

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 20045. Lease Serial No.
Jicarilla Contract #4601a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry Otherb. Type of Completion: ☐ New Well ☒ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.

Other _____

2. Name of Operator

Mallon Oil Company, an indirect wholly-owned subsidiary of Black Hills Exploration & Production, Inc

3. Address

350 Indiana Street, Suite 400, Golden, CO 80401

3a. Phone No. (include area code)

720-210-1308

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

At surface 1456' FNL & 1476' FWL (SE/NW) Unit F

At top prod. interval reported below 1456' FNL & 1476' FWL (SE/NW) Unit F

At total depth 1456' FNL & 1476' FWL (SE/NW) Unit F

14. Date Spudded

6/18/1998

15. Date T.D. Reached

6/25/1998

16. Date Completed

☐ D & A ☒ Ready to Prod.

1/26/04

6. If Indian, Allottee or Tribe Name

Jicarilla Apache Tribe

7. Unit or CA Agreement Name and No.

23336

8. Lease Name and Well No.

Jicarilla 460-21 No. 21

9. API Well No.

30-039-25866

10. Field and Pool, or Exploratory

East Blanco, Pictured Cliffs

11. Sec., T., R., M., on Block and Survey
or Area Sec. 21, T30N-R03W

12. County or Parish

Rio Arriba

13. State

NM

17. Elevations (DF, RKB, RT, GL)*

7269'

18. Total Depth: MD

TVD 4050'

19. Plug Back T.D.: MD

TVD 3982'

20. Depth Bridge Plug Set: MD

TVD 1769'

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

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

SDL/DSN, DIGL

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 Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12 1/4	8 5/8	25	0	542		300 & Class H		surface;	
								circ. 65sx	
								to surface	
7 7/8	5 1/2	15.5	0	4013		575 sx		surface;	
								circ. 13sx	
								to surface	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 3/8	3794'							

25. Producing Intervals

Formation	TOP	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Pictured Cliffs	3794'	3805'	3794-3805	4 jsfp		
B)						
C)						
D)						

26. Perforation Record

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

Depth Interval	Amount and Type of Material
3794-3805	107 bbls gelled h2o assisted w/132 mscf nitrogen, followed by 1 lb pg sand = to 12510# sand in 77.2 bbls gelled h2o assisted w/ 66.9 mscf of N2, followed by 2 lb pg sand = to 18920# sand in 88.8 bbls gelled h2o assisted w/ 66.8 mscf of N2, followed by 3 lb pg sand = to 28000# sand in 102.6 bbls gelled h2o assisted w/ 66.6 mscf of N2, followed by 4 lb pg sand = to 26170# sand in 80.5 bbls gelled h2o assisted w/48.9 mscf of N2, flush 13 bbls, 8.7 mscf of N2.

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
8/18/98	1/21/04	24	<input type="checkbox"/>	0	0	82			Flowing
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
0	210	<input type="checkbox"/>	<input type="checkbox"/>					Producing	

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
			<input type="checkbox"/>						
Choke Size	Tbg. Press. Flwg. SI	Call Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
		<input type="checkbox"/>	<input type="checkbox"/>						

(See instructions and spaces for additional data on next page)

ACCEPTED FOR RECORD
APR 8 2004

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production <input type="checkbox"/>	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 <input type="checkbox"/>	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production <input type="checkbox"/>	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 <input type="checkbox"/>	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
				Nacimiento	2076'
				Ojo Alamo	3268'
				Kirtland	3492'
				Fruitland	3685'
				Pictured Cliffs	3784'
				Lewis	3876'

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)*

Name (please print) Allison Newcomb Title Engineering Technician

Signature Allison Newcomb Date 2/18/2004

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.