Submit in duplicate to 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

30-025-36403

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator: GRUY PET. MANAGEMENT		Lease or Unit Name: CHAPARAL "33" FED COM	
Type Test: ☑ Initial ☐ Annual ☐ Special		Test Date: 12/10/03	Well No.: 2
Completion Date	Total Depth	Plug Back TD: 13749	Elevation: 3696 GL
Unit Ltr - Sec - TWP - Rge: C 33 19S 34E			
Csg. Size: 5 1/2 / Wt.: 17 / d: 4.892 / Set At: 13749		Perforations: From: 13352 To: 13407	County: LEA
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: 2.441 / Set At: 13153		Perforations: From: To:	Pool:
Type Well-Single-Bradenhead-G.G. or G.O. Multiple: SINGLE		Packer Set At: 13153	Formation: MORROW
Producing Thru: TUBING	Reservoir Temp.: 188	Mean Annual Temp.: 60	Baro. Press.-P_a: 13.2
Connection: SALES			

L	H	Gg	%CO_2	%N_2	%H_2S	Prover	Meter Run	Taps
13153	13153	0.678	0.872	8.786			2.067	FLG

	FLOW DATA				TUBING DATA		CASING DATA		
No.	Prover Line Size x Orifice Size	Press p.s.i.g.	Diff. h_w	Temp.	Press p.s.i.g.	Temp.	Press p.s.i.g.	Temp.	Duration of Flow
SI					3675				
1	2.067 X 1.375	500	68.7	70	2093				1 HR
2	2.067 X 1.375	515	78.6	59	1846				1HR
3	2.067 X 1.375	510	78.5	59	1970				1HR
4	2.067 X 1.375	485	29.8	66	2547				1HR
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							3605
2	TOTAL	FLOW	METER				2773
3							2826
4							1687
5							

No.	P_r	Temp. R	T_r	Z
1				
2				
3	TOTAL	FLOW	METER	
4				
5				

Gas Liquid Hydrocarbon Ratio	113.45		Mcf/bbl.
A.P. I. Gravity of Liquid Hydrocarbons	54.8 @ 60		Deg.
Specific Gravity Separator Gas	0.678		XXXXXXX
Specific Gravity Flowing Fluid	XXXXX		GMIX = .704
Critical Pressure	659 P.S.I.A.	658	P.S.I.A.
Critical Temperature	359 R.	369	R

P_c 3688.2 P_c^2 13602.8

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2144.4	4598.3	9004.5
2		1884.8	3552.5	10050.4
3		2008.1	4032.5	9570.3
4		2567.3	6591	7011.8
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ 1.511

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 1.511

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 5.446

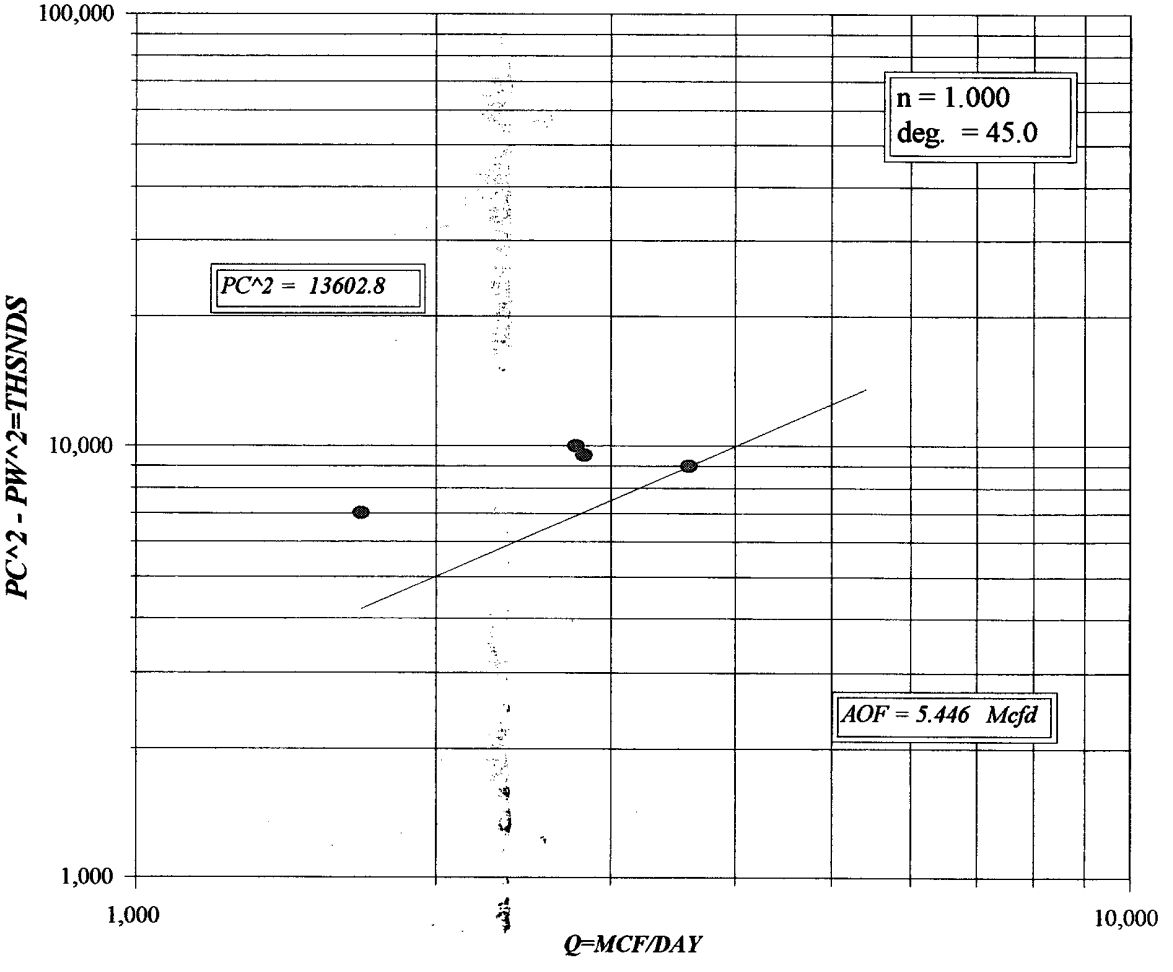
Absolute Open Flow	5.446	Mcfd @ 15.025	Angle of Slope ():	45	Slope n: 1

Remarks: * WELL MADE 4 BBLS OF 54.8 API GRAVITY CONDENSATE DURING TEST.

Approved By Division:	Conducted By:	Calculated By:	Checked By:
	PRO WELL TESTING	MERV BUECKER	BM

GRUY PET. MANAGEMENT CORP.

CHAPARAL "33" FED COM #2



C122D FORM IMPORTED FROM SYMPHONY ON 9-9-01

COMPANY :	GRUY PET. MANAGEMENT C(	LEASE :	CHAPARAL "33" FED COM	WELL NO. :	2				
UNIT :		SECTION :	33	TOWNSHIP :	19S				
L :	13153	H :	13153	L/H :	1	G/GMIX :	0.704		
%CO2 :	0.872	%N2 :	8.786	H2S :			DATE :	12/10/03	
d :	2.441	Fr :	0.010763	GH :	8197.0		RANGE :	34E	

VOL 1 :	3605	PSIA 1 :	2106.2			
VOL 2 :	2773	PSIA 2 :	1859.2	RESV.TEMP	188.0	
VOL 3 :	2826	PSIA 3 :	1983.2			
VOL 4 :	1687	PSIA 4 :	2560.2	SHUT-IN PRE(=	3688.2	
		PCR :	658			
		TCR :	369			

LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		`1ST	`2ND	`1ST	`2ND	`1ST	`2ND	`1ST	`2ND
1	QM	3.605	3.605	2.773	2.773	2.826	2.826	1.687	1.687
2	TW	534	534	534	534	534	534	534	534
3	Ts	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
4	T	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	PR (est)	3.20		2.83		3.01		3.89	
5	Z(est)	0.805	0.805	0.811	0.804	0.807	0.804	0.806	0.820
6	TZ	475.8	475.9	479.3	475.0	477.2	475.0	476.1	484.8
7	GH/TZ	17.228	17.225	17.101	17.255	17.177	17.257	17.216	16.908
8	eS	1.908	1.908	1.899	1.910	1.904	1.910	1.907	1.885
9	I-e-S	0.476	0.476	0.473	0.476	0.475	0.476	0.476	0.470
10	Pt	2106.2	2106.2	1859.2	1859.2	1983.2	1983.2	2560.2	2560.2
11	Pt2 /1000	4436.1	4436.1	3456.6	3456.6	3933.1	3933.1	6554.6	6554.6
12	Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13	Fc=FrTZ	5.121	5.122	5.159	5.113	5.136	5.112	5.125	5.218
14	FcQm	18.46	18.46	14.31	14.18	14.51	14.45	8.65	8.80
15	L/H(FcQm)2	340.8	340.9	204.7	201.0	210.7	208.7	74.7	77.5
16	Fw	162.18586	162.22845	96.880914	95.769198	100.04769	99.450496	35.548967	36.3847589
17	Pw2	4598.3	4598.3	3553.5	3552.4	4033.1	4032.5	6590.2	6591.0
18	Ps2	8773.5	8772.5	6747.9	6784.9	7680.5	7702.5	12568.4	12425.5
19	Ps	2962.0	2961.8	2597.7	2604.8	2771.4	2775.3	3545.2	3525.0
20	P	2534.1	2534.0	2228.4	2232.0	2377.3	2379.3	3052.7	3042.6
21	Pr	3.85	3.85	3.39	3.39	3.61	3.62	4.64	4.62
22	Tr	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
23	Z	0.805	0.805	0.804	0.804	0.804	0.804	0.820	0.820

Pc =	3688.2	Pc2 =	13602.8
Pt2 =	4436.1	Pw =	2144.4
	3456.6		1884.8
	3933.1		2008.1
	6554.6		2567.3
Pc2-Pw2=	9004.5	Pw2 =	4598.3
	10050.4		3552.4
	9570.3		4032.5
	7011.8		6591.0
n =		1.000	
Pc2/(Pc2-Pw2) =		1.511	
		1.353	
		1.421	
		1.940	
[Pc2/Pc2-Pw2]n =		1.511	
		1.353	
		1.421	
		1.940	
AOF= Q		5.446	
		3.753	
		4.017	
		3.273	

FORM C122-D

Laboratory Services, Inc.
4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Pro Well Testing & Wireline
P. O. Box 791
Hobbs, New Mexico 88241

SAMPLE:
IDENTIFICATION: Chaparal 33 Fed. Com. #2
COMPANY: Gruy Petroleum
LEASE:
PLANT:

SAMPLE DATA:
DATE SAMPLED:
ANALYSIS DATE: 12/11/03
PRESSURE – PSIG 490
SAMPLE TEMP. °F 68
ATMOS. TEMP. °F

GAS (XX) LIQUID ( )
SAMPLED BY: Glen Burton
ANALYSIS BY: Vickie Biggs

REMARKS: Condensate API Gravity @ 60° F = 54.8

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
Hydrogen Sulfide	(H2S)		
Nitrogen	(N2)	8.786	
Carbon Dioxide	(CO2)	0.872	
Methane	(C1)	80.292	
Ethane	(C2)	6.027	1.608
Propane	(C3)	2.508	0.689
I-Butane	(IC4)	0.355	0.116
N-Butane	(NC4)	0.584	0.184
I-Pentane	(IC5)	0.200	0.073
N-Pentane	(NC5)	0.069	0.025
Hexane Plus	(C6+)	0.307	0.133
		100.000	2.828

BTU/CU.FT. – DRY	1037
AT 14.650 DRY	1033
AT 14.650 WET	1015
AT 14.73 DRY	1039
AT 14.73 WET	1021
SPECIFIC GRAVITY – CALCULATED	0.678
MEASURED	

MOLECULAR WT. 19.6657

Laboratory Services, Inc.
4016 Fiesta Drive
Hobbs, New Mexico 88240
Telephone: (505) 397-3713

Water Analysis

COMPANY Gruy Petroleum

SAMPLE Chaparal 33 Fed. Com. #2
SAMPLED BY Glen Burton-Pro Well

DATE TAKEN
REMARKS Low pH interferes with these tests.

Barium as Ba	0	
Carbonate alkalinity PPM	0	
Bicarbonate alkalinity PPM	148	
pH at Lab	3.8	
Specific Gravity @ 60°F	1.04	
Magnesium as Mg	*	
Total Hardness as CaCO3	*	
Chlorides as Cl	61,069	
Sulfate as SO4	325	
Iron as Fe	1,031	
Potassium	125	
Hydrogen Sulfide	0	
Rw	0.12	@ 22° C
Total Dissolved Solids	*	
Calcium as Ca	*	
Nitrate	0	

Results reported as Parts per Million unless stated

Langelier Saturation Index *

Analysis by: Vickie Biggs
Date: 12/11/03

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Telephone: (505) 397-3713

ASTM DISTILLATION

Pro Well Testing & Wireline
P. O. Box 791
Hobbs, New Mexico 88241

Sample Date:
Sampled By: Glen Burton

Gruy Petroleum
Chaparal 33 Fed. Com. #2

Percent Distilled	Temperature
IBP	92
5	117
10	166
20	185
30	207
40	224
50	246
60	277
70	328
80	385
90	498
95	575
EP	620

% Recovered = 97.0
% Residue = 1.0
% Loss = 2.0

API Gravity @ 60° F = 54.8
Molecular Weight = 115

Rolland Perry