

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

50 JAN 28 1998

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

990' FNL, 1650' FWL, Sec. 3, T-26-N, R-10-W, NMPM

5. Lease Number
SF-078267

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

Huerfano Unit

8. Well Name & Number
Huerfano Unit #103

9. API Well No.
30-045-06081

10. Field and Pool
Basin Fruitland Coal
Angels Peak Gallup/
Basin Dakota

11. County and State
San Juan Co, NM

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

Type of Submission

☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment

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

13. Describe Proposed or Completed Operations

Attached is a revised procedure for the recompletion of the subject well to the Fruitland Coal formation. The Gallup and Dakota formations will be plugged and abandoned.

RECEIVED
FEB - 3 1998

OIL CON. DIV.
DIST. 3

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

Signed Duane W. Spencer (PMPOps) Title Regulatory Administrator Date 1/22/98

(This space for Federal or State Office use)

APPROVED BY /s/ Duane W. Spencer Title _____ Date JAN 29 1998

CONDITION OF APPROVAL, if any:

Run CBL to find TOC on 7 5/8" second stage &
squeeze cement to cover 300' min above
Fruitland perfs (5) NMOC

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045		*Pool Code 71599,71629,2170		*Pool Name Basin Fruitland Co	
*Property Code 7138		*Property Name HUERFANO UNIT			*Well Number 103
*GRID No. 14538		*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY			*Elevation 6725'

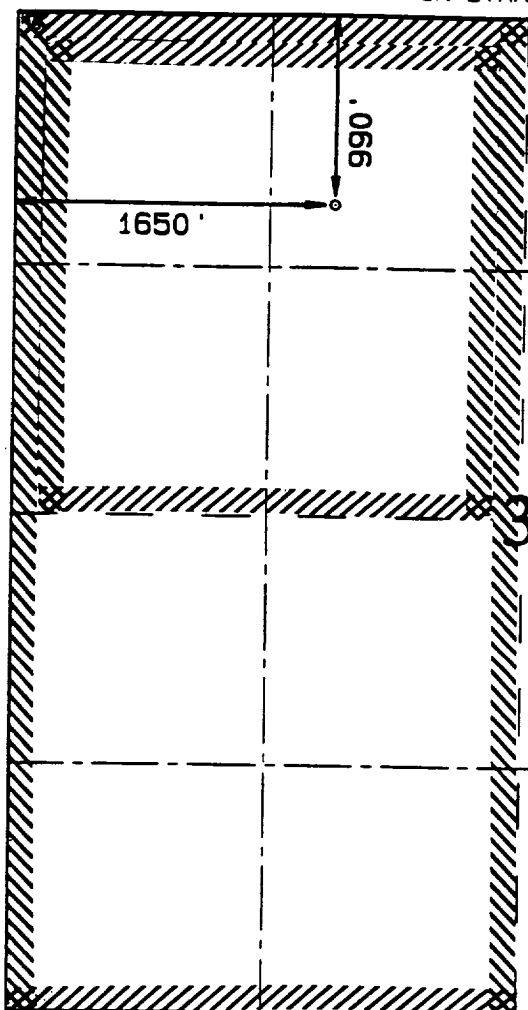
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	3	26N	10W		990	North	1650	West	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres GAL-160 FTC-W/319.25 DK-W/319.25		¹³ Joint or Infill W/319.25		¹⁴ Consolidation Code		¹⁵ Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



*NOT RESURVEYED. PREPARED
FROM A PLAT DATED
OCTOBER 21, 1958 BY
DAVID O. VILVEN.

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Peggy Bradfield
Signature

Peggy Bradfield

Printed Name

Regulatory Administrator

Title

Date

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 17, 1997

Date of Survey

Signature and Seal of Professional Surveyor



Certificate Number

GEORGE
1891-1901

1891-1901
1891-1901

HUERFANO UNIT #103 FRTC
Recompletion Procedure
C 3 26 10
San Juan County, N.M.
Lat-Long: 36-31.30" - 107-63.17"

PROJECT SUMMARY: Plugback this 1958 vintage depleted dual Gallup/Dakota well to the FRTC and foam frac.

1. Comply to all NMOCD, BLM, and BROG rules and regulations. MOL and RU completion rig. NU 7-1/16" 3000 psi BOP w/flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line.
2. Pick up enough tbg to tag top of 7-5/8" Model "D" pkr @ 6270'. Clean off the top of 7-5/8" Model "D" pkr w/air/mist. Set blanking plug in S.N. of 2-3/8" tbg @ 6202' and pressure test tbg to 2000 psi. TOH w/2-3/8" tbg. Set blanking plug in S.N. of 2-3/8" tbg @ 6833' and pressure test tbg to 2000 psi. TOH w/2-3/8" tbg and 7-5/8" Baker Model "D" seal assembly at 6270'
3. Run 7-5/8" csg scraper on 2-3/8" tbg to 6191'. TOH. Run 7-5/8" cmt retainer on 2-3/8" tbg and set @ 6191'. Sq DK and Gal perfs w/210 sx cl "G" cmt. This will fill inside the pipe from 7000' to 6191' w/100% excess cmt. Sting out of ret and spot 5 sx cmt on top of cmt ret @ 6191'. Reverse out cmt. ~~TOH~~ **PUR APPROX 60'.**
4. Load hole w/water and pressure test to 800 psi. TOH.
5. Perf 2 sq holes @ 3976' (50' below top of MV). Establish rate into sq holes down csg at less than 800 psi. TIH w/7-5/8" cmt ret on 2-3/8" tbg and set @ 3876' (50' above top of MV). Sq perfs w/61 sx cmt. This will fill outside and inside 7-5/8" csg 50' above and below the top of MV w/50% excess cmt. Sting out of cmt ret and spot 5 sx cmt on top ret. Reverse out cmt. TOH.
6. MI Blue Jet. Run CBL from 2590' (stg tool @ 2577') to 350' and an advanced integrated data processed GSL neutron log 2500'-2000' and correlate to attached open hole log. Pressure csg to 800 psi if necessary to see bond. Hot-shot logs to Mike Pippin (326-9848) so perfs (and sq perfs if necessary) can be picked.
7. Set 7-5/8" CIBP @ 2400' on wireline. Pressure test 7-5/8" csg and CIBP to 800 psi. TIH w/2-3/8" tbg open ended and spot 400 gal 15% HCL acid 2370'-2184'.
All acid on this well to contain the following additives per 1000 gal:

2 gal	CI-22	corrosion inhibitor
5 gal	Ferrotrol-300L	iron control
1 gal	Flo-back 20	Surfactant
0.5 gal	Clay Master-5C	clay control
8. Using GSL log, Perf about 50' of FRTC w/2 spf from about 2370' to 2184'. Perf using 4" hollow steel carrier guns loaded w/Owen HSC 13 gm. charges phased at 180 degrees. Average perf dia. = 0.48". Average penetration is 18" in Berea.

HUERANO UNIT #103 FRTC - RECOMPLETE TO FRTC WELL

9. Fill 3 - 400 bbl. frac tanks with 1% KCL water. If necessary, filter all water to 25 microns. Two tanks are for gel and one tank for breakdown water. Usable gel water required for frac is 448 bbls.
10. TIH w/7-5/8" pkr on 3-1/2" 9.3# N-80 ~~w/shaved collars~~ (4.25" O.D. 2.992" I.D.) rental frac string & set @ 2000'. W/ 500 psi on annulus, breakdown and attempt to balloff FRTC perfs w/1500 gal 15% HCL acid and 150% excess RCN 7/8" 1.3 sp gr perf balls. Use same acid additives as in step #7. Max. pressure is 3500 psi. Lower pkr to 2380' to knock off perf balls. Reset pkr @ 2100'.
11. Frac FRTC down frac string w/62,000 gals. of 70 quality foam using 30# gel as the base fluid and 120,000# 20/40 Arizona sand. Pump at 45 BPM. Monitor bottomhole and surface treating pressures, rate, foam quality, and sand concentration with computer van. Sand to be tagged w/ 3 RA isotope tracers. Max. pressure is 5000 psi and estimated treating pressure is 3950 psi. Pipe friction @ 45 BPM is 2822 psi. Treat per the following schedule:

<u>Stage</u>	<u>Foam Vol. (Gals.)</u>	<u>Gel Vol. (Gals.)</u>	<u>Sand Vol. (lbs.)</u>
Pad	12,000	3,600	---
1.0 ppg	10,000	3,000	10,000
2.0 ppg	20,000	6,000	40,000
3.0 ppg	10,000	3,000	30,000
4.0 ppg	10,000	3,000	40,000
Flush	(767)	(230)	0
Totals	62,000	18,600	120,000#


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# GVV-3 (Enzyme Breaker mix on fly)
- * 1.0# B - 5 (Breaker mix on fly)
- * 3.0 gal Fracfoam I (Foamer mix on fly)
- * 0.38# FracCide 20 (Bacteriacide mix on full tank)

12. Open well through choke manifold and monitor flow. Flow @ 20 bbl/hr. or less, if sand is observed. **Take pitot gauges when possible.** TOH w/pkr.
13. TIH w/notched collar on 2-3/8" tbg and C.O. to 2400' w/air/mist. Monitor gas and water returns and **Take pitot gauges when possible.**
14. When wellbore is sufficiently clean, TOH and run after frac gamma-ray log and perf eff log from 2400'-2000'.
15. TIH w/2-3/8" 4.7# J-55 EUE tbg w/standard seating nipple one joint off bottom and again cleanout to 2400'. When wellbore is sufficiently clean, land tbg @ 2300' KB. **Take final water and gas samples and rates.**
16. ND BOP and NU wellhead and tree. Rig down and release rig.

HUERANO UNIT #103 FRTC - RECOMPLETE TO FRTC WELL

Recommended:  1/15/98
Production Engineer

Approved:  1/22/98
Drilling Superintendent

Approved:  1/21/98
Team Leader

VENDORS:

Wireline:	Blue Jet	325-5584
Fracturing:	Howco	325-3575
RA Tag:	Pro-Technics	326-7133

PMP

Pertinent Data Sheet - HUERFANO UNIT #103 FRTC
C 3 26 10

Location: 990' FNL & 1650' FWL, Unit C, Section 3, T26N, R10W, San Juan County, New Mexico

Field: Basin Fruitland Coal

Elevation: 6726' GL
KB=10'

TD: 7027'

PBTD: 7014'

Completion Date: 11/22/58

Spud Date: 10/26/58

Lease#: Fed. SF-078267

DP #: 53049C

GWI: 63.37%

NRI: 51.93%

Prop#:

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>
15"	10-3/4"	32.75# S.W.	362'	400 sx	Circ Cmt
9-7/8"	7-5/8"	26.4# J-55	6446'	275 sx	4700' - Survey
		Stage Tool @	2577'	100 cf	2250' - Survey
6-3/4"	5-1/2"	17# J-55	6313'-7027'	130 cf	Circ Cmt

Initial Potential:

DK: AOF=5303 MCF/D; Q=4460 MCF/D; SICP=1087 PSI

Gal: AOF=5327 MCF/D; Q=3342 MCF/D; SICP=1809 PSI

Tubing Record:

(Dakota) 2-3/8"

4.7# J-55 6877' 220 Jt

Baker Model "D" @ 6270'

Bull Plug @ 6867

Rubber Jts @ 6203'

S.N. @ 6833'

4.7# J-55 6238' 199 Jts

Bull Plug @ 6237'

Tbg Perfs @ 6203'-6206'

S.N. @ 6202'

(Gallup) 2-3/8"

Formation Tops:

Ojo Alamo:	1346'	Chacra	3263'
Kirtland Shale:	1534	Cliffhouse	3926'
Fruitland:	2181	Point Lookout	4797'
Pictured Cliffs:	2388'	Gallup	5876
		Dakota	6866'

Logging Record: Induction Log.

Stimulation: Perfed Dakota w/2 spf @ 6880'-88', 6924'-38', 6942'-52', 6958'-68', 6984'-7000' & fraced w/60,000# sand in oil.
Perfed Gallup w/4 spf @ 6241'-65' & fraced w/42,000# sand in oil

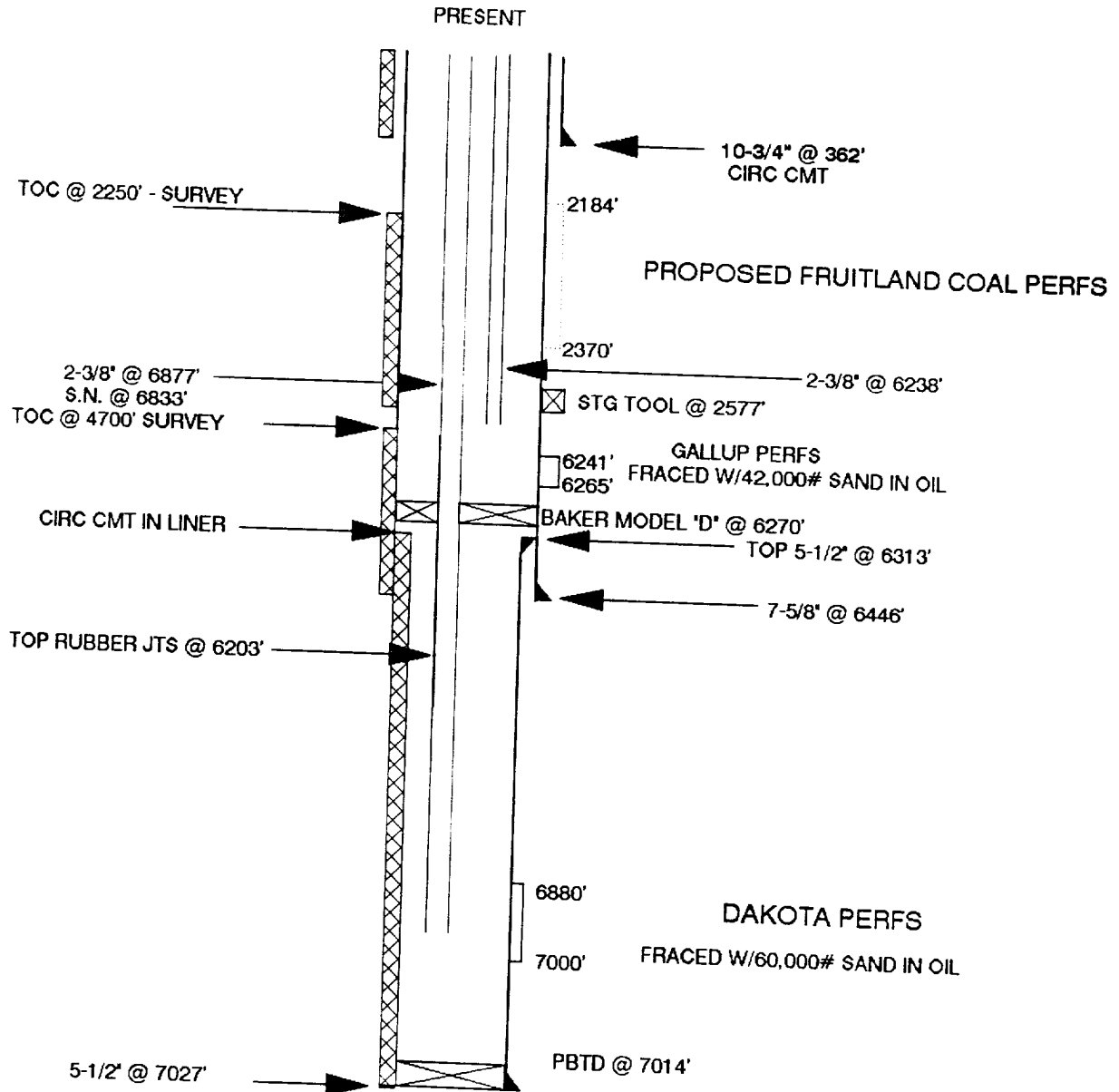
Workover History: NONE

Production History: DK cum=533 MMCF & 8386 BO. DK capacity = 0 MCF/D. Gallup cum = 1996 MMCF & 17,779 BO. Gallup capacity = 0 MCF/D. No DK or Gallup reserves are currently booked. See attached DK & Gallup production curve.

Pipeline: EPNG

HUERFANO UNIT #103 FRTC

UNIT C SECTION 3 T26N R10W
SAN JUAN COUNTY, NEW MEXICO





United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Farmington District Office
1235 La Plata Highway
Farmington, New Mexico 87401

IN REPLY REFER TO:

**Attachment to Notice of
Intention to Workover**

**Re: Plug Back and Recomplete
Well: 103 Huerfano Unit**

CONDITIONS OF APPROVAL

1. Plug the Dakota Formation separately:
 - A. Place a cement plug inside the casing from PBTD to 6816' (top of Dakota @ 6866') by running the tubing thru the Model D packer and spotting the plug. (33 sks.) WOC and tag the top of cement. **or**
 - B. Drill the Model D packer out, run a CIBP and set at approximately 6830' and spot 100' of cement on top. (11 sks.)
2. Spot a cement plug from 6496' to 6270' inside the casing. (25 sks.) (7 5/8' shoe @ 6446', Liner top @ 6313'.)
3. Proceed with the Gallup plug. Extend the cement plug on top of the retainer or CIBP to 5817'. (top of Gallup @ 5877') Cement plug from 6191' to 5817'. (95sks.)
4. **Mike Flaniken** with the Farmington District Office is to be notified at least 24 hours before the workover operations commence (505) 599-8907.