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appropriate district office
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

C. I. D.

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator COLLINS & WARE						Lease or Unit Name MALAGA					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7-23-93		Well No. 1			
Completion Date 7-21-93		Total Depth 12098		Plug Back TD 12003		Elevation		Unit Ltr. - Sec. - TWP - Rge. 27 24S 28E			
Csg. Size 4 1/2	Wt. 15.1	d	Set At 12098	Perforations: From: 11734 To: 11740				County EDDY			
Tbg. Size 2-3/8	Wt. 4.7	d	Set At 11655	Perforations: From: To:				Pool Salt Draw Atoka			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				Packer Set At 11655		Formation ATOKA					
Producing Thru tbg		Reservoir Temp. °F 190.6 @ 11655		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection VENTED			
L 11655	H 11655	Gg .594	% CO ₂ .46	% N ₂ .62	% H ₂ S	Prover		Meter Run 4.026	Taps flg.		

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	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						5645		Pkr.		24hr
1.	4 X 1.750		660	4.00	110	5015		"		1hr
2.	4 X 1.750		660	8.00	90	4550		"		1hr
3.	4 X 1.750		660	14.00	90	4020		"		1hr
4.	4 X 1.750		660	18.00	92	3560		"		1hr
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.	14.93	51.89	673.2	.9551	1.298	1.041	1,000
2.	14.93	73.39	673.2	.9723	1.298	1.047	1,448
3.	14.93	97.08	673.2	.9723	1.298	1.047	1,915
4.	14.93	110.08	673.2	.9706	1.298	1.047	2,168
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	1.00	570	1.61	.923	A.P.I. Gravity of Liquid Hydrocarbons Dry Deg.		
2.	1.00	550	1.55	.912	Specific Gravity Separator Gas .594 XXXXXXXXXXXX		
3.	1.00	550	1.55	.912	Specific Gravity Flowing Fluid XXXXXX		
4.	1.00	552	1.55	.912	Critical Pressure 672 P.S.I.A. P.S.I.A.		
5.					Critical Temperature 354 R R		

P_c **5658.2** P_c² **32015.2**

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.		5032.4	25325.1	6690.1
2.		4572.4	20906.8	11108.4
3.		4050.4	16405.7	15609.5
4.		3597.0	12938.4	19076.8
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.678$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.456$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.157$

Post IO-2 9-3-93 Comp & BK

Absolute Open Flow 3,157 Mcfd @ 15.025		Angle of Slope Θ 54	Slope, n .726
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Remarks: **No Fluid Produced during test.**

Approved By Division	Conducted By: Pro Well Testers	Calculated By: BM	Checked By: BM
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