2	14.93	12.420	47.61	1.0000	1.2365	1.010	231.6
3	14.93	14.960	46.24	0.9924	1.2365	1.010	276.8
4	14.93	19.170	50.41	0.9905	1.2365	1.009	353.7
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.		USED				
2.		SIMPLIFIED				
3.		SUPER COMPRESSIBILITY				
4.		TABLES				
5.						

P _c 3149.2 P _r 29917.5					Gas Liquid Hydrocarbon Ratio <u>Nil</u> Mcf/bbl.	
					A.P.I. Gravity of Liquid Hydrocarbons <u>--</u> Deg.	
					Specific Gravity Separator Gas <u>0.654</u> X X X X X X X X	
					Specific Gravity Flowing Fluid <u>X X X X X</u>	
					Critical Pressure <u>670</u> P.S.I.A. P.S.I.A.	
					Critical Temperature <u>375</u> °R °R	

NO.	P _i ²	P _{PS} ²	P _S ²	P _F ² - P _S ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1		2810.2	7897.2	2020.3	1.47586	1.31126
2		2527.2	6386.7	3530.8		
3		2202.2	4849.7	5067.8		
4		1788.2	3197.7	6719.8		
5						

Absolute Open Flow <u>463.794</u> Mcfd @ 15.025			Angle of Slope θ <u>55.15</u>		Slope, n <u>0.69620</u>
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Remarks: <u>BHP MEASURED WITH AMERADA RPG-3 GAUGE NO. 47504, 0-6000 P.S.I. RANGE</u>			
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Approved By Commission:	Conducted By: TEFTELLER, INC.	Calculated By: D. A. WARREN, JR.	Checked By:
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