

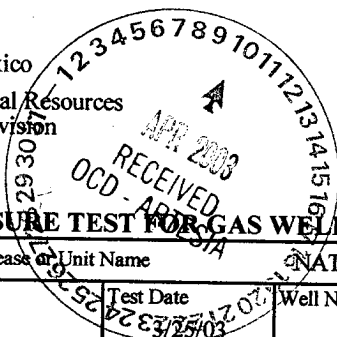
Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

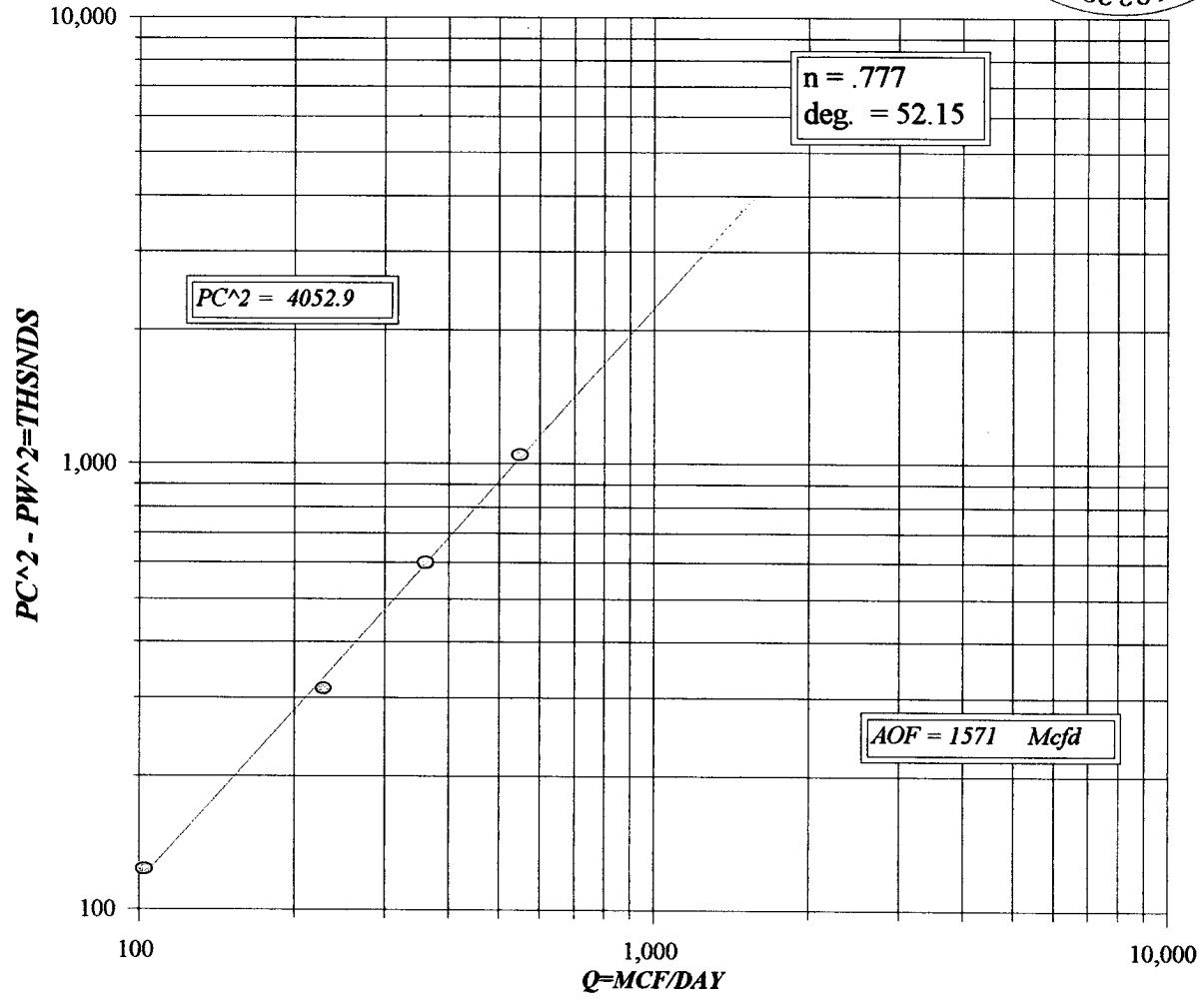
30-015-32406



Operator UNIT PETROLEUM CO.				Lease or Unit Name NATHAN FED COM			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4/25/03		Well No. 2	
Completion Date		Total Depth 12750		Plug Back TD 12710		Elevation	
Csg. Size 4 1/2	Wt. 13.5	d 3.92	Set At 12750	Perforations: From: 12198 To: 12302		Unit Ltr - Sec - TWP - Rge L 28 22S 28E	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 11980	Perforations: From: To:		County EDDY	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11980		Pool DUBLIN RANCH MRW	
Producing Thru Tubing		Reservoir Temp. °F 193		Mean Annual Temp. °F 60		Baro. Press. -P _a 13.2	
Connection SALES							
L 11980	H 11980	Gg 0.608	%CO ₂ 3.413	%N ₂ 1.118	%H ₂ S N/A	Prover N/A	Meter Run 3.068
Taps FLG							
FLOW 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						2000	N/A
1	3.068 X .875		372	1.52	85	1969	
2	3.068 X .875		384	7.3	85	1920	
3	3.068 X .875		396	17.6	83	1844	
4	3.068 X .875		409	39.7	80	1718	
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	3.65	24.2	385.2	0.9768	1.282	0.931	103
2	3.65	53.8	397.2	0.9768	1.282	0.931	229
3	3.65	84.8	409.2	0.9786	1.282	0.931	361
4	3.65	129.4	422.2	0.9813	1.282	0.929	552
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio N/A Mcf bbl.		
1	0.79	545	1.56	1.036	A.P. I. Gravity of Liquid Hydrocarbons N/A Deg.		
2	0.79	545	1.56	1.036	Specific Gravity Separator Gas 0.608 XXXXXXXX		
3	0.79	542	1.56	1.036	Specific Gravity Flowing Fluid N/A XXXXXX		
4	0.79	539	1.54	1.036	Critical Pressure 0.685 P.S.I.A. P.S.I.A.		
5					Critical Temperature 349 R. R.		
P _c	2013.2	P _c	4052.9				
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $P_c^2 = \frac{3.843}{P_c^2 - P_w^2}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.846$		
1		1982.2	3929.2	123.7			
2		1933.3	3737.5	315.4			
3		1857.3	3449.7	603.2			
4		1731.6	2998.3	1054.6			
5					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.571$		
Absolute Open Flow 1571				Mcf @ 15.025		Angle of Slope (°): 52.153	
						Slope n: 0.777	
Remarks: *NO LIQUID MADE DURING TEST.							
Approved By Division:		Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER		Checked By: MB	



UNIT PETROLEUM CO.
NATHAN FED COM #2



COMPANY : UNIT PET. CO.		LEASE : NATHAN FED COM		WELL NO. : 2		Pc = 2013.2		Pc2 = 4052.9	
UNIT : L		SECTION : 28		TOWNSHIP : 22S		P12 = 3929.1		Pw = 1982.2	
L : 11980	H : 111980	L/H : 0	G/GMIX : 0.680	DATE : 3/25/03		3737.3		1933.3	
%CO2 : 3.413	%N2 : 1.118	H2S : 8197.0	RANGE : 26E		3449.2		1857.3		
d : 1.995	Fr : 0.018183					2997.1		1731.6	
VOL 1 : 103		PSIA 1 : 1982.2		RESV.TEMP : 193.0		Pc2-Pw2 = 123.7		Pw2 = 3929.2	
VOL 2 : 229		PSIA 2 : 1933.2		SHUT-IN PRESS : 2013.2		315.4		3737.5	
VOL 3 : 361		PSIA 3 : 1857.2				603.2		3449.7	
VOL 4 : 552		PSIA 4 : 1731.2				1054.6		2998.3	
PCR : 685		TCR : 349				n = 0.777			
LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST		2ND		1ST		2ND	
1	QM	0.103	0.103	0.229	0.229	0.361	0.361	0.552	0.552
2	TW	534	534	534	534	534	534	534	534
3	Ts	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
4	T	593.5	593.5	593.5	593.5	593.5	593.5	593.5	593.5
5	PR (est)	2.89	2.82	2.71	2.53	2.845	2.845	2.845	2.845
6	Z (est)	0.846	0.842	0.842	0.849	0.843	0.853	0.845	0.845
7	TZ	502.3	499.8	502.9	499.9	504.1	500.4	506.5	501.6
8	GH/TZ	16.319	16.401	16.298	16.396	16.260	16.382	16.185	16.341
9	eS	1.844	1.850	1.843	1.849	1.840	1.848	1.835	1.846
10	I-e-S	0.458	0.459	0.457	0.459	0.457	0.459	0.455	0.458
11	Pt	1982.2	1982.2	1933.2	1933.2	1857.2	1857.2	1731.2	1731.2
12	Pt2 /1000	3929.1	3929.1	3737.3	3737.3	3449.2	3449.2	2997.1	2997.1
13	Fr	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183
14	Fc=Fr/TZ	9.133	9.088	9.145	9.090	9.166	9.098	9.209	9.121
15	FcQm	0.94	0.94	2.09	2.08	3.31	3.28	5.08	5.03
16	L/H(FcQm)2	0.1	0.1	0.5	0.5	1.2	1.2	2.7	2.7
17	Fw	0.0433342	0.0430601	0.2145606	0.2129258	0.5347834	0.5297158	1.2577783	1.24253583
18	Pw2	3929.2	3929.2	3737.5	3737.5	3449.7	3449.7	2998.3	2998.3
19	Ps2	7245.6	7267.8	6886.6	6912.0	6347.4	6376.5	5501.3	5533.5
20	Ps	2691.8	2695.9	2624.2	2629.1	2519.4	2525.2	2345.5	2352.3
21	P	2337.0	2339.0	2278.7	2281.1	2188.3	2191.2	2038.3	2041.8
22	Pr	3.41	3.41	3.33	3.33	3.19	3.20	2.98	2.98
23	Tr	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
24	Z	0.842	0.842	0.842	0.842	0.843	0.843	0.845	0.845
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: Nathan Fed. Com. #2
COMPANY: Unit Petroleum
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 3/25/03
ANALYSIS DATE: 3/26/03
PRESSURE - PSIG 390
SAMPLE TEMP. °F 84
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: Merv Buscker
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	1.118	
Carbon Dioxide (CO2)	3.413	
Methane (C1)	93.409	
Ethane (C2)	1.764	0.471
Propane (C3)	0.221	0.061
I-Butane (IC4)	0.043	0.014
N-Butane (NC4)	0.032	0.010
I-Pentane (IC5)	0.000	0.000
N-Pentane (NC5)	0.000	0.000
Hexane Plus (C6+)	0.000	0.000
	100.000	0.556

BTU/CU.FT. - DRY 983
AT 14.650 DRY 980
AT 14.650 WET 963
AT 14.73 DRY 985
AT 14.73 WET 968

MOLECULAR WT. 17.4695

SPECIFIC GRAVITY -
CALCULATED 0.608
MEASURED