30-025-36489

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

Operator				Lease or Unit Name			
LATIGO				COPPERHEAD "18"			
Type Test: ☑ Initial ☐ Annual ☐ Special				Test Date: 7/14/04		Well No.: 1	
Completion Date		Total Depth		Plug Back TD		Elevation	Unit Ltr - Sec - TWP - Rge
Csg. Size	Wt.	d	Set At	Perforations: From: 14228 To: 14388			County: LEA
Tbg. Size: 2 3/8	Wt.: 4.7	d: 1.995	Set At: 14115	Perforations: From: To:			Pool
Type Well-Single-Bradenhead-G.G. or G.O. Multiple: SINGLE				Packer Set At: 14115			Formation: Strawn
Producing Thru: TUBING	Reservoir Temp.: 201	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
14115	14115	0.639	0.885	0.763			4.026	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					4338				
1	4.026 X 1.000	373	8	120	4237				1 HRS
2	4.026 X 1.000	375	16	127	4008				1 HRS
3	4.026 X 1.000	381	40	117	3651				1 HRS
4	4.026 X 1.000	386	61	114	3190				1 HRS
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							334
2	TOTAL	FLOW	METER				469
3							763
4							944
5							

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

Gas Liquid Hydrocarbon Ratio: N/A Mcf/bbl.
A.P. I. Gravity of Liquid Hydrocarbons: N/A Deg.
Specific Gravity Separator Gas: 0.639 XXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 673 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 368 R. ____ R

P_c 4351.2 P_c^2 18932.9

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		4250.8	18069.1	863.8
2		4022.4	16179.6	2753.4
3		3667.5	13450.5	5482.4
4		3208.7	10295.6	8637.3
5				

(1) $\dfrac{P_c^2}{P_c^2 - P_w^2} =$ 2.192 (2) $\left[\dfrac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 1.479

AOF = Q $\left[\dfrac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 1.557

Absolute Open Flow: 1.557 Mcfd @ 15.025 | Angle of Slope (): 63.5 | Slope n: 0.4986

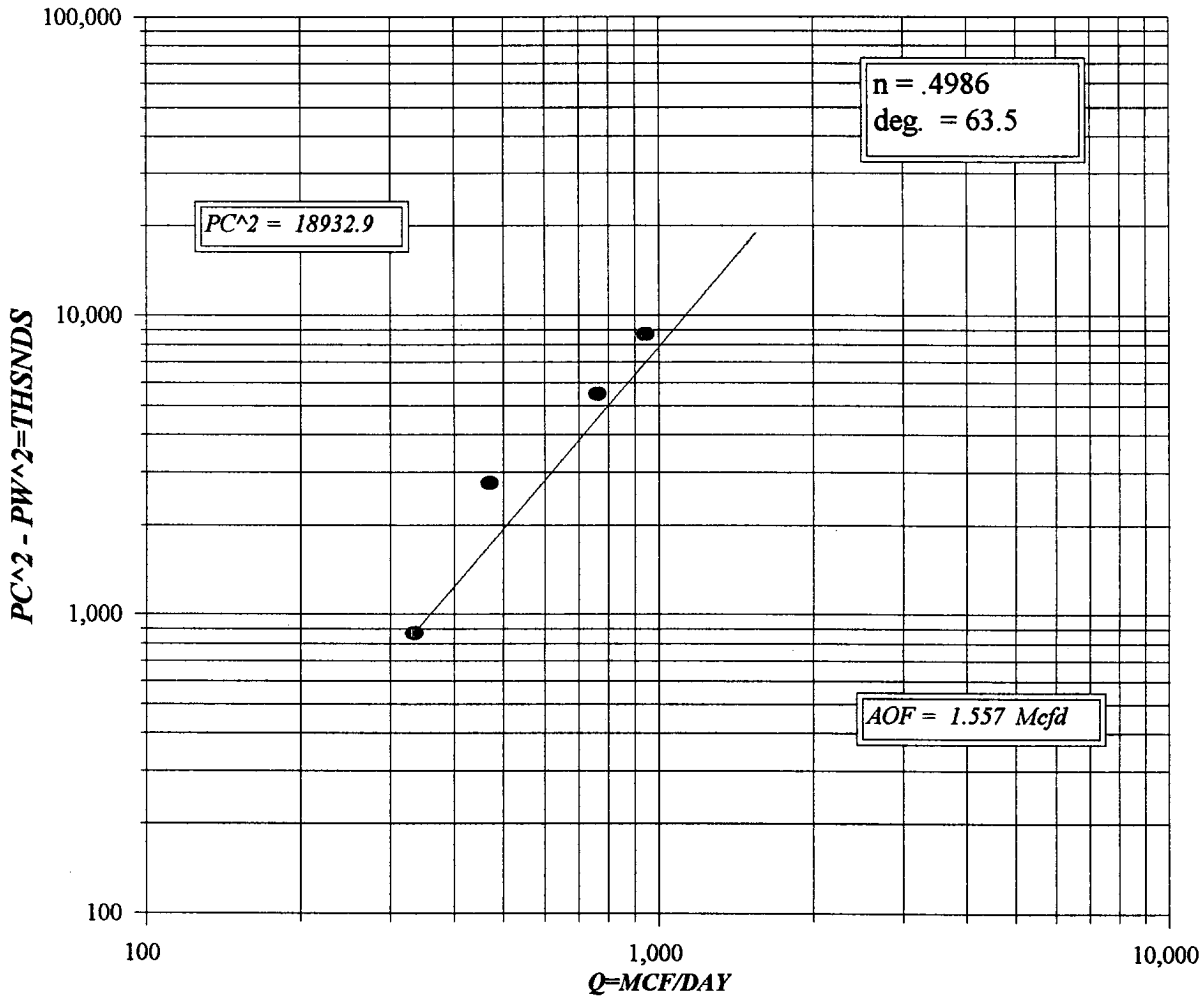
Remarks: * NO LIQUID MADE DURING TEST.

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

RECEIVED AUG 2004 Hobbs OCD

LATIGO

COPPERHEAD "18" #1



C122D FORM IMPORTED FROM SYMPHONY ON 9-9-01

COMPANY :	LATIGO		LEASE :	COPPERHEAD "18"	WELL NO. :	1			
UNIT :			SECTION :		TOWNSHIP :				
L :	14115	H :	14115	L/H :	1	G/GMIX :			
%CO2 :	0.66	%N2 :	0.763	H2S :			DATE :	7/14/04	
d :	1.995	Fr :	0.018183	GH :	8197.0		RANGE :		

VOL 1 :	334	PSIA 1 :	4250.2		
VOL 2 :	469	PSIA 2 :	4021.2	RESV.TEMP	201.0
VOL 3 :	763	PSIA 3 :	3664.2		
VOL 4 :	944	PSIA 4 :	3203.2	SHUT-IN PRES =	4351.2
		PCR :	673		
		TCR :	368		

LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1	QM	0.334	0.334	0.469	0.469	0.763	0.763	0.944	0.944
2	TW	534	534	534	534	534	534	534	534
3	Ts	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
4	T	597.5	597.5	597.5	597.5	597.5	597.5	597.5	597.5
	PR (est)	6.32		5.98		5.44		4.76	
5	Z(est)	0.893	0.947	0.877	0.927	0.855	0.897	0.832	0.863
6	TZ	533.6	565.7	524.2	553.8	511.1	536.1	497.2	515.4
7	GH/TZ	15.362	14.489	15.636	14.801	16.040	15.291	16.486	15.905
8	eS	1.779	1.722	1.797	1.742	1.825	1.774	1.856	1.816
9	I-e-S	0.438	0.419	0.444	0.426	0.452	0.436	0.461	0.449
10	Pt	4250.2	4250.2	4021.2	4021.2	3664.2	3664.2	3203.2	3203.2
11	Pt2 /1000	18064.2	18064.2	16170.0	16170.0	13426.4	13426.4	10260.5	10260.5
12	Fr	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183	0.018183
13	Fc=FrTZ	9.702	10.287	9.532	10.070	9.292	9.748	9.041	9.371
14	FcQm	3.24	3.44	4.47	4.72	7.09	7.44	8.53	8.85
15	L/H(FcQm)2	10.5	11.8	20.0	22.3	50.3	55.3	72.8	78.3
16	Fw	4.5984231	4.948497	8.8670097	9.5007125	22.722027	24.139046	33.585063	35.1551303
17	Pw2	18068.8	18069.1	16178.9	16179.6	13449.1	13450.5	10294.1	10295.6
18	Ps2	32145.3	31110.4	29080.1	28185.1	24542.2	23865.0	19102.1	18693.1
19	Ps	5669.7	5577.7	5392.6	5309.0	4954.0	4885.2	4370.6	4323.6
20	P	4959.9	4913.9	4706.9	4665.1	4309.1	4274.7	3786.9	3763.4
21	Pr	7.37	7.30	6.99	6.93	6.40	6.35	5.63	5.59
22	Tr	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
23	Z	0.947	0.943	0.927	0.924	0.897	0.895	0.863	0.861

Pc =	4351.2	Pc2 =	18932.9
Pt2 =	18064.2	Pw =	4250.8
	16170.0		4022.4
	13426.4		3667.5
	10260.5		3208.7
Pc2-Pw2=	863.8	Pw2 =	18069.1
	2753.3		16179.6
	5482.4		13450.5
	8637.3		10295.6
n =	0.499		
Pc2/(Pc2-Pw2) =	21.919		
	6.876		
	3.453		
	2.192		
[Pc2/Pc2-Pw2]n =	4.662		
	2.615		
	1.855		
	1.479		
AOF= Q	1.557		
	1.227		
	1.415		
	1.396		

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: Copper Head 18 #1
COMPANY: Latigo
LEASE:
PLANT:

SAMPLE DATA:
DATE SAMPLED: 7/7/04 4:00 pm
ANALYSIS DATE: 7/15/04'
PRESSURE – PSIG 375
SAMPLE TEMP. °F 110
ATMOS. TEMP. °F 110

GAS (XX) LIQUID ( )
SAMPLED BY: Jim Rice
ANALYSIS BY: Vickie Biggs

REMARKS: Received 7/15/04

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
Hydrogen Sulfide	(H2S)		
Nitrogen	(N2)	0.763	
Carbon Dioxide	(CO2)	0.616	
Methane	(C1)	88.994	
Ethane	(C2)	6.442	1.719
Propane	(C3)	1.694	0.466
I-Butane	(IC4)	0.300	0.098
N-Butane	(NC4)	0.373	0.117
I-Pentane	(IC5)	0.159	0.058
N-Pentane	(NC5)	0.125	0.045
Hexane Plus	(C6+)	0.534	0.232
		100.000	2.735

BTU/CU.FT. – DRY	1114
AT 14.650 DRY	1111
AT 14.650 WET	1091
AT 14.73 DRY	1117
AT 14.73 WET	1097

MOLECULAR WT. 18.5336

SPECIFIC GRAVITY – CALCULATED	0.639
MEASURED	