

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
Jicarilla Contract #9

6. If Indian, Allottee or Tribe Name
Jicarilla Apache Nation

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
Jicarilla Apache A-20

9. API Well No.
30-039-31143

10. Field and Pool, or Exploratory Area
Lindr. Gal-Dak.W

11. County or Parish, State
Rio Arriba, County NM

SUBMIT IN TRIPLICATE – Other instructions on reverse side

1. Oil Well Gas Well Other

2. Name of Operator
ELM RIDGE EXPLORATION CO LLC

3a. Address
PO BOX 156 BLOOMFIELD NM 87413

3b. Phone No. (include area code)
505-632-3476 EXT 201

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1970' FNL X 2021' FEL

"G" Sec.36-T25N-R05W

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

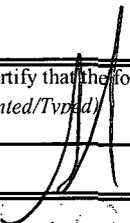
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input checked="" type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Elm Ridge Exploration Co LLC re-fractured this well as follows: PLEASE SEE ATTACHED

RCUD APR 4 '14
OIL CONS. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) Amy Mackey	Title Sr. Regulatory Supervisor
Signature 	Date March 31, 2014

THIS SPACE FOR FEDERAL OR STATE USE

Approved by	Title	Date
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Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes 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.

(Instructions on reverse)

ACCEPTED FOR RECORD

NMOCDV

APR 03 2014

FARMINGTON FIELD OFFICE
BY: 

**ELM RIDGE EXPLORATION CO LLC - EBUS
Jicarilla Apache A #20
Dakota
70Q Delta 200 Foam Frac**

API: 30-039-31143

San Juan County, New Mexico

Sales Order: 901220352

Post Job Report

For: MONTY STRIEGEL

Date: Saturday, March 29, 2014

Notice: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

HALLIBURTON

Post Job

HALLIBURTON

Fracturing Service Treatment Report

Legal Data

Date: March 30, 2014 District: Farmington Customer: Elm Ridge S.O. #: 901220352
 Well Name: Jicarilla Apache A #20 Legals: S: 36 IT: 25N IR: 5W County/State: San Juan County, NM API#: 30-039-31143

Well Data

Job Type: 70Q Delta 200 Foam Frac						
Formation	Dakota	Total Depth:	7,559	Tubing	-	
Casing	15.5", 5.5", J-55	Liner	-	Packer	-	Interval: 7310-7350
Perforations	6 spf	Perf Size:	0.34 "	Total	282	Interval: 7409-7423

Treatment Data

Pad Volume:	34,576	Pad Volume:	114,237	Clean:	15.1	Average:	3,451
Treatment:	42,457	Treatment:	108,599	Slurry:	17.5	ISIP:	1,119
Flush:	6,423	Flush:	5,950	Foam:	50.0	5 Minute:	1,061
Total:	83,456	Total:	228,786	N2 / CO2	46,451	10 Minute:	1,039
Pad %:	41%	Sand Total:	230,000	Q	70	15 Minute:	1,019

Job Data

Time	Volume		Rates		Pressure	Sand	Stage Description
	Stage Volume	Fluid Total	Slurry Rate	BH Rate	Tubing/Casing	Stage LBS	
12:02	-	-	-	-	525	-	Start Job
12:04	934	934	7.0	31.6	619	-	Pre-Pad
12:07	33,642	34,576	15.0	49.5	3,465	-	Pad
13:00	7,342	81,184	17.4	51.4	3,524	19,750	1# CRC
13:10	16,726	97,910	19.2	50.9	3,377	78,750	2# CRC
13:31	13,525	111,435	20.9	49.2	3,198	84,270	3# CRC
13:46	4,864	116,299	22.2	49.9	3,160	47,230	3.5# CRC
13:51	6,423	122,722	31.5	29.2	2,009	-	Flush
13:56	-	-	-	-	1,119	-	Shut-In
14:01	-	-	-	-	1,119	-	ISIP
14:06	-	-	-	-	1,061	-	5-min Shut In
14:11	-	-	-	-	1,039	-	10-min Shut In
-	-	-	-	-	1,019	-	15-min Shut In

Job Summary & Comments

Pumped 67,119 gallons of 19 cp 70 Q Delta 200. At an average rate of 15.1 bpm and avg WHTP of 3451 psi.
 Pumped 67,119 gallons of 19 cp 70Q Delta 200. At an average quality 70%.
 Pumped 2323 sacks of 20/40 CRC (per weight slips) with a max BH sand concentration of 3.87 lbs/gal.
 Total Fluid to recover is 73,482 gal (1,750 bbls)
 Total water pumped is 73,482 gal.
 The maximum surface pressure reached during treatment was 3,672 psi.
 The final frac gradient at the end of the job was .62 psi/ft
 Pumped 73,482 gallons of Delta 200.
 Added a 3.5# sand stage to help conserve nitrogen
 Increased it to 4.0# sand towards the end to help with water and nitrogen
 Pumped 4814409 scf of Nitrogen

Treater/N2 Treater J. Castillo/F. Ketcham
 TCC Operator: R. Abernathy
 Engineer: B. Porter

Chemicals Pumped

Chemical	Req. Stage	Actual Time Up	Ending Stage	Design	Used	Ticks Total	Percentage Error
LGC-36	690	685	298	373	367	392	3.75%
BC-200	349	338	200	130	138	149	6.15%
LoSurf 300D	268	263	228	34	35	40	2.94%
HC-2	403	395	84	269	311	319	15.61%
SP	100	100	64	36	36	36	
Optifo III	91	91	20	71	71	71	
CL-31	15	15	9	6	6	6	