

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 4-19-76			
Company Union Oil Co. of California				Connection Llano, Inc.					
Pool Quail Ridge-Morrow Gas				Formation Morrow				Unit	
Completion Date 10-12-73		Total Depth 13,551'		Plug Back TD 13,472'		Elevation 3740' GR.		Farm or Lease Name Pipeline Deep Unit Federal	
Csg. Size 5-1/2" OD	Wt. 17#, 20#	d 4.89-4.78	Set At 13,542'	Perforations: From 13,456' To 13,460'		Well No. 1			
Tbg. Size 2-7/8" OD	Wt. 6.5#	d 2.44	Set At 13,358'	Perforations: From To		Unit Sec. Twp. Rge. J 17 19-S 34-E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 13,358'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 184° @ 13,309'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 13,458'	H 13,458'	Gg 0.672	% CO ₂ 0.53	% N ₂ 0.68	% H ₂ S Sweet	Prover	Meter Run 4.026	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											
1.	4.026 x 1.750			460	10	69	2841	78	Pkr.	78	1.25 Hrs
2.	4.026 x 1.750			460	23	70	2650	78	"	78	1.5 "
3.	4.026 x 1.750			465	47	68	2315	76	"	76	1.0 "
4.	4.026 x 1.750			465	66	65	2118	74	"	74	1.25 "
5.											

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	14.93	68.78	473.2	.9915	1.220	1.048	1,302
2	14.93	104.3	473.2	.9905	1.220	1.048	1,973
3	14.93	149.9	478.2	.9924	1.220	1.048	2,840
4	14.93	177.7	478.2	.9952	1.220	1.048	3,375
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.704	529	1.40	0.903	15.5	58.0	0.672	X X X X X X X X	672	378
2	.704	530	1.40	0.880				X X X X X		
3	.704	528	1.40	0.848						
4	.704	525	1.40	0.820						
5										

P _c 4893	P _c ² 23,941	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \underline{2.576}$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{2.118}$
NO.	P _w *	P _w ²	P _c ² - P _w ²
1	4561	20803	3138
2	4326	18714	5227
3	3971	15769	8172
4	3827	14646	9295
5			

Absolute Open Flow 7,147 Mcfd @ 15.025		Angle of Slope θ	Slope, n 0.793
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Remarks: * SIBHP and FBHP calculated from surface data utilizing Cullender-Smith method adapted to computer.			
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Approved By Commission:	Conducted By: L. L. Artherholt	Calculated By: William G. Murray	Checked By: John G. Hawkins
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