

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-3-73																																																																																									
Company Belco Petroleum Corp.				Connection NONE																																																																																											
Pool Wildcat				Formation MORROW		Unit NONE																																																																																									
Completion Date 2-2-73		Total Depth 13600'		Plug Back TD 13559'		Elevation 3581' GL																																																																																									
Farm or Lease Name Bass-Federal		Well No. 1																																																																																													
Csg. Size 5 1/2"	Wt. 0.17	d 4.892	Set At 13600'	Perforations: From 13114' To 13468'		Unit Sec. Twp. Rge. F 30 20 33																																																																																									
Tbg. Size 2 7/8"	Wt. 6.40	d 2.441	Set At 13046	Perforations: From To		County Lea																																																																																									
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 13048'		State New Mexico																																																																																									
Producing Thru Tubing		Reservoir Temp. °F 187⁰ @ 13100'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2																																																																																									
L 13046'	H 13046'	G _g .626	% CO ₂ .19	% N ₂ .54	% H ₂ S 0	Prover 2"	Meter Run 3.068																																																																																								
<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>4441</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.</td> <td>3.068</td> <td></td> <td>2.0</td> <td>700</td> <td>17</td> <td>40</td> <td>3798</td> <td>68</td> <td></td> <td></td> </tr> <tr> <td>2.</td> <td>3.068</td> <td></td> <td>2.0</td> <td>705</td> <td>22</td> <td>50</td> <td>3512</td> <td>75</td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td>3.068</td> <td></td> <td>2.0</td> <td>705</td> <td>32</td> <td>50</td> <td>3282</td> <td>70</td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td>3.068</td> <td></td> <td>2.0</td> <td>720</td> <td>48</td> <td>52</td> <td>2890</td> <td>71</td> <td></td> <td></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> </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							4441				1.	3.068		2.0	700	17	40	3798	68			2.	3.068		2.0	705	22	50	3512	75			3.	3.068		2.0	705	32	50	3282	70			4.	3.068		2.0	720	48	52	2890	71			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd																																																																																								
1	21.32	110.16	713.2	1.020	1.264	1.100	3,333																																																																																								
2	21.32	125.68	718.2	1.010	1.264	1.096	3,749																																																																																								
3	21.32	151.60	718.2	1.010	1.264	1.096	4,522																																																																																								
4	21.32	187.59	733.2	1.008	1.264	1.095	5,580																																																																																								
5																																																																																															
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 9.219 Mcf/bbl.																																																																																										
1	1.06	500	1.30	.827	A.P.I. Gravity of Liquid Hydrocarbons 54.2 Deg.																																																																																										
2	1.07	510	1.32	.833	Specific Gravity Separator Gas .626 XXXXXXXXXX																																																																																										
3	1.07	510	1.32	.833	Specific Gravity Flowing Fluid XXXXXX																																																																																										
4	1.09	512	1.33	.834	Critical Pressure 61.4 P.S.I.A. P.S.I.A.																																																																																										
5					Critical Temperature 32 °R °R																																																																																										
$P_c = 6260.2$ $P_c^2 = 39190.1$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.271$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.146$																																																																																										
NO.	P _t	P _w	P _w ²	P _c ² - P _w ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 11952$																																																																																										
1		5403.2	29194.6	9995.5																																																																																											
2		5254.2	27606.6	11583.5																																																																																											
3		5019.2	25192.4	13999.8																																																																																											
4		4683.2	21932.4	17257.7																																																																																											
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Absolute Open Flow 11952 Mcfd @ 15.025					Angle of Slope 46° 22'		Slope, n 0.921																																																																																								
Remarks: PF Substituted for Pw Measured with Amerada Instrument Type RPG-3 No. 7445 @ 13,100'																																																																																															
Approved By Commission 		Conducted By: John Spruell		Calculated By: John Spruell		Checked By:																																																																																									