

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
PLM

Sundry Notices and Reports
96 DEC 27 11:21

070 FARMINGTON, NM

1. Type of Well
GAS

2. Name of Operator

**BURLINGTON
RESOURCES**

OIL & GAS COMPANY

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

1650' FSL, 1650' FWL, Sec. 28, T-27-N, R-10-W, NMPM

K

5. Lease Number

SF-077941A

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

8. Well Name & Number

Rowley C #2

9. API Well No.

30-045-06235

10. Field and Pool

Basin Fruitland Coal

11. County and State

San Juan Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

Type of Action

Notice of Intent

Abandonment

Change of Plans

Subsequent Report

Recompletion

New Construction

Final Abandonment

Plugging Back

Non-Routine Fracturing

Casing Repair

Water Shut off

Altering Casing

Conversion to Injection

Other - Stimulate

13. Describe Proposed or Completed Operations

It is intended to fracture treat the Fruitland Coal formation of the subject well according to the attached procedure and wellbore diagram.

RECEIVED
JAN - 6 1997

OIL CON. DIV.
DIST. 3

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

Signed [Signature] (PMP2) Title Regulatory Administrator Date 12/20/96

(This space for Federal or State Office use)

APPROVED BY _____ Title _____ Date _____

CONDITION OF APPROVAL, if any:

APPROVED

DEC 30 1996

[Signature]
DISTRICT MANAGER

NMOCID

ROWLEY C #2 FRTC
 Workover Procedure
 K 28 27 10
 San Juan County, N.M.
 Lat-Long 36.543533 - 107.903641

1. Comply to all NMOCD, BLM, & MOI rules & regulations. MOL and RU completion rig. NU 6" 900 series BOP w/flow tee and stripping head. NU blooie line & 2-7/8" relief line.
2. Lower tbg to tag fill. If fill is above 1764', C.O. w/air/mist to 1771'. Set blanking plug in S.N. of 2-3/8" tbg @ 1719' & pressure test tbg to 2000 psi. TOH w/56 jts 2-3/8" tbg.
3. Spot and fill 3-400 bbl. frac tanks w/1% KCL water. If necessary, filter all water to 25 microns. Two tanks are for gel & one tank for breakdown water. Usable water required for frac is 503 bbls.
4. Run CBL log from 1771' to top of cmt. If cmt bond is OK, perf FRTC w/1 spf @ 1762'-56', 1656'-42', 1632'-06', 1596'-94', 1576'-72', 1565'-54', 1518'-12', 1455'-53'. Total 71 holes. Perf using 3-1/8" hollow steel carrier guns loaded w/Owen HSC 13 gm. charges phased at 180 degrees & 2 spf. Average perf dia. = 0.48". Average penetration is 18" in Berea.
5. TIH w/5-1/2" pkr on 3-1/2" 9.3# N-80 w/shaved collars (4.25" O.D. 2.992" I.D.) rental frac string & set @ 1300'. (Run 2 jts 2-7/8" N-80 tbg above pkr). W/300 psi on backside, breakdown FRTC perfs w/2000 gal. 15% HCL acid & 210-7/8" 1.3 sp gr RCN perf balls. (1 gal/1000 corrosion inhibitor). Max. pressure is 5000 psi. Lower pkr to 1765' to knock off perf balls. Reset pkr @ 1400'.
6. Fracture treat FRTC down frac string w/70,000 gals. of 70 quality foam using 30# gel as the base fluid & 130,000# 20/40 Arizona sand. Pump at 45 BPM. Monitor bottomhole & surface treating pressures, rate, foam quality, & sand concentration with computer van. Sand to be tagged w/ 0.4 mCi/1000# Ir-192 tracer. Max. pressure is 5000 psi & estimated treating pressure is 3000 psi. Treat per the following schedule:

Stage	Foam Vol. (Gals.)	Gel Vol. (Gals.)	Sand Vol. (lbs.)
Pad	15,000	4,500	---
1.0 ppg	15,000	4,500	15,000
2.0 ppg	15,000	4,500	30,000
3.0 ppg	15,000	4,500	45,000
4.0 ppg	10,000	3,000	40,000
Flush	(511)	(153)	0
Totals	70,000	21,000	130,000#

Shut well in after frac for six hours in an attempt to allow the gel to break. Treat frac fluid w/the following additives per 1000 gallons:

- * 30# J-48 (Guar Gel mix in full tank - 16,000 gal)
- * 1.0 gal. Aqua Flow (Non-ionic Surfactant mix in full tank)
- * 1.0# GVW-3 (Enzyme Breaker mix on fly)
- * 1.0# B - 5 (Breaker mix on fly)
- * 5.0 gal Fracfoam I (Foarner mix on fly)
- * 0.38# FracCide 20 (Bacteriacide mix on full tank)

ROWLEY C #2 FRTC - FRAC EXISTING FRTC

- 7. Open well through choke manifold & monitor flow. Flow @ 20 bbl/hr, or less if sand is observed. **Take pitot gauges when possible.**
- 8. Release pkr & TOH w/frac string. TIH w/4-3/4" bit on 2-3/8" tbg & clean out to 1771' w/air/mist.
- 9. Monitor gas & water returns & **take pitot gauges when possible.**
- 10. When wellbore is sufficiently clean, TOH & run after frac gamma-ray log from 1771'-1300'.
- 11. TIH w/2-3/8" tbg w/standard seating nipple one joint off bottom & again cleanout to 1771'. When wellbore is sufficiently clean, land tbg @ 1600' KB. **Take final water & gas samples & rates.**
- 12. ND BOP & NU wellhead & tree. Rig down & release rig.

Orlando Walker, Jr. 12/11/96

Recommended: *[Signature]*
Production Engineer

Approved: *[Signature]* 12/11/96
Drilling Superintendent

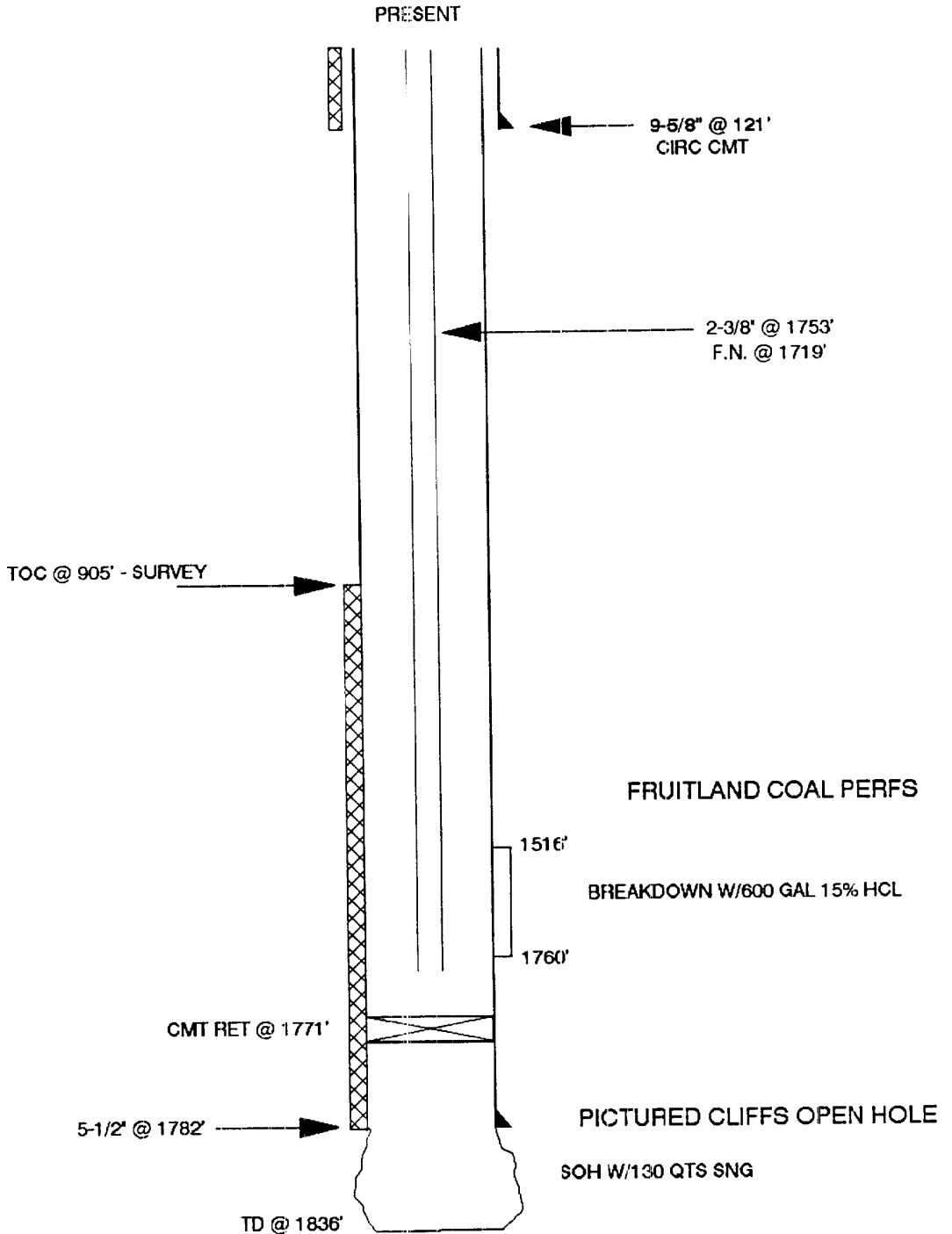
VENDORS:

Wireline:	Basin	327-5244
Fracturing:	Western	327-6222
RA Tagging:	Pro-Technics	326-7133
Packers:	Schlum.	325-5006

PMP

ROWLEY C #2 FRTC

UNIT K SECTION 28 T27N R10W
SAN JUAN COUNTY, NEW MEXICO



Pertinent Data Sheet - ROWLEY C #2 FRTC

Location: 1650' FSL & 1650' FWL, Unit K, Section 28, T27N, R10W, San Juan County, New Mexico

Field: Basin Fruitland Coal

Elevation: 6060' GL
7' KB

TD: 1836'
PBTD: 1771'

Completed: 5/21/53

Spud Date: 3/18/53

Recompleted: 6/11/88

DP #: 50875B

Lease: Fed: SF-077941A

GWI: 100%

NRI: 71.50%

Prop#: 012569702

Initial Potential:

Pitot Gauge = 331 MCF/D

Casing Record:

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Cement (Top)</u>
12-1/4"	9-5/8"	25.4# N/A	121'	100 sx	Circ Cmt
8-3/4"	5-1/2"	15.5# J-55	1782'	150 sx	905' - Survey

Tubing Record:

<u>Tbg. Size</u>	<u>Wt. & Grade</u>	<u>Depth Set</u>	
2-3/8"	4.70# J-55	1753'	56 Jts
	"F" Nipple @	1719'	

Formation Tops:

Ojo Alamo:	800'
Kirtland Shale:	888'
Fruitland:	1410'
Pictured Cliffs:	1778'

Logging Record: Electric Log (1953), Cased Hole Neutron Log (1938)

Completion & Stimulation: Shot PC open hole (1753'-1836') w/130 qts SNG.

Workover History: 6/11/88: Set cmt ret @ 1771' & sq PC w/30 sx cmt. Perfed FRTC @ 1739', 41', 45', 48', 50', 53', 58', 60', 1516', 73', 1617', 20', 22', 27', 50', 52'. Total 16 holes. (underlined holes were due to gun misfire). Broke down perms w/600 gal 15% HCL acid & balls.

2/12/95: Set 5-1/2" model "D" pkr @ 1700'. Ran pressure tools just below model "AD" pkr @ 1606'.

12/20/96: TOH w/"AD" pkr & tbg. Mill out "D" pkr & C.O. to PBTD.

Production history: PC cumulative=49 MMCF. FRTC 1st delivered on 7/18/88. FRTC Cum = 1133 MMCF. Current capacity = 60 MCF/D.

Pipeline: EPNG

