

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

Form C-122
Revised 9-1-65
RECEIVED

JUN 20 1978

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5-11-78			
Company Yates Petroleum Corporation				Connection El Paso Natural Gas Company				O.C.C. ARTESIA, OFFICE	
Pool North Burton Flat <i>Atoka</i>				Formation Atoka				Unit	
Completion Date 5-9-78		Total Depth 11,640' KB		Plug Back TD 10,976		Elevation 3285' KB		Farm or Lease Name Williamson "BC" Fed.	
Csg. Size 4-1/2"	Wt. 11.6#	d 3.985	Set At 11,623'	Perforations: From 10792 To 10800' KB				Well No. 4	
Tbg. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 10790'	Perforations: From 10744 To 10747' KB				Unit Sec. Twp. Rge. K 7 20S 29E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,738' KB				County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 162 @ 10800		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico	
L 10786	H 10786	Gg 0.706	% CO ₂ 0.60	% N ₂ 0.37	% H ₂ S Nil	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							3261	69			24 hours
1.	4.026 x 1.250			549	20	68	3095	73			1 hour
2.				550	41	68	2954	75			1 hour
3.				550	69	68	2858	78			1 hour
4.				551	95	68	2792	81			1 hour
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.469	106.04	562.2	.9924	1.272	1.050	1050
2	7.469	151.96	563.2	.9924	1.272	1.050	1504
3	7.469	197.13	563.2	.9924	1.272	1.050	1952
4	7.469	231.51	564.2	.9924	1.272	1.050	2292
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcl/bbl.
1.	.835	528	1.454	.907	A.P.I. Gravity of Liquid Hydrocarbons _____ 56.2 _____ Deg.
2.	.837	528	1.454	.907	Specific Gravity Separator Gas _____ .618 _____
3.	.837	528	1.454	.907	Specific Gravity Flowing Fluid _____ .706 _____
4.	.838	528	1.454	.907	Critical Pressure _____ 673 _____ P.S.I.A. _____ 665 _____ P.S.I.A.
5.					Critical Temperature _____ 363 _____ R _____ 452 _____ R

P _c 4406 P _c ² 19413				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1			17703	1710
2			16332	3081
3			15453	3960
4			14861	4552
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 4.2647$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 9775$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.2647$$

Absolute Open Flow _____ 9775 _____ Mcl/d @ 15.025		Angle of Slope @ 45 degrees	Slope, n 1.0000
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Remarks: Static pressures by Bennett Wireline; flowing pressures by DWT.
NOTE: Well was not completely cleaned up when put on line and Gmix reflects 3 bbls water in 1st 24 hours production.

Approved By Commission:	Conducted By: Bill Trembley, Jr.	Calculated By: Eddie M. Mahfood	Checked By:
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