

RECEIVED

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7/17/85		SEP 03 '87	
Company EXXON CO. U.S.A.				Connection NONE		O. C. D.	
Pool NE SHEEP DRAW 15K				Formation STRAWN		Unit ARTESIA, OFFICE	
Completion Date 7/13/85		Total Depth 11,846		Plug Back TD 11,800		Elevation 3358	
Csg. Size 5		Wt. 20.8		Set At 4.156		11,838	
Perforations: From 10,294 To 10,338		Well No. 1					
Tbg. Size 2 7/8		Wt. 6.5		Set At 2.441		10,213	
Perforations: From OPEN To END		Unit G		Sec. 28		Twp. 22S	
Type Well - Single - Drdhead - G.C. or G.O. Multiple SINGLE		Packer Set At 10,213		County EDDY		State NEW MEXICO	
Producing Thru Tbg.		Reservoir Temp. °F 176 @ 10,213		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2	
L 10,213		H 10,213		G _g .6287		% CO ₂ .461	
				% N ₂ .314		% H ₂ S	
Prover		Meter Run 4.026		Taps 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
SI							3680				
1.	4.026 X 2.500			500	5.5	98	3640	98			1 hr.
2.	4.026 X 2.500			510	17	93	3589	83			1 hr.
3.	4.026 X 2.500			525	41	80	3474	87			1 hr.
4.	4.026 X 2.500			530	78	73	3285	87			1 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 _{pv}	Rate of Flow Q, Mc/d
1	32.64	53.13	513.2	.9653	1.261	1.039	2193
2	32.64	94.31	523.2	.9697	1.261	1.041	3918
3	32.64	148.55	538.2	.9813	1.261	1.046	6276
4	32.64	205.84	543.2	.9877	1.261	1.049	8778
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	.76	558	1.52	.927	88.188	
2	.78	553	1.50	.922	53.5 @ 60	
3	.80	540	1.47	.914		
4	.81	533	1.45	.909		
5						

NO.	P _r	P _w	P _r ²	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} =$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$
1	3693.2	13,639.7	136405.1	234.6	136170.5	7.3533	3.7915
2	3628.8	13168.2	131682.2	471.5	131210.7		
3	3554.1	12631.6	126316.6	1008.9	125307.7		
4	3432.9	11784.8	117848.8	1854.9	115993.9		
5							

Absolute Open Flow 33.281 Mc/d @ 15.025				Angle of Slope @ 56.25		Slope, n .668	
Remarks: 10 bbls OF CONDENSATE PRODUCED DURING TEST							

Approved By Division	Conducted By: DUKE SERVICES, INC.	Calculated By: R. RESTON	Checked By:
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