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

NM OIL CONSERVATION
ARTESIA DISTRICT
APR 13 2018
RECEIVED

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

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

1. Operator Name and Address	2. OGRID Number
Murchison Oil & Gas, Inc. 7250 Dallas Parkway, Ste. 1400, Plano, TX 75024	15363
	3. API Number 30-015-33436

4. Property Code	5. Property Name	Well No.
34019	Panda Bear State Com	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	2	17-S	28-E	4	1280	NORTH	1123	WEST	EDDY

8. Proposed Bottom Hole Location

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

9. Pool Information

Pool Name	Pool Code
ANDERSON; WOLFCAMP, NORTH	97183

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
P	O		S	3678
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
	9,930 PB; 10,325 TD	Wolfcamp		11/07/2004

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	308	440	0
INT	12.25	9.625	40	2150	1750	0
PROD	8.5	5.5	17	10325	1105	5516

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 ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.
Signature:

Printed name: GARY R. COOPER
Title: VICE PRESIDENT OPERATIONS
E-mail Address: rcooper@jdmii.com
Date: 03/22/2018 Phone: 972-931-0700

OIL CONSERVATION DIVISION

Approved By: Raymond H. Podany
Title: Geologist
Approved Date: 4-13-18 Expiration Date: 4-13-20

Conditions of Approval Attached

MURCHISON OIL & GAS INC.

Panda Bear State Com #1

1280 FNL, 1123 FWL

Sec 2 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 in the Wolfcamp.

Casing:

Surface – 13 3/8", 68#, K55 @ 308' w/ cmt circ

Intermediate - 9 5/8", 40#, N80 @ 2,142' w/ cmt circ

Production - 5 1/2", 17#, N80 & P110 @ 10350' w/ TOC @ 5516' CBL

Tubing:

2 7/8", 6.4#, L80 EUE Mod w/ Arrow Set 1 packer set at 9822'

Existing perfs:

Morrow – 10028'-10000'

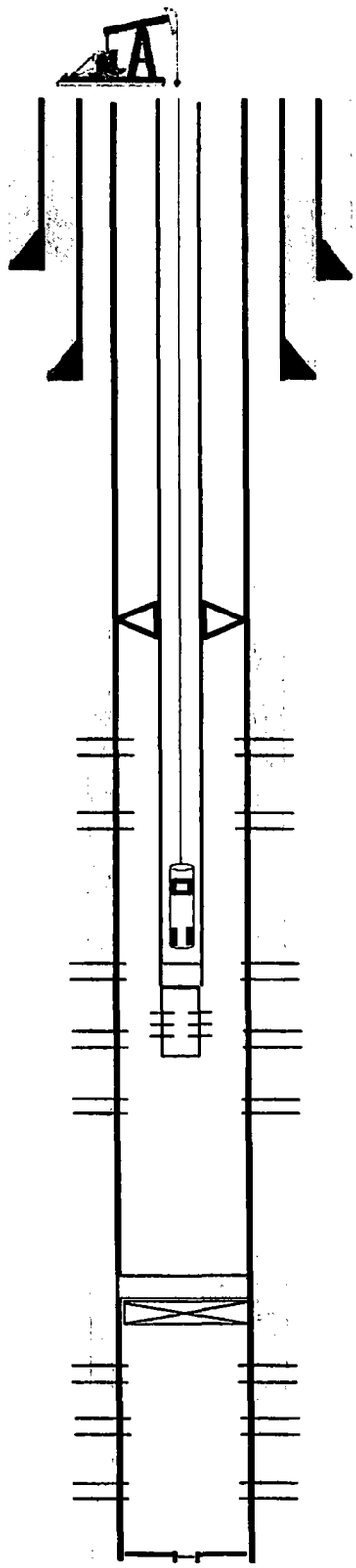
Proposed perfs:

Wolfcamp – 7480'-7510', 6780'-6860'and 6890'-6910'

PROCEDURE:

1. Notify OCD of activities.
2. MIRU service rig.
3. TOH with tubing and packer.
4. RU wireline and set 10m CIBP at 9950'. Dump bail 20' cement on plug for T&A of Morrow zone.
5. Perforate 7480-7510 w/4spf.
6. Trip in hole w/ packer and set at 7400'
7. Frac with 150,000# 20/40 sand.
8. Set CBP at 6950'.
9. Perforate 6780'-6860', 6890'-6910' w/ 2spf.
10. Trip in hole w/ packer and set at 6700'
11. Acidize and ball out w/ bio balls. Shut down frac and wait for degradation of bio balls.
12. Frac with 400,000# 20/40 sand.
13. Drill out CBP and clean out wellbore.
14. TIH with pumping assy, swab well to evaluate
15. Run pump and rods and return well to production.

PROPOSED WELLBORE DIAGRAM
Panda Bear State Com 1
30-015-33436



TAC: 6600'

Wolfcamp Formation
6,860'-6,780' 80' w/ 2spf 160 holes

6,910'-6,890' 20' w/ 2spf 40 holes

SN: 7400'

7,510'-7,480' 30' w/ 4spf 120 holes

CIBP@ 9,950' w/ 20 ft cmt on top

Morrow Formation

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District IV
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

Form C-102
Revised March 17, 1999
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

X AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-33436	97183	ANDERSON; WOLFCAMP, NORTH

Property Code	Property Name	Well Number
34019	*PANDA BEAR STATE COM*	*1*

OGRID No.	Operation Name	Elevation
15363	*MURCHISON OIL & GAS, INC.*	*3678*

Surface Location

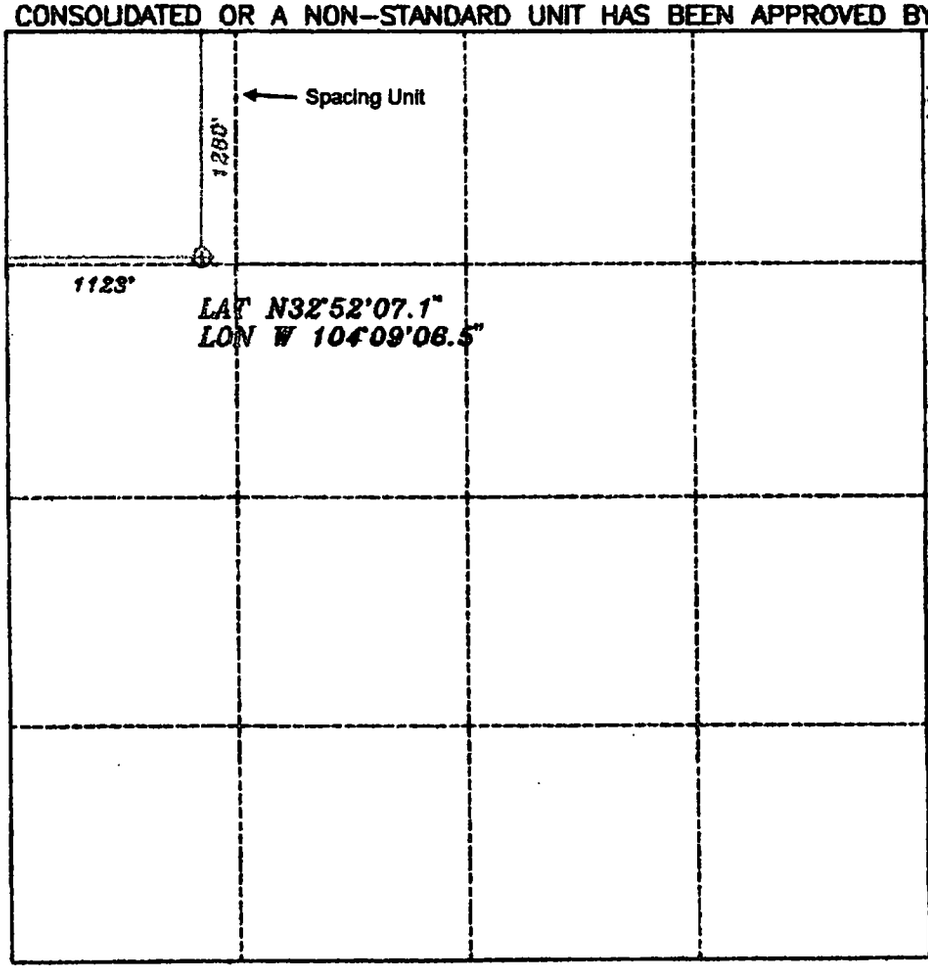
UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
LOT 4	*2*	*17-S*	*28-E*		*1280*	*NORTH*	*1123*	*WEST*	*EDDY*

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	Joint or Infill	Consolidation Code	Order No.
39.22			

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 COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Signature

Printed Name Gary R Cooper

Title Vice President Operations

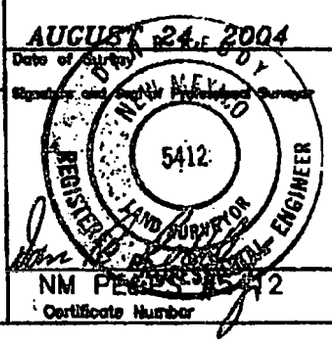
Date 2/28/2018

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.

AUGUST 24, 2004
Date of Survey

Signature and Seal of Professional Surveyor



NM PE&LS 5412
Certificate Number

District I
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State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: **March 22, 2018**

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: **Murchison Oil & Gas, Inc. (15363)**

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Panda Bear State Com 1

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Panda Bear State Com 1	**30-015-33436**	**D-2-17S-28E**	**1280 FNL 1123 FWL**	**30**	**Flared**	Pending State ROW approval

Gathering System and Pipeline Notification
Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to **DCP Midstream, LP ("DCP")** and will be connected to **DCP's** low/high pressure gathering system located in **Eddy** County, New Mexico. It will require **3,788.16'** of pipeline to connect the facility to **LOW** pressure gathering system. **Murchison Oil & Gas, Inc. ("Murchison")** provides (periodically) to **DCP** a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, **Murchison** and **DCP** have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at **DCP's Artesia** Processing Plant located in Sec. **2**, Twn. **18S**, Rng. **28 E**, **Eddy** County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy
After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on **DCP's** system at that time. Based on current information, it is **Murchison's** belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring
Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines