

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test 4 Point ☒ Initial ☐ Annual ☐ Special		Test Date 3-17-88		1980 FNL	
Company Conoco, Inc.		Connection EPNG		890 FEL	
Pool Eumont Y-SR QU		Formation Eumont Seven Rivers Queen		Unit H	
Completion Date 1-21-88		Total Depth 3835		Plug Back TD 3787	
Elevation 3640 GL		Farm or Lease Name Meyer A-1		Well No. 19	
Coq. Size 5.500	Wi. 15.5	Set At 3835	Perforations: From 3194-3246 To 3522-3612		Unit H
Thq. Size 2.875	Wi. 4.6	Set At 3578	Perforations: From open To ended		Sec. 18
Type Well - Single - Brdenhead - G.C. or G.O. Multiple Single		Packer Set At None		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 90° 3576		Mean Annual Temp. °F 60	
Baro. Press. -- P _g 13.2		State New Mexico		Prover Meter Run 4.026	
L 3578	H 3578	G _g 0.7111	% CO ₂ 0.4882	% N ₂ 0.931	% H ₂ S Ø
Taps Fling.					

FLOW DATA						TUBING DATA		BHP DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							210	60°	220	60°	68.5 Hrs.
1.	4.026	2.000	31.0	1.00	54	150	60°	220	60°	60 Min	
2.	4.026	2.000	31.7	2.89	56	135	60°	218	60°	60 Min	
3.	4.026	2.000	33.0	10.56	56	155	60°	218	60°	60 Min	
4.	4.026	2.000	34.4	20.25	56	125	60°	215	60°	60 Min	
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	19.81	6.65	44.2	1.006	1.186	N/A	157
2	19.81	11.39	44.9	1.004	1.186	N/A	269
3	19.81	22.09	46.2	1.004	1.186	N/A	521
4	19.81	31.05	47.6	1.004	1.186	N/A	732
5							

NO.	P _g	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio TSTM	Mcf/bbl.
1	0.07	514	1.31	N/A	A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2	0.07	516	1.32	N/A	Specific Gravity Separator Gas	0.7111
3	0.07	516	1.32	N/A	Specific Gravity Flowing Fluid	XXXXXX
4	0.07	516	1.32	N/A	Critical Pressure	667 P.S.I.A.
5					Critical Temperature	392 R

NO.	P _i	P _w	P _i ²	P _w ²	P _i ² - P _w ²
1	265.6	253.7	64.4	8.8	
2	260.3	248.8	61.9	11.3	
3	252.9	242.2	58.7	14.5	
4	248.1	237.8	56.5	16.7	
5					

(1) $\frac{P_i^2}{P_i^2 - P_w^2} = 4.3832$ (2) $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 4.3832$

AOR = Q $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 3208.502$

Absolute Open Flow	3209	Mcf @ 15.025	Angle of Slope θ	45°	Slope, n	1.000
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Remarks: Bottom hole pressure @ 3576 w/ Amarada gauges
* Bottom Hole pressures psig @ 3576
No measureable amount of fluid during test

Approved By: <u>Paul Kautz</u> Geologist	Conducted By: <u>M. Randoff & R. Hatchett</u>	Calculated By: <u>Richard Townley</u>	Checked By:
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