

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.

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

RICHARDSON OPERATING COMPANY 019219

3. Address and Telephone No. c/o Walsh Engr. & Prod. Corp.

7415 E. Main Farmington, N.M. 87402 505 327-4892

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

Unit N Section 20, T30N, R14W
915'FSL & 1600'FWL

5. Lease Designation and Serial No.

NM-19163

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

WF Federal 20 #1

9. API Well No.

30-045-29649

10. Field and Pool, or Exploratory Area

Twin Mounds FR Sand PC
Fruitland Coal

11. County or Parish, State

San Juan County, N.M.

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

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☐ Other _____
- ☐ 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.)*

WELL COMPLETED AS PER ATTACHED TREATMENT REPORTS

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

Signed

Title John C. Thompson, Agent

Date

7-2-99

(This space for Federal or State office use)

Approved by

Title

Conditions of approval, if any:

ACCEPTED FOR RECORD

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

NMOC

FARMINGTON FIELD OFFICE
BY 8/2/99

FRACTURE TREATMENT REPORT

Operator: Richardson Operating

Well Name:

WF Federal 20-1

Date: March 18, 1999

Field: Pictured Cliffs

Location: 20/30N14W County: San Juan State: NM

Stimulation Company: American Energy Services

Supervisor:

John Thompson

Stage #: 1/2

Sand on location (design):

40,000#

Weight ticket:

40,360#

Size/type:

16/30 Arizona

Fluid on location : No. of Tanks:

1

Strap:

Amount: 370

Usable:

Perforations:

Depth: 1100' - 1110'

Total Holes: 30

PBDT: 1247'

Shots per foot: 3 spf

EHD: 0.30"

Breakdown:

Acid: n/a

Balls: n/a

Pressure: 3,940

Rate: 5.0 bpm

Stimulation:

ATP: 1610#

AIR: 29 bpm

MTP: 3940#

MIR: 31.25 bpm

ISIP: 1010#
5 min: 900#
10 min: 875#
15 min: 850#

pad

1 ppg

2 ppg

3 ppg

4 ppg

1340#

1360#

1340#

1360#

14 cps @ 70 degrees

break @ 36 min

Job Complete at: 13:15 hrs.

Date: 3/18/99

Start flow back:

13:40 hrs. 3/19/99

Total Fluid Pumped: 260 bbls

Total Sand Pumped:

40,360#

Total Sand on Formation:

40,360#

Total Nitrogen Pumped: 138,000 scf

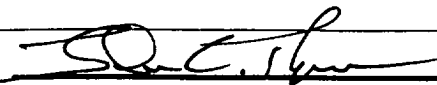
Notes:

Additives: Foamer - 5 gal/1000 gal. Total 52 gal.

Breakers - Enzyme breaker (total of 1/4 gal/1000 gal). Total of 5.5 gal - diluted in 40 gal of water.

Used 60 gal of gel to mix w/ water - gelled tank measured 20#
Frac tank heated to 80 degrees

Signature



FRACTURE TREATMENT REPORT

Operator: Richardson Operating Well Name: WF Federal 20-1
Date: March 23, 1999
Field: Fruitland Coal Location: 21/30N14W County: San Juan State: NM
Stimulation Company: Dowell Supervisor: John Thompson

Stage #: 2/2

Sand on location (design): 40,000# Weight ticket: 43,220# Size/type: 20/40 Arizona

Fluid on location : No. of Tanks: 1 Strap: 199 Amount: 380 Usable: 340

Perforations:
Depth: 1079' - 1089' Total Holes: 30 PBTD: RBP @ 1086'
Shots per foot: 3 spf EHD: 0.30"

Breakdown:
Acid: n/a
Balls: n/a
Pressure: 1296# Rate: 3.2 (total volume: 6.7 bbls)

Stimulation:
ATP: 1,672# AIR: 23 bpm
MTP: 4,298# MIR: 25 bpm

ISIP: 1,100#
5 min: 774#
10 min: 760#
15 min: 751#

pad	1603#	
1 ppg	1540#	14 cps @ 70 degrees
2 ppg	1870#	Break in 45 min.
3 ppg	Screened Out	
4 ppg		

Job Complete at: 8:40 hrs. Date: 3/23/99 Start flow back: 09:40 hrs. 3/23/99

Total Fluid Pumped: 147 bbls

Total Sand Pumped: 22,684# Total Sand on Formation: 20,403#

Total Nitrogen Pumped: 148,200 scf

Notes:

Additives: Foamer (F-104) 5 gal/1000 gal (total used 35 gal)
Breakers - J134 Enzyme breaker total of 1#/1000 gal (total 8# used)

Screened well out while pumping 3 ppg stage (3,441# into 3 ppg stage). Increased BH rate during 2 ppg stage, attempted to increase fluid rate as WH pressures increased.

Signature 