

Submit in duplicate to
appropriate district office
See Rule 401 & Rule 1122

Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

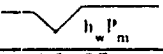
OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <i>Murchison Oil and Gas</i>					Lease or Unit Name <i>Enron '9' st Com</i>				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date <i>8-10-98</i>		Well No. <i>2</i>		
Completion Date <i>8-4-98</i>		Total Depth <i>13702</i>		Plug Back TD <i>13636</i>		Elevation		Unit Ltr. - Sec. - TWP - Rge. <i>9 24S 33-E</i>	
Csg. Size	Wt.	d	Set At	Perforations:				County	
				From: To:				<i>Lea</i>	
Tbg. Size	Wt.	d	Set At	Perforations:				Pool	
<i>3 1/2</i>	<i>9.3</i>	<i>2,992</i>	<i>13636</i>	From: <i>13206</i> To: <i>13465</i>					
Type Well - Single - Bradenhead - G.G. or G.Q. Multiple <i>Single</i>					Packer Set At <i>No Packer</i>		Formation <i>Wolfcamp</i>		
Producing Thru <i>Tbg</i>		Reservoir Temp. °F <i>206.6</i>		Mean Annual Temp. °F <i>60°</i>		Baro. Press - P _a <i>13.2</i>		Connection <i>Sales</i>	
L <i>13335.5</i>	II <i>13335.5</i>	Gg <i>.676</i>	% CO ₂ <i>.222</i>	% N ₂ <i>.722</i>	% H ₂ S <i>0</i>	Prover <i>0</i>	Meter Run <i>4.026</i>	Taps <i>F/G</i>	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI						<i>4100</i>	<i>94°</i>	<i>PKR</i>	
1.	<i>4.026 X 2.500</i>		<i>792</i>	<i>1.0</i>	<i>88°</i>	<i>3650</i>	<i>90°</i>		<i>60 min</i>
2.	<i>4.026 X 2.500</i>		<i>810</i>	<i>5.3</i>	<i>74°</i>	<i>2900</i>	<i>90°</i>		<i>60 min</i>
3.	<i>4.026 X 2.500</i>		<i>846</i>	<i>11.6</i>	<i>68°</i>	<i>2180</i>	<i>90°</i>		<i>60 min</i>
4.	<i>4.026 X 2.500</i>		<i>940</i>	<i>25</i>	<i>68°</i>	<i>1640</i>	<i>90°</i>		<i>60 min</i>
5.									

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	<i>32.64</i>	<i>28.37</i>	<i>805.2</i>	<i>.9741</i>	<i>1.216</i>	<i>1.050</i>	<i>1151</i>
2.	<i>32.64</i>	<i>66.05</i>	<i>823.2</i>	<i>.9868</i>	<i>1.216</i>	<i>1.053</i>	<i>2724</i>
3.	<i>32.64</i>	<i>99.83</i>	<i>859.2</i>	<i>.9924</i>	<i>1.216</i>	<i>1.061</i>	<i>4172</i>
4.	<i>32.64</i>	<i>154.36</i>	<i>953.2</i>	<i>.9924</i>	<i>1.216</i>	<i>1.061</i>	<i>6177</i>
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl
1.	<i>.81</i>	<i>548</i>	<i>1.44</i>	<i>.907</i>	<i>4.116</i>	
2.	<i>.79</i>	<i>534</i>	<i>1.41</i>	<i>.902</i>	<i>53.1</i>	
3.	<i>.78</i>	<i>528</i>	<i>1.39</i>	<i>.889</i>		
4.	<i>.78</i>	<i>528</i>	<i>1.39</i>	<i>.889</i>		
5.						

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		<i>3664.1</i>	<i>13425.7</i>	<i>3492.7</i>
2.		<i>2918.6</i>	<i>8517.9</i>	<i>8400.5</i>
3.		<i>2206.6</i>	<i>4869.1</i>	<i>12049.3</i>
4.		<i>1685.1</i>	<i>2839.6</i>	<i>14078.8</i>
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.202$

2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.202$

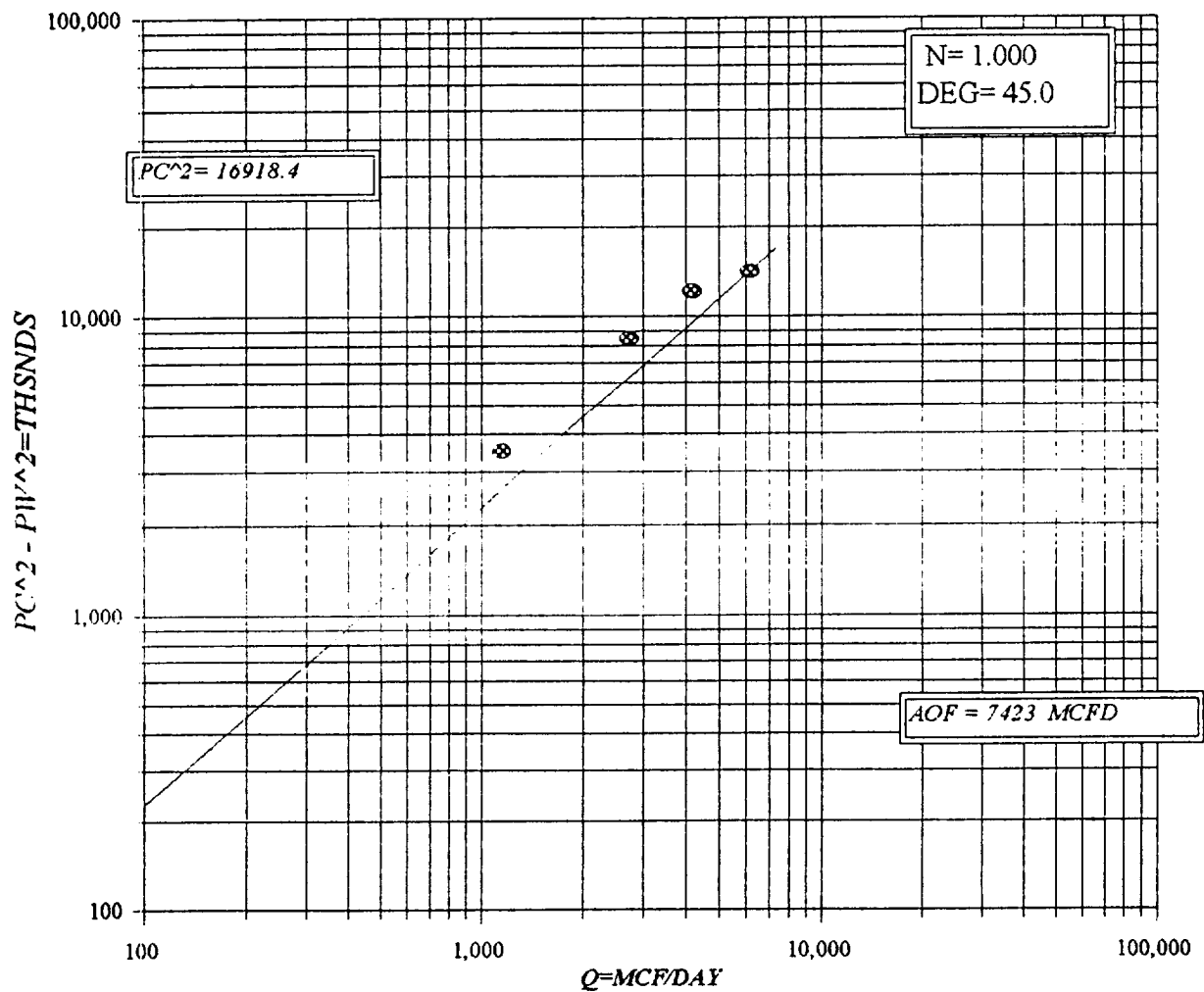
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7423$

Absolute Open Flow <i>7423</i> Mcfd @ 15.025	Angle of Slope θ <i>45°</i>	Slope, n <i>1.000</i>
--	------------------------------------	-----------------------

Remarks: **Well made 144 BBL'S of 53.1 API Gravity Condensate During Test*

Approved By Division	Conducted By: <i>Pro Well Testing</i>	Calculated By: <i>M.B.</i>	Checked By: <i>B.M.</i>
----------------------	--	-------------------------------	----------------------------

MURCHISON OIL & GAS CO.
ENRON '9' ST. COM #2



COMPANY :MURICHISON		LEASL .ENRON "9" ST COM		WELL NO. : 2		Pc = 4113.2		Pc2 = 16918.4		
UNIT :		SECTION : 9		TOWNSHIP : 24						
L : 13259		H : 13259		L/H : 1		G/GMIX : 0.676		Pt2 = ***** Pw = 3664.1		
%CO2 : 0.222		%N2 : 0.722		H2S :		DATE :8/10/98		8486.7 2918.6		
d : 2.992		Fr :0.006324		GH : 8963.1		RANGE : 33		4810.1 2206.6		
								2733.1 1685.1		
VOL 1 : 1151		PSIA 1 : 3663.2		RESV.TEMP 206.6		Pc2-Pw2= 3492.7		Pw2 = 13425.7		
VOL 2 : 2724		PSIA 2 : 2913.2				8400.5		8517.9		
VOL 3 : 4172		PSIA 3 : 2193.2		SHUT-IN PR= 4113.2		*****		4869.1		
VOL 4 : 6177		PSIA 4 : 1653.2				*****		2839.6		
		PCR : 659						n = 1.000		
		TCR : 496								
						Pc2/(Pc2-Pw2) =		4.844		
								2.014		
								1.404		
								1.202		
1	QM	1.151	1.151	2.724	2.724	4.172	4.172	6.177	6.177	
2	TW	534	534	534	534	534	534	534	534	[Pc2/Pc2-Pw2]n = 4.844
3	Ts	666.6	666.6	666.6	666.6	666.6	666.6	666.6	666.6	2.014
4	T	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	1.404
	PR (est)	5.56		4.42		3.33		2.51		1.202
5	L(est)	0.732	0.853	0.629	0.742	0.543	0.633	0.517	0.551	
6	TZ	439.6	512.0	377.6	445.5	326.0	379.9	310.2	330.8	AOF= Q 5.575
7	GH/TZ	20.390	17.507	23.738	20.120	27.496	23.594	28.894	27.099	5.486
8	eS	2.148	1.928	2.436	2.127	2.804	2.422	2.955	2.763	5.858
9	l-e-S	0.534	0.481	0.589	0.530	0.643	0.587	0.662	0.638	7.423
10	Pt	3663.2	3663.2	2913.2	2913.2	2193.2	2193.2	1653.2	1653.2	
11	Pt2 /1000	13419.0	13419.0	8486.7	8486.7	4810.1	4810.1	2733.1	2733.1	
12	Fr	0.006324	0.006324	0.006324	0.006324	0.006324	0.006324	0.006324	0.006324	
13	Fc=FrTZ	2.780	3.238	2.388	2.818	2.062	2.403	1.962	2.092	
14	FcQm	3.20	3.73	6.51	7.68	8.60	10.02	12.12	12.92	
15	L/H(FcQm)	10.2	13.9	42.3	58.9	74.0	100.5	146.9	167.0	
16	Fw	5.473570	6.686761	24.94412	31.20726	47.60457	59.00385	97.17462	106.54084	
17	Pw2	13424.5	13425.7	8511.7	8517.9	4857.7	4869.1	2830.2	2839.6	
18	Ps2	28838.7	25885.2	20730.7	18113.8	13621.7	11795.3	8363.7	7845.0	
19	Ps	5370.2	5087.7	4553.1	4256.0	3690.8	3434.4	2892.0	2800.9	
20	P	4516.7	4375.5	3733.2	3584.6	2942.0	2813.8	2272.6	2227.0	
21	Pr	6.85	6.64	5.66	5.44	4.46	4.27	3.45	3.38	
22	Tr	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	
23	L	0.853	0.833	0.742	0.721	0.633	0.616	0.551	0.546	FORM C122-D

NEW MEXICO G.O.R./G. MIX

NO. OF BBLS PRODUCED	=	144.0
API GRAVITY @ 60 DEG.	=	53.1

SPECIFIC GRAVITY OF GAS	=	0.6760
-------------------------	---	--------

XX		
TOTAL GAS PRODUCED	=	593

G.O.R.	=	4.116
--------	---	-------

G.MIX	=	1.296
-------	---	-------