

MERIDIAN OIL INC.

AZTEC #700

CASE #104~~5~~ 96

JUNE 25, 1992

KELLAHIN, KELLAHIN AND AUBREY

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

POST OFFICE BOX 2265

SANTA FE, NEW MEXICO 87504-2265

W. THOMAS KELLAHIN*
KAREN AUBREY*

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

*ALSO ADMITTED IN ARIZONA

JASON KELLAHIN (RETIRED 1991)



June 3, 1992

New Mexico Oil Conservation Division
310 Old Santa Fe Trail, Room 218
Santa Fe, New Mexico 87501

VIA FACSIMILE
(505) 827-5741

Attn: Ms. Florene Davidson

Re: NMOCD Case No. 10455
Order R-9659
Application of Southland Royalty
Company for Downhole Commingling
and Other Relief for its Aztec #700
Well, Section 14, T28N, R11W
San Juan County, New Mexico

Dear Ms. Davidson:

I wish to confirm my request this morning on behalf of Southland Royalty Company to have the referenced application put back on the Examiner's docket now scheduled for June 25, 1992.

Please consider this letter our written request to either reopen the existing case or in the alternative to docket a new case on this same application.

The original case, No. 10455, was voluntarily dismissed without prejudice at the request of the applicant. We now desire to present this case.

Please let me know today if the Division prefers for me to file a "new" case or if the Division desires to reopen the old case. I will then file the appropriate application.

Very truly yours,



W. Thomas Kellahin

WTK/jcl/1trt603.330

cc: Mr. Alan Alexander ✓
(Meridian-Farmington)

KELLAHIN, KELLAHIN AND AUBREY

ATTORNEYS AT LAW

EL PATIO BUILDING

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NATURAL RESOURCES-OIL AND GAS LAW
*ALSO ADMITTED IN ARIZONA

JASON KELLAHIN (RETIRED 1991)

JUN 1992
Received
TELEPHONE (505) 982-4285
TELEFAX (505) 982-2047

June 3, 1992

Mr. William J. LeMay
Oil Conservation Division
310 Old Santa Fe Trail, Room 218
State Land Office Building
Santa Fe, New Mexico 87501

HAND DELIVERED

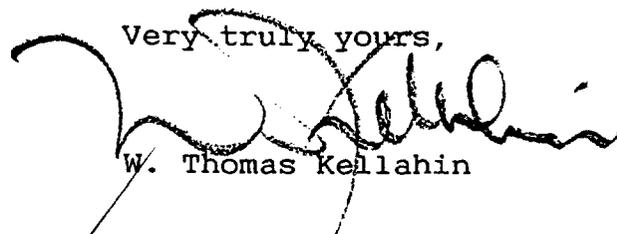
RE: Application of Southland Royalty
Company for Approval of an
Unorthodox Well Location,
and Downhole Commingling,
San Juan County, New Mexico

Dear Mr. Lemay:

On behalf of Southland Royalty Company, please find enclosed our application for a hearing for the Aztec #700 Well. We request that this case be set for hearing on June 25, 1992 Examiner's Docket.

By copy of this letter, including the application, to all parties listed on Exhibits "A" and "B" to the application, we are notifying them by certified mail, return receipt requested, that they have the right to appear at the hearing, to make a statement to the Division, to present evidence and cross-examine witnesses either in support of or in opposition to the application.

Very truly yours,



W. Thomas Kellahin

WTK/jcl

Enclosure

xc: with Enclosure

Alan Alexander - Farmington, NM

By Certified Mail - Return Receipt Requested

To all parties listed on Exhibits "A" and "B"
of the Application

appt603.330

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION
OF SOUTHLAND ROYALTY COMPANY FOR
APPROVAL OF AN UNORTHODOX
GAS WELL LOCATION, APPROVAL OF
A NON-STANDARD SPACING AND
PRORATION UNIT AND DOWNHOLE
COMMINGLING, SAN JUAN COUNTY,
NEW MEXICO

A P P L I C A T I O N

Comes now SOUTHLAND ROYALTY COMPANY, by and through its attorneys, Kellahin, Kellahin & Aubrey, and applies to the New Mexico Oil Conservation Division for approval to drill its proposed Southland Royalty Company's Aztec #700 Well as follows:

(1) at an unorthodox well location 2280 feet FSL and 1500 feet FWL of Section 14, T28N, R11W, NMPM, San Juan County, New Mexico;

(2) to downhole commingle production from the Fulcher-Kutz Pictured Cliffs Gas Pool and the Basin Fruitland Coal Gas Pool, said well being located in the NW/4SW/4 of said Section 14;

(3) with the dedication of a standard spacing unit containing 320 acres and consisting of the S/2 of said Section 14 for production from the Basin Fruitland Coal Gas Pool; and

(4) the dedication of a previously approved non-standard proration and spacing unit containing 160

acres and consisting of the W/2 NW/4 and N/2 SW/4 of said Section 14 for production from the Fulcher-Kutz Pictured Cliff Pool.

AND IN SUPPORT THEREOF STATES:

(1) Southland Royalty Company ("Southland") is the proposed operator of the subject well and is a working interest owner in both proposed spacing units in the Basin Fruitland Coal Gas Pool and the Fulcher-Kutz Pictured Cliff Pool.

(2) Southland proposed the subject well at a standard location in Unit M at 810 feet FSL and 790 feet FWL but its request was denied by the Bureau of Land Management because of visual impairment.

(3) In compliance with Bureau of Land Management requirements, Southland now proposes the subject well be drilled at an unorthodox location 1500 feet FWL and 2280 feet FSL to a depth sufficient to test both the Fulcher-Kutz Pictured Cliffs Gas Pool and the Basin Fruitland Coal Gas Pool.

(4) The proposed unorthodox location is an acceptable location within the section from which to test for production in both the Pictured Cliffs Pool and the Basis Fruitland Coal Gas Pool.

(5) The subject non-standard proration and spacing unit for the Fulcher-Kutz Pictured Cliffs production was

previously approved by Division Administrative Order NWU-80 dated May 20, 1955 and is currently dedicated to the Aztec Well No. 3 in Unit E of said Section which will be plugged and abandoned and replaced by the Aztec #700 well.

(6) In accordance with Division Rule 303-C-1.(b), Southland states and will demonstrate at hearing:

(a) that the commingling is necessary to permit the Pictured Cliffs Pool to be produced because it is not otherwise economic to attempt to drill a separate well for each of the two pools involved;

(b) that there will be no crossflow between the two commingled pools;

(c) that neither commingled zone exposes the other commingled zone to damage by produced liquids;

(d) that the fluids, if any, from each zone are expected to be compatible with the other zone;

(e) that ownership is common between the two pools and no other correlative rights violations will occur;

(f) that the bottomhole pressure of the lower pressure zone is not anticipated to be less than 50 percent of the bottom hole pressure of the higher pressure zone when adjusted to a common datum;

(g) that the value of the commingled production is not less than the sum of the values of the individual production.

(7) Southland seeks the approval of an allocation formula for the equitable distribution of production between the two pools based upon individual pool production tests to be conducted on the well during its drilling and completion.

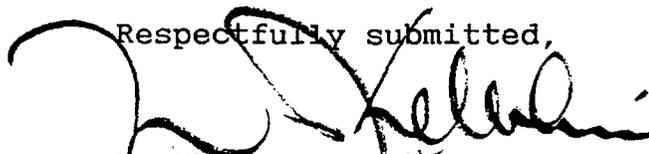
(8) The ownership between the two pools is identical.

(9) Southland requests that this matter be docketed for hearing on the Division Examiner docket now scheduled for March 19, 1992.

(10) A copy of this application has been sent to all offsetting operators and to the owners of interest in the affected production within the two spacing units as set forth on Exhibits A and B.

WHEREFORE, Southland requests that this matter be set for hearing on June 25, 1992 before a duly appointed Examiner of the Oil Conservation Division and that after notice and hearing as required by law, the Division enter its order granting this application.

Respectfully submitted,



W. Thomas Kellahin
Kellahin, Kellahin & Aubrey
P.O. Box 2265
Santa Fe, New Mexico 87504-2265
(505) 982-4285
Attorneys for Applicant

EXHIBIT "A"

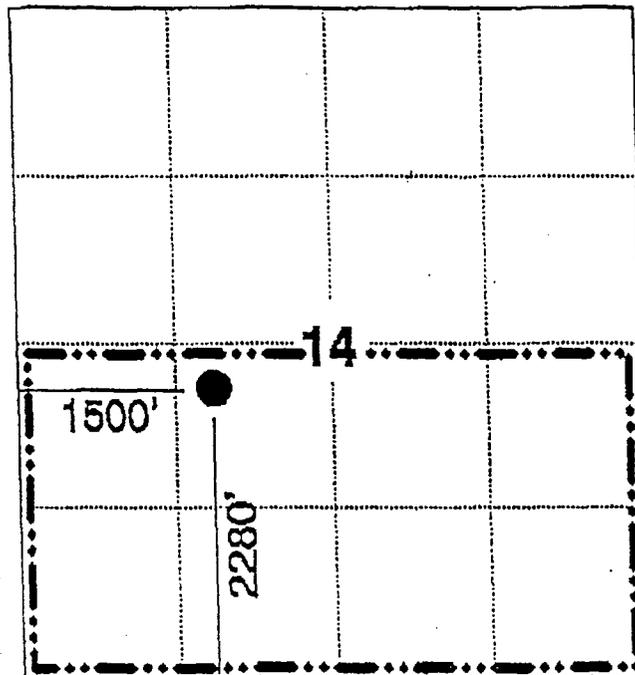
AZTEC #700
OFFSET OPERATOR PLAT

Pictured Cliffs \Fruitland Coal Co-Mingle

Fruitland Coal Ownership

Township 28 North, Range 11 West

San Juan County, New Mexico



Southland Royalty Company

Marathon Oil Company

PO Box 552, Midland, TX 79702

Joe C Salmon

1535 Highway 84, Bloomfield, NM 87413

Mesa Limited Partnership

PO Box 2009, Amarillo, TX 79169

Chaparral Resources

821 17th St, Suite 1301, Denver, CO 80293

Petrocorp Inc.

18800 Greensport Park Dr, Ste 300 N Atrium, Houston, TX 77060

W M Galloway

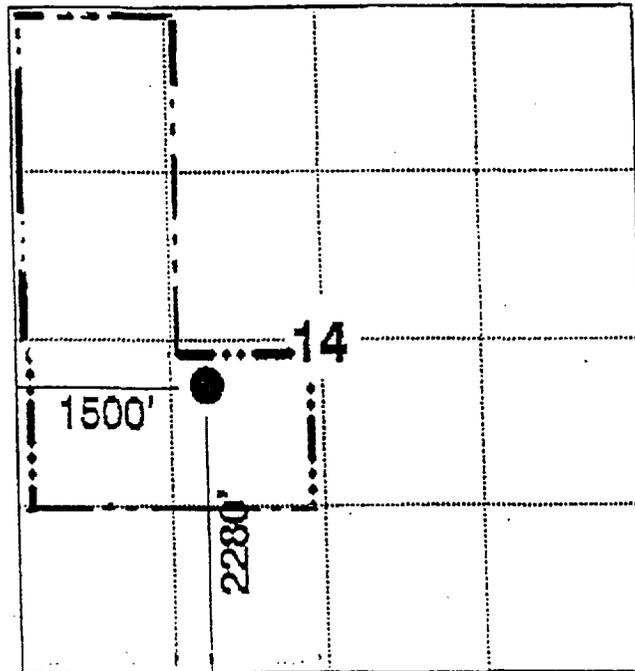
3005 Northridge Dr., Suite 1, Farmington, NM 87401

AZTEC #700 OFFSET OPERATOR PLAT

Plotted Cliffs \Fruitland Coal Co-Mingle
and Unorthodox Location

Fruitland Coal Ownership

Township 28 North, Range 11 West
San Juan County, New Mexico



Southland Royalty Company

Marathon Oil Company

PO Box 852, Midland, TX 79702

Mesa Limited Partnership

PO Box 2009, Amarillo, TX 79189

Petrocorp Inc. 16800 Greensport Park Dr, Ste 300 N Atrium, Houston, TX 77080

W M Galloway

3005 Northridge Dr., Suite 1, Farmington, NM 87401

EXHIBIT "B"

OWNERS OF PRODUCTION
AZTEC # 700 WELL

RONALD S. DAVIS M.D.
1100 E. LAKE SUITE 140
TYLER, TX. 75701

MINERALS MANAGEMENT SERVICE
ROYALTY MANAGEMENT PROGRAM
P.O. BOX 5810
DENVER, CO. 80217

SOUTHLAND ROYALTY COMPANY
P.O. BOX 4289
FARMINGTON, NM. 87499-4289

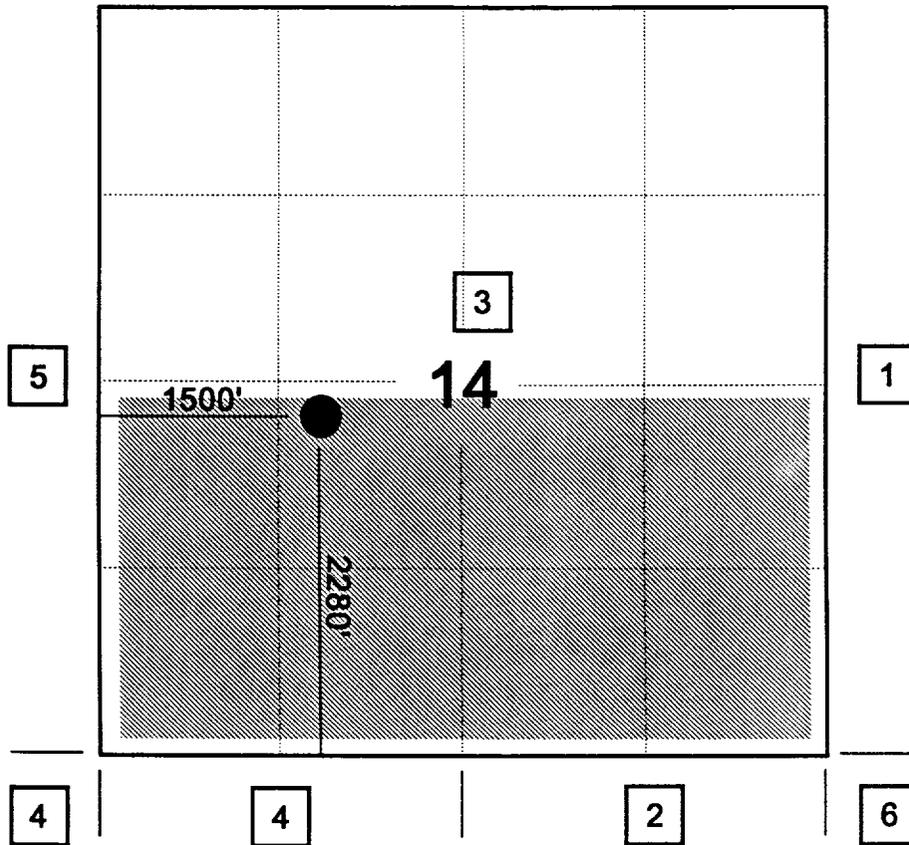
MERIDIAN OIL INC

OFFSET OPERATOR \ OWNER PLAT

AZTEC #700

Fruitland Coal \ Pictured Cliffs Commingle

Township 28 North, Range 11 West



1) Meridian Oil Inc

2) Southland Royalty Company

3) Meridian Oil Inc & Southland Royalty Company

4) Marathon Oil Company

5) Marathon Oil Company & Petrocorp, Inc.

6) Chaparral Oil & Gas, Inc. & Joe C. Salmon

PO Box 100, Aztec, NM 87410

Fruitland Coal Formation

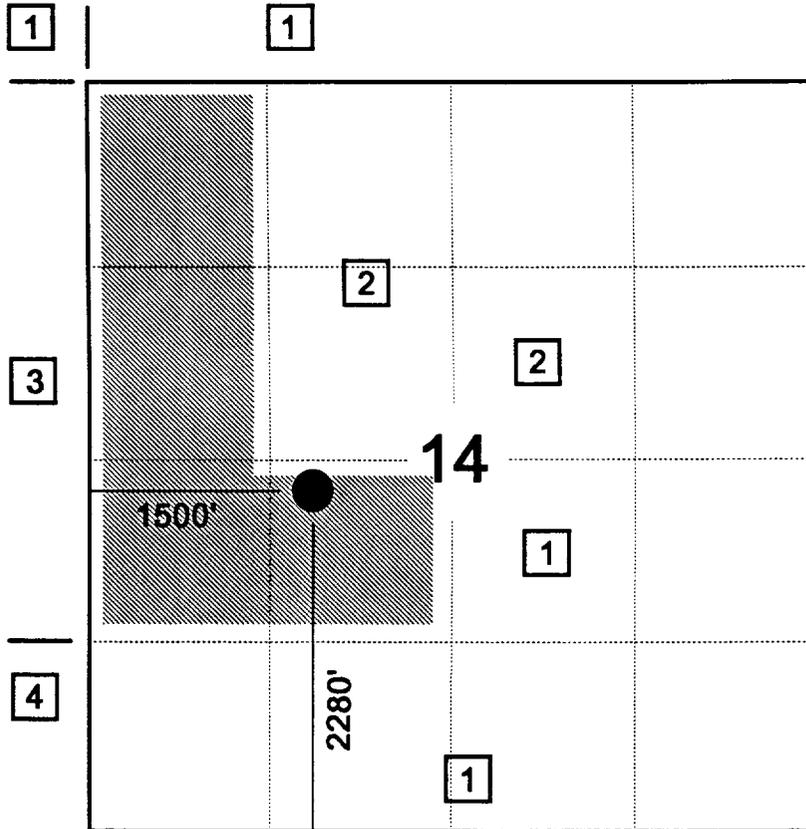
MERIDIAN OIL INC

OFFSET OPERATOR \ OWNER PLAT

AZTEC #700

Fruitland Coal \ Pictured Cliffs Commingle

Township 28 North, Range 11 West



1) Southland Royalty Company

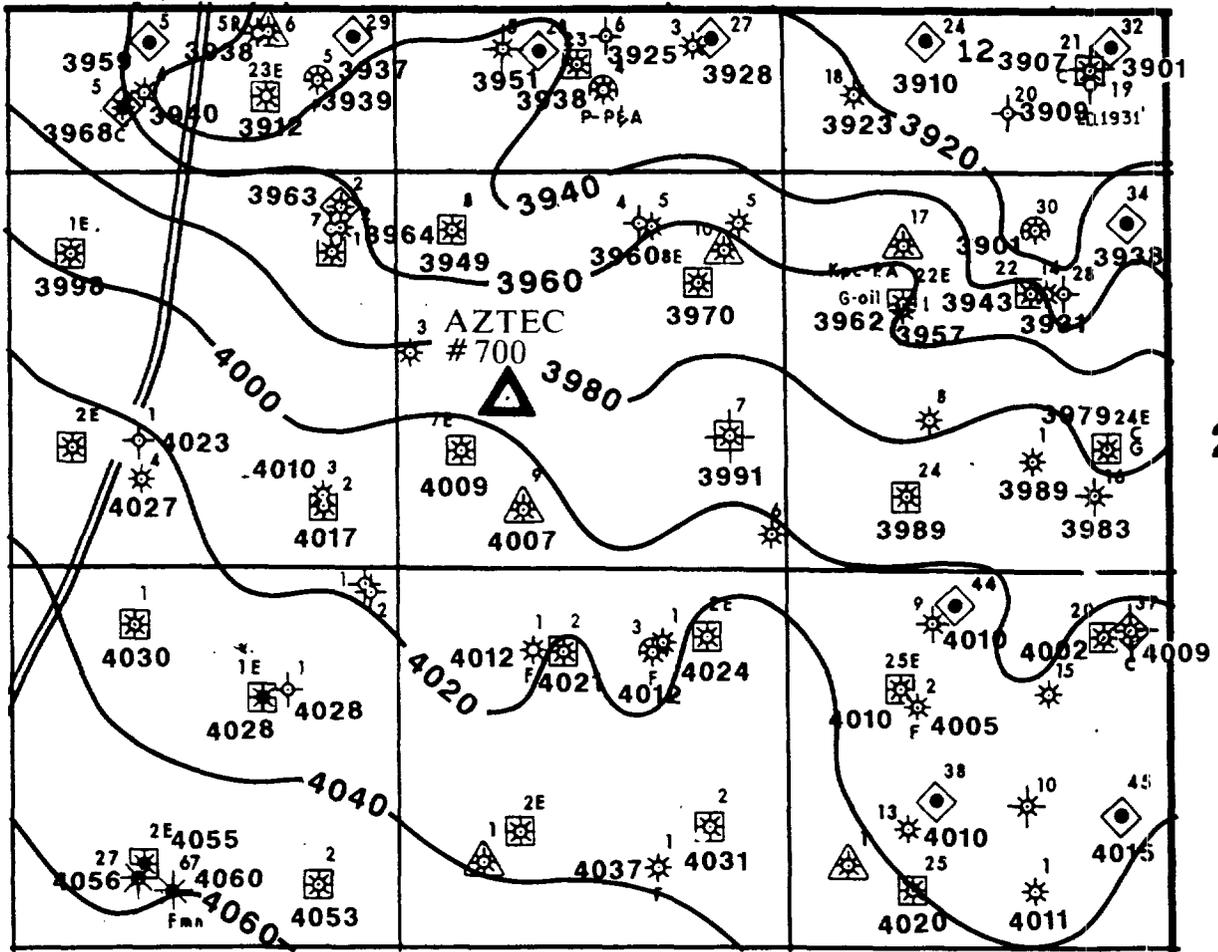
2) Meridian Oil Inc

3) Petrocorp, Inc. 16800 Greensport Park Dr, Ste 300 N Atrium, Houston, TX 77060

4) Marathon Oil Company PO Box 552, Midland, TX 79702

Pictured Cliffs Formation

R 11 W



T
28
N

STRUCTURE
Base Fruitland Coal

C.I. = 20 Feet

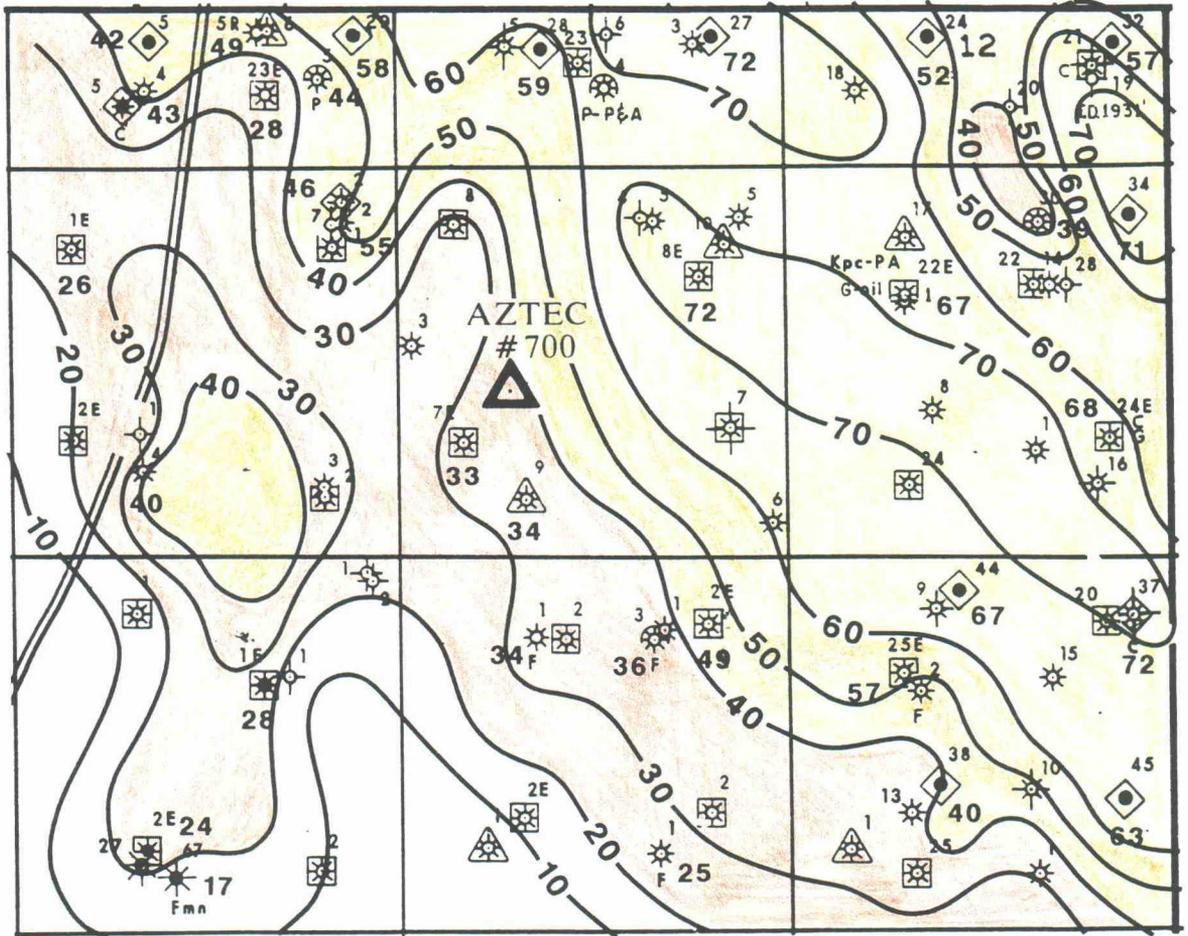
Scale: 2" = 1 mi.

San Juan Co., New Mexico

KMSH 6/92

R 11 W

T 28 N



PICTURED CLIFFS
Net Pay Isopach

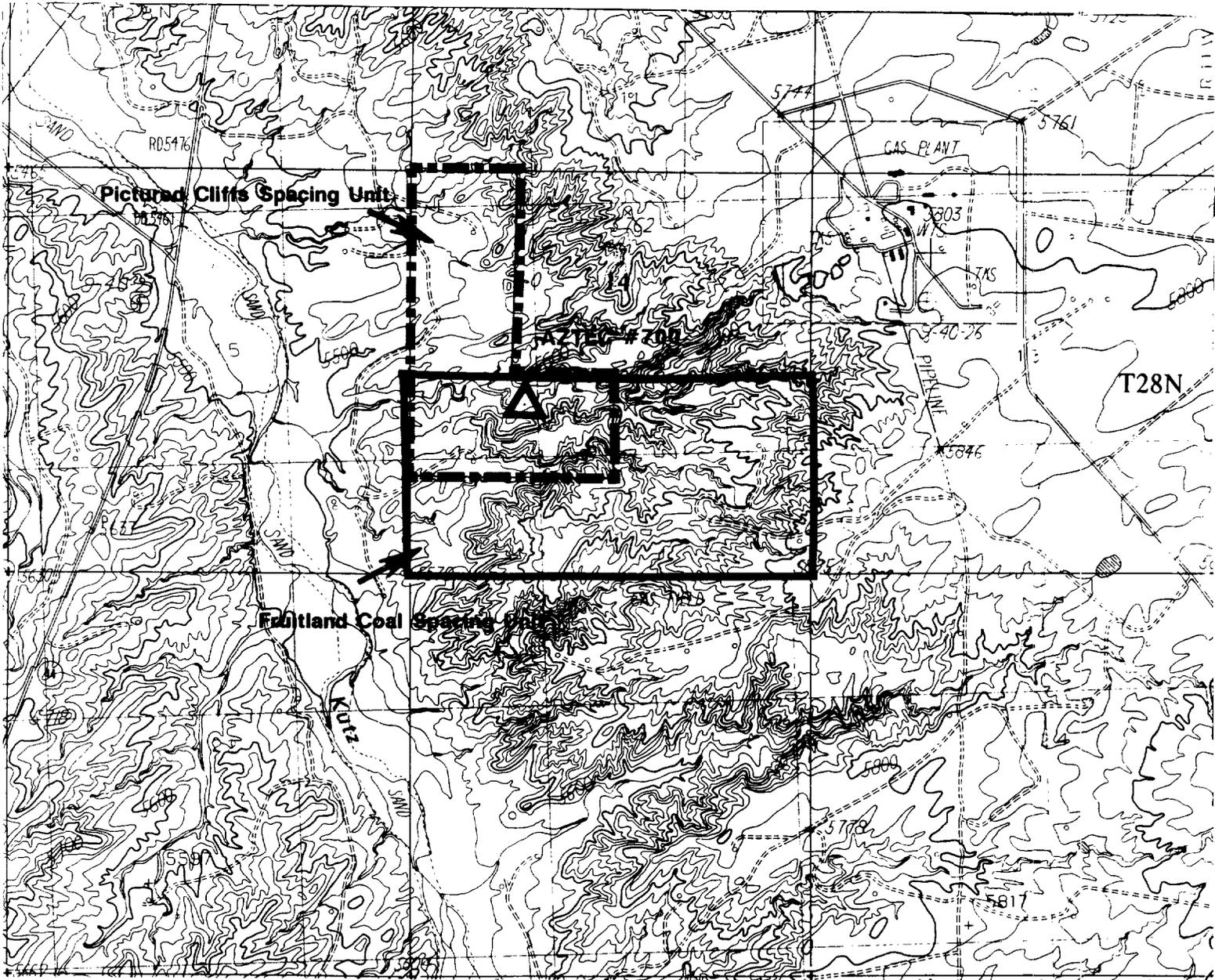
C.I. = 10 Feet

Scale: 2" = 1 mi.

San Juan Co., New Mexico

Net Pay = Resistivity > shale baseline and porosity > 6%

R11W



AZTEC # 700

SW 14-T28N-R11W

San Juan County, New Mexico

TOPOGRAPHIC MAP

scale 1: 24,000

contour interval = 20 feet

AZTEC #700

MONTHLY GAS PRODUCTION ALLOCATION FORMULA

GENERAL EQUATION:

$$Q_t = Q_{ftc} + Q_{pc}$$

WHERE:

Q_t = TOTAL MONTHLY PRODUCTION (MCF/MONTH)

Q_{ftc} = FRUITLAND COAL (FTC) MONTHLY PRODUCTION (MCF/MONTH)

Q_{pc} = PICTURED CLIFFS (PC) MONTHLY PRODUCTION (MCF/MONTH)

REARRANGING THE EQUATION TO SOLVE FOR Q_{ftc} :

$$Q_{ftc} = Q_t - Q_{pc}$$

ANY PRODUCTION RATE OVER WHAT IS CALCULATED FOR THE PICTURED CLIFFS (PC) USING THE APPLIED FORMULA IS FRUITLAND COAL (FTC) PRODUCTION.

ICTURED CLIFFS (PC) FORMATION PRODUCTION FORMULA IS:*

$$Q_{pc} = Q_{pci} * e^{- (D) * (t)}$$

WHERE:

Q_{pci} = INITIAL PC MONTHLY FLOW RATE (CALCULATED FROM FLOW TEST)

D = MONTHLY DECLINE RATE: (0.00974)

MONTHLY DECLINE RATE FROM FIELD ANALOGY

ANNUAL DECLINE = 11.7%

THUS:

$$Q_{pc} = Q_{pci} * e^{- (0.00974) * (t)}$$

$$Q_{ftc} = Q_t - Q_{pci} * e^{- (0.00974) * (t)}$$

WHERE: (t) IS IN MONTHS

REFERENCE: Thompson, R. S., and Wright, J. D., "Oil Property Evaluation", pages 5-2, 5-3.

AZTEC #700

DETERMINATION OF Qpci:

(INITIAL PICTURED CLIFFS MONTHLY PRODUCTION)

$$Q_{pci} = Q_{t(1)} * Q_{pc(p)} \setminus \{Q_{pc(p)} + Q_{ftc(p)}\}$$

WHERE:

Qt(1)=FIRST MONTH TOTAL PRODUCTION (MCF)

Qpc(p)=FINAL PICTURED CLIFFS PITOT GAUGE (MCFPD)

Qftc(p)=FINAL FRUITLAND COAL PITOT GAUGE (MCFPD)

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION
FOR THE PURPOSE OF CONSIDERING:

CASE NO. 10496

APPLICATION OF SOUTHLAND ROYALTY
COMPANY, FOR AN UNORTHODOX GAS
WELL LOCATION, DOWNHOLE COMMINGLING
AND TO AMEND DIVISION ADMINISTRATIVE
ORDER NO. NWU-80, SAN JUAN COUNTY,
NEW MEXICO

CERTIFICATE OF MAILING

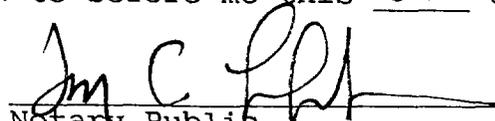
AND

COMPLIANCE WITH ORDER R-8054

W. THOMAS KELLAHIN, attorney in fact and authorized representative of SOUTHLAND ROYALTY COMPANY, states that the notice provisions of Division Rule 1207 (Order R-8054) have been complied with, that Applicant has caused to be conducted a good faith diligent effort to find the correct addresses of all interested parties entitled to receive notice, that on JUNE 3, 1992, I caused to be mailed by certified mail return-receipt requested notice of this hearing and a copy of the application for the above referenced case along with the cover letter, at least twenty days prior to the hearing set for JUNE 25, 1992, to the parties shown in the application as evidenced by the attached copies of return receipt cards, and that pursuant to Division Rule 1207, notice has been given at the correct addresses provided by such rule.


W. Thomas Kellahin

SUBSCRIBED AND SWORN to before me this 24TH day of
JUNE, 1992.


Notary Public

My Commission Expires:

10/7/95

cert624a.330

BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
<u>MERIDIAN</u> EXHIBIT NO. <u>8</u>
CASE NO. <u>10496</u>

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Chaparral Resources
621 17th St.
Suite 1301
Denver, CO 80293

4a. Article Number
P438-025-473

4b. Service Type

Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
5-19-90

5. Signature (Addressee)
[Signature]

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 *U.S. GPO: 1991-287-066 **DOMESTIC RETURN RECEIPT**
WTK - Astec 700

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
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I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

~~WTK - Astec 700~~

Ronald S. Davis
110 E. Lake
Suite 140
Tyler TX 75701

4a. Article Number
P438-025-467

4b. Service Type

Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
6-8-92 MSH

5. Signature (Addressee)

6. Signature (Agent)
[Signature]

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 *U.S. GPO: 1991-287-066 **DOMESTIC RETURN RECEIPT**
WTK - Astec 700

SENDER:

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- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

W.M. Galloway
3005 Northridge
Suite 1
Farminaton, NM 87401

4a. Article Number
P438-025-469

4b. Service Type

Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
6-8-92 MSH

5. Signature (Addressee)

6. Signature (Agent)
[Signature]

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 *U.S. GPO: 1991-287-066 **DOMESTIC RETURN RECEIPT**

SENDER:

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I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Minerals Mgmt Service
P.O. Box 5810
Denver, CO 80217

4a. Article Number
P 438-025-490

4b. Service Type

Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
JUN 5 1992

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 • U.S. GPO: 1991-287-066

DOMESTIC RETURN RECEIPT
WTK - Axtel 700

SENDER:

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I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Marathon Oil Company
P.O. Box 552
Midland, TX 79702

4a. Article Number
P438-025-488

4b. Service Type

Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
JUN 4 1992

5. Signature (Addressee)

6. Signature (Agent)
Adrian Gonzalez

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 • U.S. GPO: 1991-287-066

DOMESTIC RETURN RECEIPT
WTK - Axtel 700

SENDER:

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- Complete items 3 and 4a & b.
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I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mesa Limited Ptnrship
P.O. Box 2009
Amarillo, TX 79189

4a. Article Number
P438-025-489

4b. Service Type

Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
JUN 8 1992

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 • U.S. GPO: 1991-287-066

DOMESTIC RETURN RECEIPT

SENDER:

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I also wish to receive the following services (for an extra fee):

1. Addressee's Address
 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Petrocorp, Inc.
 18800 Greensport Park
 Suite 300/N. Arrium
 Houston, TX 77066



4a. Article Number:

P670-813-844

4b. Service Type:

- Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery:

6-8-92

5. Signature (Addressee)

6. Signature (Agent)

PS Form 3811, November 1990 *U.S. GPO: 1991-287-066

DOMESTIC RETURN RECEIPT

WTK - Adec 700

SENDER:

- Complete items 1 and/or 2 for additional services.
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1. Addressee's Address
 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Joe C. Salmon
 1535 Highway 64
 Bloomfield, NM 87413

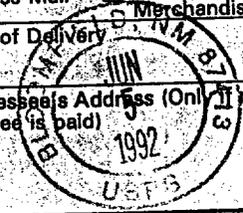
4a. Article Number:

P670-813-843

4b. Service Type:

- Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery:



5. Signature (Addressee)

6. Signature (Agent)

PS Form 3811, November 1990 *U.S. GPO: 1991-287-066

DOMESTIC RETURN RECEIPT

WTK - AZTEL 700