

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2085
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78C/SF
C-122

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3-27-82		MAY 14 1982	
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Company		O. C. D.	
Pool Pecos Slope Abo		Formation Abo		Unit ARTESIA, OFFICE	
Completion Date 2-5-82		Total Depth 4400'		Plug Back TD 4379'	
Elevation 4037.8' GR		Farm or Lease Name Langley RJ Federal			
Ceq. Size 4-1/2"	Wt. 9.5#	d 4.090	Set At 4400'	Perforations: From 3719 To 3753	
Thq. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 3694	Perforations: From - To -	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At -	
Producing Thru Tubing		Reservoir Temp. °F 104° 3692'		Mean Annual Temp. °F 62	
Baro. Press. - P _g 13.2		State New Mexico			
L 3694	H 3694	G _g .657	% CO ₂ 0.13	% N ₂ 6.21	% 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							990				days
1.	4.206 x .750			270	15.4	73	862	62			24 hrs
2.	4.026 x .750			280	29.2	70	799	62			24 hrs
3.	4.026 x .750			280	46.2	67	738	62			24 hrs
4.	4.026 x .750			270	83.0	67	640	62			24 hrs
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	2.661	66.0	283.2	.9877	1.234	1.023	219
2	2.661	92.5	293.2	.9905	1.234	1.024	308
3	2.661	116.4	293.2	.9933	1.234	1.025	389
4	2.661	153.3	283.2	.9933	1.234	1.024	512
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry	Mcfd/bbl.
1	.43	533	1.50	.956	A.P.I. Gravity of Liquid Hydrocarbons	-	Deq.
2	.45	530	1.49	.953	Specific Gravity Separator Gas	.657	XXXXXX
3	.45	527	1.48	.952	Specific Gravity Flowing Fluid	XXXXXX	.657
4	.43	527	1.48	.954	Critical Pressure	658 P.S.I.A.	658 P.S.I.A.
5					Critical Temperature	355 R	355 R

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²
1	766.0		766.6	239.8
2	659.7		660.9	345.5
3	564.3		566.4	440.0
4	426.7		430.2	576.2
5				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.7466$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.7301$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 886 \text{ mcfpd}$

Absolute Open Flow	886	Mcfd @ 15.025	Angle of Slope @	Slope, n	.983
Remarks:					
Approved By Division					
Conducted By: David Weaver		Calculated By: Al Springer		Checked By:	