

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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)

1570' FNL & 956' FEL Section 23-T29N-R14W NMPM

5. Lease Designation and Serial No.

14-20-603-2198

6. If Indian, Allote or Tribe Name

Navajo

7. If Unit or CA, Agreement Designation

8. Well Name and No.

WF Navajo 23 #1

9. API Well No.

30-045-30317

10. Field and Pool, or Exploratory Area

PC & Fruitland Coal

11. County or Parish, State

San Juan Co, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Surface Casing/Cementing	☐ Dispose Water
	☒ Other: see below	

(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 per attached treatment report.



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

Signed: *John Whelan*

Title: Operations Manager

Date: 6/01/01

(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 Instructions on Reverse Side

NMCCD

OR RECORD

19 2001

5 m - 1100

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RICHARDSON OPERATING COMPANY

FRACTURE TREATMENT REPORT

Operator: Richardson Operating Company Well Name: WF Navajo 23 #1
Date: _____
Field: Basin Fruitland Coal Location: 23-T29N-R14W County: _____ State: _____
Stimulation Company: American Energy Services Supervisor: John Durham

Stage #:

Sand on location (design): 54,660 Weight ticket: _____ Size/type: 20/40 Brady

Fluid on location: No. of Tanks: _____ Strap: _____ Amount: _____ Usable: _____

Perforations

Depth: 944' - 966' Total Holes: 80 PBTD: _____

Shots per foot: _____ EHD: 0.42

Breakdown

Acid: 500

Balls: NA

Pressure: _____ Rate: _____

Stimulation

ATP: _____ AIR: 36

MTP: _____ MIR: 36

	Sand Stage	Pressure	Breaker test
	pad		
ISIP: _____	1 ppg		
5 min: <u>495</u>	2 ppg		
10 min: <u>480</u>	3 ppg		
15 min: <u>460</u>	4 ppg		

Job Complete at: 1326 hrs. Date: _____ Start flow back: _____

Total Fluid Pumped: _____

Total Sand Pumped: 54,660 Total Sand on Formation: _____

Total Nitrogen Pumped: NA

Notes:



AMERICAN ENERGY SERVICES

Treatment Report

Date 4-13-01 District Wilmington Job No. 70012545 Customer Parkway
Well Name 1000 Lease 73-1 Field Location
County San Juan State NM Stage number 1

WELL DATA		Formation <u>EX</u>	TD <u>1000</u>	PB
Casing Size <u>5.0</u>	Wt. <u>10.5</u>	Set From/To <u>0 to 1000</u>		
Liner Size <u>4.5</u>	Wt. <u>10.5</u>	Set From/To <u>0 to 1000</u>		
Tubing Size <u>4.5</u>	Wt. <u>10.5</u>	Set at <u>0</u>		
Packer Type <u>SP</u>	Set at <u>0</u>			
No. of Peris <u>80</u>	Perf Size <u>4.5</u>	Interval <u>944 to 911</u>		

TREATMENT DATA		Job Type (Frac/Acid/Other) <u>Acid</u>	Foam (Y/N) <u>N</u>
Pad Type <u>Acid</u>	Pad Volume <u>129 bbl</u>		
Base Fluid Type <u>Acid</u>	Base Fluid Vol. <u>129 bbl</u>		
Foam Quality <u>0%</u>	Mitchell or CIP <u>42</u>		
Prop Types <u>Acid</u>	Prop Mesh <u>20/40</u>	Prop Quantity <u>13.20 / 1140</u>	
Treat Via <u>Acid</u>	(Tubing / Casing / Annulus / Tubing & Annulus)		
Hole Loaded With <u>15% HCl</u>			

Procedure Summary

800 gal 15% HCl 5415 gal acid 2415 gal 11% acid
3000 gal 21% acid 2570 gal 21% acid 1700 gal
4100 gal 2915 gal 4 lb Super 100 1.70 gal Fluid

Time	Treating Pressure (psi)		Slurry Rate BPM	Surface Slurry BBLS Pumped		CO2 or N2 Rate BPM or SCFM	Surface CO2 or N2 Pumped		Comments
	STP	Annulus		Stage	Total		Stage	Total	
1240									
1245	450		1						1st stage 1245-1250
1250	500	250	5	10	12				1st stage 1250-1255
1255	500		21	129	141				stop! 1255
1300	500		31	140	261				stop! 1300
1305	500		31	78	274				stop! 1305
1310	500		31	07	371				stop! 1310
1315	500		31	131	512				stop! 1315
1320	500		31	110	622				stop! 1320
1325	500		31	11	633				stop! 1325
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