

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 04-12-91	
Company Oryx Energy Company				Connection Llano	
Pool Lincoln Tonto Atoka Gas				Formation Atoka Marathon	
Completion Date 02-23-91		Total Depth 13712		Plug Back TD 13120	
Casing Size 5 1/2		WT. 23#		Set At 13712	
Perforations From 13016 To 13026		Well No. 1			
Thq. Size 2 7/8		WT. 6.5		Set At 12924	
Perforations From OPEN To END		Unit L		Sec. Twp. Rge. 16 19-S 33-E	
Type Well - Single - Broadhead - G.C. or G.O. Multiple Single				Packer Set At 12924	
Producing Thru Tubing		Reservoir Temp. °F 203 @ 12928		Mean Annual Temp. °F 60	
Buro. Press. - P _g 13.2		State New Mexico			
L 12928	H 12928	G _g .644	% CO ₂ .41	% H ₂ .76	% H ₂ S --
Prover		Meter Run 3.068		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							2440		PKR		72 hrs.
1.	3	X	1.000	530	3.00	79	2335		PKR		1 hr.
2.	3	X	1.000	530	10.00	76	2240		PKR		1 hr.
3.	3	X	1.000	530	28.00	75	2070		PKR		1 hr.
4.	3	X	1.00	530	55.00	76	1900		PKR		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, Mcfd
1	4.789	40.37	543.2	.9822	1.246	1.055	250
2.	4.789	73.70	543.2	.9850	1.246	1.055	457
3.	4.789	123.33	543.2	.9859	1.246	1.055	766
4.	4.789	172.85	543.2	.9850	1.246	1.055	1,072
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.81	539	1.44	.898	38.4	48.6 @ 60°	.644	X X X X X X X X	670	372
2.	.81	536	1.44	.898				X X X X X		
3.	.81	535	1.43	.898						
4.	.81	536	1.44	.898						
5.										

P _c 2865.0		P _c 2 8208.2		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.425$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.894$	
NO.	P ₁ ²	P _w	P ₁ ²	P ₁ ² - P _w ²			
1	*	2768.3	7663.5	544.7			
2	*	2695.7	7266.8	941.8			
3	*	2520.6	6353.4	1854.8			
4	*	2265.5	5132.5	3075.7			
5							

Absolute Open Flow	2,983	Mcf/d @ 15.025	Angle of Slope @	47.5	Slope, n	.914
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Remarks: *=pressures from known BHP's
**=BHP instrument set at this depth

Well made 2.76 BBLs 48.6 API GR. CONDENSATE DURING TEST

Approved By Division	Conducted By: Pro Well Testers	Calculated By: BM	Checked By: BM
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REC'D

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