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appropriate district office
See Rule 401 & Rule 1122

OIL CONSERVATION DIVISION

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

APR 18 1993

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MEWOURNE OIL COMPANY					Lease or Unit Name CHALK BLUFF FEDERAL COM.				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 3/4/93		Well No. 3		
Completion Date 1/16/93		Total Depth 10150		Plug Back TD 10102		Elevation GL 3628'		Unit Ltr. - Sec. - TWP - Rge. I 1 18S 27E	
Csg. Size 4 1/2	Wt. 10.5	d 4.052	Set At 8600 10150	Perforations: From: 9950 To: 9954			County EDDY		
Tbg. Size 2 7/8 2 3/8 &	Wt. 4.7 & 6.5	d 1.91 2.441	Set At 9972	Perforations: From: 9957 To: 9972			Pool MORROW NORTH ILLINOIS CAMP		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Subgke				Packer Set At 9797			Formation MORROW		
Producing Thru tbg.		Reservoir Temp. °F 133		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection Transwestern	
L 9950	H 9950	Gg .731	% CO ₂ .42	% N ₂ .33	% H ₂ S	Prover	Meter Run 3.068	Taps flg.	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice X 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						2260		Pkr.		48 hr.
1.	3 X 1.500		530	5	148	2230		"		1 hr.
2.	3 X 1.500		530	19	124	2180		"		1 hr.
3.	3 X 1.500		535	52	88	2100		"		1 hr.
4.	3 X 1.500		540	102	70	2000		"		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 Fg.	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	11.13	52.12	543.2	.9248	1.170	1.043	655
2.	11.13	101.59	543.2	.9436	1.170	1.049	1310
3.	11.13	168.84	548.2	.9741	1.170	1.066	2283
4.	11.13	237.54	553.2	.9905	1.170	1.075	3294
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.81	608	1.52	.919	23.63	
2.	.81	584	1.46	.909	A.P.I. Gravity of Liquid Hydrocarbons	57.0 Deg.
3.	.82	548	1.37	.880	Specific Gravity Separator Gas	.731 XXXXXXXXXX
4.	.83	530	1.32	.865	Specific Gravity Flowing Fluid	XXXXXX G Mix .849
5.					Critical Pressure	668 P.S.I.A. 664 P.S.I.A.
					Critical Temperature	401 R 441 R

$P_c = 2273.2$ $P_c^2 = 5167.4$

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.	5031.9	2244.7	5038.8	128.6
2.	4810.1	2199.5	4837.6	329.8
3.	4465.6	2132.7	4548.6	618.9
4.	4053.9	2055.4	4224.8	942.6
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.4821$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.500$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 14,823$

Absolute Open Flow **14,823** Mcfd @ 15.025 Angle of Slope θ **49** Slope, n **.884**

Remarks: **13.3 BBLS CONDENSATE PRODUCED DURING TEST**

Approved By Division	Conducted By: PRO WELL TESTERS	Calculated By: KS	Checked By: KS
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