STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

CSF File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: 4-PT ☒ Initial ☐ Annual ☐ Special			Test Date: 1-11-87	
Company: SANTA FE ENERGY	Connection: TO AIR	RECEIVED BY JUN 11 1987 ARTESIA, OFFICE		
~~FIELD~~ POKER LAKE	Formation: MORROW		Unit: E	
Completion Date: 1-9-87	Total Depth: 15050 FT	Plug Back TD: 14730 FT	O. C. D. Elevation: 3381 FT	Farm or Lease Name: STERLING SILVER 33 FEDERAL
Csg. Size: 4.500 / Wt.: 13.50 / d: 3.92 / Set At: 15050		Perforations: From 14206 To 14228		Well No.: #1
Tbg. Size: 2.3750 / Wt.: 5.95 / d: 1.805 / Set At: 14127		Perforations: From 0 To 0		Unit: E / Sec.: 33 / Twp.: 23S / Rge.: 31E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 14133 FT		County: EDDY
Producing Thru: TUBING	Reservoir Temp. °F: 204 @ 14217FT	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
14217	14217	0.571	0.16	0.32	0	0	4.0	FLANGE

	FLOW DATA				TUBING DATA		BHP 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					6567	50	8316	204	72 HR+
1.	4.03 X 1.250	585.	4.5	55	6030	52	7678	204	10.
2.	4.03 X 1.250	620.	8.0	54	5580	52	7195	204	1.0
3.	4.03 X 1.250	645.	10.2	52	5060	54	6665	204	1.0
4.	4.03 X 1.250	650.	14.5	60	4460	54	6017	204	1.0
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	7.47	51.88	598.2	1.0048	1.3233	1.0497	541.
2.	7.47	71.17	633.2	1.0058	1.3233	1.0531	745.
3	7.47	82.14	658.2	1.0078	1.3233	1.0561	864.
4.	7.47	98.06	663.2	1.0000	1.3233	1.0531	1021.
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.89	515.	1.48	0.907
2.	0.94	514.	1.48	0.902
3.	0.98	512.	1.47	0.897
4.	0.98	520.	1.49	0.902
5				

Gas Liquid Hydrocarbon Ratio: 0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 0 Deg.
Specific Gravity Separator Gas: 0.571 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX 0.571
Critical Pressure: 674. P.S.I.A. 674. P.S.I.A.
Critical Temperature: 348. R 348. R

P_c 6717.1 P_c^2 45120

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		6145	37758	7361
2		5704	32533	12586
3		5235	27404	17715
4		4669	21796	23323
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9345$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4370$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1467.$

Post ID-2
7-3-87
comp & BIT

Absolute Open Flow: 1467. Mcfd @ 15.025 | Angle of Slope θ: 61.2 | Slope, n: 0.549

Remarks:

Approved By Division	Conducted By:	Calculated By:	Checked By:
	BENNETT & CATHEY	RICHARD TOWNLEY	RICHARD TOWNLEY