

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

Form C-172
Revised 9-1-65

Test Type: ☒ Initial ☐ Annual ☐ Special Date: 9-21-81					
Company: Aminoil			Direction: Air		
Well: Gem Morrow			Formation: Morrow		
Completion Date: 9-18-81		Total Depth: 13712		Plug Back To: 13670	
Elevation: Fed. 30		Well No. 1			
Chq. Size: 5 1/2	Wt. 20 & 17.5	Set At: 13712	Perforations: From 13244 To 13561		Unit: I
Tq. Size: 2 7/8	Wt. d	Set At: 13214	Perforations: From To		Unit: I Sec: 30 Twp: 19S Rge: 33E
Type Well - Single - Froesehead - G.G. or G.O. Multiple: Single				Packer Set At: 13214	
Producing Thru: Tbg.		Reservoir Temp. °F: 206 @ 13205		Mean Annual Temp. °F: 60°	
Baro. Press. - P _a : 13.2		State: N.M.			
L: 1.3205	H: 1.3205	G _g : .6289	% CO ₂ : .763	% N ₂ : .774	% H ₂ S: Prover: Meter Run: 4" Tags: Flg.

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							4575				72 hrs.
1.	4 X 3.000			660	4.0	80	4375				30 min.
2.	4 X 3.000			670	8.0	70	4175				1hr.30min.
3.	4 X 3.000			670	16.0	74	3940				45 min.
4.	4 X 3.000			675	30.0	62	3525				30 min.
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, F _{pv}	Rate of Flow Q, Mhd
1	51.64	51.89	673.2	.9813	1.261	1.058	3508
2	51.64	73.93	683.2	.9905	1.261	1.063	5069
3	51.64	104.55	683.2	.9868	1.261	1.061	7128
4	51.64	143.69	688.2	.9981	1.261	1.068	9974
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 21.366 Mol/bbl.
1	1.00	540	1.47	.894	A.P.I. Gravity of Liquid Hydrocarbons 53.8 @ 60° Deg.
2	1.02	530	1.44	.885	Specific Gravity Separator Gas .6289
3	1.02	534	1.45	.888	Specific Gravity Flowing Fluid .766
4	1.03	522	1.42	.877	Critical Pressure 670 P.S.I.A.
5					Critical Temperature 368 R

P _r 4588.2	P _c 21051.6	(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 3.417$	(2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 3.371$
NO. 1	BHP 6049.2	P _w 4368.4	P _w ' 19082.6
2	5898.2	4237.7	17957.7
3	5718.2	4082.3	16665.2
4	5455.2	3858.8	14890.2
5	6271.2	S.I.P.	

NO. 1	BHP 6049.2	P _w 4368.4	P _w ' 19082.6	P _c 21051.6	P _c ' 1969.0
2	5898.2	4237.7	17957.7	3093.9	
3	5718.2	4082.3	16665.2	4386.4	
4	5455.2	3858.8	14890.2	6161.4	
5	6271.2	S.I.P.			

Absolute Open Flow 33,621	Mhd @ 15.025	Angle of Slope 45.25°	Slope, n .989
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Remarks: Produced 38.4 bbls. distillate and 1 bbls. H₂O during test.

Approved By: _____	Conducted By: Davis Services, INC.	Calculated By: Rick Pagan	Checked By: _____
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