MULTIPOINT - ONE POINT - RECOMPLETION FOR GAS WELL

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122 file

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OCT 27 1976

O. C. C.
ARTESIA, OFFICE

Type Test: xx Initial ☐ Annual ☐ Special				Test Date: 10-20-76			
Company: Monsanto Company		Connection: None					
Pool: Burton Flat (Morrow)		Formation: Morrow				Unit	
Completion Date: 10-20-76	Total Depth: ~~11560~~ 11572		Plug Back TD: 11572 ~~11524~~		Elevation: 3220 gr 3241 D.F.	Farm or Lease Name: Cerf Federal	
Csg. Size: 7.00"	Wt.: 26.00#	d: 6.276"	Set At: 11560	Perforations: From 11414 To 11460		Well No.: 2	
Tbg. Size: 2.875" NULOC	Wt.: 6.50#	d: 2.441"	Set At: 11108	Perforations: From To		Unit: F	Sec.: 10	Twp.: 21S	Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual Completion Gas-Gas				Packer Set At: 11108		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 164 @ 11437		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: New Mexico	
L: 11437	H: 11437	Gg: 0.596	% CO_2: 0.00	% N_2: 0.00	% H_2S: 0.00	Prover:	Meter Run: X	Taps:

	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.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	23 Hrs.					2700	66			
1.	3.00	1.50	520	5.00"	84	2307	69			1.00 Hr.
2.	3.00	1.50	520	13.00"	84	2010	70			1.00 Hr.
3.	3.00	1.50	520	27.00"	81	1694	71			1.00 Hr.
4.	3.00	1.50	520	39.00"	84	1449	71			1.00 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	11.13	51.633	533.20	0.9777	1.2953	1.0400	757
2.	11.13	83.256	533.20	0.9777	1.2953	1.0400	1220
3.	11.13	119.985	533.20	0.9804	1.2953	1.0400	1764
4.	11.13	144.204	533.20	0.9777	1.2953	1.0400	2114
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.79	544	1.52	0.921
2.	0.79	544	1.52	0.920
3.	0.79	541	1.51	0.920
4.	0.79	541	1.51	0.920
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons None Produced Deg.

Specific Gravity Separator Gas	0.596	xxxxxxxxx
Specific Gravity Flowing Fluid	xxxxx	0.596
Critical Pressure	671 P.S.I.A.	671 P.S.I.A.
Critical Temperature	358 R	358 R

P_c 2713.2 P_c^2 7361

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2321.4	5389	1973
2		2006.0	4024	3337
3		1596.0	2547	4814
4		1463.3	2141	5220
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.52908$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.52908$

POOH

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2697$

Absolute Open Flow 2697 Mcfd @ 15.025 Angle of Slope θ 45 Slope, n 1.00

Remarks: _____

Approved By Commission:	Conducted By: WEST TEXAS CONSULTING SERVICE, INC.	Calculated By: H. L. Hagler	Checked By: