

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

State of New Mexico
Er. /, Minerals and Natural Resources Departmen.

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION
2040 Pacheco St.
Santa Fe, NM 87505

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Altura Energy LTD					Lease or Unit Name State BG				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 9/30/98		Well No. 2		
Completion Date * 8/18/97		Total Depth 12,394'		Plug Back TD 11,828'		Elevation 3985' GL		Unit Ltr. - Sec. - TWP - Rge. J 19 17-S 35-E	
Csg. Size 5-1/2	Wt. 17, 20	d	Set At 12,394'	Perforations: From: 11,402 To: 11,655'			County Lea		
Tbg. Size 2-3/8	Wt. 4.7	d	Set At 11,348	Perforations: From: To:			Pool N. Vacuum Atoka - Morrow		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11,348'			Formation Atoka		
Producing Thru Tbg. 168.7 @ 11,348'		Reservoir Temp. °F 60		Mean Annual Temp. °F 60			Baro. Press - P _a 13.2		
L 11,348	H 11,348	Gg .843	% CO ₂ .518	% N ₂ 1.128	% H ₂ S	Prover	Meter Run 3.071	Taps Flg.	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice 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						754		Pkr.		24 hrs.
1.	3 X 1.250		65			68				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 Fg.	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.							46
2.	** Volume measured from total flow meter						
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.					2.447	
2.					44.8 @ 60°	Deg.
3.					.843	XXXXXXXXXX
4.					XXXXXX	G mix = 1.843
5.					664	P.S.I.A. P.S.I.A.
					438	R R

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		81.8	6.7	581.9
2.				
3.				
4.				
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.012$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 47$

2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.012$

Absolute Open Flow 47 Mcfd @ 15.025	Angle of Slope θ 45	Slope, n 1.000
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Remarks: **Well produced 18.8 bbls of 44.8 API Gr. oil; no water produced**

Approved By Division	Conducted By: Metering & Testing Ser.	Calculated By: Bob Murray	Checked By: Bob Murray
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* Well put on production 7/1/98



Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Metering & Testing Services, Inc.
Attention: Mr. Al Lewis
2807 W. County Rd.
Hobbs, New Mexico 88240

SAMPLE:
IDENTIFICATION: State BG #2
COMPANY:
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED:
ANALYSIS DATE: 9/29/98
PRESSURE – PSIG
SAMPLE TEMP. °F
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: Metering & Testing
ANALYSIS BY: Vickie Walker

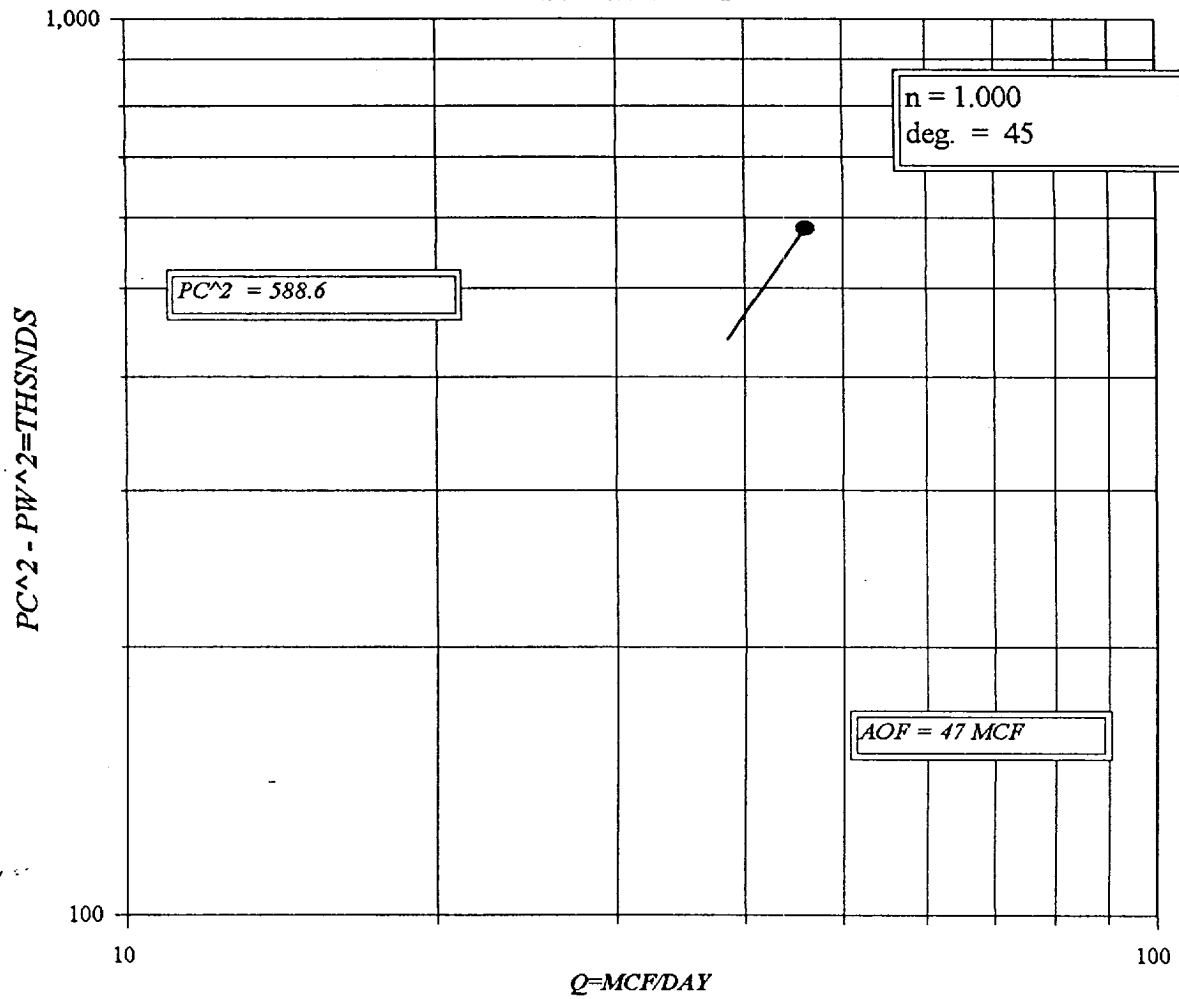
REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	1.128	
Carbon Dioxide (CO2)	0.518	
Methane (C1)	66.653	
Ethane (C2)	14.417	3.846
Propane (C3)	10.975	3.017
I-Butane (IC4)	1.463	0.478
N-Butane (NC4)	3.095	0.974
I-Pentane (IC5)	0.618	0.226
N-Pentane (NC5)	0.589	0.213
Hexane Plus (C6+)	0.544	0.223
	100.000	8.977
BTU/CU.FT. – DRY	1427	MOLECULAR WT. 24.3990
AT 14.650 DRY	1423	
AT 14.650 WET	1398	
AT 14.73 DRY	1431	
AT 14.73 WET	1406	
SPECIFIC GRAVITY –		
CALCULATED	0.843	
MEASURED		

COMPANY :	ALIONA ENERGY	LEASE :	ST. DU	WELL NO. :	4	PC -	107.2	PC2 -	300.0
UNIT :	J	SECTION :	19	TOWNSHIP :	17 S				
L :	11348	H :	11348	H :	1	G/GMIX :	0.843	Pt2 =	6.6
%CO2 :	0.518	%N2 :	1.128	H2S :		DATE :	9 30 98	Pw =	81.8
d :	1.995	Fr :	0.018231	GH :	9566.4	RANGE :	-35 E		0.0
									0.0
									0.0
VOL 1 :	46	PSIA 1 :	81.2	RESV.TEMP	168.7	Pc2-Pw2=	581.9	Pw2 =	6.7
VOL 2 :		PSIA 2 :					ERR		ERR
VOL 3 :		PSIA 3 :		SHUT-IN PR=	767.2		ERR		ERR
VOL 4 :		PSIA 4 :					ERR		ERR
		PCR :	664					n =	1.000
		TCR :	438						
						Pc2/(Pc2-Pw2) =	1.012		
LINE	RATE 1		RATE 2		RATE 3		RATE 4		
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND	
1 QM	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	
2 TW	534	534	534	534	534	534	534	534	[Pc2/Pc2-Pw2]n = 1.012
3 Ts	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	ERR
4 T	581.4	581.4	581.4	581.4	581.4	581.4	581.4	581.4	ERR
PR (est)	0.12		0.00		0.00		0.00		ERR
5 Z(est)	0.958	0.954	ERR	ERR	ERR	ERR	ERR	ERR	
6 TZ	556.9	554.9	ERR	ERR	ERR	ERR	ERR	ERR	AOF= Q 0.047 ✓
7 GH/TZ	17.178	17.241	ERR	ERR	ERR	ERR	ERR	ERR	ERR
8 eS	1.904	1.909	ERR	ERR	ERR	ERR	ERR	ERR	ERR
9 l-e-S	0.475	0.476	ERR	ERR	ERR	ERR	ERR	ERR	ERR
10 Pt	81.2	81.2	0.0	0.0	0.0	0.0	0.0	0.0	
11 Pt2 /1000	6.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	
12 Fr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	
13 Fc=FrTZ	10.153	10.116	ERR	ERR	ERR	ERR	ERR	ERR	
14 FcQm	0.47	0.47	ERR	ERR	ERR	ERR	ERR	ERR	
15 L/H(FcQm)	0.2	0.2	ERR	ERR	ERR	ERR	ERR	ERR	
16 Fw	0.103582	0.103101	ERR	ERR	ERR	ERR	ERR	ERR	
17 Pw2	6.7	6.7	ERR	ERR	ERR	ERR	ERR	ERR	
18 Ps2	12.8	12.8	ERR	ERR	ERR	ERR	ERR	ERR	
19 Ps	112.9	113.1	ERR	ERR	ERR	ERR	ERR	ERR	
20 P	97.1	97.1	ERR	ERR	ERR	ERR	ERR	ERR	
21 Pr	0.15	0.15	ERR	ERR	ERR	ERR	ERR	ERR	
22 Tr	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	
23 Z	0.954	0.954	ERR	ERR	ERR	ERR	ERR	ERR	FORM C122-D

ALTURA ENERGY
STATE B 6 # 2



NEW MEXICO G.O.R./G. MIX

NO. OF BBLS PRODUCED = 18.8

API GRAVITY @ 60 DEG. = 44.8

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SPECIFIC GRAVITY OF GAS = 0.8430

XX
TOTAL GAS PRODUCED = 46

G.O.R. = 2.447

G.MIX = 1.843