

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

Form C-122
Revised 9-1-65

File
122 file

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11-10-77		RECEIVED	
Company Yates Petroleum Corporation						Connection El Paso Natural Gas Co.			
Pool Crooked Creek				Formation Morrow				Unit D.C.C.	
Completion Date 9-30-77		Total Depth 10220'		Plug Back TD 10129'		Elevation 3984' KB		Farm or Lease Lechuguilla Canyon	
Csg. Size 5 1/2"	Wt. 17.0	d 1.995	Set At 10173'	Perforations: From 9663 To 9768				Well No. 6 Unit	
Tbg. Size 2-3/8"	Wt. 4.7	d 1.995	Set At 9613'	Perforations: From To				Unit Sec. Twp. Rge. K 4 24S 24E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 9605'		County Eddy	
Producing Thru tubing		Reservoir Temp. °F 176 @ 9665		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico	
L 9600	H 9600	G _g 0.575	% CO ₂ 0.76	% N ₂ 0.48	% H ₂ S Nil	Prover	Meter Run 4.026	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							3095	52			6 weeks
1.	4 X 1.500			426	8.5	72	2912	57			1 hour
2.				438	20	71	2727	62			1 hour
3.				449	44	71	2395	66			1 hour
4.				459	61	72	2185	70			1 hour
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	10.84	61.09	439	.9887	1.318	1.0314	890
2.		94.97	451	.9896	1.318	1.0325	1386
3.		142.6	462	.9896	1.318	1.0331	2083
4.		169.7	472	.9887	1.318	1.0336	2478
5.							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio 11265/1 Mcf/bbl.	
1.	.650	532	1.538	.940	A.P.I. Gravity of Liquid Hydrocarbons 59.0 Deg.	
2.	.668	531	1.535	.938	Specific Gravity Separator Gas .575 XXXXXXXXXX	
3.	.684	531	1.535	.937	Specific Gravity Flowing Fluid XXXXX .576	
4.	.699	532	1.538	.936	Critical Pressure 675 P.S.I.A. 675 P.S.I.A.	
5.					Critical Temperature 346 R 346 R	

P _c 3833 P _c ² 14692				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.075$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.715$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²			
1			13082	1610			
2			11543	3149			
3			9043	5649			
4			7611	7081			
5							

Absolute Open Flow 4250 Mcfd @ 15.025				Angle of Slope 53 1/2 degree		Slope, n .7391	
Remarks: Static pressures by Bennett Wireline, flowing pressures by dead weight tester, Calculations worksheet C-122D attached.							
Approved By Commission:		Conducted By: Don Weaver		Calculated By: Eddie M. Mahfood		Checked By:	