

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87419
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.

30-015-32535

5. Indicate Type of Lease

STATE ☒ FEE ☐

State Oil & Gas Lease No. E-9510

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:

OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER ☐

b. Type of Completion:

NEW ☒ WORK ☐ DEEPEN ☐ PLUG ☐ DIFF.
WELL OVER BACK RESVR. ☐ OTHER

2. Name of Operator

MURCHISON OIL & GAS, INC.

3. Address of Operator

1100 MIRA VISTA BLVD. PLANO, TX. 75093-4698

7. Lease Name or Unit Agreement Name

POLAR BEAR ST. COM.

8. Well No.

1

9. Pool name or Wildcat

EMPIRE MORROW SOUTH

4. Well Location

Unit Letter E 1980 Feet From The NORTH Line and 1270 Feet From The WEST Line

Section 1 Township 17S Range 28E NMPM EDDY County

10. Date Spudded

12/18/02

11. Date T.D. Reached

1/19/03

12. Date Compl. (Ready to Prod.)

3/14/03

13. Elevations (DF& RKB, RT, GR, etc.)

GL 3609' RKB 3622'

14. Elev. Casinghead

3609'

15. Total Depth

10320

16. Plug Back T.D.

10190

17. If Multiple Compl. How Many Zones?

N/A

18. Intervals Drilled By

Rotary Tools

ALL/ROTARY

Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name

10,068 - 10,136

20. Was Directional Survey Made

NO

21. Type Electric and Other Logs Run

LATEROLOG-MICRO-CFL, GR, COMPENSATED NEUTRON/DENSITY

22. Was Well Cored

NO

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	68 #/FT	233'	17-1/2"	435	
9-5/8"	47 #/FT	2455'	12-1/4"	1550	
5-1/2"	17 #/FT	10320'	8-1/2"	1500	

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8"	9978'	9978'

26. Perforation record (interval, size, and number)

10,068 - 10,136 180 HOLES

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED

10068-10136 FRAC w/ 45000 # 20/40 SAND

28. PRODUCTION

Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)			Well Status (Prod. or Shut-in)		
3/14/03		FLOWING			PRODUCING		
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
3/10/03	4 HRS	22/64		0	57	4	N/A
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)	
120	0		0	342	24	N/A	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

FLARED

Test Witnessed By

TOMMY FOLSOM

30. List Attachments

LATEROLOG-MICRO-CFL, GR, COMPENSATED NEUTRON-DENSITY

31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief

Signature

Michael S. Daugherty

Printed

Name MICHAEL S. DAUGHERTY Title V P OPERATIONS

Date 3/19/03

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy_____	T. Canyon_____	T. Ojo Alamo_____	T. Penn. "B"_____
T. Salt_____	T. Strawn_____	T. Kirtland-Fruitland_____	T. Penn. "C"_____
B. Salt_____	T. Atoka 9689	T. Pictured Cliffs_____	T. Penn. "D"_____
T. Yates 650	T. Miss 10162	T. Cliff House_____	T. Leadville_____
T. 7 Rivers_____	T. Devonian_____	T. Menefee_____	T. Madison_____
T. Queen 1407	T. Silurian_____	T. Point Lookout_____	T. Elbert_____
T. Grayburg 1661	T. Montoya_____	T. Mancos_____	T. McCracken_____
T. San Andres 2208	T. Simpson_____	T. Gallup_____	T. Ignacio Oztzte_____
T. Glorieta 3581	T. McKee_____	Base Greenhorn_____	T. Granite_____
T. Paddock_____	T. Ellenburger_____	T. Dakota_____	T. _____
T. Blinebry_____	T. Gr. Wash_____	T. Morrison_____	T. _____
T. Tubb_____	T. Delaware Sand_____	T. Todilto_____	T. _____
T. Drinkard_____	T. Bone Springs_____	T. Entrada_____	T. _____
T. Abo 5648	T. _____	T. Wingate_____	T. _____
T. Wolfcamp 6792	T. _____	T. Chinle_____	T. _____
T. Penn_____	T. _____	T. Permian_____	T. _____
T. Cisco (Bough C)_____	T. _____	T. Penn "A"_____	T. _____

OIL OR GAS SANDS OR ZONES

No. 1, from.....10068.....to.....10136.....
No. 2, from.....to.....

No. 3, from.....to.....
No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, fromtofeet.....
 No. 2, fromtofeet.....
 No. 3, fromtofeet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology
2500	3580	1080	DOLOMITE & SHALE
3580	4360	780	DOLOMITE, SAND & SHALE
4360	5500	1200	DOLOMITE & SHALE
5500	6960	1460	DOLOMITE, ANHYDRITE & SHALE
6960	7580	620	DOLOMITE, LIME & SHALE
7580	9600	2020	LIME & SHALE
9600	9800	200	LIME, DOLOMITE & SHALE
9800	10320	520	SAND, LIME & SHALE

Clear

OPERATOR: MURCHISON OIL & GAS, INC.
WELL/LEASE: POLAR BEAR ST. COM. 1
COUNTY: EDDY

055-0014

STATE OF NEW MEXICO
DEVIATION REPORT

233	1 1/4
503	1 1/2
774	1
1,060	1/2
1,533	1/4
2,004	3/4
2,415	1 1/2
2,643	1/2
3,114	1/2
3,584	1/2
4,062	1/2
4,561	1/4
4,938	1/4
5,442	3/4
5,942	1/4
6,140	1/2
6,632	1/4
7,135	1/4
7,638	1/4
8,136	1/4
8,636	1/4
9,138	1/4
9,640	3/4
9,703	1/2
10,295	1



By: Steve Moore

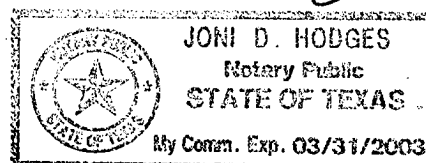
STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on this 24th day of January, 2003, by Steve Moore on behalf of Patterson-UTI Drilling Company LP, LLLP.

Joni D. Hodges
Notary Public for Midland County, Texas

My Commission Expires: 3/31/2003



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

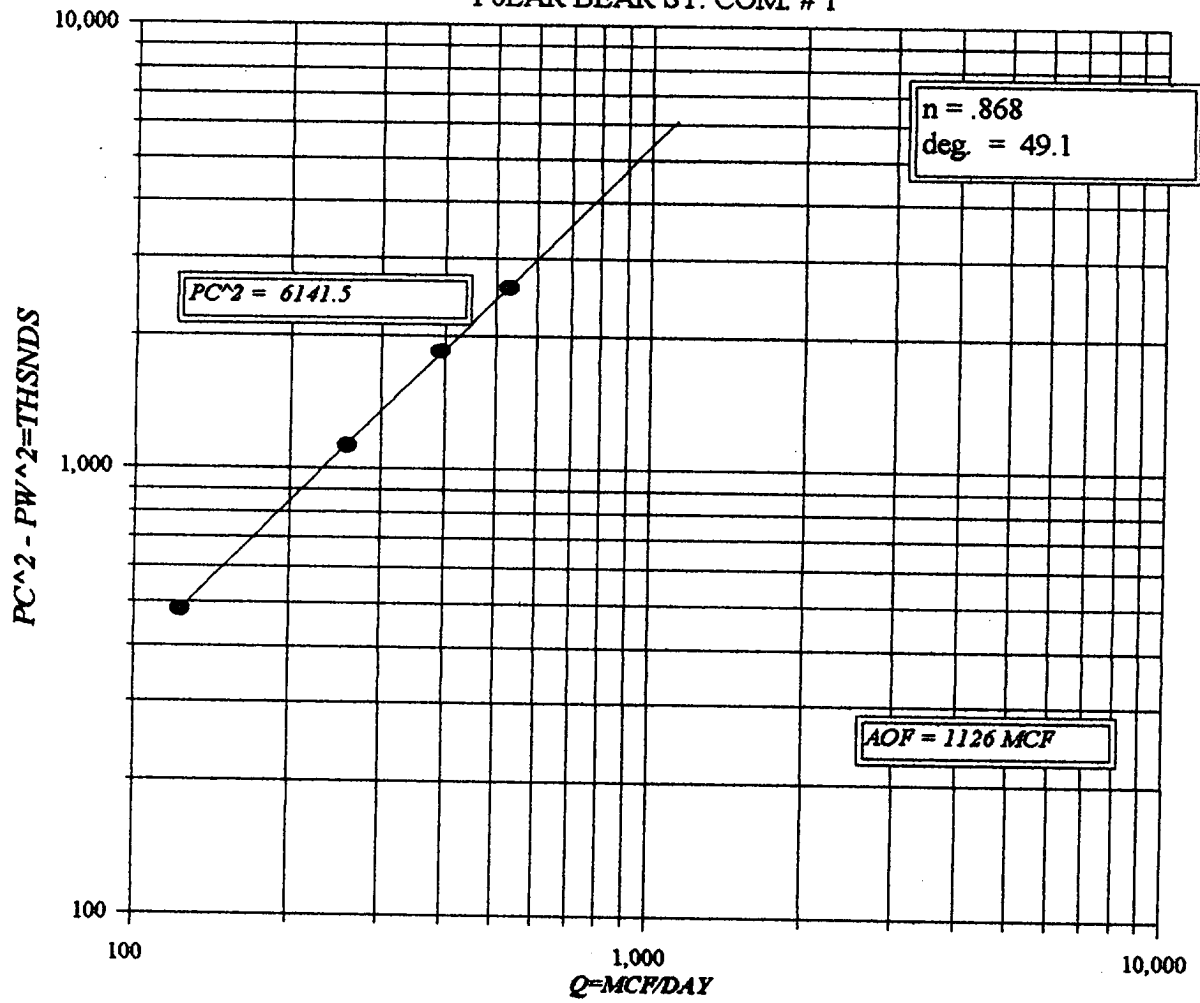
Form C-122
Revised October, 1999

RECEIVED
OCD - ARTESIA

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MURCHISON OIL & GAS, INC.				Lease or Unit Name POLAR BEAR ST. COM.			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3/14/03		Well No. 1	
Completion Date 2/28/03		Total Depth 10320		Plug Back TD 10190		Elevation 3609 GL	
Unit Ltr - Sec - TWP - Rge E 1 17 28							
Csg. Size 5 1/2	Wt. 17 #	d 4.892	Set At 10320	Perforations: From: 10068 To: 10136		County EDDY	
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 9970	Perforations: From: OPEN To: ENDED		Pool EMPIRE MORROW SO.	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 9970		Formation S. Empire MORROW	
Producing Thru Tbg. Size		Reservoir Temp. °F 156.3 @ 9970		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
Connection AGAVE ENERGY							
L 9970	H 9970	Gg 0.715	%CO ₂ 3.599	%N ₂ 1.816	%H ₂ S N/A	Prover N/A	Meter Run 2.067
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
							Duration of Flow
SI						2465	PKR
1	2 X .750		464	2.6	76	2366	"
2	2 X .750		464	11.4	76	2227	"
3	2 X .750		467	26.3	73	2060	"
4	2 X .750		471	46.1	73	1874	"
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							123
2							259
3	MEASURED			BY	TOTAL	FLOW	METER
4							392
5							529
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio		
1					DRY GAS Mcf bbl.		
2					A.P. I. Gravity of Liquid Hydrocarbons DRY Deg.		
3					Specific Gravity Separator Gas 0.715 XXXXXXXX		
4			N/A		Specific Gravity Flowing Fluid XXXXXX		
5					Critical Pressure 679 P.S.I.A. P.S.I.A.		
					Critical Temperature 387 R. R.		
P _c 2478.2 P _{c2} 6141.5							
No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{2.388}{\quad}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{2.128}{\quad}$		
1		2379.3	5661	480.4			
2		2240.6	5020.4	1121.1			
3		2074.3	4302.5	1839			
4		1889.3	3569.5	2572			
5							
79825					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.126}{\quad}$		
Absolute Open Flow 1.126 Mcfd @ 15.025					Angle of Slope (°) 49.1 Slope n: 0.868		
Remarks: WELL PRODUCED NO FLUID DURING TEST—CORRECTED TO 3.599 CO2 * 1.816 N2							
Approved By Division:		Conducted By: JARREL SER. INC.		Calculated By: BM		Checked By: BM	

MURCHISON OIL & GAS INC.
POLAR BEAR ST. COM. # 1



0 COMPANY : MURCHISON OIL & GAS LEASE : P. BEAR ST. COM. WELL NO. : 1
UNIT : E SECTION : 1 TOWNSHIP : 17
L : 9970 H : 9970 L/H : 1 G/GMIX : 0.715
%CO2 : 3.599 %N2 : 1.816 H2S : DATE : 3-14-03
d : 1.995 Fr : 0.018231 GH : 7128.6 RANGE : 28

Pc = 2478.2 Pc2 = 6141.5 *

Pt2 = 5660.6 Pw = 2379.3 *
5018.5 2240.6 *
4298.2 2074.3 *
3561.5 1889.3 *

VOL 1 : 123 PSIA 1 : 2379.2 RESV.TEMP 156.3
VOL 2 : 259 PSIA 2 : 2240.2
VOL 3 : 392 PSIA 3 : 2073.2 SHUT-IN PR= 2478.2
VOL 4 : 529 PSIA 4 : 1887.2

PCR : 679
TCR : 387

Pc2-Pw2= 480.4 Pw2 = 5661.0 *
1121.1 5020.4 *
1839.0 4302.5 *
2572.0 3569.5 *

n = 0.868 ✓

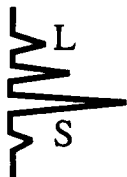
Pc2/(Pc2-Pw2) = 12.783
5.478
3.340
2.388 ✓

[Pc2/Pc2-Pw2]n = 9.122
4.374
2.847
2.128 ✓

AOF= Q 1.122
1.133
1.116
1.126 ✓

LINE	RATE 1		RATE 2		RATE 3		RATE 4	
	1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1 QM	0.123	0.123	0.259	0.259	0.392	0.392	0.529	0.529
2 TW	534	534	534	534	534	534	534	534
3 Ts	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3
4 T	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2
PR (est)	3.50		3.30		3.05		2.78	
5 Z(est)	0.745	0.755	0.746	0.750	0.748	0.746	0.755	0.746
6 TZ	428.7	434.1	428.8	431.1	430.5	429.0	434.3	428.9
7 GH/TZ	16.629	16.421	16.623	16.535	16.560	16.617	16.416	16.621
8 eS	1.866	1.851	1.865	1.859	1.861	1.865	1.851	1.865
9 l-e-S	0.464	0.460	0.464	0.462	0.463	0.464	0.460	0.464
10 Pt	2379.2	2379.2	2240.2	2240.2	2073.2	2073.2	1887.2	1887.2
11 Pt2 /1000	5660.6	5660.6	5018.5	5018.5	4298.2	4298.2	3561.5	3561.5
12 Fr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231
13 Fc=FrTZ	7.815	7.915	7.818	7.860	7.848	7.821	7.917	7.819
14 FcQm	0.96	0.97	2.02	2.04	3.08	3.07	4.19	4.14
15 L/H(FcQm)	0.9	0.9	4.1	4.1	9.5	9.4	17.5	17.1
16 Pw	0.428754	0.435721	1.901979	1.914891	4.378014	4.358872	8.062644	7.9358854
17 Pw2	5661.0	5661.0	5020.4	5020.4	4302.5	4302.5	3569.6	3569.5
18 Ps2	10561.3	10479.1	9363.9	9333.2	8006.2	8023.2	6606.4	6657.1
19 Ps	3249.8	3237.1	3060.1	3055.0	2829.5	2832.5	2570.3	2580.1
20 P	2814.5	2808.2	2650.1	2647.6	2451.4	2452.9	2228.7	2233.7
21 Pr	4.15	4.14	3.90	3.90	3.61	3.61	3.28	3.29
22 Tr	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
23 Z	0.755	0.755	0.750	0.750	0.746	0.746	0.746	0.746

FORM C122-D



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: Polar Bear St. Com. #1
COMPANY: Murchison Oil & Gas
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED: 3/14/03 5:00 pm
ANALYSIS DATE: 3/17/03
PRESSURE - PSIG 489
SAMPLE TEMP. °F 71
ATMOS. TEMP. °F

GAS (XX) LIQUID ()
SAMPLED BY: Donnie Dickerson
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	1.816	
Carbon Dioxide (CO2)	3.599	
Methane (C1)	80.944	
Ethane (C2)	7.930	2.116
Propane (C3)	3.071	0.844
I-Butane (IC4)	0.371	0.121
N-Butane (NC4)	0.792	0.249
I-Pentane (IC5)	0.213	0.078
N-Pentane (NC5)	0.214	0.077
Hexane Plus (C6+)	1.050	0.456
	100.000	3.941
BTU/CU.FT. - DRY	1140	MOLECULAR WT. 20.7700
AT 14.650 DRY	1137	
AT 14.650 WET	1117	
AT 14.73 DRY	1143	
AT 14.73 WET	1123	
SPECIFIC GRAVITY - CALCULATED	0.715	
MEASURED		