

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

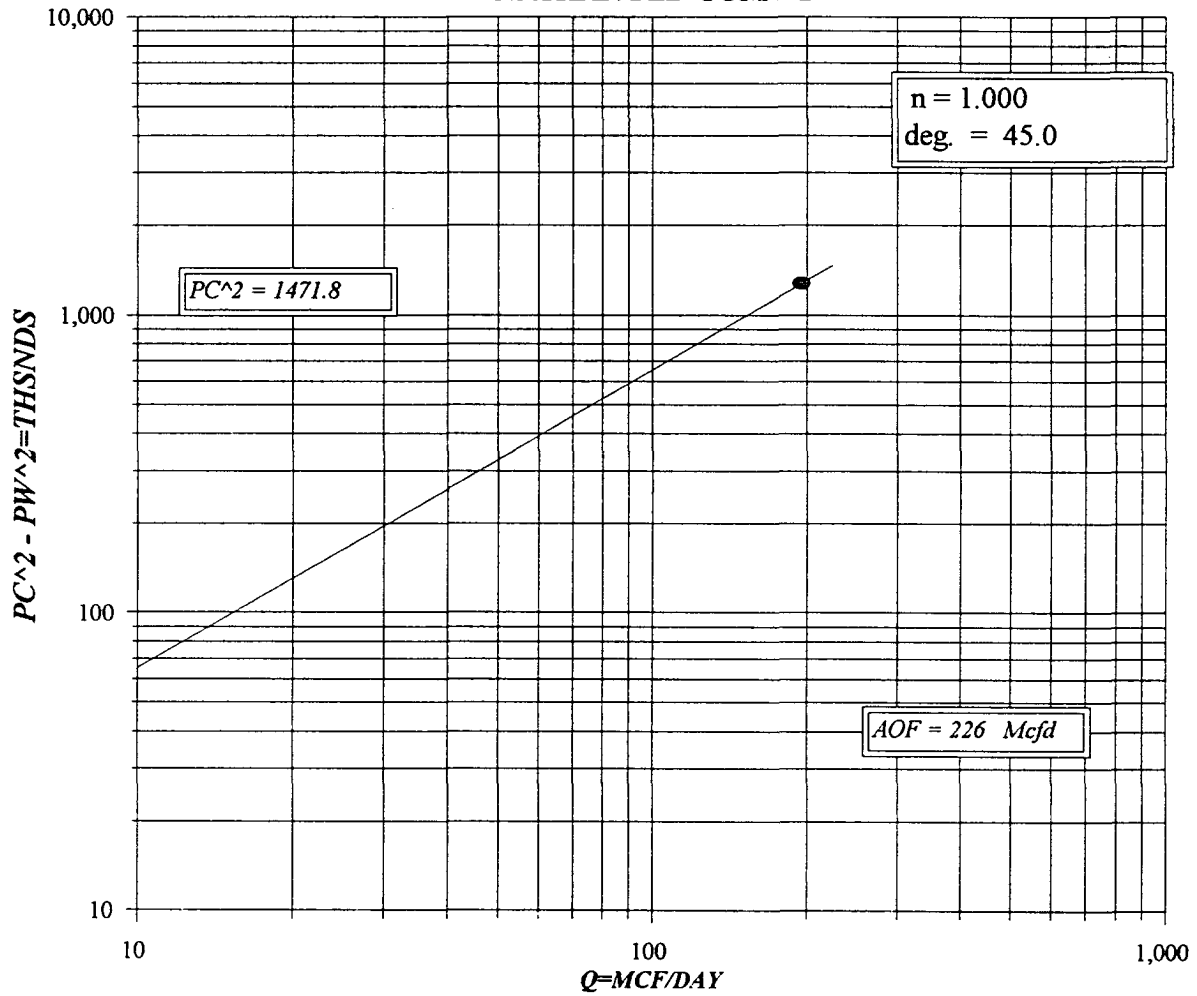
30-015-32406



MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator UNIT PETROLEUM CO.					Lease or Unit Name NATHAN FED COM				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 3/25/03		Well No. 2		
Completion Date		Total Depth 12750		Plug Back TD 12710		Elevation		Unit Ltr - Sec - TWP - Rge L 28 22S 28E	
Csg. Size 4 1/2	Wt. 13.5	d 3.92	Set At 12750	Perforations: From: 11372 To: 11416			County EDDY		
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 11300	Perforations: From: To:			Pool DUBLIN RANCH MRW		
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11300			Formation ATOKA		
Producing Thru Tubing		Reservoir Temp. °F 173		Mean Annual Temp. °F 60		Baro. Press.-P _a 13.2		Connection SALES	
L 11300	H 11300	Gg 0.585	%CO ₂ 0.614	%N ₂ 0.766	%H ₂ S N/A	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						1200	N/A	PKR	N/A
1		3.068 X .875	408	4	90	425			24 HRS
2									
3									
4									
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		41	422	0.9723	1.307	1.035		196
2									
3									
4									
5									
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio N/A Mcf bbl.				
1	0.81	550	1.58	0.933	A.P. I. Gravity of Liquid Hydrocarbons N/A Deg.				
2					Specific Gravity Separator Gas 0.585 XXXXXXXX				
3					Specific Gravity Flowing Fluid N/A XXXXXX				
4					Critical Pressure 675 P.S.I.A. P.S.I.A.				
5					Critical Temperature 346 R. R				
P _c 1213.2 P _{c2} 1471.8					$(1) \quad \frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.152}{\quad}$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{226}{\quad}$ $(2) \quad \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.152}{\quad}$				
No.	P _t ²	P _w	P _w ²	P _c ² - P _w ²					
1		440.1	193.7	1278.1					
2									
3									
4									
5									
Absolute Open Flow 226					Mcf/d @ 15.025		Angle of Slope (°): 45		Slope n: 1
Remarks: *NO LIQUID MADE DURING TEST.									
Approved By Division:			Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER		Checked By: MB		

UNIT PET. CO.
NATHAN FED COM # 2



Wildcat Measurement Service
P.O. Box 1836
Artesia, New Mexico 88211-1836
Tollfree 1888-421-4453
Office 305-746-3481
"Quality and Service is our First Concern"

WDS 66/25/00

Run No. 238711-01
Data Run 07/11/2003
Date Sampled 07/11/2003

Analysis for: UNIT PETROLEUM COMPANY

GPANGL 660

Well Name: NATHAN FEDERAL CO# 12

Field: E. CARLSBAD

Sta. Number:

Purpose: SPOT

Sampling Temp: 116 DEG F

Volume/day:

Pressure on Cylinder: 385 PSIG

Producer: UNIT PETROLEUM COMPANY

County: EDDY

State: NM

Sampled By: DON NORMAN

Atmos Temp: 99 DEG F

Formation:

Line Pressure: 398.2 PSIA

GAS COMPONENT ANALYSIS

Pressure Base: 14.7300

	Mol %	GPM
Carbon Dioxide CO2	0.6141	
Nitrogen N2	0.7666	
Methane C1	95.6683	
Ethane C2	2.2356	0.6029
Propane C3	0.3791	0.1044
Iso-Butane IC4	0.0553	0.0116
Nor-Butane NC4	0.0727	0.0229
Iso-Pentane IC5	0.0288	0.0165
Nor-Pentane NC5	0.0074	0.0027
Hexanes Plus C6+	0.1421	0.0620
TOTAL	100.0000	0.8260

Real BTU Dry: 1031.37
Real BTU Wet: 1013.37
Real Calc. Specific Gravity: 0.5851
Field Specific Gravity: 0.0000

Standard Pressure: 14.6960
BTU Dry: 1028.94
BTU Wet: 1011.04

B Factor: 0.9979
N Value: 1.3045
Avg Mol Weight: 16.9173
Avg CuFt/Gal: 58.5715
26 In Product: 0.1234
Methane+ GPM: 17.0421
Ethane+ GPM: 0.6268
Propane+ GPM: 0.2239
Butane+ GPM: 0.1195
Pentane+ GPM: 0.0752

REMARKS:

WDS ON LOCATION: NONE DETECTED

Approved by: DON NORMAN

Mon Jul 14 09:17:36 2003