

N. M. O. & G. COPY
NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

well file

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-14-73																																																																																															
Company J. M. Huber Corporation				Connection RECEIVED																																																																																															
Pool S. Carlsbad <i>Morrow</i>				Formation Morrow																																																																																															
Completion Date 3-14-73		Total Depth 12,096		Plug Back TD 11,650																																																																																															
				Elevation 0. 0. 2269																																																																																															
Csg. Size 5 1/2		Wt. 17 15.5		Perforations From 11,525 To 11,598																																																																																															
Tbg. Size 2 7/8		Wt. 6.4		Perforations From To																																																																																															
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11,380																																																																																															
Producing Thru Tbg.		Reservoir Temp. °F 197 @ 11,350		Mean Annual Temp. °F 13.2																																																																																															
L 11,562		H 11,562		Cg 0.583																																																																																															
				% CO ₂																																																																																															
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				% H ₂ S																																																																																															
				Prover 2																																																																																															
				Meter Run																																																																																															
				Taps																																																																																															
<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>3873.0</td> <td></td> <td></td> <td></td> <td>184</td> </tr> <tr> <td>1.</td> <td>2</td> <td>x</td> <td>5/8</td> <td>276.0</td> <td></td> <td>48</td> <td>3594.0</td> <td></td> <td></td> <td></td> <td>1</td> </tr> <tr> <td>2.</td> <td>2</td> <td>x</td> <td>5/8</td> <td>392.0</td> <td></td> <td>65</td> <td>3388.0</td> <td></td> <td></td> <td></td> <td>1</td> </tr> <tr> <td>3.</td> <td>2</td> <td>x</td> <td>5/8</td> <td>495.0</td> <td></td> <td>64</td> <td>3139.0</td> <td></td> <td></td> <td></td> <td>1</td> </tr> <tr> <td>4.</td> <td>2</td> <td>x</td> <td>5/8</td> <td>592.0</td> <td></td> <td>63</td> <td>2839.0</td> <td></td> <td></td> <td></td> <td>1</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							3873.0				184	1.	2	x	5/8	276.0		48	3594.0				1	2.	2	x	5/8	392.0		65	3388.0				1	3.	2	x	5/8	495.0		64	3139.0				1	4.	2	x	5/8	592.0		63	2839.0				1	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	6.473		289.2	1.012	1.310	1.026	2,546																																																																																												
2	"		405.2	0.9952	"	1.032	3,529																																																																																												
3	"		508.2	0.9962	"	1.040	4,465																																																																																												
4	"		605.2	0.9971	"	1.049	5,368																																																																																												
5																																																																																																			
NO.	R _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.																																																																																														
1.	0.43	508	1.45	0.950	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.																																																																																														
2.	0.60	525	1.50	0.939	Specific Gravity Separator Gas 0.583																																																																																														
3.	0.76	524	1.50	0.924	Specific Gravity Flowing Fluid X X X X X																																																																																														
4.	0.90	523	1.49	0.909	Critical Pressure 672 P.S.I.A.																																																																																														
5.					Critical Temperature 350 °R																																																																																														
* $P_c = 4863.2$ $P_c^2 = 23651$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>P_1^2</th> <th>P_w</th> <th>P_w^2</th> <th>$P_c^2 - P_w^2$</th> </tr> <tr> <td>1</td> <td>*</td> <td>4544.2</td> <td>20650</td> <td>3001</td> </tr> <tr> <td>2</td> <td></td> <td>4314.2</td> <td>18612</td> <td>5039</td> </tr> <tr> <td>3</td> <td></td> <td>4041.2</td> <td>16331</td> <td>7320</td> </tr> <tr> <td>4</td> <td></td> <td>3722.2</td> <td>13855</td> <td>9796</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.414$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.738$ LOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 9,330$								NO.	P_1^2	P_w	P_w^2	$P_c^2 - P_w^2$	1	*	4544.2	20650	3001	2		4314.2	18612	5039	3		4041.2	16331	7320	4		3722.2	13855	9796	5																																																																		
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Absolute Open Flow 9,330 Mcfd @ 15.025				Angle of Slope @ 58		Slope, n 0.627																																																																																													
Remarks: * P _f and P _g measured by A&A Engineering, Midland, Texas. Data sheet attached. Witness: Darrell Harms - Transwestern																																																																																																			
Approved By Commission:		Conducted By: Paul Powers		Calculated By: Paul Powers		Checked By:																																																																																													