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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PHILLIPS PETROLEUM COMPANY						Lease or Unit Name BILBREY 34 FEDERAL Com					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4/3/92		Well No. COM. NO. 1			
Completion Date 3/23/92		Total Depth 14,990'		Plug Back TD 14,900'		Elevation 3737' GL		Unit Ltr. - Sec. - TWP - Rge. N. 34, 21-S, 32-E			
Csg. Size 4 1/2"	Wt. 13.5#	d	Set At 11685'	Perforations: From: 14467' To: 14612'		County EDDY					
Tbg. Size 2 3/8"	Wt. 2.441	d	Set At 14362'	Perforations: From: To:		Pool Bilbrey (Morrow)					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 14362'		Formation Morrow			
Producing Thru TUBING		Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press - P _a		Connection			
L 14350	H 14350	Gg .592	% CO ₂ 0.92	% N ₂ 0.18	% H ₂ S	Prover		Meter Run 4.026		Taps 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							4147		pkc		180 hr
1.	4	X	1.500	500	5.00	64	3335		pkc		1 hr
2.	4	X	1.500	500	7.00	74	3015		pkc		1 hr
3.	4	X	1.500	500	12.00	70	2495		pkc		1 hr
4.	4	X	1.500	500	18.00	72	1982		pkc		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, Mcfd
1.	10.84	50.66	513.2	.9962	1.300	1.045	743
2.	10.84	59.94	513.2	.9868	1.300	1.040	867
3.	10.84	78.48	513.2	.9905	1.300	1.040	1139
4.	10.84	96.11	513.2	.9887	1.300	1.040	1393
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcft/bbl
1.	.76	524	1.48	.915	A.P. I. Gravity of Liquid Hydrocarbons	DRY	Deg.
2.	.76	534	1.51	.924	Specific Gravity Separator Gas	.592	XXXXXXXXXX
3.	.76	530	1.50	.924	Specific Gravity Flowing Fluid	XXXXXX	
4.	.76	532	1.50	.924	Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	354	R

P_c 4267.7 P_c² 18213.3

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.	**	3537.8	12516.0	5697.3
2.	**	3206.0	10278.4	7934.9
3.	**	2694.9	7262.5	10950.8
4.	**	2194.6	4816.3	13397.0
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.360$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.277$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.779$

Absolute Open Flow <u>1,779</u> Mcfd @ 15.025	Angle of Slope θ <u>51.5</u>	Slope, n <u>.795</u>
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Remarks: **NO FLUID PRODUCED DURING TEST**

* BHP INSTRUMENT SET @ THIS DEPTH. ** PRESSURES FROM KNOWN BHP'S.

Approved By Division	Conducted By: WEST ENGINEERING	Calculated By: GW & WS	Checked By: GW & BM
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