

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires December 31, 1991

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

RECEIVED
BLM

99 JUL - 6 PM 3:55

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

070 FARMINGTON, NM

1a. TYPE OF WORK **DRILL** ☒ **DEEPEN** ☐

1b. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

5. LEASE DESIGNATION AND SERIAL NO.
NM-20510 97843

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
WF Federal 28

2. NAME OF OPERATOR
Richardson Operating Company

9. WELL NO.
2 API #30-045-29148

3. ADDRESS OF OPERATOR
c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4891

10. FIELD AND POOL OR WILDCAT
Twin Mounds De Ent and AC EXT

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At Surface **1525' FSL and 1850' FEL**
At proposed Prod. Zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
J Sec. 28, T30N, R14W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
2 miles northeast of Kirtland, NM

12. COUNTY OR PARISH
San Juan

13. STATE
NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
1525'

16. NO. OF ACRES IN LEASE
1440

17. NO. OF ACRES ASSIGNED TO THIS WELL
160 acres

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.
3500'

19. PROPOSED DEPTH
1220'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5540' GR

22. APPROX. DATE WORK WILL START*
August 1, 1999

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7"	20#	120'	36 cu.ft. Cl "B"
6-1/4"	4.5"	10.5#	1220'	134 cu.ft.w/ 2% metasilicate

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

Richardson Operating Company proposes to drill a vertical well to develop the Pictured Cliffs and Fruitland Coal formations at the above described location in accordance with the attached drilling and surface use plans.

This location has been archaeologically surveyed by La Plata Archeological Consultants. Copies of their report have been submitted directly to your office.

This APD also is serving as an application to obtain BLM road and pipeline right-of-ways. This well will be accessed by an existing road that crosses NW/SE, E2/SW of Section 28, NW/NW of Sec. 33, NE/NE, SE/NE, W2/SE of Section 32 where it joins the Twin Peaks Blvd. The pipeline route is described on Plat 4.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM : If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Paul C. Thompson TITLE Paul C. Thompson, Age DATE 7/1/99

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 8/6/99

Application approval 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.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY AS/Duane W. Spencer TITLE Team Lead, Petroleum Management DATE AUG - 6 1999

***See Instructions 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.

NMOCD

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Artec, NM 87410
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, NM 87505

Form C-102
Revised March 17, 1994

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

99 JUL -6 PM 3:55

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-27948	Pool Code 86620	Pool Name Twin Mounds Pictured Cliffs
Property Code 24567	Property Name WF Federal	Well Number 28-2
OGRID No. 019219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5540'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	28	30 N	14 W		1525'	South	1850'	East	San Juan

11 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
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Dedicated Acres 160	Joint or Infill Y	Consolidation Code	Order No.
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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

16		RECEIVED AUG 10 1999 OIL CON. DIV. DIST. 3	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Paul C. Thompson Signature Paul C. Thompson Printed Name Agent Title 7-2-99 Date
		1850'	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 belief Gerald G. Huddleston Date of Survey Signature and Seal of Professional Surveyor 6844 REGISTERED LAND SURVEYOR Certificate Number
		1525'	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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

99 SEP - 2 PM 12:42

070 1000 2000-100

5. Lease Designation and Serial No.
NM -97843

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE

RECEIVED
SEP - 8 1999

7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
WF Federal 28 - 2

2. Name of Operator
Richardson Operating Company

9. API Well No.
30-045-29948

3. Address and Telephone No. C/O Walsh Engineering & Production Corp.
7415 East Main, Farmington, NM 87402 505-327-4892

10. Field and Pool, or Exploratory Area
Twin Mounds Pictured Cliffs

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1525' FSL & 1850' FEL, Sec. 28, T30N, R14W

11. County or Parish, State
San Juan, NM.

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

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☐ Other see below

- ☐ 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.)*

8/26/99 - Spud 8-3/4" hole @ 0930 hrs. TD surface hole to 138' @ 1500 hrs. 8/26/99. Run 3 jts. of 7", #20, ST&C casing (130.84'). Land @ 136' KB. Cement w/ 60 sx. (71 cu.ft.) of Class "B" cement w/ 2% CaCl2. PD @ 1630 hrs. 8/26/99. Circulated out 5 bbls of cement to surface.

8/29/99 - TD 4-1/2" hole @ 1530 hrs. @ 1220'. Run 28 jts. of 4-1/2", 10.5#, ST&C, white band casing (1199.40') & land @ 1204' KB. Cement w/ 65 sx (134 cu.ft.) of Class "B" cement w/ 2% Sodium Metasilicate & tail in w/ 75 sx (88.5 cu.ft.) of Class "B". PD @ 20:00 hrs. 8/28/99. Circulated 10 bbls of cement to surface.

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

Signed John C. Thompson (John C. Thompson) Title Agent/Engineer Date 08/31/99

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

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.

*See Instruction on Reverse Side

ACCEPTED FOR RECORD

SEP 02 1999

FARMINGTON FIELD OFFICE
BY _____

NUOCD

L & B Speed Drill, Inc.

P.O. BOX 70 • FARMINGTON, NEW MEXICO 87499-0070 • (505) 325-1079

September 8, 1999

RICHARDSON OPERATING COMPANY
1700 LINCOLN ST., SUITE 1700
DENVER, CO 80203

RECEIVED
OCT 28 1999
NEW MEX. CO. DIV.
OCT 8

Re: Directional Survey
Well WF Federal #28-2
1525' FSL & 1850' FEL
J- Sec. 28, T30N, R14W

Below is the directional survey for your well WF Federal 28.

130' 1/4°

630' 1/2°

1220' 1/2°

ACKNOWLEDGEMENT

STATE OF NEW MEXICO]
COUNTY OF SAN JUAN]

SIGNED & ACKNOWLEDGE BY:

James L. Ludwick

JAMES L. LUDWICK, DRILLER

The foregoing instrument was acknowledge before me this 8th day of Sept. 1999.

Robert H. Hatcher
NOTARY PUBLIC

My commission expires: 10/23/99

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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Expires: March 31, 1993

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Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Richardson Operating Company

3. Address and Telephone No.

1700 Lincoln, Suite 1700, Denver, Colorado 80203 (303) 830-8000

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

1525' FSL, 1850' FEL
Sec. 28-T30N-R14W

5. Lease Designation and Serial No.

NMNM-97843

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

WF Federal 28-2

9. API Well No.

30-045-29948

10. Field and Pool, or Exploratory Area

Twin Mounds PC

11. County or Parish, State

San Juan County, NM

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

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☐ Notice of Intent
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TYPE OF ACTION

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☐ Casing Repair
☐ Altering Casing
☐ Surface Casing/Cementing
☒ Other: see below

☐ 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 markets and zones pertinent to this work.)*

Well completed as per attached treatment report

2000 FEB -7 AM 10:54
070 INMATION, NM

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

Signed: Cathleen Colley
(This space for Federal or State office use)

Title: Land Manager

ACCEPTED FOR RECORD

Approved by:

Title:

Date: FEB 17 2000

Conditions of approval, if any:

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.

PARMINGTON FIELD OFFICE
BY [Signature]

RICHARDSON OPERATING COMPANY

FRACTURE TREATMENT REPORT

Operator: Richardson Operating Company Well Name: WF Federal 28-2
 Date: 12/6/99
 Field: Twin Mounds PC Location: 28-30N-14W County: San Juan State: NM
 Stimulation Company: American Energy Supervisor: _____

Stage #: 1/1

Sand on location (design): 37500 Weight ticket: 38,700 Size/type: 20/40 Brady Sand

Fluid on location: No. of Tanks: 2 Strap: 18' 6" Amount: 774 bbls Usable: 700

Perforations

Depth: 1072' - 1082' Total Holes: 40 PBTD: 1160'
 Shots per foot: 4 EHD: 0.38

Breakdown

Acid: 200 gals
 Balls: N/A
 Pressure: 725# Rate: 30.8

Stimulation

ATP: 600# AIR: 30.8 bpm
 MTP: 725# MIR: 30.8 bpm

	Sand Stage	Pressure	Breaker test
ISIP: <u>255#</u>	pad	417#	14 cps
5 min: <u>255#</u>	1 ppg	725#	break in 1 hr
10 min: <u>180#</u>	2 ppg	645#	
15 min: <u>0#</u>	3 ppg	620#	
	4 ppg	604#	

Job Complete at: 14:11 hrs. Date: 12/6/99 Start flow back: N/A

Total Fluid Pumped: 402 bbls 16,916 gals

Total Sand Pumped: 37,500 Total Sand on Formation: 37,500

Total Nitrogen Pumped: N/A

Notes: