451 File

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOI AND ONE POINT BACK PRESSURE ST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED BY
JUN 14 1984
O. C. D.
ARTESIA, OFFICE

Type Test: 4 POINT [x] Initial [ ] Annual [ ] Special				Test Date: 6-4-84	
Company: SUN EXPLORATION & Production Co.			Connection: TO AIR		
Pool: West Pecos Slope (Abo)			Formation: Abo		Unit: --
Completion Date: 5-29-84	Total Depth: 3200		Plug Back T.D.: 3156	Elevation: 4177.6	Farm or Lease Name: CHINA DRAW STATE
Csg. Size: 5.500 / Wt.: 15.5 / d: 4.950 / Set At: ~~3200~~ ~~3156~~	Perforations: From 2876	To ~~3026~~ ~~3036~~			Well No.: #1
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: ~~2790~~ ~~2784~~	Perforations: From OPEN	To ENDED			Unit: J / Sec.: 36 / Twp.: 6S / Rge.: 22E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: 2784		County: CHAVES
Producing Thru: TUBING	Reservoir Temp. °F: 94 @ 2956	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
2956	2956	0.669	4.641	5.207	Ø	Ø	4.026	FLANGE

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	B.H.P. DATA: Press. p.s.i.g.	CHOKE	Duration of Flow
SI					890		957		73.5
1.	4.026 X 1.000	200	7.0	84	862	62	933	6/64	60MIN
2.	4.026 X 1.000	200	14.0	92	845	62	912	7/64	60MIN
3.	4.026 X 1.000	210	33.0	93	818	62	880	9/64	60MIN
4.	4.026 X 1.000	210	68.0	88	771	62	832	12/64	60MIN
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	4.755	38.63	213.2	.9777	1.223	1.016	223.
2	4.755	54.63	213.2	.9706	1.223	1.015	313.
3	4.753	85.82	223.2	.9697	1.223	1.016	491.
4	4.753	123.20	223.2	.9741	1.223	1.016	709.
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.31	544.	1.51	.969
2	0.31	552.	1.54	.971
3	0.33	553.	1.54	.969
4	0.33	548.	1.53	.968
5				

P_c 896. P_c^2 803.

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		874.	764.	39.
2		855.	732.	72.
3		826.	682.	121.
4		782.	611.	192.
5				

Gas Liquid Hydrocarbon Ratio Ø Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons Ø Deg.
Specific Gravity Separator Gas 0.669 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX Ø
Critical Pressure 681. P.S.I.A. 681. P.S.I.A.
Critical Temperature 359. R 359. R

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 4.1823 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 3.4314

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 2433.

Post #D-2
6-22-84
Comp + BK

Absolute Open Flow 2433. Mcfd @ 15.025 Angle of Slope θ 49.25 Slope, n 0.869

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved by Commission	Conducted By:	Calculated By:	Checked By:
	RICHARD TOWNLEY	BENNETT & CATHEY	