

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

Form C-122
Revised 9-1-65

MAR 18 1976

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date March 10, 1976																																																																																																			
Company Bennett and Ryan						Connection None																																																																																																			
Pool Wildcat Undersea						Formation Upper Penn (Cisco)																																																																																																			
Completion Date 3-10-76			Total Depth 11375			Plug Back TD 11340			Elevation 3363 (KB)																																																																																																
Farm or Lease Name Exxon State						Well No. 2																																																																																																			
Csg. Size 5 1/2	Wt. 17.0	d 1.785	Set At 11375	Perforations: From 9712 To 9810			Unit 2			Sec. Twp. Rys. 25 19 28																																																																																															
Tbg. Size 2 3/8	Wt. 5.9	d 1.785	Set At 11217	Perforations: From To			County Eddy			State New Mexico																																																																																															
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Gas - Gas Dual						Packer Set At 11148 + 9695 (Cross-over)																																																																																																			
Producing Thru Tbg. L H Gg 9712 9712 .719			Reservoir Temp. °F 142 @ 9761 (Est.)			Mean Annual Temp. °F 13.2			Baro. Press. - P _a 3"																																																																																																
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="6">FLOW DATA</th> <th colspan="2">TUBING DATA</th> <th colspan="2">CASING DATA</th> <th rowspan="2">Duration of Flow</th> </tr> <tr> <th>NO.</th> <th>Prover Line Size</th> <th>X</th> <th>Orifice Size</th> <th>Press. p.s.i.g.</th> <th>Diff. h_w</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> </tr> <tr> <td>SI</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2842</td> <td>74</td> <td></td> <td></td> <td>72 hrs.</td> </tr> <tr> <td>1.</td> <td>3 x</td> <td>1.000</td> <td></td> <td>590</td> <td>6.00</td> <td>105</td> <td>2155</td> <td></td> <td></td> <td></td> <td>1 hr.</td> </tr> <tr> <td>2.</td> <td>3 x</td> <td>1.000</td> <td></td> <td>590</td> <td>18.00</td> <td>85</td> <td>1655</td> <td></td> <td></td> <td></td> <td>1 hr.</td> </tr> <tr> <td>3.</td> <td>3 x</td> <td>1.000</td> <td></td> <td>610</td> <td>26.00</td> <td>70</td> <td>940</td> <td></td> <td></td> <td></td> <td>1 hr.</td> </tr> <tr> <td>4.</td> <td>3 x</td> <td>1.000</td> <td></td> <td>610</td> <td>42.00</td> <td>74</td> <td>642</td> <td></td> <td></td> <td></td> <td>1 hr.</td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												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							2842	74			72 hrs.	1.	3 x	1.000		590	6.00	105	2155				1 hr.	2.	3 x	1.000		590	18.00	85	1655				1 hr.	3.	3 x	1.000		610	26.00	70	940				1 hr.	4.	3 x	1.000		610	42.00	74	642				1 hr.	5.											
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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	4.789	60.16	603.2	.9594	1.179	1.062	346																																																																																																		
2	4.789	104.20	603.2	.9768	1.179	1.062	610																																																																																																		
3	4.789	127.29	623.2	.9905	1.179	1.075	765																																																																																																		
4	4.789	161.79	623.2	.9868	1.179	1.075	969																																																																																																		
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NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>3.397</u> Mcf/bbl. A.P.I. Gravity of Liquid Hydrocarbons <u>53.0 @ 60°</u> Deg. Specific Gravity Separator Gas <u>.719</u> X X X X X X X X Specific Gravity Flowing Fluid <u>X X X X X</u> G Mix = <u>.745</u> Critical Pressure <u>668</u> P.S.I.A. <u>667</u> P.S.I.A. Critical Temperature <u>395</u> R <u>405</u> R																																																																																																				
1	.90	565	1.43	.887																																																																																																					
2	.90	545	1.38	.887																																																																																																					
3	.93	530	1.34	.866																																																																																																					
4	.93	534	1.35	.866																																																																																																					
5																																																																																																									
$P_c = 2855.2$ $P_c^2 = 8152.2$																																																																																																									
NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.063$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.063$																																																																																																				
1		2169.4	4706.3	3445.9																																																																																																					
2		1673.1	2799.3	5352.9																																																																																																					
3		968.1	937.2	7215.0																																																																																																					
4		693.1	480.4	7671.8																																																																																																					
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AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.030$																																																																																																									
Absolute Open Flow <u>1.030</u> Mcfd @ 15.025						Angle of Slope θ <u>45°</u>			Slope, n <u>1.000</u>																																																																																																
Remarks: <u>Made 33.0 Bbls. of 53.0 @ 60' condensate during test.</u>																																																																																																									
Approved By Commission: _____ Conducted By: _____ Calculated By: _____ Checked By: _____ <u>Reggie Reston & Rick Pagan</u> <u>Reggie Reston & Rick Pagan</u>																																																																																																									