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Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM107384

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator MURCHISON OIL & GAS LLC Contact: CINDY COTTRELL
E-Mail: ccottrell@jdmii.com

8. Lease Name and Well No.
ROCK RIDGE FEDERAL BSS 8H

3. Address LEGACY TOWER ONE 7250 DALLAS PKY, STE 1400 3a. Phone No. (include area code)
PLANO, TX 75024-5002 Ph: 972.931.0700

9. API Well No.
30-015-45874-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface NENE 805FNL 250FEL 32.193554 N Lat, 104.015999 W Lon

At top prod interval reported below SENE 2276FNL 330FEL

At total depth Lot 2 2323FNL 333FWL

10. Field and Pool, or Exploratory
WILLOW LAKE-BONE SPRING

11. Sec., T., R., M., or Block and Survey
or Area Sec 30 T24S R29E Mer NMP

12. County or Parish EDDY 13. State NM

14. Date Spudded
06/08/2019

15. Date T.D. Reached
08/07/2019

16. Date Completed
☐ D & A ☒ Ready to Prod.
11/15/2019

17. Elevations (DF, KB, RT, GL)*
2914 GL

18. Total Depth: MD 13216
TVD 8409

19. Plug Back T.D.: MD
TVD

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GAMMARAY

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
16.000	13.375 J55	48.0	0	370		355	85	267	
12.250	9.625 J55	36.0	0	2771		965	291	0	
8.500	5.500 P110	20.0	0	13194		1800	564	2160	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	8665	13160	8665 TO 13160	0.420	1056	OPEN
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
8665 TO 13160	9,163,990# SD; 2,095 BBLs 15% HCL ACID; 290,647 BBLs TOTAL WATER VOLUME

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/16/2019	12/12/2019	24	→	1227.0	2633.0	1812.0	49.6		FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
38/64	SI	850.0	→	1227	2633	1812	2146	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #500233 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

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

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
BONE SPRING 2ND	8313	9382	OIL & GAS	DELAWARE	2766
				CHERRY CANYON	3703
				BRUSHY CANYON	5145
				AVALON SAND	6623
				BONE SPRING 1ST	7519
				BONE SPRING 2ND	8313
				BONE SPRING 3RD	9382
				WOLFCAMP	9822

32. Additional remarks (include plugging procedure):

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7 Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #500233 Verified by the BLM Well Information System.
For MURCHISON OIL & GAS LLC, sent to the Carlsbad
Committed to AFMSS for processing by DINAH NEGRETE on 03/17/2020 (20DCN0031SE)

Name (please print) CINDY COTTRELL

Title REGULATORY COORDINATOR

Signature (Electronic Submission)

Date 01/22/2020

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

Revisions to Operator-Submitted EC Data for Well Completion #500233

	Operator Submitted	BLM Revised (AFMSS)
Lease:	NMNM107384	NMNM107384
Agreement:		
Operator:	MURCHISON OIL & GAS LLC 7250 DALLAS PARKWAY STE 1400 PLANO, TX 75024 Ph: 972-931-0700	MURCHISON OIL & GAS LLC LEGACY TOWER ONE 7250 DALLAS PKY, STE 1400 PLANO, TX 75024-5002 Ph: 972.931.0700
Admin Contact:	CINDY COTTRELL REPORT PREPARER E-Mail: ccottrell@jdmii.com Ph: 972-931-0700 Ext: 113	CINDY COTTRELL REGULATORY COORDINATOR E-Mail: ccottrell@jdmii.com Ph: 972.931.0700
Tech Contact:	CINDY COTTRELL REPORT PREPARER E-Mail: ccottrell@jdmii.com Ph: 972-931-0700 Ext: 113	CINDY COTTRELL REGULATORY COORDINATOR E-Mail: ccottrell@jdmii.com Ph: 972.931.0700
Well Name: Number:	ROCK RIDGE FEDERAL BSS 8H	ROCK RIDGE FEDERAL BSS 8H
Location:		
State:	NM	NM
County:	EDDY	EDDY
S/T/R:	Sec 30 T24S R29E Mer NMP	Sec 30 T24S R29E Mer NMP
Surf Loc:	NENE Lot A 805FNL 250FEL	NENE 805FNL 250FEL 32.193554 N Lat, 104.015999 W Lon
Field/Pool:	PIERCE CROSSING; BS S	WILLOW LAKE-BONE SPRING
Logs Run:	GAMMA RAY	GAMMARAY
Producing Intervals - Formations:	BONE SPRING	BONE SPRING
Porous Zones:	2ND BONE SPRING	BONE SPRING 2ND
Markers:	DELAWARE CHERRY CANYON BRUSHY CANYON AVALON SHALE 1ST BONE SPRING SAND 2ND BONE SPRING SAND 3RD BONE SPRING SAND WOLFCAMP	DELAWARE CHERRY CANYON BRUSHY CANYON AVALON SAND BONE SPRING 1ST BONE SPRING 2ND BONE SPRING 3RD WOLFCAMP