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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

30-025-36842

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator EOG RESOURCES, INC.				Lease or Unit Name EMPANADA 31 ST.			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-21-05		Well No. 1	
Completion Date		Total Depth		Plug Back TD 13210		Elevation	
Csg. Size 5 1/2		Wt. 17#		Set At		Perforations: From: 12828 To: 12880	
Tbg. Size 2 7/8		Wt. 6.5		Set At 12707		County Lea	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 12707		Formation Mississippian	
Producing Thru TBG		Reservoir Temp. °F 180.9 @ 12707		Mean Annual Temp. °F 60		Baro. Press. -P _a 13.2	
L 12707		H 12707		Gg 0.68		Taps FLG	
%CO ₂ 2.44		%N ₂ 0.829		%H ₂ S N/A		Meter Run 3.068	
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
SI						2750	PKR
1			509			2575	"
2			520			2300	"
3			536			1850	"
4			548			1200	"
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)		$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor	Rate of Flow Q, Mcfd
1							408
2							796
3				TOTAL		FLOW	1,079
4							1,746
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio		
1					A.P. I. Gravity of Liquid Hydrocarbons		
2					Specific Gravity Separator Gas		
3		N/A			Specific Gravity Flowing Fluid		
4					Critical Pressure		
5					Critical Temperature		
P _c 2763.2 P ₂ 7635.3					Super Compress. Factor F _{pv}		
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	Rate of Flow		
1		2588.6	6700.9	934.4	Q, Mcfd		
2		2314.9	5358.7	2276.5			
3		1867	3485.7	4149.6			
4		1229.3	1511.1	6124.2			
5							
(1) $P_c^2 = 3.354$					(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.539$		
AOF = Q					$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.021$		
79825							
Absolute Open Flow 2.021				Mcf/d @ 15.025	Angle of Slope (°)	52.4	Slope n: 0.7699
Remarks: WELL PRODUCED NO OIL OR NO H2O DURING TEST-- * = CORRECTED TO 2.440 % CO2							
Approved By Division:				Conducted By: BEACON RESOURCES L.L.C.		Calculated By: BM	
						Checked By: BM	

0 COMPANY : EOG RESOURCES, INC LEASE : EMPANADA 31 ST. WELL NO. : 1
 UNIT : SECTION : 31 TOWNSHIP : 12
 L : 12707 H : 12707 L/H : 1 G/GMIX : 0.680
 %CO2 : 2.44 %N2 : 0.829 H2S : DATE : 7-21-05
 d : 2.441 Fr : 0.010763 GH : 8640.8 RANGE : 35

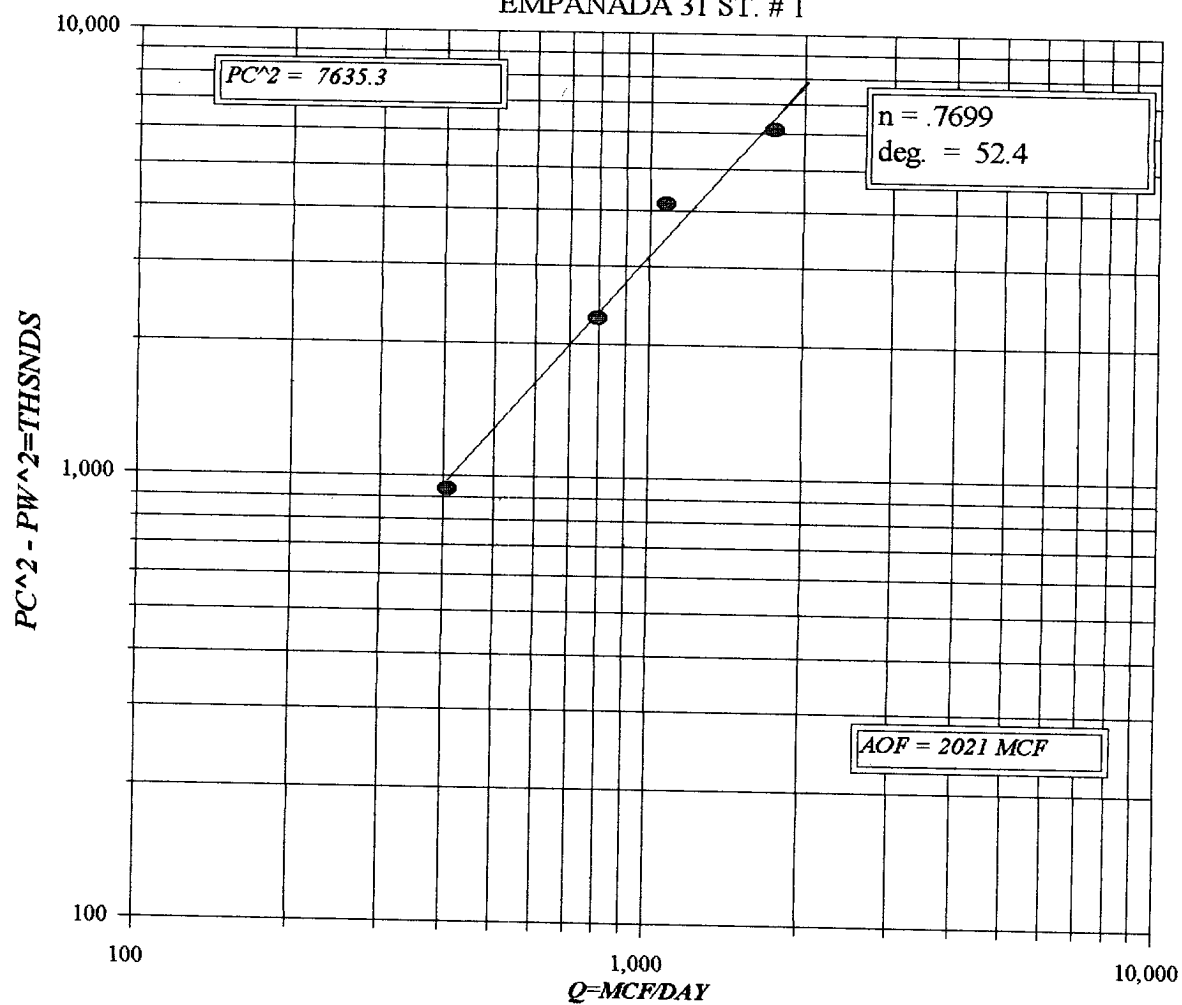
VOL 1 : 408 PSIA 1 : 2588.2 RESV.TEMP 180.9
 VOL 2 : 796 PSIA 2 : 2313.2
 VOL 3 : 1079 PSIA 3 : 1863.2 SHUT-IN PR= 2763.2
 VOL 4 : 1746 PSIA 4 : 1213.2
 PCR : 667
 TCR : 382

LINE	RATE 1		RATE 2		RATE 3		RATE 4		
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND	
1 QM	0.408	0.408	0.796	0.796	1.079	1.079	1.746	1.746	
2 TW	534	534	534	534	534	534	534	534	
3 Ts	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	
4 T	587.5	587.5	587.5	587.5	587.5	587.5	587.5	587.5	
PR (est)	3.88		3.47		2.79		1.82		
5 Z(est)	0.776	0.796	0.773	0.782	0.783	0.774	0.828	0.806	
6 TZ	455.9	467.6	454.3	459.4	459.7	454.4	486.4	473.6	
7 GH/TZ	18.954	18.477	19.020	18.809	18.796	19.016	17.765	18.245	
8 eS	2.036	1.999	2.041	2.025	2.024	2.040	1.947	1.982	
9 l-e-S	0.509	0.500	0.510	0.506	0.506	0.510	0.486	0.496	
10 Pt	2588.2	2588.2	2313.2	2313.2	1863.2	1863.2	1213.2	1213.2	
11 Pt2 /1000	6698.8	6698.8	5350.9	5350.9	3471.5	3471.5	1471.9	1471.9	
12 Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	
13 Fc=FrTZ	4.907	5.033	4.890	4.944	4.948	4.891	5.235	5.097	
14 FcQm	2.00	2.05	3.89	3.94	5.34	5.28	9.14	8.90	
15 L/H(FcQm)	4.0	4.2	15.1	15.5	28.5	27.8	83.5	79.2	
16 Fw	2.038860	2.108110	7.725433	7.839090	14.41741	14.19914	40.63231	39.247378	
17 Pw2	6700.8	6700.9	5358.6	5358.7	3485.9	3485.7	1512.5	1511.1	
18 Ps2	13640.0	13398.3	10934.7	10849.0	7053.9	7111.8	2944.5	2995.3	
19 Ps	3693.2	3660.4	3306.8	3293.8	2655.9	2666.8	1716.0	1730.7	
20 P	3140.7	3124.3	2810.0	2803.5	2259.6	2265.0	1464.6	1471.9	
21 Pr	4.71	4.68	4.21	4.20	3.39	3.40	2.20	2.21	
22 Tr	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	
23 Z	0.796	0.795	0.782	0.782	0.774	0.773	0.806	0.806	

Pc = 2763.2 Pc2 = 7635.3 *
 Pt2 = 6698.8 Pw = 2588.6 *
 5350.9 2314.9 *
 3471.5 1867.0 *
 1471.9 1229.3 *
 Pc2-Pw2= 934.4 Pw2 = 6700.9 *
 2276.5 5358.7 *
 4149.6 3485.7 *
 6124.2 1511.1 *
 n = 0.770 ✓
 Pc2/(Pc2-Pw2) = 8.171 *
 3.354 ✓ *
 1.840 *
 1.247 *
 [Pc2/Pc2-Pw2]n = 5.039 *
 2.539 ✓ *
 1.599 *
 1.185 *
 AOF= Q 2.056 *
 2.021 ✓ *
 1.725 *
 2.069 *
 FORM C122-D

EOG RESOURCES, INC.

EMPANADA 31 ST. # 1



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