

**NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 12/19/79	
Company Amoco Production Company				Connection Gas Company of New Mexico			
Pool Buffalo Penn				Formation Morrow		Unit	
Completion Date 11/06/79		Total Depth 13689.		Plug Back TD 13609.		Elevation 3726.	
Farm or Lease Name Nellis Federal B Fed.				Well No. 1			
Csg. Size 5.500	Wt. 17.0	d 20.000	Set At 23.	Perforations: From 13310. To 13333.		Unit Soc. Twp. Rge. F 5 19S 33E	
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 13175.	Perforations: From 0. To 0.		County Lea	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 13123.		State New Mexico	
Producing Thru Tubing		Reservoir Temp. °F 217.° 13322.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 13322.	H 13322.	G _g 0.628	% CO ₂ 0.56	% N ₂ 0.56	% H ₂ S 0.	Prover 0.	Meter Run 4.0
Taps Flange							

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow		
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
SI							3176.	58.			47.0
1.	4.03 x 1.000			488.	38.4	59.	2340.	62.	0.	0.	1.0
2.	4.03 x 1.000			490.	53.3	74.	2032.	62.	0.	0.	1.0
3.	4.03 x 1.000			500.	98.0	75.	1762.	62.	0.	0.	1.0
4.	4.03 x 1.000			510.	100.0	78.	1452.	62.	0.	0.	1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.75	138.80	501.2	1.0010	1.2619	1.0481	873.
2	4.75	163.75	503.2	0.9868	1.2619	1.0436	1011.
3	4.75	224.27	513.2	0.9859	1.2619	1.0442	1385.
4	4.75	228.74	523.2	0.9831	1.2619	1.0440	1408.
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.75	519.	1.42	0.910	10.9	52.0	0.628	X X X X X X X X	673.	365.
2.	0.75	534.	1.46	0.918				X X X X X	P.S.I.A. 661.	R 438.
3.	0.76	535.	1.47	0.917						
4.	0.78	538.	1.47	0.917						
5.										

NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	5538.	2354.	5540.	4680.	1.2675	1.2312
2	4183.	2046.	4184.	6036.		
3	3151.	1778.	3160.	7060.		
4	2147.	1469.	2157.	8063.		
5						

Absolute Open Flow		1733.	Mcfd @ 15.025	Angle of Slope @	48.7	Slope, n	0.877
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Remarks:

Approved By Commission: <i>John W. Ryan</i>	Conducted By: John West Engrg.	Calculated By: W.D. Magness	Checked By: R. Whitten
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O+3 NM00D-H 1-Hou 1-Susp 1-WDM 1-DLB 1-BD