



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

March 21, 1996

Texaco Exploration and Production, Inc.
c/o Hinkle, Cox, Eaton, Coffield & Hensley, L.L.P.
P. O. Box 2068
Santa Fe, New Mexico 87504-2068
Attention: James Bruce

Administrative Order DD-133(H)
High Angle/Horizontal

Dear Mr. Bruce:

Reference is made to your application on behalf of Texaco Exploration and Production, Inc. dated February 19, 1996 for authorization to initiate a high angle/horizontal directionally drilling project in the Sand Dunes-Bone Spring Pool on two federal tracts in a portion of Section 18, Township 23 South, Range 32 East, NMPM, Lea County, New Mexico.

The Division Director Finds That:

- (1) The application on behalf of Texaco Exploration and Production, Inc. ("Texaco") has been duly filed under the provisions of Rule 111.D and E of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;
- (2) All of said Section 18 is within the horizontal limits of the Sand Dunes-Bone Spring Pool, said pool is subject to the statewide rules and regulations, as promulgated by Rule 104.C(1)(a), which provides for 40-acre oil spacing and proration units, or drilling units, and requires that wells be located no closer than 330 feet to the outer boundary of a single 40-acre oil spacing and proration unit;
- (3) Pursuant to Division General Rule 505.A the depth bracket oil allowable assigned the Sand Dunes-Bone Spring Pool is 230 barrels of oil per day per 40-acre unit, its gas-oil ratio limit is 2,000 cubic feet of gas per barrel of oil, the resulting casinghead gas allowable is 460 MCF per day for each 40-acre unit;
- (4) Within the Upper Bone Spring formation there exists a massive sand interval 10 to 50 feet thick with porosity ranging from 10 to 19 percent, and corresponding permeability values average less than one millidarcy. Reservoir simulation and production histories indicate high decline, inefficient drainage, and corresponding low recovery rates in vertical wells drilled in this reservoir. These same simulations indicate that a horizontal well in this sand interval can serve to maximize drainage and recover reserves that would otherwise remain in the ground thereby preventing waste;
- (5) The "project area" proposed by Texaco would consist of an over-sized spacing unit comprising 160 acres underlying the W/2 E/2 of said Section 18 and will be assigned an acreage factor of 4.0 for allowable purposes;

- (6) It is Texaco's intent to place its Sand "18" Federal Com Well No. 2(H) at a standard surface oil well location 330 feet from the South line and 2110 feet from the East line (Unit O) of said Section 18, drill vertically to an approximate depth of 8133 feet, kick-off in a northerly direction with a minimum radius wellbore (12 degrees/100 feet), and drill horizontally a lateral distance of approximately 4,300 feet;
- (7) As required by Division General Rules 104.F(1) and 111.D(1)(b) and to assure that the correlative rights of off-set operators are adequately protected from any adverse effects caused by the drilling of the subject lateral wellbore, the applicable "drilling window" or "producing area" for said horizontal well bore should include that area within the W/2 E/2 of said Section 18 that is no closer than 330 feet from the outer boundary of proposed 160-acre "non-standard" oil spacing and proration unit; and,
- (8) It appears the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) Texaco Exploration and Production, Inc. ("Texaco") is hereby authorized to initiate a high angle/horizontal directional drilling project within a non-standard 160-acre oil spacing and proration unit comprising the W/2 E/2 of Section 18, Township 23 South, Range 32 East, NMPM, Sand Dunes-Bone Spring Pool, Lea County, New Mexico, by drilling its Sand "18" Federal Com Well No. 2(H) at a standard surface oil well location 330 feet from the South line and 2110 feet from the East line (Unit O) of said Section 18, drill vertically to an approximate depth of 8133 feet, kick-off in a northerly direction with a minimum radius wellbore (12 degrees/100 feet), and drill horizontally a lateral distance of approximately 4,300 feet through the Upper Bone Spring interval in said pool.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(3) The "project area" for said horizontal well shall consist of oversized 160-acre non-standard oil spacing and proration unit comprising the W/2 E/2 of said Section 18.

(4) Said non-standard 160-acre unit shall be assigned an acreage factor of 4.0.

(5) The "producing area" for said horizontal wellbore shall include that area within the W/2 E/2 of said Section 18 that is no closer than 330 feet from the outer boundary of proposed 160-acre "non-standard" oil spacing and proration unit.

(6) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F.

(7) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth (TVD) in addition to measured depths (MVD).

(8) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs
U. S. Bureau of Land Management - Carlsbad
Joe W. Hammond, Santa Fe Energy Resources, Inc. - Midland, Texas

OIL CONSERVATION DIVISION

DD-TEX. 14

Rec 2/19/96
Susp. 3/11/96
Approved 3/21/96

March 21, 1996

Texaco Exploration and Production, Inc.
c/o **Hinkle, Cox, Eaton, Coffield & Hensley, L.L.P.**
P. O. Box 2068
Santa Fe, New Mexico 87504-2068

Attention: James Bruce

133
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- (2) All of said Section 18 is within the horizontal limits of the Sand Dunes-Bone Spring Pool, said pool is subject to the statewide rules and regulations, as promulgated by Rule 104.C(1)(a), which provides for 40-acre oil spacing and proration units, or drilling units, and requires that wells be located no closer than 330 feet to the outer boundary of a single 40-acre oil spacing and proration unit;
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- (5) The "project area" proposed by Texaco would consist of an over-sized spacing unit comprising

160 acres underlying the W/2 E/2 of said Section 18 and will be assigned an acreage factor of 4.0 for allowable purposes;

- (6) It is Texaco's intent to place its Sand "18" Federal Com Well No. 2(H) at a standard surface oil well location 330 feet from the South line and 2110 feet from the East line (Unit O) of said Section 18, drill vertically to an approximate depth of 8133 feet, kick-off in a northerly direction with a minimum radius wellbore (12 degrees/100 feet), and drill horizontally a lateral distance of approximately 4,300 feet;
- (7) As required by Division General Rules 104.F(1) and 111.D(1)(b) and to assure that the correlative rights of off-set operators are adequately protected from any adverse effects caused by the drilling of the subject lateral wellbore, the applicable "drilling window" or "producing area" for said horizontal well bore should include that area within the W/2 E/2 of said Section 18 that is no closer than 330 feet from the outer boundary of proposed 160-acre "non-standard" oil spacing and proration unit; and,
- (8) It appears the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) Texaco Exploration and Production, Inc. ("Texaco") is hereby authorized to initiate a high angle/horizontal directional drilling project within a non-standard 160-acre oil spacing and proration unit comprising the W/2 E/2 of Section 18, Township 23 South, Range 32 East, NMPM, Sand Dunes-Bone Spring Pool, Lea County, New Mexico, by drilling its Sand "18" Federal Com Well No. 2(H) at a standard surface oil well location 330 feet from the South line and 2110 feet from the East line (Unit O) of said Section 18, drill vertically to an approximate depth of 8133 feet, kick-off in a northerly direction with a minimum radius wellbore (12 degrees/100 feet), and drill horizontally a lateral distance of approximately 4,300 feet through the Upper Bone Spring interval in said pool.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(3) The "project area" for said horizontal well shall consist of oversized 160-acre non-standard oil spacing and proration unit comprising the W/2 E/2 of said Section 18.

*Administrative Order DD-***** (H)*

*August ******

Page No. 3

- (4) Said non-standard 160-acre unit shall be assigned an acreage factor of 4.0.
- (5) The "producing area" for said horizontal wellbore shall include that area within the W/2 E/2 of said Section 18 that is no closer than 330 feet from the outer boundary of proposed 160-acre "non-standard" oil spacing and proration unit.
- (6) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F.
- (7) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth (TVD) in addition to measured depths (MVD).
- (8) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs
U. S. Bureau of Land Management - Carlsbad
Joe W. Hammond, Santa Fe Energy Resources, Inc. - Midland, Texas



Santa Fe Energy Resources, Inc.

OIL CONSERVATION DIVISION
RECEIVED
96 MAR 18 AM 8 52

VIA FEDERAL EXPRESS

March 15, 1996

New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87501

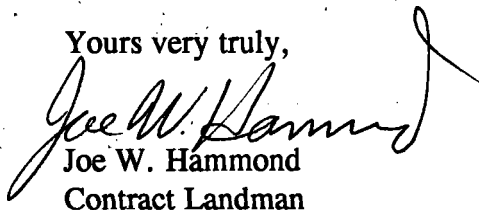
ATTN: Michael E. Stogner

Re: Directional Drilling Hearing
Sand "18" Fed Com #2 Well
To be drilled by Texaco

Gentlemen:

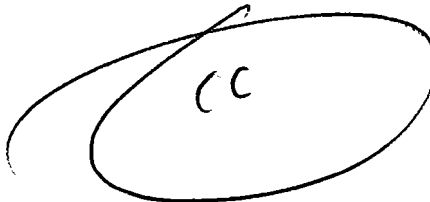
Please let this letter serve to notify the New Mexico Oil Conservation Division that Santa Fe Energy Resources, Inc. does have an objection to the directional drilling of the Texaco operated Sand "18" Fed Com Well No. 2. The well is to be located in Section 18, T-23-S, R-32-E, Lea County, New Mexico.

Yours very truly,


Joe W. Hammond
Contract Landman

JWH/efw

cc: Hinkle, Cox, Eaton ,
Coffield & Hensley
218 Montezuma
Santa Fe, New Mexico 87501
ATTN: Jim Bruce



Texaco Exp. & Prod. Inc.
4601 DTC Blvd.
Denver, Colorado 80237
ATTN: David Sleeper

EWOR871

Copy To: G.D.A.
R. Adair

**HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.**

ATTORNEYS AT LAW

218 MONTEZUMA POST OFFICE BOX 2068
SANTA FE, NEW MEXICO 87504-2068
(505) 982-4554 FAX (505) 982-8623

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CLARENCE E. HINKLE DDB-4888

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RICHARD L. CAZZELL* RAY W. RICHARDS*

AUSTIN AFFILIATION
HOFFMAN & STEPHENS, P.C.
KENNETH R. HOFFMAN*
TOM D. STEPHENS*
RONALD C. SCHULTZ, JR.*
JOSE CANO*

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SCOTT A. SHAW*
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KAROLYN KING NELSON
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NANCY L. STRATTON
TIMOTHY R. BROWN
JAMES C. MARTIN

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PAUL W. EATON
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ROBERT P. THINN, JR.
MARSHALL G. MARTIN
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RICHARD R. WILFONG*
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CHARLES R. WATSON, JR.*
STEVEN D. ARNOLD
THOMAS D. HAINES, JR.
GREGORY J. HENNETT
FRED W. SCHWEDDMANN
JAMES H. HUDSON
JEFFREY S. BAIRD*

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Santa Fe Energy Resources, Inc.
Suite 1330
550 West Texas
Midland, Texas 79701

Attention: Joe Hammond

Dear Mr. Joe Hammond:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W¹/₂E¹/₂ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty 3/24 days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

Very truly yours,

HINKLE, COX, EATON, COFFIELD,
& HENSLEY, L.L.P.

James Bruce
James Bruce

JB/yrk

Enclosure

**HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.**

ATTORNEYS AT LAW

**218 MONTEZUMA POST OFFICE BOX 2068
SANTA FE, NEW MEXICO 87504-2068
(505) 982-4554 FAX (505) 982-8623**

LEWIS C. COX, JR. (1924-1993)
CLARENCE E. HINKLE (1904-1985)

OF COUNSEL
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RICHARD L. CAZZELL* RAY W. RICHARDS*

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*NOT LICENSED IN NEW MEXICO

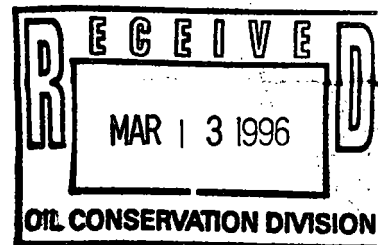
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FRED W. SCHWENDIMANN
JAMES M. HUDSON
JEFFREY S. BAIRD*

March 13, 1996

HAND DELIVERED

Michael E. Stogner
Oil Conservation Division
State Land Office Building
2040 Pacheco St.
Santa Fe, New Mexico 87502



Dear Mr. Stogner:

We have received a copy of Harvard Petroleum's Objection to the Application of Texaco Exploration and Production Inc. for directional drilling of the Sand "18" Fed. Com. Well No. 2H.

Harvard Petroleum did not specify the basis of its objection to the application. We note that (1) Texaco's well is orthodox with respect to all outer boundaries of the project area, and (2) the application contains all information required by Rule 111. There is no additional data which Texaco would present at a hearing on this application. As a result, Texaco requests that this application be approved despite the objection, and that no hearing be scheduled.

Very truly yours,

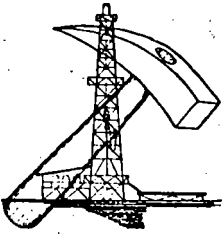
HINKLE, COX, EATON,
COFFIELD & HENSLEY, L.L.P.

James Bruce
James Bruce

JB:jr

cc: Jim Ball

David Sleeper (Facsimile Transmission - 303.793.4055/2518)



OIL CONSERVATION DIVISION
RECEIVED

HARVARD PETROLEUM CORPORATION

400 North Pennsylvania, Suite 450 • P.O. Box 936 • Roswell, NM 88201 • (505) 623-1581 • Fax (505) 622-8006

March 13, 1996

New Mexico Oil Conservation
2040 South Pacheco
Santa Fe, New Mexico 87505
Attn Mr. Mike Stogner,
Petroleum Engineer Specialist/Examiner

TRANSMITTED BY FACSIMILE AND U S MAIL

Re: West Triste Draw Prospect
Texaco's Sand "18" Fed. Com. #2H
W/2E/2 Sec. 18 of T23S R32E, NMPM
Lea County, New Mexico

Dear Mr. Stogner:

By letter dated March 11, 1996, Harvard Petroleum Corporation for itself and its participants under an operating agreement covering direct offset lands to the captioned horizontal well proposal did object to the Texaco proposal.

Since the writing of the letter, Harvard has received additional information that confirmed that it will not have any objections or problems with Texaco's proposed horizontal well. Harvard Petroleum Corporation et. al. hereby removes the objection stated in its letter dated March 11, 1996.

Very truly yours,

HARVARD PETROLEUM CORPORATION


Jim Ball
Land Manager

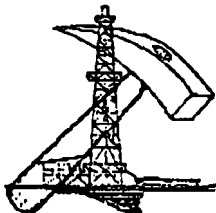
jb/me

cc: James Bruce
David Sleeper

Mike,

Hayward withdrew its objection on 3/13/96 (See Fax)
Therefore, it was not set to hearing. I'm returning
it to you for processing.

DAC



FACSIMILE FROM

HARVARD PETROLEUM CORPORATION

400 North Pennsylvania, Suite 450 • P.O. Box 936 • Roswell, NM 88201 • (505) 623-1581 • Fax (505) 622-8006

FACSIMILE NUMBER: (505) 622-8006

DATE: 3/13/96 (WEDNESDAY)

TO: MIKE STAGNER

FAX NUMBER: 505-827-8177

FROM: JIM BALL

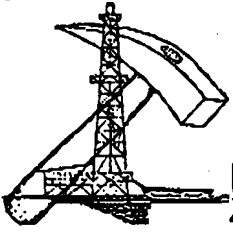
NUMBER OF PAGES (INCLUDING COVER PAGE): 2

MESSAGE:

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(505) 623-1581



HARVARD PETROLEUM CORPORATION

400 North Pennsylvania, Suite 450 • P.O. Box 936 • Roswell, NM 88201 • (505) 623-1581 • Fax (505) 622-8006

March 13, 1996

New Mexico Oil Conservation
2040 South Pacheco
Santa Fe, New Mexico 87505
Attn Mr. Mike Stogner,
Petroleum Engineer Specialist/Examiner

TRANSMITTED BY FACSIMILE AND U S MAIL

Re: West Triste Draw Prospect
Texaco's Sand "18" Fed. Com. #2H
W/2E/2 Sec. 18 of T23S R32E, NMPM
Lea County, New Mexico

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Very truly yours,

HARVARD PETROLEUM CORPORATION


Jim Ball
Land Manager

jb/me
cc: James Bruce
David Sleeper

TOTAL P.02

*Set for the 4/4/96
Hearing*

CASE _____:

Application of Texaco
Exploration & Production, Inc.
for a non-standard oil
proration unit, a high
angle/horizontal directional
drilling pilot project, special
operating rules therefor, and a
special project oil allowable,
Lea County, New Mexico.

MS.

PD-TEX. H

Applicant, in the above-styled cause, seeks the formation of a non-standard 160-acre oil spacing and proration unit in the Sand Dunes-Bone Springs Pool comprising the W/2 E/2 of Section 18, Township 23 South, Range 32 East, for the purpose of initiating a high angle/horizontal directional drilling pilot project. The applicant proposes to commence drilling vertically at a standard surface oil well location 330 feet from the South line and 2110 feet from the East line (Unit O) of said Section 18, kick-off at a depth of approximately 8133 feet in a northerly direction, build angle to approximately 90 degrees, and continue to drill horizontally in the Bone Spring formation for approximately 4250 feet. Further, the applicant seeks the adoption of special operating provisions for said pilot project including the designation of a prescribed area limiting the horizontal extent of said wellbore to a target window no closer than 330 feet to the outer boundary of said proration unit, the assignment of an acreage factor of 4.0 to the proposed 160-acre unit, or four times the

number of 40-acre tracts connected to form the project area. Said project area is located approximately 4.5 miles north by east of New Mexico State Highway No. 128 at the Lea/Eddy County line.



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

March 12, 1996

Texaco Exploration & Production, Inc.
Hinkle, Cox, Eaton, Coffield & Hensley, L.L.P.
P. O. Box 2068
Santa Fe, New Mexico 87504-2068

Attention: James Bruce

Re: *Administrative Application For a Horizontal Well:
Sand "18" Federal Com. Well No. 2
W/2 E/2 of Section 18, Township 23 South, Range 32 East, NMPM,
Sand Dunes-Bone Spring Pool, Lea County, New Mexico.*

Dear Mr. Bruce:

On March 11, 1996 the Division received an objection from Harvard Petroleum Corporation to the subject application, see copy of letter attached.

This application will therefore be set for hearing before a Division Hearing Examiner on the next available docket scheduled for April 4, 1996. Please provide adequate notice pursuant to Rule 1207.A of the Division's General Rules and Regulations.

Should you have any questions concerning this matter, please contact me in Santa Fe at (505) 827-8185.

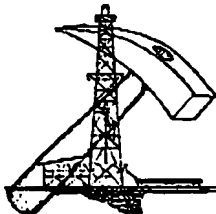
Sincerely,

A handwritten signature in black ink, appearing to read "Michael E. Stogner", with a long horizontal line extending to the right.

Michael E. Stogner
Chief Hearing Officer/Engineer

WJL/MES

cc: Oil Conservation Division - Hobbs
Harvard Petroleum Corporation - Roswell (Attention: Jim Ball)

**HARVARD PETROLEUM CORPORATION**

400 North Pennsylvania, Suite 450 • P.O. Box 936 • Roswell, NM 88201 • (505) 623-1581 • Fax (505) 622-8006

March 11, 1996

New Mexico Oil Conservation
2040 South Pacheco
Santa Fe, New Mexico 87505
Attn Mr. Mike Stogner,
Petroleum Engineer Specialist/Examiner

TRANSMITTED BY FACSIMILE AND U S MAIL

Re: West Triste Draw Prospect
Texaco's Sand "18" Fed. Com. #2
W/2E/2 Sec. 18 of T23S R32E, NMPM
Lea County, New Mexico

Dear Mr. Stogner:

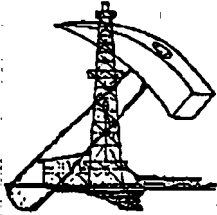
Harvard Petroleum Corporation for itself and its participants under an operating agreement covering direct offset lands to the captioned horizontal well proposal does hereby object to the Texaco proposal.

Very truly yours,

HARVARD PETROLEUM CORPORATION


Jim Hall
Land Manager

jb/me



FACSIMILE FROM

HARVARD PETROLEUM CORPORATION

400 North Pennsylvania, Suite 450 • P.O. Box 936 • Roswell, NM 88201 • (505) 623-1581 • Fax (505) 622-8006

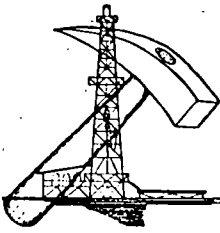
FACSIMILE NUMBER: (505) 622-8006

DATE: 3/11/96
TO: MIKE STOGNER
FAX NUMBER: 1-505-827-8177
FROM: JIM BALL
NUMBER OF PAGES (INCLUDING COVER PAGE): 2
MESSAGE:

*** CONFIDENTIALITY NOTICE ***

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OIL CONSERVATION DIVISION
RECEIVED

'96 MAR 13 AM 8 52

March 11, 1996

New Mexico Oil Conservation
2040 South Pacheco
Santa Fe, New Mexico 87505
Attn Mr. Mike Stogner,
Petroleum Engineer Specialist/Examiner

TRANSMITTED BY FACSIMILE AND U S MAIL

Re: West Triste Draw Prospect
Texaco's Sand "18" Fed. Com. #2
W/2E/2 Sec. 18 of T23S R32E, NMPM
Lea County, New Mexico

Dear Mr. Stogner:

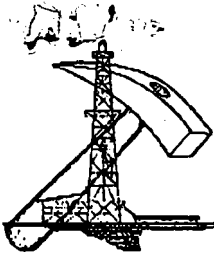
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Very truly yours,

HARVARD PETROLEUM CORPORATION


Jim Ball
Land Manager

jb/me

**HARVARD PETROLEUM CORPORATION**

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March 11, 1996

New Mexico Oil Conservation
2040 South Pacheco
Santa Fe, New Mexico 87505
Attn Mr. Mike Stogner,
Petroleum Engineer Specialist/Examiner

TRANSMITTED BY FACSIMILE AND U S MAIL

Re: West Triste Draw Prospect
Texaco's Sand "18" Fed. Com. #2
W/2E/2 Sec. 18 of T23S R32E, NMPM
Lea County, New Mexico

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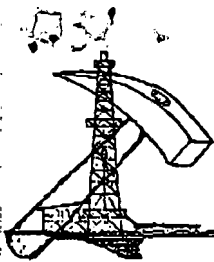
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Very truly yours,

HARVARD PETROLEUM CORPORATION


Jim Ball
Land Manager

jb/me



FACSIMILE FROM

HARVARD PETROLEUM CORPORATION

400 North Pennsylvania, Suite 450 • P.O. Box 936 • Roswell, NM 88201 • (505) 623-1581 • Fax (505) 622-8006

FACSIMILE NUMBER: (505) 622-8006

DATE: 3/11/96

TO: Mike Stogner

FAX NUMBER: 1-505-827-8177

FROM: Jim Ball

NUMBER OF PAGES (INCLUDING COVER PAGE): 2

MESSAGE:

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(505) 623-1581

**HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.**

ATTORNEYS AT LAW

**218 MONTEZUMA POST OFFICE BOX 2068
SANTA FE, NEW MEXICO 87504-2068
(505) 982-4554 FAX (505) 982-8623**

**LEWIS C. COX, JR. (1924-1993)
CLARENCE E. HINKLE (1904-1985)**

**OF COUNSEL
O. M. CALHOUN* JOE W. WOOD
RICHARD L. CAZZELL* RAY W. RICHARDS***

**AUSTIN AFFILIATION
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KENNETH R. HOFFMAN*
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KAROLYN KING NELSON
ELLEN T. LOUDERBOUGH
JAMES H. WOOD*
NANCY L. STRATTON
TIMOTHY R. BROWN
JAMES C. MARTIN**

*NOT LICENSED IN NEW MEXICO

February 19, 1996

HAND DELIVERED

William J. LeMay
Oil Conservation Division
2040 S. Pacheco Street
Santa Fe, New Mexico 87501

Dear Mr. Lemay:

Texaco Exploration and Production Inc. hereby applies for administrative approval of directional drilling for the following well:

Sand "18" Fed. Com. Well No. 2H

Surface Location: 330' FSL and 2110' FEL
Terminus: 660' FNL and 1800' FEL
Project Area: W $\frac{1}{2}$ E $\frac{1}{2}$ of Section 18-23
South - 32 East,
Lea County, New Mexico

The well will be drilled to test the Bone Spring formation (Upper Bone Spring Sand). The entire project area is within the designated Sand Dunes-Bone Spring Pool, which is subject to statewide rules. A Form C-102 for the well is attached as Exhibit A.

Pursuant to Division Rule 111(D), Texaco makes the following statements and submittals:

1. Texaco is drilling this well as a test horizontal well in the Bone Spring. Production from this reservoir has been established to the North and South.

2. Attached as Exhibit B is a land plat of part of Township 23 South, Range 32 East. The project area of the well is outlined in red. The producing area is the same as the project area. There are no existing Bone Spring wells in the project area. (Texaco previously staked two wells in the W $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 18, but these wells have not been drilled.)

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ROSWELL, NEW MEXICO 88202
(505) 622-6510
FAX (505) 623-9332

POST OFFICE BOX 3580
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(915) 683-4691
FAX (915) 683-6518

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FAX (806) 372-9761

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(505) 768-1500
FAX (505) 768-1529

401 W. 15TH STREET, SUITE 800
AUSTIN, TEXAS 78701
(512) 476-7137
FAX (512) 476-5431

20 Susp. period
3/11/96
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FEB 19 1996

Oil Conservation Division

4.5 miles
north by east
of New Mexico
State Hwy 128
at the
Lea/Eddy
City line.

William J. LeMay
February 19, 1996
Page 2

The project area is all federal land, covered by Leases NM 0559539 (W $\frac{1}{2}$ SE $\frac{1}{4}$ § 18) and NM 18848 (W $\frac{1}{2}$ NE $\frac{1}{4}$ § 18). An APD has been filed with the Bureau of Land Management.

The following existing Bone Spring wells immediately offset the project area:

<u>OPERATOR</u>	<u>WELL LOCATION</u>
Texaco Exploration and Production Inc.	Unit C § 18
Texaco Exploration and Production Inc.	Unit H § 18
Myco Industries, Inc.	Unit P § 7

Exhibit B also lists the names and addresses of offset operators or lessees. Copies of this application were mailed today to the offset operators or lessees, by certified mail, advising them they have twenty days from the date of this letter to object to the application. Copies of the notice letters are attached as Exhibit C.

3. Attached as Exhibit D is a vertical plan view of the well. (A horizontal plan view of the well is given on Exhibit A.)

4. Attached as Exhibit E is a location and production plat, indicating completions and proposed wells in the immediate area. It also indicates the line of cross-section A-A'.

5. Attached as Exhibit F is cross-section A-A', containing type logs from Texaco's Sand "18" Fed. No. 1 and SDE "19" Fed. No. 4 Wells, indicating the top and bottom of the Upper Bone Spring Sand. Analysis of rotary sidewall and full cores in this reservoir suggests that the sand consists of a fairly massive interval 10 to 50 feet thick. This sand exhibits good porosity, with values ranging from 10 to 19 percent. Corresponding permeability values in the reservoir average less than one millidarcy. Reservoir simulation and production indicate high decline, inefficient drainage, and corresponding low recovery rates in vertical wells drilled in this reservoir. These simulations also indicate that a horizontal well, drilled in the proposed location, will result in maximum drainage of the project area.

Should you need any additional data, please call. This application is submitted in duplicate, with a copy also forwarded to the Hobbs District Office.

William J. LeMay
February 19, 1996
Page 3

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY, L.L.P.

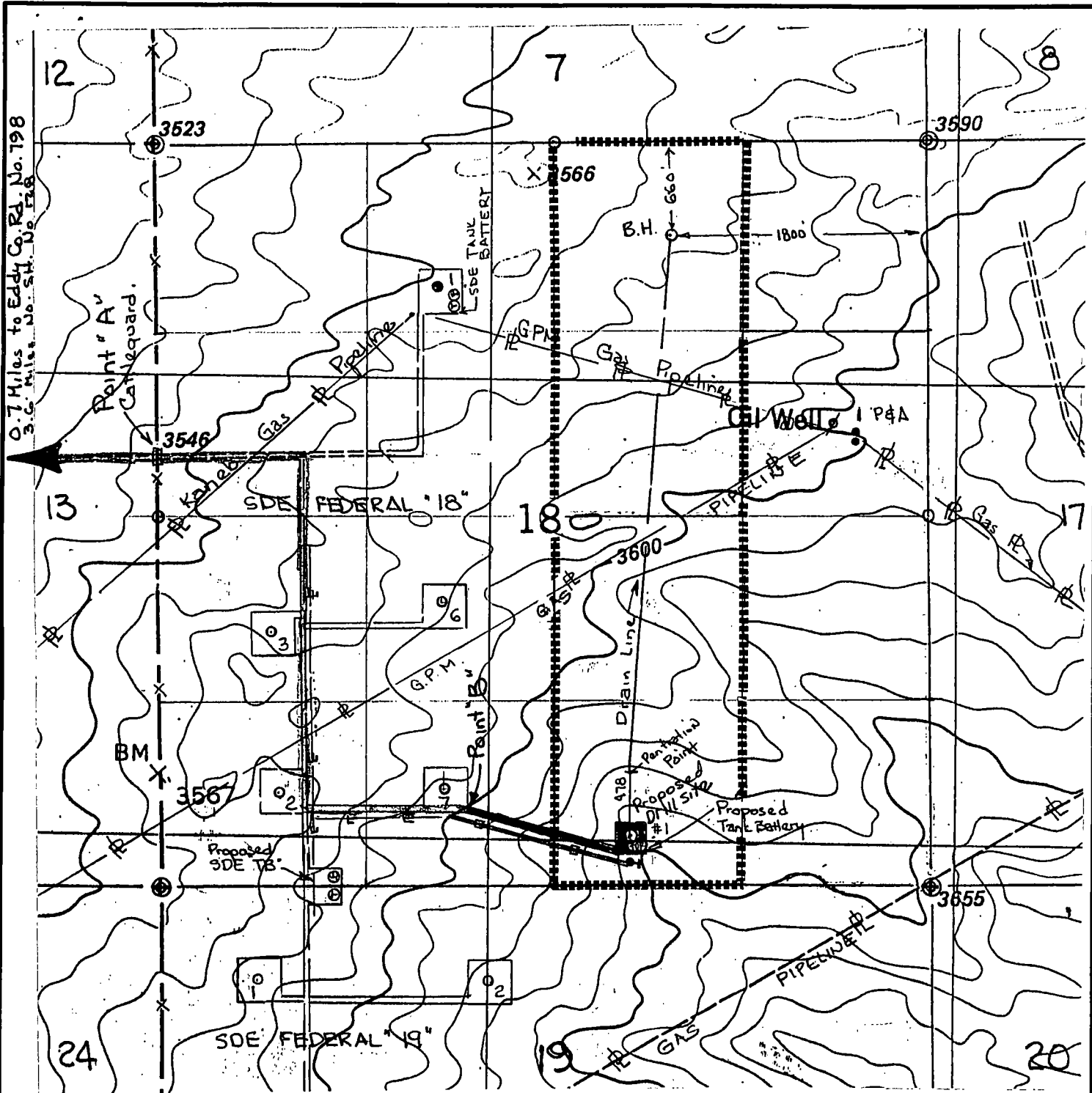
A handwritten signature in cursive script that reads "James Bruce". The signature is written in dark ink and is positioned above the printed name.

James Bruce

JB:jr

cc: Mr. Jerry Sexton w/enc.

0.7 Miles to Eddy Co. Rd. No. 798
3.6 Miles to S.H. No. 798



LEGEND OF SYMBOLS

- = Access Road (Yellow)
- = Resource Road Federal Land (Pink)
- = Resource Road on Lease (Brown)
- = Proposed Resource Road (Red)
- = Proposed Electric Line (Orange)
- FL-FL- = Proposed Production Flowline (Green)
- o = Staked Well Location
- = Producing Well Location
- o = Water Well
- o = Found 1" Iron Pipe With Brass Cap
- ⊙ = Found 2" Iron Pipe With Brass Cap
- = Unit or Lease Boundary

EXHIBIT "A" ACCESS ROAD AND FACILITIES MAP

TEXACO EXPLORATION AND PRODUCTION

SAND "18" FEDERAL COM. No. 1
330' FSL & 2110' FEL, Section 18
T-23-S, R-32-E, NMPM, Lea County, NM

Drawn by: J .S. Piper

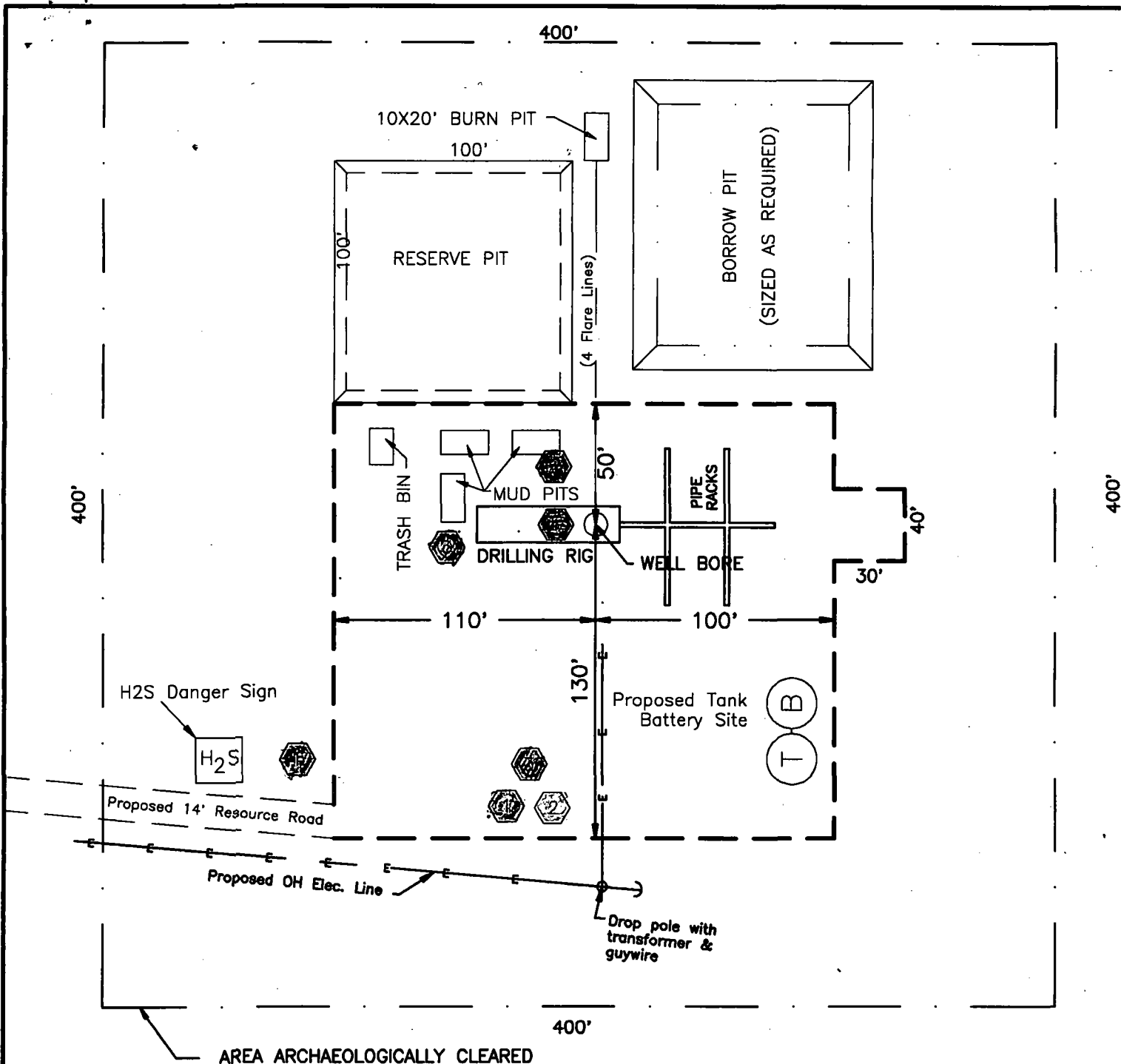
Scale: 1" = 1000 Feet

Date: February 2, 1996





C. Wade Howard

Checked by: D. M. Ballew

Sheet: 6 of 8



H₂S DRILLING OPERATION PLAN

-  Briefing Station
-  H₂S Safety Trailer
-  Windsocks
-  H₂S Detectors, Shale Shaker, Rotating Head, Rig Floor

Prevailing Wind from the South

EXHIBIT "B" DRILLING RIG LAYOUT

TEXACO EXPLORATION AND PRODUCTION INC.

SAND "18" FEDERAL Com. No. 2H
Located 330' FSL & 2110' FEL, Section 18,
T-23-S, R-32-E, NMPM, Lea County, NM

Drawn by: D. M. Ballew

Scale: 1" = 60'

Date: February 2, 1996

C. WADE HOWARD

Checked by: J. S. Piper

Sheet 7 of 8

DISTRICT I
P. O. Box 1980, Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD, Artesia, NM 88210

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

DISTRICT IV
P. O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994

Instructions on back

OIL CONSERVATION DIVISION

PO Box 2088
Santa Fe, NM 87504-2088

Submit to Appropriate District Office

State Lease-4 copies
Fee Lease-3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Well Name BRUSHY CANYON, BONE SPRINGS		4 Pool Name SAND DUNES DELAWARE	
5 Property Code 17325		6 Property Name SAND "18" FEDERAL COM				7 Well Number 2H	
8 GRID No. 22351		9 Operator Name TEXACO EXPLORATION & PRODUCTION, INC.				10 Elevation 3643'	

11 Surface Location									
UL or lot no. 0	Section 18	Township 23-S	Range 32-E	Lot Idn	Feet from the 330'	North/South line South	Feet from the 2110'	East/West line East	County Lea

12 Bottom Hole Location If Different From Surface									
UL or lot no. B	Section 18	Township 23-S	Range 32-E	Lot Idn	Feet from the 660'	North/South line North	Feet from the 1800'	East/West line East	County Lea

13 Dedicated Acres 160		14 Joint or Infill		15 Consolidation Code		16 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.

46.02 Ac.

46.05 Ac.

46.09 Ac.

46.12 Ac.

18

Bottom Hole

660'

1800'

3823.7'

NO 4°16'27"E

Drain Line

Penetration Point

2110'

2110'

478'

330'

2H

160 Ac.

17 OPERATOR CERTIFICATION

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

Signature
C. Wade Howard

Printed Name
C. Wade Howard

Position
Engineer's Assistant

Company
Texaco Expl. & Prod. Inc.

Date
February 5, 1996

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 knowledge and belief.

Date Surveyed
January 22, 1996

Signature & Seal of Professional Surveyor
John S. Piper

Certificate No.
7254 John S. Piper

Sheet 8 of 8

○ = Staked Location ● = Producing Well ↗ = Injection Well ◇ = Water Supply Well ⊕ = Plugged & Abandon Well
⊙ = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found /4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates			
Northing 472693.44 S.L. 476984.52 B. H.		Easting 692121.65 S.L. 692403.82 B.H.	
Latitude 32°17'52.870" S.L. 32°18'35.320"		Longitude 103°42'41.620" S.L. 103°42'38.040" B.H.	
Zone North American Datum		Combined Grid Factor	Coordinate File
East 1927		0.9998026	TODD_FED.CR5
Drawing File		Field Book	
SandCom2.dwg		Lea Co. FB. 14, Page 40	

YRCC JOHN H
FEDERAL
5-7

MYCO INDUSTRIES, INC.
(OPERATOR - ALL OF SEC. 7)
105 S. 4TH STREET
ARTESIA, NEW MEXICO 88210
(ATTN: Mr. DOUGLAS HURLBUT)

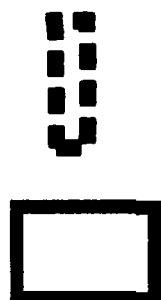
SEC. 18 (NE4/NE4)
SANTA FE ENERGY RESOURCES, INC.
(LEASEHOLD OWNER)
550 W. TEXAS, SUITE 1330
MIDLAND, TEXAS 79701
(ATTN: Mr. JOE HAMMOND)

MITCHELL ENERGY CORP.
(LEASEHOLD OWNER)
2001 TIMPERLOCH PL.
WOODLANDS, TEXAS 77380
(ATTN: Mr. LARRY D. CUNNINGHAM)

TEXACO EXPLORATION AND PRODUCTION INC.
(OPERATOR - ALL OF SEC 18,
EXCEPT NE4/NE4)
4601 DTC BLVD.
DENVER, COLORADO 80237



HARVARD PETROLEUM CORP.
(OPERATOR SEC. 19 - E/2)
400 N. PENNSYLVANIA, SUITE 450
ROSWELL, NEWMEXICO 88201
(ATTN: Mr. JIM BALL)



Project Area

Texaco Leasehold

	TEXACO E & P INC. WESTERN E & P REGION AREA	
BONE SPRINGS PROPOSAL OFFSET OPERATOR/LEASEHOLD OWNERS Lea CO. NM		
GEOSCIENTIST: Tim Shepard ENGINEER: Jim Dore LANDMAN: David Snoper GEOFYSICIST: Ed McKnight		
DATE: FEB. 1986		

HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.

ATTORNEYS AT LAW

218 MONTEZUMA POST OFFICE BOX 2068
SANTA FE, NEW MEXICO 87504-2068
(505) 982-4554 FAX (505) 982-8623

LEWIS C. COX, JR. (1934-1993)
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OF COUNSEL
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RICHARD L. CAZZELL* RAY W. RICHARDS*

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DARRIN T. GROCE*
MOLLY MCINTOSH
MARCIA B. LINCOLN
SCOTT A. SHUART*
PAUL G. NASON
AMY C. WRIGHT*
BRADLEY G. BISHOP*
KAROLYN KING NELSON
ELLEN T. LOUDERBOUGH
JAMES H. WOOD*
NANCY L. STRATTON
TIMOTHY R. BROWN
JAMES C. MARTIN

*NOT LICENSED IN NEW MEXICO

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Myco Industries, Inc.
105 South Fourth Street
Artesia, New Mexico 88210

Attention: Douglas Hurlbut

Dear Mr. Hurlbut:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W½E½ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

Very truly yours,

HINKLE, COX, EATON, COFFIELD,
& HENSLEY, L.L.P.

James Bruce
James Bruce

JB/yrk

Enclosure



POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88202
(505) 622-6510
FAX (505) 623-9332

POST OFFICE BOX 3580
MIDLAND, TEXAS 79702
(915) 683-4691
FAX (915) 683-6518

POST OFFICE BOX 9238
AMARILLO, TEXAS 79105
(806) 372-5569
FAX (806) 372-9761

POST OFFICE BOX 2043
ALBUQUERQUE, NEW MEXICO 87103
(505) 768-1500
FAX (505) 768-1529

401 W. 15TH STREET, SUITE 800
AUSTIN, TEXAS 78701
(512) 476-7137
FAX (512) 476-5431

HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.

ATTORNEYS AT LAW

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TIMOTHY R. BROWN
JAMES C. MARTIN

*NOT LICENSED IN NEW MEXICO

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Santa Fe Energy Resources, Inc.
Suite 1330
550 West Texas
Midland, Texas 79701

Attention: Joe Hammond

Dear Mr. Hammond:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W½E½ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

Very truly yours,

HINKLE, COX, EATON, COFFIELD,
& HENSLEY, L.L.P.


James Bruce

JB/yrk

Enclosure

POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88202
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FAX (505) 823-9332

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(512) 476-7137
FAX (512) 476-5431

**HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.**

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LEWIS C. COX, JR. (1984-1993)
CLARENCE E. HINKLE (1904-1988)

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DON L. PATTERSON*
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RICHARD R. WILFONG*
THOMAS J. MCBRIDE
NANCY S. CUSACK
JEFFREY L. FORNACIARI

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JAMES BRUCE
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CHARLES R. WATSON, JR.*
STEVEN D. ARNOLD
THOMAS D. HAINES, JR.
GREGORY J. NIBERT
FRED W. SCHWENDIMANN
JAMES M. HUDSON
JEFFREY S. BAIRD*

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Mitchell Energy Corporation
2001 Timperloch Place
Woodlands, Texas 77380

Attention: Larry Cunningham

Dear Mr. Cunningham:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W½E½ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

Very truly yours,

HINKLE, COX, EATON, COFFIELD,
& HENSLEY, L.L.P.

James Bruce
James Bruce

JB/yrk

Enclosure

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*NOT LICENSED IN NEW MEXICO

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Harvard Petroleum Corporation
Suite 450
400 North Pennsylvania
Roswell, New Mexico 88201

Attention: Jim Ball

Dear Mr. Ball:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W½E½ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

Very truly yours,

HINKLE, COX, EATON, COFFIELD,
& HENSLEY, L.L.P.


James Bruce

JB/yrk

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BECHFIELD

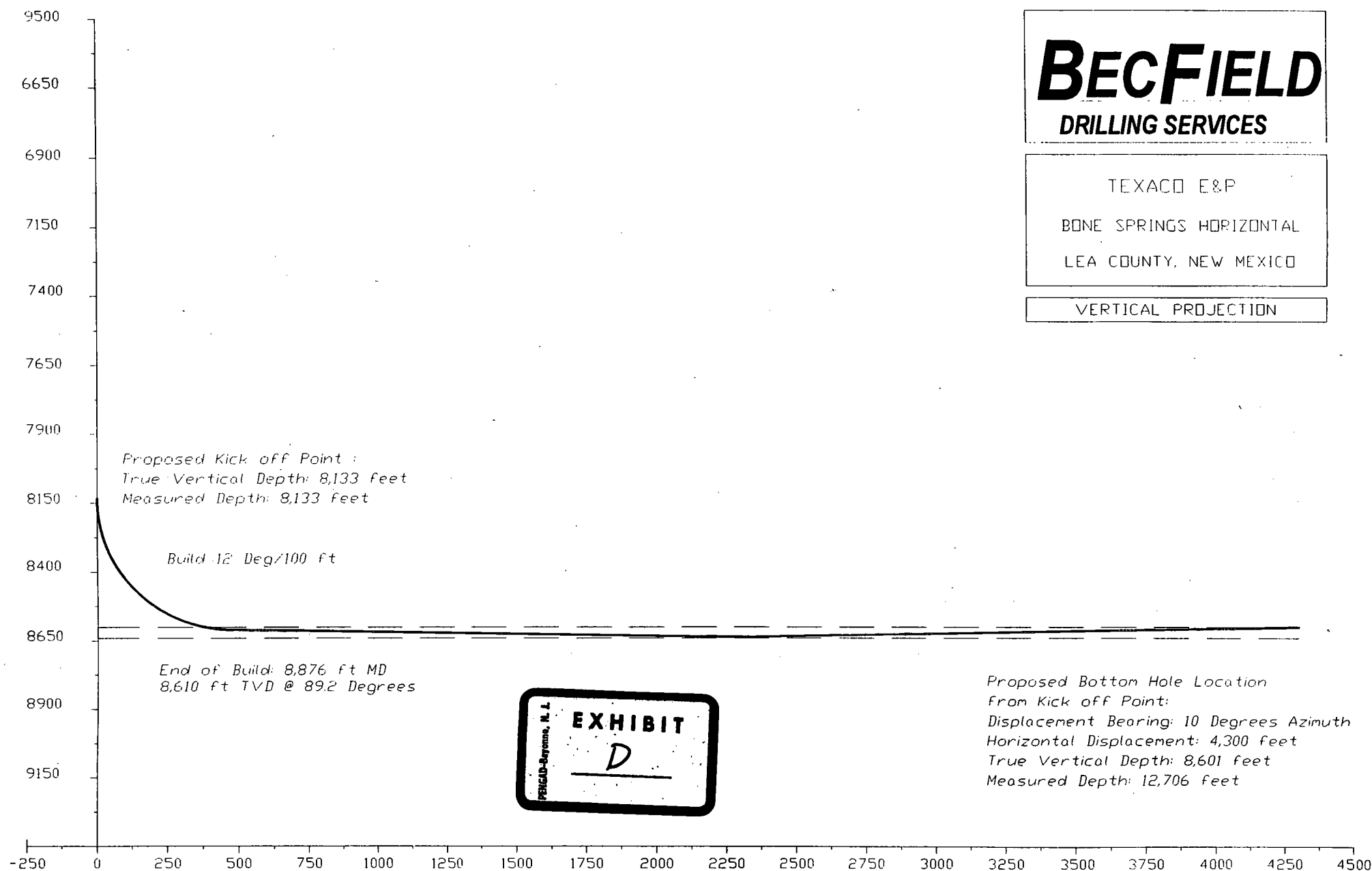
DRILLING SERVICES

TEXACO E&P

BONE SPRINGS HORIZONTAL

LEA COUNTY, NEW MEXICO

VERTICAL PROJECTION



**HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.**

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LEWIS C. COX JR. (924-993)
CLARENCE E. HINKLE (904-985)

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TIMOTHY R. BROWN
JAMES C. MARTIN

*NOT LICENSED IN NEW MEXICO

February 19, 1996

RECEIVED

FEB 19 1996

Oil Conservation Division

HAND DELIVERED

William J. LeMay
Oil Conservation Division
2040 S. Pacheco Street
Santa Fe, New Mexico 87501

Dear Mr. Lemay:

Texaco Exploration and Production Inc. hereby applies for administrative approval of directional drilling for the following well:

Sand "18" Fed. Com. Well No. 2H

Surface Location: 330' FSL and 2110' FEL
Terminus: 660' FNL and 1800' FEL
Project Area: W½E½ of Section 18-23
South - 32 East,
Lea County, New Mexico

The well will be drilled to test the Bone Spring formation (Upper Bone Spring Sand). The entire project area is within the designated Sand Dunes-Bone Spring Pool, which is subject to statewide rules. A Form C-102 for the well is attached as Exhibit A.

Pursuant to Division Rule 111(D), Texaco makes the following statements and submittals:

1. Texaco is drilling this well as a test horizontal well in the Bone Spring. Production from this reservoir has been established to the North and South.

2. Attached as Exhibit B is a land plat of part of Township 23 South, Range 32 East. The project area of the well is outlined in red. The producing area is the same as the project area. There are no existing Bone Spring wells in the project area. (Texaco previously staked two wells in the W½SE¼ of Section 18, but these wells have not been drilled.)

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William J. LeMay
February 19, 1996
Page 2

The project area is all federal land, covered by Leases NM 0559539 (W $\frac{1}{4}$ SE $\frac{1}{4}$ § 18) and NM 18848 (W $\frac{1}{4}$ NE $\frac{1}{4}$ § 18). An APD has been filed with the Bureau of Land Management.

The following existing Bone Spring wells immediately offset the project area:

<u>OPERATOR</u>	<u>WELL LOCATION</u>
Texaco Exploration and Production Inc.	Unit C § 18
Texaco Exploration and Production Inc.	Unit H § 18
Myco Industries, Inc.	Unit P § 7

Exhibit B also lists the names and addresses of offset operators or lessees. Copies of this application were mailed today to the offset operators or lessees, by certified mail, advising them they have twenty days from the date of this letter to object to the application. Copies of the notice letters are attached as Exhibit C.

3. Attached as Exhibit D is a vertical plan view of the well. (A horizontal plan view of the well is given on Exhibit A.)

4. Attached as Exhibit E is a location and production plat, indicating completions and proposed wells in the immediate area. It also indicates the line of cross-section A-A'.

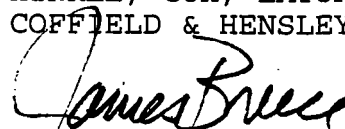
5. Attached as Exhibit F is cross-section A-A', containing type logs from Texaco's Sand "18" Fed. No. 1 and SDE "19" Fed. No. 4 Wells, indicating the top and bottom of the Upper Bone Spring Sand. Analysis of rotary sidewall and full cores in this reservoir suggests that the sand consists of a fairly massive interval 10 to 50 feet thick. This sand exhibits good porosity, with values ranging from 10 to 19 percent. Corresponding permeability values in the reservoir average less than one millidarcy. Reservoir simulation and production indicate high decline, inefficient drainage, and corresponding low recovery rates in vertical wells drilled in this reservoir. These simulations also indicate that a horizontal well, drilled in the proposed location, will result in maximum drainage of the project area.

Should you need any additional data, please call. This application is submitted in duplicate, with a copy also forwarded to the Hobbs District Office.

William J. LeMay
February 19, 1996
Page 3

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY, L.L.P.

A handwritten signature in cursive script, appearing to read "James Bruce".

James Bruce

JB:jr
cc: Mr. Jerry Sexton w/enc.

DISTRICT 1
P. O. Box 1980, Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD, Artesia, NM 88210

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

DISTRICT IV
P. O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994

Instructions on back

OIL CONSERVATION DIVISION

PO Box 2088
Santa Fe, NM 87504-2088

Submit to Appropriate District Office

State Lease-4 copies

Fee Lease-3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name BRUSHY CANYON, BONE SPRINGS, SAND DUNES, EAST SAND DUNES DELAWARE					
4 Property Code 17325		5 Property Name SAND "18" FEDERAL COM				6 Well Number 2H			
7 OGRID No. 22351		8 Operator Name TEXACO EXPLORATION & PRODUCTION, INC.				9 Elevation 3643'			
10 Surface Location									
UL or lot no. 0	Section 18	Township 23-S	Range 32-E	Lot Idn	Feet from the 330'	North/South line South	Feet from the 2110'	East/West line East	County Lea
11 Bottom Hole Location If Different From Surface									
UL or lot no. B	Section 18	Township 23-S	Range 32-E	Lot Idn	Feet from the 660'	North/South line North	Feet from the 1800'	East/West line East	County Lea
12 Dedicated Acres 160		13 Joint or Infill		14 Consolidation Code		15 Order No.			

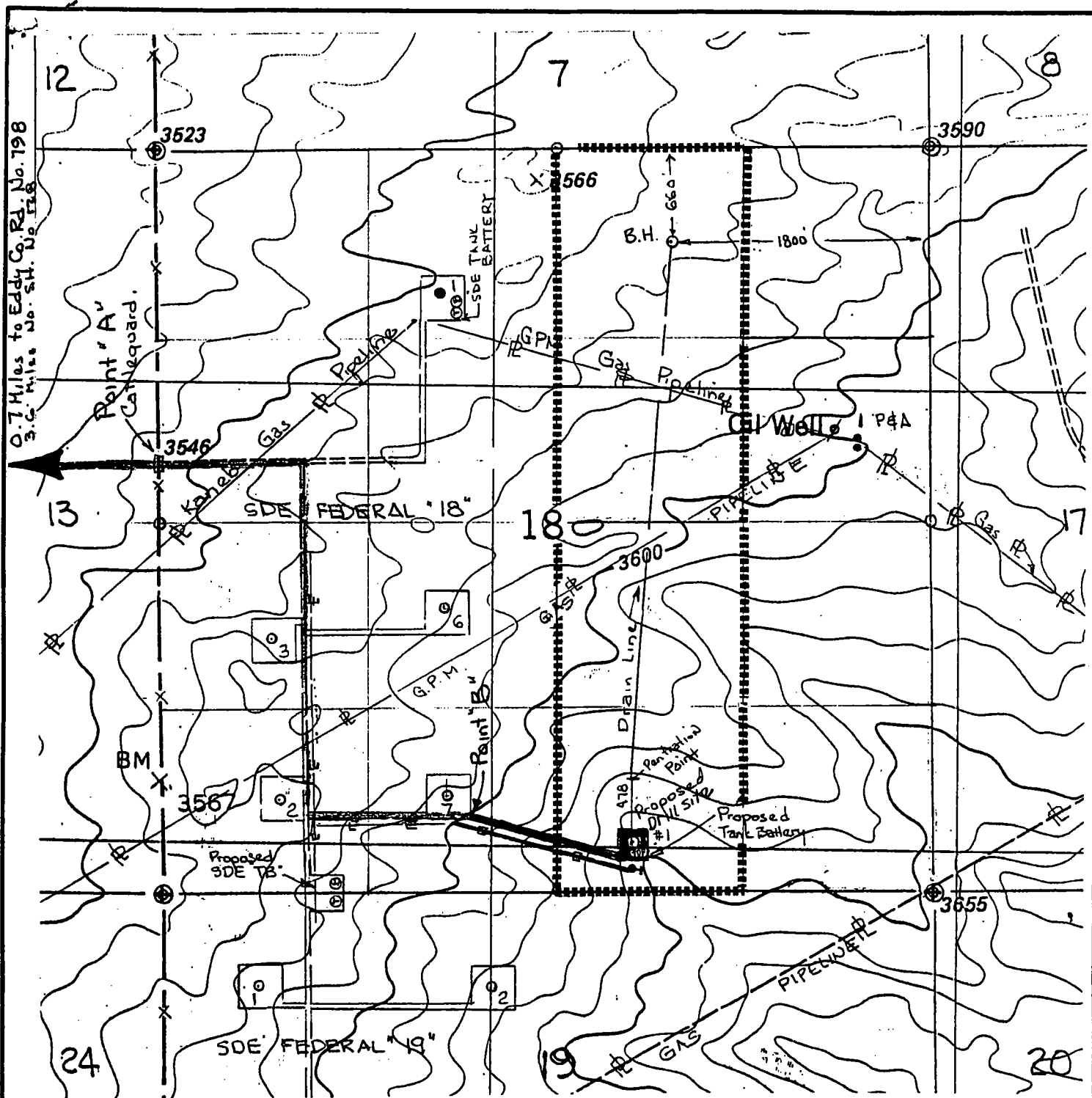
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.

		<p>16 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature <i>C. Wade Howard</i></p> <p>Printed Name C. Wade Howard</p> <p>Position Engineer's Assistant</p> <p>Company Texaco Expl. & Prod. Inc.</p> <p>Date February 5, 1996</p> <p>17 SURVEYOR CERTIFICATION</p> <p>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 knowledge and belief.</p> <p>Date Surveyed January 22, 1996</p> <p>Signature & Seal of Professional Surveyor <i>John S. Piper</i></p> <p>Certificate No. 7254 John S. Piper</p> <p>Sheet 8 of 8</p>
--	--	--

○ = Staked Location ● = Producing Well ⚡ = Injection Well ⚙ = Water Supply Well ⚓ = Plugged & Abandon Well
⊙ = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. ○ = Found 1/4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coordinates			
Northing 472693.44 S.L. 476984.52 B. H.		Easting 692121.65 S.L. 692403.82 B.H.	
Latitude 32°17'52.870" S.L. 32°18'35.320"		Longitude 103°42'41.620" S.L. 103°42'38.040" B.H.	
Zone	North American Datum	Combined Grid Factor	Coordinate File
East	1927	0.9998026	TODD_FED.CR5
Drawing File		Field Book	
SandCom2.dwg		Lea Co. FB. 14, Page 40	



LEGEND OF SYMBOLS

- — — — — = Access Road (Yellow)
- — — — — = Resource Road Federal Land (Pink)
- — — — — = Resource Road on Lease (Brown)
- — — — — = Proposed Resource Road (Red)
- — — — — = Proposed Electric Line (Orange)
- — — — — = Proposed Production Flowline (Green)
- = Staked Well Location
- = Producing Well Location
- = Water Well
- = Found 1" Iron Pipe With Brass Cap
- ◎ = Found 2" Iron Pipe With Brass Cap
- ■ ■ ■ ■ = Unit or Lease Boundary

EXHIBIT "A" ACCESS ROAD AND FACILITIES MAP

TEXACO EXPLORATION AND PRODUCTION

SAND "18" FEDERAL COM. No. 1
330' FSL & 2110' FEL, Section 18
T-23-S, R-32-E, NMPM, Lea County, NM

Drawn by: J .S. Piper

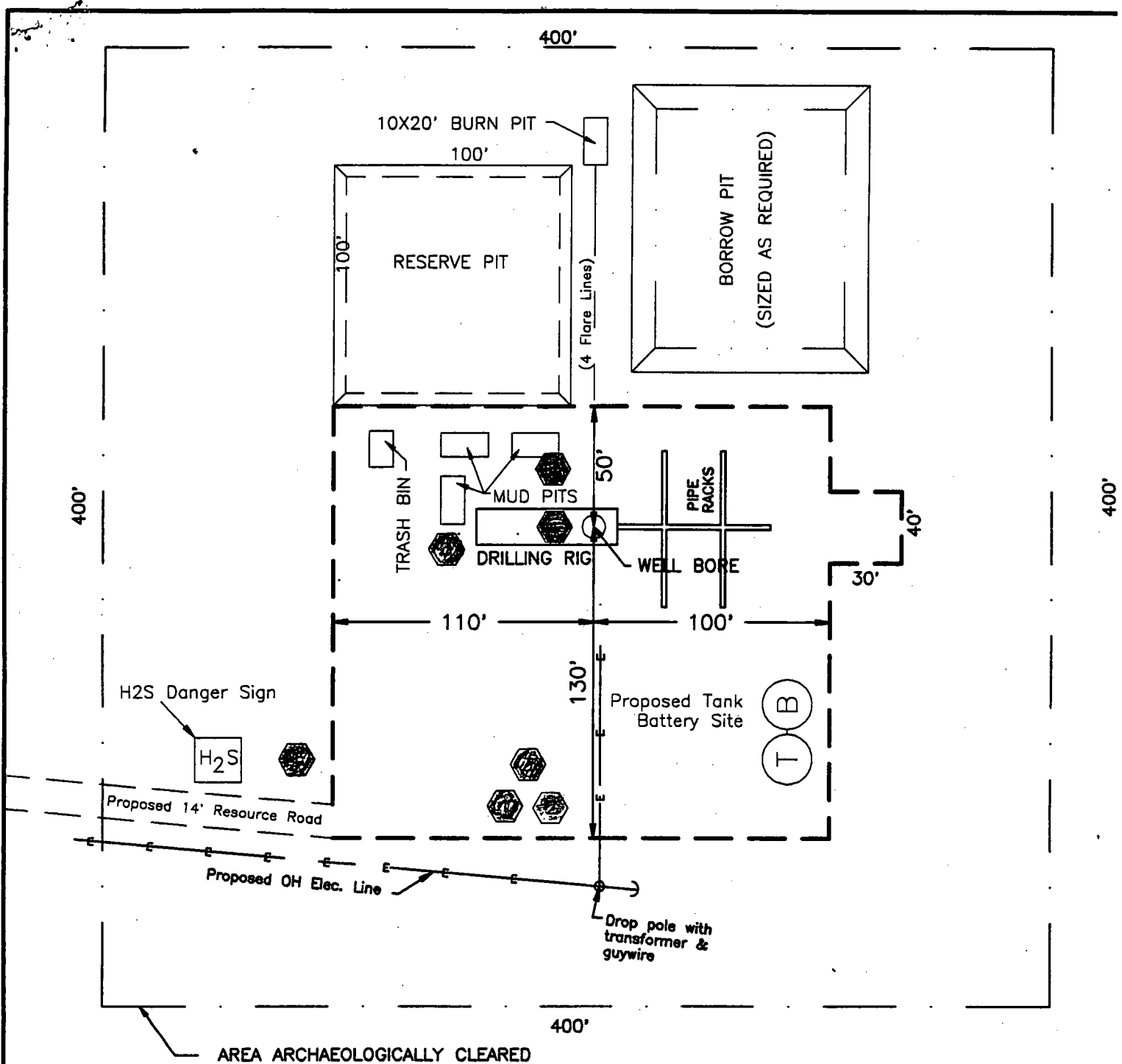
Scale: 1" = 1000 Feet

Date: February 2, 1996

C. Wade Howard

Checked by: D. M. Balley

Sheet: 6 of 8



- H₂S DRILLING OPERATION PLAN**
- N**
- Briefing Station
 - H₂S Safety Trailer
 - Windsocks
 - H₂S Detectors, Shale Shaker, Rotating Head, Rig Floor
- Prevailing Wind from the South

EXHIBIT "B"	
DRILLING RIG LAYOUT	
TEXACO EXPLORATION AND PRODUCTION INC.	
SAND "18" FEDERAL Com. No. 2H Located 330' FSL & 2110' FEL, Section 18, T-23-S, R-32-E, NMPM, Lea County, NM	
Drawn by: D. M. Ballew	Scale: 1" = 60'
Date: February 2, 1996	C. WADE HOWARD
Checked by: J. S. Piper	Sheet 7 of 8

**HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.**

ATTORNEYS AT LAW

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*NOT LICENSED IN NEW MEXICO

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Myco Industries, Inc.
105 South Fourth Street
Artesia, New Mexico 88210

Attention: Douglas Hurlbut

Dear Mr. Hurlbut:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W½E½ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

Very truly yours,

HINKLE, COX, EATON, COFFIELD,
& HENSLEY, L.L.P.

James Bruce
James Bruce

JB/yrk

Enclosure



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CLARENCE E. HINKLE (1901-1985)

OF COUNSEL
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RICHARD L. CAZZELL* RAY W. RICHARDS*

AUSTIN AFFILIATION
HOFFMAN & STEPHENS, P.C.
KENNETH R. HOFFMAN*
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KAROLYN KING NELSON
ELLEN T. LOUDERBOUGH
JAMES H. WOOD*
NANCY L. STRATTON
TIMOTHY R. BROWN
JAMES C. MARTIN

*NOT LICENSED IN NEW MEXICO

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Santa Fe Energy Resources, Inc.
Suite 1330
550 West Texas
Midland, Texas 79701

Attention: Joe Hammond

Dear Mr. Hammond:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W½E½ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

Very truly yours,

HINKLE, COX, EATON, COFFIELD,
& HENSLEY, L.L.P.


James Bruce

JB/yrk

Enclosure

POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88202
(505) 622-6510
FAX (505) 623-9332

POST OFFICE BOX 3580
MIDLAND, TEXAS 79702
(915) 683-4691
FAX (915) 683-6518

POST OFFICE BOX 9238
AMARILLO, TEXAS 79105
(806) 372-5569
FAX (806) 372-9761

POST OFFICE BOX 2043
ALBUQUERQUE, NEW MEXICO 87103
(505) 768-1500
FAX (505) 768-1529

401 W. 15TH STREET, SUITE 800
AUSTIN, TEXAS 78701
(512) 476-7137
FAX (512) 476-5431

HINKLE, COX, EATON, COFFIELD & HENSLEY,
L.L.P.

ATTORNEYS AT LAW

218 MONTEZUMA POST OFFICE BOX 2068
SANTA FE, NEW MEXICO 87504-2068
(505) 982-4554 FAX (505) 982-8623

LEWIS C. COX JR. (1924-1993)
CLARENCE E. HINKLE (1904-1985)

OF COUNSEL

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JEFFREY L. FORNACIARI

JEFFREY D. HEWETT
JAMES BRUCE
JERRY F. SHACKELFORD*
JEFFREY W. HELLBERG*
WILLIAM F. COUNTISS*
MICHAEL J. CANON
ALBERT L. PITTS
THOMAS M. HNASKO
JOHN C. CHAMBERS*
GARY D. COMPTON*
W. H. BRIAN, JR.*
RUSSELL J. BAILEY*
CHARLES R. WATSON, JR.*
STEVEN D. ARNOLD
THOMAS D. HAINES, JR.
GREGORY J. NISBET
FRED W. SCHWENDIMANN
JAMES M. HUDSON
JEFFREY S. BAIRD*

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Mitchell Energy Corporation
2001 Timperloch Place
Woodlands, Texas 77380

Attention: Larry Cunningham

Dear Mr. Cunningham:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W½E½ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

Very truly yours,

HINKLE, COX, EATON, COFFIELD,
& HENSLEY, L.L.P.

James Bruce
James Bruce

JB/yrk

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*NOT LICENSED IN NEW MEXICO

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 19, 1996

Harvard Petroleum Corporation
Suite 450
400 North Pennsylvania
Roswell, New Mexico 88201

Attention: Jim Ball

Dear Mr. Ball:

Texaco Exploration and Production Inc. has filed an application with the New Mexico Oil Conservation Division seeking administrative approval of directional drilling for Texaco's Sand "18" Fed. Com. Well No. 2. The well will be drilled to test the Bone Spring formation, and the W½E½ of Section 18, Township 23 South, Range 32 East will be dedicated to the well. A copy of the application is enclosed. If you have any objection to the well, you must notify the Division of your objection no later than twenty days from the date of this letter, at its Santa Fe office (2040 South Pacheco Street, Santa Fe, New Mexico 87501).

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HINKLE, COX, EATON, COFFIELD,
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James Bruce

JB/yrk

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BECKFIELD

DRILLING SERVICES

TEXACO E&P

BONE SPRINGS HORIZONTAL

LEA COUNTY, NEW MEXICO

VERTICAL PROJECTION

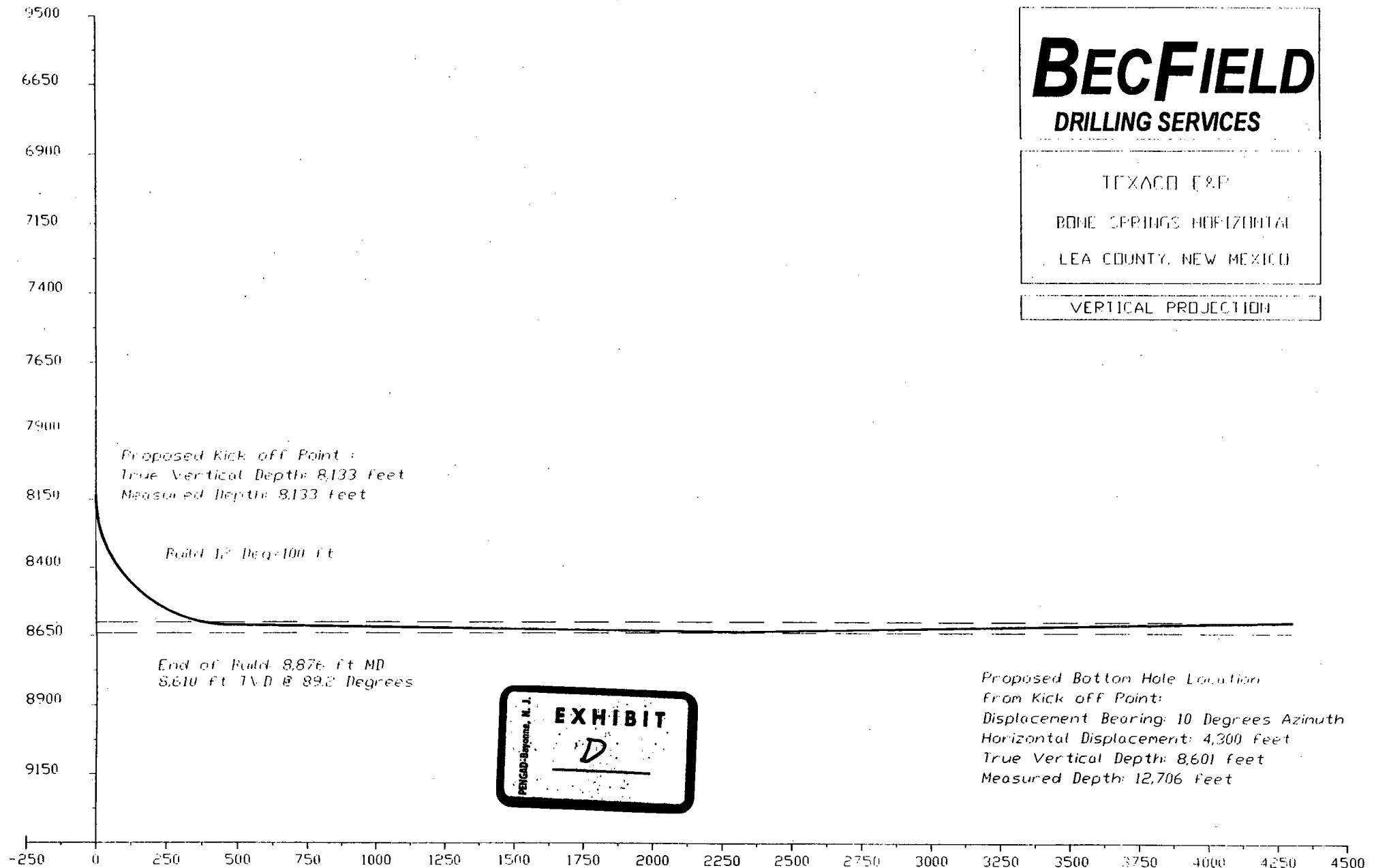
Proposed Kick off Point :
True Vertical Depth 8,133 feet
Measured Depth 8,133 feet

Build 1.2 Deg/100 ft

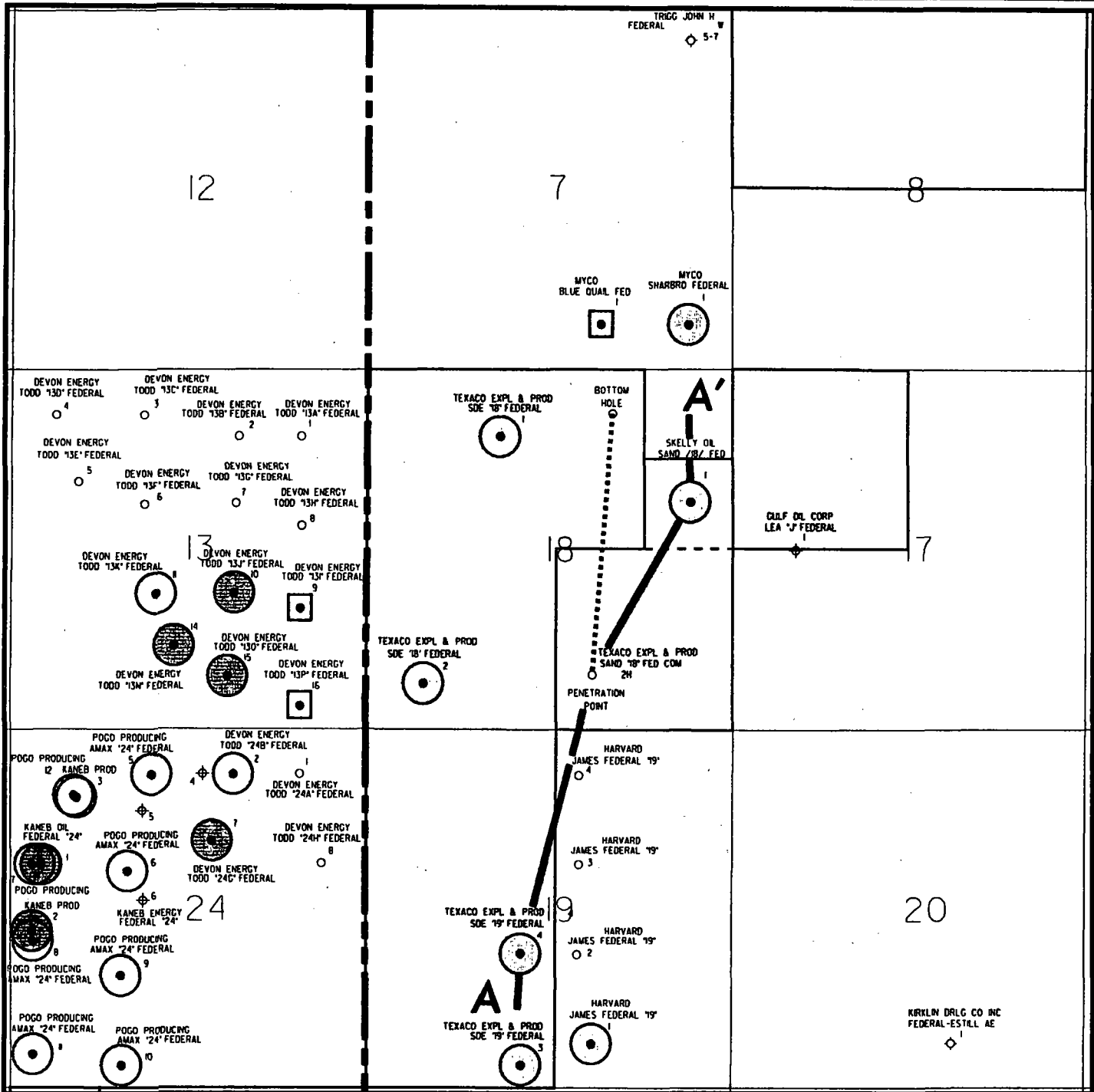
End of Build 8,876 ft MD
8,610 ft TVD @ 89.2 Degrees



Proposed Bottom Hole Location
From Kick off Point:
Displacement Bearing: 10 Degrees Azimuth
Horizontal Displacement: 4,300 feet
True Vertical Depth: 8,601 feet
Measured Depth: 12,706 feet



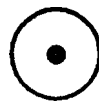
Tim Shepard room SP1 - 531



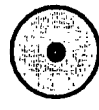
Texaco Leasehold



Cherry Canyon
Sand Production



Brushy Canyon
Sand Production





Upper Bone Springs
Sand Production



Cross Section



**TEXACO E & P INC.**
WESTERN E & P REGION
AREA

**BONE SPRINGS PROPOSAL
LOCATION PLAT**
Lea County, NM

GEOSCIENTIST: Tim Shepard
ENGINEER: J. H. Dore
LANDMAN: David Skopov
GEOPHYSICIST: Bill McLaughlin
DATE: FEB. 1996

Tim Shepard room SP1 - 531

INTENTIONAL OMISSIONS

The following document(s) have been intentionally omitted from this file due to the indicated reasons.

FILE # DD 133

DESCRIPTION OF OMITTED DOCUMENTS

OMITTED DOCUMENT

REASON OMITTED

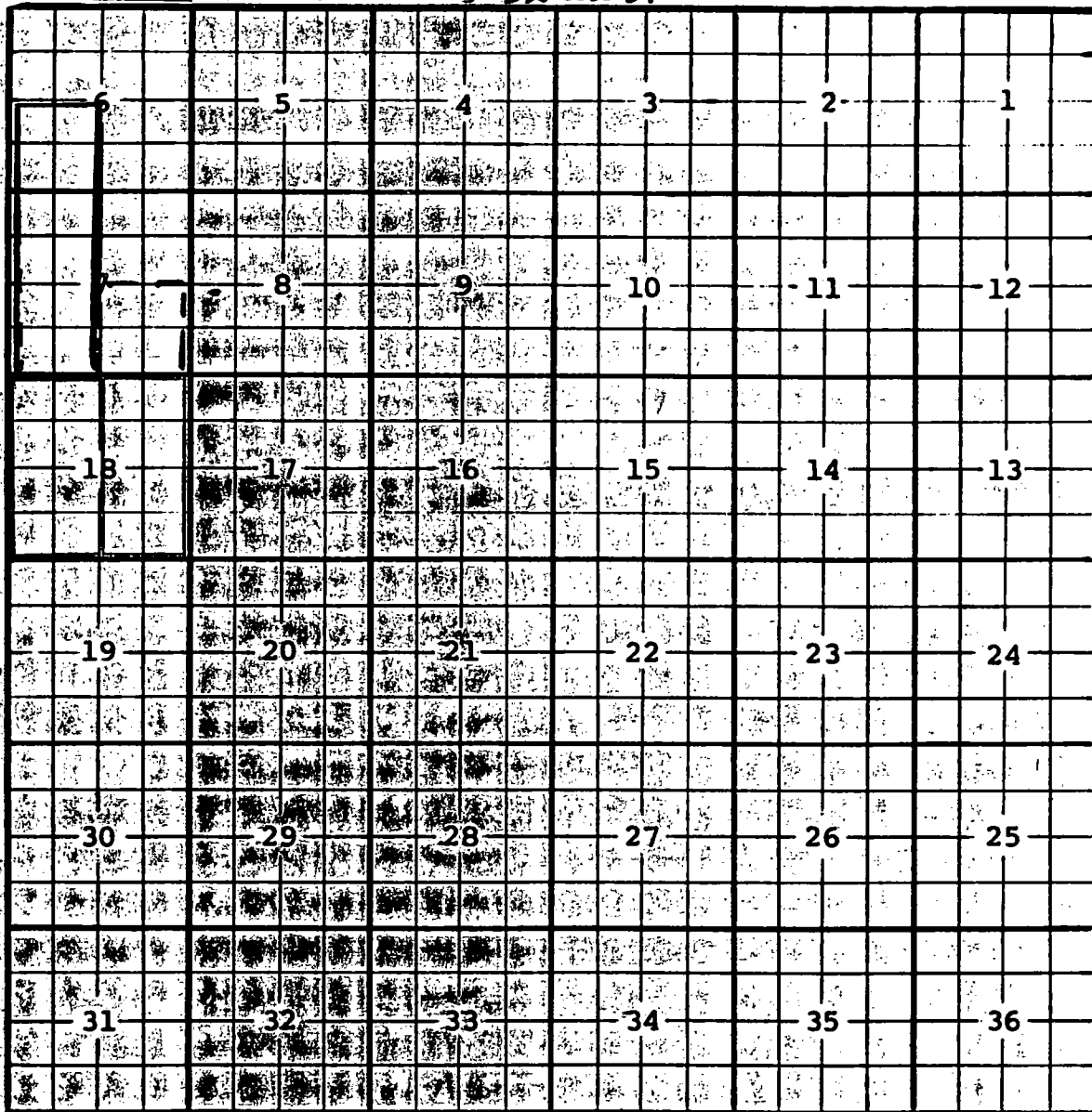
EXHIBIT "F" (Map/Graph) Too Large

County Lea Pool Sand Dunes- Bone Springs

TOWNSHIP 23 South

Range 32 East

NMPM



Description: $\frac{E}{2}$ Sec 18 (R-5124, 12-1-75) Ext: $\frac{W}{2}$ Sec. 18 (R-6274, 3-1-80)

Ext: $\frac{SW}{4}$ Sec. 6, $\frac{W}{2}$ Sec. 7 (R-8233, 5-29-86)

county Lea Pool East Sand Dunes-Delaware

TOWNSHIP

23 South Range 32 East

NMPM

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Description: NW 1/4 Sec. 18 (R-9843, 2-8-93)

County Lea Pool East Sand Dunes-Delaware

TOWNSHIP 23 South Range 32 East NMPM

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Description: NW 1/4 Sec. 18 (R-9843, 2-8-93)

Pool Sand Dunes - Bone Springs

NMP M

A 36x36 grid with numbers 1-36 at the intersections. A path of 12 squares is highlighted with a thick black line, starting at (1,1) and ending at (12,12). The path follows the main diagonal from the top-left to the bottom-right.

Description: $\frac{1}{2}$ Sec. 18 (R-5124, 12-1-75) Ext: $\frac{1}{2}$ Sec. 18 (R-6274, 3-1-80)

Ext: ^{SW} 1/4 Sec. 6, ^W 1/2 Sec. 7 (R-8233, 5-29-86)



