

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test										Test Date		RECEIVED	
☒ Initial ☐ Annual ☐ Special										04-24-91		MAY 14 1991	
Company					Connected					Unit			
Oryx Energy Company					5-2-91, Transwestern Pipeline Co					O. C. D. ARTESIA OFFICE			
Pool					Formation					Unit			
Grayburg - Morrow					MORROW								
Completion Date			Total Depth		Plug Back TD		Elevation		Firm or Lease Name				
4-4-91			10,910'		10,910'		3625.4' GR		Delta Wing				
Csg. Size		Wt.	d	Set At	Perforations				Well No.				
4 1/2 & 7"				10,910	From 10762 To 10806				2				
Thq. Size		Wt.	d	Set At	Perforations				Unit Sec. T-p. Rye.				
2 3/8		4.7	1.995	10682'	From OPEN To END				N 11 17 29				
Type Well - Single - Drilling - G.C. or G.O. Multiple					Packer Set At			County					
Single					10682			Eddy					
Producing thru			Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press. - P _a		State				
Tubing			181 # 10690		60		13.2		New Mexico				
L		H	G _g	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run	Type				
10690		10690	.675	.41	1.96			3.068	Flange				
FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow		
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F			
51							3040		PKR		7 days		
1.	3	X	1.500	315	10.00	93	2855		PKR		1 hr.		
2.	3	X	1.500	330	15.00	88	2685		PKR		1 hr.		
3.	3	X	1.500	315	38.00	84	2558		PKR		1 hr.		
4.	3	X	1.500	330	67.00	84	2370		PKR		1 hr.		
5.													
RATE OF FLOW CALCULATIONS													
NO.	Coefficient (24 Hour)	$\sqrt{h_p P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mscf/d						
1	11.13	57.29	328.2	.9697	1.217	1.030	775						
2	11.13	71.75	343.2	.9741	1.217	1.034	979						
3	11.13	111.68	328.2	.9777	1.217	1.033	1,528						
4	11.13	151.64	343.2	.9777	1.217	1.034	2,077						
5.													
NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio 24.8 Mcf/bbl.								
					A.P.I. Gravity of Liquid Hydrocarbons 55.8 Deg.								
1.	.49	553	1.45	.943	Specific Gravity Separator Gas .675 XXXXXXXXXX								
2.	.51	548	1.44	.936	Specific Gravity Flowing Fluid XXXXX GMLX=.790								
3.	.49	544	1.43	.938	Critical Pressure *668 P.S.I.A. *665 P.S.I.A.								
4.	.51	544	1.43	.936	Critical Temperature *379 R *418 R								
5.													
P _e 3053.2 P _e ² 9322.0					(1) $\frac{P_e^2}{P_e^2 - P_w^2} = 2.664$ (2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 2.664$								
NO	P ₁ ²	P _w ²	P _w ²	P _e ² - P _w ²	(3) $\frac{P_e^2}{P_e^2 - P_w^2} = 5.533$								
1	2872.6	8251.8	1070.2										
2	2705.0	7317.0	2005.0										
3	2587.2	6693.6	2628.4										
4	2413.0	5822.6	3499.4										
5													
Absolute Open Flow 5,533 Mscf @ 15.025					Angle of Slope θ 45			Slope, n 1.000					
Remarks WELL MADE 9.0 BBLs 55.8 CONDENSATE @ 60°													
*corrected to 1.96% N ₂													
Approved By Division				Conducted By: Pro Well Testers				Calculated By: BM		Checked By: BM			