



# BURLINGTON RESOURCES

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SAN JUAN DIVISION

February 16, 1998

**Federal Express**

Mr. Michael Stogner  
New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Re: Huerfano Unit #103  
990'FNL, 1650'FWL, Section 3, T-26-N, R-10-W, San Juan County, NM  
API #30-045-06081

Dear Mr. Stogner:

This is a request for administrative approval for a non-standard gas well location in the Basin Fruitland Coal pool.

Burlington Resources Oil & Gas Company intends to recomplete the Huerfano Unit #103 in the Basin Fruitland Coal pool. The Gallup and Dakota formations will be plugged and abandoned. This location is considered off-pattern for Fruitland Coal. To comply with the New Mexico Oil Conservation Division rules, Burlington is submitting the following for your approval of this non-standard location:

1. C-102 plat showing location of the well;
2. Plat showing offset owners/operators;
3. Copy of Well Completion Log for original completion;
4. Affidavit of notification of offset owners/operators.

Three copies of this application are being submitted to all offset owners/operators by certified mail with a request that they furnish your Santa Fe office with a copy of Waiver of Objection, return one copy to this office, and retain one copy for their files.

Sincerely yours,



Peggy Bradfield  
Regulatory/Compliance Administrator

## WAIVER

\_\_\_\_\_ hereby waives objection to Burlington Resource's application for non-standard location for the Huerfano Unit #103 as proposed above.

By: \_\_\_\_\_ Date: \_\_\_\_\_

xc: Dugan Production  
Little Oil & Gas Inc.

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

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

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

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

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

AMENDED REPORT

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

<sup>10</sup> Surface Location

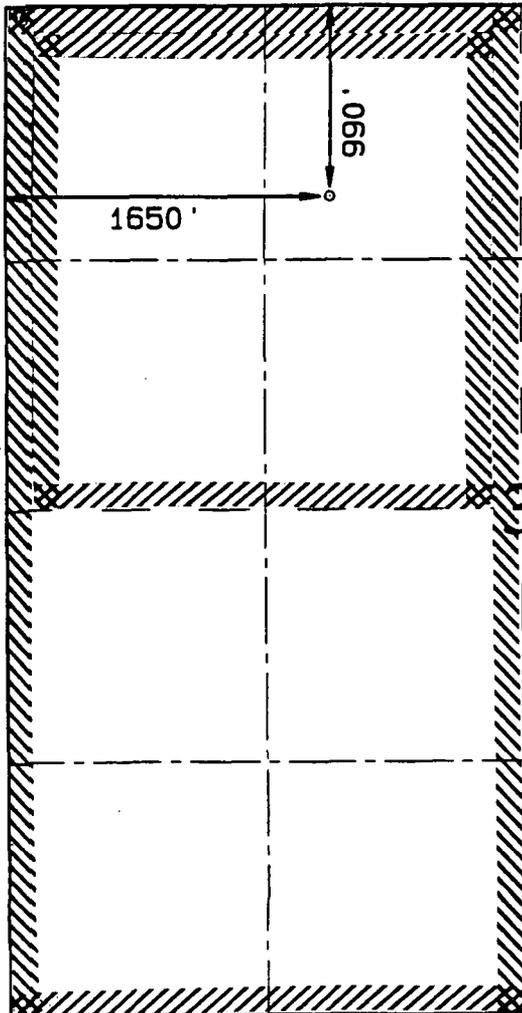
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	3	26N	10W		990	North	1650	West	SAN JUAN

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres GAL-160 FTC-W/319.25 DK-W/319.25	<sup>13</sup> Joint or Infill W/319.25	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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.

<sup>17</sup> 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

<sup>18</sup> 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

*Neale C. Edwards*  
NEALE C. EDWARDS  
NEW MEXICO  
6857  
Professional Surveyor  
Certificate Number

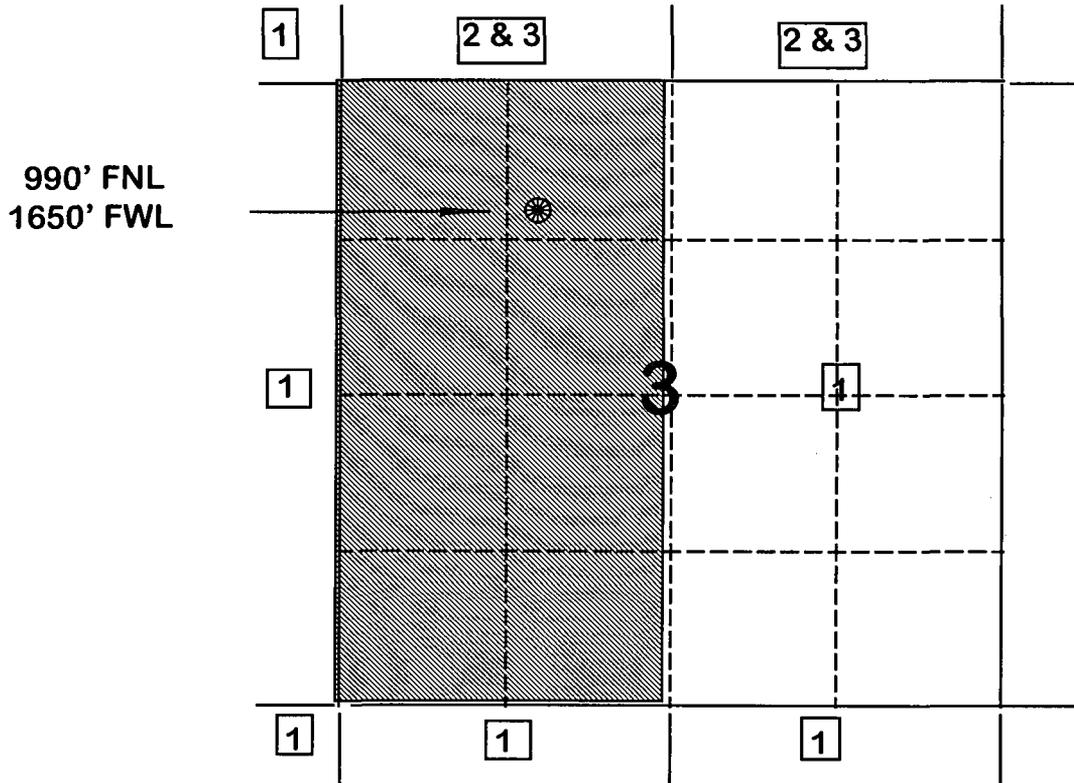
**BURLINGTON RESOURCES OIL AND GAS COMPANY**

**Huerfano Unit #103**

**OFFSET OPERATOR \ OWNER PLAT  
Non Standard Location**

**Basin Fruitland Coal Formation Well**

**Township 26 North, Range 10 West**



- 1) Burlington Resources
- 2) Dugan Production Corp.  
P.O. Box 420  
Farmington, NM 87499
- 3) Little Oil & Gas, Inc.  
P.O. Box 1258  
Farmington, NM 87499



FOLD MARK

casing	1 1/2"	100'	Discontinued	
drill pipe	3 1/2"	375'	370 Stages	
rod	1 3/8"	100'	Discontinued	

**PLUGS AND ADAPTERS**

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_  
 Adapters—Material \_\_\_\_\_ Size \_\_\_\_\_ Notes Model \_\_\_\_\_ Dealer At #270'

**SHOOTING RECORD**

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
		See Well History				

**TOOLS USED**

Rotary tools were used from 355 feet to 340 feet, and from 340 feet to 330 feet  
 Cable tools were used from 0 feet to 355 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

**DATES**

December 3, 1958 Put to producing \_\_\_\_\_, 19\_\_\_\_

The production for the first 24 hours was 12.6 barrels of fluid of which 100% was oil; \_\_\_\_\_% emulsion; \_\_\_\_\_% water; and \_\_\_\_\_% sediment. Gravity, °Bé. \_\_\_\_\_

If gas well, cu. ft. per 24 hours \_\_\_\_\_ Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_

Rock pressure, lbs. per sq. in. \_\_\_\_\_ A.C.F. --- 8-5327 MCF/D  
 D-5303

**EMPLOYEES**

\_\_\_\_\_, Driller \_\_\_\_\_, Driller  
 \_\_\_\_\_, Driller \_\_\_\_\_, Driller

**FORMATION RECORD**

FROM-	TO-	TOTAL FEET	FORMATION
0	1346	1346	tan to gry cr-grn ss interbedded w/gry sh.
1346	1534	188	Ojo Alamo ss. White cr-grn s.
1534	2181	647	Kirtland 6 fm. Gry sh interbedded w/tight gry fine-grn ss.
2181	2330	207	Kirtland 6 fm. Gry carb sh, scattered coals, coals and gry, tight, fine-grn ss.
2330	2457	127	Pictured Cliffs 6 fm. Gry, fine-grn, tight, varicolored soft ss.
2457	3293	736	Lewis formation. Gry to white dense sh w/silty to shaly ss breaks.
3293	3925	632	Chacra form. Gry to grn silty, glauconitic sd stone with dk gry shale.
3925	4004	79	Cliff House ss. Gry, fine-grn, dense sil ss.
4004	4797	793	Menefee form. Gry, fine-grn s, carb sh & coal.
4797	4799	2	Point Lookout form. Gry, very fine sil ss w/frequent sh breaks.
4799	5232	433	Huecos formation. Gry carb sh.
5232	5356	124	Huerfano zone. Lt gry to brn calc carb micac glauco very fine gry ss w/irreg. inter sh.
5356	5750	394	Sanstee 100m. Lk gry calc very fine to fine gry ss w/calc veins w/irreg. inter drk gry s
5750	5812	62	Greenhorn form. Highly calc gry sh w/thin lmst
5812	5851	39	Greenhorn form. Lk gry shale, fossil & carb w/pyrite incl.
5856	5930	74	Dakota form. Lt to dk gry foss carb sh calc sh silty ss w/pyrite incl thin sh bands clay &

Re: Huerfano Unit #103  
990'FNL, 1650'FWL, Section 3, T-26-N, R-10-W, San Juan County, NM  
API #30-045-06081

Dugan Production Corporation  
PO Box 420  
Farmington, NM 87499

Little Oil & Gas, Inc.  
PO Box 1258  
Farmington, NM 87499

I hereby certify that the following offset owners/operators have been notified by certified mail of our application for administrative approval for non-standard well location of the above well.



Peggy Bradfield  
Regulatory/Compliance Administrator

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 1624  
Order No. R-1366

APPLICATION OF EL PASO NATURAL GAS  
COMPANY FOR AN ORDER AUTHORIZING A  
DUAL COMPLETION IN THE ANGELS PEAK-  
GALLUP OIL POOL AND IN THE DAKOTA  
FORMATION ADJACENT TO THE ANGELS  
PEAK-DAKOTA GAS POOL, SAN JUAN COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 8, 1959, at Santa Fe, New Mexico, before E. J. Fischer, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 13th. day of April, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner, E. J. Fischer, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, El Paso Natural Gas Company, is the operator of the Huerfano Unit Well No. 103, located 990 feet from the North line and 1650 feet from the West line of Section 3, Township 26 North, Range 10 West, NMPM, San Juan County, New Mexico.

(3) That the applicant proposes to dually complete the above-described Huerfano Unit Well No. 103 in such a manner as to permit production from the Angels Peak-Gallup Oil Pool and production from the Dakota formation adjacent to the Angels Peak-Dakota Gas Pool through parallel strings of 2-inch EUE tubing.

(4) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(5) That approval of the subject application will not cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

That the applicant, El Paso Natural Gas Company, be and the same is hereby authorized to dually complete its Huerfano Unit Well No. 103, located 990 feet from the North line and 1650 feet from the West line of Section 3, Township 26 North, Range 10 West, NMPM, San Juan County, New Mexico, in such a manner as to permit production from the Angels Peak-Gallup Oil Pool and production from the Dakota formation adjacent to the Angels Peak-Dakota Gas Pool through parallel strings of 2-inch EUE tubing.

PROVIDED HOWEVER, That applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A.

PROVIDED FURTHER, That applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Deliverability Test Period for the Angels Peak-Dakota Gas Pool.

IT IS FURTHER ORDERED: That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order, after proper notice and hearing the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

A. L. PORTER, Jr., Member & Secretary

S E A L

ir/

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
91 M  
(COAL 08)

Sundry Notices and Reports on Wells

90 JAN 23 11:24

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

070 FARMINGTON, NM

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

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 -

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.

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

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

(This space for Federal or State Office use)

APPROVED BY *Duane W. Spencer* Title \_\_\_\_\_

Date JAN 29 1998

CONDITION OF APPROVAL, if any:

*Run CBH to find toe about 8" second stage  
& squeeze cement to cover 500' min above  
Foot hand Perps*

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-10  
Revised February 21, 1997  
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Fee Lease - 3 Copies

District II  
PO Drawer 00, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

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

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

AMENDED REPORT

90 JAN 23  
OTO FARMINGTON, NM

### WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045		*Pool Code 71599, 71629, 2170		*Pool Name Basin Fruitland C <del>Basin Dakota, Angels Peak Gallup</del>	
*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

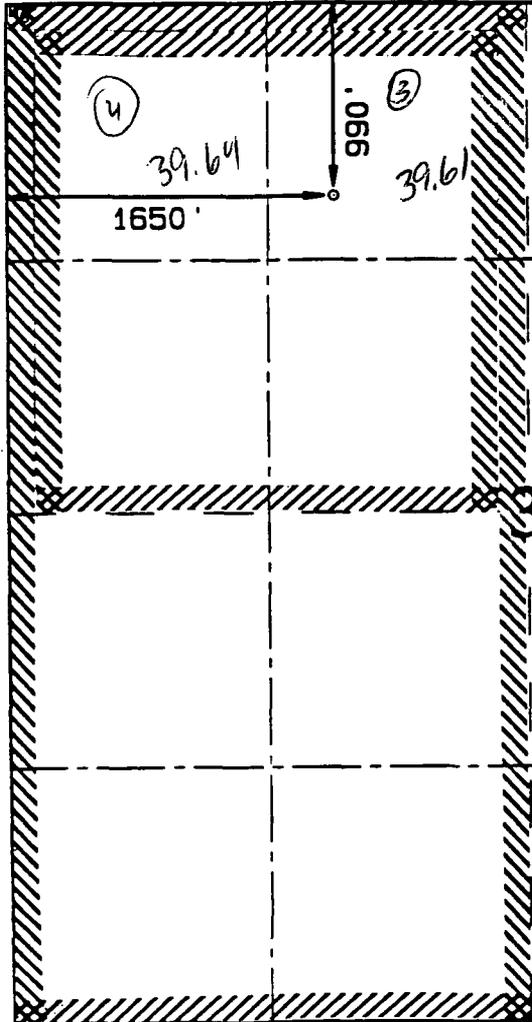
UL or lot no.	Section	Township	Range	Lot Idh	Feet from the	North/South line	Feet from the	East/West line	County
C	3	26N	10W		990	North	1650	West	SAN JUAN

#### 11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idh	Feet from the	North/South line	Feet from the	East/West line	County

*Dedicated Acres GAL-160 FTC-W/319.25 DK-W/319.25	*Joint or Infill	*Consolidation Code	*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 Administra  
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

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 perms 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~~ PLH 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 perms 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 perms (and sq perms 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:

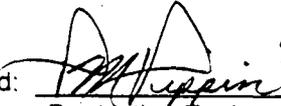
<u>Stage</u>	<u>Foam Vol. (Gals.)</u>	<u>Gel Vol. (Gals.)</u>	<u>Sand Vol. (lbs.)</u>
Pad	12,000	3,600	---
1.0 ppg	10,000	3,000	10,000
2.0 ppg	20,000	6,000	40,000
3.0 ppg	10,000	3,000	30,000
4.0 ppg	10,000	3,000	40,000
Flush	( 767)	(230)	0
Totals	62,000	18,600	120,000#

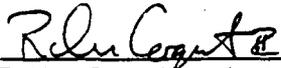
Treat frac fluid w/the following additives per 1000 gallons:

- \* 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# GVW-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

**Lease#:** Fed. SF-078267

**Spud Date:** 10/26/58

**DP #:** 53049C

**GW:** 63.37%

**NRI:** 51.93%

**Prop#:**

**Casing Record:**

<u>Hole Size</u>	<u>Csg Size</u>	<u>Wt. &amp; 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'	
(Gallup)	2-3/8"	4.7# J-55	6238'	199 Jts
		Bull Plug @	6237'	
		Tbg Perfs @	6203'-6206'	
		S.N. @	6202'	

**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

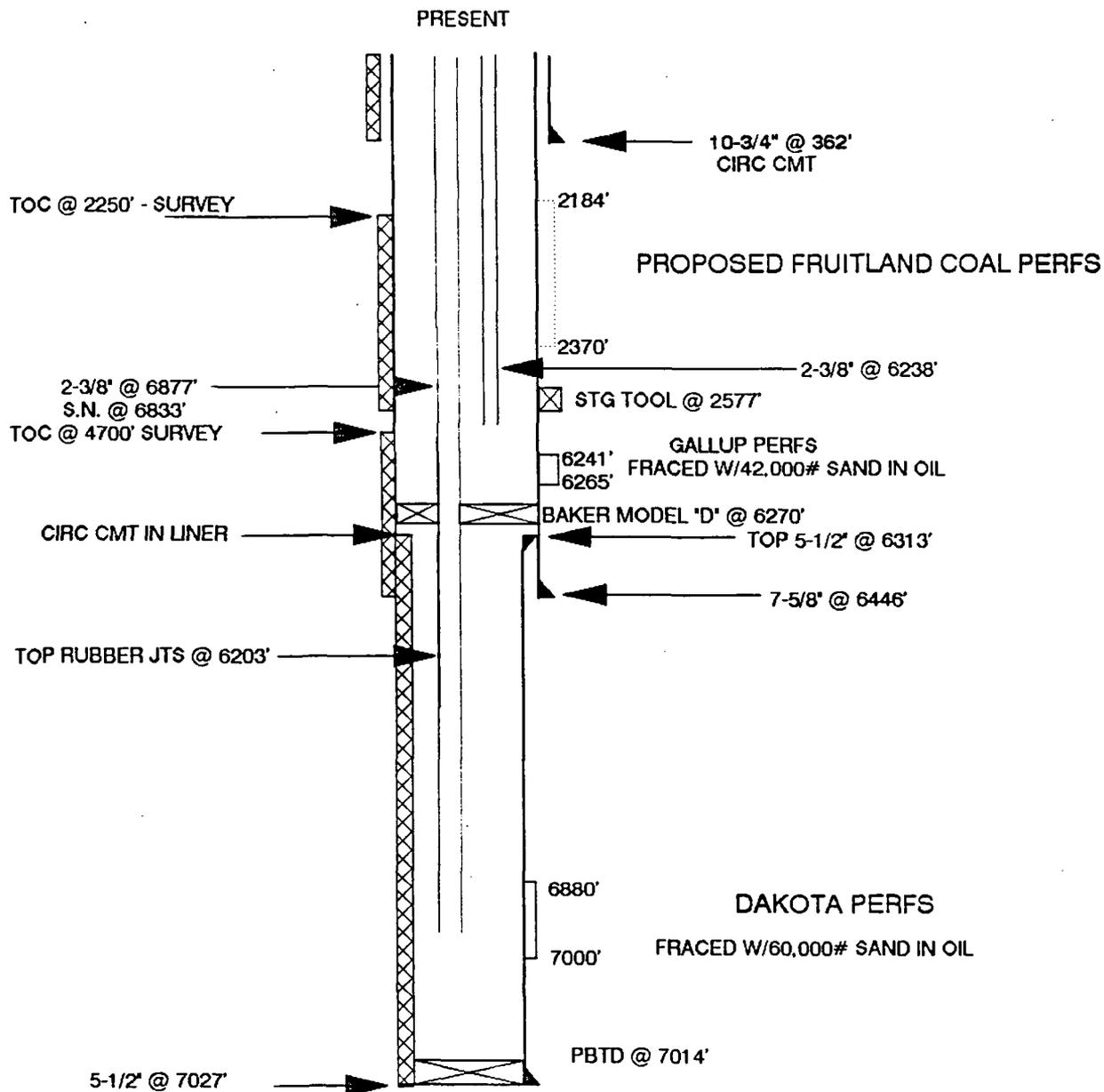
**Workover History:** NONE

**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.