Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

Energy, Minerals and Natural Resources Dep ment

C 15 P

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

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

30-015-30532

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: MURCHISON OIL & GAS					Lease or Unit Name: MARALO FED		
Type Test: [X] Initial [ ] Annual [ ] Special					Test Date: 2/13/99	Well No.: 2	
Completion Date	Total Depth		Plug Back TD: 9544		Elevation	Unit Ltr. - Sec. - TWP - Rge.: 22 - 17S - 27-E	
Csg. Size: 5½	Wt.: 17#	d	Set At	Perforations: From: 9372	To: 9402	County: EDDY	
Tbg. Size: 2 7/8	Wt.: 6.5	d: 2.441	Set At: 9235	Perforations: From:	To:	Pool: Logan Draw Mor	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple: single			Packer Set At: 9235			Formation: MORROW	
Producing Thru: TBG	Reservoir Temp. °F: 147.9	Mean Annual Temp. °F: 60°		Baro. Press - P_a: 13.2		Connection: AIR	
L: 9235	H: 9235	Gg: .766	% CO_2: 7.717	% N_2: .342	% H_2S: -0-	Prover: -0-	Meter Run: 3.068	Taps: FLG

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					2760	Pkr			
1.	3.068 X 1.750	595.3	1"	76°	2615	"			60 min
2.	3.068 X 1.750	633.7	2.25"	76°	2540	"			60 min
3.	3.068 X 1.750	673.3	4"	90°	2430	"			60 min
4.	3.068 X 1.750	558.1	16.8"	88°	2010	"			60 min
5.									

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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, Fpv	Rate of Flow Q, Mcfd
1.	15.61	24.39	595.3	.9850	1.143	1.063	455
2.	15.61	37.76	633.7	.9850	1.143	1.063	705
3.	15.61	51.89	673.3	.9723	1.143	1.060	954
4.	15.61	96.83	558.1	.9741	1.143	1.059	1782
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.77	536	1.34	.885
2.	.77	536	1.34	.885
3.	.79	550	1.37	.890
4.	.78	548	1.37	.892
5.				

Gas Liquid Hydrocarbon Ratio: 81.167 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 56.8 Deg.
Specific Gravity Separator Gas: .7660 XXXXXXXXX
Specific Gravity Flowing Fluid: N/A XXXXX
Critical Pressure: 696 P.S.I.A. P.S.I.A.
Critical Temperature: 400 R R

P_c 2692.6 P_c^2 7250.0

NO.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.		2571.0	6610.0	640.0
2.		2529.2	6396.8	853.2
3.		2437.8	5942.8	1307.2
4.		2004.0	4016.0	3234.0
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.24$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.90$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3385.8$

Absolute Open Flow: 3385.8 Mcfd @ 15.025 | Angle of Slope θ: 51.29 | Slope, n: .801

Remarks: * CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES
* WELL MADE 2 BBLS OF 56.8 API GRAVITY CONDENSATE

Approved By Division	Conducted By:	Calculated By:	Checked By:
	PRO WELL TESTING	MB	BM