

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 6-2-77	
Company Union Oil Co. of California				Connection		
Pool Undesignated-Middle Morrow				Formation Middle Morrow		Unit
Completion Date 5-30-77		Total Depth 15,390'		Plug Back TD 14,480'		Elevation 3,548'
Farm or Lease Name Northern Natural State						
Csg. Size 7.625	Wt. 39	d 6.625	Set At 14,601'	Perforations: From 13,557' To 13,565'		Well No. 1
Tbg. Size 2.875	Wt. 6.5	d 2.441	Set At 12,696'	Perforations: From - To -		Unit Sec. Twp. Rge. 0 28 22S 35E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12,655'		County Lea
Producing Thru Tubing		Reservoir Temp. °F 176 @ 13,560'		Mean Annual Temp. °F		State New Mexico
Baro. Press. - P _g 13.20 psia						
L 13,560	H 13,560	Gg .640	% CO ₂ .13	% N ₂ .60	% H ₂ S 0.0	Prover 0.0
Meter Run 4.0		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							5076	60 ⁰			18.0
1.	4.026	X	2.000	220	39.0	76	320	78 ⁰	0	0	1.0
2.											
3.											
4.											
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	19.81	95.37	233.2	.9850	1.2500	1.0211	2375
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	78.526	Mcf/bbl.
1.	.35	536	1.45	.959	A.P.I. Gravity of Liquid Hydrocarbons	50.8	Deg.
2.					Specific Gravity Separator Gas	.640	X X X X X X X X
3.					Specific Gravity Flowing Fluid	X X X X X	.676
4.					Critical Pressure	670	P.S.I.A. 668 P.S.I.A.
5.					Critical Temperature	369	R 380 R

P _c 5089.2	P _c ² 25,900	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0071$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0071$
NO.	P _r ²	P _w	P _w ²
1		426	181
2			
3			
4			
5			

Absolute Open Flow 2392 Mcfd @ 15.025		Angle of Slope θ 45.0°	Slope, n 1.00
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Remarks: Calculations completed using Garrett Computing System's AOF program.	
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Approved By Commission: <i>[Signature]</i>	Conducted By: L. L. Harmon	Calculated By: W. G. Murray	Checked By: J. G. Hawkins
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