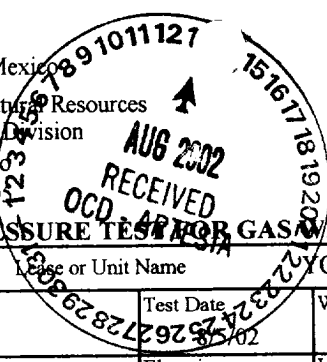


Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87501

Form C-122
Revised October, 1999

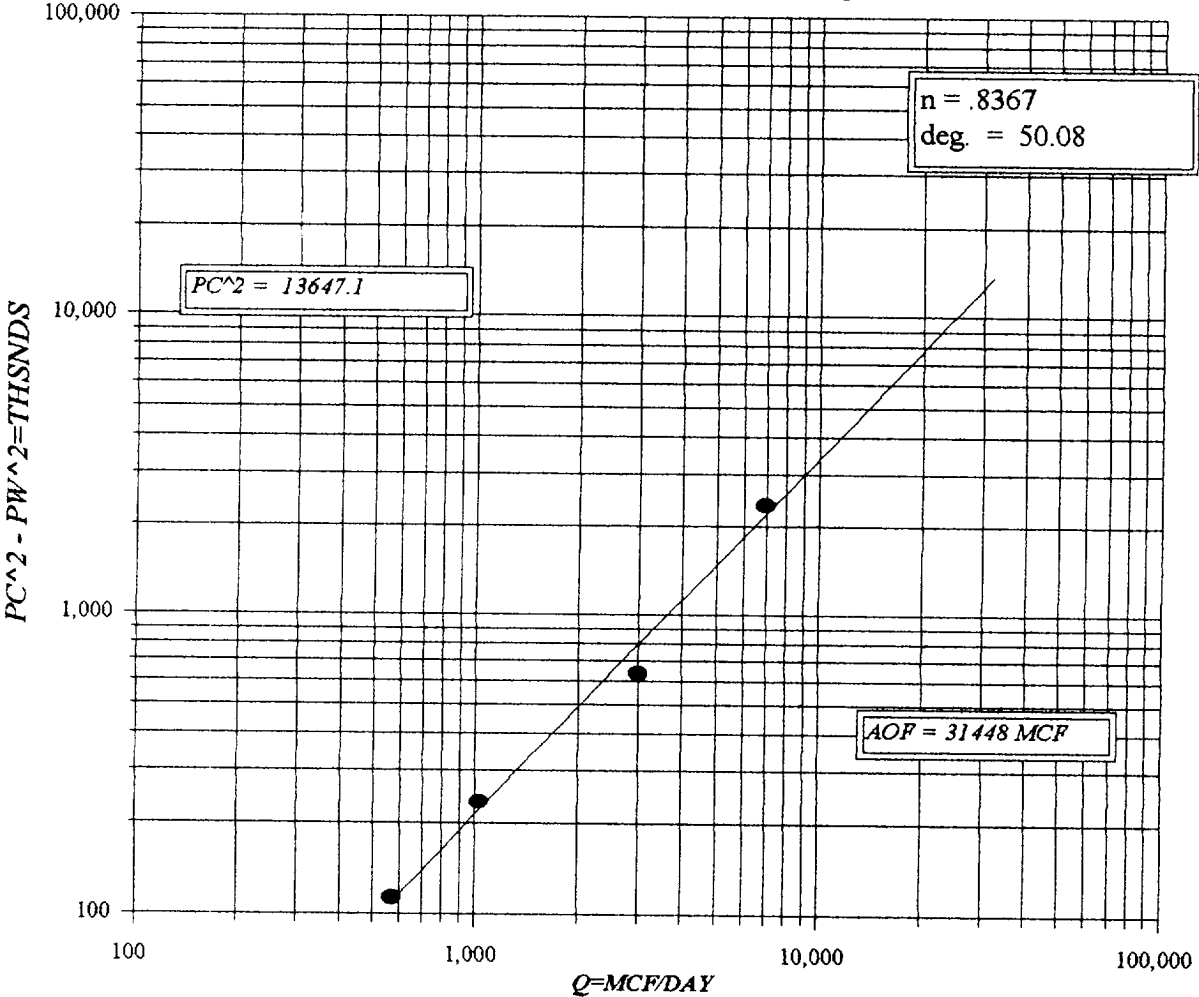
CISF



MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MURCHISON OIL & GAS, INC. /				Lease or Unit Name YOGI BEAR STATE COM.			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8/5/02		Well No. 1	
Completion Date 7/10/02		Total Depth 10620		Plug Back TD 10531		Elevation 3719 GL	
Unit Ltr - Sec - TWP - Rge H 12 17 28		County EDDY		Pool EMPIRE MORROW SO.		Formation MORROW	
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 10620	Perforations: From: 10432 To: 10456		Connection AGAVE	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 10347	Perforations: From: OPEN To: ENDED		Baro. Press.-P _a 13.2	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 10347		Meter Run 4.026	
Producing Thru Tbg. Size		Reservoir Temp. °F 159.8 @ 10347		Mean Annual Temp. °F 60		Taps FLG	
L 10347	H 10347	Gg 0.684	%CO ₂ 0.278	%N ₂ 0.786	%H ₂ S N/A	Prover N/A	Duration of Flow
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
SI						PKR	25 DAYS
1	4 X 2.000		213	2.2	97	3664	1 HR
2	4 X 2.000		222	6.5	79	3644	1 HR
3	4 X 2.000		261	50.4	54	3550	1 HR
4	4 X 2.000		352	171	24	3095	1 HR
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							572
2							1,028
3	MEASURED	BY	TOTAL	FLO W	METER		3,006
4							6,997
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 46.044 Mcf/bbl.		
1					A.P.I. Gravity of Liquid Hydrocarbons 53.9 @ 60 Deg.		
2					Specific Gravity Separator Gas 0.684 XXXXXXXX		
3		N/A			Specific Gravity Flowing Fluid XXXXXX Gmix = .784		
4					Critical Pressure 669 P.S.I.A. 667 P.S.I.A.		
5					Critical Temperature 385 R. 405 R		
P _c 3694.2 P _w 13647.1							
No.	P ₁ ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{120.181}{79825}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{54.979}{31.448}$		
1		3678.8	13533.6	113.6			
2		3662.4	13413	234.1			
3		3607.8	13016.3	630.8			
4		3361.4	11298.8	2348.3			
5							
Absolute Open Flow 31.448				Mcf/d @ 15.025		Angle of Slope (°): 50.08	
Slope n: 0.8367							
Remarks: WELL PRODUCED 10.5 BBLs CONDENSATE DURING TEST							
Approved By Division:		Conducted By: JARREL SERVICES, INC.		Calculated By: BM		Checked By: BM	

MURCHISON OIL & GAS, INC.
YOGI BEAR STATE COM. # 1



COMPANY: MICROFILM OIL & GAS DEPT: 1001 BEAR ST COR WELLS NO.: 1
 UNIT: H SECTION: 12 TOWNSHIP: 17
 L: 10347 H: 10347 L/H: 1 G/GMIX: 0.748
 %CO2: 0.278 %N2: 0.786 H2S: DATE: 8-05-02
 d: 1.995 Fr: 0.018231 GH: 7739.6 RANGE: 28

PC = 3694.2 PC2 = 13647.1
 Pt2 = ***** Pw = 3678.8
 ***** 3662.4
 ***** 3607.8
 9660.9 3361.4

VOL 1: 572 PSIA 1: 3677.2 RESV.TEMP 159.8
 VOL 2: 1028 PSIA 2: 3657.2
 VOL 3: 3006 PSIA 3: 3563.2 SHUT-IN PR= 3694.2
 VOL 4: 6997 PSIA 4: 3108.2

PC2-Pw2= 113.6 Pw2 = 13533.6
 234.1 13413.0
 630.8 13016.3
 2348.2 11299.0

PCR: 667
 TCR: 405

n = 0.837
 PC2/(PC2-Pw2) = 120.181
 58.287
 21.636
 5.812

LINE	RATE 1		RATE 2		RATE 3		RATE 4	
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1 QM	0.572	0.572	1.028	1.028	3.006	3.006	6.997	6.997
2 TW	534	534	534	534	534	534	534	534
3 Ts	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8
4 T	576.9	576.9	576.9	576.9	576.9	576.9	576.9	576.9
PR (est)	5.51		5.48		5.34		4.66	
5 Z(est)	0.788	0.854	0.786	0.852	0.778	0.844	0.742	0.808
6 TZ	454.4	492.9	453.4	491.8	448.6	487.2	428.0	466.0
7 GH/TZ	17.032	15.701	17.070	15.738	17.251	15.886	18.082	16.609
8 eS	1.894	1.802	1.897	1.804	1.910	1.814	1.970	1.864
9 l-e-S	0.472	0.445	0.473	0.446	0.476	0.449	0.492	0.464
10 Pt	3677.2	3677.2	3657.2	3657.2	3563.2	3563.2	3108.2	3108.2
11 Pt2 /1000	13521.8	13521.8	13375.1	13375.1	12696.4	12696.4	9660.9	9660.9
12 Pr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231
13 Pc=PrTZ	8.285	8.987	8.266	8.966	8.179	8.882	7.804	8.496
14 PcQm	4.74	5.14	8.50	9.22	24.59	26.70	54.60	59.44
15 L/H(PcQm)	22.5	26.4	72.2	84.9	604.5	712.8	2981.3	3533.5
16 Fw	10.59968	11.75870	34.13673	37.86706	287.9544	319.9502	1467.990	1638.0522
17 Pw2	13532.4	13533.6	13409.2	13413.0	12984.3	13016.3	11128.9	11299.0
18 Ps2	25630.3	24384.8	25433.9	24201.0	24795.5	23616.6	21924.6	21063.5
19 Ps	5062.6	4938.1	5043.2	4919.5	4979.5	4859.7	4682.4	4589.5
20 P	4369.9	4307.6	4350.2	4288.3	4271.4	4211.4	3895.3	3848.8
21 Pr	6.55	6.46	6.52	6.43	6.40	6.31	5.84	5.77
22 Tr	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
23 Z	0.854	0.848	0.852	0.846	0.844	0.838	0.808	0.803

[PC2/PC2-Pw2]n = 54.979
 30.009
 13.096
 4.360
 AOF= Q 31.448
 30.850
 39.366
 30.508

=====

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

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NO. OF BBLS PRODUCED = 10.5

API GRAVITY @ 60 DEG. = 53.9

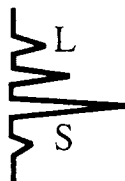
.....
SPECIFIC GRAVITY OF GAS = 0.6840

XX

TOTAL GAS PRODUCED = 483

G.O.R. = 46.044

G.MIX = 0.748



Laboratory Services, Inc.

4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Jarrel Services Inc.
Attention: Mr. Donnie Dickerson
P. O. Box 1230
Hobbs, New Mexico 88240

SAMPLE:
IDENTIFICATION: Yogi Bear St. Com. #1
COMPANY: Murchison Oil & Gas
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 8/5/02
ANALYSIS DATE: 8/6/02
PRESSURE - PSIG
SAMPLE TEMP. °F
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: JSI
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.786	
Carbon Dioxide (CO2)	0.278	
Methane (C1)	84.045	
Ethane (C2)	8.805	2.349
Propane (C3)	3.626	0.997
I-Butane (IC4)	0.369	0.120
N-Butane (NC4)	0.845	0.266
I-Pentane (IC5)	0.180	0.066
N-Pentane (NC5)	0.189	0.068
Hexane Plus (C6+)	0.877	0.381
	100.000	4.247
BTU/CU.FT. - DRY	1192	MOLECULAR WT. 19.8530
AT 14.650 DRY	1188	
AT 14.650 WET	1168	
AT 14.73 DRY	1195	
AT 14.73 WET	1174	
SPECIFIC GRAVITY - CALCULATED	0.684	
MEASURED		