

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 2-22-80	
Company Grace Petroleum Corporation			Connection Gas Co. of New Mexico		
Pool South Salt Lake			Formation Morrow		Unit
Completion Date 1-23-80		Total Depth 14417' MD 13612' TVD		Plug Back TP 13532' TVD 14331' MD	
Elevation GL 3586		Farm or Lease Name Felmont Federal			
Cas. Size 5 1/2"	Wt. 17#	Set At 14387'	Perforations: From 14031 To 14287		Well No. 2
Plg. Size 2 7/8"	Wt. 6.5#	Set At 13864'	Perforations: From To		Unit Sec. Twp. Rge. L (BH) 25 20-S 32-E
Type Well - Single - Broadhead - G.G. or G.O. Multiple Single			Packer Set At 13864		County Lea
Producing Thru Tubing		Reservoir Temp. °F 187 @ 14159	Mean Annual Temp. °F		State New Mexico
L 14159	H 14159	Gg .651	% CO ₂ .27	% N ₂ .35	% H ₂ S Prover
				Meter Run 2"	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							4455				120 hr.
1.	2"		1.375	464	10.6	57	3160	70		1.003	1 hr.
2.	2"		1.375	560	36.5	58	2710	72		1.002	1 hr.
3.	2"		1.375	575	74.4	67	2440	75		.9933	1 hr.
4.	2"		1.375	626	134	60	1755	72		1.000	1 hr.
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	10.55	71.12	477.2	1.003	1.239	1.044	974
2	10.55	144.64	573.2	1.002	1.239	1.053	1995
3	10.55	209.19	588.2	.9933	1.239	1.050	2852
4	10.55	292.66	639.2	1.000	1.239	1.057	4045
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	Vel./Sec.
					34.592	
					A.P.I. Gravity of Liquid Hydrocarbons	58 (est.)
1.	.69	517	1.43	.918	Specific Gravity Separator Gas	.651
2.	.83	518	1.43	.902	Specific Gravity Flowing Fluid	X X X X X
3.	.85	527	1.46	.907	Critical Pressure	694
4.	.92	520	1.44	.895	Critical Temperature	361
5.						

NO.	P _f ²	P _w	P _w ²	P _c ² - P _w ²
1	6203.2	4091.8	16743	21737
2	38480	2982.6	8895	29585
3		2807.4	7881	30599
4		1927.6	3716	34764
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.106892$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4477$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.106892$

Absolute Open Flow	4477	Mcf @ 15.035	Angle of Slope θ	45°	Slope, n	1.00
Remarks:						

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
		T. & R. Arnett	