

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

AMENDED REPORT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Murchison Oil & Gas, Inc. 7250 Dallas Parkway, Ste. 1400, Plano, TX 75024		² OGRID Number 15363
		³ API Number 30-015-32535
⁴ Property Code 30819	⁵ Property Name Polar Bear State Com	Well No.

7. Surface Location

UL - Lot E	Section 1	Township 17-S	Range 28-E	Lot Idn	Feet from 1980	N/S Line NORTH	Feet From 1270	E/W Line WEST	County EDDY
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8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
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9. Pool Information

Pool Name ANDERSON; WOLFCAMP, NORTH	Pool Code 97183
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Additional Well Information

¹¹ Work Type A	¹² Well Type O	¹³ Cable/Rotary	¹⁴ Lease Type S	¹⁵ Ground Level Elevation 3609
¹⁶ Multiple	¹⁷ Proposed Depth 9,980 PB; 10,320 TD	¹⁸ Formation Abo/Wolfcamp	¹⁹ Contractor	²⁰ Spud Date 12/18/2002
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

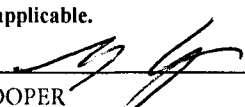
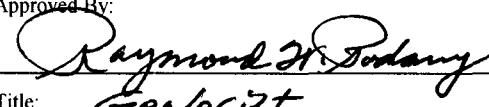
Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
SURF	17.5	13.375	68	233	435	0
INT	12.25	9.625	47	2455	1550	0
PROD	8.5	5.5	17	10320	1500	4956

Casing/Cement Program: Additional Comments

EXISTING CASING & CEMENT SHOWN; NO ADDITIONAL FOOTAGE WILL BE DRILLED. RECOMPLETION PROCEDURE ATTACHED.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature: 		OIL CONSERVATION DIVISION Approved By:  Title: <i>Geologist</i> Approved Date: <i>3-13-18</i> Expiration Date: <i>3-13-20</i>	
Printed name: GARY R. COOPER			
Title: VICE PRESIDENT OPERATIONS			
E-mail Address: rcooper@jdmii.com			
Date: 02/28/2018	Phone: 972-931-0700	Conditions of Approval Attached	

Commingle Abo Wfmp

Office
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87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-32535
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Murchison Oil & Gas, Inc.		6. State Oil & Gas Lease No.
3. Address of Operator 7250 Dallas Parkway, Ste. 1400, Plano, TX 75024		7. Lease Name or Unit Agreement Name Polar Bear State Com
4. Well Location Unit Letter E : 1980 feet from the N line and 1270 feet from the W line Section 1 Township 17S Range 28E NMPM County Eddy		8. Well Number 1
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3609' GL		9. OGRID Number 15363
		10. Pool name or Wildcat Anderson; Wolfcamp, North

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: Abandon Existing Zone and Add Perforations <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Murchison Oil & Gas respectfully requests permission to abandon the existing Morrow perforations and add perforations to the wellbore in the Abo and Wolfcamp as described in the attached.

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 13 2018

RECEIVED

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cindy Cottrell TITLE Regulatory Coordinator DATE March 13, 2018

Type or print name Cindy Cottrell E-mail address: ccottrell@idmii.com PHONE: 972-931-0700

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any): _____

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2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, N M 87505

ARTIFICIAL CONSERVATION
DISTRICT

Form C-102

Revised March 17, 1999

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-32535	Pool Code 97183	Pool Name ANDERSON; WOLFCAMP, NORTH
Property Code 30819	Property Name POLAR BEAR STATE COM	Well Number 1
OGRID No. 15363	Operation Name MURCHISON OIL & GAS, INC.	Elevation 3609

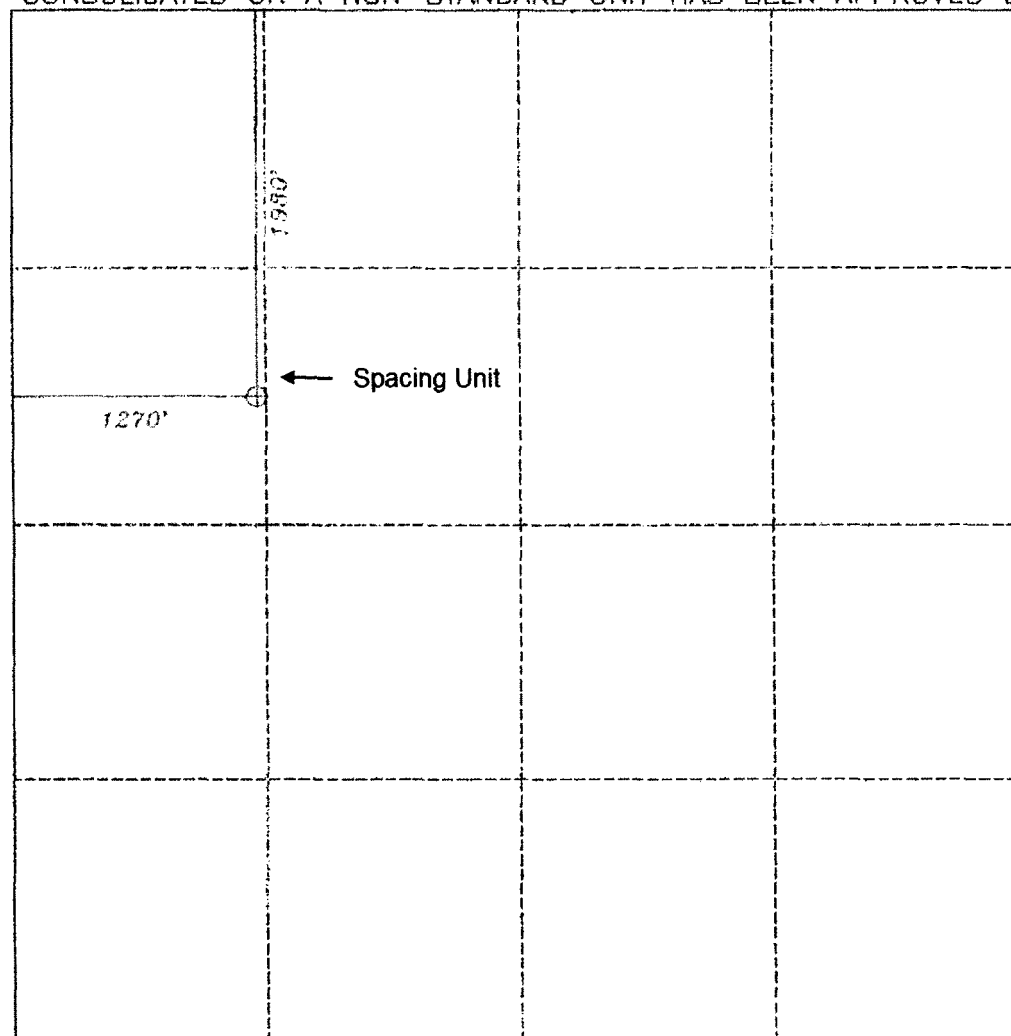
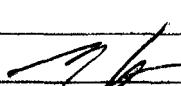
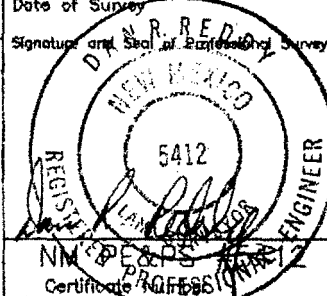
Surface Location

UL or Lot No. E	Section 1	Township 17-S	Range 28-E	Lot Idn.	Feet from the 1980	North/South line NORTH	Feet from the 1270	East/West line WEST	County EDDY
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Bottom Hole Location If Different From Surface

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40		Joint or Infill	Consolidation Code	Order No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.	
				Signature 	
				Printed Name Gary R. Cooper	
				Title Vice President Operations	
Date 2/28/2018				SURVEYOR CERTIFICATION I HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.	
Date of Survey NOVEMBER 13, 2002				Signature and Seal of Registered Surveyor	
					
				Certificate No. 12	

MURCHISON OIL & GAS INC.

Polar Bear State Com #1

1980 FNL, 1270 FWL

Sec 1 T17S, R28E

Eddy County, NM

Recompletion Procedure

The subject well is completed in the Morrow and is currently uneconomical to produce. The existing perfs will be abandoned and the well will be recompleted with the Wolfcamp and Abo commingled.

Casing: Surface – 13 3/8", 68#, K55 @ 233' w/ cmt circ
 Intermediate - 9 5/8", 47#, N80 @ 2,455' w/ cmt circ
 Production - 5 1/2", 17#, N80 & P110 @ 10320' w/ TOC @ 4,956' CBL

Tubing:

2 3/8", 4.7#, L80 EUE Mod w/ Arrow Set 1 packer set at 9,978'

Existing perfs:

Morrow – 10136'-10127', 10124'-10120', 10103'-10075', 10072'-10068'

Proposed perfs:

Wolfcamp – 7330'-7340', 7470'-7475', 7575'-7595'; Abo – 6815'-6885', 6930'-6945'

PROCEDURE:

1. Notify OCD of activities.
2. MIRU service rig.
3. TOH with tubing and packer.
4. RU wireline and set 10m CBP at 10,000'. And dump bail 20' cement on plug.
5. Perforate Wolfcamp 7330'-7340', 7470'-7475' w/ 1spf and 7575'-7595' w/ 2spf.
6. Trip in hole w/ packer and set at 7200'
7. Acidize WFC and ball out w/ bio balls. Shut down frac and wait for degradation of bio balls.
8. Frac Wolfcamp with 150,000# 20/40 sand.
9. Set CBP at 6980'.
10. Perforate Abo 6815'-6885', 6930'-6945' w/ 2spf.
11. Trip in hole w/ packer and set at 6700'.
12. Acidize Abo and ball out w/ bio balls. Shut down frac and wait for degradation of bio balls.
13. Frac Abo with 300,000# 20/40 sand.
14. Drill out CBP and clean out wellbore.
15. TIH with pumping assy, swab well to evaluate
16. Run pump and rods and return well to production.

PROPOSED WELLBORE DIAGRAM

Polar Bear St Com #1

30-015-32535

TAC: 6700'

Abo Formation

6885'-6815' 70' w/ 2spf 140 holes

6945'-6930' 15' w/ 2spf 30 holes

SN: 7200'

Wolfcamp Formation

7340'-7330' 10' w/ 1spf 20 holes

7475'-7470' 5' w/ 1spf 5 holes

7595'-7575' 20' w/ 2spf 40 holes

CIBP@ 10000' w/ 20 ft cmt on top

Morrow Formation

