NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 2-26-81	
Company: Amoco Production Company			Connection: Gas Company of New Mexico		
Pool: Buffalo			Formation: Penn		Unit
Completion Date: 8 6 80	Total Depth: 13700		Plug Back TD: 13653	Elevation: 3696	Farm or Lease Name: Nellis Federal Gas Com
Csg. Size: 5.500 / Wt.: 17.0 / d: 4.778 / Set At: 13700			Perforations: From 13552 To 13620		Well No.: 1
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 13410			Perforations: From 0 To 0		Unit: H / Sec.: 18 / Twp.: 19S / Rge.: 33E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 13341		County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 178 @ 13586		Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
13586	13586	0.664	0.70	0.59	0	0	4.0	Flange

	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					3728	56			46.5
1.	4.00 x 2.250	436	5.3	73	3398	61	0	0	1.0
2.	4.00 x 2.250	449	17.6	75	2900	66	0	0	1.0
3.	4.00 x 2.250	484	29.2	75	2472	73	0	0	1.0
4.	4.00 x 2.250	512	45.6	75	1871	73	0	0	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	25.68	48.75	449.2	0.9877	1.2268	1.0435	1583
2.	25.68	90.30	462.2	0.9859	1.2268	1.0443	2929
3.	25.68	120.41	497.2	0.9859	1.2268	1.0477	3919
4.	25.68	154.69	525.2	0.9859	1.2268	1.0504	5048
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.67	533.	1.42	0.918
2.	0.69	535.	1.42	0.917
3.	0.74	535.	1.42	0.911
4.	0.78	535.	1.42	0.906
5.				

Gas Liquid Hydrocarbon Ratio 17.2 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 55.0 Deg.

Specific Gravity Separator Gas	0.664	xxxxxxxxx
Specific Gravity Flowing Fluid	xxxxx	0.814
Critical Pressure	671. P.S.I.A.	664. P.S.I.A.
Critical Temperature	376. R	423. R

P_c 3754.6 P_c^2 14097

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	11636.	3431.	11770.	2326.
2	8487.	2965.	8790.	5306.
3	6176.	2570.	6605.	7492.
4	3550.	2056.	4227.	9870.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.4283$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3330$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6729.$

Absolute Open Flow 6729. Mcfd @ 15.025 | Angle of Slope θ 51.1 | Slope, n 0.806

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
Orig. Signed by Jerry Sexton Dist. I Supv.	John West Eng.	Chris Van Doren	Larry Sheppard