

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

Form C-122
Revised 9-1-65

RECEIVED
JUN - 7 1974
U.S. GEOLOGICAL SURVEY
ALBUQUERQUE, NEW MEXICO

Type Test ☒ Initial ☐ Annual		RECEIVED		Test Date 5-21-74	
Company Hilliard Oil & Gas Company			Connection Pending JUN 10 1974		
Pool			Formation Morrow		Unit
Completion Date 4-12-74		Total Depth 9835		Plug Back TD 9705' O.C.C. ARTESIA, OFFICE	
Farm or Lease Gulf Federal <i>Cam</i>			Well No. 1		
Csg. Size 4-1/2"	Wt. 11.60	d 4.000	Set At 9835	Perforations: From 9437 To 9563	
Teg. Size 2-3/8"	Wt. 4.70	d 1.995	Set At 9367	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9300'	
Producing Thru Tubing		Reservoir Temp. °F 182 @ 9437		Mean Annual Temp. °F 70	
				Baro. Press. - P _a 13.2	
State New Mexico		County Eddy			
L 9437	H 9437	G _g .596	% CO ₂ .867	% N ₂ 1.373	% H ₂ S Nil
Prover		Meter Run X		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							3020	70	Packer		
1.	4.026	x	0.500	522	176	92	2901	75			1 hr.
2.	4.026	x	0.500	651	24	80	2740	76			1 hr.
3.	4.026	x	1.000	772	51.5	72	2423	76			1 hr.
4.	4.026	x	1.250	898	49	85	1481	77			1 hr.
5.											

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, Mc/d
1.	1.182	306.91	535.2	.9706	1.2953	1.0340	472
2.	4.753	126.26	664.2	.9813	1.2953	1.0472	799
3.	4.753	201.09	785.2	.9887	1.2953	1.0583	1295
4.	7.469	211.30	911.2	.9768	1.2953	1.0614	2119
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>Dry</u> Mcf/bbl.
1.	.79	552	1.58	.935	A.P.I. Gravity of Liquid Hydrocarbons <u>Dry</u> Deg.
2.	.98	540	1.54	.912	Specific Gravity Separator Gas <u>.596</u> X X X X X X X X
3.	1.16	532	1.52	.893	Specific Gravity Flowing Fluid <u>.596</u> X X X X X
4.	1.35	545	1.56	.888	Critical Pressure <u>675</u> P.S.I.A. <u>675</u> P.S.I.A.
5.					Critical Temperature <u>350</u> °R <u>350</u> °R

F _c 3033.2 P _c 29,200.3				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.39978$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.243819$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2,639$		
1		2931.0	8590.8	609.5			
2		2779.7	7726.7	1473.6			
3		2459.1	6047.2	3153.1			
4		1621.0	2627.6	6572.7			
5							

Absolute Open Flow <u>2,639</u> Mc/d @ 15.025	Angle of Slope <u>57.292</u>	Slope, n <u>.652</u>
Remarks:		

Approved by Commission:	Conducted By: CONE & KERLEY, INC.	Calculated By: Bill Kerley	Checked By: Joe G. Rampy
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