

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

811 South First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd. Aztec, NM 87410-1699

RECEIVED
MAY - 7 1997State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

RECEIVED

MAY 12 1997

DHC 6/2/97

1609

Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Elm Ridge Resources, Inc. Address 312 W. La Plata Farmington, New Mexico 87401Lease ApacheWell No. 18-2Unit Ltr. - Sec - Twp - Rge B-18-T24N-R5WCounty Rio Arriba

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 149052 Property Code 17632 API NO. 8003925548 Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	<u>176P Devils Fork</u> <u>Assoc Gallup</u>	<u>PRC Basin Dakota</u> <u>71599</u>	<u>Basin Dakota</u>
2. Top and Bottom of Pay Section (Perforations)	<u>5455' - 5729'</u>	<u>6590' - 6600'</u>	<u>6618' - 6638'</u>
3. Type of production (Oil or Gas)	<u>Oil w/assoc.gas</u>	<u>Gas w/some cond.</u>	<u>Gas w/some cond.</u>
4. Method of Production (Flowing or Artificial Lift)	<u>PISTON</u> <u>3A7</u> <u>2000</u>	<u>PISTON</u>	<u>PISTON</u>
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) <u>1250</u> b. (Original) <u>1250</u>	a. <u>1337</u> b. <u>1360</u>	a. <u>1337</u> b. <u>1360</u>
6. Oil Gravity (°API) or Gas BTU Content	<u>42</u>	<u>53</u>	<u>53</u>
7. Producing or Shut-In?	<u>Shut in pending approval</u>	<u>Shut in pending approval</u>	<u>Shut in pending approval</u>
Production Marginal? (yes or no)	<u>no</u>	<u>no</u>	<u>no</u>
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: <u>5/2/97</u> Rates: <u>57 mcfg 20 bo</u>	Date: <u>5/2/97</u> Rates: <u>80 mcfg 1bo</u>	Date: <u>5/2/97</u> Rates: <u>140 mcfg .5 bo</u>
8. Fixed Percentage Allocation Formula - % for each zone	Oil: <u>93</u> % Gas: <u>21</u> %	Oil: <u>5</u> % Gas: <u>29</u> %	Oil: <u>2</u> % Gas: <u>50</u> %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?

If not, have all working, overriding, and royalty interests been notified by certified mail?

Have all offset operators been given written notice of the proposed downhole commingling?

☒ Yes ☐ No
☒ Yes ☐ No11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) _____

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE

TITLE Operations Manager DATE 5/7/97

TYPE OR PRINT NAME

Doug EndsleyTELEPHONE NO. (505) 326-7099

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.
BIA #69

6. If Indian, Allottee or Tribe Name
Jicarilla Apache

7. If Unit or CA, Agreement Designation
N/A

8. Well Name and No.
Apache 18-2

9. API Well No.
30-039-25548

10. Field and Pool, or Exploratory Area
Bas Dak & Dev Frk Gall

11. County or Parish, State
Rio Arriba, NM

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Elm Ridge Resources, Inc. (214) 696-8090

3. Address and Telephone No.

4925 Greenville Ave., Suite 1305, Dallas, Tx. 75206

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface: NWNE 18-24n-5w

BHL: Same

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

TYPE OF SUBMISSION

- ☒ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☒ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other **Non-Standard Location & Commingle**
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☒ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Elm Ridge has re-completed its Apache 18-2 Basin Dakota gas well and is applying to produce from, and commingle with, the Devil's Fork Gallup oil zone. The wellbore is less than the standard 330' from a quarter-quarter line. It is 3,830' from the closest lease line (west line of T. 24 N., R. 5 W.). State and Federal forms are attached.

CHECK WITH
BRIAN WOODS
PERMITS WEST

466-8120

TALKED TO DOUG ENDREY

cc: BI **ON 7-1-97** **(89)**, Tribe

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

Signed

Title

Consultant (505) 466-8120

Date

5-12-97

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☒ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☒ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☒ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

BRIAN WOOD
 Print or Type Name

Brian Wood
 Signature

Consultant
 Title

5-12-97
 Date

SENDER:
1. ☐ Address
2. ☐ Restricted Delivery
3. ☐ Return Receipt for fee
4. ☐ Insured
5. ☐ Registered
6. ☐ Certified
7. ☐ Express Mail
8. ☐ Merchandise
9. ☐ COD
10. ☐ Return Receipt
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100. ☐ Return Receipt for fee

**REQUEST FOR ADMINISTRATIVE APPROVAL FOR NON-STANDARD LOCATION
FOR THE APACHE 18-2 OIL WELL
890' FNL & 1450' FEL SEC. 18, T. 24 N., R. 5 W., RIO ARRIBA COUNTY, NM
BY ELM RIDGE RESOURCES, INC.**

- I. The well is on Jicarilla Apache Tribal Trust surface and minerals. The location was approved by OCD on August 8, 1995 under Administrative Order NSP-1735. It was subsequently drilled in 1995 as a Basin Dakota well. It was re-completed this spring in a higher Dakota zone and in the Devil's Fork Gallup. The existing location is unorthodox for the Gallup (too close {130' instead of 330'} to the quarter-quarter line). A Sundry Notice, Completion Report, C-104, and C-107-A are attached.
- II. A C-102 showing the well location, proration unit (NE4 of Sec. 18 which totals 160 acres), and lease (all of Sections 7, 8, 17, & 18; T. 24 N., R. 5 W. which totals ≈2,560 ac.) are attached.
- III. According to NM Oil Conservation Records, there is no Devil's Fork Gallup production within a mile radius. A composite copy of the Otero Store and Tafoya Canyon 7.5' USGS maps is attached showing the existing well (star), Devil's Fork Gallup spacing units (thin solid lines), and lease (thick solid line). There is only one lease (BIA #69) within a minimum 3,830' radius. It comprises all of Sections 7, 8, 17, & 18; T. 24 N., R. 5 W. Elm Ridge is the operator of all oil and gas interests in the lease from the base of the Pictured Cliffs to basement. Royalty rates are the same for both the Gallup and Dakota.
- IV. A composite copy of the Otero Store and Tafoya Canyon 7.5' USGS maps is attached. The existing well is marked by a star. Devil's Fork Gallup proration unit (quarter section) is marked by a solid line. Quarter-quarter lines are dashed corners. Floyd Oil does have its Apache #5 well at 1650 FNL & 990 FEL which would be orthodox. However, it has only been drilled to 2,325' (Gallup starts at 5,455').
- V. Jicarilla Apache Tribe wants to minimize disturbance (there are at least 13 active wells within a mile radius).

VI. No archaeology sites were found.

VII. Surface conditions are not an issue, other than the desire to minimize the amount of disturbance.

VIII. Directional drilling is not feasible because it is not cost effective.

IX. I hereby certify that notice has been sent to the following lessees, lessors, surface management agencies, operators of spacing units, or owners of undrilled leases which adjoin the applicant's spacing unit on one or more of the two sides or the single closest corner to the proposed well and that the information is current and correct:

Jicarilla Apache Tribe
Bureau of Indian Affairs
Bureau of Land Management

Brian Wood

Consultant

5-12-97

Signature, Title, & Date

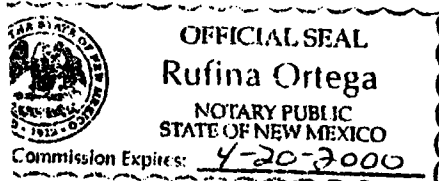
STATE OF New Mexico)
COUNTY OF Santa Fe) SS:

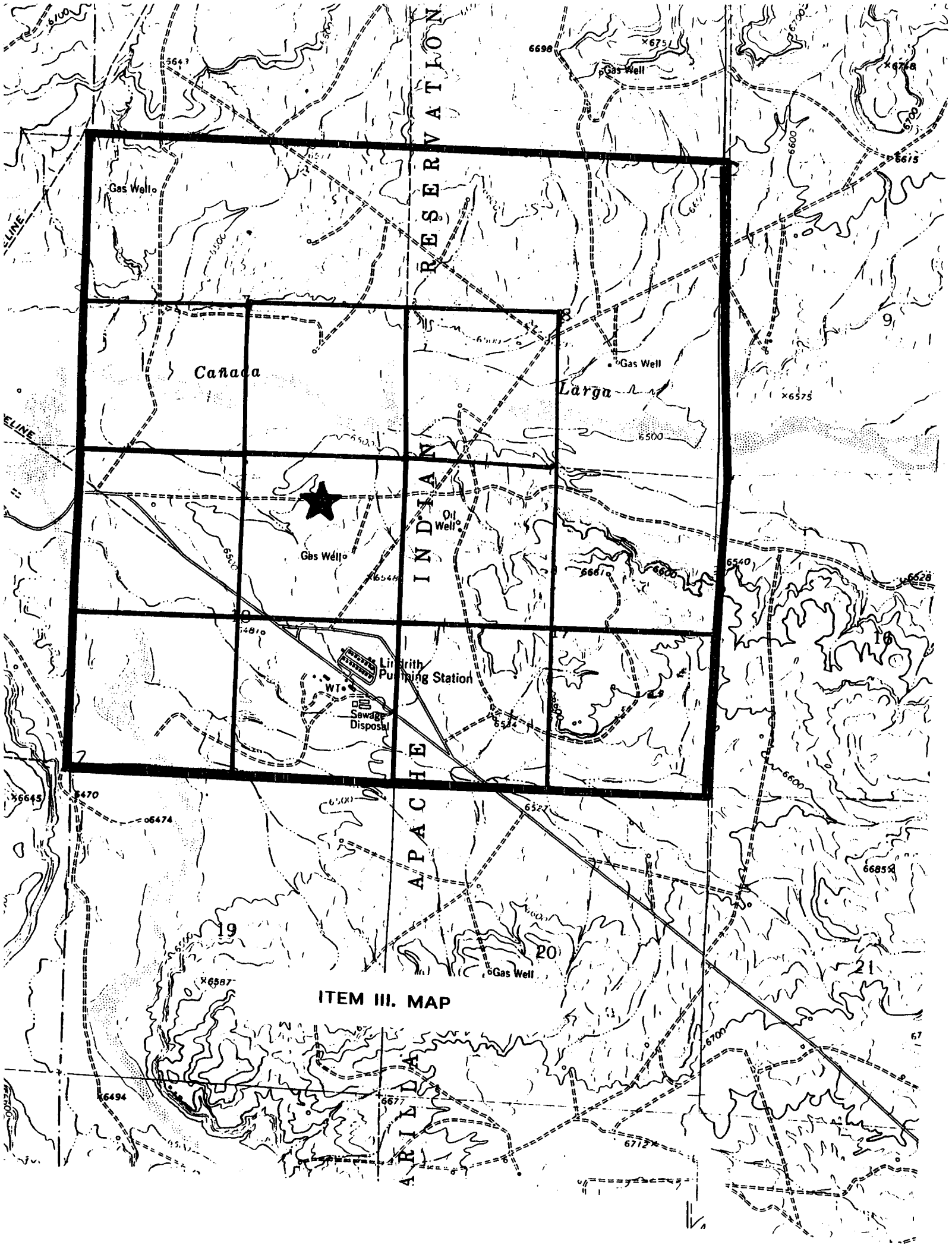
The foregoing instrument was acknowledged before me this 12th day of May,
1997 by Brian Wood. Witness my hand and official seal.

Rufina Ortega
Notary Public

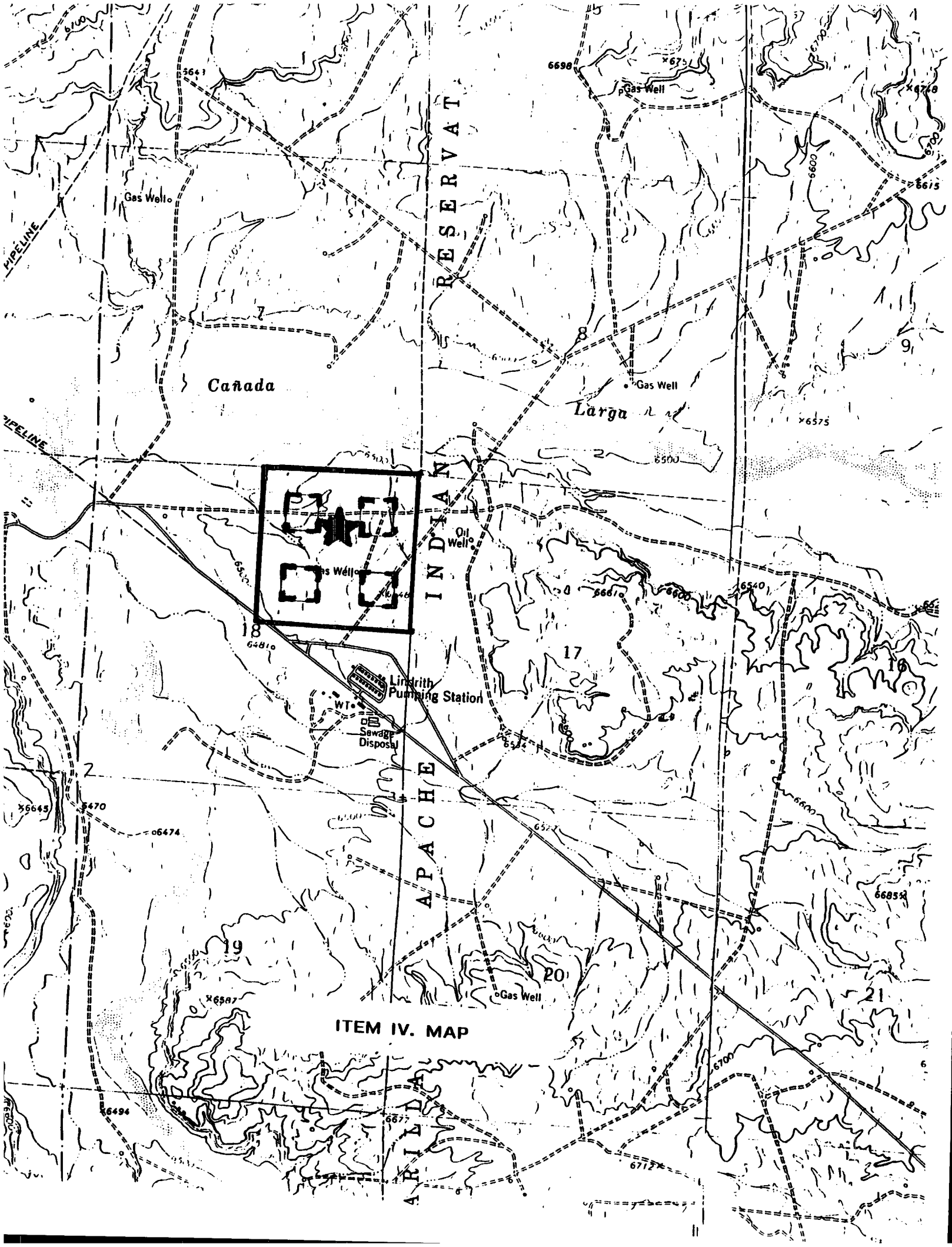
My Commission Expires: 4-20-2000

Business Address: 1 Hacienda Loop - Santa Fe, N.M. - 87505





ITEM III. MAP



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other In-
structions on
reverse side)FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

5. LEASE DESIGNATION AND SERIAL NO.

BIA #69

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Jicarilla Apache

7. UNIT AGREEMENT NAME

N/A

8. FARM OR LEASE NAME, WELL NO.

Apache 18-2

9. API WELL NO.

30-039-25548

10. FIELD AND POOL, OR WILDCAT

Bas Dak & Dev Frk Gall

11. SEC., T., R., M., OR BLOCK AND SURVEY
OR AREA

18-24n-5w NMPM

12. COUNTY OR
PARISH

Rio Arriba

13. STATE

NM

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☒ DRY ☐ Other _____

b. TYPE OF COMPLETION:

NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. REVR. ☒ Other _____

2. NAME OF OPERATOR

Elm Ridge Resources, Inc. (214) 696-8090

3. ADDRESS AND TELEPHONE NO.

4925 Greenville Ave., Suite 1305, Dallas, Tx. 75206

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface

890' FNL & 1450' FEL

At top prod. interval reported below

Same

At total depth

Same

14. PERMIT NO.

DATE ISSUED

30-039-25548

15. DATE SPUDDED

9-30-95

16. DATE T.D. REACHED

10-10-95

17. DATE COMPL. (Ready to prod.)

5-7-97

18. ELEVATIONS (OF, RKB, RT, OR, ETC.)*

6,502' KB

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

6,758' (KB)

21. PLUG, BACK T.D., MD & TVD

6,712' (KB)

22. IF MULTIPLE COMPL.,
HOW MANY*23. INTERVALS
DRILLED BY

ROTARY TOOLS

CABLE TOOLS

→ All

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

5,455' - 5,729' (Dev. Frk. Gall.) & 6,590' - 6,600' (Up. Dakota)

25. WAS DIRECTIONAL
SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

Compensated Neutron/Density, Dual Induction

27. WAS WELL CORRD

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24	235' KB	12-1/4"	170 sx & to surface	
4-1/2"	10.5	6,758' KB	7-7/8"	1946 sx & to surface	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8"	6,617' KB	

31. PERFORATION RECORD (Interval, size and number)

Perforated Upper Dakota with 4 shots/foot
OD=0.41". Formation broke down @ 2876#
ATP 2740#, AIR 40 BPM, ISIP 2150#

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
6,590' - 6,600'	34,000 gal 30# linked gel
	25 ton 20/40 Ottawa sand
	500 gal. 15% HCl

33.* PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
5-2-97		Piston				Shut in	
DATE OF TEST	HOURS TESTED	CHOKED SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
5-2-97	3 hr	3/4"	→	.125	13.3	.83*	-
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
1.337	1.337	→	1	80	5*	>50°	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold. SI awaiting C-107-A approval.

TEST WITNESSED BY

D. Endsley

35. LIST OF ATTACHMENTS

Logs forwarded by Halliburton.

*frac water only

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

TITLE

Consultant

DATE

5-12-97

*(See Instructions and Spaces for Additional Data on Reverse Side)

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.

37. SUMMARY OF POROUS ZONES: (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);

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			<p><u>Devil's Fork Gallup completion data</u></p> <p>Perforation Interval: 5,455' to 5,729'</p> <p>Total Perforations: 49 (intermittent)</p> <p>Perforation Diameter: 0.41"</p> <p>Formation Broke: 3,000 psi</p> <p>Average Treat. Pressure: 2,696 psi</p> <p>Average Injection Rate: 34 bpm</p> <p>Initial Shut-in Pressure: 2,055 psi</p> <p>Treated with ...</p> <p>2 MMcf standard 70 quality foam</p> <p>100 ton 20/40 sand</p> <p>34,000 gal 30# gel</p> <p>200 bbl 15% HCl</p> <p>Test Length: 24 hours</p> <p>Tubing Pressure: 70 psi</p> <p>Casing Pressure: 530 psi</p> <p>Oil: 20 bopd</p> <p>Gas: 57 Mcfd (AOF: 456 Mcfd)</p> <p>Water: 9 bwpd (returned frac water)</p> <p>Disposition ...</p> <p>Gas: Vented (Now SI)</p> <p>Oil: Stored on site in tank</p>

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-25548		Pool Code 17610		Pool Name DEVIL'S FORK GALLUP	
Property Code 17632		Property Name Apache			Well Number 18-2
OGRID No. 149052		Operator Name Elm Ridge Resources Inc.			Elevation 6497'

10 Surface Location

Lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	18	24 N	5 W		890	North	1450	East	Rio Arriba

11 Bottom Hole Location If Different From Surface

Lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Consolidation Code 13 Order No.

ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature Brian Wood Printed Name Consultant Title July 21, 1995 Date May 12, 1997	
	18 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 Signature of Surveyor Hubert L. Wood 6844 Certificate Number	

District I
PO Box 1100, Bixbee, NM 88211-1100
District II
PO Drawer DD, Aramco, NM 88211-0719
District III
1000 Rio Grande Rd., Aztec, NM 87418
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator Name and Address Elm Ridge Resources, Inc. (214)696-8099 4925 Greenville Ave. Ste.1305 Dallas, Texas 75206		OCRID Number 149052 Reason for Filing Code New zone comp.
API Number 30-0 3925548	Pool Name Devils Fork Gallup	Pool Code
Property Code 17632	Property Name Apache	Well Number 18-2

II. Surface Location									
UL or lot no.	Section	Township	Range	Lot/Ida	Feet from the	North/South Line	Feet from the	East/West Line	County
B	18	24N	5W	NWNE	890	North	1450	East	RA

Bottom Hole Location									
UL or lot no.	Section	Township	Range	Lot/Ida	Feet from the	North/South Line	Feet from the	East/West Line	County
J		Piston							
" Loc Code	" Protecting Method Code	" Gas Committee Date	" C-129 Permit Number	" C-129 Effective Date	" C-129 Expiration Date				

III. Oil and Gas Transporters				
Transporter OCRID	Transporter Name and Address	POD	POD	POD ULSTR Location and Description
009018	Giant Refining 5764 Hwy. 64 Farm. NM 87401		O	
007057	EPNG P.O.Box 4990 Farm. NM 87499		G	

IV. Produced Water	
POD	POD ULSTR Location and Description

V. Well Completion Data				
Spud Date	Ready Date	TD	FWTD	Perforations
9-30-95	5-7-97	6758'	6712'	5455'-5729'
Well Size	Casing & Tubing Size	Depth Set	Seals	Seals
12-1/4"	8-5/8"	235'		170sx to surface
7-7/8"	4-1/2"	6758'		652sx (stage 1)
Ditto	Ditto	Stage Tool @ 4560		1294sx (stage 2)
4-1/2"	2-3/8"	6617'		SN @ 6573'

VI. Well Test Data					
Date New Oil	Gas Delivery Date	Test Date	Test Length	Thg. Pressure	Csg. Pressure
5/2/97	on approval	5/2/97	24 hrs.	70	530
Casing Size	OG	blw	Flow	AUP	Test Results
3/4"	20 bopd	9 blw	57 mcf/g	456 mcf/gpd	flowing

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Doug Endsley*
Printed name: Doug Endsley
Title: Operations Manager
Date: 5/7/97 Phone: 505-326-7099

OIL CONSERVATION DIVISION	
Approved by:	
Title:	
Approval Date:	

If this is a change of operator fill in the OCRIID number and name of the previous operator			
Previous Operator Signature	Printed Name	Title	Date

District I
PO Box 1700, El Paso, NM 88241-1000
District II
PO Drawer 80, Artesia, NM 88211-0719
District III
1000 Rio Grande Rd., Alamogordo, NM 87410
District IV
PO Box 2000, Santa Fe, NM 87504-2000

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-104
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator name and Address Elm Ridge Resources, Inc. (214) 696-8090 4925 Greenville Ave. Ste. 1305 Dallas, Texas 75206		OCRID Number 149052 Reason for Filing Code New Zone Comp.
* API Number 30-0 3925548	* Pool Name Basin Dakota	* Pool Code 71599
* Property Code 17632	* Property Name Apache	* Well Number 18-2

II. Surface Location

UL or lot no.	Section	Township	Range	Lot/Ida	Feet from the	North/South Line	Feet from the	East/West Line	County
B	18	24N	5W	NWNE	890	North	1450	East	RA

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot/Ida	Feet from the	North/South Line	Feet from the	East/West Line	County
J	F								
* Loc Code	* Producing Method Code	* Gas Connection Date	* C-129 Permit Number	* C-129 Effective Date	* C-129 Expiration Date				

III. Oil and Gas Transporters

Transporter OCRID	Transporter Name and Address	* FOD	* O/C	* FOD ULSTR Location and Description
009018	Giant Refining 5764 Hwy. 64 Farm. NM 87401		O	
007057	EPNG P.O. Box 4990 Farm. NM 87499		G	

IV. Produced Water

* FOD	* FOD ULSTR Location and Description

V. Well Completion Data

* Spud Date	* Ready Date	* TD	* PSTD	* Perforations
9-30-95	5-7-97	6758'	6712'	6590'-6600'
* Hole Size	* Casing & Tubing Size	* Depth Set	* Seals Cement	
12-1/4"	8-5/8"	235'	170sx to surface	
7-7/8"	4-1/2"	6758'	652sx (stage 1)	
Ditto	Ditto	Stage Tool @ 4560'	1294sx (stage 2)	
4-1/2"	2-3/8"	6617'	SN @ 6573'	

VI. Well Test Data

* Date New Oil	* Gas Delivery Date	* Test Date	* Test Length	* Test Pressure	* Test Pressure
5/2/97	On approval	5/2/97	3 hrs.	1337	1337
* Casing Size	* Oil	* Water	* Flow	* AUV	* Test Method
3/4"	1bo	5 blw	80 mcf	640 mcf/g	flow

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Doug Endsley*
Printed name: Doug Endsley
Title: Operations Manager
Date: 5/7/97 Phone: 505-326-7099

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

If this is a change of operator fill in the OCRIID number and name of the previous operator

Previous Operator Signature

Printed Name

Title

Date

DISTRICT II
811 South First St., Artesia, NM 88210-2832

OIL CONSERVATION DIVISION

APPROVAL PROCESS:

DISTRICT III
1000 Rio Bravo Rd., Aztec, NM 87410-10022040 S. Pacheco
Santa Fe, New Mexico 87506-8420☒ Administrative ☐ Hearing

EXISTING WELLBORE

APPLICATION FOR DOWNHOLE COMMINGLING

☒ YES ☐ NO

Elm Ridge Resources, Inc. 312 W. La Plata Farmington, New Mexico 87401

Apache 18-2 B-18-T24N-R5W Rio Arriba
CountyOGUID NO. 149052 Property Code 17632 API NO. 8003925548 Federal ☒ State ☐ (Federal Fee)

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Devils Fork Gallup	Basin Dakota	Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	5455'-5729'	6590'-6600'	6618'-6638'
3. Type of production (Oil or Gas)	Oil w/assoc. gas	Gas w/some cond.	Gas w/some cond.
4. Method of Production (Flowing or Artificial Lift)	PISTON	PISTON	PISTON
5. Bottomhole Pressure	a. (Current)	a.	a.
Oil Zones - Artificial Lift: Estimated Current	1250	1337	1337
Gas & Oil - Flowing: Measured Current	b. (Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	1250	1360	1360
6. Oil Gravity (°API) or Gas BTU Content	42	53	53
7. Producing or Shut-in?	Shut in pending approval	Shut in pending approval	Shut in pending approval
Production Marginal? (yes or no)	no	no	no
* If Shut-in, give date and oil/gas/water rates of last production	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 90 days)	Date: 5/2/97 Rates: 57 mcf/g 20 bo	Date: 5/2/97 Rates: 80 mcf/g 1bo	Date: 5/2/97 Rates: 140 mcf/g .5 bo
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 93 % Gas: 21 %	Oil: 5 % Gas: 29 %	Oil: 2 % Gas: 50 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S).

16. ATTACHMENTS:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of all offset operators.
- Notification list of working, overriding, and royalty interests for uncommon interest cases.
- Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Doug Endsley TITLE Operations Manager DATE 5/7/97TYPE OR PRINT NAME Doug Endsley TELEPHONE NO. (505) 326-7099

15. NMOCD Reference Cases for Rule 303(D) Exceptions:

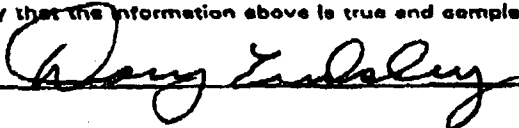
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SIGNATURE



TITLE Operations Man. DATE 5/7/97

TYPE OR PRINT NAME

Doug Endsley

TELEPHONE NO. (505) 326-7099

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

811 South First St., Artesia, NM 88210-2935

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1699

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

Elm Ridge Resources, Inc. 312 W. La Plata Farmington, New Mexico 87401

Operator

Address

Apache

18-2

B-18-T24N-R5W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 149052 Property Code 17632 API NO. 8003925548 Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Devils Fork Gallup	Basin Dakota	Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	5455' - 5729'	6590' - 6600'	6618' - 6638'
3. Type of production (Oil or Gas)	Oil w/assoc. gas	Gas w/some cond.	Gas w/some cond.
4. Method of Production (Flowing or Artificial Lift)	PISTON	PISTON	PISTON
5. Bottomhole Pressure	a. (Current) 1250	a. 1337	a. 1337
Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	b. (Original) 1250	b. 1360	b. 1360
6. Oil Gravity ($^{\circ}$ API) or Gas BTU Content	42	53	53
7. Producing or Shut-In?	Shut in pending approval	Shut in pending approval	Shut in pending approval
Production Marginal? (yes or no)	no	no	no
* If Shut-in, give date and oil/gas/water rates of last production	Date: Rates:	Date: Rates:	Date: Rates:
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 5/2/97 Rates: 57 mcf/g 20 bo	Date: 5/2/97 Rates: 80 mcf/g 1bo	Date: 5/2/97 Rates: 140 mcf/g .5 bo
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 93 % Gas: 21 %	Oil: 5 % Gas: 29 %	Oil: 2 % Gas: 50 %

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- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Doug Endsley TITLE Operations Man DATE 5/7/97TYPE OR PRINT NAME Doug Endsley TELEPHONE NO. (505) 326-7099

July 11, 1997

To: Ben Stone

Fr: Brian Wood

Re: Elm Ridge Apache 18-2 commingle application

In reply to your question of how the allocation data was derived ...

Production from the lower Dakota was measured at 140 Mcfd and 0.5 bopd before the test began.

The Upper Dakota was isolated with a bridge plug and packer, tested, and measured 80 Mcfd and 1 bopd.

The Gallup was then isolated with a bridge plug and packer, tested, and measured 57 Mcfd and 20 bopd.

Volumes were then summed and the proportions derived from the sums. All figures are actual measurements of that zone alone.

<u>Zone</u>	<u>bopd</u>	<u>%</u>	<u>Mcfd</u>	<u>%</u>
Gallup	20	93	57	21
Upper Dakota	1	5	80	29
<u>+ Lower Dakota</u>	<u>0.5</u>	<u>2</u>	<u>140</u>	<u>50</u>
Total	21.5	100	277	100