

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☐

GAS WELL ☒

OTHER

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Richardson Operating Co. (303) 830-8000

3. ADDRESS AND TELEPHONE NO.

1700 Lincoln, Suite 1700, Denver, Co. 80203

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

At surface

775' FNL & 735' FWL

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

8 air miles NW of Farmington, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

735'

16. NO. OF ACRES IN LEASE

1,120

17. NO. OF ACRES ASSIGNED TO THIS WELL

160NW

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

3,499'

19. PROPOSED DEPTH

1,200'

20. ROTARY OR CABLE TOOLS

Rotary

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

5,580' ungraded ground

22. APPROX. DATE WORK WILL START*

Upon Approval

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7" (K-55)	20#	120'	~36 cu ft & to surface-
6-1/4"	4-1/2" (K-55)	10.5#	1,200'	~220 cu ft & to surface-

This program 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"



cc: BLM (& OCD), Colby

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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

Richardson

TITLE

Consultant (505) 466-8120

DATE

8-23-00

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

10/27/00

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

TITLE

DATE

10/27/00

*See Instructions On Reverse Side

State of New Mexico
Energy, Minerals & Mining Resources Department

Form C - 102

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

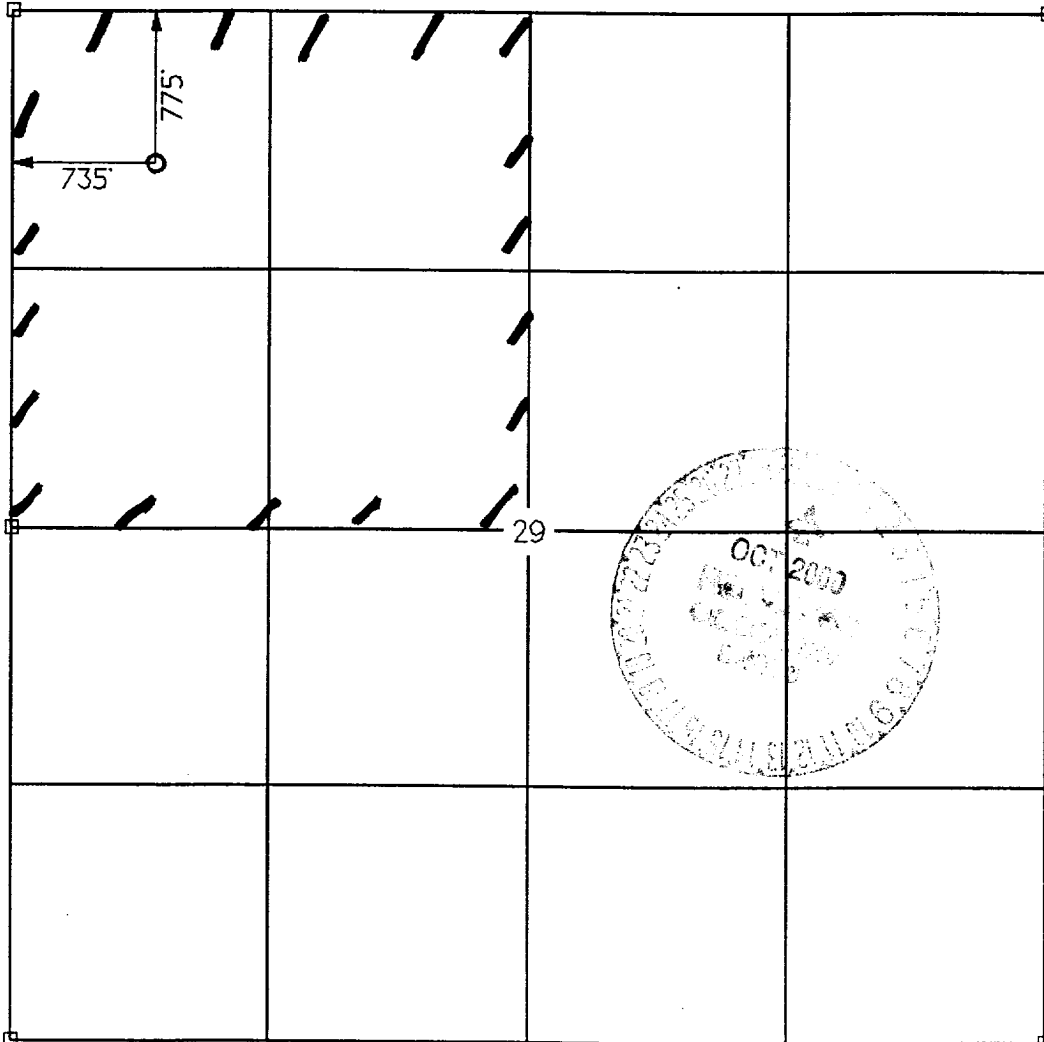
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 30-045-30.348	Pool Code 86620 -	Pool Name TWIN MOUNDS PC -
Property Code 23904	Property Name WF FEDERAL	Well Number 29 - 4
GRID No. 019219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5580' -

Surface Location									
UL or Lot D	Sec. 29	Twp. 30 N.	Rge. 14 W.	Lot Idn.	Feet from > 775'	North/South NORTH	Feet from > 735'	East/West WEST	County SAN JUAN

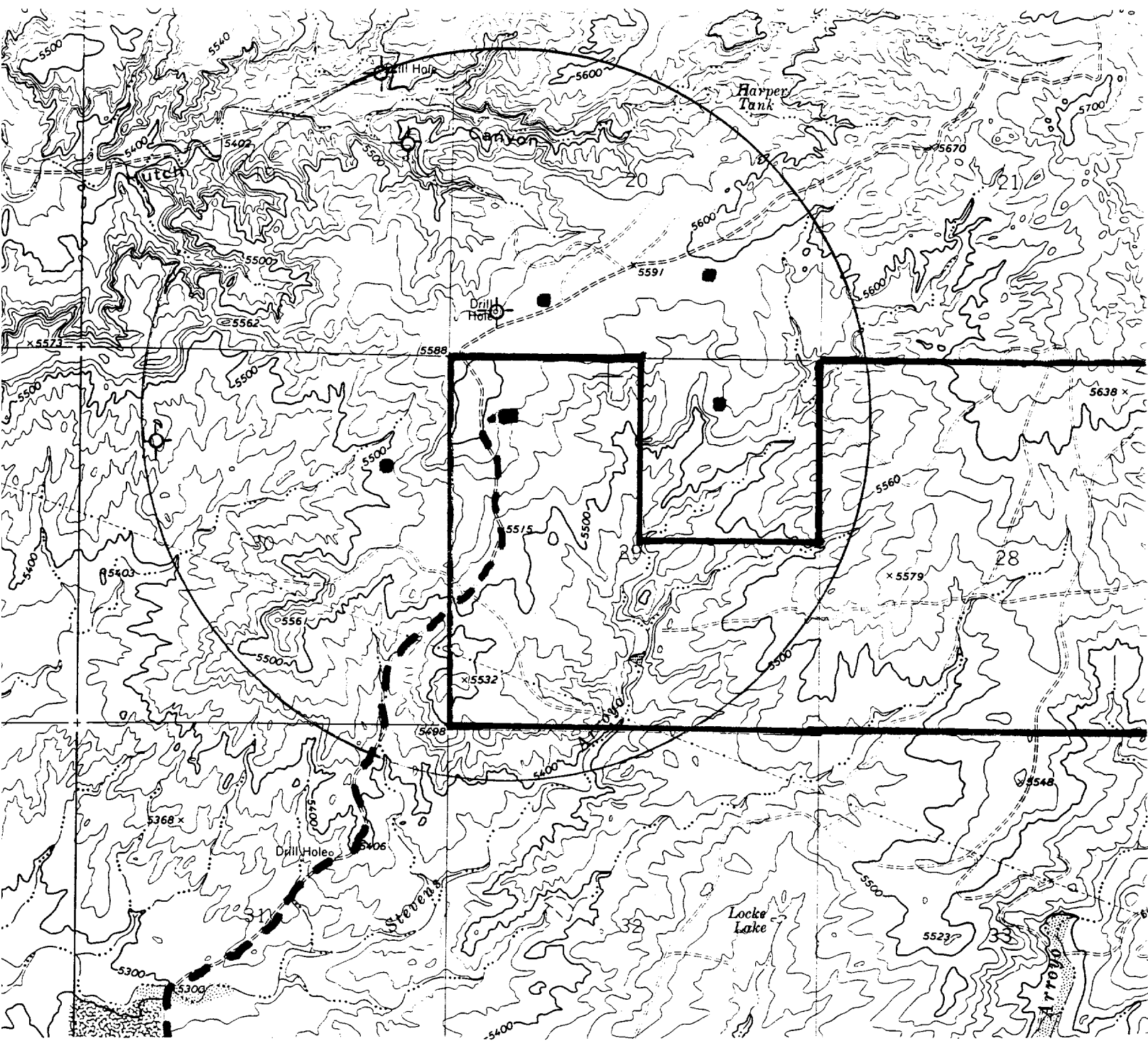
Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from >	North/South	Feet from >	East/West	County
Dedication	Joint ?	Consolidation	Order No.						

NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Signature	<i>Brian Wood</i>
Printed Name	BRIAN WOOD
Title	CONSULTANT
Date	AUG. 23, 2000
SURVEYOR CERTIFICATION	
I hereby certify that the well location 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.	
Date of Survey	AUG 23 2000
Signature	<i>AUGUS HUDDON</i>
Professional Surveyor	6844
REGISTERED LAND SURVEYOR	

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PROPOSED WELL: ■ NEW ROAD/PIPELINE: •
EXISTING WELL: ● EXISTING ROAD: - - -
P&A WELL: ⊖ LEASE: ┌

PERMITS WEST . INC.
PROVIDING PERMITS for LAND USERS

Richardson Operating Co.
WF Federal 29 #4
775' FNL & 735' FWL
Sec. 29, T. 30 N., R. 14 W.
San Juan County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Subsea Elevation</u>
Kirtland Sh	000'	5'	+5,580'
Fruitland Fm	580'	585'	+5,000'
Pictured Cliffs Ss	1,080'	1,085'	+4,500'
Total Depth (TD)*	1,200'	1,105'	+4,350'

* all elevations reflect the ungraded ground level of 5,480'

2. NOTABLE ZONES

<u>Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland Fm (585')	Fruitland Fm (585')	Fruitland Fm (585')
Pictured Cliffs (1,080')		

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) Double ram or annular system with a rotating head will be used. All ram preventers and related equipment will be hydraulically tested at nipple up and after any use under pressure to 1000 psi.