BURLINGTON RESOURCES

SAN JUAN DIVISION

Sent Federal Express November 16, 1999

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

Re: Huerfanito Unit Com #174
920'FSL, 840'FEL Section 24, T-27-N, R-9-W, San Juan County
30-045-29885

Dear Mr. Stogner:

Burlington Resources is applying for administrative approval of a gas well location in the Basin Fruitland Coal pool. This location is considered off-pattern for the Fruitland Coal pursuant to Order R-8768, Rule 7. This application for the referenced location is that the proposed location offers the best possible location based on geology for an economically successful well by ensuring optimum recovery and minimal hydrocarbon waste, and will allow for maximum coal development in this section (see attached geological explanation, map and logs).

Production from the Fruitland Coal pool is to be included in a 320 acre gas spacing and proration unit in Section 24 comprising of the south-half (S/2) of Section 24.

The following attachments are for your review:

- Application for Permit to Drill
- Completed C-102 at referenced location.
- Offset operators/owners plat – Burlington is the offset operator/lease owner
- Geologic explanation, map and logs

We appreciate your earliest consideration of this application.

Sincerely,

Peggy Bradfield Cole
Regulatory/Compliance Administrator

Xc: Bureau of Land Management
NMOCD – Aztec Office

3535 East 30th St., 87402-8801, P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700, Fax 505-326-9833

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM
99 MAR 23 PM 1:10
070 FARMINGTON, NM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL

5. Lease Number
NO - G-0651-1131
Unit Reporting Number

1b. Type of Well
GAS

6. If Indian, All. or Tribe
Navajo Tribe

2. Operator
BURLINGTON RESOURCES Oil & Gas Company

7. Unit Agreement Name
Huerfanito Unit Com

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. Farm or Lease Name
Huerfanito Unit Com

9. Well Number
#174

4. Location of Well
920' FSL, 840' FEL

Latitude 36° 33.4, Longitude 107° 44.0

10. Field, Pool, Wildcat
Basin Fruitland Coal

11. Sec., Twn, Rge, Mer. (NMPM)
Sec.24, T-27-N, R-9-W

API # 30-045-29885

14. Distance in Miles from Nearest Town
9 miles to Huerfano Trading Post

12. County
San Juan

13. State
NM

15. Distance from Proposed Location to Nearest Property or Lease Line
840'

16. Acres in Lease

17. Acres Assigned to Well
320.00

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
500'

19. Proposed Depth
2125'

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6030' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

24. Authorized by: Peggy Bradfield
Regulatory/Compliance Administrator

3-9-99
Date

PERMIT NO.

APPROVAL DATE NOV 03 1999

APPROVED BY Jim Lovato TITLE Acting Team Lead DATE 11/3/99

Archaeological Report to be submitted
Threatened and Endangered Species Report to be submitted
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3
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 presentations as to any matter within its jurisdiction.

OPERATOR

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

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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

¹API Number	²Pool Code	³Pool Name	
30-045-	71629	Basin Fruitland Coal	
⁴Property Code	⁵Property Name		⁶Well Number
7138	HUERFANITO UNIT COM		174
⁷OGRID No.	⁸Operator Name		⁹Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY		6030'

¹⁰ Surface Location

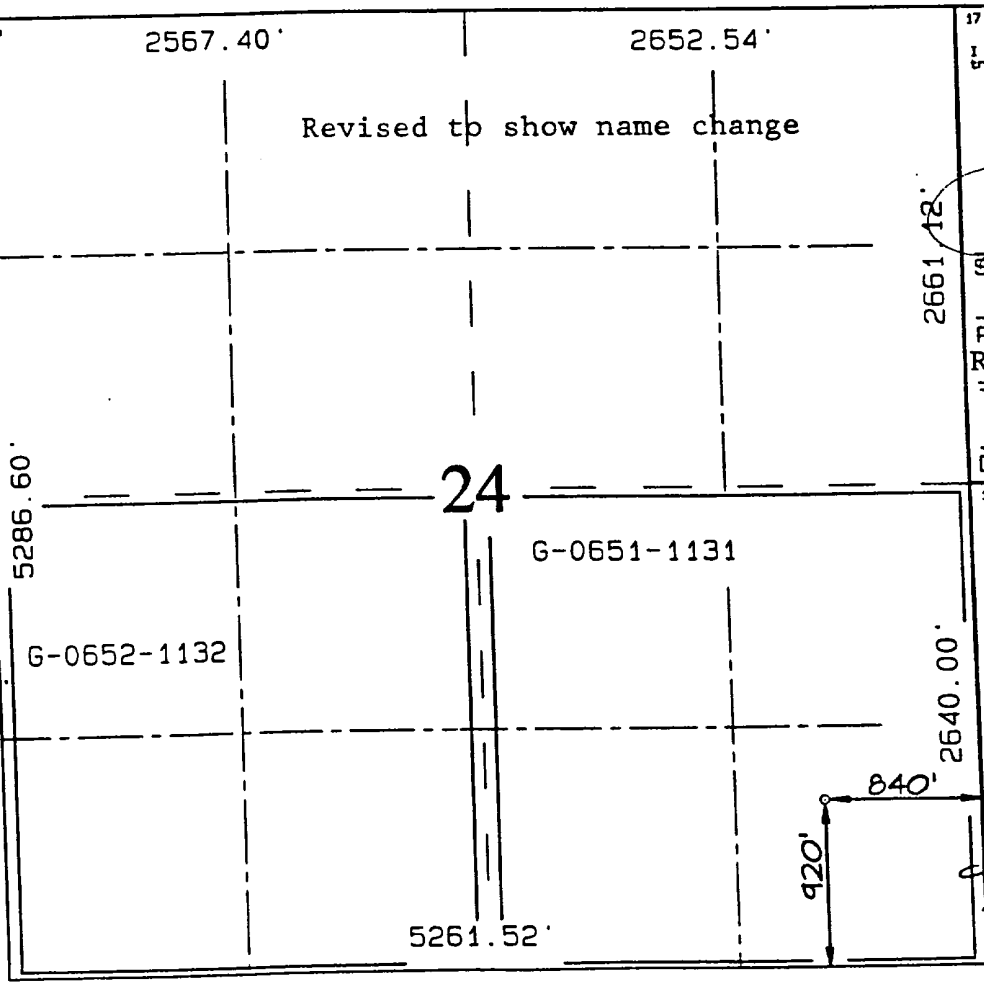
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	24	27N	9W		920	SOUTH	840	EAST	SAN JUAN

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	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
S/320			

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



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

3-9-99
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.

Revised 10/27/98

AUGUST 25, 1998
Date of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

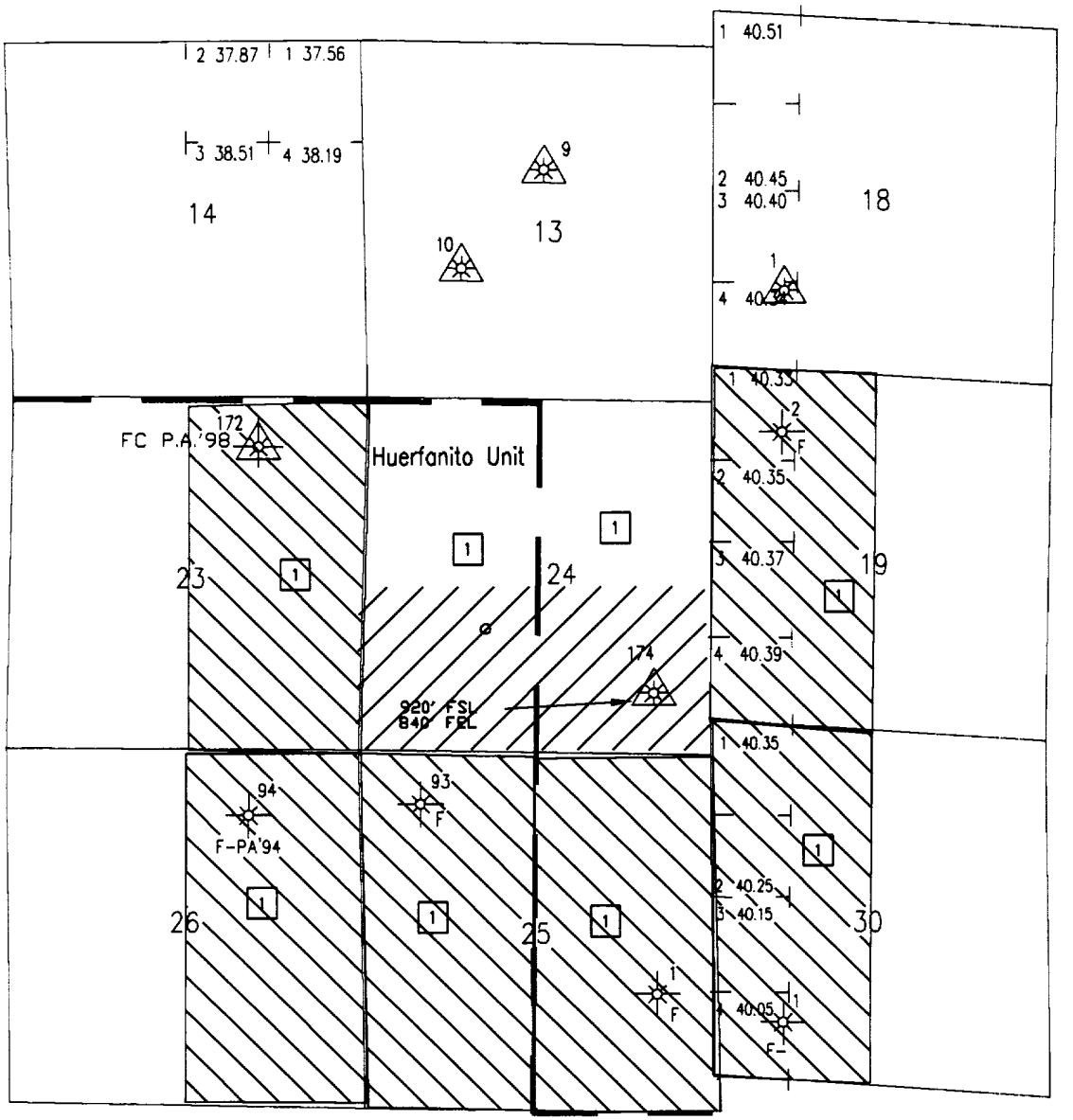
6857
Certificate Number

BURLINGTON RESOURCES OIL AND GAS COMPANY

Huerfanito Unit Com #174
Section 24, T-27-N, R-9-W

OFFSET OPERATOR/OWNER PLAT
Off Pattern Location

Basin Fruitland Coal Formation Well



1 Burlington Resources

Huerfanito Unit Outline

Proposed Well

Offset Operator

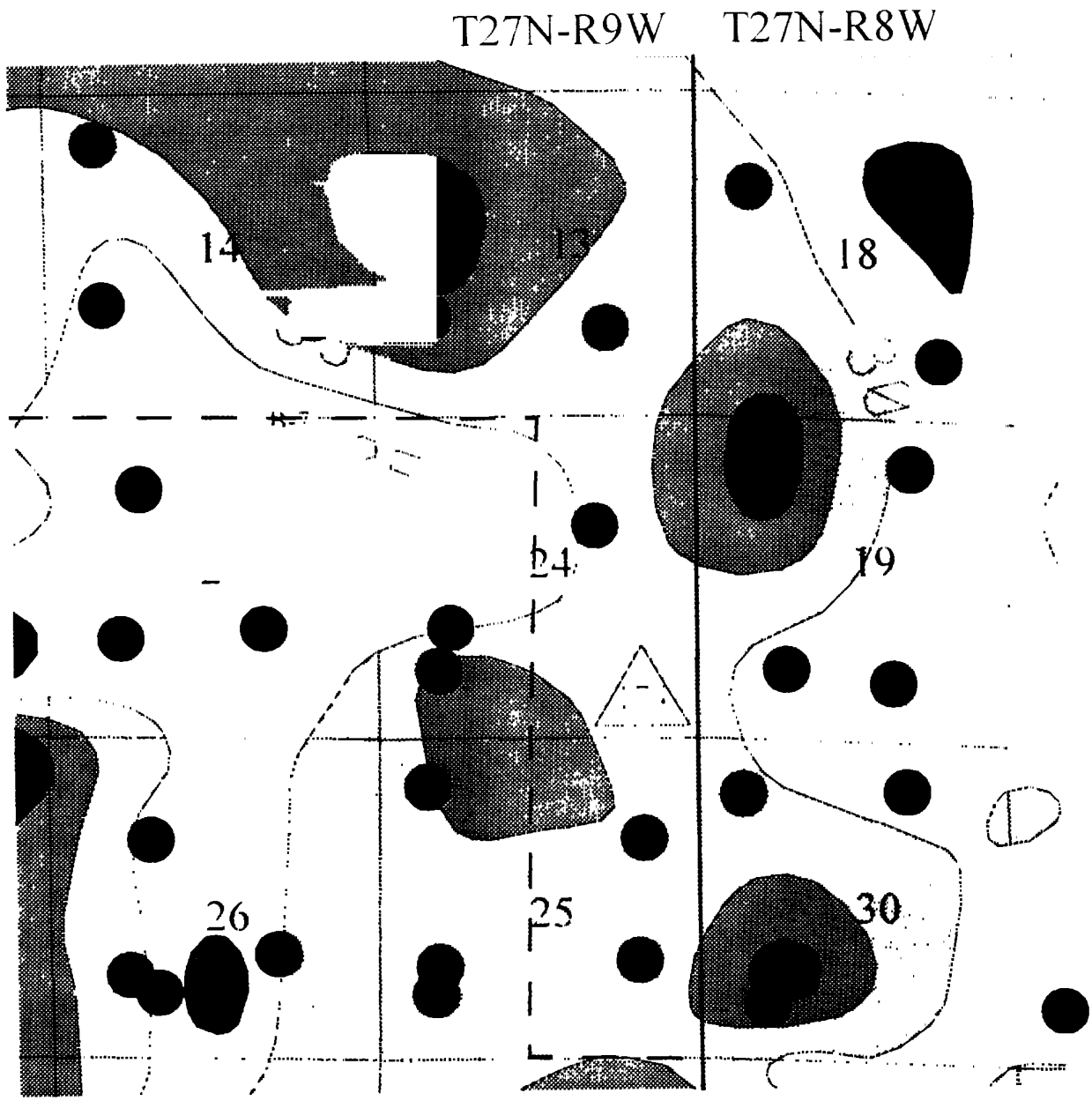
Geological Discussion for Huerfanito Unit Com #174 (SE/4 24-27N-9W)

A study published by the Bureau of Economic Geology in Austin, Texas documents the framework for a depositional model of the Fruitland Coal primarily based on stratigraphic correlations across the prolific coal production. This model and a working understanding of depositional influences on production was used in an additional more detailed stratigraphic study (where the major correlated coal seams were further subdivided into smaller components and geographically expanded) contracted by Burlington Resources in 1997. This investigation provides the detail necessary for understanding individual coal seam contributions to production, identifying flow boundaries within the formation, and improved understanding of the complex stratigraphic relationships between coal beds and fluvial systems. Today the model continues to be used and expanded across the basin and identifies eleven main coal packages.

The depositional model that best fits the data calls for development of a Fruitland alluvial plain on top of abandoned shore face deposits. When hydrodynamic conditions were adequate swamps occupied the flood basins between active streams. Episodically, fluvial activity increased abruptly, perhaps due to source-area uplift. Some of the fluvial onslaughts may have been preceded by volcanic ash falls (bentonites). During peaks of fluvial activity the perennial streams avulsed and additional channel belts tracked across former peat environments. Peat may have been eroded in the process. Sand body development was accommodated by compaction of underlying peat. As fluvial activity diminished, peat environments reoccupied the flood basins of perennial streams. Streams generally reoccupied their original perennial positions when peat formation resumed. Abandoned channel belts became platforms for new peat formation. Due to low compaction of the sand bodies, channel belt thicks became slightly mounded and were the last areas to be reoccupied by swamps. This resulted in laterally thinner coal beds over these areas.

Fluvial systems associated with Fruitland peat environments were through going to an active marine shore face and presence of dip-elongate fluvial sand bodies affected a dip-elongate depositional grain (thickness variation) on superjacent coal units. Absence along dip aligned trends of otherwise widespread coeval coal records the location of a Fruitland perennial stream. However, the well log data does not allow absolute certainty as to the exact fluvial process responsible for the absence of coal (non-deposition or erosion). Either way, the result is probably the same from a hydrologic standpoint. Coal-barren areas interrupt the lateral continuity of individual coal beds.

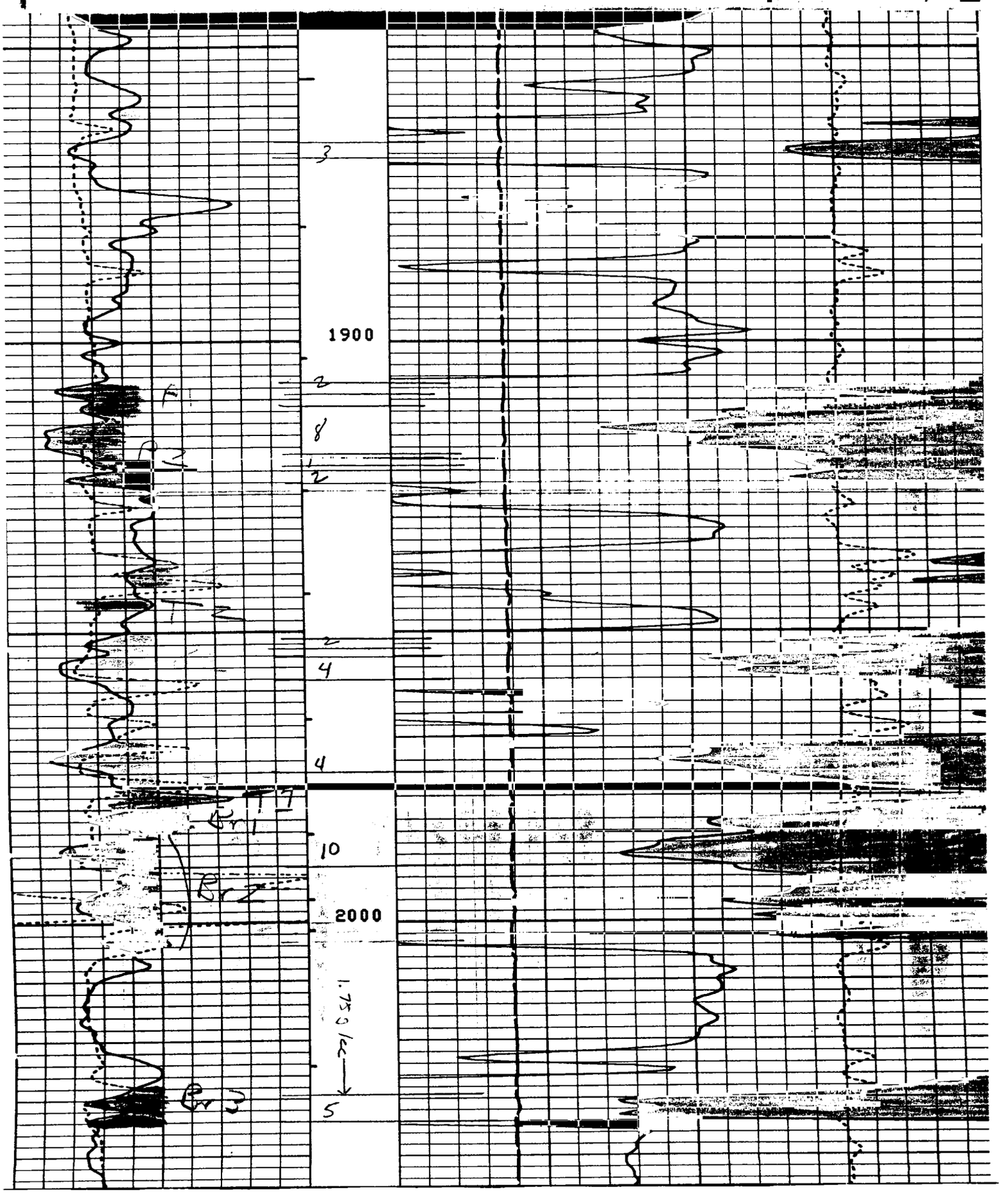
The area surrounding the proposed well (see attached net coal thickness map for the basal coal) is an ideal example of the patterns and relationships discussed above. The well log from the Navajo Indian #B-7 (NW19-27N-8W), which is along trend to the northeast, is an example of a coal section which has minimal interference from fluvial systems. The majority of the 81' of coal (using a 2.0 grams/cc cut-off) is contained in a compact interval of less than 100' of section. Just the main basal coal has 36' of virtually unbroken coal. Additionally, there is good development of a coal below the main basal. Contrarily, the J.C. Gordon "D" #4E (NE23-27N-10W) demonstrates the influence of fluvial processes. Here the basal is only 25' thick, and has been separated from the majority of the remaining coal by a 70' section of sand and shale. There is no coal development below the main basal. The #4E is located within an interpreted fluvial system and may in fact represent the confluence a two different systems, and is representative of what can be found towards the northwest of the section containing the proposed well. The proposed location within the drill block is ideally situated to be as far from the fluvial influence as possible. This will allow for maximum coal development in the form of both thickness and quality. Quality here will not be impacted by the over bank flood deposits which both split the coal and introduce impurities which would decrease permeability and reduce matrix shrinkage which is believed to be a major driving force behind coal production. In short, the proposed location geologically offers the best possible location for an economically successful well by ensuring optimum recovery and minimal hydrocarbon waste.

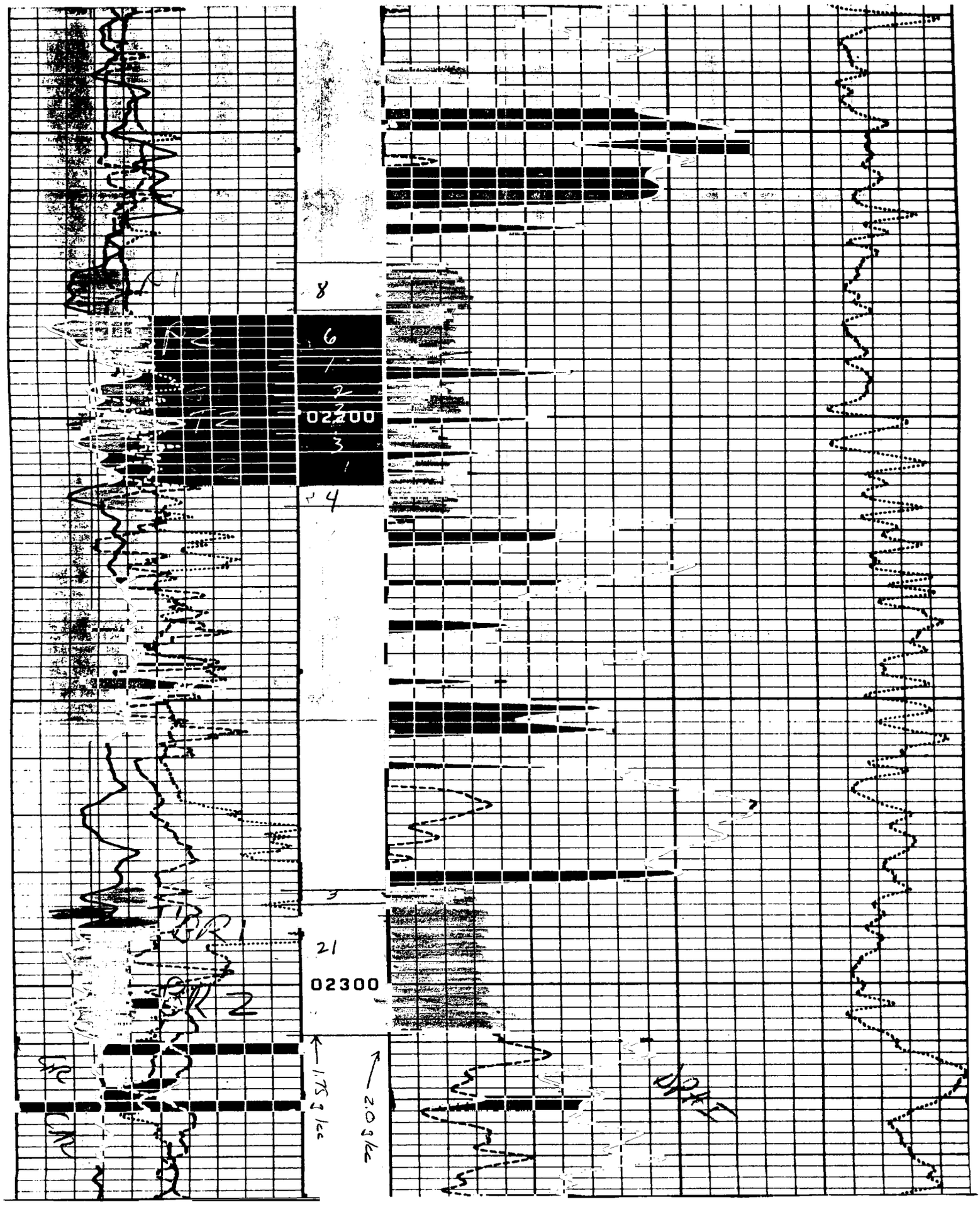


Huerfanito Unit Com #174
(SE/4 SE/4 Section 24–T27N–R9W)

NET FRUITLAND COAL THICKNESS

5' Contour interval - blues are thin - reds are thick


Navajo Indian #C-7
NW 19-27N-8W
NEUTRON
1900
2000
1.75 g/cc
Br1
Br2
Br3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