(June, 1990)

Signed:

Approved by:

Conditions of approval, if any:

statements or representations as to any matter within its jurisdiction.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM API	
Budget Bureau i	Na. 1004-013

Budget Bureau	Na. 1004-0135
Cuninant Mara	621 1002

	5. Lease Designation and Serial No.			
SUNDRY	SF-079968			
Do not use this form t	6. If Indian, Affotte or Tribe Name			
	PPLICATION FOR PERMIT			
	T IN TRIPLICATE		7. If Unit or CA, Agreement Designation	
	7,000			
. Type of Well Oil Well	X Gas Well	Other	8. Well Name and No.	
	X 043 110		WF Federal 5-1	
. Name of Operator Richardson ()perating Compan	v	/ FEB 2001	9. API Well No.	
	у		30-045-30259	
. Address and Telephone No. 1700 Lincoln, Suite 1700, Dei	nver Colorado 802	03 (303) 830-8000	10. Field and Pool, or Exploratory Area	
		(2)	Twin Mounds Fruitland Sand PC	
Location of Well (Footage, T, R, M, or	Survey Description		11. County or Parish, State	
1555' FNL, 660' FWL			San Juan County, NM	
Sec. 5-T29N-R14W	TO HINGAT	NATURE OF NOTICE REPORT OR OTHER D		
	E BOX(s) TO INDICAT	NATURE OF NOTICE, REPORT, OR OTHER D TYPE OF ACTION		
TYPE OF SUBMISSION			Change of Plans	
		Abandonment	New Construction	
Notice of Intent		Recompletion	Non-Routine Fracturing	
		Plugging Back	Water Shut-Off	
X Subsequent Report		Casing Repair	Conversion to Injection	
		Altering Casing	Dispose Water	
Final Abandonment Notice	e	Surface Casing/Cementing		
		X Other: see below	(Note: Report results of multiple completion on Well	
			Completion or Recompletion Report and Log form).	
- 13. Describe Proposed or Completed Operatio	ns (Clearly state all pertinent	details, and give pertinent dates, including estimated date of	starting any proposed work.	
If well is directionally drilled, give subsurface	ce locations and measured and	true vertical depths for all markets and zones pertinent to th	ils work.)*	
Well completed a	s per attached trea	tment report		

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

Title: Land Manager

ACCEPTED FOR RECORD

FEB 0 7 2001

FARMINGTON FIE

Date

RICHARDSON OPERATING COMPANY

FRACTURE TREATMENT REPORT

Operator:	perator: Richardson Operating Company			Well Name:	Name: WF Federal 5-1					
Date: 12/23/00 Field: Twin Mounds Fr Sand PC		Location:	5-29N-14W		_County:	San Juan	State:	NM		
Stimulation	Company:	Schlumberger		Supervisor:						
Stage #:	1/1									
Sand on lo	cation (design	n):	52,000	Weight ticket:	52	,000	Size/type:	20/-	40 Arizor	na
Fluid on lo	cation:	No. of Tanks:	2	Strap:	40	Amount:	800	_ Usable	e:	760
Perforation	ons								OPTO	: 830'
		Depth:		762' - 770'	-	Total Holes:	32		PBTD	
		Shots per foot:		4	_	EHD:	0.41	_ _		
Breakdov	wrı									
		Acid:		500 gals	-					
		Balls:		N/A	_					
		Pressure:		2200		Rate:	4	1.5 bpm		
Stimulat	ion									· · · · · · · · · · · · · · · · · · ·
		ATP:		2083		AIR:		29.8		
		MTP:		2861		MIR:		42.6		
				Sand Stage	Pressure	_		Breaker test		
				pad	2591 2783			18 cps break in 35	mins.	
	ISIF			1 ppg 2 ppg	2756			Drount III o		
	5 mii 10 mii			3 ppg	1685					
	15 mi			4 ppg	1671					
	Job Comple	ete at: <u>11</u>	:31 hrs.		Date	: 12/23/00		Start flow ba	ck: <u>N</u>	I/A
	Total Fluid	Pumped:		840 bbls	_					
	Total Sand	Pumped:		51,791		Total Sand o	n Formatio	on:	51,103	
	Total Nitrog	gen Pumped:	N/A							
Total Control						· ·				
Notes:										
L										