orm 3160-5 unc 1990)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANA

Ζ.	FORM	APPRO	OVE	)
/ Bud	get Bur	cau No.	1004	-0135

/B	udget Bun	cau No.	1004-01	14
<u>,</u>	Expires:	March	31, 1991	

DORLAG O	5. Lease Designation and Serial No.			
SUNDRY NOTICE to not use this form for proposals to Use "APPLICATION F	NM-25857  6. If Indian, Allottee or Tribe Name			
SUBM	7. If Unit or CA, Agreement Designation			
ype of Well Gas Other		8. Well Name and No.		
RICHARDSON OPERATING COMPAN	WF Federal 21-1R			
ddress and Telephone No. c/o Walsh Eng 415 E. Main Farmington,	30-045-2 <del>959</del> 7 <i>3003</i> /			
ocation of Well (Footage, Sec., T., R., M., or Survey	N.M. 87402 505 327-4892  Description)	10. Field and Pool, or Exploratory Area Harper Hill FR Sand PC		
885'FSL & 906'FWL Section 21, T30N, R14W	II. County or Parish, State San Juan County, NM			
CHECK APPROPRIATE BOX	((s) TO INDICATE NATURE OF NOTICE, REPOR	T. OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF SUBMISSION  TYPE OF ACTION			
Notice of Intent  Subsequent Report	Abandonment Recompletion Plugging Back	Change of Plans New Construction		
Final Abandonment Notice	Casing Repair Altering Casing	Non-Routine Fracturing Water Shut-Off Conversion to Injection		
cribe Proposed or Completed Operations (Clearly state a give subsurface locations and measured and true verti	Other	Dispose Water		
		Dispose Water		
	all pertinent details, and give pertinent dates, including estimated date of starting as ical depths for all markers and zones pertinent to this work.)*	Dispose Water		
Completed well as pe	all pertinent details, and give pertinent dates, including estimated date of starting as ical depths for all markers and zones pertinent to this work.)*  Er attached treatment report.  DIE CONO DIVO DIST. 3	Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)  ny proposed work. If well is directionally drilled.		
completed well as pe	all pertinent details, and give pertinent dates, including estimated date of starting and depths for all markers and zones pertinent to this work.)*  Er attached treatment report.  DIL 2 9 1999  DIL GONO DIVO	Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log fores.)  ny proposed work. If well is directionally drilled.		
	Ill pertinent details, and give pertinent dates, including estimated date of starting as ical depths for all markers and zones pertinent to this work.)*  Example 1	Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log forts.)  The proposed work. If well is directionally drilled,  Solution of Recompletion Report and Log forts.)  RECEIVED  RECEI		

\*See Instruction on Reverse Side

FARMINGTON FIELD OFFICE



## FRACTURE TREATMENT REPORT

Date:	March 18, 19			Well N	arne:	WF Feder	al 21-1R		
Field:	Pictured Cliff	8	Loc	ation: 21/30N/1	AW Court	<u> </u>			
sumulatio	on Company:	American Er	nergy Services	Superv	isor:			NM	
Stage #:						John Thon	npson		
Sand on	location (des	ign);	40,000#	18/nt_L4					
			10,000	Weight	ucket:	40,560	Size/type:	16/30 Aria	zona
riuid on	location: N	o. of Tanks:	1	Strap:	19	A			
						_Amount:	380	Usable:	36
erforet	The second secon						grand grand and		
	. Di	epth:	1076' - 1086'		Total Hol	es: 30		PBTD:	1004
	Sł	ots per foot	: 3 spf				•	PBID:	1204'
			озрі		EHD:	0.30"			
<b>TENCO</b>						\$45-460			
	Ac	id:	n/a		CONTRACTOR OF THE PARTY OF THE				
	Ba	lls:	-1-	<b></b>					
			n/a						
	Pro	essure:	2,280#	Rate	≇:1.7 bpm				
dmilali					7.7 bpm				
ent (Charty			i e e						
	AT	P:	1050#	415					
		_		AIF	29.5 bpm				
	MT	P:	2280#	MIR	:31 bpm				
					TOTAL PARTY				
	ISIP:	742#		pad	1090#			14 cps @ 70 d	legrees
	5 min:	719#	ı	1 ppg	1080#			break in 36 mil	n.
	10 min:	700#		2 ppg	1070#				
	15 min:	687#		3 ppg	1040#				
		007#		4 ppg	1030#				
Jo	b Complete	at:	8:40 hrs.	Date:	2/10/00	04- 4-5			
Te	tal Eluid Dom			Sate.	3/18/99	Start flow	back:	3/18/99	
	tal Fluid Pum	iped:	175						
To	tal Sand Pun	ped:	40.560#	Total C	_				
		-	10,000#	rotal Sand	on Formati	on: 	39,235#		
10	tal Nitrogen F	Pumped: 1	05,800 scf						
tes:							_		
lditives:	Foamer -	· 5 gal/100	0 gal. Total 4:	5 gal					
	water.	- Enzyme	breaker (tota	l of 1/4 gal/	1000 gal).	Total 3 g	al -diluta	d in 40 ~	0100
					·	_		m 40 g	41 71
a 55 gal	of gel to mix eated to 80 d	W/ Water -	gelled tank meas						ł

Signature Suc Citte