NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
NOV 10 1981
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 10/30/81	
Company: Phillips Petroleum Company	Connection: None			
Pool: ~~Undesignated~~ So. Culebra Bluff Morrow	Formation: ~~Morrow~~ Morrow			Unit:
Completion Date: 10/30/81	Total Depth: 13472'	Plug Back TD: 13472'	Elevation: 2990' GL	Farm or Lease Name: Malaga C
Csg. Size: 5½" / Wt.: 20.0 / d: 4.778 / Set At: 13472'	Perforations: From 11781 To 11823			Well No.: 1
Tbg. Size: 2-7/8" / Wt.: 6.5 / d: 2.441 / Set At: 11687'	Perforations: From Open Ended To			Unit: E / Sec.: 36 / Twp.: 23s / Rge.: 28e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 11655'			County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 211 @ 11547'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11802'	--	0.5737	0.509	0.638	--		2.900	F

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					6205	60	PACKER		24.25 hr
1.	3" 4.5/64" 1.250	500	8	103	5305	60			1.0 hr
2.	3" 6/64" 1.250	510	16	79	4220	60			1.0 hr
3.	3" 7.5/64" 1.250	520	23	79	3125	50			1.0 hr
4.	3" 10/64" 1.250	520	35	94	1940	60			1.0 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, Fpv	Rate of Flow Q, Mcfd
1	7.615	64.08	513.2	0.9610	1.320	1.027	635.71
2.	7.615	91.49	523.2	0.9822	1.320	1.034	933.98
3.	7.615	110.74	533.2	0.9822	1.320	1.034	1130.50
4.	7.615	136.61	533.2	0.9688	1.320	1.030	1370.24
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.76	563	1.65	0.948
2.	0.78	539	1.58	0.936
3.	0.79	539	1.58	0.935
4.	0.79	554	1.62	0.942
5.				

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: -- Deg.
Specific Gravity Separator Gas: 0.5737 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 675 P.S.I.A. -- P.S.I.A.
Critical Temperature: 342 R -- R

P_c 6218.2 P_c^2 38,666

NO	P_t^2	P_w *	P_w^2	$P_c^2 - P_w^2$
1		5442.0	29615	9,051
2		4394.1	19308	19,358
3		3355.0	11255	27,411
4		2135.5	4560	34,106
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{38,666}{34,106}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.085$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1486$

Absolute Open Flow: 1,486 Mcfd @ 15.025 | Angle of Slope θ: 56.7 | Slope, n: .653

Remarks: *Bottom hole pressure at (-8812) 11,802 used for calculations.
Calculations made by computer.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Jarrel Well Testing Inc.	D. E. Simpson	