

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

*C/SF - Well
File Draw - Well
File*

RECEIVED BY
OCT 19 1983
O. C. D.
ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-24-83	
Company Amoco Production Company ✓				Connection to Atmosphere		
Pool Buffalo Valley Penn				Formation Morrow		Unit #
Completion Date 10-03-83		Total Depth 9200		Plug Back TD 9078		Elevation 3667 KB
Csg. Size 5.500		Wt. 15.5	d 4.778	Set At 9200	Perforations: From 8996 To 9066	
Tbg. Size 2.375		Wt. 4.7	d 1.995	Set At 9070	Perforations: From 0 To 0	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 8944	
Producing Thru Tubing		Reservoir Temp. °F 140 @ 9200		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2
L 9031		H 9200	G _g 0.665	% CO ₂ 0.36	% N ₂ 1.11	% H ₂ S 0.0
Prover 0.0		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							2656	70			120.0
1.	4.03 x 1.875			380	4.0	122	2496	72	0	0	1.0
2.	4.03 x 1.875			380	10.0	89	2367	72	0	0	1.0
3.	4.03 x 1.875			380	24.3	110	2045	72	0	0	1.0
4.	4.03 x 1.875			380	36.0	118	1927	72	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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	17.26	39.66	393.2	0.9452	1.2263	1.0274	815
2	17.26	62.71	393.2	0.9732	1.2263	1.0346	1337
3	17.26	97.65	393.2	0.9551	1.2263	1.0297	2033
4	17.26	118.98	393.2	0.9485	1.2263	1.0282	2456
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.59	582	1.55	0.947	0.0	
2	0.59	549	1.46	0.934	0.0	
3	0.59	570	1.52	0.943		
4	0.59	578	1.54	0.946		
5						

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1	6296	2495	6225	840
2	5665	2366	5600	1465
3	4236	2044	4179	2887
4	3764	1927	3714	3352
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1081$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4439$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.8075$

*Post ID-2
10-21-83
Comp + BK*

Absolute Open Flow	4439	Mcf/d @ 15.025	Angle of Slope	51.6	Slope, n	0.794
Remarks:						
Approved By Commission:						
Conducted By: Bennett & Cathey		Calculated By: Barbara Wagner		Checked By: <i>[Signature]</i>		

GAS WELL BACK PRESSURE TEST

STATE ET GAS COM No. 1

Company:

AMOCO PRODUCTION COMPANY

Well:

1

Pool No:

Field/Pool:

BUFFALO VALLEY PENN

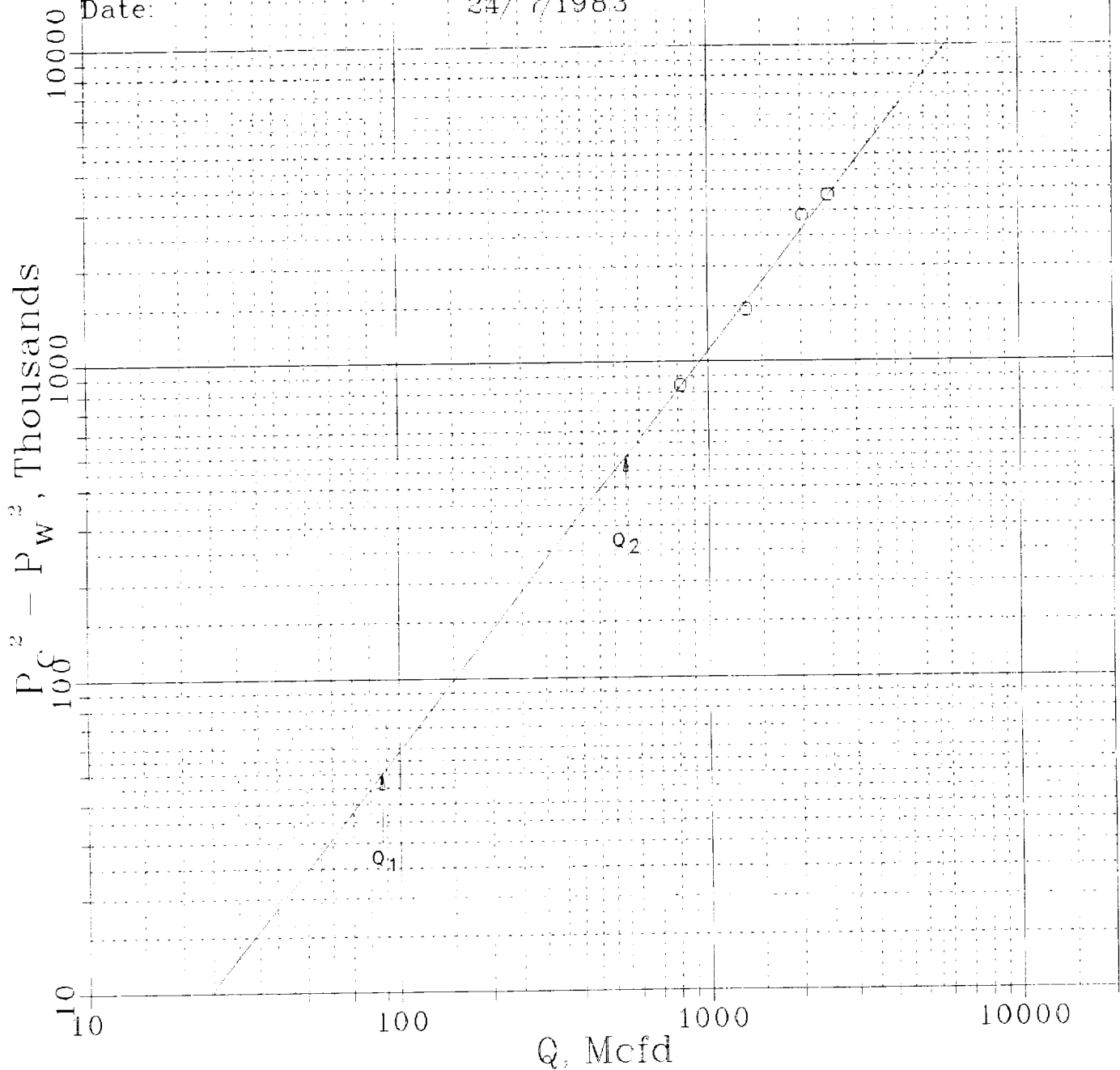
Unit:

County:

CHAVES

Date:

24/7/1983



$$\begin{aligned}
 Q_1 &= 87. \text{ Mcfd}; & \text{LOG } Q_1 &= 1.94079 \\
 Q_2 &= 543. \text{ Mcfd}; & \text{LOG } Q_2 &= 2.73446 \\
 n &= 0.79366 = 0.794
 \end{aligned}$$

FIELD	FORMATION	SEC. TWP. RGE.	COUNTY	STATE				
FINNICO	NEW MEXICO STATE OIL GAS CO.	1	LEA	NEW MEXICO				
EST BY	TYPE TEST	COMPANY REP.	METER RUN	TAPS	PROVER			
SENNETT & C. L. HAY	4" Vent Back Pressure	G-2285	4-226	Flow				
DATE	WELLHEAD PRESS.	METER OR PROVER	ORIF. SIZE	MCFD	TANK SIZE	BBLs. FLUID	TOTAL FLUID	REMARKS
TIME OF READING	CSG PSIG	TBG PSIG	TEMP F°	DIFF	PSIG	TEMP F°	FLUID WATER	OIL
12/29/83		2656						
1300								
645	9/64	2653						
700		2520		5"	400	115°		
715		2510		4"	395	119°		
730		2507		5.5"	380	120°		
745		2496		4"	380	122°		
800	10 3/4	2405		11"	380	117°		
815		2390		10.5"	380	116°		
830		2375		11"	380	98°		
845		2367		10"	380	89°		
900	13/64	2127		24"	380	94°		
915		2099		26"	380	96°		
930		2059		24"	380	100°		
945		2045		24 1/4"	380	110°		
1000	5/16	2170		43"	380	111°		
1015		2040		36"	380	112°		
1030		1950		29"	380	116°		
1045		1927		36"	380	118°		

7 29 83

NEW MEXICO

LEA

4-226

Flow

4-226

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500T Flow Limit down to 500T Flow

Flow - 100000 - Filled Test Separator
100000

Casper, WY 82601

Run No. 930-8
Date Run 09/30/83
Date Sampled 09/30/83

Pressure on Bomb 2000

PSIG; Line Pressure 2000 PSIG

Press. Base: 14.65

4-1b Gasoline

Ethane + GPM 3.426

Remarks: BTU Wet adjusted to flowing conditions as established by FERC Order #93/93-A and calculated per GPA Reference Bulletin 181-82.

Distribution: