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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

30-025-36779

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator EOG RESOURCES, INC.					Lease or Unit Name SOMBRERO 5 ST.				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 4-6-05		Well No. 1		
Completion Date		Total Depth		Plug Back TD 14240		Elevation		Unit Ltr - Sec - TWP - Rge	
Csg. Size 5 1/2	Wt. 17#	d	Set At 14240		Perforations: From: 13802 To: 13880		County LEA		
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 13680		Perforations: From: To:		Pool		
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE					Packer Set At 13680		Formation MORROW		
Producing Thru Tbg		Reservoir Temp. °F 189.7 @ 13680		Mean Annual Temp. °F 60		Baro. Press. -P _a 13.2		Connection SALES	
L 13680	H 13680	Gg 0.679	%CO ₂ 1.495	%N ₂ 0.618	%H ₂ S X	Prover N/A	Meter Run 3.068	Taps FLG	
FLOW DATA					TUBING DATA			CASING DATA	
No.	Prover Line Size	Orifice x 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						2510		PKR.	
1	3 X	2.125	324			2475		"	
2	3 X	2.125	359			2438		"	
3	3 X	2.125	420			2306		"	
4	3 X	2.125	532			2266		"	
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								1,016	
2								2,017	
3				TOTAL		FLOW	METER	2,832	
4								4,032	
5									
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 18.744 Mcf bbl.				
1					A.P. I. Gravity of Liquid Hydrocarbons 55.5 @ 60 Deg.				
2					Specific Gravity Separator Gas 0.679 XXXXXXXX				
3		N/A			Specific Gravity Flowing Fluid XXXXXX GMIX = .830				
4					Critical Pressure 669 P.S.I.A. 665 P.S.I.A.				
5					Critical Temperature 382 R. 434 R				
P _c 2523.2 P _{c2} 6366.5									
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{6.549}{\quad}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{4.071}{\quad}$				
1		2490.1	6200.4	166.2	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{79825}{16.415} = 16.415$				
2		2462.5	6063.9	302.6					
3		2342	5485	881.5					
4		2325.7	5409	957.6					
5									
Absolute Open Flow 16,415 Mcfd @ 15.025					Angle of Slope (°): 53.46		Slope n: 0.7411		
Remarks: WELL PRODUCED 22.0 BBLs 55.5 API GR. CONDENSATE & NO H2O									
Approved By Division:			Conducted By: Beacon Resources, L.L.C.		Calculated By: BM		Checked By: BM		

COMPANY : EOG RESOURCES, INC. LEASE : SSOMBRERO 5 ST. WELL NO. : 1
UNIT : SECTION : TOWNSHIP :
L : 13680 H : 13680 L/H : 1 G/GMIX : 0.830
%CO2 : 1.495 %N2 : 0.618 H2S : DATE : 4-6-05
d : 2.441 Fr : 0.010763 GH : 11354.4 RANGE :

Pc = 2523.2 Pc2 = 6366.5 *
Pt2 = 6186.2 Pw = 2490.1 *
6008.4 2462.5 *
5378.7 2342.0 *
5194.8 2325.7 *

VOL 1 : 1016 PSIA 1 : 2487.2 RESV.TEMP 189.7
VOL 2 : 2017 PSIA 2 : 2451.2
VOL 3 : 2832 PSIA 3 : 2319.2 SHUT-IN PR= 2523.2
VOL 4 : 4032 PSIA 4 : 2279.2

Pc2-Pw2= 166.2 Pw2 = 6200.4 *
302.6 6063.9 *
881.5 5485.0 *
957.6 5409.0 *

PCR : 665
TCR : 434

n = 0.741 ✓

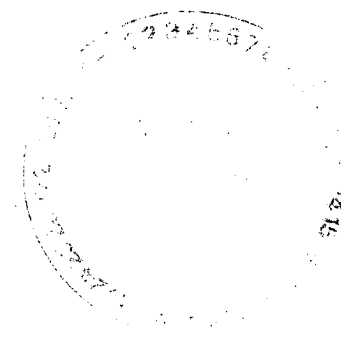
Pc2/(Pc2-Pw2) = 38.310
21.036
7.222
6.649 ✓

LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1	QM	1.016	1.016	2.017	2.017	2.832	2.832	4.032	4.032
2	TW	534	534	534	534	534	534	534	534
3	Ts	649.7	649.7	649.7	649.7	649.7	649.7	649.7	649.7
4	T	591.9	591.9	591.9	591.9	591.9	591.9	591.9	591.9
	PR (est)	3.74		3.69		3.49		3.43	
5	Z(est)	0.671	0.737	0.670	0.733	0.665	0.719	0.664	0.716
6	TZ	397.3	436.4	396.4	434.1	393.7	425.3	393.2	423.5
7	GH/TZ	28.580	26.021	28.646	26.155	28.837	26.696	28.879	26.809
8	eS	2.921	2.653	2.928	2.667	2.949	2.721	2.953	2.733
9	l-e-S	0.658	0.623	0.658	0.625	0.661	0.633	0.661	0.634
10	Pt	2487.2	2487.2	2451.2	2451.2	2319.2	2319.2	2279.2	2279.2
11	Pt2 /1000	6186.2	6186.2	6008.4	6008.4	5378.7	5378.7	5194.8	5194.8
12	Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13	Fc=FrTZ	4.276	4.697	4.266	4.672	4.238	4.578	4.232	4.559
14	FcQm	4.34	4.77	8.60	9.42	12.00	12.96	17.06	18.38
15	L/H(FcQm)	18.9	22.8	74.0	88.8	144.0	168.1	291.1	337.8
16	Fw	12.41138	14.18750	48.75412	55.51150	95.19192	106.3096	192.5543	214.20849
17	Pw2	6198.6	6200.4	6057.1	6063.9	5473.9	5485.0	5387.3	5409.0
18	Ps2	18103.0	16451.1	17733.4	16170.1	16141.5	14926.3	15910.9	14781.6
19	Ps	4254.8	4056.0	4211.1	4021.2	4017.6	3863.5	3988.8	3844.7
20	P	3371.0	3271.6	3331.2	3236.2	3168.4	3091.3	3134.0	3061.9
21	Pr	5.07	4.92	5.01	4.87	4.76	4.65	4.71	4.60
22	Tr	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
23	Z	0.737	0.728	0.733	0.725	0.719	0.712	0.716	0.709

[Pc2/Pc2-Pw2]n = 14.907
9.560
4.329
4.071 ✓

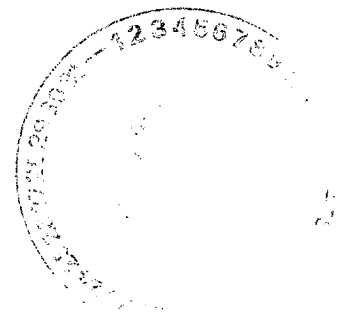
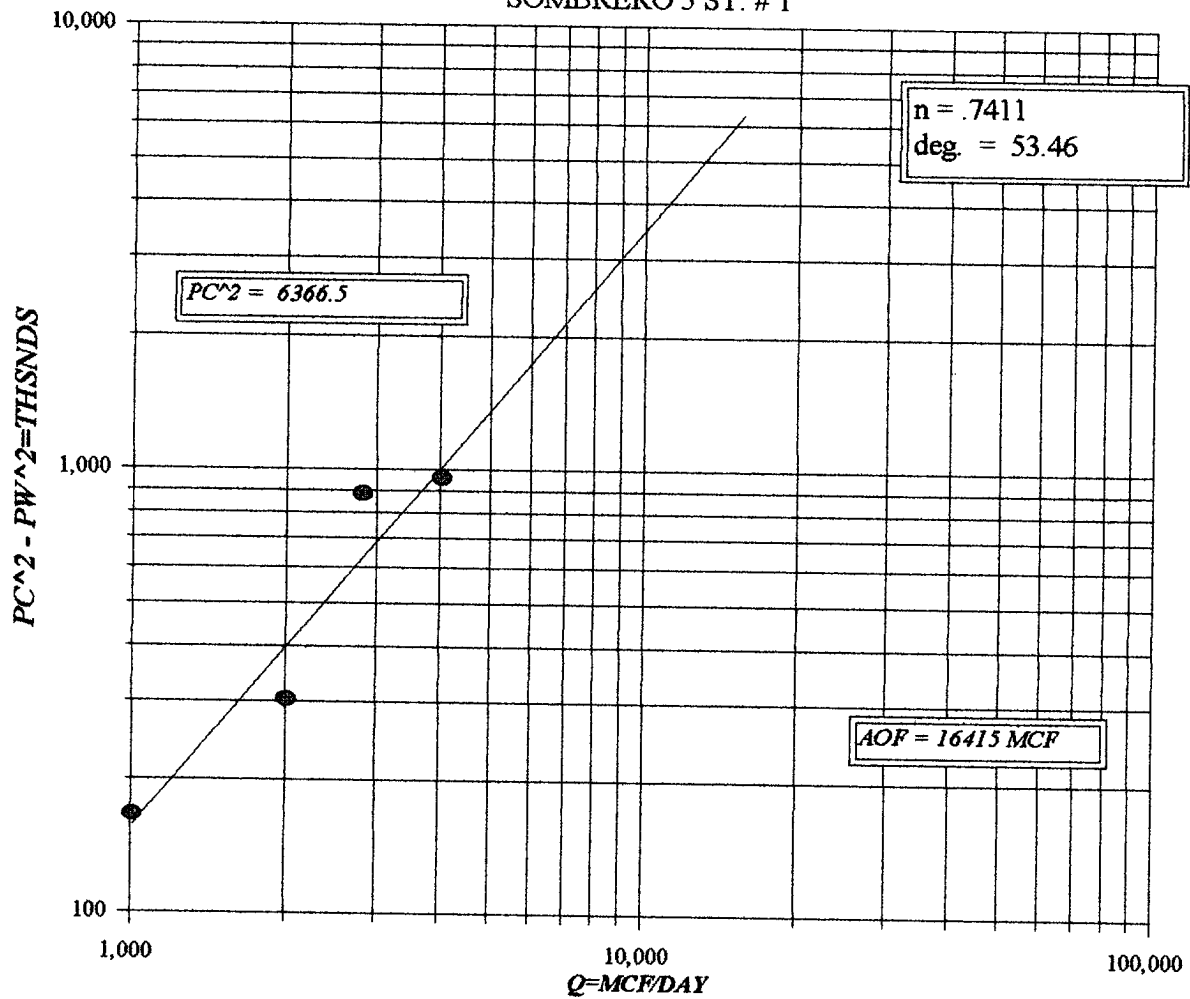
AOF= Q 15.145
19.282
12.259
16.415 ✓

FORM C122-D

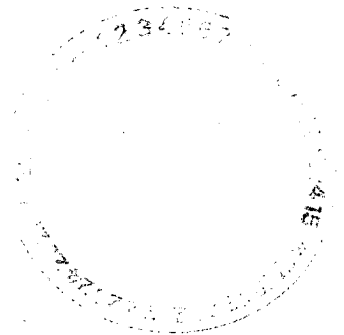
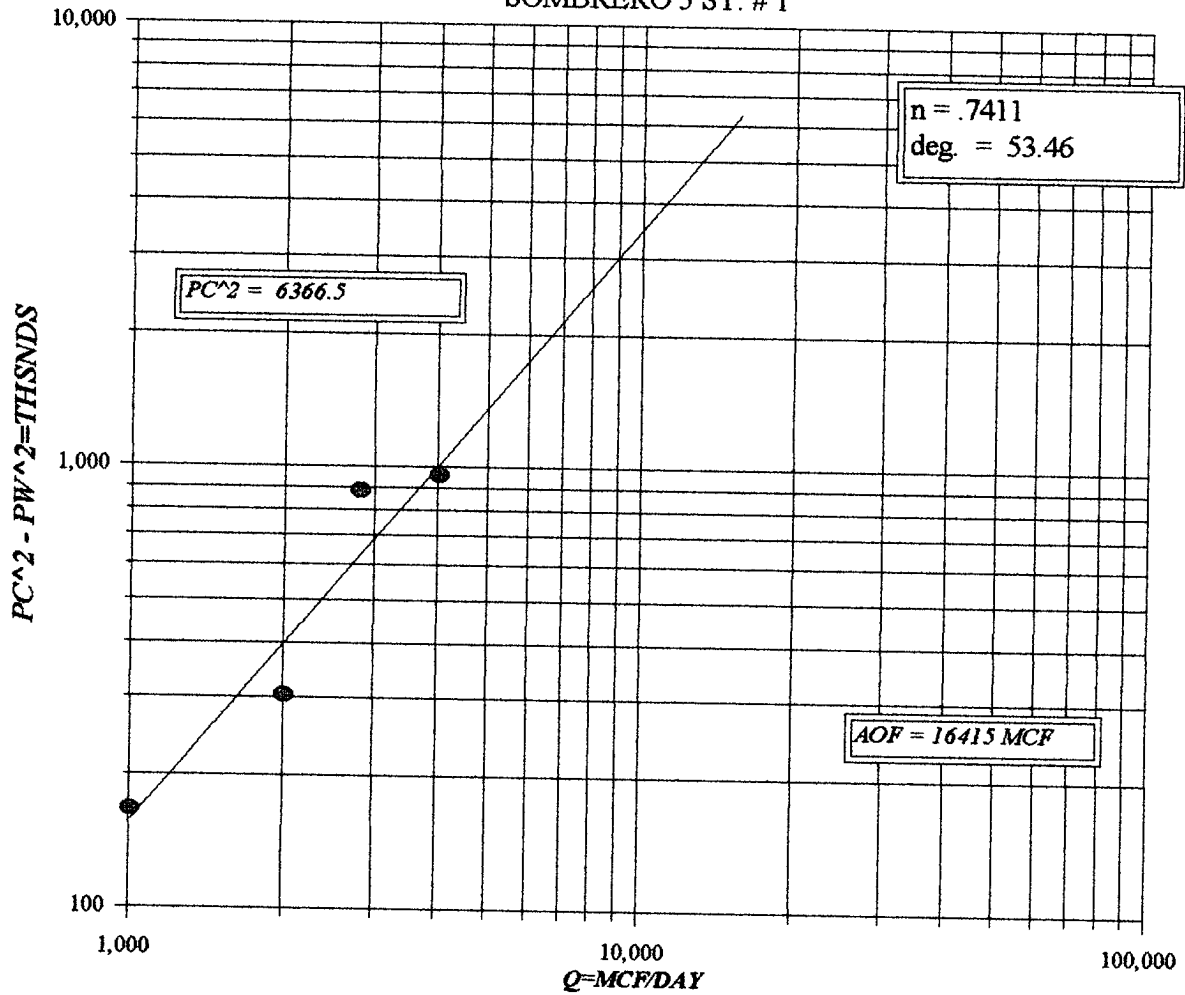


EOG RESOURCES, INC.

SOMBRERO 5 ST. # 1



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

NO. OF BBLs PRODUCED = 22.0

API GRAVITY @ 60 DEG. = 55.5

SPECIFIC GRAVITY OF GAS = 0.6790

XX
TOTAL GAS PRODUCED = 412

G.O.R. = 18.744

G.MIX = 0.830

